

EChain WhitePaper
V2.0

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Abstract

This WhitePaper describes a new blockchain network ecosystem-the EChain Network that aims at solving the liquidity problem of valuable assets and using blockchain to build a platform that allows for efficient and reliable interaction between real-world assets and tokens. By registering assets on blockchain and using standardised secondary tokens that are generated with all participants as witnesses to represent real-world assets, it facilitates transfer of assets and as a result makes illiquid assets liquid. What's more, by using smart contracts that allow creators to specify the uses of and ways to use tokens, it makes possible swap of different tokens on-chain.

The EChain Network will be built on top of its own blockchain and its purpose is to facilitate the transfer of real-world assets by moving them on-chain. The reason the EChain team has decided to build a native blockchain is for its flexibility and versatility. As long as both the seller and the buyer have an EChain Network-compatible wallet, they can easily send their assets, such as physical assets, art collectibles and credits, along with EChain Token (**ECT**) to each other. Asset issuers can easily move their assets to the EChain Network and the EChain Network will serve as a database of various assets. It will safely store all valuable assets and ECT and track their owners.

By issuing ECT, the EChain team aims at unlocking the value of all valuable real-world assets and facilitating transactions in a decentralised ecosystem to improve asset liquidity and change the current industry paradigm. With blockchain technology, such transactions can exist not only on the EChain Network, but in all other markets. It is expected that

the entire market would grow exponentially due to a multiplier effect. In other words, this will promote the development of an ecosystem composed of all asset of value such as physical assets, art collectibles and credits.

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Chapter 1 Background

1.1 Brief Introduction of Blockchain

The blockchain technology is one of the most revolutionary new technologies in today's world. With globally scattered nodes cooperating to timestamp and record transactions, it creates a sequence of transactions that are traceable and tamper-free. By combining distributed storage, encryption and peer-to-peer technologies, it is characteristic of decentralisation and removes the need for trust. Hence the name “Internet of Value”. Blockchain is most likely to solve the trust issues are facing today and bring about a new ecosystem – one that features peer-to-peer transfer of value.

1.2 Problems to be Solved

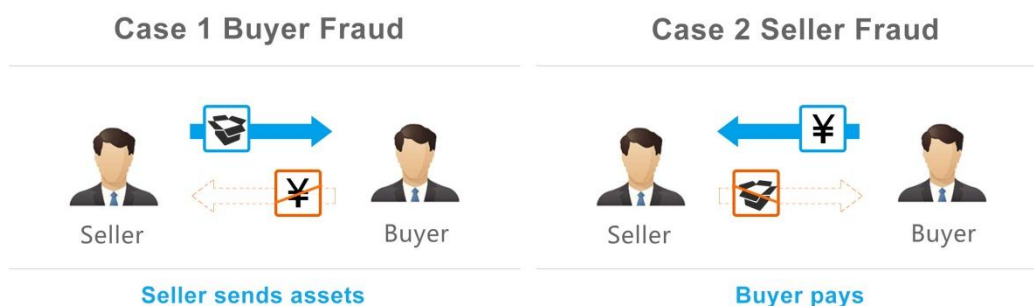
People have a lot of valuable assets. Yet for the lack of universally agreed certification standards and procedure, these assets cannot be easily transferred from one person to another. They include tangible assets (coins, stamps, porcelain products or other collectibles) and intangible assets (beneficiary rights, equities, debts, accounts receivables etc.). When owners of tangible assets want to capitalise on their holdings, they usually have to go through a cumbersome procedure, including, for example, authentication, auctioning and a long wait. It is equally hard to cash in on intangible assets as they have to be audited and valued.

Most of today's tangible assets and intangible assets are locked up in silos.

Buyers have to spend a fortune in order to unlock and get hold of them. However, by the time they want to exit, all of their investments risk becoming nil, because they can neither effectively sell nor transfer their assets to another entity. There is a huge demand for assets, such as physical goods, art collectibles and credits. Yet for the reasons described above, this demand is nowhere near being satisfied.

Some people buy and sell physical assets, art collectibles and/or credits via online forums (such as Reddit). But such transactions are informal and prone to risks, as online forums do not provide neither buyers nor sellers any guarantees of authenticity. So, fraud is commonplace, be it in the form of sellers not transferring assets after getting payment or buyers requesting refunds after receiving assets.

Fraud in Online Forum Marketplaces



The picture shows how fraud can take place in online forums. Scenario 1: Sellers transfers assets to buyers, yet the latter refuses to pay or asks for refunds. Or in another scenario, after buyers pay, sellers refuse to transfer assets or send the wrong assets.

1.3 Mission and Vision

It is the mission of the EChain Network to build a blockchain-based ecosystem that allows for efficient and trustless interaction between real-world assets and tokens. Users can register their assets on the EChain Network and obtain standardised secondary tokens representing their holdings. Such an arrangement makes it easier for asset transfer and turns illiquid assets liquid. What's more, Smart contracts on the EChain Network enable users to specify the uses of and methods to use tokens and makes possible the swapping of different tokens on-chain.

Chapter 2 Principles and Thinking

2.1 Design Principles

The EChain Network will be built on top of its own blockchain, with the purpose of tokenising and transferring all kinds of real-world assets. The reason the EChain team has decided to build a native blockchain is because such a blockchain will be flexible and versatile. As long as both the buyer and the seller have an EChain Network -compatible wallet, they can transfer physical assets, art collectibles and credits, among other assets, along with ECT (the Echain Token) directly to each other. Asset issuers can integrate this function and move their assets onto the EChain Network with great ease. The EChain Network will become an asset database that is able to safely store assets and ECT, and track their owners.

The distribution of the primary ECT token would support the unlocking the value of real-world assets and facilitating decentralised transactions to

increase asset liquidity and changing the industry paradigm. With Blockchain technology, such transactions are not only possible on the EChain Network, but in all other markets. In other words, this will promote the development of an entire ecosystem composed of physical assets, art collectibles, beneficiary rights and other assets.

Design principles of the EChain Network:

- Blockchain-based Tokenomics: using tokens to incentivise participants in the ecosystem.
- Huge improvement of transaction efficiency: multi-party confirmation, wallet address transparency, traceability and anti-tempering nature of Blockchain satisfies the need for tracking and verifying information.
- Fast transaction: transaction verification will be completed in seconds, thanks to Blockchain's decentralised ledger, consensus mechanism, signature verification and other innovations.
- Assets migration on-chain: authentication or auditing by a panel of experts before moving assets on-chain where real-world assets will be represented by tokens.
- Smart contracts: smart contracts will be created based on different transaction scenarios and the blockchain will maintain, save and automatically execute these smart contracts.

2.2 Product Model and Overall Architecture

2.2.1 Problems to be Solved



Every year, people buy tremendous amounts of assets for either investment purpose or as collectibles. Yet most of these assets are kept in insulated platforms. Once these platforms are closed for business, assets locked up there will become worthless. The current system does not contribute to the liquidity, transparency and security needed for asset transactions.

2.2.2 The EChain Network Solution



EChain's Token (**ECT**) will be based on top of its own blockchain and standard REST API. Such an arrangement, combined with the smart contracts on the EChain Network, aims to eliminate distrust and protect the owners of physical assets, art collectibles and credits from fraud. Transaction platforms and authentication agencies can get open-source plug-ins and ECK (EChain's SDK) from Github to integrate their platforms with the EChain Network.

