Vision White Paper

Vision Foundation

Summary

Blockchain technology has developed rapidly, but after nearly ten decade of exploration, there is still no large-scale application. The reason is that the basic public chain does not meet the practical application at present, and the current situation of the public chain is overcapacity. At present, the public chains on the market can be divided into two categories. One is high and low frequency transactions, which the Bitcoin Ethereum network can meet. But because these public chain transaction fees are higher, it is not suitable for high-frequency small transactions. The other category is high-frequency small and micro transactions, such as games, social networking, all belong to this category. This is also fundamental to the large-scale applications of blockchain. To put it bluntly, high performance (i. e. speed) is the basis of the public chain, especially when tens of millions of applications run, high flux, high concurrency, stability, security are the important factors that determine the user experience. Currently, the speeds of most mainstream public chains range between tens and thousands of TPS (Transaction persecond, transmission speed per second), making it difficult to meet the technical requirements for speed and concurrency of large-scale landing applications. In order to traverse the virtual market and real market application scenarios, the Vision public chain came born. As a blockchain-based decentralized protocol, Vision builds a free ecosystem traverses global distributed nodes through blockchain and distributed storage technology. Through the decentralized form of self-government, let any user free to release, store, use data, and in the digital asset distribution, circulation, transaction way to determine the content distribution, subscription, enabling content creators, to form a decentralized content ecology. The Vision underlying network combines the dual benefits of social and value networks, putting protocol ecological prosperity first. And use digital assets to accurately and transparently measure and motivate the participants and contributors of the ecology, to enable the content ecology. In the process of continuous development of blockchain industry, disorder is the biggest inducement to deception. Centralization and low-level decentralization is the key resistance hindering the development of blockchain technology. In the disordered market state, the industry needs-some advanced forces to make structural changes, back to the disintegration era, by a group of dare to innovate and

manufacture, dare to imagine the waves lead / lead, break the original order, reshape the new order, and then by the craftsmen shoulder a revitalization era, and create a new direction of the future industry.

We hope that in the upcoming and further future project, there is no longer centralized centralization, factory pan community members jointly guide project development direction, rather than a single core team to determine the future of the project, the future will be more team maintenance, more community consensus, 100% belongs to all official token holders, really make community consensus become a robust basis, rather than the exclusive of an elite group.

Catalogue

vision white ruper	l
I: Project desire and background	5
1.1 Data Privacy	5
1.2 Node distribution	5
1.3 Safety mechanism	6
II: Economic incentive system	6
III: General proof economic model	7
3.1 Voting class model	7
3.2 Incentive vation model	8
IV: Inflation ationary deflation mechanism	9
1. Block reward	10
2. voting Awards	10
3. Promotion Awards	10
V: Network technology system	11
5.1 File storage protocol	11
5.2 Self-operation of the storage network	12
5.3 V network (Vision) content network implementation	15
VI: Account system	19
6.1 Introduction of the account model	19
6.2 How the account is created	19
6.2.1. first generates a private key and address with a wallet or browser plug-in wallet, and the public key	an be
discarded	19
VII: Resource model	20
7.1 Introduction of the resource model	21
7.2 Light quantum	21
7.2 Light quantum 7.3 Enropy	21 22
7.2 Light quantum7.3 Enropy7.4 Resource delegation	21 22 24
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 	21 22 24 25
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. 	21 22 24 25 25
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. VIII: Ecological development path. 	21 22 24 25 25
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 	21 22 24 25 25 25 25
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 	21 22 24 25 25 25 25 26
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 	21 22 24 25 25 25 26 26
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 	21 22 25 25 25 25 26 26 26 27
 7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 8.5 Eternal Service Phase — December 2021 to December 2022. 	21 22 24 25 25 25 26 26 26 27
7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 8.5 Eternal Service Phase — December 2021 to December 2022. IX: Ecological governance system.	21 22 25 25 25 25 26 26 26 27 27 27
7.2 Light quantum	21 22 24 25 25 25 26 26 26 27 27 27
7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 8.5 Eternal Service Phase — December 2021 to December 2022. IX: Ecological governance system. 9.1 Team background. 9.2 Governance structure and voting.	21 22 24 25 25 25 26 26 26 27 27 27 27 27 27
7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 8.5 Eternal Service Phase — December 2021 to December 2022. IX: Ecological governance system. 9.1 Team background. 9.2 Governance structure and voting. 9.3 Organizational structure.	21 22 24 25 25 25 25 26 26 26 26 27 27 27 27 27 28 28
7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 8.5 Eternal Service Phase — December 2021 to December 2022. IX: Ecological governance system. 9.1 Team background. 9.2 Governance structure and voting. 9.3 Organizational structure. X: Risk tips.	21 22 24 25 25 25 26 26 26 26 27 27 27 27 27 27 28 23 23 26 27 28 28 28 27
7.2 Light quantum 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. VIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 8.5 Eternal Service Phase — December 2021 to December 2022. IX: Ecological governance system. 9.1 Team background. 9.2 Governance structure and voting. 9.3 Organizational structure. X: Risk tips. 10.1 Systemic risk.	21 22 24 25 25 25 26 26 26 26 26 27 27 27 27 27 27 27 23 23 26 26 26 26 26 26 26 26 26 26 25 25 25 25 25 26 26 26 26 26 26 26 26 27 28 28 28 27 27 27 28
7.2 Light quantum. 7.3 Enropy. 7.4 Resource delegation. 7.5 Node pledge. 7.6 Promote the pledge. WIII: Ecological development path. 8.1 Data Freedom Phase — from September 2020 to February 2021. 8.2 Financial Freedom Phase — March 2020 to December 2020. 8.3 Value Freedom Phase — December 2020 to June 2021. 8.4 Flow Phase — June 2021 to December 2021. 8.5 Eternal Service Phase — December 2021 to December 2022. IX: Ecological governance system. 9.1 Team background. 9.2 Governance structure and voting. 9.3 Organizational structure. X: Risk tips. 10.1 Systemic risk. 10.2 Regulatory field absence risk.	21 22 24 25 25 25 26 26 26 26 27 27 27 27 27 27 27 28 23 20 20 25 25 26 26 26 26 26 26 26 26 26 26 26 26 26 26 26 27 28 28 28 28 28 28 28 28
7.2 Light quantum	21 22 24 25 25 25 25 26 26 26 26 26 27 27 27 27 27 27 27 27 23 23 23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25 25 25 26 27 23 27 27 27 27 23 23 27 27 27 27 28 30 30 30
7.2 Light quantum	21 22 24 25 25 25 26 26 26 26 27 27 27 27 27 27 27 27 23 30 30 30 31
7.2 Light quantum	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
7.2 Light quantum	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

10.8 Other risks not currently known	
XI: Disclaimer	

I: Desire and Background

Every user who contributes to the ecology will benefit proportionately according to the rules. The biggest advantage of value networks is in the ability to quantify the data. All forms of contributions should be of equal quantitative value. The fundamental purpose of Vision ecology is to serve the public and create a global user base platform rather than create profits. All ecological participants will benefit from the prosperity of the ecology itself.

