VNT Chain

Distributed Smart Value Network

Whitepaper

V1.1

Table of Contents

VNT Chain Distributed Smart Value Network Whitepaper

1. Background

1.1 Blockchain Technology Overview

In 2008, Satoshi Nakamoto published a paper entitled "Bitcoin: A Peer-to-peer Electronic Cash System", and proposed the idea of building a bitcoin cash system based on blockchain, marking the birth of blockchain technology[1].

Blockchain technology is a decentralized database that stores a registry of assets and transactions across a peer-to-peer network. The transactions are secured by cryptography, and over time, that transaction history gets locked in blocks of data that are then cryptographically linked together by timestamp and secured, which creates an immutable, unforgeable record of all transactions across the network[2].

Blockchain has been adopted as a technical tool to address pain points in existing centralized systems and regulations, as well as gradually created economic and business value in domains such as finance, energy, supply chain and IoT services.

1.2 Blockchain and Value Network

A value network is the relationship and structure of value generation, distribution, transfer and adoption across multiple stakeholders.

With rapid social and economic development, users require more efficient, secure and flexible value networks to meet individual demand. In the traditional value network, users rely on third-parties to build trust, which makes value transfer centralized and inefficient. In addition, different service providers have different management systems, which leads to poor compatibility, low security and inefficient management. How to realize the efficient and cost effective value transfer becomes an urgent issue in the era of digital economy.

The blockchain system is considered as a decentralized, secured, tamper-proof database. Its birth and development brings the possibility for more effective, transparent and reliable circulation of various assets.

1.3 What is VNT Chain

VNT Chain was born for empowering the distributed economy system. VNT Chain's target is to build a global distributed smart value network based on blockchain technology to provide reliable, secure, efficient, friendly and low-cost value transfer services, and to gain widespread use in different vertical markets, such as finance, healthcare, supply chain, gaming etc.

2. Architecture

For enterprise users, existing public blockchain solutions do not quite meet the demands of commercial applications due to the lack of permission management and low performance. While consortium blockchain solutions offer secure information sharing among members, it lacks support for value transfer, making it hard to be applied to a large scale. Creatively ,VNT Chain integrates the distributed value transfer capabilities of the public blockchain and the business features of the consortium blockchain into the architecture named Aggregation Chain. This architecture of consists of public chain (**Hubble Network**), consortium blockchains (**Galileo Network**) and crosschain (**Kepler Route**).

2.1 Hubble Network

A public blockchain as main chain, that interacts with consortium blockchains (Galileo Network) through crosschain mechanism to provide value transfer services for various applications, and supports sidechain mechanism for different consumer-based applications, such as gaming and social networking.

2.2 Galileo Network

A series of consortium blockchains with member access, that are designed for use cases of commercial applications in finance, healthcare, supply chain industries and so on. The core components of Galileo Network, such as consensus, encryption and certificate services are under a modular design with flexibility and extensibility.

2.3 Kepler Route

A crosschain mechanism to secure interaction of assets and information between Hubble Network and Galileo Network.
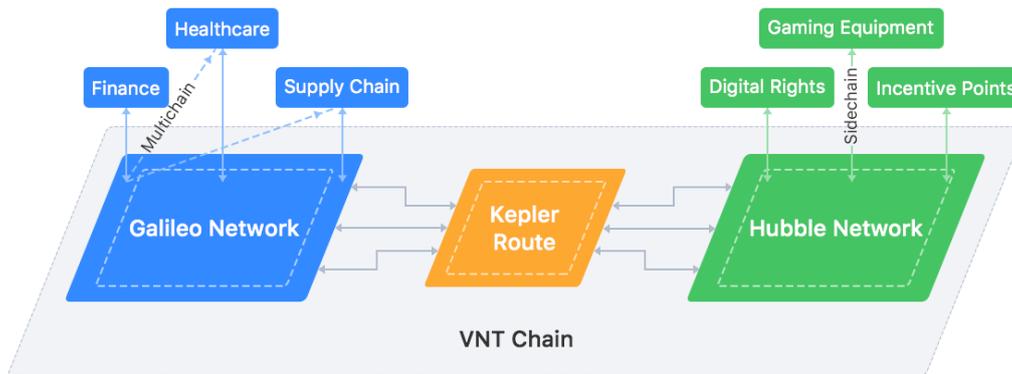
Figure 1: VNT value network architecture

3. Key Technology

3.1 Hubble Network

3.1.1 Consensus Algorithm

VNT Chain utilizes the Vortex consensus algorithm to reach performance of 10000+ TPS. Vortex integrates high performance, finality, high security, collateral and incentive mechanisms[3] into its design. The advantages are as follows:

- **High performance:** Vortex speeds up transaction packing and block generating, which results in higher transaction performance.

- **Finality:** Any legal transaction will be confirmed in a certain timeslot, which cannot be rolled back.

- **High security:** Vortex can handle various types of attacks, including nothing at stack, long range attack, double spending attack and bribery attack. It also prevents forks.

- **High transmission efficiency:** Vortex implements fast transaction transmission among verification nodes, and substantially relieves network flow among nodes.