2.3 Technological Innovations

2.3.1 True Ownership of Assets

Owners of physical assets, art collectibles, credits and other assets can own and securely store their assets on the blockchain of the EChain Network.

2.3.2 Fraud-free and Instant Transactions

Participants can freely and safely buy and sell assets using the smart contracts on the EChain Network.

2.3.3 Tremendous Incentives for Issuers

Asset issuers issuing secondary tokens on the EChain Network will obtain a new source of revenue, along with ECT incentives.

2.3.4 Standardised Authentication before Moving Assets On-chain

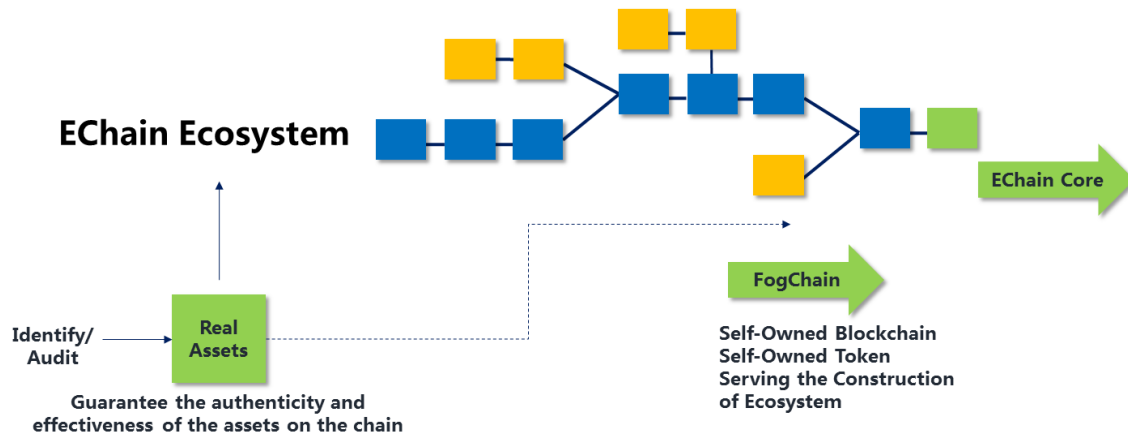
Physical assets, art collectibles, credits and other assets will be authenticated or audited before they are moved on-chain, which ensures the authenticity and traceability of on-chain assets.

2.3.5 Free and Open-source ECK

Free and open-source ECK allows the developers of the EChain Network to develop their own tools / applications and receive ECT remuneration when users use their tools.

2.3.6 Fog-chain Strategy

This allows different types of assets to be affiliated with different Fog-chains.



2.4 Security Strategy

The following solutions can be used to guard against possible security risks native to blockchain.

- Man-in-the-middle attack: static encryption keys and user identification (user confirmation);
- Time attack: ecdsa25519 algorithm;
- Hacker's public-private key bundling: elliptical curve based ecdsa25519 algorithm to generate encryption keys;

- Participation in decision-making rounds involving compromised nodes in BFT: the system does not allow nodes to make decisions on transactions that cannot confirm the relevance and existence of ledgers and software complex in local storage by blake2s algorithm and nodes will be verified during the whitelisting stage of the next round.
- Bad anti-theft function of wallet: all information in the network is encrypted via homomorphic encryption;
- Sybil attack: nodes synchronise network address list with other nodes and establish connections with random node sets to avoid packets and environments of legitimate nodes being replaced.
- Double-spend attack: shorten the amount of time needed to build transactions pool to reduce possibilities of double-spend attack and shorten decision-making time. When working in multi-server Transactional Model (parallel transactions), synchronisation is achieved using the list of the leader node.

Chapter 3 Implementation Plan

Ethereum is one of the most famous blockchain projects, but it is not without limitations. It uses Proof of Work to confirm transactions. Such an arrangement limits the number of transactions it can process during a period of time and its scalability. At the moment, one transaction takes 25seconds to confirm or decline. In the future, Ethereum can switch to Proof of Stake to increase TPS. But before Ethereum can find a way to eliminate its limitations, pure on-chain solutions will be hard to optimise.

Because of two reasons:

First, it takes quite a while for transactions to be confirmed on Ethereum and users usually expect confirmations to be faster.

Second, every transaction comes with certain fees, which creates barriers for collectors.

Therefore, it is proposed, at the first stage, to combine online and offline services and it will be semi-decentralised. Another option is to run part of the functions described in the roadmap by deploying transactions involving ECT on the EChain Network. Yet before that, other DApp platforms can still:

- (1) Improve user experience by reducing latency;
- (2) Charge zero service fees when providing services to transacting parties.

3.1 Encryption Model

Encryption and decryption of information is critical to blockchain. The key is Hash function and asymmetric encryption algorithms.

1)Hash function: algorithms including SHA and MDS are most commonly used. Sometimes algorithms are combined or several algorithms are used. But commercial applications require performance. The EChain Network thus decided to use SHA256.

2)Asymmetric encryption: algorithms include RSA, DSA and elliptical curve algorithms. Most blockchains use elliptical curve algorithms such as ECDSA and SCHNORR. Given verification of SCHNORR signature is faster than that of ECDSA signature, SCHNORR signature is smaller and supports multi-signature, the EChain team think it fits the nature of real-world assets being numerous and varied. Therefore,

the ECSchnorr algorithm was developed based on SCHNORR.

3.2 Consensus Mechanism

Consensus mechanisms are designed to ensure the accuracy and consistency of information stored on blockchain. It is determined by the purpose and performance requirements of specific blockchains. Given the huge variety and quantity of physical assets, art collectibles, credits and other assets and the tremendous number of participants in transactions, the underlying blockchain must be extremely secure and high-performance. That is why ECFT algorithm is being proposed and lessons have been learned from highly consistent RAFT and highly concurrent PBFT algorithms to ensure safety, high performance and trust. ECFT has the following features:

1)Based on RAFT, the electing of a leader out of all the network nodes who will be responsible for the production of new blocks;

2)All nodes will broadcast transactions sent by clients to the network and the leader will sequence the transactions to be put into the new block and create a list. It will then broadcast the list to the network.

3)After receiving the list, nodes will mimic execution of transactions according to the listed sequence. After all transactions are executed, they will compute the Hash digest of the new block based on the transaction results and broadcast it to the network;

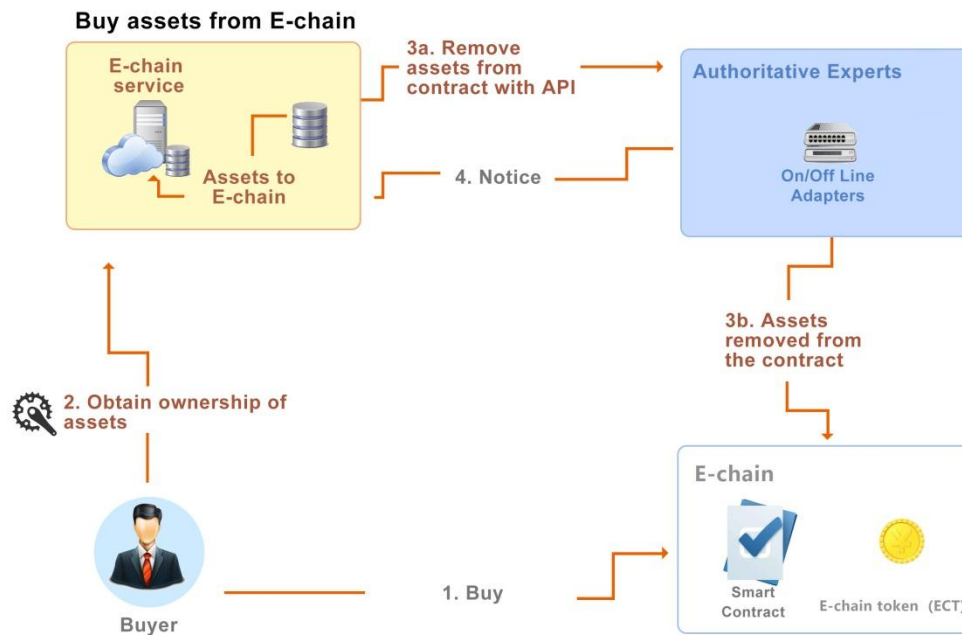
4)If a node finds the digest sent by $3f$ (f is the number of EChain nodes that can be tolerated) nodes is equal to its computational result, it will broadcast a commit message to the network;