1.1 Data Privacy

Data privacy is a personal right, and also the bottom line for individuals and organizations and certain industries involving a large number of trade secrets and interests. The problem in the blockchain domain is that we use a generic, easy-to-track ledger. Transactions are publicly stored in the book and only associated with account addresses consisting of numbers and letters because there is no binding user information, thus misleading, unable to track the entity for individuals and ensure privacy, ignoring the fact that data transmission and storage of the current common chain is publicly observable, such as all details in intelligent contracts including sender, receiver, transaction data, execution code and storage conditions.

In fact, this privacy-guaranteed "pseudo-anonymity" is the last and only layer of privacy that hinders privacy. Once someone finds a connection, all privacy will disappear. This also breaks the big premise that blockchain transactions are completely anonymous. The Vision public chain distinguishes the current Internet oligopoly companies on the user data abuse monopoly. Each user has full ownership of their data in a decentralized way. Thus to a certain extent to avoid the problem of data exposure.

1.2 Node Distribution

The first criterion for public chains is the number of nodes. International technical standards cannot be controlled simultaneously by a thousand scattered nodes that can be called public chains. This is one of the reasons why Bitcoin and Ethereum were accepted by the industry. The core of decentralization lies in the node mechanism. A truly distributed compute node must have enough nodes involved because a sufficient number of nodes represent credibility and cannot be tampered with to achieve sufficient dispersion to prevent malicious attacks between nodes such as dust attacks etc. Therefore, the entry and exit of nodes should be freely enter and exit according to the rule, and the threshold of the node should be low enough to

allow more data nodes to participate. The active participation of community members is also the core spirit of blockchain. To join with more nodes, Vision greatly increases the number of all nodes using a pattern where the full node maintains all instance chains.

1.3 Safety Mechanism

In traditional common chain design, computation and storage are not separate. Most common chains use the Gas mechanism to balance the computational power of the main network. This design actually has two problems. -Is the computing resources of the main network not separated. As a result, the inhomogeneous distribution of computational capabilities may lead to network congestion or even inability to perform less computational DAPP. The second is that the contract and transaction behavior are not separated, thus creating the possibility of a stolen wallet.

The system security of the shared chain needs to be consistently improved, including attacks from external entities (denial of service attacks, DDoS, etc.), attacks from internal participants (simulated attacks, Sybil attacks, conspiracy attacks, Collusion attacks, etc.) and components. Fault and computational capability attacks, double flower attacks, transaction and contract breach defense mechanisms, identity and anonymity, database security, etc, and even fight quantum computing to address various privacy leaks, fraud and transfers. The public chain of the digital economy era will face more users. It must meet higher standards in security audit, security architecture, compiler security optimization, virtual machine security design, contract security template and so on, in order to meet the security needs of users.

II: Economic Incentive System

Vision is fundamentally designed to address the monetization of the content economy. The Vision mechanism is a mechanism that generates economically motivated content, but monetizes its encryption. Economic incentives through cryptography can significantly promote the growth of content platform individuals, and we believe that cryptocurrencies can stimulate the content ecology never before.

Vision will propose a continuous set of evolving mechanisms to assess the individual ecological contribution. The vast majority of existing platforms use the single-user one-vote system, which is easily used to be controlled and attacked by ticket brushing and garbage requests. Now the content platform has been controlled by profit demands and centralized mechanism. What we see is the content that the content centralized platform wants us to see, rather than what we want to see. The current Internet oligarchs are not

just and gradually become manipulated tools. V, on the other hand, hopes to transform the economic incentive system itself into a circular system through a decentralized way. The users can truly have a platform to enjoy their favorite content, and will not conflict with the profit demands of the platform. The autonomous system formed by V network will also give unprecedented empowerment to ecological members, making it form ecological autonomy, rather than a flat user mechanism that has already been desertification. In ecological management and decision-making, V Network only allows users who participate in years of phased thawing of VS to vote. In such models, community members will be encouraged to hold VS, which will maximize the long-term value of Vision.

III: General Proof Economic Model

3.1 Voting Class model

3.1.1 User vote is weighted

1.V has weighted the vote of users (voters). voteCountWeight, is weighted in a certain proportion according to the amount of user pledge, and the current stage is set as follows:

1,000-10,000 VS voteCount*1.08(takes the maximum integer not greater than that number, the same below)

10,000-100,000VS voteCount*1.13

100,000-1,000,000VS voteCount*1.16

2. The V network calculates the weighted number of votes obtained by supernodes (witness), namely: sum(voteCountWeight)

The number of votes obtained for witness shall not be greater than (witness pledge-srFreezeLowest) / (srFreezeLowestPercent / 1000)

The srFreezeLowest represents the minimum sr pledge amount.

Currently, V network is set to 5000 * 1000,000L (5000VS), srFreezeLowestPercent indicates the pledge ratio conversion coefficient (the maximum number of votes obtained according to the amount of pledge), and V network is set to 65.

Node pledge SR Guarantee

In vision set super representative in order to get ticket weight and pledge VS, first, need super representative freeze 5000VS to get voting weight, again, super representative in order to get more voting weight, need to freeze VS to get more SRGURANTEE, each time to freeze, the deadline according to the

current frozen time postponed 23 days to the expiration time. The relation with the actual votes: (ticket weight-5000VS) * 6.5%> actual number.

3.1.2 Type of votes received and effective point: Description of the type of voting value

Normal number of votes for voteCoun t, users. The successful user vote is effective.

The voteCountWeight, user-weighted number of votes, a weighted algorithm. Super representative pledge SRGURANTEE and exceeds 5000VS.

voteCountThreshold, relies on the vote threshold calculated by the Super Representative SRGurantee, and if voteCountWeight> voteCountThreshold, requires more SRGurantee margin for the user's weighted vote to take effect.

3.2 Incentive Model

3.2.1 conception

Economic cycle: The economic cycle is based in the maintenance cycle, and the number of maintenance cycles included in it can be modified by proposal. The economic cycle is used to count and adjust economic model class parameters such as inflation.

Pledge Rate (Maintenance Period): Total pledge quantity (Enropy + Optical Quantum + Super Node Frozen) / Total assets (Block + Voting + liuqid min Award) + vote(Total assets do not include frozen part: Enropy and Optical Quantum) + Galaxy Account Initial amount-Galaxy balance + Avalon Account Initial amount-Avalon balance * 100%.

Pledge rate (economic cycle): the sum / maintenance cycle number of pledge rate of each maintenance cycle in the current economic cycle.

Inflation rate: the current economic cycle pledge rate is 0 The current coin expansion rate is 0; the current economic cycle pledge rate of 60% is 6.89%; the current pledge rate of economic period is less than 60% is 23.22%.

3.2.2 Relation and impact

The pledge rate (economic cycle) is calculated by pledge rate (maintenance cycle), and the inflation rate is calculated by pledge rate (economic cycle), while the inflation rate directly affects the number of voting and outgoing incentives, that is,

witness Pay Per Block Inflation, witness 123 Pay Per Block Inflation, witness Standby Allowance Inflation.

Block out reward produceBlockPay.

