USELINK

USE BLOCK CHAIN , LINK CREATES VALUE FUTURE

WHITE PAPER VERSION 2.0

WRITER：PCA实验室

http://www.uselink.cc/

CONTENTS

PART ONE

PROJECT BACKGROUND & INDUSTRY BOTTLENECK

Uselink

BLOCK CHAIN WORLD &
BOTTOM PUBLICCHAIN

At the beginning of 2009, the Bitcoin network began to launch, which opened the curtain of the first generation of public chains.The infrastructure technology that supports Bitcoin operations -blockchain is actually a distributed ledger and peer-to-peer value transfer technology. Various institutions have started the first round of exploration of blockchains,especially the of public chains.

Around 2014, the world began to realize the greater value of blockchain technology and used it in other areas, such as distributed KYC, distributed autonomous organizations, and distributed domain name systems.

During this period, the comprehensive functional public chain began to appear, and supported the diversified business by smart contract, and derived a number of DAPP scenarios.

With the growth of the blockchain market and the issuance of crypto assets, the market value of global cryptocurrency has exceeded $600 billion dollars. Due to the popularity of ICO.There are more than 1,600 currency, and the market value of the top ten currencies is 90%. The value and circulation of digital assets is becoming more and more serious.

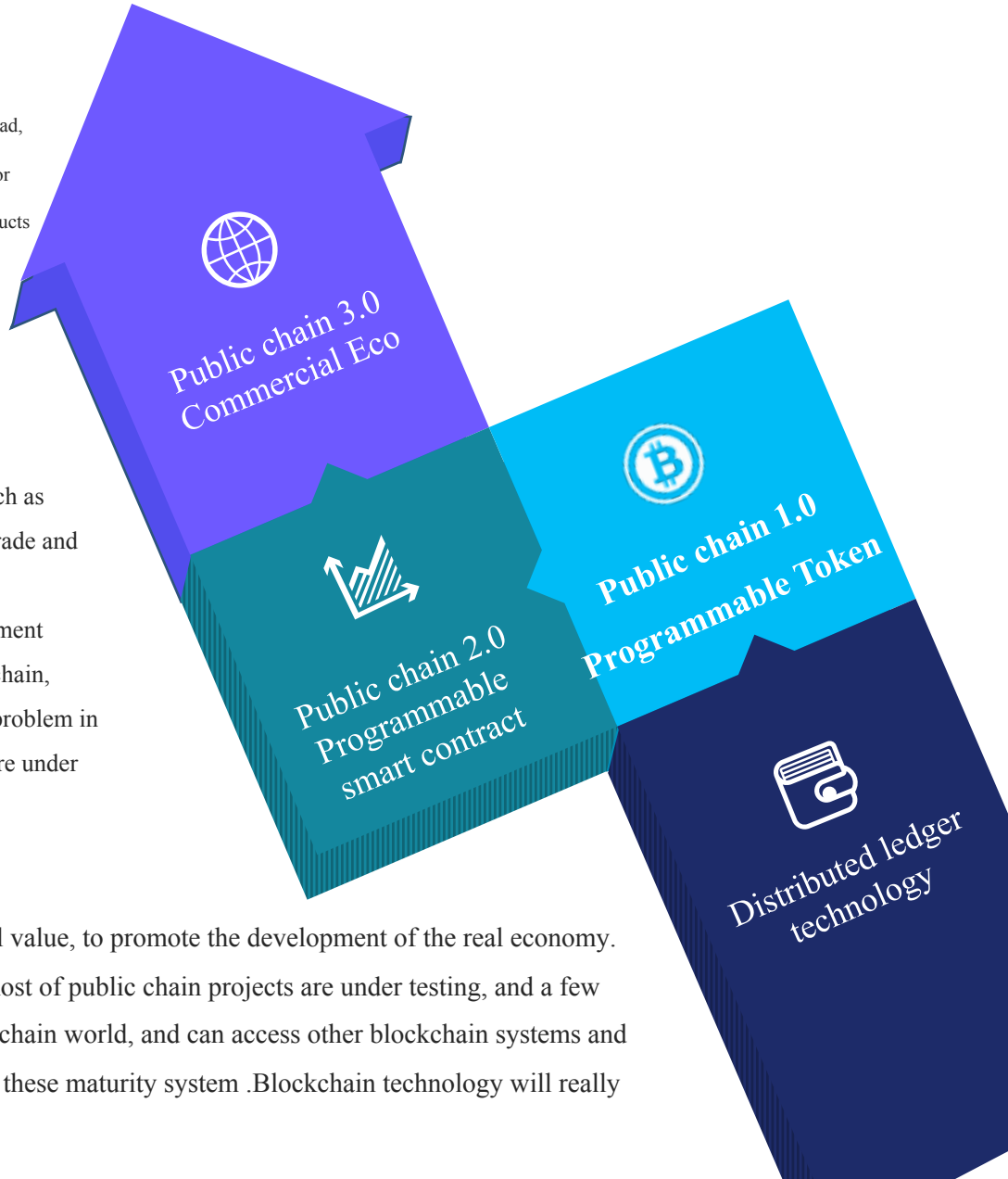
The bottom public chain is the infrastructure. Through its stable and efficient operation, the blockchain application can be better developed and launched. At present, there are no solutions for the three major problems of security, smoothness and compatibility, which seriously restricts the development of the blockchain industry!

Uselink

SITUATION&PROBLEM

DEVELOPMENT & MODE

· Public Blockchain，It refers to the consensus blockchain that anyone can read, send, and obtain valid confirmation. The public chain project is responsible for formulating the infrastructure protocols and standards, and then forming products that enhance the performance .



1.0 Public Blockchain 1.0 era

BTC is the first generation of public chain. BTC was originally designed as a payment tool at the beginning and can only be used for value transfer.BTC's scripting language is Turing's incomplete,can't execute looping statements,and has poor scalability.Many advanced applications cannot be built. However, the digital currency at this stage makes P2P transmission of basic value information and data a reality.

2.0 Public Blockchain 2.0 era

During blockchain 2.0 era, the infrastructure platforms such as ETH, NEO, QTUM, etc. has emerged, which aims to upgrade and innovate through consensus mechanisms, smart contracts, development components, transaction speed, and development language. Innovations in fragmentation, cross-chain, sidechain, digital identity and design techniques, trying to solve the problem in commercial application, but many technology platforms are under development at present .

3.0 Public Blockchain 3.0 era

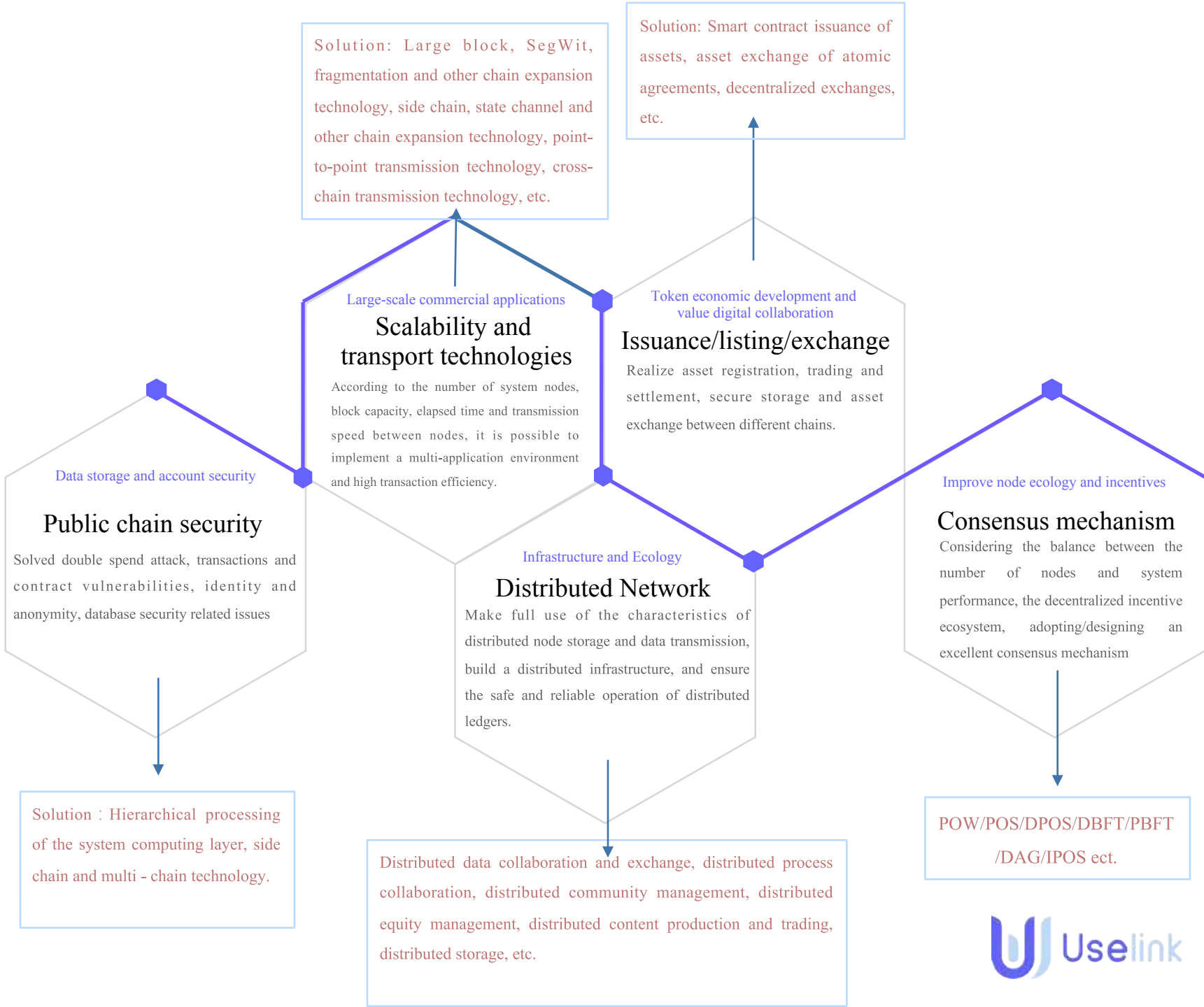
The third-generation public chain is aimed to be applied in large scale commerce, linked to actual assets and real value, to promote the development of the real economy. Currently, there are EOS, Cardano, Ont, ADA, etc., which are competing in the blockchain 3.0 era. However, most of public chain projects are under testing, and a few main chain are still under exploratory ; Excellent projects will become the connector of the real world and blockchain world, and can access other blockchain systems and support large-scale transaction processing requirements, There will have more blockchain applications based on these maturity system .Blockchain technology will really enter the real life.

Core Elements Of The Excellent Public Chain

Infrastructure Blockchain Framework

In order to spread the blockchain technology and application widely, an excellent infrastructure public chain requires the following core elements. At present, some solutions have came up:

MORE



Uselink

What Problems Are The Public Chain Platform Facing

Consensus mechanism

At present, the development, efficiency and security are in the bottleneck.To promote the resources of the whole node and maintain the entire network, the public chain system needs a more effective, faster and safer consensus system. Design incentives to ensure operating healthily!

Smart contract

Because smart contracts are irreversible, all vulnerabilities are visible. The more powerful smart contract it is, the more logically complex it is, and it is more likely to have a logical loophole, attracting hackers.

KYC&Privacy protection

Now, the data transmission and storage on the public chain is public, and protecting the two sides' transaction only by the "pseudo-anonymous". For certain business scenarios involving a large number of trade secrets and benefits, the exposure of the data does not meet business rules and regulatory requirements.

Efficiency and safety

Need to solve scalability, throughput, latency and security, how to reduce billing nodes, improve efficiency, and ensure that each transaction is legal and credible.