- **Effective incentive mechanism:** Vortex provides an incentive mechanism, under which all the transaction packing nodes, transmission nodes, and regulatory nodes in the blockchain network will get rewards. Revealing malicious nodes will be rewarded as well.

3.1.2 Smart Contract

Hubble Network supports smart contracts written in multiple languages and uses Web Assembly (WASM) technology to compile contracts into WASM-format binary files. WASM has the following advantages:

- **High performance:** Highly effective with a stack-based instruction set and a strongly typed variable system.

- **Low storage costs:** Binary-coded text occupies less storage space than other text formats.

- **Multi-language support:** Users can use multiple languages such as C/C++/RUST to write smart contracts and compile them into WASM format.

Based on the advantages of WASM, VNT Chain independently developed WAVM, which is an execution machine of the Web Assembly language, inherits all the advantages of WASM, and further optimizes WASM in the following four aspects:

- Modifying the design of non-deterministic calculations caused by multithreading, floating-point numbers, and exception handling in native WASM to ensure the certainty of calculations.
- Adding the Gas mechanism and solving the Halting Problem in smart contracts.

- Providing a sandbox operating environment to achieve resource isolation and ensure the security of the system.

- Realizing standard instruction set on chain with high scalability[4].

3.1.3 Sidechain Mechanism

VNT Chain uses the sidechain mechanism to support multiple types of assets. Hubble Network provides an open interface that allows developers and users to link their applications as an independent sidechain to Hubble Network.

Hubble Network is designed purely for settlement, so only VNT transaction data is retained on Hubble Network, while user customised data is placed on the sidechain[5]. The advantages of this architecture are as follows:

- **Relieves Hubble Network:** If all kinds of applications transaction data are connected to Hubble Network directly, it will cause congestion and affect the real-time transactions. After the introduction of sidechain mechanism, Hubble Network only needs to support VNT token transactions rather than support all applications transactions on sidechain.

- **Data isolation:** The sidechain mechanism guarantees isolation of transaction data on Hubble Network and applications transaction data on sidechains. Also it achieves data isolation between sidechains to effectively ensure data security and privacy.

- **Easy to develop DApps:** The sidechain is a completely customized blockchain, so every application on the sidechain runs independently, and users can customize all specifications, parameters and transaction types.

- **Ensure Hubble Network's security:** The application runs independently on the sidechain. As a result, defects (such as hard fork) in the sidechains will not affect Hubble Network at all.

3.2 Galileo Network

3.2.1 Zero-knowledge Proof

Public blockchain networks such as Bitcoin and Ethereum ensure privacy protection for both sides of the transaction through a "pseudo-anonymous" wallet address, but the data (such as transaction details and account balances) transmitted and stored on the chain is publicly visible.

In many applications of consortium blockchain, data security and privacy protection is vital to the business itself, as well as regulatory requirements. Therefore, privacy protection in the process of value transfer is crucial.

Zero-knowledge proof means the prover succeeds in convincing the verifier that a certain argument is correct without providing any useful information to the verifier. Based on zero-knowledge proof, VNT Chain can verify the correctness of the entire transaction without exposing its details. In other words, the encrypted data can be verified without decryption, protecting the users' privacy.

The security of zero-knowledge proof is well established on discrete logarithms and other mathematical puzzles. It is therefore: highly secure, requires little computation, less interaction information, and highly efficient in data validation.

Galileo Network uses the zero-knowledge proof module to provide enterprise level privacy protection. The participating nodes can not only trade anonymously, but also verify the encrypted data in real time to protect data security without exposing identities. This suits many applications, such as finance, proof of existence, source tracing, payment transactions etc., which require privacy protection of business data and transaction tracking.

Galileo Network can meet these requirements and support both anonymous and public visible transactions, where users can easily deploy according to their needs.

3.2.2 Multichain

Galileo Network implements data isolation and privacy protection by adopting a multichain architecture. Multichain infrastructure can support same or different businesses. Participants can join in one business or multiple business chains according to their needs. The ledgers between different business chains are isolated.
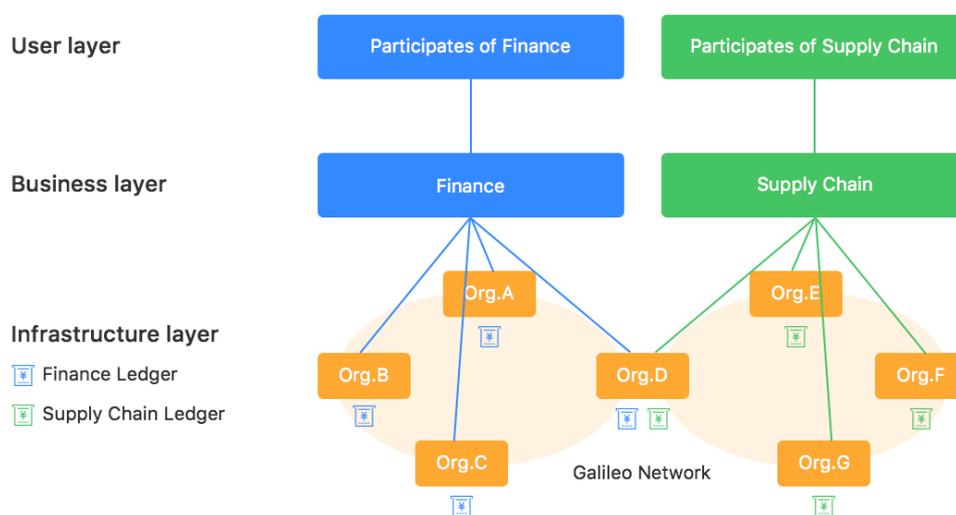
Figure 2: Multichain isolation