The block incentives obtained by voters and witness are converted according to weighted votes or votes

1 Current outgoing sr incentives:

sr incentives: witnessPayPerBlockInflation(System Settings) (brokerage/100)

Voter incentive: voteCountWeight/sum (sr weight voteCountWeight) witnessPayPerBlockInflation *

(1-brokerage / 100)

2 Top 123sr

sr incentives: witness123PayPerBlockInflation(System Settings) (brokerage/100)

Voter incentive: voteCountWeight/sum (sr weight voteCountWeight) witness123PayPerBlockInflation

* (1-brokerage / 100)

Voting Awards for 123WitnessPay

Vote weighted by sr / sum (poll weighted by the first 123sr) *

witnessStandbyAllowanceInflation(system settings)

Number of votes obtained by the first 123sr: the minimum number of votes weighted voteCountWeight obtained for sr and the maximum number of votes obtained for sr calculated by <user vote weighted>.

Promotion Awards for SpreadMintPay.

When the user freezes to obtain Spread Mint, it must and can only set one superior. Repeated freezing is not allowed within 24 hours. When the user defrozes Spread Mint or refreezes the "multi-level" settlement for obtaining Spread Mint, then the settlement is terminated.

In each maintenance period, the settlement promotion reward is awarded based on the proportion of the promotion layers set by the proposal, assuming the settlement level: (80,10,8,2).

User promotion relationship (superior relationship): A-> B-> C-> D-> E

Each maintenance cycle: money = block reward * Total blocks of maintenance cycles * User A freeze / total network freeze.

1, bonus money * 80% from current settlement user A.

Reward money * 10% * min from 2, superior B money * 10% * min (amount of user B frozen to get Spread / amount of user A frozen to get Spread, 1.0).

Reward money * 8% * min from 3, superior C money * 8% * min (amount of user C frozen to get Spread / amount of user A frozen to get Spread, 1.0).

Reward money * 2% * min from 4, superior D money * 2% * min (amount of user B frozen to get Spread / amount of user A frozen to get Spread, 1.0).

IV: Inflation and Deflation Mechanism

Vision has a sound inflationary and deflation mechanism with the pledge rate for each maintenance cycle and the average of all maintenance cycles average Pledge Rate In Economy Cycle. at the end of the economic cycle.

When average Pledge Rate In Economy Cycle exceeds 630%, inflation is 23.22%

When average Pledge Rate In Economy Cycle is below 6.60%, inflation is 6.89%

Economic cycle

The economic cycle counts the average pledge rate of the maintenance cycle, thus obtaining the inflation rate of the next economic cycle, the first maintenance cycle of = 40, and the = 120 x maintenance cycle for each subsequent economic cycle.

Pledge rate

The whole network pledge rate will be calculated during each maintenance cycle.

Pledge rate calculation formula: pledge rate = number of all pledge (entropy + optical quantum + node pledge) / whole network working capital (block reward + voting reward + promotion reward + voting amount + Galaxy account initial amount-Galaxy balance + Avalon account initial amount-Avalon balance)

Inflation rate

The inflation rate of Vision is set to a high value, a low value, 23.22% and 6.89% respectively, and can be later modified by proposal. Inflation rate will affect the calculation of various rewards across the whole network.

Inflation rate impact

1. Block reward

For example, the Vision initial block reward is 144,000 VDT, If the current economic cycle inflation rate is 23.22%, the block reward is dynamically adjusted to 144,000 VDT x (23.22% / 12 + 1) = 146,786 VDT.

2. voting Awards

For example, the Vision initial voting reward is 1200,000 VDT, If the current economic cycle inflation rate is 6.89%, the voting reward will be dynamically adjusted to 1,200,000 VDT x (6.89% / 12 + 1) = 1,206,890 VDT.

3. Promotion Awards

For example, the Vision initial promotion reward is 256,000 VDT, If the current economic cycle inflation rate is 6.89%, the promotion reward is dynamically adjusted to 256,000 VDT x (6.89% / 12 + 1) = 257,469 VDT.

V: Network Technology System

5.1 File storage protocol

The underlying network itself consists of a multi-layer protocol stack, each of which can be combined in multiple implementations as a whole in a modular way.

5.1.1 Node and identification

"Vision node" is a program that can find, publish, and copy MerleDAG, the network uses node identification based on the PKI public key infrastructure, nodes represented by NodeId, it is the secret text hash of the public key. The node stores its public-private key (private key is protected by password). The user can freely create and instantiate a "new" node every time it starts, which allows him to lose the network benefits from the previous running node, and has incentives to keep the user the same node.

The node identification generation mechanism is as follows:

```
difficulty = <integer parameter>
n = Node{}
do {
n.PubKey,n.PrivKey = PKI.genKeyPair()
n.NodeId = hash(n.PubKey)
p = count_preceding_zero_bits(hash(n.NodeId))
```

} while (p <difficulty)

When the connection is established, the public key is exchanged between the nodes to check if the hash of the peer node public key is equal to the NodeId hash(other.PublicKey) equals other.NodeId of the peer node, and if not, the connection is terminated.

5.1.2 Multihash and the upgradable hash

All the hashes in Vision are encoded with multihash, a self-described hash format. The hash function actually used relies on the specific security requirements. Encryption systems are upgradable, meaning that the network can switch with a stronger hash algorithm even if the hash function cannot meet the stronger security requirements. Of course, there is no free lunch, the object needs to hash, the connection needs to be rebuilt. In this way that the hash summary length is not specified in advance, the tools used today will work correctly even when switching to a longer hash function tomorrow. The hash summary values are stored in multihash format, including a short header, specifying the hash function used, the byte length of the summary, for example:

<function code><digest length><digest bytes>

Currently, the node must support the following hash algorithm: sha2-256, sha2-512, sha3.

5.1.3 network layer

Provide point-to-point reliable or unreliable transmission between two nodes: NAT through piercing, port mapping and relay; multiple transport protocols TCP, SCTP, UTP; s support encryption, signature; multiplexing complex connection, flow, protocol

5.1.4 Routing layer: Find peer nodes and data

Routing layer serves two purposes: node routing — finds other nodes; content routing — finds the data routing layer published to Vision defines an interface, and any implementation of the interface can be accessed to Vision.

5.1.5 Block exchange: the data that transfers content addressing

The V network (Vision) block exchange layer is responsible for coordinating the transfer of data. Once the nodes know each other and establish a connection, the exchange protocol. Block exchange layer serves as an interface definition, and can be seamlessly accessed as long as the interface implementation is met and implemented. For example, nodes can get the set of blocks they want, which may come from completely unrelated files in the file system. Sometimes in a transaction, a node may not have the blocks an other node needs, it actively helps to find and has higher priority than finding the blocks they need, in exchange for getting the blocks they need from the other party, such an incentive mechanism contributes to the caching and distribution of rare blocks.

5.2 Self-operation of the storage network

The V Network (Vision) is a de-centric storage network that transforms storage from cloud mode to a market model based on algorithm and rules operations. The market is based on blockchain and trades based on virtual currency wave V (VS), where miners earn V (VS) by providing storage to clients; instead, clients spend V (VS) to hire miners to store and distribute data. Similar to Bitcoin, miners compete for return, but V Net (Vision) mining is more powerful than the storage provided by miners, providing a service for clients (unlike Bitcoin, miners work only for blockchain consensus), creating a strong drive for miners to contribute as much storage as possible to lease. The protocols build these resources as a self-healing storage network for external use that achieves robustness by copying and dispersing the stored content, and can automatically detect and repair replication errors. The client can select different replication parameters for different threat levels and levels to protect the data, and the storage network also provides other aspects of security guarantee, such as end-to-end encryption in the client, while the storage provider is unable to obtain the corresponding decryption key.