5)if a code receives $3f+1$ commit messages, it can submit the new

block and transactions contained therein to the local blockchain and status database.

3.3 Smart Contracts

Every physical asset, art collectible or credit, after being authenticated or audited, will be given a globally unique identifier to mark their identity. This identifier is viewable to all participants on the EChain Network. Yet keys are used to sign data records sent from an address and thus are only viewable to device owners. The EChain Network creates wallets for participants to improve security and protect transactions against DDoS attack. Every time when there are transactions involving physical assets, art collectibles, credits or other assets, GAS will be generated. Like ordinary wallets, each smart contract has a unique public address. However, the private keys of smart contracts will be discarded once the contracts are created. As a result, except for the consensus mechanism, no one can send tokens contained in smart contracts once they have been created. If owners want to monitor their physical assets, art collectibles, credits and other assets, they can set smart contracts, data storage path and amounts in advance and broadcast to the network and store the information on the blockchain. When there are anomalies, the smart contracts of the EChain Network will require compulsory, real-time and automatic triggering. Data that triggers smart contracts are also protected by blockchain, which ensures their accuracy, safety and reliability. Once asset-selling smart contracts are created, any participant can use their own digital wallets to spend ECT to buy tokenised physical assets, art collectibles and credits available for sale.



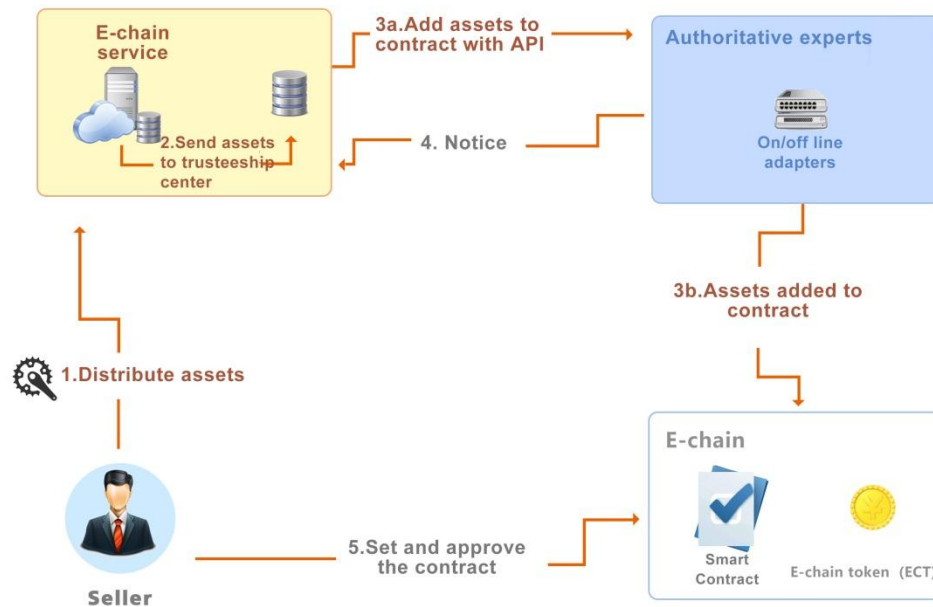
After finishing the purchase process, smart contracts will automatically update ownership data on the blockchain, send ECT to the seller and distribute ECT commissions to asset issuers, trusted suppliers and/or third-party facilitators, such as marketplaces.

The EChain Network will provide a smart wallet App to provide better user experience. Participants can also choose other wallets that are compatible with the EChain Network. Asset issuers can choose to develop their own smart wallet App and integrate real-world assets transactions into it. As the ecosystem grows, it is expected that more developers to develop more mature wallets, tools and Apps to meet the various needs of participants.

3.4 Oracle

Blockchain uses smart contracts in a trustless environment to ensure transaction safety while avoiding the need for trust. However, it has limitations when it comes to complex applications such as video. Smart contracts cannot be deployed until assets are authenticated. Due to the fact that blocks sometimes take a while to be produced, one has to rely on off-chain notifications. Indeed, blockchain can be used to store data, due to multiple technical reasons however, it cannot be used as a complete database of assets. In particular, when assets change hands, there is a need for fast data processing and the possibility of data status changing rapidly. Blockchain is usually used to store data that can prove asset ownership and transfer records to facilitate asset transactions and convince buyers. The EChain team sees blockchain as a custody service which allows participants to change asset ownership while smart contracts provide a means of authentication of transactions for payers. According to this design philosophy, oracle is also a type of smart contract. Yet it can be triggered by some trusted external data. By making oracle a type of smart contract, the EChain Network makes it easier to design and realise oracle. Below is shown how assets are sold on the EChain Network. When smart contracts are created and published on the blockchain, it only allows participants to move assets to a “warehouse” , “bank” or facilities with similar functions.

Distribute Assets with E-chain



In this system, when assets are put under custody, owners will receive a secondary token to represent their ownership of the asset. After their tokenised assets are sold, buyers will become the new owners. Only when one of the following conditions is met will tokens representing these assets be removed:

- (1) owners cancel the smart contracts;
- (2) New owners execute smart contracts and obtain ownership. They can then create and specify new smart contracts. Sellers can publish their sales-offering contracts in marketplaces or send them to potential buyers.

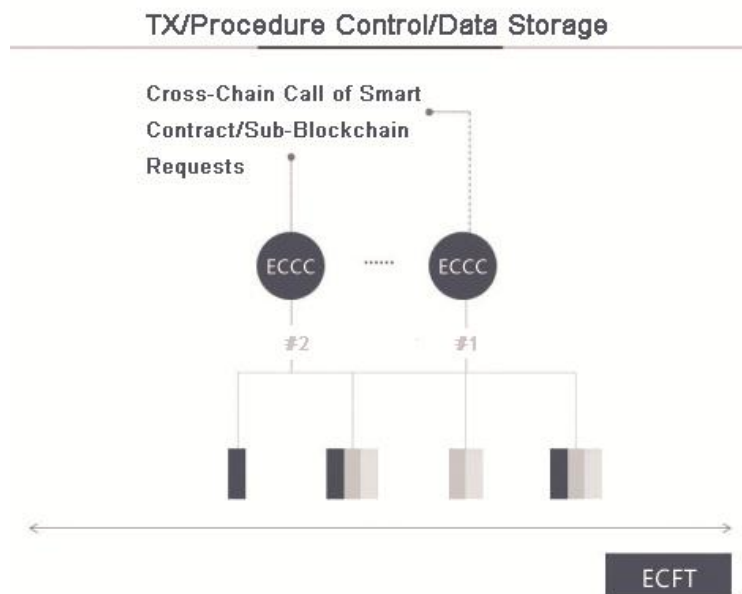
3.5 Cross-chain Mechanism

Given the need to move tremendous amounts of various assets onto blockchain, the EChain Network proposes to use layered consensus stacking technology to solve performance and efficiency problems. ECCC

(EC cross-chain) is a spin-off of the EChain Network that supports cross-chain contracts, featuring:

- 1) layered structure and replaceable functional modules.;
- 2) support for multiple transactions, smart contracts and customised token issuance;
- 3) replaceable forms of data storage, such as non-relational database, such as SQLite and RocksDB;
- 4) support for multiple consensus protocols in addition to ECFT, such as PoW and PoS;
- 5) support for pluggable authentication schemes and injectable user protocol and allows for the use of existing consensus nodes to deploy and integrate with new blockchains;
- 6) internal diversion schemes to improve the communications and storage performance.