As shown in the figure 2, organizations A, B, C and D participate in the finance business chain, and organizations D, E, F and G participate in the business chain of the supply chain. The ledgers of different chains are isolated from each other, organization A, B and C only own finance chain ledger. Organization E, F and G own supply chain ledger. But organization D owns both the finance chain and supply chain ledgers.

3.2.3 Supports High Concurrency

To meet the concurrent requirements of high frequency applications, the Galileo Network improves system processing capabilities in four ways:

- **Parallel verification:** Isolate the transaction verification and data writing process. Handle the transaction verifications in parallel.

- **Concurrent execution of contracts:** Galileo Network supports parallel-processing of different smart contracts.

- **Network Load Balancing:** Galileo Network client can automatically select light loaded nodes to achieve network load balancing.

- **Hardware acceleration**: Switch from CPU serial processing to FPGA parallel processing of digital signatures, digital verification, consensus algorithms, encryption and decryption algorithms.

3.2.4 KYC Service

To remain compliant with the regulatory requirements of different applications, Galileo Network provides a know your customer (KYC) service for service providers by auditing the process of transactions. The KYC service can also help to effectively manage risk.

KYC allows the service provider to verify both parties' identity information (ID) before processing the transactions. First, the service provider of transaction sender communicates the users' ID to the service provider of transaction receiver. Only after the receiver service provider confirms the ID, can the transaction then be processed. Failing which, the transaction request will be rejected.

3.2.5 Decentralized Workflow

Business chain governance needs to be completed by all participants. In order to improve collaborative efficiency, Galileo Network supports a blockchain based workflow engine, as shown below.
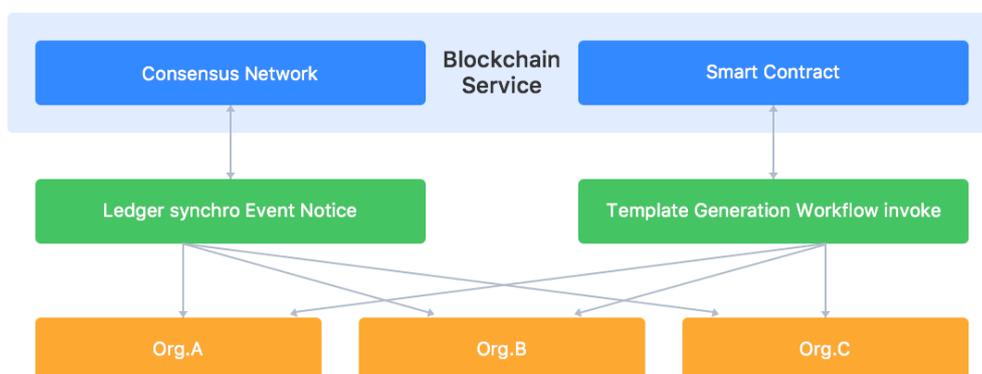

Figure 3: Decentralized workflow

The workflow engine is essentially a smart contract in the blockchain network. Taking data isolation

issues into consideration, different business chains can initialize different workflow engines. By calling the contract execution or querying the data structure maintained in the contract, all workflow functions can be achieved. Based on the workflow engine, users can:

- **Define workflow templates:** Set the workflow name, state set, initial state, and state change rules, etc.

- **Create workflow instances:** Using template to create workflow instances, and realize the instance directly into the initial state, then notify the selected participants according to the state rules.

- **Change workflow status:** Participants can modify the status of the current workflow by submitting a request.

- **Alter participants:** Participants of the current workflow can be altered any time, which improves the scalability of the workflow. The altered details will notice all former participants.

This not only accelerates information flow, but also achieves network decentralized management, such as smart contracts management, nodes Join/Quit management and online signature management. Every operation will be recorded on blockchain network[6].

3.3 Kepler Route

Currently, the consortium blockchain solution focuses on real-time synchronization of information and ledger consistency between institutions. Without a Token, however, the efficiency of asset transfer and clearing procedures is below expectation. Hence, consortium blockchain applications are narrow.

Kepler Route is the bridge that realizes the value linkage between Hubble Network and Galileo Network. With the verifier and supervisor mechanisms, Kepler Route queues the blocks which are requested by, then enables the asset transfer and information flow. In this way, the Galileo Network data's privacy characteristic is preserved, while Hubble Network provides the clearing and settlement service for Galileo Network by Token.

Advantages of Kepler Route include:

- The world state of Galileo Network can be dumped to Hubble Network, which is the basis of crosschain, which facilitates analysis of contract data.