The Proof-of-Replication (PoRep) Algorithm Server (provfier P) allows the user (verifier V) to believe that its data D has been replicated and stored to multiple separate physical storage locations.

The Seal operates as:

(1) By requiring pseudo-random replacement of the data D to their public keys, forced copies of the data have been correctly stored on separate physical storage;

(2) The mandatory data replication process takes longer than it is expected to respond to a Challenge. PoRep algorithm process creation copies: Create copies in the Setup algorithm through the Seal operation and provide proof of successful execution.

Storage proof: The Prove algorithm produces a storage proof for the copy. The prover receives a random challenge c, from the verifier by determining through it that a leaf Rc, prover of the Merkel tree R (the root is rt) yields a proof about Rc, as well as the Merkel path to the root rt.

Verification proof: The Verify algorithm checks the validity of the storage proof based on the root of the data copy Merkel tree and the hash of the original data. The proof is publicly verifiable: as long as any distributed system node interested in the data can verify the stored proof.

1. The PoSt algorithm process

PoSt's Setup and Verify algorithms are the same as PoRep, and the Prove algorithm produces Proof-of-Spacetime. for copies of the data The prover receives a random challenge, order from the verifier producing the Proofs-of-Replication, using the output of one proof as the next input until the loop iterates the t times.

2. The Merkel Tree

Only a small number of nodes on the Merkel tree (Merkle tree) are sufficient to give a legitimate proof of the branch. Any attempt to change any part of the Merkel tree eventually leads to inconsistencies somewhere on the chain.

An important scalable feature of Bitcoin systems is that its blocks are stored in multi-level data structures. The hash of a block is actually just the hash of the block header, a piece of data about 200 bytes in length containing timestamps, random numbers, previous block hash and the Merkel tree that stores all block transactions.

The Merkel tree is a binary tree consisting of a set of leaf nodes, a set of intermediate nodes, and a root node. The lower large number of leaf nodes contain basic data, each intermediate node is the hash of its two children, and the root node is also a hash of its two child nodes, representing the top of the Merkel tree. The purpose of the Merkel tree is to allow block data to be transmitted piecemeal: nodes can download the block header from one source and the rest of the associated tree from another source, and still confirm that all the data is correct. This is because of the hash upward: if a malicious user tries to add a fake transaction in the lower part, the change causes changes in the upper nodes of the tree, resulting in the root and the block hash, recording the protocol as a completely different block (almost certainly proved with incorrect workload).

The Merkel Tree Agreement is crucial to the long-term sustainability of Bitcoin. In April 2014, a full node in the Bitcoin network-the node that stores and processes all data in all blocks-required 15GB of memory space and also grew at a rate of more than 1GB per month. The storage space is currently acceptable for desktop computers, but the phone can no longer load such huge data. In the future, only commercial institutions and enthusiasts will act as complete nodes. The simplified payment confirmation (SPV) protocol allows another node to exist where a node becomes a "light node" that download the block head, confirm the workload proof, and then download only the Merkel tree "branch" associated with its transaction. This allows light nodes to safely determine the status of any bitcoin transaction and the current balance of the account as long as downloading a small portion of the entire blockchain.

3. Smart Contract

Vision enables developers to create arbitrary consensus-based, scalable, standardized, complete features, easy to develop, and collaborative applications. Vision builds the ultimate base layer of abstraction-built blockchain with a Turing-complete programming language-enabling anyone to create contractual and decentralized applications and include their freely defined ownership rules, transaction methods, and state conversion functions. The main framework of domain coins requires only two lines of code, and other protocols like currency and credit system protocols require less than twenty lines of code. Smart contracts-crypto boxes that contain value and are open only for certain conditions-are also created on our platform, and are much stronger with the increased power of Bitcoin scripts for Turing completeness,

value awareness (value-awareness), blockchain awareness and multiple states than bitcoin scripts can offer. Currently, Vision virtual machine VVM fully supports smart contract specifications for platforms such as Ethereum, and smart contracts on other platforms can be easily migrated to Vision.

5.3 V network (Vision) content network implementation

By utilizing many existing mature technologies, V Network (Vision) provides security, scalability and privacy as a new content platform, but also builds a user registration network by enabling participants to actively contribute to the privilege to send advertisements to the entire network, of course.

1. users register for the P2P network

Uncentral but secure user registration is realized through the blockchain mechanism, and the same mechanism has been applied in Bitcoin, without central authorization, which can avoid double payment problems. Through blockchain guarantees no duplicate registered users, the new registered users must be confirmed by multiple blocks, namely notarization, before taking effect. Each block is defined as: H (Blocki) provides a proof-of-Work proof of workload that the user does find conditional Nonce values in the Noncei space while avoiding accidental hash conflicts through validation. The difficulty of solving is determined by the Difficulty value, and like the year-on-year special currency network, the average number of blocks generated per hour is automatically set by the system.

When the new user J must register with the network, the workload of H (UserRegj), which prevents a denial-of-service attack through false registration. This workload is much less than the blockchain, typically several minutes of computation. Blockchain provides a mapping from the username Usernamej to the user public key PUBKj, a publicly querenable dictionary. A node must verify the uniqueness of Usernamej before adding UserRegj to the new block, with one exception allowing a newly registered key is signed by a previously known public-private key pair. In addition, IDj uniqueness and UserRegj workload proof also require validation when a new block is received. Usernamej also has maximum size, allowed characters limits, protect the ID space from hash conflicts. SpamMsgj is a broadcast message (called a "Promoted" message) that sends Promoted messages as a reward to those nodes that are actively involved in block generation.

2. Routed DHT Overnet

The second network is a P2P mask network similar to Kademlia, used primarily for resource storage and content discovery, and also for direct delivery of notifications between users. Using the user's ID as a network node identity seems a good choice, but this leads to exposure of user identity and location, breaking the privacy of the system. Therefore, the node is identified by hashing the IP address and port number of the node. As the name of the node in DHT network, this way can also avoid witch attack: DHT network packet from IDsrc to IDdst is defined as follows: load payload is signed through user IDj, IDj may be different from IDsrc when the packet is retransmitted / refreshed. These functions constitute the third tier of the DHT mask concept model, and then go up to the "Application Layer", providing the data storage primitives PUT and GET,PUT definitions as follows: Before accepting the storage request, the destination node needs to check the following rules:

IDdst = H (target): Ensure that the destination address is calculated correctly;

IDdst is the neighbor who actually received the request node IDnode;

IDj = H (owner): Verify when restype is "single";

seq is greater than the stored old value seqold, is also checked at restype 26 at single";

time is the valid time (i. e., it should not be a future time value). restype defines a resource type with two possible values "single" and "multi", single represent resources that can only be updated by the key; multi represents responses from different users (e. g. all responses to a post). For the single type, the node stores only a single value, and for the multi type, the new PUT request appends the value to the list. Both types of storage can set the expiration time, and the corresponding storage is deleted from the system after exceeding the set time, thus automatically clearing the expired data.