Below shows working procedure of cross-chain contracts:



Chapter 4 Business Model of the Project

4.1 Ecosystem

4.1.1 Token Issuance

Issuers can issue different types of tokens to represent services (such as service offered by artists or engineers), dollars, gold, securities, collaterals, smart assets or advanced financial agreements with special purpose. Users can use smart contracts on the EChain Network to issue tokens and use ECT to provide underlying circulation support.

4.1.2 Asset Transaction Platform

The EChain Network will provide a high-performance and decentralised transaction platform where in addition to art collectibles, secondary tokens issued via smart contracts of the EChain Network, securities, bonds, indices and inflation can be transacted. It also allows the pledge of collaterals to enable leveraged transactions and futures contracts to hedge users' position.

The core value of the transaction platform lies in:

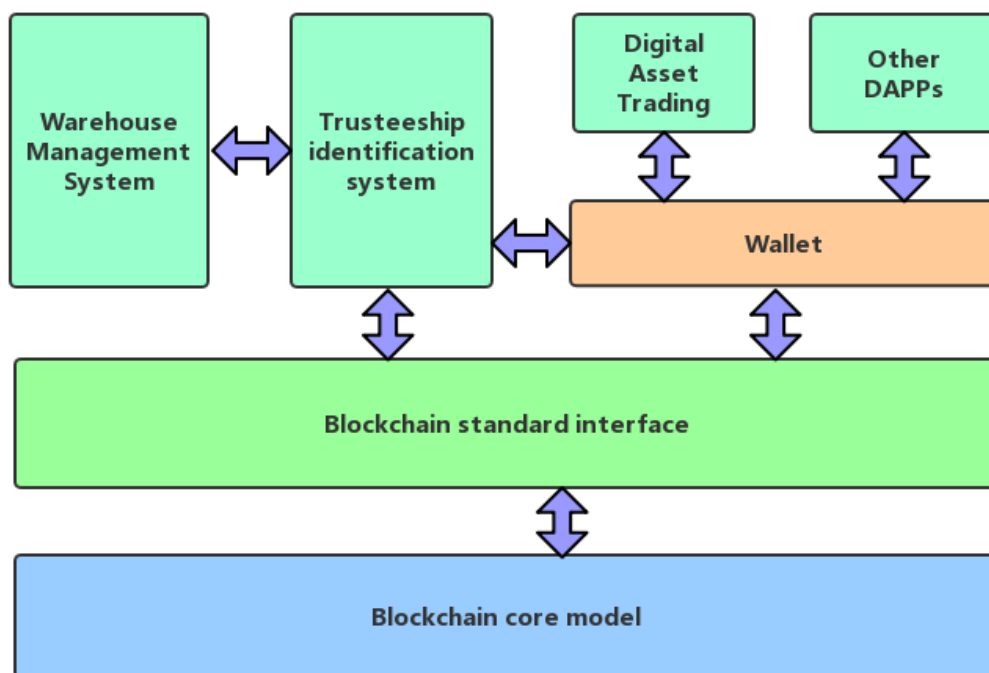
- Securitised transactions of secondary tokens issued by various third party issuers;
- The EChain Network will become an important virtual venue and bridge to link information stored on Blockchain with real-world assets;
- Using blockchain technology and smart contracts to allow users to track asset transfers and manage their portfolio.

4.1.3 Coin and Stamp DApp

With blockchain technology and thanks to smart contracts, all kinds of coin and stamp DApps can be developed on the EChain Network to form a coin and stamp ecosystem for all participants. Users can use the EChain Network to authenticate, collect, buy and sell coins and stamps and consolidate resources throughout the value chain to build a closed-end coins and stamps transfer and withdrawal system while solving trust, transfer, authentication, traceability and related financial problems in the industry. By moving all resource onto blockchain, all the transactions can happen on-chain and no one is able to tamper with them.

(1) Architecture

This DApp is built on top of the underlying blockchain, standard Api and wallet system. Its architecture is as follows:



(2) One Custody and Authentication Centre

Owners will send their coins and stamps to a designated Custody and Authentication Centre for authentication. Authenticated assets will then be shipped to a warehouse for storage. Authentication is highly professional. By setting up an independent authentication centre, the professional authentication, classification and documentation of different types of coins and stamps will be ensured.

To make it easier for coin and stamp owners, when conditions are ripe, local authentication offices will be set up in major cities around the world, staffed by certified authenticators to provide professional services.

In the process of authentication, when experts are called in, all relevant information, such as information of holders, authenticators, art collectibles and authentication results will be stored in blockchain and stay there forever. No one will be able to tamper with it. AI technologies and in particular, image recognition technology to do authentication and results will be directly submitted to the blockchain.

(3) Warehouse

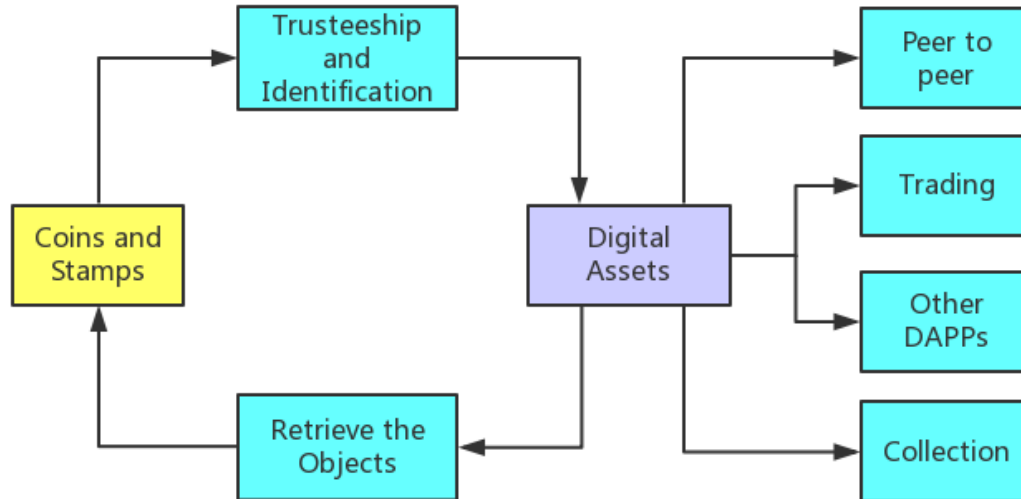
After authentication, coins and stamps will be shipped to a warehouse for safe storage. The system of the EChain Network will then send to the wallet of the asset holder corresponding number of tokens representing their holdings. Holders can claim back their assets from the warehouse by showing their tokens in their DApp. They can also transfer their tokens to other people's wallets.