- Extending Galileo Network's public data to Hubble Network without any DApps.

- The asset verification required by Galileo Network can be consented in Hubble Network, and then transmitted back to Galileo Network for endorsement via Kepler Route.

4. Ecosystem

The VNT ecosystem aims to build a global open-source community for a value network, involving blockchain technical enthusiasts, industry vertical resources, investors and third party organizations to focus on blockchain technology innovation. This community will then promote the VNT infrastructure to various fields of applications such as: finance, social networking, tourism, gaming and IoT (Internet of Things). Following which, the applications will be integrated to VNT Chain. The VNT Ecosystem will be a long-term project, with all services provided subject to the local regulatory regime. The roadmap is as follows:

a) **Infrastructure construction**

VNT founding team and community developers will build a high efficiency, stable and easy-to-operation infrastructure network to meet the requirements of various applications and value transfers. VNT token is the medium of value transfers.

b) **Community tool construction**

- **Community tools:** With close collaboration between original developers and global developers, mutiple tools on VNT Chain will be designed to support more applications, including: digital wallets, smart contract developer platform etc.

- **Incentive system:** Any person or institution can join the network, and will be assigned with corresponding roles and permissions. All contributions (personal or institutional) to the VNT ecosystem can be rewarded if certain conditions are met.

c) **Provide full value services**

Following the completion of a well-established infrastructure, powerful development tools and various community resources, VNT will integrate the potential of blockchain technology with real world applications to realize effective and efficient value transfer.

- Galileo Network**:** Enterprise users is able to customize solutions according to their application's demands, to use singular or multichain structures to facilitate a variety of

applications, and to anchor real assets to digital assets.

- Hubble Network**:** More use cases can be extended to Hubble Network through a sidechain mechanism.

- Kepler Route**:** Enable information flow between Galileo Network and Hubble Network, realizing value transfer among different types of assets in the process.

5. Application

VNT Chain is dedicated to building a stable, efficient, secure and scalable distributed smart value network, to solve the lack of trust caused by information asymmetry and lack of information, which in turn solve the value transfer problem.

At the micro level, participants are allowed to obtain relevant data through the VNT Chain network according to application requirements and process effective privacy controls over their own data.

At the macro level, VNT Chain promotes efficient resource synergy to accelerate digital economic cooperation among different countries, regions, institutions and individuals.

VNT Chain adopts the Aggregation Chain architecture to link business chains and value network, to realize the interconnection of information and value, and to provide comprehensive data and asset services for finance, healthcare, supply chain, payment, shared computing etc.
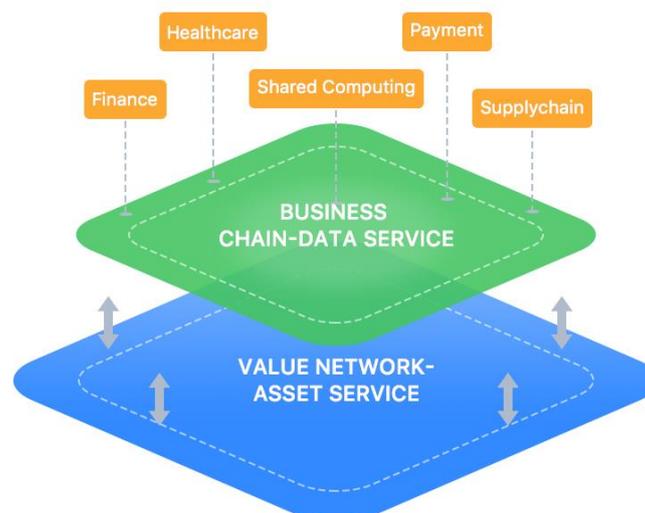

Figure 4: Applications

5.1 Data Service

VNT Chain is based on immutable and consistent distributed ledger technology, providing standard data access protocols for participating organizations on various business chains, and forming a multi-dimensional data network for various applications.

5.1.1 Data Collection

VNT Chain can collect data in various business applications after authorization by users. All data-collecting activity as well as the data itself form a complete record. The whole process is encrypted to ensure data security and that it meets regulatory requirements.

VNT Chain collects data under the following two scenarios:

a) Institutional data

Various business applications (finance, healthcare, supply chain, internet finance, etc.) can join VNT Chain network through business chains. The business data, such as identity information, circulation records, transaction proof, transaction flow etc., will be provided by participants who join the business chains of the VNT Chain network.