3. user content

The k message of user j is defined as: MSG k is content, k is a monotonous increasing number, type possible values include: new post, reply, retransmission (RT), directly delivered message (DM), REPLYk is an optional domain, provides a reference to the original message in reply / retransmission, defined as: indicating the original message is the k 'message of user j'. Content is shared in both overnets: (1) stored in DHT as short-term storage values and (2) archived with similar files in the BitTorrent network. When a new content is created, the client must send PUT requests to both of the following addresses:

IDUserPost_jk is the address of the target storage node in the second DHT network, providing the capability to retrieve anything.

IDswarm_j is the gateway address of the torrent swarm group in the third network related to the content of the user Usernamej, and this torrent contains all the content of the given user j, providing fast content distribution and sharing independently of the second DHT network based on the BitTorrent protocol. IDswarm_j neighbor nodes need to j oin the swarm cluster of user j to help the storage and distribution of content, provide reliability of data, better data distribution performance; similarly, IDUserPost_jk neighbor nodes need to store the same value stored by IDUserPost_jk. The Swarm group mechanism solves the problem of fast and efficient notification and distribution of new content, allowing users' followers to keep polling the DHT network address to determine whether new content is generated. Direct Delivery Message (DM) User publishing content can also be used for direct message delivery, if of course the message recipient is a follower of the user k.

DM, except for different content (now [PUBK1 (DMk), H (DMk)))), is no different from regular posts. DM is on l y received by the user l who successfully decrypted, and although other followers can receive the message, they cannot decrypt the message and perceive who the final recipient of the message is. Encryption adopts an algorithm based on ECIS elliptic curve encryption.

User content torrent/tracker rules within a certain distance from IDswarm_j need to join the corresponding Swarm group;

When IDswarm_j's neighbor receives new content from the DHT network, it must work as a gateway for the BitTorrent network, merging the content into an archive structure like a file;

BitTorrent tracker is a read-only multi-value list store and its hash address is calculated as follows: the followers of user j should join the real-time update of the received content to obtain the initial Peer address through GET primitive query IDtracker j; IDtracker j is different from other storage values because it is read-only, which prevents tracker attacks and contains the privacy of swarm group members. The list of IP addresses is obtained through the swarm protocol, This requires IDtracker_j's online neighbors to join the swarm group; 29Swarm members can only know each other from the IP address, BitTorrent does not provide any information about the user name; User all content hash not required, Because the content (including DM) has been signed to verify the integrity of the content; The increased k value when new content is broadcast directly in the Swarm group; List of content contents between members of the Swarm group, Members can choose to save or request the latest content; The seed node are the nodes selected to archive the content; Content publisher (user J) can choose not to be a member of the corresponding swarm group (Privacy, Hide the IP address); If the publisher chooses to be a member of the swarm group, It can not follow the IDswarm j gateway mechanism, Of course, this will expose your IP address; Even if the publisher becomes a swarm member, It can also not be a seed node; New block generation rate affects the user posting rate, If a new block is generated every 10 minutes, On average, Up to 288 content can be posted per day.

4. user reference mechanism

If the new content mentions the user j, client must also send a notification to the IDj, containing the full message content, the notification is routed over the DHT network. The mention mechanism is the only feature in the system that needs to address with the user IDj rather than IDnodej, which could expose the user's privacy information. An alternative implementation mechanism hides the user name by hash, while calculating that a neighbor node with a new address to receive and accumulate all mention,IDmention_j s also participates in mention storage, providing maximum reliability and storage performance. A bad part

about this approach is that the user needs to periodically poll the address to determine if a new mention is received. The reference mechanism requires the collaboration of the client, and if it doesn't send notice messages to the network, the user will not feel being mentioned at all.

5. explicit message request

The user l can explicitly request specific messages from the user j without joining the Swarm group, which is achieved by directly retrieving the corresponding content from the address IDUserPost_j k of the second DHT network, supporting the "message tracing up" function.

6. message down message back

Downward message tracing (such as replies / RT query specific content) is relatively difficult to resolve, and a possible scenario is to send a notification 30 to a certain storage address of a multivalue list the stored value is a copy of all responses, a mechanism that also requires collaboration from the client to work.

7. hash Tab

As mentioned mechanisms, hash tags are detected in the context of new messages, copies of messages are sent to a specific multi-value list storage address: This is similar to the down message traceability mechanism in that the hash tag creates a new Swarm group, IDhashtagt neighbors must also join the virtual Swarm, called virtual because the Swarm group does not share any file content, only for broadcast functionality for users who want to monitor the hash tag.

8. Content Search

The search for any emerging content can be constructed with similar mechanisms for the emerging content by extending the implementation of hash labels. To reduce overhead and network transmission, corresponding restrictions must be attached, such as limiting content size, excluding prepositions, etc. In addition, the unified storage of content containing the same content to a temporary multi-value list address can significantly reduce storage overhead and system implementation complexity, with the address calculation as follows:

V Network (Vision) content provides security, scalability and privacy features: the architecture itself provides flexible extension, no single company, government, or organization can close it; distributed user registration mechanisms as secure as Bitcoin transactions, providing decentralized content authentication; more eager to register early to select their preferred user names; the usual user naming, abandon long encryption hashes for better user experience; public key replacement mechanism allows users to change their key pairs when security is threatened;

The main functions of other blog systems, including user name finding, message tracing, mention, encrypted messages, hash tags and content search; DHT routing and requesting resources to specific users, online or not; the architecture provides incentives to enable nodes participating in operation to access privileges to send broadcast messages; access user-published content and hash tags through a read-only web interface, which do not break the security of the loop system; and optimize for resource-limited clients, for example, without storing all blocks and storing block hashes. To search for specific users, they can ask which block the network contains user registration, and the client can only download the desired block without reducing security to verify the integrity of the data through parts of the Merkle tree.

VI: Account system

6.1 Introduction of the account model

The Vision uses an account model. The unique identification of the account is the address (address), requiring the private key signature to verify the account operation. Each account has a VS, Token balance and various resources, such as smart contracts, optical quantum, and entropy. Sending a transaction can increase or decrease the VS or Token balance, requiring optical quantum; you can publish and have smart contracts, or call smart contracts issued by others, consuming entropy. You can apply for and be voted, or vote on the Superrepresentative. Wait. All Vision activities revolve around the account.

6.2 How the account is created

6.2.1. first generates a private key and address with a wallet or browser plug-in wallet, and the public key can be discarded

The target account is then activated in two ways: the VS or VRC10 Token, to the target address and broadcast to the network, or the VS/VRC10 transfer in the contract consumes 25,000 more entropy.

6.2.2. completes creating the account by invoking the CreateAccount built-in contract

If the account has enough optical quantum obtained by freezing the VS, creating the account only consumes the optical quantum (about 300), otherwise creating the account will burn 0.1 VS. The VRC-20 transfer in the contract does not create an account, but the token balance of the inactive account can be checked via Visionscan.

The signature algorithm of Vision selects SECP256K1. curve for ECDSA, Its private key is a random number, and the public key is a point on the elliptic curve. The generation process is to first generate a random number d as the private key, and then calculate the P = d * G as the public key; where the G is the base point of the elliptic curve.