(4) Token Transactions

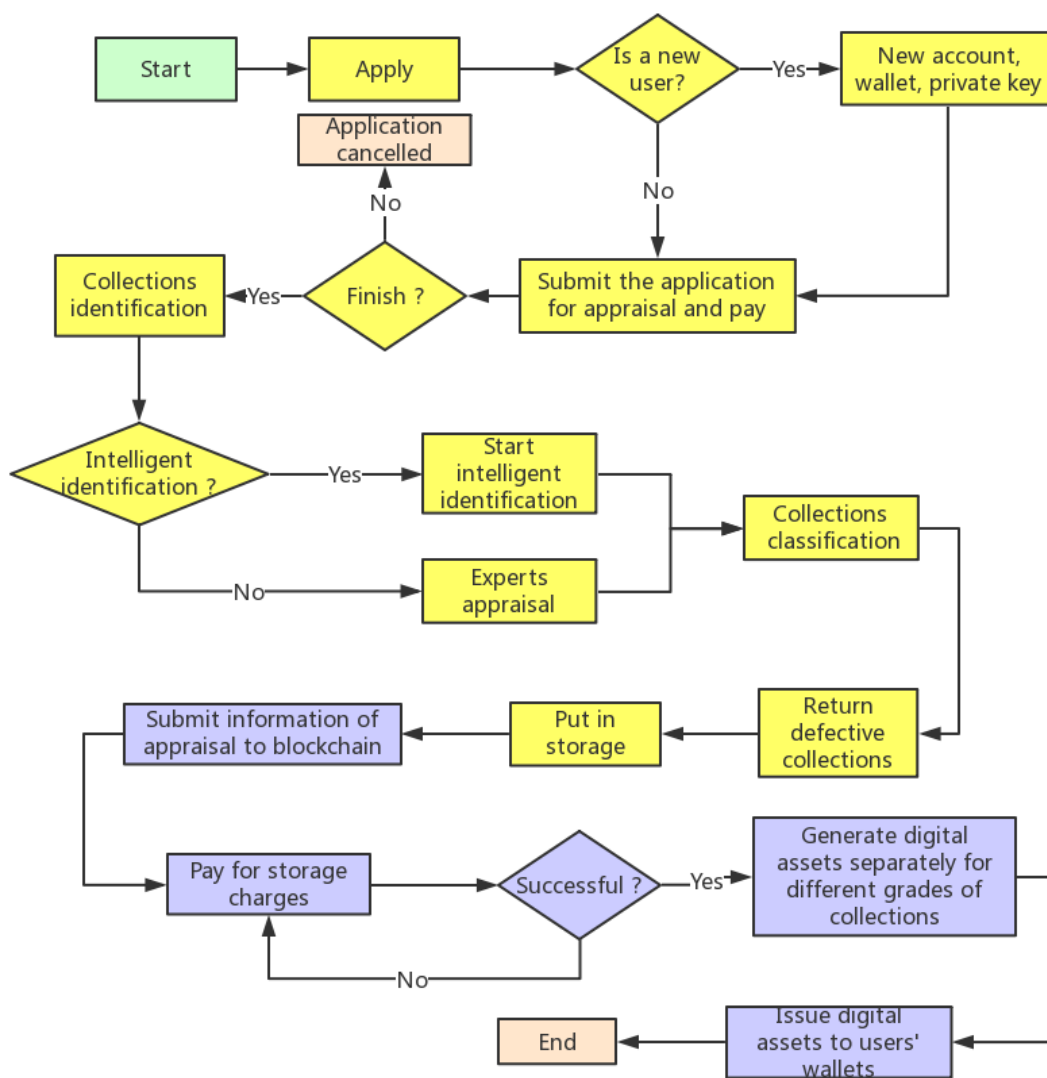
Users can trade tokens on the transaction platform to manage the value of their token assets. The platform will provide a great variety of coins and

stamps so that people all over the world can participate in tokenised coins and stamps trading.

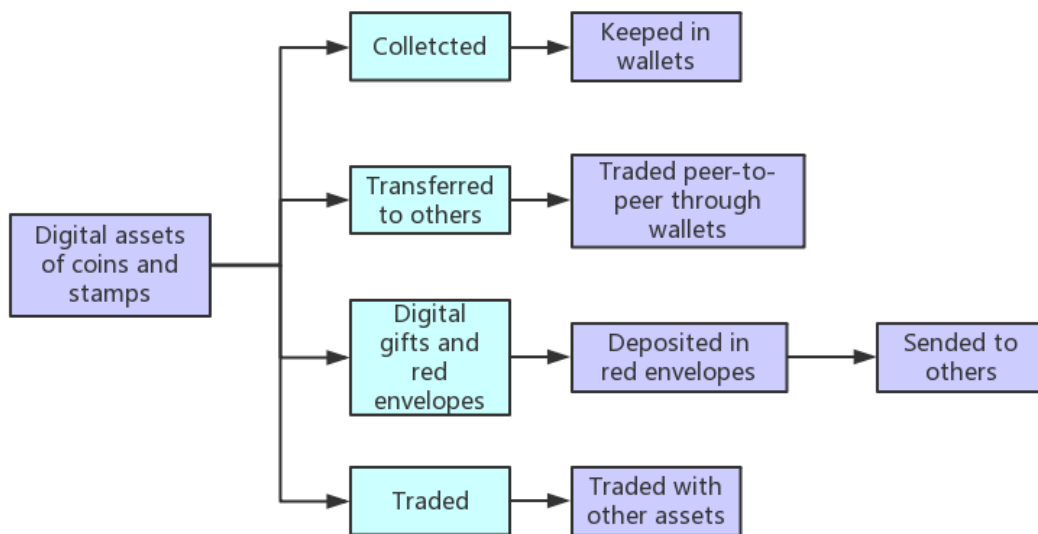
(5) Product Lifecycle



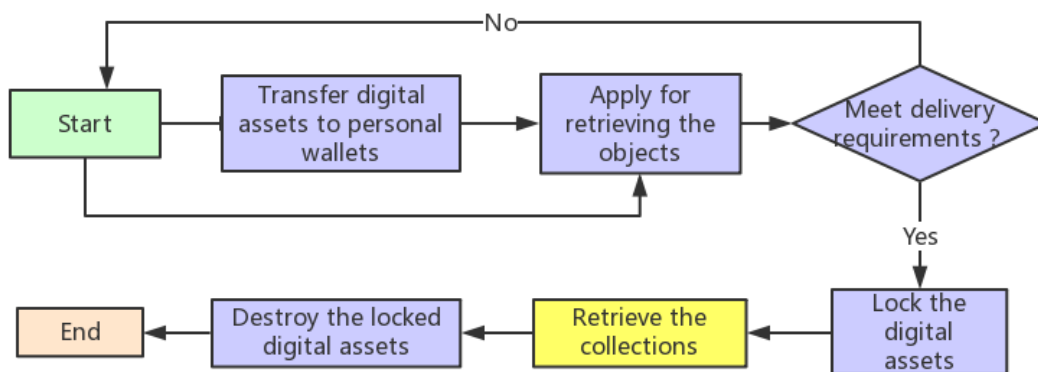
Authentication and custody: holders of coins and stamps apply for authentication according to the policies of the EChain Network and send the physical assets to its authentication centre for authentication. Collectibles will be classified. All information in the process of authentication will be stored in the blockchain and made public.