Continuous production, updates and improvements to data as the business grows will ensure authenticity and accuracy of the data. The timeliness of data collection is ensured through the real-time synchronization of the VNT Chain.
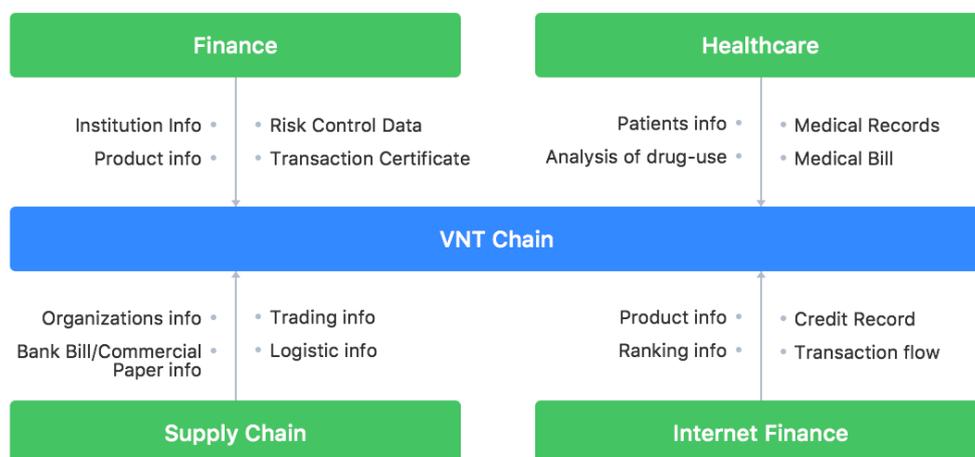

Figure 5: Institutional data collection

b)   User data

Users can upload their personal data (e.g. identity, health, travel, transaction, logistics and living expenses) through different application clients. In order to ensure the authenticity and reliability of data, VNT Chain introduces third-party operation platforms to verify the data uploaded by the users. All data and relevant data-collecting activity are recorded on the VNT Chain in real-time.
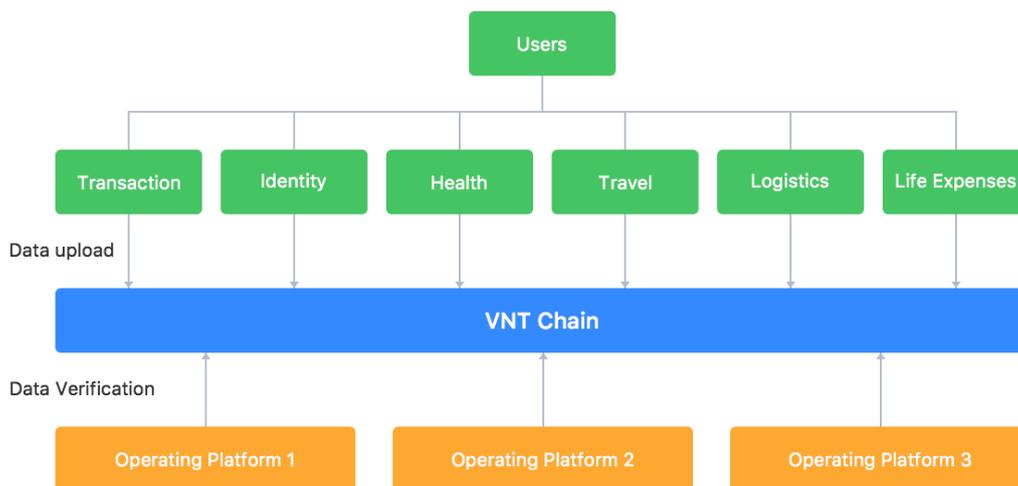

Figure 6: User data collection

5.1.2 Data Collaboration

VNT Chain's multichain architecture provides privacy protection and business isolation for data generated by participating entities under different business applications. The applications' transaction data are recorded on different ledgers. For some or all data in different business applications, information exchange can be achieved through the crosschain mechanism. The certifiers and supervisors (clusters elected according to the algorithm) are responsible for:

- Ensuring data consistency
- Completing data coordination under different applications
- Implementing data collection under multichain architecture

When the ecosystem's development reaches a certain level, VNT Chain will form a credible, multi-dimensional data system to provide effective data support for more applications.

All data collection activities will comply with local laws and regulations and fully respect the willingness of participating parties in each case. All on-chain data will be protected by the chained data structure from being tampered, and privacy protection will be achieved through encryption technology. Users can manage their personal data through authority control.
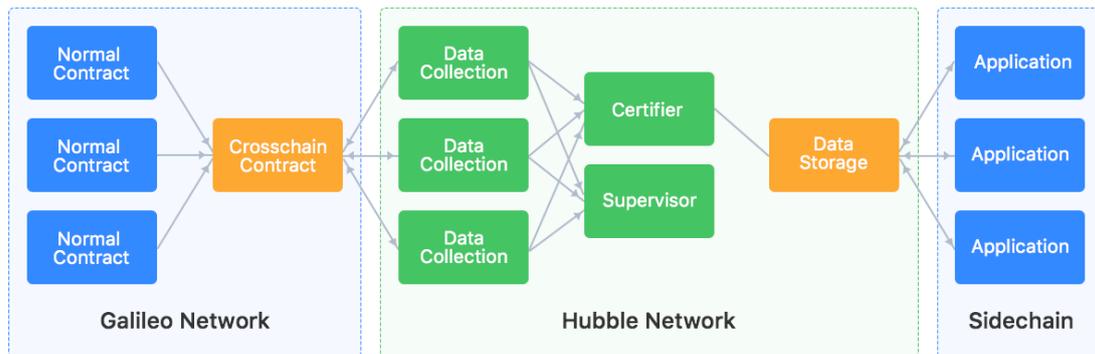

Figure 7: Data collaboration

5.2 Asset Service

Conventional asset classes can be divided into financial assets and non-financial assets. The absence of an efficient asset circulation system has led to low asset turnover, inefficient circulation of capital and high transaction costs.