6.2.4 Address format description

Using public key P as input, SHA3 H, The public key length is 64 bytes and SHA3 selects Keccak256. Take the last 20 bytes of H and fill a byte 0x46 to get address. basecheck calculation of address gets the final address and the first character of all address is V. The calculation process of basecheck is: first address calculation sha256 and then h1 calculation sha256 takes the first 4 bytes as check filling to address after address||check, to base58 encoding and get the final result. The character mapping table that we use is:

ALPHABET = "123456789ABCDEFGHJKLMNPQRSTUVWXYZabcdefghijkmnopqrstuvwxyz"

6.2.5 Signed with a description

Step 1

1. takes the rawdata, of the transaction to byte[] format.

2. The does the sha256 operations on the rawdata.

3. The signs the results of the sha256 with the private key corresponding to the address in each contract (now generally a contract, a private key).

4. adds the signature results to the transaction.

The Algorithm

The ECDSA algorithm, SECP256K.

Note: The signature result should be 65 bytes. r32 bytes, s32 byte, v 1 bytes.

The fullnode node receives the transaction, and hash and r, s, v compare the address to the contract, and the same is checked.

VII: Resource model

7.1 Introduction of the resource model

There are four resources in the Vision network: optical quantum, entropy, CPU and storage, Node Pledge and Extension Pledge (spread mint). Thanks to the unique design model in the VS network, the storage resources in the Vision network are almost infinite.

The Vision network introduces two resources, photon and entropy that can be quantified. Where photon represents the optical quantum resource, and entropy represents the entropy resource.

Note: Performing system transactions that only the photon; to execute smart contracts costs not only photon, but also entropy.

7.2 Light quantum

Execution transactions are transmitted and stored in the network as an array of byte, the number of photons= transaction bytes consumed by one transaction * photon rate. Current photon rate = 1. If a transaction has a byte array length of 200, the transaction requires 200 photons.

Note: Since the total frozen funds on the network and the frozen funds on the account may change, the account owned photons is not fixed at any time.

1.Source of the photons

photons acquisition is divided into two kinds: photon, line = obtained by freezing VS is VS / for photon frozen The whole network gets photons frozen VS * 2,000,000,000. That is, the photons. where all users share a fixed amount by frozen VS Each account has a fixed free amount of light quantum every day, at 5,000.

2. Consumption of the photons

Any transaction except the query operation consumes photons. There is also a case where if it is a transfer, including ordinary or VRC10 Token transfer, if the target account does not exist, the transfer operation creates the target account before making the transfer, and the transfer after deducting the photons, consumed by creating the account will not consume additional photons.

3. Calculation rule for the photons

photons is the total number of bytes that an account can use within 1 day. For some time, the Bandwidth that the entire network can handle is a definite value.

If the transaction requires to create a new account, the photons consumption is as follows:

The 1. tries to consume the acquired photons. frozen by the transaction initiator If the transaction initiator is under photons, go to the next step.

2. tries to consume the VS, of the transaction initiator and this part burns the 0.1VS, record for photon consumption.

If the transaction is a transfer of VRC10 token, the photons consumption is as follows:

1. successively verifies whether the total free photons of issuing Token assets is consumed enough, whether the Token remaining free photons of the transfer initiator is consumed enough, and whether the Token publisher freezes the VS to obtain the photons surplus is consumed enough. If satisfied, deduct any of the photons, unsatisfied of the Token publisher to the next step.

2. The tries to consume the acquired photons. frozen by the transaction initiator If the transaction initiator is under photons, go to the next step.

3. tries to consume the free photons. of the transaction initiator If free photons is insufficient, go to the next step.

4. attempts to consume the bytes of the VS, transaction of the transaction initiator by * 10 vdt.

If trading in ordinary transactions, the photons consumption is as follows:

The 1. tries to consume the acquired photons. frozen by the transaction initiator If the transaction initiator is under photons, go to the next step.

2. tries to consume the free photons. of the transaction initiator If free photons is insufficient, go to the next step.

3. attempts to consume the bytes of the VS, transaction of the transaction initiator by * 10 vdt.

4. Automatic recovery of the light quantum

With the total network locked funds and the account locked funds unchanged, the optical quantum usage of the account decays proportionally over time and 24h to 0. If the time T1 moment, the account light quantum has been used for U, to the T1 + 12h, account again use the light quantum u, at this time the account has used the light quantum for U/2 + u. That is, it can be understood that the optical quantum value used by every 24h, user is reset to 0.

7.3 Enropy

Smart contract runtime requires certain system resources, and the amount of resources is measured by the value of entropy.

1. Get for the entropy

Freeze the upcoming VS lock of entropy,, unable to trade, as collateral, and to obtain the free use of entropy. Specific calculation is related to all accounts of the whole network freezing, you can refer to the relevant part of the calculation.

The FreezeBalance freeze obtains the entropy

Shell

freezeBalance frozen_balance frozen_duration [ResourceCode:0 BANDWIDTH,1 entropy]

That is, the entropy. where all users share a fixed amount by frozen VS

2. How fills in feeLimit(user required

Within the scope of this section, the development and deployment personnel of the contract is called "developer"; the user or other contract to call the contract is called "caller".

The entropy consumed by a calling contract can be converted into VS (or vdt), so within the scope of this section, it does not strictly distinguish between entropy and VS; and entropy, VS and vdt. only when used as units of values.

Set feeLimit, reasonably to ensure normal execution on the one hand; on the other hand, if the contract requires entropy is too large without consuming the caller's VS. Several concepts you need to understand before you set up the feeLimit:

(1) The legal feeLimit is an integer value between 0-10 ^ 9 in vdt, equivalent to 05,000 VS;

(2) For contracts with different complexity, the same contract consuming different entropy; is basically the same entropy; when executing the contract, calculate and deduct if entropy, exceeds the limit of feeLimit, the contract execution fails and the deducted entropy will not be returned;

(3) At present, feeLimit only refers to the maximum entropy allowed by the entropy equivalent VS; execution contract that the caller is willing to undertake, which also includes the part undertaken by the developer;

(4) A malicious contract deducting all entropy; s allowed if the final execution timeout, or because of the bug contract crash.

(5) Developers may take on a percentage of entropy consumption (e. g. 90%). However, when the entropy of the developer account is not enough to pay, the remainder is entirely solely by the caller. Within the feeLimit limit, if the caller is insufficient, the VS. of other value is burned.

Developers usually have sufficient entropy, to encourage low cost calls; when evaluating feeLimit, the caller can assume that the developer can assume its promised percentage of entropy, can be expanded appropriately expanded if one call fails due to insufficient feeLimit.

3. Computing for entropy (developer-must-read)

(1) Vision To punish malicious developers, deduct the execution timeout (over 80ms) or exit due to a bug exception deduct the maximum available entropy. without revert) If the contract is executed properly, or the revert, will deduct only the entropy; required to execute the relevant instructions.

(2) The developer can set the proportion of the entropy when executing the contract, which can be modified later. entropy, consumed by a contract call If the developer's entropy is insufficient to pay the part, the rest will be paid by the caller;

(3) A contract is currently executed, and the total number of available entropy s is determined by the feeLimit set by the caller and the developer;

Note:

1. If the developer is not sure if the contract is normal, do not set the user proportion to 0%, otherwise all the developer's entropy. will be deducted for malicious execution.

2. therefore recommends that developers assume $10\% 100\% \sim 100\%$.