Tokens transfer: holders of coins and stamps can trade their tokens via the platform of the EChain Network or over the counter. They can give their tokens as gifts to others or keep them in their wallets. In the future, there are plans to add a red packet function to the DApp so that owners can place some tokens in virtual red packets and send them as gifts to their family members and friends.

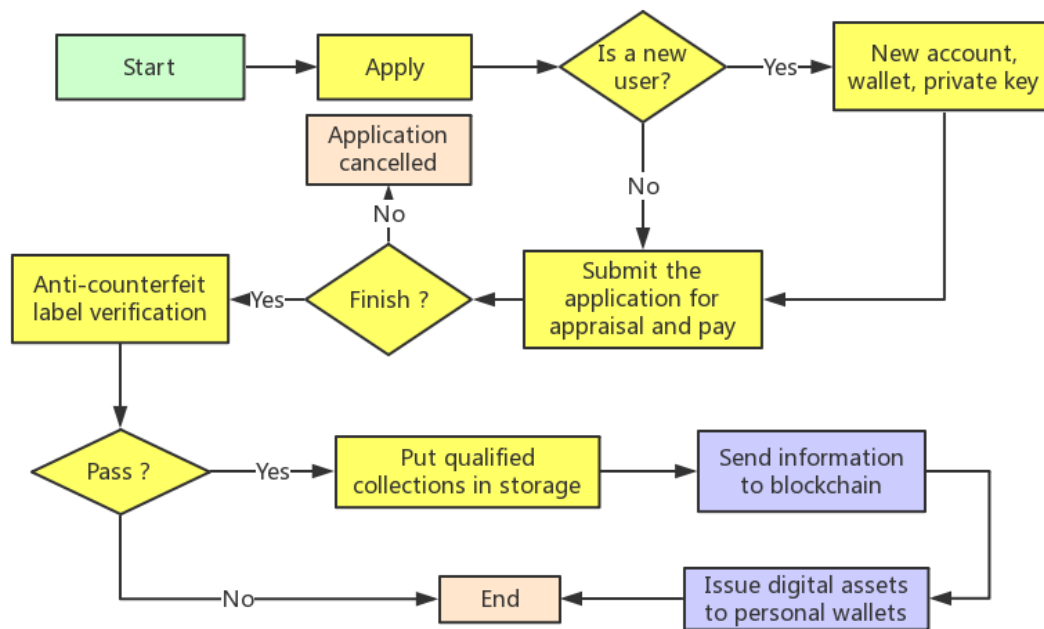


How to claim one's assets from the warehouse: owners of coins and stamps can claim their assets via DApp. They can also claim assets stored in other platforms as long as assets are moved to their personal wallets in DApp. Given the nature of coins and stamps, users have to claim at least a minimum amount.



Warehousing of claimed assets: all assets withdrawn from the warehouse will be packaged and labelled. Users can choose to keep the assets or give them to others. When packaged assets are to be sent to the warehouse again, as long as the packaging is intact, they do not have to go through

another authentication process.



4.2 Incentives

The token incentives of the EChain Network includes the network maintenance incentive and applications ecosystem incentives.

■ **Network Maintenance Incentive:** Consensus on the EChain Network will be ensured by all record-keeping nodes who will receive 50% of ECT transaction fees as an incentive for their contribution to maintain the safety and stability of the EChain Network. The remaining 50% will be sent to EChain Applications Ecosystem Incentive Pool to provide incentives to people who have made contributions to the ecosystem.

■ **Applications Ecosystem Incentive:** The EChain Network will, on a regular basis, extract a certain amount of ECT from the Applications Ecosystem Incentive Pool proportional to the interaction frequency between users and the ecosystem, contributions and activities of users to

the ecosystem, as well as their influence. All metrics will be quantifiable and verifiable. They can be computed by record-keeping nodes and incentives will be allotted on the basis of Proof of Interaction (POI). Users of the EChain Network and/or holders of ECT which did not actively participate will not receive any ECT incentives.

The incentive pool will give out a certain amount of ECT as incentives on a monthly basis. Every month, ECT will be distributed. After 12 rounds, the amount of incentives will be reduced to 90% of previous amount. When there are less than 1,000,000 ECT in the incentive pool, the system will stop giving incentives.

Compute:

$$\text{Participants' ECT incentives: } Q = \frac{Xm}{\sum_{i=1}^n Xi} * Qw$$

$$Xm = \sum_{i=1}^k \beta_i F_i$$

k is the number of factors. F_i represents the value computed by regressing all factors showing participants' contributions to the platform (incentive factors include, but are not limited to interaction factor, online time factor, token issuance factor, token transactions value factor and active value factor). β_i represents weightings.

Chapter 5 Token Design

5.1 Introduction

The native digital cryptographically-secured utility token of the EChain Network (**ECT**) is a major component of the ecosystem on the EChain Network, and is designed to be used solely as the primary token on the network. ECT will initially be issued by the Distributor as ERC-20

standard compliant digital tokens on the Ethereum blockchain, and these will be migrated to tokens on the native blockchain when the same is eventually launched. ECT is a non-refundable functional utility token which will be used as the unit of exchange between participants on the EChain Network. The goal of introducing ECT is to provide a convenient and secure mode of payment and settlement between participants who interact within the ecosystem on the EChain Network. ECT does not in any way represent any shareholding, participation, right, title, or interest in the Foundation, the Distributor its affiliates, or any other company, enterprise or undertaking, nor will ECT entitle token holders to any promise of fees, dividends, revenue, profits or investment returns, and are not intended to constitute securities in Singapore or any relevant jurisdiction. ECT may only be utilised on the EChain Network, and ownership of ECT carries no rights, express or implied, other than the right to use ECT as a means to enable usage of and interaction with the EChain Network.

Accounts of ECT holders will correspond to certain public key and account information will be recorded in blockchain ledgers while digital digest of all account information will be recorded in blocks. ECT has all the characteristic fundamental technological features of tokens, such as freedom of transaction, traceability and protection against double-spending attack. These features will be ensured by the ledger structure of the EChain Network and smart contracts of its core channel. When users utilise on-chain applications, they are required to either spend or purchase ECT. The EChain team will develop wallets for companies or institutional users

which can provide all basic functions that allow their wallets to interact with other EChain Network -based applications.

Total amount of ECT is fixed at 5 billion and there will be no further additional issuance.

5.2 Basic Functions of ECT

ECT measures and reflects economic behaviours on the EChain Network and its related services as a medium of exchange. Using the EChain Network or EChain Network-based applications requires a certain amount of ECT. ECT is mainly used to facilitate transactions on the EChain Network, used as transaction commissions or fees for using certain applications.

ECT is required as virtual crypto “fuel” for using certain designed functions on the EChain Network, providing the economic incentives which will be consumed to encourage participants to contribute and maintain the ecosystem on the EChain Network. Computational resources are required for executing smart contracts on the EChain Network (such as serving as collateral for issuing tokens or service fees for using smart contract-based services), as well as the validation and verification of additional blocks / information on the blockchain, thus providers of these services / resources would require payment for the consumption of these resources (i.e. "mining" on the EChain Network) to maintain network integrity, and ECT will be used as the unit of exchange to quantify and pay the costs of the consumed computational resources. ECT is an integral and indispensable part of the EChain Network, because without ECT, there would be no incentive for users to expend resources to participate in

activities or provide services for the benefit of the entire ecosystem on the EChain Network.