Storage limit

In a decentralized network, each full node stores more and more data, so data storage brings huge overhead. This will cause storage to become a huge bottleneck in blockchain applications.

Asset circulation &Swap

The asset transfer speeds of various chains are different. The exchange of different chains is completed by the centralized trading platform, and the low efficiency is because of network congestion; different assets cannot complete circulation and exchange.

Environment & Tools

In the current blockchain ecosystem, there is a lack of support for developers. Developing functional protocols or DApps on the blockchain requires a development environment and tool support that is easy to use and multi-language.

Uselink

Summary: The development of public chain faces barriers

Looking forward to the emergence of the strong

> The market is in urgent need of a one-stop solution that can provide the requirements of "performance, efficiency and safety balance, smart contract security issues, digital asset value circulation and exchange, multi-scenario commercial application ecology".

At present, the lack of the infrastructure public chain technology of the blockchain makes it impossible for the achieving effective and safe launch, which seriously restricts the development of the entire blockchain industry. There is an urgent need for a blockchain infrastructure technology that can open up asset flows between different chains in a trusted manner, enabling safe and efficient operation of asset transactions, thereby enabling distributed blockchain services more efficiently.

The birth of USELINK is to solve the problems related to the development of blockchain, and at the same time continuously develop and improve the new technology and application mode, thereby creating the infrastructure technical foundation and commercial application of a distributed digital asset value transaction ecosystem.

MORE

Uselink


Uselink
Native asset technology • Decentralized exchange • Cross-chain multi-chain parallel multi-layer structure
Create infrastructure public chain
Learn More

PART TWO

ABOUT USELINK

Uselink

USELINK

ORIGINAL MULTIPLE ASSETS PUBLIC CHAIN PLATFORM

USELINK is a basic public chain system that integrates three technologies of native multi-asset, cross-chain multi-chain parallel and decentralized trading system. It is a new generation of distributed network for digital asset exchange!

Developed by the world's leading PCA blockchain laboratory, USELINK uses 101 witness mechanisms, native multi-asset technology, and cross-chain multi-chain parallel technology to achieve mutual communication with assets, consensus, contracts, and protocols in existing blockchains, and can conduct cross-chain transaction communication on multi-chain assets.At the same time, UL.io will provide a strong and complete technical architecture to provide a good foundation environment and protocol support for the development and release of various assets/applications, thus creating a new distributed native asset value transaction ecosystem!

UL Native Multi-asset Technology

Replace the smart contract with the original UL technology for asset issuance, and realize the indifference and real-time exchange of assets.

Multi-layer Structure

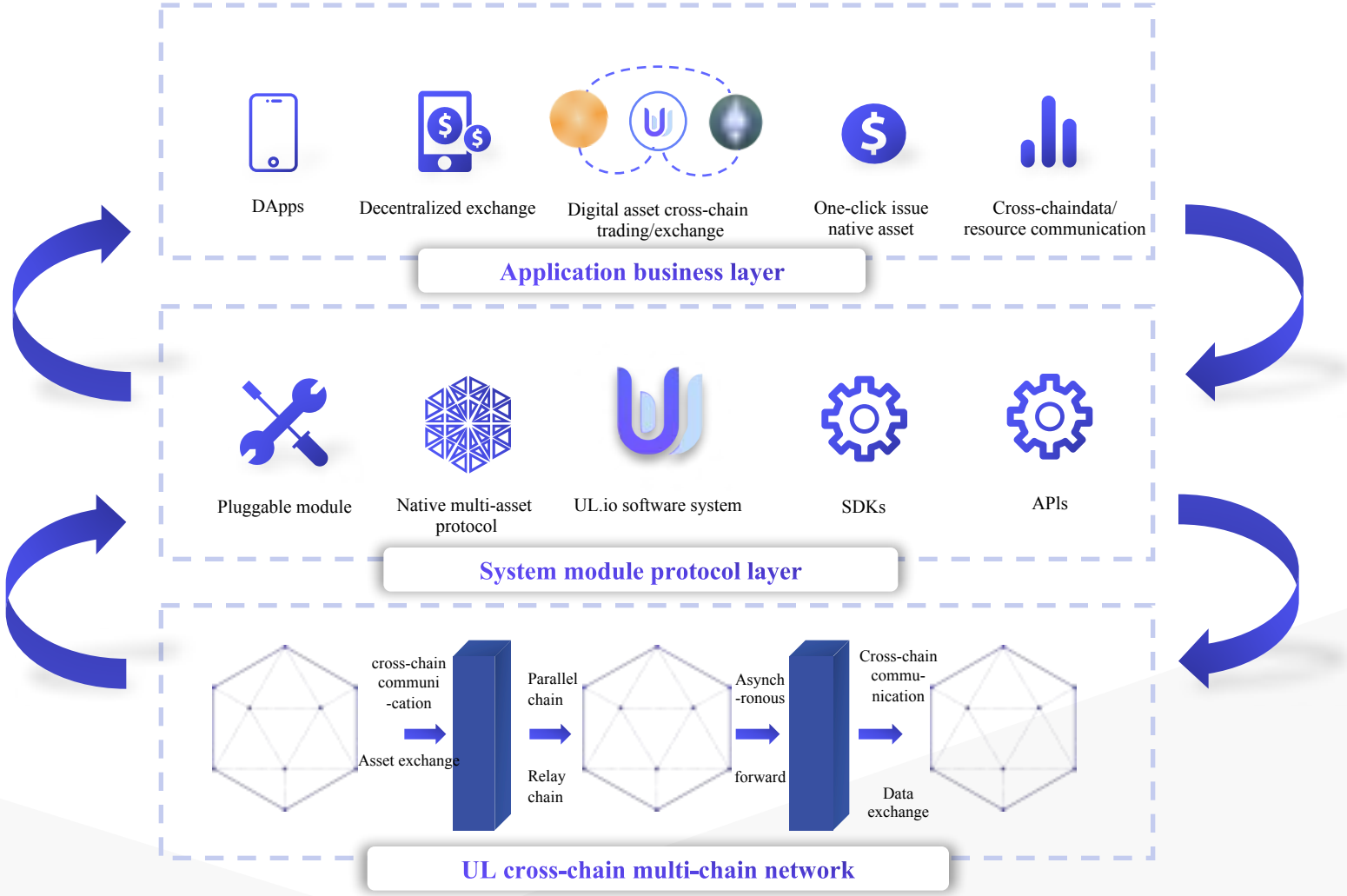
Provide global configuration and scheduling services to implement TPS scheduling and cross-chain communication transmission.

Decentralized trading system

Provide distributed trading systems such as decentralized exchanges, decentralized wallets, and unified order books.

Uselink

USELINK DISTRIBUTED NATIVE ASSET TRANSACTION ECOLOGY



USELINK DISTRIBUTED NATIVE ASSET TRANSACTION ECOLOGY

Background：As of 2016, the global financial assets have exceeded RMB 13 billion, and all assets with exchange value are too large to be accurately counted. In the Internet era, Alibaba Group, which was established based on asset trading platforms such as Taobao and Alibaba, has a valuation of more than 400 billion US dollars. In the blockchain era, asset registration, exchange, and circulation projects based on blockchain technology (collectively referred to as “asset-winding” projects) will unlock huge potential. The process of asset-winding, that is, the process of mapping real-world assets and digital world assets to blockchains. Assets that are on the chain can include automobiles, houses, petrochemicals, stocks and financial securities, user data, digital collectibles, and access and subscription rights to certain resources, intellectual property, and more.

Uselink Ecological Vision： Uselink will provide an asset-rightsing and circulation solution with blockchain technology, such as native multi-asset technology and cross-chain multi-chain parallel multi-layer structure. It records the entire process of asset circulation and forms chain data that cannot be tampered with and establishes a global decentralized virtual currency exchange, realizes functions such as asset custody and asset payment, and provides asset registration and asset transactions. It will provide rental, exchange, mortgage, C2C transactions and other functions in the future. So as to solve the problems of “asset-winding” and “cross-chain circulation”, realize innovation in traditional financial industry, and provide technical support for blockchain in different financial/asset application scenarios.

Create a complete blockchain financial asset trading ecosystem, bringing new industry status to asset securitization, OTC market, supply chain finance, wealth management, trade financing, insurance, loans, and equity transaction delivery.

USELINK DISTRIBUTED NATIVE ASSET TRANSACTION ECOLOGY

UL app ecological architecture：

Service organization

- Invest organization
- SME
- supplier
- State-owned institution
- HR agency
- Information platform and community
- Industry organizations and R&D institutions

Financial assets / real economic services

- Transaction clearing
- Pay
- Public chain finance
- Insurance
- Point sharing
- Issued on chain
- Asset digital securitization
- OTC market trading
- Trade finance
- Wealth management
- Network/bank lending
- Equity transaction delivery
- Digital iD & Credit
- Exchange& Wallet
- Securities
- Anti-counterfeiting traceability
- Big data transaction
- Copyright protection transaction

Social application

- game/entertainment
- Social
- tourism
- Intelligence
- real estate
- Transportation
- Medical
- industry
- Electr evidence
- energy
- agriculture
- vote

Public utilities

- Charity
- Public welfare
- Government management
- Cultural education

Application development and technology extension layer

- Native multi-asset protocol(value anchoring, storage, cross-asset trading)
- Distributed Computing
- Data service
- BaaS
- Cross-chain technology solutions
- Mining
- DAPIS＆SDKS

infrastructure development platform and basic function modules

- USELINK undelying piblic chain
- Cross-chain multi-chain parallel multi-layer structure (cross-chain trading, communication, data exchange, high TPS concurrency))
- Parallel chain side chain, business chain infrastructure construction
- Decentralized exchange

USELINK DISTRIBUTED NATIVE ASSET TRANSACTION ECOLOGY

Securitization

The UL public chain will implement the full process management of the infrastructure assets. According to different asset types, different management processes are designed, including the generation, trading, query, packaging, capital flow and destruction of the infrastructure assets.

OTC

The UL public chain will build a linkage mechanism between regional OTC to solve the problem of data islands between OTC in various regions. Trace source management of each participant's information through the blockchain, determine the authenticity of the transaction and the solvency of both parties! Create a real, fair, low-risk, high-efficiency blockchain OTC!

Insurance

The UL public chain setting product rule engine can analyze the user behavior according to the information on the chain, and can intelligently recommend insurance products. On the other hand, various types of information are stored in the blockchain to ensure information security and disclosure. Applying UL technology can simplify claims through smart contracts. Submitting the program no longer requires the intervention of an insurance agent, which will greatly shorten the processing cycle.

Trade Finance

UL public chain technology will realize real-time approval of financing documents and real-time tracking of financing processes, thereby improving the transparency of trade financing transactions, realizing the full process management of risks, and meeting the individualized financing needs of exporters. Reduce the cost of manual management of the original information obtained by banks or other financial institutions. Through the UL blockchain technology, document flow, cargo flow and capital flow can be updated in real time, making the trade finance ecosystem more stable and reliable.

Supply Chain Finance

Based on the UL blockchain, the infrastructure technology sets up the "debt-to-debt platform", with the supply chain financial services (accounts receivable financing) as the core, and the creditor's certificate as the carrier to help the in-chain suppliers revitalize accounts receivable and reduce financing costs. To increase the financial benefits, to resolve the issuance, transfer, financing, redemption of Claims Evidence Obtained and the external payment of suppliers and the financing needs of upstream customers, in order to help enterprises build their own supply chain financial system.

Wealth Management

The authenticity and efficiency of qualified investors have been improved. In post-investment management, the use of funds will be encrypted and stored in the blockchain to enhance the level of trust and security. Through the decentralized trading system built by UL, all kinds of digital assets transfer are safe and effective; and wealth management information , data is on the chain, the whole process is transparent and traceable.