If the contract execution is successful and no exceptions occur, the entropy, consumed from contract operation is generally much less than that available for this call If an Assert-style exception occurs, all the entropy. s corresponding to the feeLimit are consumed When developers create a contract, consume_user_resource_percent is not set to 0, that is, the developer costs all its resources. The developer takes on all resource consumption itself, which means that when a Assert-style exception occurs, all entropy Frozen.

7.4 Resource Delegation

In Vision, an account can obtain light quantum and entropy by freezing the VS. Also, give the optical quantum or entropy delegate (delegate) obtained by the frozen VS to other addresses.

At this time, the main account has the frozen VS and the corresponding voting rights, and the entrusted account has the frozen acquired resources (light quantum or entropy). Like normal freezing, delegated resources are frozen for at least 3 days.

The resource-delegated commands are as follows:

Text

freezeBalance frozen_balance frozen_duration [ResourceCode:0 BANDWIDTH,1 entropy] [receiverAddress]

frozen_balance is the number of VS s frozen (in vdt), f r o z e n _ dur a t i o n is the number of days frozen (currently fixed at 3 days), ResourceCode indicates whether the resource to obtain is optical quantum or entropy, and receiverAddress indicates the address of the entrusted account.

7.5 Node pledge

The super representative weights the votes by node pledge, and the threshold is the 5000VS, ticket weight calculation formula: (ticket weight-5000VS) * 6.5% actual number of> =

7.6 Promote the pledge

vision introduces promotion incentive, the user zes VS to get Spread Mint reward, and the account address of the previous level must be filled in, and the settlement should be made according to the proportion. vision initial default three-level promotion model, the coefficient ratio of partition reward is 80%, 10%, 8%, 2%, respectively, such as A users fill in B account when freezing SPREAD, B fill in C,C fill in D. At this time, the A calculates the user B, C, D from 10%, 8% and 2%.

VIII: Ecological development path

8.1 Data Freedom Phase —— from September 2020 to February 2021

Vision will build on the distributed storage technology represented by IPFS, providing users with a platform for data publishing, storage, and dissemination that they can be completely free and dependent on. Blockchain technology will establish a complete set of economic mechanisms with full competition and fair

return for content generation, distribution and dissemination, to encourage individuals and empower content, so as to constantly expand the boundary of the system. Content producers can directly obtain the official V ision tokens paid for high-quality content in the V network (Vision) system, or they can also obtain the influence and communication power by producing high-quality content to directly obtain the VS rewards from the system.

Through the underlying blockchain architecture of Vision, it can freely issue its own tokens, so it has the native economic system, through the official Vision token, users can easily realize content value distribution, payment and settlement, the system can also encourage users to produce more content with high quality, so that the whole content output system to achieve good self-operation.

8.2 Financial Freedom Phase — March 2020 to December 2020

Vision based on the advantages of blockchain, solve the income measurement, dividend distribution and supporter management three problems, realized a major transformation from "data freedom" to "financial freedom", Vision based on blockchain with VS as the official token autonomous economic system makes individual content producers in the system of every income and expenditure are open, transparent and tamper, through intelligent contract, and supporters can automatically participate in content producers' digital assets purchase and automatically share dividend growth, without any third party supervision can just complete the whole process.

8.3 Value Freedom Phase — December 2020 to June 2021

When each content producer within the Vision system can issue its own exclusive tokens, the system must have a complete set of decentralized exchanges to achieve the free flow of value. Value trading platforms will face the following challenges:

Over time, the staggering number of tokens issued on the platform, difficult for traders to screen, easy to confuse or even be cheated.

The amount of individual 2. supporters is very small, but the total number is large. They have high security requirements for platform funds, especially to prevent hackers, trading platforms from absconding with money and other phenomena.

The interest distribution logic represented behind the different 3. tokens is different, requiring real-time prompt and quick delivery.

4. transaction history needs to be open and transparent, so that all parties can understand the whole history, ensure sufficient information and reduce transaction risk.

Existing centralized exchanges cannot meet the above challenges, especially the rapid screening of large kinds of tokens and platform fund security risk control, so the centralized transaction platform to complete transactions, all funds is not centralized trading platform, but always stored in their own account, there is no funds stolen or trading platform absconded; on the other hand, through point-to-point decentralized distributed content addressing protocol, traders can easily and accurately find their target they want to invest in massive exclusive tokens, without confusion. Through the construction of a decentralized trading platform, the values, property rights and risks within the system can achieve free flow exchange, thus increasing the economic vitality of the whole system.

8.4 Flow Phase — June 2021 to December 2021

The traffic brought by the Vision content platform is closely linked to the real-world value. Developers can freely build an online game platform through Vision to provide a full-autonomous game prediction market function. Developers can freely build a game platform through Vision, realize game development and crowdfunding, and provide ordinary investors with the possibility to invest in games.

8.5 Eternal Service Phase — December 2021 to December 2022

Based on decentralized technology, Vision realizes the purpose of connecting the world users through the previous stages of data freedom, financial freedom, value freedom and traffic realization. Vision's data is stored around the world and never disappears into eternity.

IX: Ecological governance system

9.1 Team background

Vision's team, as adherents of Sir Tim Bernard Lee (Sir Tim Berners Lee), we are convinced that from the first day of the agreement it belonged to all humans, not the tools a small number used to make profits.

Therefore, Vision's main mission of founding Vision Foundation,, the foundation in Singapore, is to be open, impartial and transparent, and not to operate the underlying network for profit, and to support Vision's development team. Vision Foundation is approved by the Accounting and Enterprise Authority of Singapore (ACRA) and regulated by the Singapore Companies Act, which is operated independently by a entrusted board of directors or management board of trustees and independent of the government. Singapore is known for its stable and sound legal and financial environment, and Vision Foundation is a non-profit organization (Non-Profit Entity) established in Singapore as a legally established organization to support or participate in the public or private interest without any commercial interest. The "profits" earned by the foundation, known as a surplus, will be continuously retained as funding for other activities without distributing the profits among its members.

9.2 Governance structure and voting

In order to make Vision Foundation make reasonable use of the foundation's funds and resources under the premise of openness, justice and transparency, and constantly promote the rapid development of the Vision network protocol, expand the application scenarios of the protocol, and absorb more institutions, companies and organizations into the open-source Vision ecology.

9.3 Organizational structure

The foundation has established a three-level organizational structure as follows:

9.3.1 Decision Committee

The decision-making committee is the highest decision-making organization of Vision Foundation, which undertakes the final decision-making function. The members of the decision-making committee shall have no position, is responsible for deliberating and approving the foundation's strategic planning, annual plan, budget and other major matters, and voting on the major ecological issues of the V network agreement on behalf of the foundation.

9.3.2 CEO=chief executive officer

The CEO is voted by the Decision Committee and responsible for it. The CEO will fully organize the implementation of the relevant decisions and regulations of the Decision Committee, be responsible for the day-to-day operation of the Vision, fully complete the indicators assigned by it, and report the

implementation to it on a regular basis. The CEO has the right to set up necessary functional departments, employ management personnel, responsible for coordinating the business of technology research and development, product design and production, ecological operation, marketing, financial audit, and form an organization and management system as the center.