Based on a standardized asset management process and efficient circulation system, VNT Chain provides efficient, convenient and low-cost value transfer infrastructure for finance, social networking, consumer, education and medical industries without a centralized party involved, thereby reducing cost and improving circulation efficiency.

5.2.1 Financial Assets

VNT Chain provides efficient and secure asset circulation services for various types of financial assets such as equity, bonds, notes, derivatives, etc. The implementation steps are as follows:

a)   **Financial assets (ownership) authentication**

There are two ways to authorize the rights of financial assets.

- **Off-chain Assets:** Participating organizations access the relevant business chain as nodes

and upload the offline authorized documents and certificates to the VNT Chain network for confirmation. Once confirmed by the endorsement nodes (agencies who can provide relevant certificates or authorized services), the authentication information will be registered in the blockchain network.

- **On-chain Assets:** The change of ownership of the assets is accomplished by smart contracts. During the execution of the contract, the unique digital signature of the user is used to confirm the rights.

b) Asset trading and circulation

Asset trading and circulation involves a two-way flow of funds and assets.

- **Pay off-chain, transfer on-chain:** The fund transfer is completed by a third-party payment institution, who confirms the payment and transaction vouchers submitted by the transaction parties and records them in the VNT Chain network. The smart contract completes the asset transfer.
- **Pay and transfer on-chain:** The assets' trading and transfer are completed by smart contract, and the payment and settlement can be accomplished through VNT Token or other digital assets issued on the sidechain of the VNT Chain network.

The on-chain information includes asset information, transaction records, fund information and credential information requested by counterparty. VNT Chain provides efficient and convenient services for authentication, trading and circulation of financial assets, also ensures the ledger to achieve real-time synchronization and hardly be tampered with.

5.2.2 Non-financial Assets

a) Digital Assets

Digital assets such as digital rights, gift coupons, gaming equipment, incentive points and ads traffic have low rates of circulation due to limited use cases. The sidechain of VNT Chain network supports the issuance of various digital assets. The mainchain completes the consensus process and the sidechain records the transaction information. The digital assets from sidechain can be exchanged with VNT token from mainchain to allow the trading of multiple digital assets, and improve the efficiency of digital asset circulation.
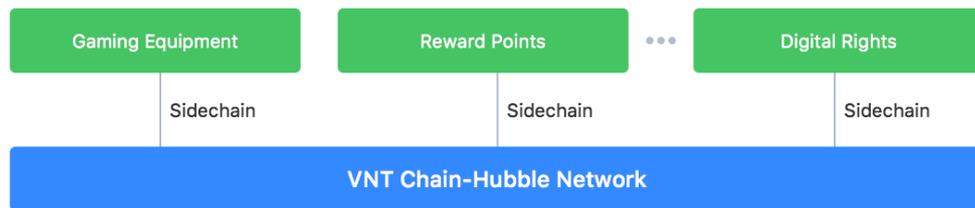
Figure 8: Digital assets service

b) Physical Assets

VNT Chain can support the registration, split, trading and settlement of physical assets like commercial real estate, fixed assets, large-scale mechanical equipment etc., to complete the value transfer. Detailed steps are as follows:

- **Asset authentication:** The certificate representing ownership of the assets can be digitized and registered on-chain by the relevant regulatory agency.

- **Asset digitization:** All kinds of physical assets are assembled into asset packages. Through the structured design of professional organizations, asset packages are split up into multiple securities and traded in compliance decentralized exchanges.

- **Trading assets on-chain registration:** Compliance agencies perform physical asset delivery according to on-chain specifications, and transaction certificates are recorded in the VNT Chain network.

5.3 Value Transfer

VNT Chain implements a Data Service system and an Asset Service system. The Data Service collects data from different participants under different business applications to form a multi-dimensional trustworthy data network based on distributed ledger technology. It provides participation credentials and decision-making basis for different users.

Asset on-chain registration, authentication, splitting and trading are accomplished through smart contracts. Without a central entity, the real-time settlement and the liquidity of assets can be completed through VNT Chain value network.
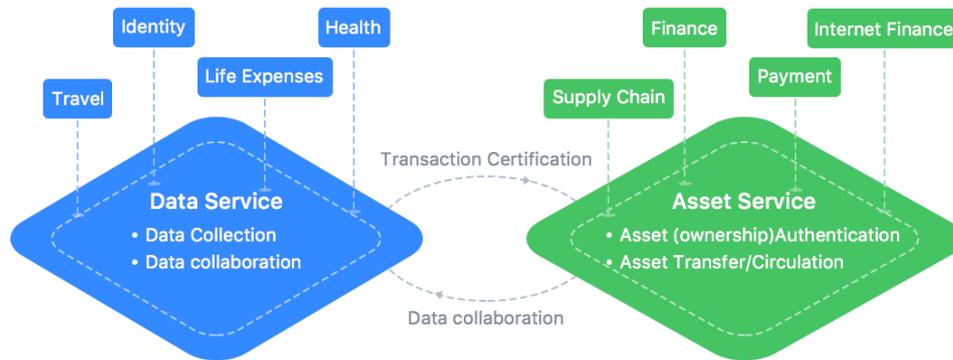
Figure 9: Value transfer network