Loan

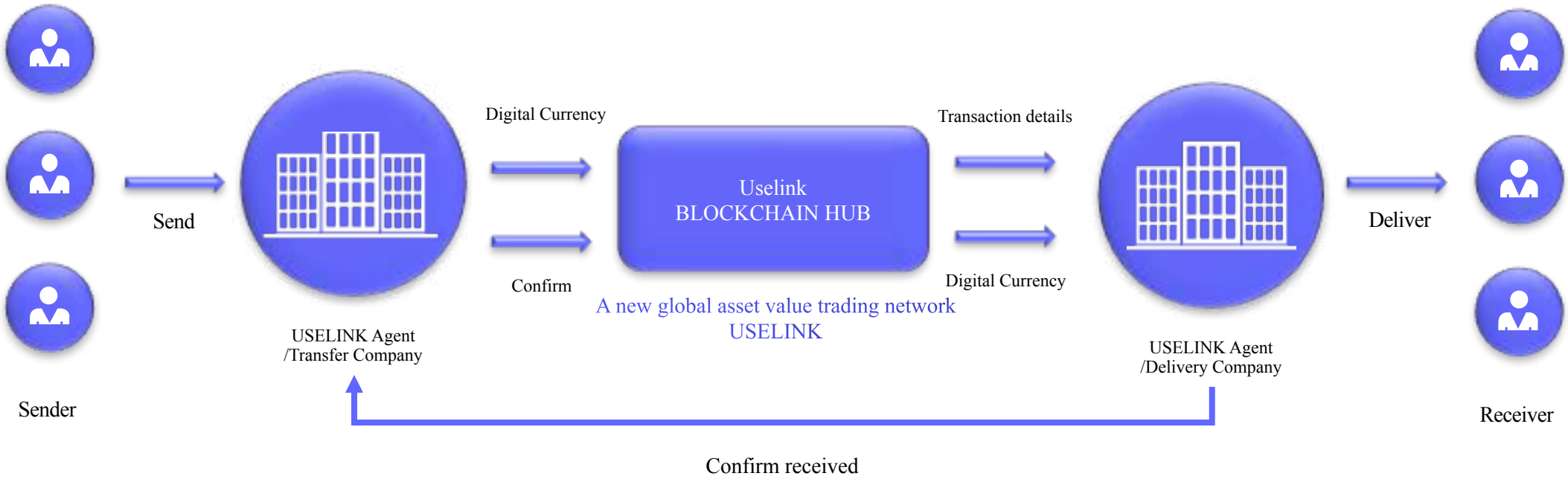
The use of UL public chain infrastructure technology can help solve the problem of high credit cost and high bad debt rate; rely on technical means to create a decentralized credit mechanism to further enhance information disclosure, improve security and reduce credit costs. Consensus mechanisms and smart contracts can effectively simplify the syndicated loan process, reduce the dependence on labor, reduce operational risks and improve payment efficiency, and promote the loan process. Enable all participating syndicated loans to view detailed transaction data such as credit agreements, location information, and accrued balances in real time through the system.

Equity Transaction

The distributed storage and operation of UL public chain technology can ensure the security and traceability of data, reduce the complexity of supervision; intelligent contract synchronous transfer of equity and cash in real time, improve transaction efficiency. Set up a small and medium-sized enterprise equity trading platform, through a peer-to-peer trading model, to achieve a completely paperless equity transaction. In addition, the back-end asset transfer contract is fully realized through UL smart contracts, enabling real-time settlement and delivery!

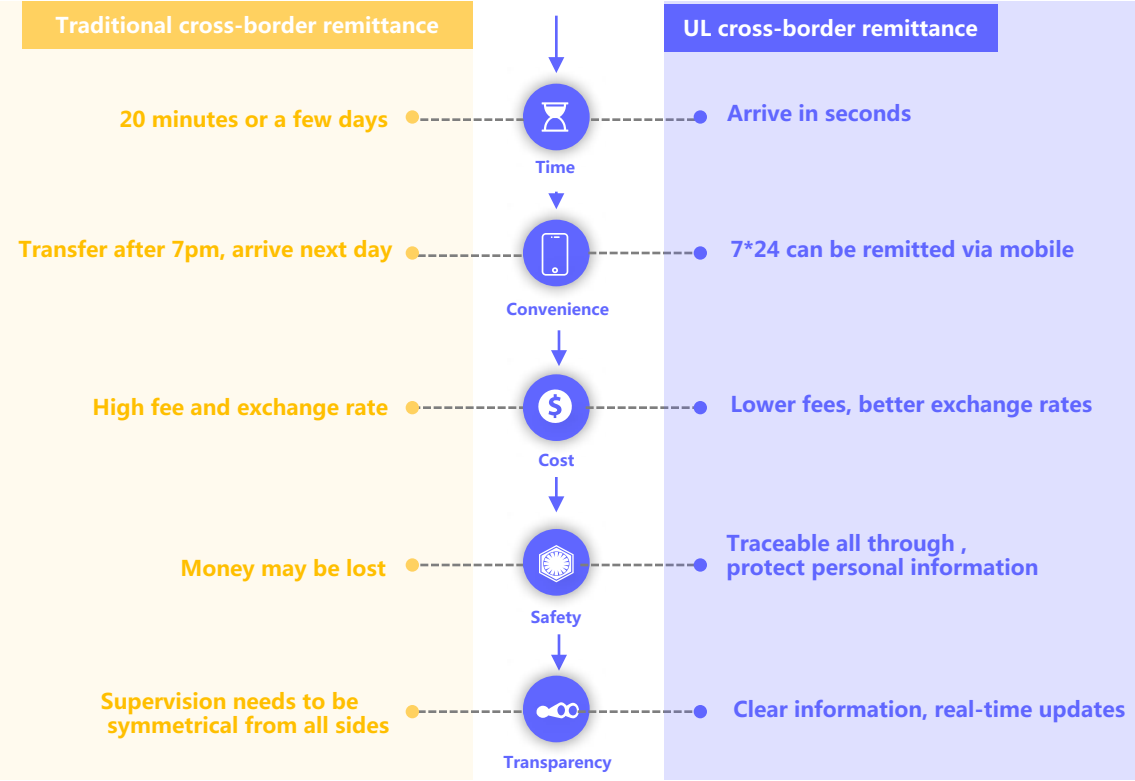
USELINK DISTRIBUTED NATIVE ASSET TRANSACTION ECOLOGY

USELINK will use the three features of “distributed accounting, native asset chain anchoring, and cross-chain transaction data communication” to make the funds clearing information arrive synchronously on the “chain”, share all, and update in real time,and offers "the perfect cross-border payment solution" for cross-border payment.The new payment method complements the traditional payment channels and avoids the legality and regulatory issues faced by electronic money.



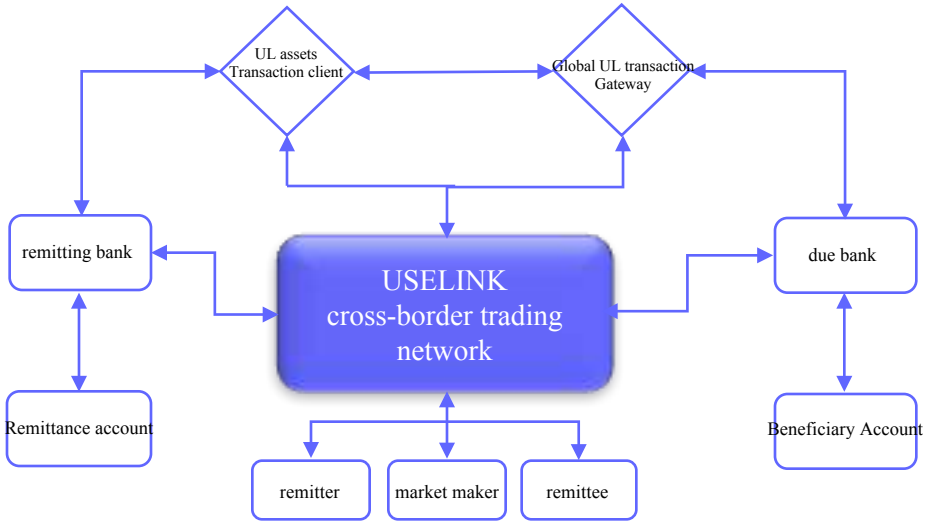
USELINK DISTRIBUTED NATIVE ASSET TRANSACTION ECOLOGY

UL Cross-border remittance



UL Cross-border transaction：

Using the USELINK network, traditional financial institutions, foreign exchange market makers, and liquidity providers are added to the payment network to form a UL payment gateway. The digital asset flow on the UL blockchain can be connected with the legal currency in the real world through it, so that the legal currency can be converted into digital assets on the UL blockchain, facilitating subsequent transfer. The network connector in the UL blockchain payment network can connect traditional market makers, remittance banks and other institutions, and abandon the intermediate transaction links to achieve P2P payment in low-cost quickly.



USELINK

Features and advantages

USELINK Technical Features

1. DPoS consensus - high performance, no waste, 101 BP witnesses, achieving democracy and efficiency;

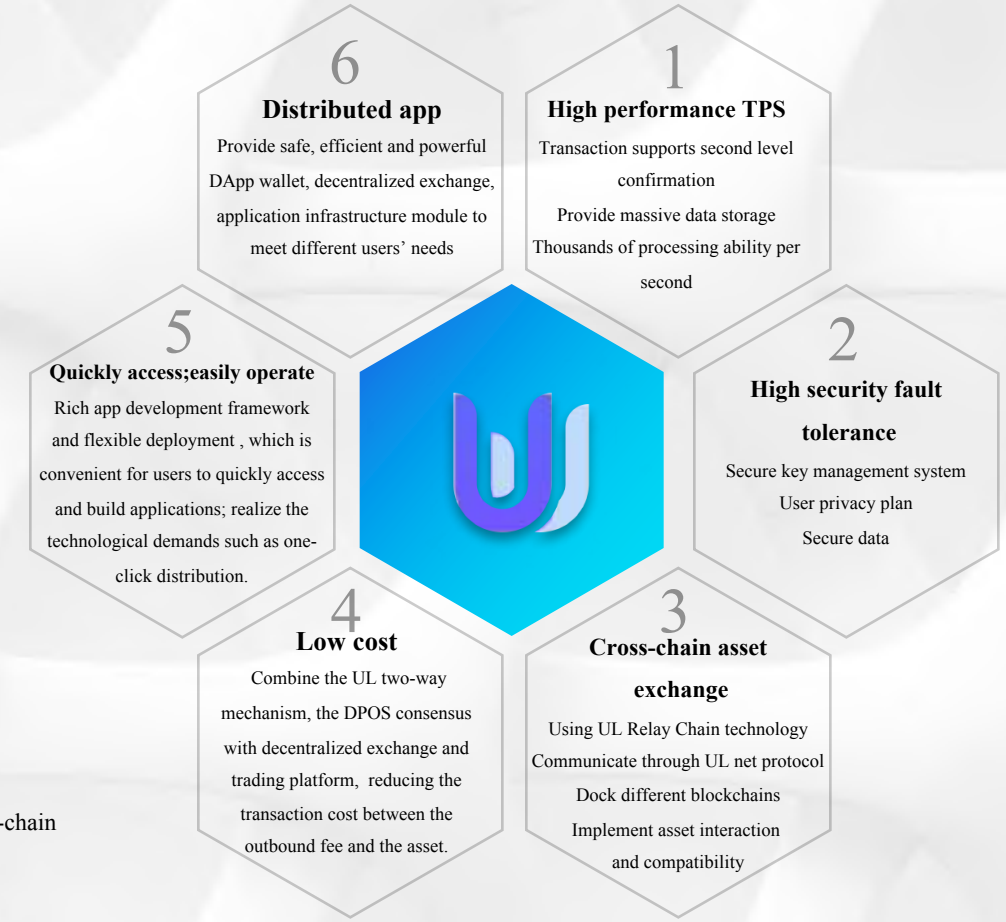
2. Multi-asset coexistence - Applicable to multiple assets circulated in different scenarios;

3. Vote for mining dividends--recording voting information on chain, vote for dividends off chain;

4. Secp256k1 elliptic curve algorithm - to achieve safe and fast high performance;

5. Cross-chain multi-chain parallel technology-- realize high TPS, asset exchange transactions, multi-chain communication consensus.