ECT are designed to be consumed, and that is the goal of the ECT token sale. In fact, the project to develop the EChain Network would fail if all ECT holders simply held onto their ECT and did nothing with it.

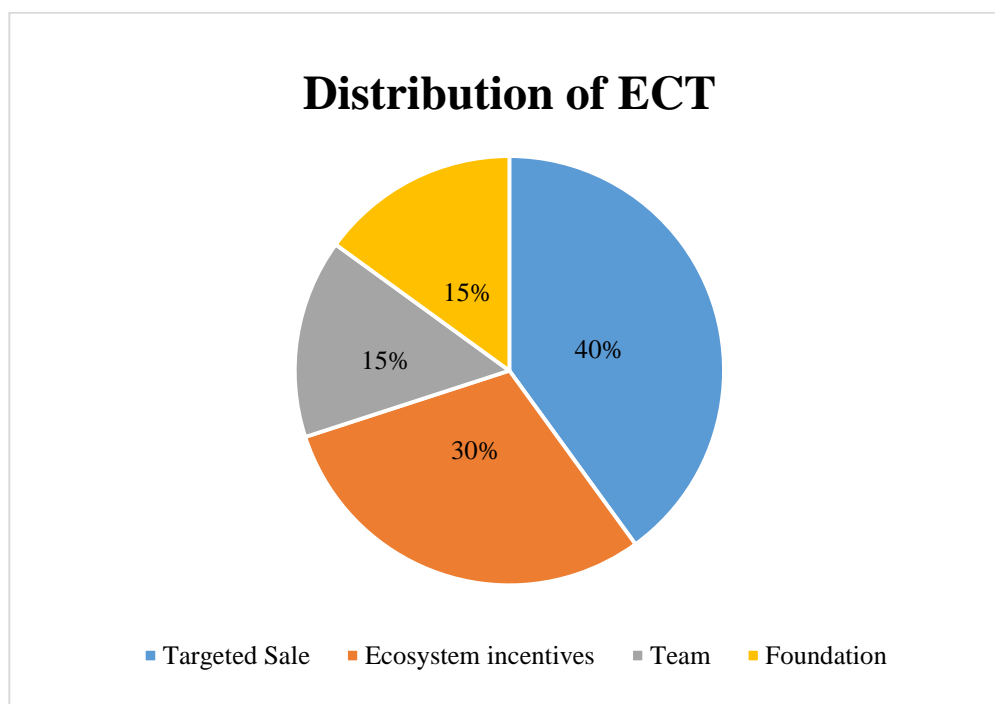
In particular, you understand and accept that ECT:

- (a) is non-refundable and cannot be exchanged for cash (or its equivalent value in any other virtual currency) or any payment obligation by the Foundation, the Distributor or any affiliate;
- (b) does not represent or confer on the token holder any right of any form with respect to the Foundation, the Distributor (or any of its affiliates), or its revenues or assets, including without limitation any right to receive future dividends, revenue, shares, ownership right or stake, share or security, any voting, distribution, redemption, liquidation, proprietary (including all forms of intellectual property), or other financial or legal rights or equivalent rights, or intellectual property rights or any other form of participation in or relating to the EChain Network, the Foundation, the Distributor and/or their service providers;
- (c) is not intended to represent any rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss;
- (d) is not intended to be a representation of money (including electronic money), security, commodity, bond, debt instrument or any other kind of financial instrument or investment;
- (e) is not a loan to the Foundation, the Distributor or any of its affiliates,

is not intended to represent a debt owed by the Foundation, the Distributor or any of its affiliates, and there is no expectation of profit; and

- (f) does not provide the token holder with any ownership or other interest in the Foundation, the Distributor or any of its affiliates.

5.3 Distribution of ECT



The Distributor which issues and sells ECT shall be an affiliate of the Foundation. The total amount of ECT is fixed at 5 billion, including 40% for targeted sale, 30% for ecosystem incentives, 15% for the team and 15% for the EChain Foundation (the **Foundation**). The contributions in the token sale will be held by the Distributor (or its affiliate) after the token sale, and contributors will have no economic or legal right over or beneficial interest in these contributions or the assets of that entity after the token sale.

- ◆ **Targeted Sale: 40%** or 2 billion will be sold to selected purchasers;
- ◆ **Ecosystem incentives:** 30% or 1.5billion will be used to incentivise participants (users or developers) who have made contributions to the ecosystem of the EChain Network.
- ◆ **Team: 15% or** 750 million will be distributed to the team and early contributors with a vesting period of 3 years. Every quarter, 1/12 of the 750 million ECT will be unfrozen.
- ◆ **Foundation: 15% or** 750 million will be used for community growth, technology R&D, business development, media reports, education and cooperation and funding reserved for major incidents or other systemic risks.

To the extent a secondary market or exchange for trading ECT does develop, it would be run and operated wholly independently of the Foundation, the Distributor, the sale of ECT and the EChain Network. Neither the Foundation nor the Distributor will create such secondary markets nor will either entity act as an exchange for ECT.

Chapter 6 Team and Partners

6.1 About the Team

- ◆ **Snail** is engaged in film and television production and training in Australia. He has rich experience in overseas community operation, film photography, editing, special effect synthesis, tone color and color science and he is a participant in the early rise of the blockchain industry. He was invited to show the color palette of Blackmagic

Design company Da Vinci Resolve in Sydney SMPTE 2017 exhibition.

- ◆ **Mike** is a scientist in the direction of computer vision technology and he is an expert in combining computer technology with blockchain. His website FXGuide and FXPHD are focused on pan-entertainment computer technology teaching and research. It has a great influence on Hollywood and attracts many related people and experts.
- ◆ **Gordon** is an expert in the art industry and in particular has profound attainments on coins. He is committed to pushing valuable art assets to the world and put forward the combination of blockchain technology and real assets.
- ◆ **Ling**, a double PhD in computer, is experienced in the pre research of innovative projects (social computing, Internet finance, social data), financial e-commerce operation platform (business city, micro commercial city, art social trading platform). He is a senior expert in blockchain technology and responsible for the overall architecture design of EChain.
- ◆ **Clarence** is a senior legal expert and is a top lawyer. His business areas includes banking, finance, and financial services supervision. He will provide legal related work for EChain.
- ◆ **George** has rich blockchain communities operation experience, such as Ethereum、Qtum、Bitshare、EOS and so on. He is a collector of artworks and has strong business promotion ability.
- ◆ **Eric** is an early participant of Bitcoin and an active promoter of the Ethereum community. He has deep research on blockchain distributed systems, network security, encryption algorithms, consensus algorithms, and smart contracts.