With synergies realized between the Data Service system and Asset Service system, VNT Chain will further expand its service scope and promote the development of the digital economy by mitigating information asymmetry and improving data and asset circulation efficiency. VNT Chain aims to:

- **Resolve information asymmetry:** Business applications such as asset securitization, supply chain finance, and equity trading usually feature multiple parties in each transaction and long-standing information exchanges, leading to information asymmetry and non-transparency problems, which seriously inhibits normal value transfer. With VNT Chain, each participant accesses the network as a node, shares billing rights and synchronizes service data in real-time, thereby solving the asymmetric information problem.

- **Improve circulation efficiency:** Most existing business applications are relatively isolated, their data is incompatible with those in different applications. There is a lack of effective circulation among all kinds of assets. Part or all of the data in different business applications can be exchanged freely through VNT Chain's crosschain mechanism. Assets in each business chain and sidechain can be transacted with in realtime, achieving efficiency of circulation.

- **Expand scope of services:** In traditional finance, government affairs and medical fields, due to there being only a single source of data, as well as isolation among institutions, some business are only open to specific groups. VNT Chain's multi-dimensional trustworthy data network provides more references for participants in the network, reduces transaction costs, improves risk control capabilities and expands service coverage.

6. Governance

6.1 VNET Foundation and Governance

The VNET Foundation is a non-profit organization established in Singapore. The Foundation devotes itself to the development and construction of the VNT network, and promotes transparent governance and harmonious development of the open source community.

The Foundation's governance structure mainly takes into account community sustainability, management effectiveness and security of digital assets. The governance structure of VNET Foundation comprises the Decision-making Committee, Executive Committee and Functional Committees (Ecosystem Committee, Technology Committee, Management Committee and Operating Committee).

Figure 10: VNET Foundation governance structure

a) Decision-Making Committee

The Decision-Making Committee takes charge of assigning and dismissing the executives in the Executive Committee and the Functional Committee, making important decisions and holding emergency meetings. The members of the Decision-making Committee and chairman of the Foundation hold a term of three years. In the early stages, the Decision-making Committee is composed of the Foundation chairman, core founding team members and donors of VNT Chain.

When the term of the Decision-Making Committee expires, the existing members in the committee should provide the list of the potential candidates and vote to elect 10 core members for the next term.

Members of the Decision-Making Committee shall have one vote each, and the president of the Foundation shall have two votes. The Decision-Making Committee should get more than half of the members' approval before making the decision. The following decisions should be put to a vote:

- Modifying the Foundation governance structure.

- Assigning and dismissing the responsible person in the Executive Committee or the Functional Committee.

- Making significant decisions for technical roadmap, business model and marketing strategies.

- The assigning and dismissing of Decision-making Committee members during their term of office in the case of members violating the scope of their responsibilities, laws and administrative regulations.

- Emergencies, such as events affecting the entire community, software security, VNT Chain system upgrades, etc.

In addition, the Executive Committee Chairman shall gather the Decision-Making Committee to hold an interim meeting within 15 working days when any of the following issues occur:

- When the chairman of the Foundation considers it necessary.

- When more than one third of the members of the Decision-making Committee jointly propose.

- When the executive of Executive Committee proposes.

Committee members should attend the corresponding meetings themselves. Should they not be able to attend in person, they may authorize in writing another committee member as their representative. Those who have not delegated their representatives shall be deemed to have gave up their voting rights at the meeting.

b) Executive Committee

Members of the Executive Committee are assigned by the Decision-Making Committee. The Executive Committee is responsible for the daily operation and project management. The Executive Committee has a Chief Executive Officer (CEO),who is responsible for the Decision-Making Committee. The Executive Committee members are mainly made up of committee heads of other functions. The CEO of the Executive Committee takes up the following duties:

- Taking charge of daily operations and decisions made by Decision-making committee.

- Formulating Foundation basic management system.

- Deciding to assign or dismiss members of the Executive Board or other senior management personnel.

- Handling open source code and fund usage issues.

c) Functional Committees

- **Ecosystem Committee:** VNET Ecosystem Committee is responsible for screening suitable use cases and devising solutions accordingly. Meanwhile the Ecosystem Committee will invest in and incubate projects through the Foundation to build up the ecosystem.

- **Technology Committee:** The Technology Committee is made up of core developers of VNT Chain, and is responsible for the development of VNT network. In addition, the VNT Chain developers hold weekly meetings to track the progress of the project. Members of the Technology Committee should work with community, communicate with technology enthusiasts and hold regular technical sessions.

- **Management Committee:** The Management Committee is responsible for the Foundation's personnel management, payroll and other administrative issues. The Foundation will recruit full-time management and technical personnel, while other functions like finance, legal affairs and taxation will be outsourced. All assignment and dismissal decisions need to be approved by the relevant functional committees.