MORE



USELINK PARTICIPANTS ON THE USELINK CHAIN

UL Technology Developer

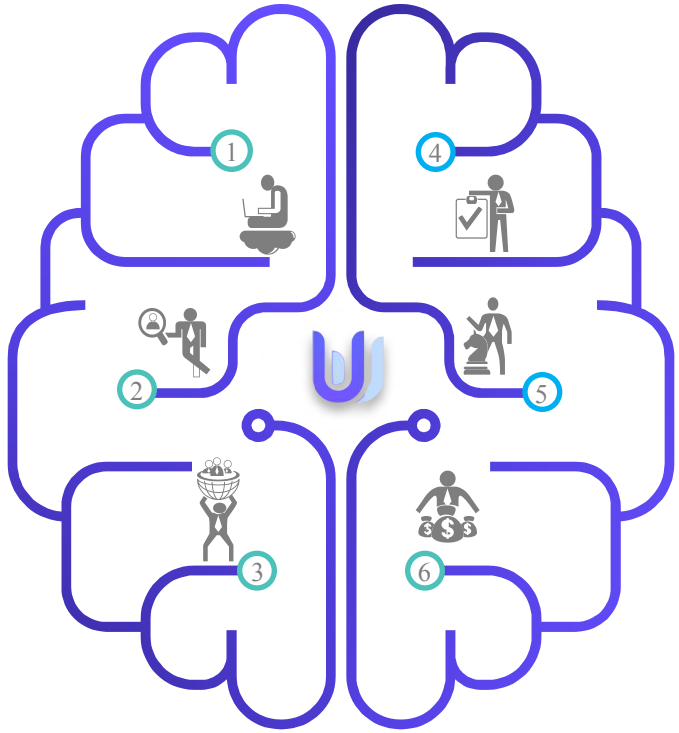
The UL development team will be responsible for the development and operation of the UL's underlying blockchain architecture framework, and coordinate technical partners, such as application developers and UL technology development communities, to complete technical design development testing.

UL Data/authorization Server

UL will provide data/location/authorization request operations, serve data demanders, centralized management databases, etc. for data/authorization collaboration to avoid data isolation and broaden data acquisition channels.

Normal User

A user who uses a UL wallet/ exchange/ application, has the basic unit of the account for the asset on the chain. Have the right to vote, the right to trade.



Registered User

An ordinary user who has successfully registered with the UL Almighty Wallet and has an alias on the chain can easily transfer the user by name without inputting an address.

Candidate Block Producer

The registered account on the chain, with the chain of consensus incentives, becomes a Candidate Block Producer and enjoys the right to vote.

Super Block Producer

Must be the top 101 Candidate Block Producers to vote, the Super Block Producer have the right to block, dividends, and asset distribution; that is, you can get a block reward. At the same time, it is obligated to maintain the books and run on the chain.

（1）UL Account： Used to store and trade a variety of assets on UL, including native multi-assets, newly issued tokens, and anchored foreign-chain assets.

（2）Registered Account： Through the UL chain alias technology and UL Universal Wallet, you can create a chain of consensus user names, which are bound to the UL address one by one.

Uselink

USELINK CORE PARTICULARITY

• USELINK.IO Sharing trading platform&DAO decentralized financial community

UL is a platform for creating a new shared transaction, enabling the exchange of transactions between various digital assets, and the integration of technologies such as consensus protocols on various blockchains. The UL Trading Platform is an open and fair, freely trading shared trading platform and DAO-based decentralized financial community.

• Decentralized exchange system

USELINK will deeply develop the decentralized exchange system , and will launch a secure decentralized exchange with dual-chain matching and clearing, automatic matching, and full-network contribution order book and UL asset anchoring mechanism. At the same time, we will develop decentralized exchange system to provide decentralized open source software services.

• Originality - Native Multi-asset Technology

With pure asset logic technology, you can issue new TOKEN on the chain without smart contract. It has strong immediacy and can be issued immediately without waiting. Compared with contract assets,the circulation was completed by the operation/transaction of infrastructure public chain, the performance is better. According to test data, it is about 10 times or more of contract transaction data. Thereby achieving digital asset security and cross-chain trading!

• Application - UL Decentralized Wallet

Nearly 1,600 kinds of digital assets in the market will continue to grow fast. In order to realize asset digitization and the exchange of digital assets, UL will develop a unified APP wallet users can use UL exchange value assets,various digital currencies,accept、purchase or trade global value assets anytime, anywhere, and invest in value assets more efficiently with private key!

• Vote mining dividends - DPOS consensus

UL adopts DPoS, the Delegated Proof of Stake. All users hold voting in USE tokens. The election of BP is not only the recognition of BP, but also the way to obtain revenue. Each time in the chain, 101BP are elected, and the BP are generated by each node on the network at each transaction. UL's improved DPoS design makes block generation faster and more efficient, enabling a more decentralized democracy while ensuring high efficiency.

• Cross-chain multi-chain parallel multi-layer structure

In order to realize the interaction of cross-chain assets, the infrastructure architecture adopts a relay chain and a multi-chain parallel multi-layer structure to provide global configuration and scheduling services, and to extend various business forms downward. The subnets are divided according to different service scenarios, isolation mechanisms, performance overheads, etc., and multi-chain parallel, UL cross-chain communication protocols, and multi-signature accounts are used to implement circulation exchange,cross-chain communication,consensus and other issues of multi-chain and asset.

Uselink

USELINK.IO

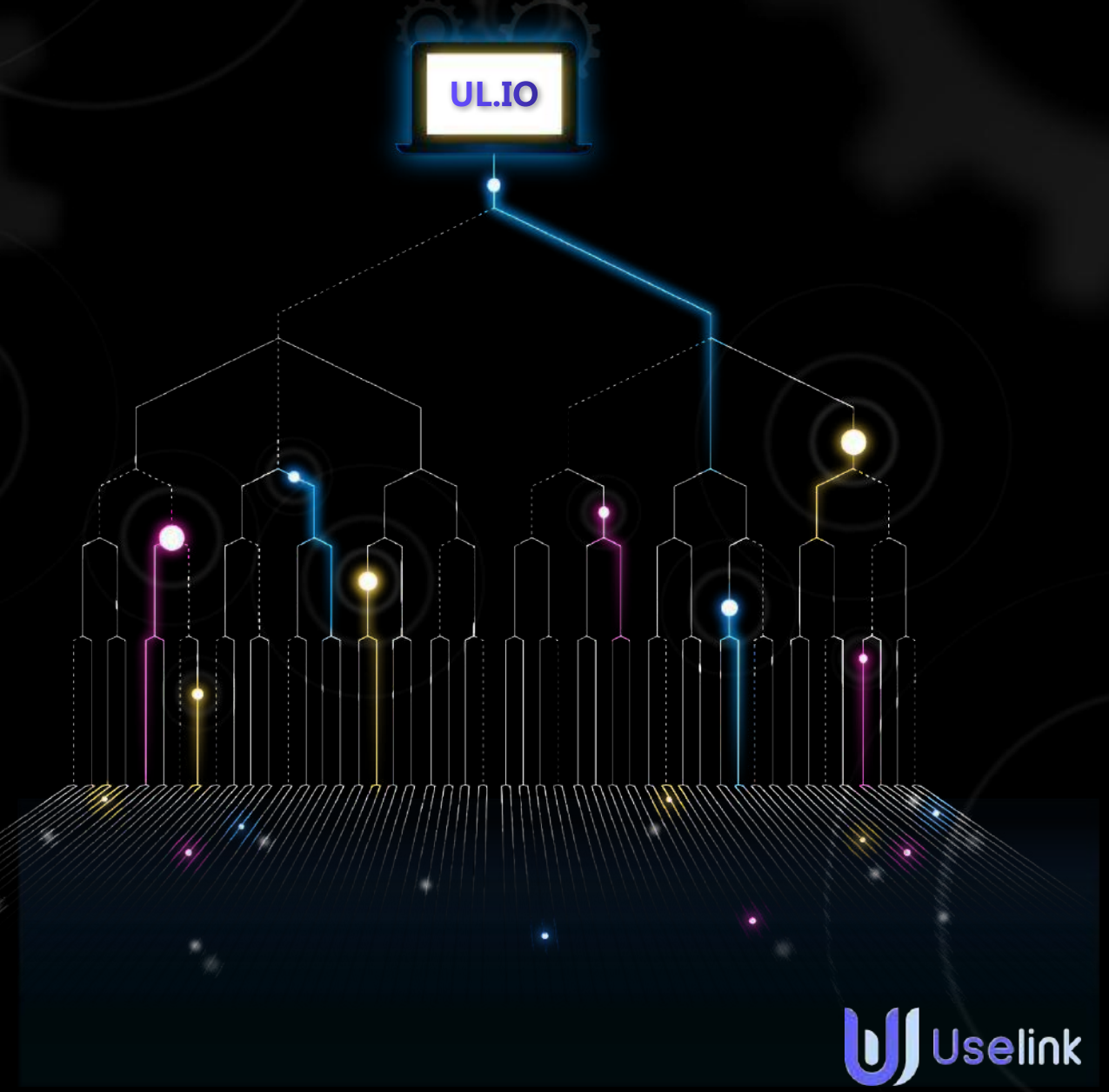
USELINK SHARED TRADING PLATFORM&DAO FINANCIAL COMMUNITY

USELINK.IO is a software development intelligence system developed by the world's top PCA blockchain lab. Developers can quickly build and deploy high-performance blockchain applications.

The UL team leverages cross-chain multi-chain parallel technology with UL's public-chain infrastructure, shared economics, platform development concepts and UL.IO to enable transactions between global digital assets.

The UL shared platform service is driven by the chain of digital assets and the asset economy under the chain. It is an ideal ecosystem for creating cross-chain, cross-technology and consensus among blockchains.

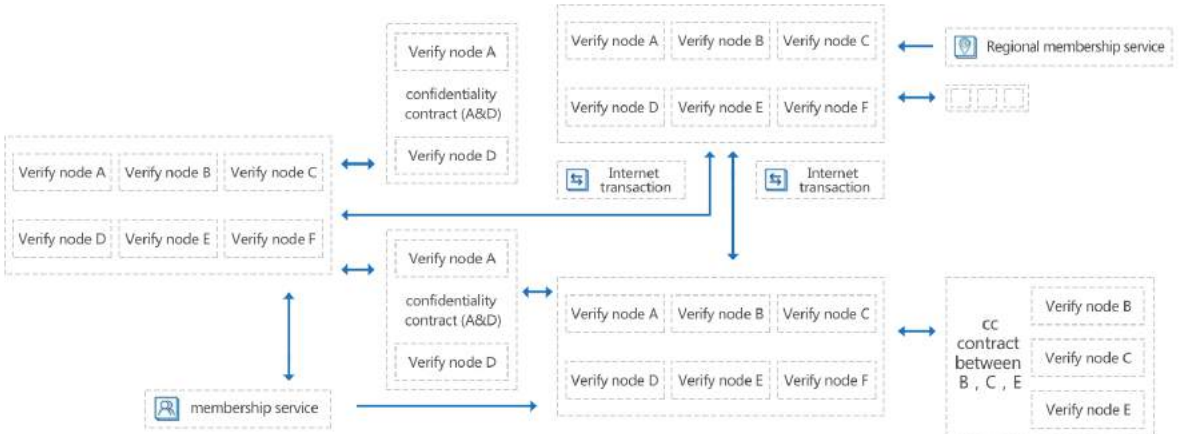
UL.IO software introduces cross-chain multi-chain parallel technology, which can be used to build various applications by creating an operating system structure. The software provides accounts, databases, pluggable modules, cross-chain communication, and multiple TPS scheduling and program scheduling services in parallel with multiple chains. Continuously optimize and improve the underlying distributed ledger and consensus algorithms to achieve mutual conversion of values between multiple assets to achieve efficient and secure multi-digital asset transactions.