9.3.3 Technology R & D Department

The technology R & D department is responsible for the development and audit of the underlying technology, and is the basic department of the foundation. In order to ensure the information exchange within the team and consistent steps, the technology research and development department should exchange information with other departments (especially the product design and production departments), timely adjust and communicate the project details, and determine the research & development direction of the next stage.

9.3.4 Product Design and Production Department

The product design and production department is responsible for the enrichment and improvement of the product framework provided by the technical department, establishing sustainable specific development strategies, including conducting market research, coordinating the product functions, and undertaking the UI design and image design of Vision. Members need to always understand the dynamics, hot spots and feedback of the community, actively communicate with the token holders, and hold technical exchange meetings and other activities from time to time.

9.3.5 Ecological operation Department

Based on the technology and product departments, the ecological operation department is responsible for "one outside and one inside" — first, extend the work deep, actively develop partners, closely connect Vision, end users, partners, so as to create an open, distributed, privacy protected global entertainment ecosystem chain; and secondly, build the community ecosystem, form a benign interaction, free flow of information and fully symmetrical user community.

9.3.6 Marketing and Promotion Department

The Marketing Department is responsible for promoting the core or derivative products and services of Vision, including but not limited to contacting media cooperation, advertising, design user interaction, etc. The department will work closely with the ecological operation department to develop the most appropriate publicity plan according to the requirements of the partners and end users.

9.3.7 Treasurer's department

The financial department is responsible for managing the financial matters of the whole company, including capital management, accounting, cost control and other aspects. At the same time, due to the high risk of digital asset projects, the department is also responsible for the risk control business, and will cooperate with other departments to analyze and evaluate the operation and financial risks of the project. In terms of audit, given the particularity of digital assets and tokens themselves, the existing system is difficult to effectively supervise them. The decision-making committee will employ professional audit practitioners with relevant experience to ensure openness and transparency.

X: Risk tips

10.1 Systemic risk

Potential changes in terms of the earnings of all securities in a similar manner. For example, policy risk — currently the national regulatory policy for blockchain projects and ICO financing is not clear, there is some possibility of participant loss due to policy reasons; in the market risk, if the overall value of the digital asset market is overestimated, then the investment risk will increase, the participants may expect excessive growth of ICO projects, 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, and political unrest.

10.2 Regulatory field absence risk

Digital assets trading, including VS has very high uncertainty, due to the lack of strong supervision in digital assets trading field, so electronic tokens soared, banker control risk, individual participants into the market if inexperienced, may be difficult to resist the assets caused by the impact and psychological pressure of market instability. Although academic experts and official media have sometimes given suggestions for cautious participation, there are no written regulatory methods and provisions that have been issued, so it is difficult to effectively avoid such risks at present.

10.3 Risk of regulation introduction

There is no denying that in the foreseeable future, there will be regulatory regulations to regulate the blockchain and electronic tokens. If the regulator regulates the field, the tokens purchased during the ICO period may be affected, including but not limited to fluctuations or restrictions in terms of price and vulnerability.

10.4 Inter-team risk

At present, there are many teams and projects in blockchain technology, the competition is very fierce, and there is strong market competition and project operation pressure. Whether the Vision project can break through in many excellent projects is widely recognized, not only linked to its own team ability, vision planning and other aspects, but also affected by many competitors and even an oligopoly in the market, during which there is the possibility of facing vicious competition.

10.5 In-team risk

Vision brings together a team of talents with both vitality and strength, attracting senior practitioners and technology developers with rich experience in the blockchain field. As the leading role in the ICO field in China, the stability and cohesion within the team are crucial to the overall development of Vision. In the future development, the possibility does not rule out that the core personnel leave and internal team conflicts lead to the overall negative impact of Vision. Project planning and marketing risks: The Vision founding team will spare no effort to achieve the development goals set out in the white paper and extend the growth space of the project. At present, Vision has a relatively mature business model analysis. However, due to the unpredictable factors of the overall development trend of the industry, the existing business model and pooling ideas can not well match with the market demand, which leads to the difficult to make considerable profits. At the same time, because this white paper may be adjusted with the project details, if the updated details are not timely obtained by ICO participants, or the public does not understand the latest progress of the project, the participants or the public have insufficient awareness of the project due to information asymmetry, which affects the subsequent development of the project.

10.6 Technical risks of the project

Firstly, the project is built based on cryptography algorithm, the rapid development of cryptography is bound to bring potential crack risk; secondly, blockchain, distributed ledger, decentralized, tampering and other technologies support the core business development, the Vision team cannot fully guarantee the implementation of technology; again, the project update may be found by issuing the patch, but can not guarantee the extent of the vulnerability.

10.7 Hacking and crime risk

In terms of security, the amount of individual supporters is very small, but the total number is large, which also puts forward high requirements for the security of the project. Electronic tokens have anonymity, difficult traceability, easy to be used by criminals, or attacked by hackers, or may involve criminal acts such as illegal transfer of assets.

10.8 Other risks not currently known

As blockchain technology and industry trends evolve, Vision may face some unanticipated risks. Participants should fully understand the team background, know the overall framework and ideas of the project, reasonably adjust their vision, and rationally participate in token crowdfunding before making participation decisions.

XI: Disclaimer

This document is used only for transmission of information and is intended for information only and does not constitute any advice, solicitation or invitation for investment in the sale of stocks or securities in Vision and its related companies. Such invitations must be made by a confidential memorandum and must comply with relevant securities and other laws.

The content of this document must not be construed as forced participation in ICO. No act associated with this White Paper shall be considered as participating in ICO, including a request to obtain a copy of this white paper or share this White Paper with others. Participating in ICO means that participants have reached age standards, have full civil capacity, and the contract with Vision is real and effective. All participants contracted voluntarily and had a clear and necessary knowledge of Vision prior to signing the contract.

The Vision team will continue to try reasonably 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 mechanisms, tokens and their mechanisms, and token allocation. Some of the document may be adjusted in the new white paper as the project progresses, and the team will make the update public by publishing a notice or a new white paper on the website. Participants are sure to get the latest white paper timely, and adjust their decisions according to the updates. Vision clearly stated that participants are not liable for loss resulting from reliance on the content of this document, inaccuracies of the information presented herein, and any behavior resulting in 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 make complete commitments.

VS, as the official token of Vision (V network), is an important tool of platform performance and is not an investment. Having VS does not grant ownership, control, decision-making to the platform. VS, as a cryptographic token used in Vision, falls of the following categories: (a) currency of any kind; (b) securities; (c) equity of a legal entity; (d) stocks, bonds, notes, warrants, certificates or other instruments conferred with any rights. The value appreciation of VS depends on the market law and the demand after the application. It may have no value, the team does not commit to its value, and is not responsible for the consequences caused by the increase or decrease in value.

shall not be liable for the damage and risks of participation under applicable law, including, but not limited to, personal damage, loss of commercial profit, loss of commercial information, loss of commercial information or any other economic loss.

The Vision platform complies with any regulatory regulations conducive to the healthy development of the ICO industry and the self-discipline claims of the industry. Participants participation means the representative will fully accept and comply with such inspections. Also, all information disclosed by the participants to complete such inspections must be complete and accurate.

The Vision platform clearly conveys the possible risks to the participants. Once the participants participate in ICO crowdfunding, they have confirmed and recognized the description of the terms in the rules, and accept the potential risks of the platform at their own consequences.