6.2 Partners



Chapter 7 Project Development Plan

Development	Timeframe
Preparations	2017.03
Team Expansion and Onboarding of Early Strategic Partners	2017.09
Determination of the Mission and Completion of Overall Planning of the EChain Network	2017.11
Strategic Partners Boost the Development of	2017.12

the EChain Network	
First Draft of the WhitePaper of the EChain Network	2018.02
Completion of Targeted Sale Planning	2018.03
Completion of Basic Framework of the EChain Network, Including the Bottom Layer, Core Layer and Service Layer	2018.05
Establishment of the EChain Foundation and Meeting with Exchanges	2018.07
Token Issuance on the EChain Network, such as Tokenised Coins and Stamps	2018.07
Upgrading of the System of the EChain Network to Make it Commercially Available	2018.10
Recruiting More Partners from all All Over the World and Cooperating with More Projects to Build a Global EChain Network Ecosystem	Future

Chapter 8 Community Governance Structure

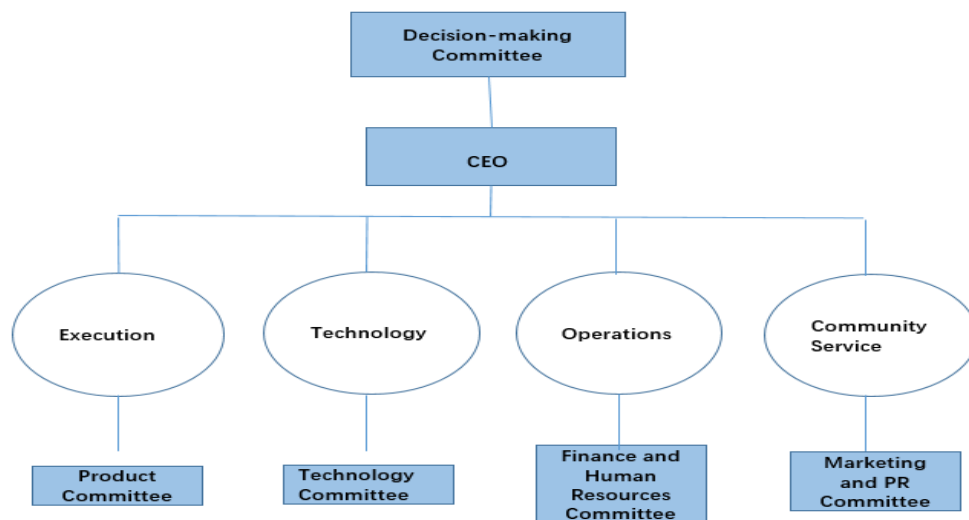
8.1 Management

The EChain Network will managed by a Singapore-based Foundation which, together with its affiliates, will be responsible for the development, marketing and operations of the EChain Network. The ultimate governing body of the Foundation shall be the Board of Directors – reporting to the Board of Directors would be the Product Committee, Technology

Committee, Finance and Human Resources Committee and Marketing and PR Committee. Members of the Board of Directors will serve a term of two years each, and the first Board of Directors will be composed of the core team members of EChain, blockchain industry celebrities and early supporters of the project.

8.2 Community Governance Structure of the EChain Network

The community governance structure of the EChain Network includes SOP and rules for routine work and in case of unexpected events. The chart shows how the EChain Network will be governed:



Board of Directors

The Board of Directors, it is responsible for hiring and terminating contracts with CEO and heads of all other committees, making important decisions and calling emergency meetings. Members serve 2 years during each term. After the members of the Foundation will elect at least 7 core

members of the Board of Directors who will make important and urgent decisions on behalf of the community of the EChain Network. Board members have to pass due diligence and make public their compensation when in office,

CEO

The CEO will be elected by the Board of Directors and responsible for the day-to-day operations and management of the community of the EChain Network, coordination of functional committees and chair Decision-making Committee meetings etc. He/she will report to the Board of Directors regularly.

Product Committee:

The Product Committee will be responsible for the design, development and planning of the community of the EChain Network and its partnership building.

Technology Committee:

The Technology Committee will be composed of core developers of the EChain Network and will be responsible for the development and quality control of the underlying technology and products. The committee will hold weekly meetings to track the status of development and for communication. Members of the committee have to be aware of community interests and trends on the EChain Network, communicate with token holders and hold irregular Devcons or tech meetups.

Finance and Human Resources Committee:

This committee will oversee the use of funding, remuneration of developers, operational costs etc.

Marketing and PR Committee

It is the mission of this committee to serve the community of the EChain Network, promote the products and services of the EChain Network and its open-source projects. It will be responsible for publishing announcements and media cooperation.

Financial Management:

The Board of Directors EChain Network promises that all tokens raised will be used for advancing, promoting the research, design and development of, and advocacy for a blockchain-based infrastructure level network which allows for tokenisation of all valuable real-world assets and facilitating transactions in a decentralised ecosystem to improve asset liquidity, which would require expenses in the areas of community development and building.

Auditing:

Given the special nature of token, it is hard to regulate the various companies and institutions under the current policy framework. To ensure transparency of the governance of the EChain Network and token usage, the Board of Directors will hire professional auditors to conduct auditing.

Chapter 9 Risks

You acknowledge and agree that there are numerous risks associated with purchasing ECT, holding ECT, and using ECT for participation in the EChain Network. In the worst scenario, this could lead to the loss of all or part of the ECT which had been purchased. **IF YOU DECIDE TO PURCHASE ECT, YOU EXPRESSLY ACKNOWLEDGE, ACCEPT AND ASSUME THE FOLLOWING RISKS:**

1. Policies regarding blockchain projects or token sale for fundraising in major countries are still uncertain. There is a risk of losses due to policy reasons. The regulation of virtual currencies has become a primary target of regulation in all major countries in the world. It is impossible to predict how, when or whether regulatory agencies may apply existing regulations or create new regulations with respect to such technology and its applications, including ECT and/or the EChain Network. Regulatory actions could negatively impact ECT and/or the EChain Network in various ways. The Foundation, the Distributor (or its affiliates) may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction. After consulting with a wide range of legal advisors and continuous analysis of the development and legal structure of virtual currencies, a cautious approach will be applied towards the sale of ECT. Therefore, for the token sale, the sale strategy may be constantly

adjusted in order to avoid relevant legal risks as much as possible. For the token sale, the Foundation and the Distributor are working with Tzedek Law LLC, a boutique corporate law firm in Singapore with a good reputation in the blockchain space.

2. Token trading is highly uncertain and supervision is still in large part lacking in this area, giving rise to a risk of token prices rising or falling dramatically or being manipulated.

3. There are numerous blockchain projects, making this area highly competitive. The EChain Network has a proven track-record of its competitiveness and will remain committed to development. But we are unable to guarantee success.

4. The EChain team will go all out to achieve the goals proposed in this WhitePaper and pursue long-term development. However, given the uncertainty of external environment and internal resources, we will reserve the right to make changes to the WhitePaper without prior notifications.

5. The future of the EChain Network will be dependent on the development of blockchain technology and cryptography. Given blockchain is still in the very early stage and cryptography is developing rapidly, the EChain team does not guarantee all technologies discussed in the WhitePaper will become a reality and all projects risk being hacked by hackers, thus causing losses to users.

6. There is the risk that the development of the EChain Network will not be executed or implemented as planned, for a variety of reasons, including without limitation the event of a decline in the prices of any digital asset, virtual currency or ECT, unforeseen technical difficulties, and shortage of development funds for activities.

7. In addition to the above-mentioned risks, there are other unmentioned or unexpected risks in this brand-new area of cryptocurrency assets (as more particularly set out in the Terms and Conditions) associated with your purchase, holding and use of ECT, including those that the Foundation or the Distributor cannot anticipate. Such risks may further materialise as unanticipated variations or combinations of the aforementioned risks. You should conduct full due diligence on the Foundation, the Distributor, its affiliates and the EChain team, as well as understand the overall framework, mission and vision for the EChain Network prior to purchasing ECT.