Uselink

USELINK SHARED TRADING PLATFORM

· USELINK.IO Transaction Schematic:



· USELINK.IO Advantage：

01 High transaction speed，mass storage，high throughput

Through optimization of key aspects such as signature algorithm, account structure, data manipulation, serialization, consensus mechanism, message diffusion, etc., UL will achieve fast transaction verification in seconds. Through the separation of storage, table storage and other mechanisms to achieve massive storage of data through long-term testing and optimization practices, UL's processing will further greatly improve transaction throughput.

02 Fast synchronization and strong expansibility

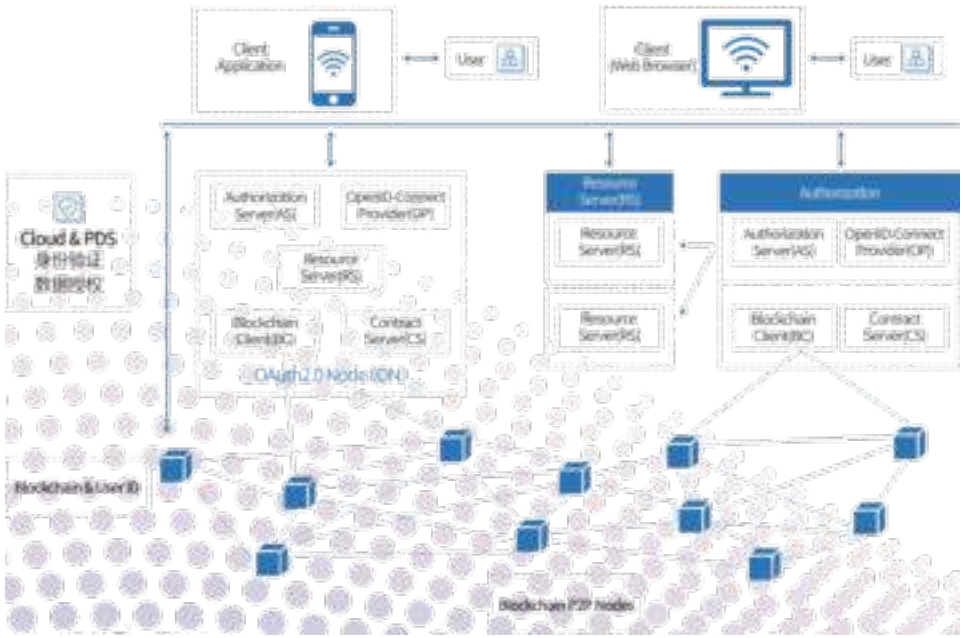
UL leverages the Super Producer mechanism and the DPoS consensus mechanism to significantly reduce the cycle of new nodes joining. UL's large blockchain structure can meet the needs of different business areas, improve the system's scalability and maintenance efficiency, and can be used for asset transfer on the chain and under the chain.

03 Privacy protection mechanism and high security

In order to facilitate users to use UL services, in addition to the traditional client generation and storage mechanism, UL also provides hot wallet, web hosting access and private key hardware access (U-key) and other programs. Provides multiple privacy protection functions. The underlying UL provides Secp256k1 encryption, and all user data is encrypted and stored. Second, UL provides encryption middleware services. Finally, the upper application can encrypt the data when it is entered.

USELINK SHARED TRADING PLATFORM

UL P2P
Network authentication architecture



UL.IO
Operation Characteristics

1) **Full platform deployment :** All of UL's code can be compiled and run across links and platforms. The platform-related code is packaged into a base library, and the business logic is independent of the UL platform.

2) **Low-cost access :** Provides comprehensive application components, protocols, SDK, and API for fast, low-cost access to third-party application dApp;

3) **Data transaction deployment :** Set up with distributed data sets, intelligent exchanges, and maintain compatibility with various major cross-chain protocols, and can conduct transactions in various fields, various types of data products, data prediction, data computing resources, etc.;

4) **Sound infrastructure :** The plug-in and flexible expansion loosely coupled matrix loosely coupled architecture and specific functional modules in different fields further support the implementation of various upper-layer applications.

Learn more →

Uselink

Many problems in decentralized exchanges

Decentralized exchanges are the trend

· In global digital currency trading ecosystem, centralized exchanges monopolize all services. From the moment the user enters the coin to exchange, the exchange becomes the custodian. After that, like the stock exchange, it provides liquidity information by means of K-line charts and quotations, etc., and automatically helps clear the transaction after trading , and continues to act as the custodian of the asset before withdrawal. The existing centralized token exchanges not only have no effect of decentralization, but enhanced the degree of centralization.The high concentration of risks, the weak awareness of risk control, the immature technology, and the temptation of interests have caused incidents such as the theft of assets,and the misappropriation of customer interests by insider trading.

· The exchange is a one-stop role for project incubation, exchanges, project parties, media, etc. Therefore, the current centralized exchanges are both referees and athletes. Moreover, the centralized exchange is opaque, and this is an unregulated market. The centralized exchange has absolute power, will inevitably lead to corruption!

View All Connections

01 Security issues

The theft of the Mt.Gox,bitfinex and coincheck, the damage to the interests of users and the reputation of the exchange also caused a turbulent impact on the entire industry. Users deposit digital assets on these exchanges, not only to face the risk of improper anti-theft measures, but also to be afraid of the embezzlement of the exchanges .

02 Opaque transation fees

Almost centralized exchanges adopt the IOU accounting. The inflated IOU and misappropriation of customer deposits to participate in bet on the market will become the systemic risk. To encourage users to trade more, will only charge fees for withdrawal (the transaction must be carried out when leaving the platform's own account); it is inevitable that personal assets will be misappropriated or even run away .

03 Weak emergency response

Centralized exchanges generally provide business modules such as account system, KYC, asset recharge, asset custody, matching transaction, asset clearing, exchange, etc., and there are already mature solutions on technology, but in the face of unexpected situations there are often no good countermeasures, such as poor control of the trading system, and the possibility of downtime based on the centralized operation mode.

04 KYC & Government regulation & Listing rights

The centralized exchange collect customers' information by KYC, cannot ensure the personal information will be used or not.Influenced local policies, it is easy to be cut, it is a problem that often occurs in centralized control systems. At the same time, the listing rights and pricing rights are controlled by some centralized exchanges, which may result in price manipulation due to insufficient information and capital flows.

Uselink

The Status Of Decentralized Exchanges

Type A : Order hosting model

No asset anchoring No consensus algorithm, simply matching transaction/interchange protocol.
Low threshold for development, very limited performance, poor flow.

Type B：Reserve pool model

Asset anchoring, no consensus algorithm, depends on the Ethereum network, subject to the performance constraints of the main chain. Assets and liabilities are required. Need to have enough start-up funds.

Type C：P2P model

Relying on third-party exchanges, because of the price and quantity of negotiated transactions, the speed has an impact, and there are pricing issues.

At present, decentralized exchanges are basically divided into the above three categories.

One of the core strengths of decentralized trading is to avoid any assets being hosted, users having absolute ownership and control over their assets, so the possibility of asset theft is extremely low. However, most of the current decentralized exchanges are based on different public chains, and there are widespread problems such as low transaction efficiency and limited types of trading assets, which have prevented them from being widely popularized and applied.

Uselink

USELINK

Decentralized Exchange

The UL chain decentralized exchange will integrate UL Wallet, UL Exchange, support for mainstream digital assets and various assets issued on the UL chain, and can send, receive and trade digital assets in real time. Through a high-performance matching engine, a network-wide shared order book, second-level matching and clearing, the chain exchange can provide and centralize the trading experience of the exchange. Smart contracts are not used on the UL chain, which greatly shortens trading time and locks in multi-signature accounts. Use UL scripts to complete the exchange and trading between multiple assets!

DPOS Consensus

The short time of the UL chain production block makes the cost lower, which greatly reduces the transaction costs of both parties. The transaction cost is also affected by the transaction cost of the blockchain itself.

Automatic matching orders

The price will be fed to all the block producers at the price of the external exchange. The block producer will then post the feed price on the chain. The user submits the trade order at the expected price on the chain and the UL block producer will automatically match the orders.

UL Currency anchor, chain matching, chain settlement

With a multi-signature account, issuing a currency such as UL-BTC, which anchors the corresponding asset, realizes cross-chain trading without trust, and executes the transaction outside the chain. Only settlement is performed on the chain, which improves the transaction efficiency also greatly reduces transaction costs!

High efficiency, Low cost

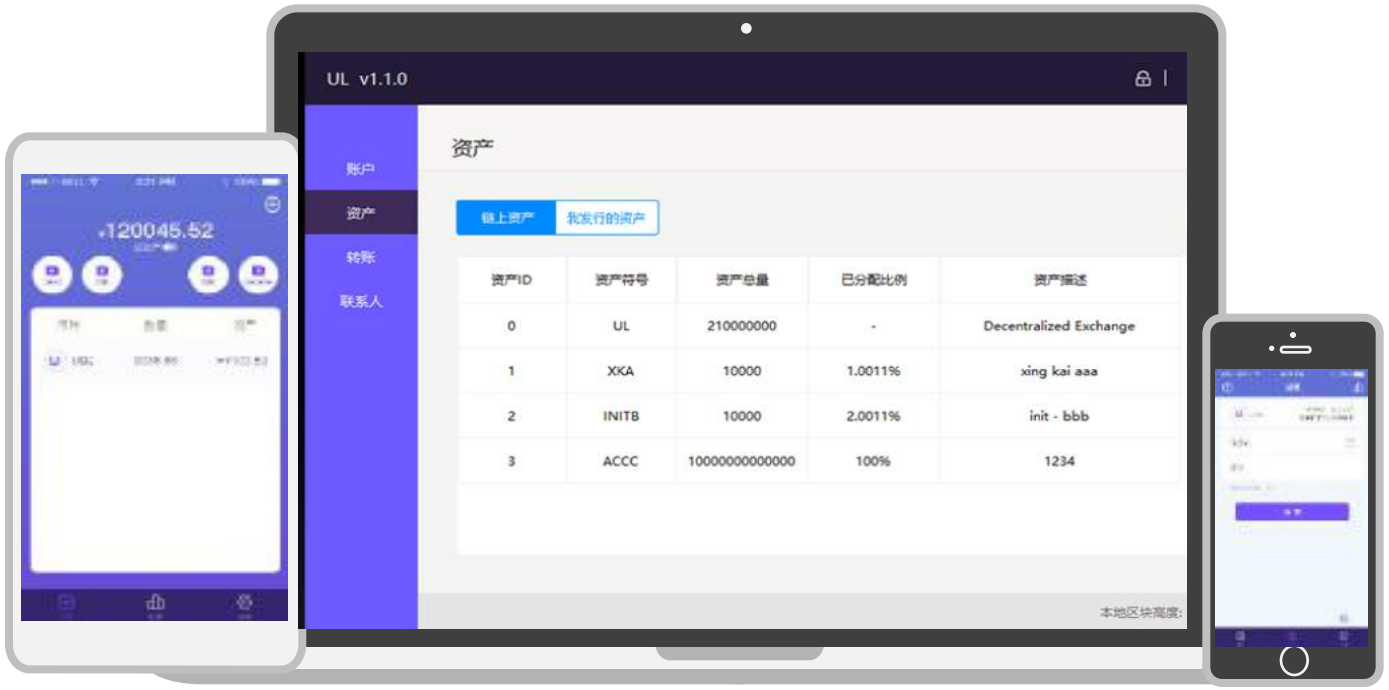
Safe, Decentration

Multi - asset, Cross - chain

Uselink

USELINK

UI Wallet 1.0



According to the requirements, different versions of the client will be provided to the user.
The mobile terminal enables fast transfer and voting.