- **Operations Committee:** The Operations Committee is responsible for the promotion of VNT Chain's technology and its applications. Should any incidents affecting the reputation of the Foundation arise, the Operations Committee will conduct a public relations response on the basis of a unified assessment.

6.2 VNET Foundation Financial Management

The financial planning of VNET Foundation is based on actual operation conditions. The Decision-Making Committee and the Executive Committee will oversee the annual and monthly budgeting exercise. The Management Committee is responsible for the schedule preparation and implementation.

a) Permission to use digital assets

In the early stages of the VNT project, some digital assets were donated to maintain the operations of VNT Chain, including labor cost, operation cost and market expansion cost. In the interests of transparency, the use of digital assets will be monitored by the relevant committees

and regularly disclosed to the community. The policy of using the digital assets is as follows:

- Over 200 ETHs : approval by Management Committee.

- Over 500 ETHs : approval by Decision-making Committee.

b) **Digital assets management**

The digital assets held by the VNET Foundation are governed by authorised personnel of the Executive Committee. The security and accuracy of the assets will be ensured through multi-signature requirements. Management Committee should record daily transactions.

7. VNT Token

7.1 VNT Mechanism

In order to optimise the VNT network's ecological and economical value, and attract more community developers and participants, VNT Chain will issue VNT token, with a total amount of 10 billion.

VNT token can be used in following cases but not limited to:

- Incentive: Reward community developers and contributors.

- Applications deployment: Any individual or organization needs to pay VNT token to deploy decentralized applications (DApps) or smart contracts on the VNT network.

- Circulation of digital assets: All users need to pay VNT token to transfer assets on the VNT Chain.

- Consensus Rewards: VNT Chain's consensus node can get a small amount of VNT token from each transaction as a reward.

You can get VNT token via the following ways:

- Participate in the donation (using ETH, BTC for exchange).

- Participate and get rewarded through contributing to VNT Chain ecological construction.

- Purchase from third-party trading platforms.

The total supply of VNT token is 10 billion, and the distribution plan is as follows:

Proportion	Quantity	Use case	Details
20%	2 billion	Donation	Early donator participating in VNT Chain (using ETH, BTC for exchange)
20%	2 billion	Founding team	The Founding team and core developers who made contributions to the development of VNT will get VNT token.
40%	4 billion	Ecosystem	Support VNT related academic research, investment and project launch.
20%	2 billion	Foundation management	Community management, operation and development.

7.2 Lock-up Period

The founding team held 20% of all VNT tokens and this was locked up after the token issuance for a period of 36 months. 6 months after the donation, a maximum of 20% of the team's total holding can be unlocked. The next quarterly unlock amount shall not exceed 10% of the team's total holding.

8. Disclaimer

This whitepaper is purely for information dissemination. The content of this document is for reference ONLY and does NOT constitute any form of contract or commitment. The goals listed in this whitepaper may change and part of the contents may be modified. The team will give timely updates on the whitepaper and the project progress on the website.

The VNT team will make every endeavor toward all the goals mentioned in this whitepaper, but makes no guarantee that they will be achieved.

While VNT token can be used in the VNT network, it is neither an investment, nor does it represent ownership or control over VNT.

Within the scope permitted by law, the team is not responsible for any direct and indirect personal and commercial gain/loss or any other economic losses.

VNT team has communicated to the participants the potential risks. Once participants join the VNT project, they represent that they have understood the rules, and recognized and accepted all potential risks.

9. Risk alert

The development of VNT project is strongly influenced by prevailing blockchain technology trends, policy orientation and regulatory guidelines. If the market is in a downturn, or a situation arises that is out of the control of the VNT team, the development of the VNT project may be limited, blocked or even terminated.

There are also risks that we have not yet mentioned or unpredictable. Participants were requested to realize the purpose and overall framework of the project before participate rationally.

References

[1] Satoshi, Nakamoto. Bitcoin: A Peer-to-peer Electronic Cash System, 2008.

[2] Warburg, B. (2016, Nov 15). Bettina Warburg: How the blockchain will radically transform the economy [Video file]. Retrieved from https://www.ted.com/talks/bettina_warburg_how_the_blockchain_will_radically_transform_the _economy

[3] Kiayias, Aggelos and Russell, Alexander and David, Bernardo and Oliynykov, Roman.Ouroboros: A provably secure proof-of-stake blockchain protocol, in proceedings of Annual International Cryptology Conference, pp.357—388,2017.

[4] Butian Huang, Qi Liu, Qinming He, Zhenguang Liu. "Towards Automatic Smart Contract Codes Classification Leveraging Word Embedding and Transaction Information".IEEE Acta Automatica Sinica, 2017, pp. 1-10.

[5] Poon, Joseph and Buterin, Vitalik. Plasma: Scalable Autonomous Smart Contracts, White paper,2017.

[6] Butian Huang, Zhenguang Liu, Jianhai Chen, Anan Liu, Qi Liu, Qinming He."Behavior Pattern Clustering in Blockchain Networks". Multimedia Tools and Applications (MTAP), 2017, pp. 1-12.