Uselink

PART THREE

FUNCTION STRUCTURE & TECHNOLOGY FEATURES

· USELINK Technology Architecture · DPOS Consensus Algorithm · BP · Vote Mining Dividend Mechanism · Native Multi-asset Technology
· Cross-Chain Multi-Chain Parallel Technology · Multi-Asset Chain Transaction · Cryptography Principle And Algorithm · Elliptic Curve Cryptography Algorithm
· Ul Security System And Solution

Uselink

USELINK Technical framework

The architecture design of USELINK combines the core system of distributed ledgers with the application of enterprise-level systems to form a multi-level, multi-domain matrix-based loosely coupled architecture.

- **Hierarchy:**

Distributed ledger core layer

Distributed ledger service layer

Cross chain adaptation layer

- **Function:**

Identity management and authorization system

Strategic management system

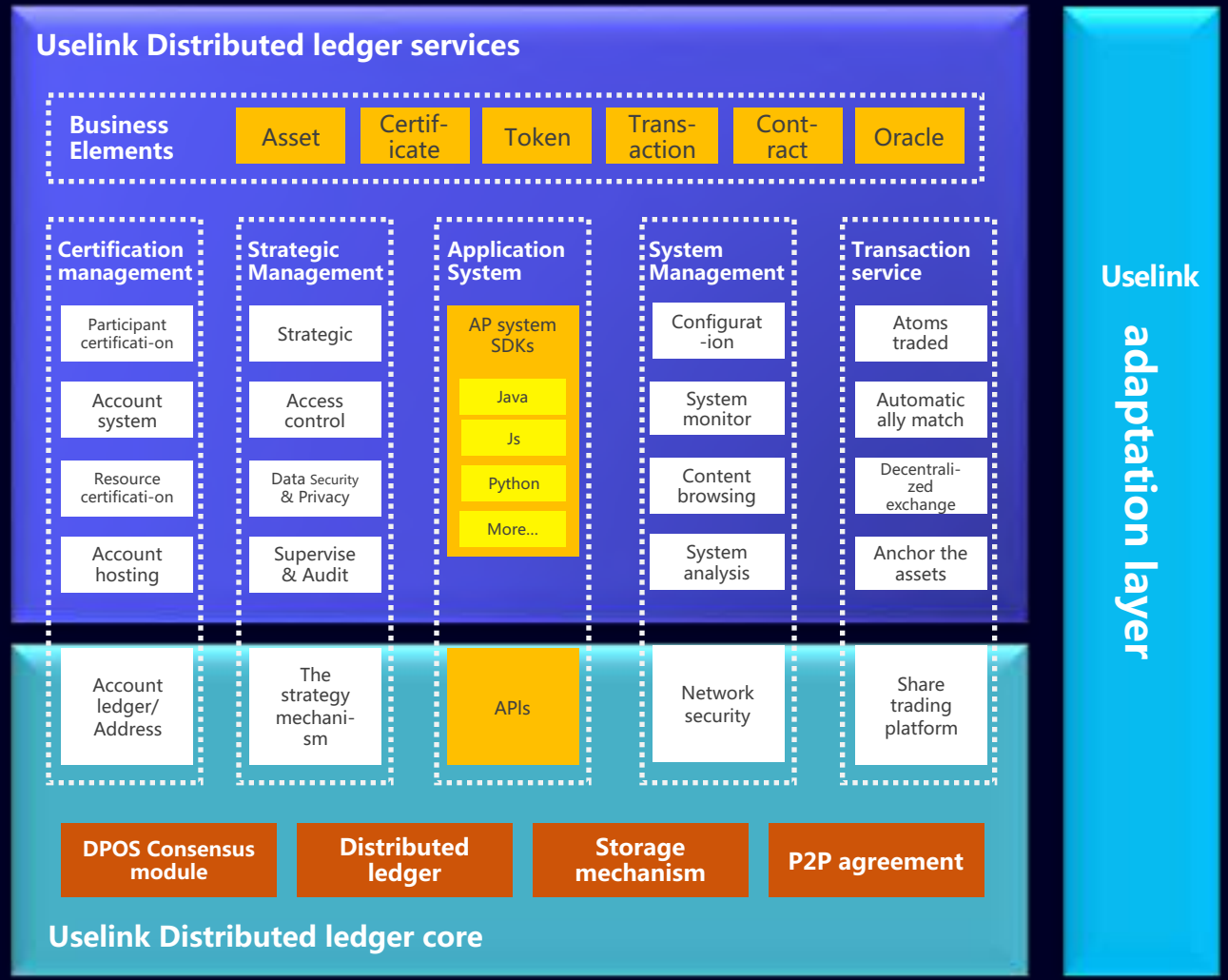
Application development service system

System management

Transaction service

Prefabricated business elements

The modular, pluggable, and flexible expansion of the loosely coupled design can support the needs of different business areas. Users can implement rich application logic with APIs based on UL. The flexible and easy-to-use API will greatly promote the development of UL's ecosystem.



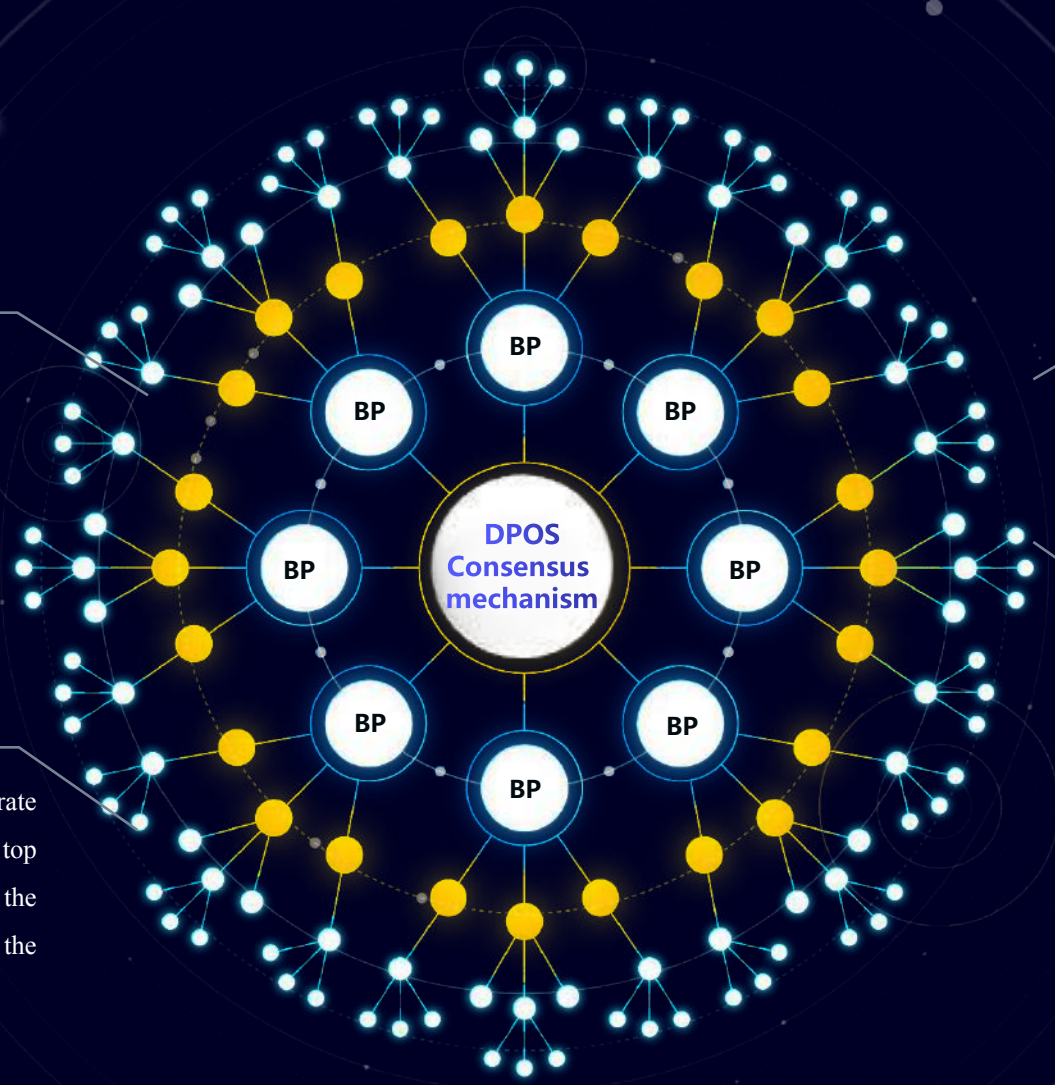
Uselink

DPOS Consensus Algorithm Mechanism

Delegated Proof Of Stake

"Authorized Equity Certification Mechanism"; DPoS is created by community (BP, the top 101 votes) to create a block. Compared with POW/POS, DPoS solves resource waste and low efficiency of block generation. At the same time, we can implement the technology-based democracy to offset the negative effects brought about by centralization, and meets the mechanism of the UL value system.

UL introduced the concept of a witness, witnesses can generate blocks, and everyone who holds UL can vote for witnesses. The top N (N defined as 101) candidates can be elected as witnesses; the number of elected witnesses (N) must be met: at least half of the participating voters believe that N has been fully decentralized.



The witness's candidate list is updated once every 10 s. The witnesses are elected and then randomly arranged. Each witness has a 10 second permission time to generate a block. If the witness can not generate a block at a given time, the block generation authority is assigned to the next witness. This design of DPoS makes block generation faster and more energy efficient.

Voting System & Node Signature

By introducing "witness", DPoS can reduce the negative impact of centralization. There are 101 witnesses in UL chain. Witnesses are generated by voting when trading, and their job is to produce and broadcast blocks. Through a decentralized voting process, DPoS can make the network more democratic. In addition, before each block is signed, it must be verified that the previous block has been signed by the trusted node. The DPoS actually reduce the time cost of confirming the transaction.

Uselink

BP Vote Election

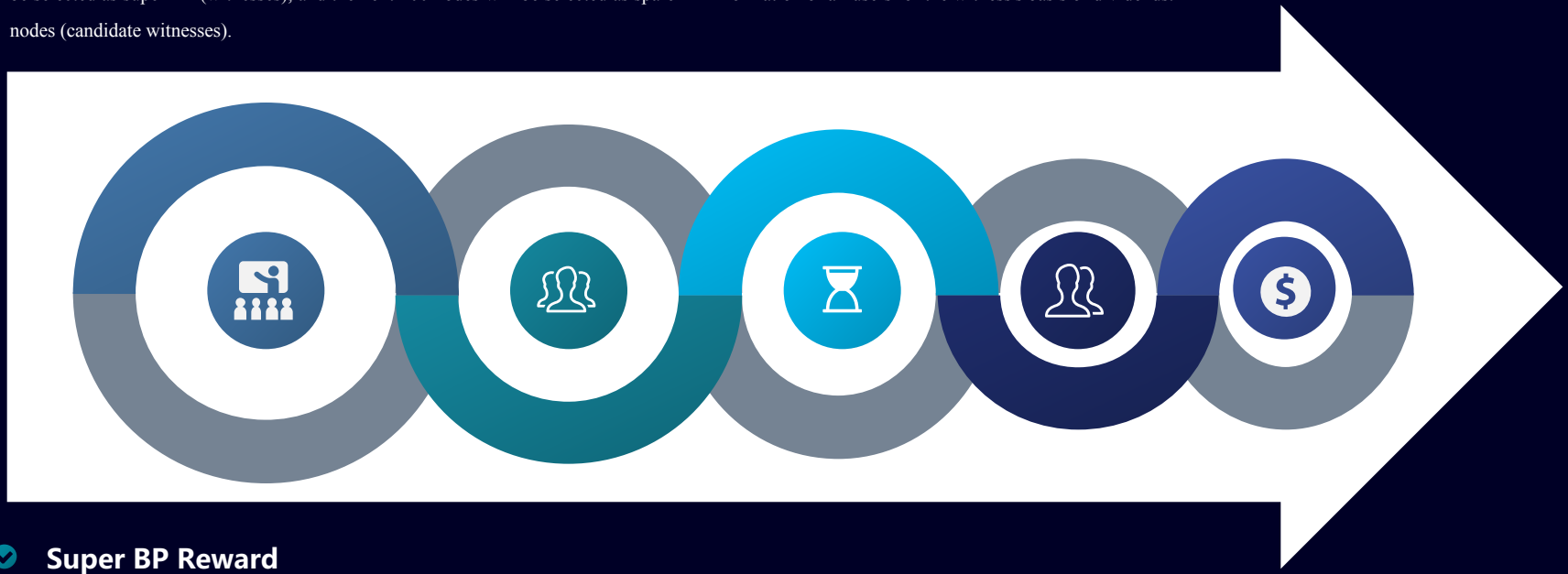
• One account, one vote, the holder complete the voting on the voting system developed by USELINK;

• Voting on UL wallet. Although a super BP (witness) election will be held every 1010s, the token holder does not have to manually vote every time;

• Before each block is generated, the USELINK system counts the number of tokens each candidate node receives. The 101 nodes with the largest number of tokens will be selected as super BP (witnesses), and the next 100 nodes will be selected as spare nodes (candidate witnesses).

Voting Mechanism

• Users can vote in UL tokens. The user can only vote for one witness each time. Voting requires a minimum fee (approximately 0.001UL). When a user transfers UL token that he owns, the voting rights of that part of the UL token are lost. In this case, the witness should give the user some dividends (such as block generation income) to encourage for voting and holding tokens. This part of the dividend is executed outside the chain. UL itself simply records the voting information of all users for the witness's basis of dividends.



Super BP Reward

• As a super BP (witness), will obtain the block generation reward and packing fees, and the direct income will come from the block generation reward;

• In the UL system, once 101 block was generated ,it's one cycle, that is, each super BP should generate 101 blocks in one block cycle. During the block cycle, the UL system generate a block every 10 seconds. At the beginning of each block cycle, UL will select 101 super BP based on voting;

• The 101 super nodes will agree on a block generation order, which will generate a block every 10 seconds in order. If a node does not generate a block within the specified time, then the block is skipped and a timestamp interval is left on the blockchain;

• If a supernode does not generate a block within the last 10S, it will be removed from the candidate list of the super BP. Replaced by a new node. Once a node has completed the block generation and verified it, it can add this block to the blockchain and get a new token as a block reward;

• As a super BP reward, the super BP can choose to return a partial reward to supporters. Therefore, on the chain we record every vote and history, and the super BP can make dividends based on this information!

USELINK 101

Super BP

• Each super BP in a blockchain network is equivalent to every computer or server terminal that stores all block data. The generation of all new blocks, as well as the verification and accounting of transactions, will be broadcast synchronously throughout the network, all by the super BP.

• The Super BP, which elects the Top 101 witnesses service and contribute most for the maintenance of blockchain network and the accounting of distributed ledgers. To elect the most appropriate node in a democratic way. Vote by Calculating the number of holding votes (It's invalid for users spending money to vote)

Learn more →

Uselink

USELINK BP WITNESS RIGHTS AND INTERESTS

In addition to the function to save assets like a UL account, the BP account has the following benefits.

01 Block generation equity - Fee income

The elected BP has the opportunity to generate block, package and verify various consensus transactions and transfer, the packaged transactions will be recognized and broadcasted on UL chain, and will enjoy the block generation fee income.

02 Receiving the mining pool - Pay equity

The BP witnesses can receive their own block income from the pay pool at intervals.

03 Rights of native assets issuance

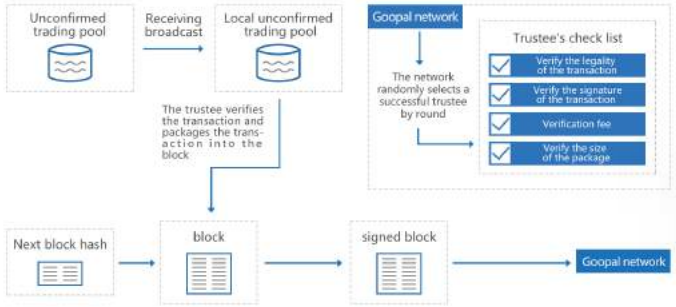
Although UL supports native assets, only BP have the authority to issue new assets. The agent will have certain dominance over the assets on the chain, avoiding the random issuance of some inferior assets.

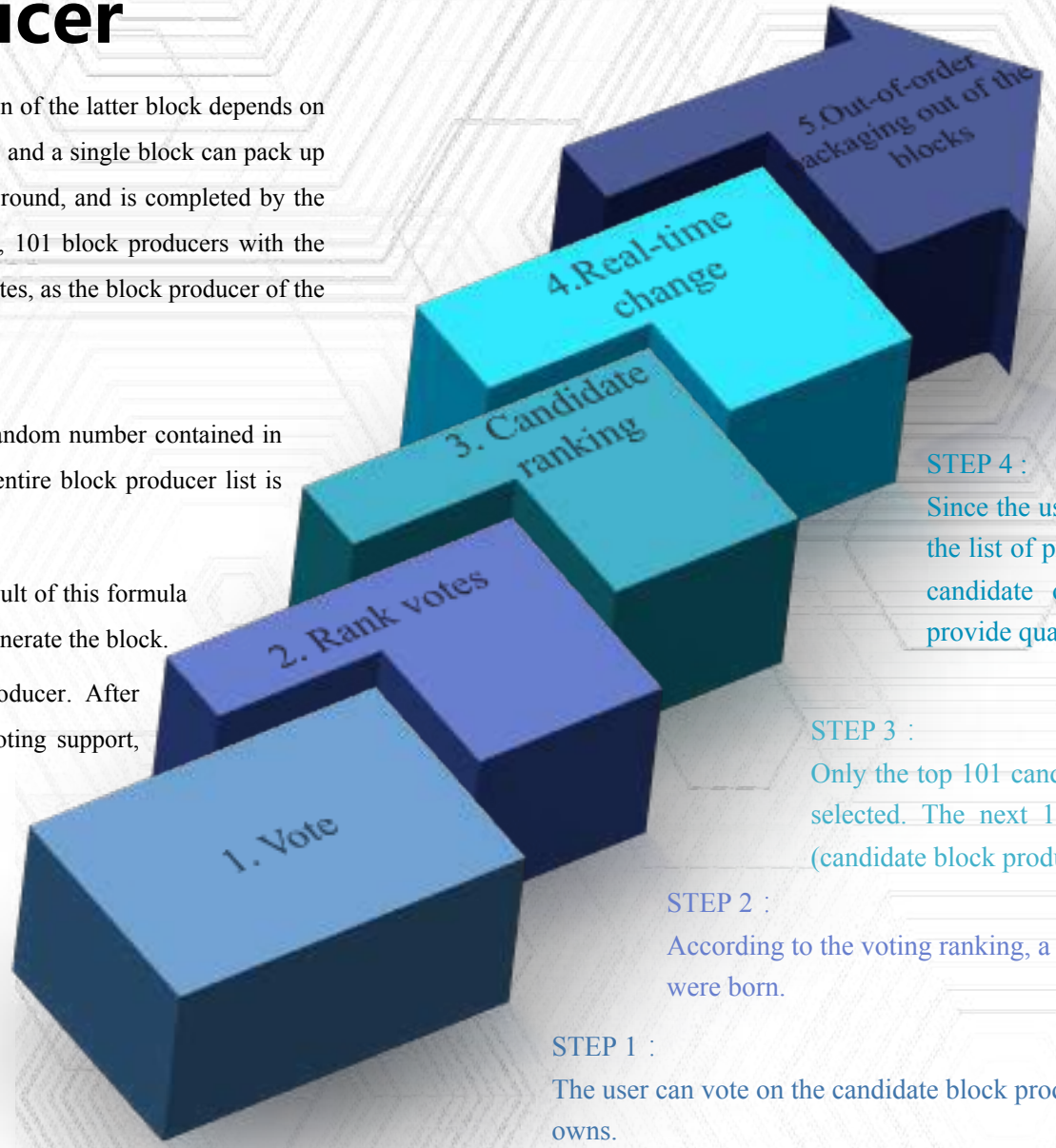
Uselink

USELINK Block Producer

The system generates a new block in about 10 seconds, and the generation of the latter block depends on the hash of the previous block. A single block can be up to 10MB in size and a single block can pack up to 10,000 transactions. The system performs the block according to the round, and is completed by the top 101 block producers of the system. After 101 blocks are produced, 101 block producers with the highest number of votes are taken out according to the total number of votes, as the block producer of the next round of blocks.

- After a round of block producer is selected, the hash of the random number contained in each block of the last round is used as a parameter, and the entire block producer list is processed out of order.
- Each block producer (current time seconds / 10)% 101; the result of this formula to access the out-of-order list to determine whether it should generate the block.
- Each candidate has the opportunity to become a block producer. After becoming a block producer, they will continue to receive voting support, otherwise they may be overtaken by others.





UL Generate Block Process：

STEP 5 :
According to the selected block producer, after disorder processing, it is determined to generate the block order, witness and package the block.

STEP 4 :
Since the user's vote can be carried out at any time, the list of producers is also subject to change. Each candidate or selected block producer needs to provide quality services to win the user's vote.

STEP 3 :
Only the top 101 candidates with the number of votes will be selected. The next 100 nodes are selected as spare nodes (candidate block producer)

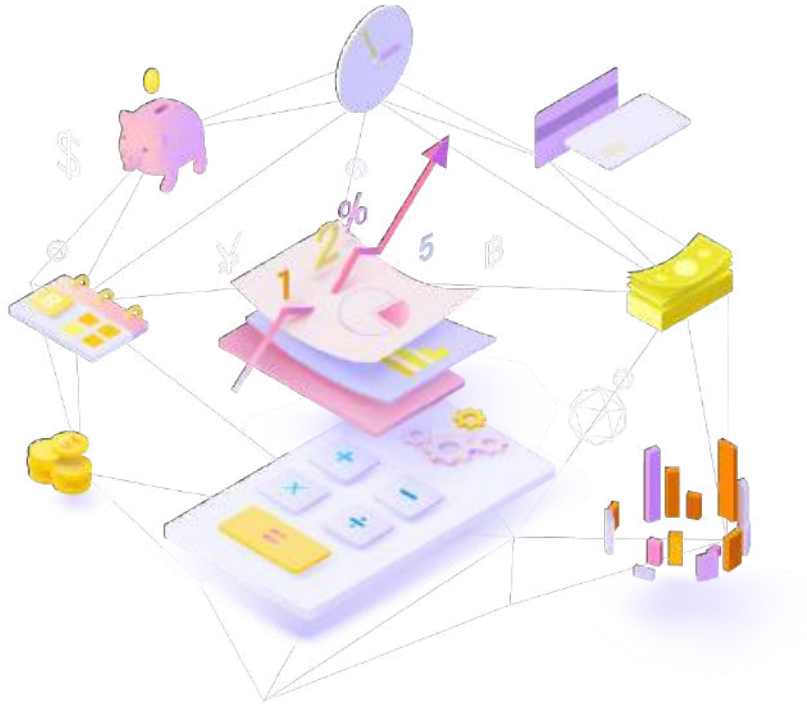
STEP 2 :
According to the voting ranking, a total of 101 block producers were born.

STEP 1 :
The user can vote on the candidate block producer by using the UL token he owns.

Uselink

USELINK VOTE FOR DIVIDENDS

All users who hold UL tokens on the USELINK chain have voting rights. After voting for 101 block producers, the voters will be awarded by the block producers. All processes and information can be completed and checked in the UL Almighty Mobile Wallet

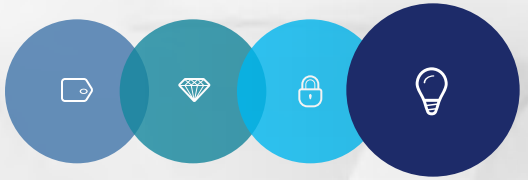


- **Voting right--**You have the right to vote if you hold the UL token. Election block producer is not only the recognition of them, but also the way to obtain income.
- **Dividend--**By voting for the block producer, it can affect the replacement of the block producer. The selected block producer will pay dividends to the voters after receiving the rewards. This positive incentive will make the whole community more united, and the unified community goals will make the community flourish.
- **Vote & dividend data--**Uselink will publish the voting information of all the block producers in real time on the official website. The UL Almighty Mobile Wallet will provide voting and will be able to view the dividends received in the wallet.

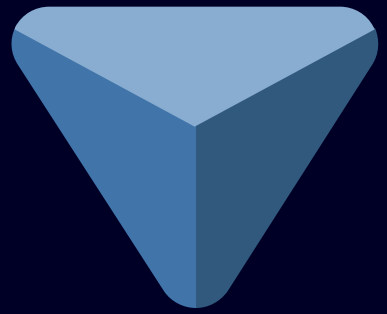
Uselink

USELINK

NATIVE MULTI ASSET TECHNOLOGY

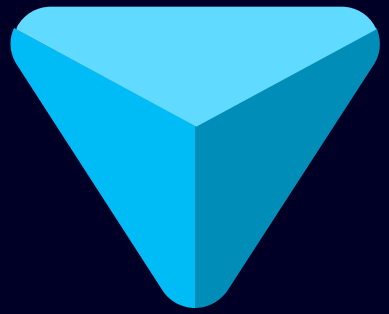


- UL Original Technology
- TOKEN New Standard



- Pure Asset Logic
- Safer And Reliable

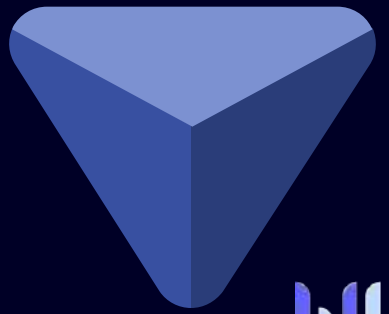
- Low Threshold
- One Click Release



- Predictability
- Compatibility

Assets interaction

- Anchoring Assets
- Cross-chain Recharge & Exchange ; Side chain settlement dividend



Uselink

USELINK Native multi-asset technology

TOKEN Native Asset Technology

Asset logic, one-click issue, multiple asset exchange and compatible

With pure asset logic technology, you can issue new TOKEN on chain without smart contract. It has strong immediacy and can be issued immediately without waiting for relevant requirements. Compared with contract assets, the original multi-asset complete circulation by the operation of infrastructure chain. without the complex operations in the virtual machine, and the virtual machine's operating environment. According to test data, it is about 10 times or more of contract transaction data.

Highly Security, Easy to Issue

Smart contracts are more flexible, and security is completely guaranteed by the contract writer. It leads to more complex security issues, and also relies on the self-discipline of the contract writer. The more complicated, the more likely it is to born a bug. Native multi-assets only deal with the asset circulation, and it’s safe as well as the infrastructure assets.Meanwhile,complex contract syntax is not supported and users are not exposed to other operations except assets. Even if the user's computer technology is poor , it is safe to use the original assets for trading!

No Difference TOKEN, Compatible with UL

The standard of native asset is beneficial to token circulation and related products developmen.

Tokens issued by native multi-assets are easy to exchange and compatible, and can perform the same function on DApps. Token holders can control assets and track any addresses, and these tokens can be used for different projects and platform. Because it uses pure asset logic, which is safer than smart contracts.

Uselink

USELINK

NATIVE MULTI ASSET TECHNOLOGY

Native multi-asset technology in UL is the standard technology for all types of assets (Token). To be fully compliant with UL, UL integrates a specific set of functions into their authentication mechanisms to perform the following operations at a high level:

- **Total supply of tokens**
- **Balance**
- **Transfer token**
- **Approve spending token**

· The UL chain has native token that can be used for elections. Native tokens remain non-inflationary.

· UL chain can issue assets flexibly, but only the block producer with the most votes can create assets.

· In order to realize the conversion between the legal currency and the digital token, you can use the gateway exchange method to convert the legal currency into BitCNY. This is the official token exchanged with legal currency 1:1. Tokens other than BitCNY are specific assets with their own life cycle.

· Native multi-asset can achieve commercial application. For example, an asset UL-Token can be issued on the chain for new business scenarios.

Uselink

USELINK

Native multi-asset technology

Combine anchored assets with new native asset technology

Create a new cross-chain asset trading method

· No smart contracts, all native assets on UL chain can be safely and easily exchanged and traded.

· Through the cross-chain asset trading technology of UL chain, issuing anchored original assets and completing the cross-chain asset trading.

· Native assets on UL chain

· USELINK chain token - UL TOKEN · Super BP with UL tokens issue native assets in other scenes

· Anchoring native assets on UL chain

· UL-BTC: BTC on USELINK chain anchored 1:1 native assets on chain

· UL-ETH: ETH on USELINK chain anchored 1:1 native assets on chain

· And anchoring native assets in the majority of digital currencies on the market in the future...

(example BTC/ETH)

Uselink

USELINK CROSS-CHAIN MULTI CHAIN PARALLEL TECHNOLOGY

UL

CHARACTERISTICS OF CROSS-CHAIN TECHNOLOGY

UL advantages

- Addressed the need for direct conversion of multiple assets
- Solved the problem of transaction congestion in mainstream digital assets
- Solved the problem of non-mainstream digital asset liquidity
- Solved the problem of high price fluctuations in block trades

Reserve mechanism

The UL chain has a reserve ratio of 100%, which means that each UL-BTC has a real BTC collateralized hot and cold multi-signature account on the BTC chain. This means that all assets of the BL chain will not be added or destroyed out of thin air. The increase of each asset represents the user's recharge, and the reduction of each asset represents the user's withdrawal.

Fee mechanism

The UL chain's handling fee supports a variety of on-chain token payments, so users do not need to consider whether their tokens can be used to pay the handling fee. The fee conversion ratio on the UL chain is not a fixed ratio, but is determined by market dynamics.

Fast and efficient

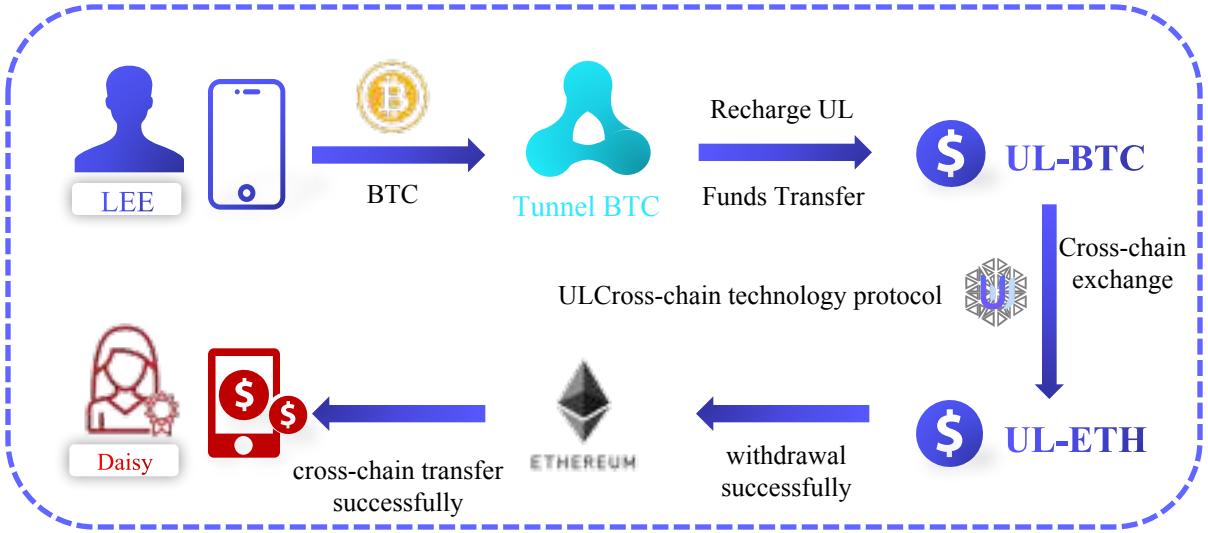
The UL chain generates blocks every 10 seconds. The BTC can process about 7 transactions per second. The ETH processes no more than 100 transactions per second, and the performance far exceeds the efficiency of BTC/ETH. The theory of the UL chain itself TPS (number of transactions per second) is 3000+, which is enough to carry all the assets on multiple chains to exchange transactions!

Learn more →

Uselink

USELINK CROSS-CHAIN MULTI CHAIN PARALLEL TECHNOLOGY

· ULUL Cross-Link Technology Transfer / Cross-Chain Trading Operation Flow Chart:



· UL chain interaction process:

1. Initialize and issue a UL multi-asset chain based on the UL holder's witnesses, perform native asset allocation, and configure basic parameters.

2. Witnesses on UL multi-asset chain Create multi-signature accounts on the BTC and ETH chains respectively, and the addresses of the multi-signature accounts are signed by all witnesses and broadcast to the UL multi-asset chain.

3. Each witness on multi-asset chain recharges the corresponding number of anchored UL tokens to the starting block for warranty and maintenance.

· UL usage process:

1. Users create account by UL Universal Wallet and create UL account ,BTC account and ETH account. The BTC and ETH account are optional, importing other chains' private keys is allowed.

2. Users use UL Universal Wallet to complete the recharge binding relationship between BTC account and UL registration account, and the relationship between the ETH account and UL registration account. (A UL registered account can be bound to multiple BTC and ETH accounts)

3. Users transfer coin to BTC or ETH account.

4. Users complete cross-chain operation by UL Universal Wallet. The BTC or ETH account loses the corresponding asset. The binded registration account will receive UL-BTC or UL-ETH.

5. Users are free to trade UL-BTC and UL-ETH in token purchase area.The ways to pay the fee (UL, UL-BTC, UL-ETH)

6. Users initiate a withdrawal and applies for exchanging UL-BTC or UL-ETH to BTC or ETH;

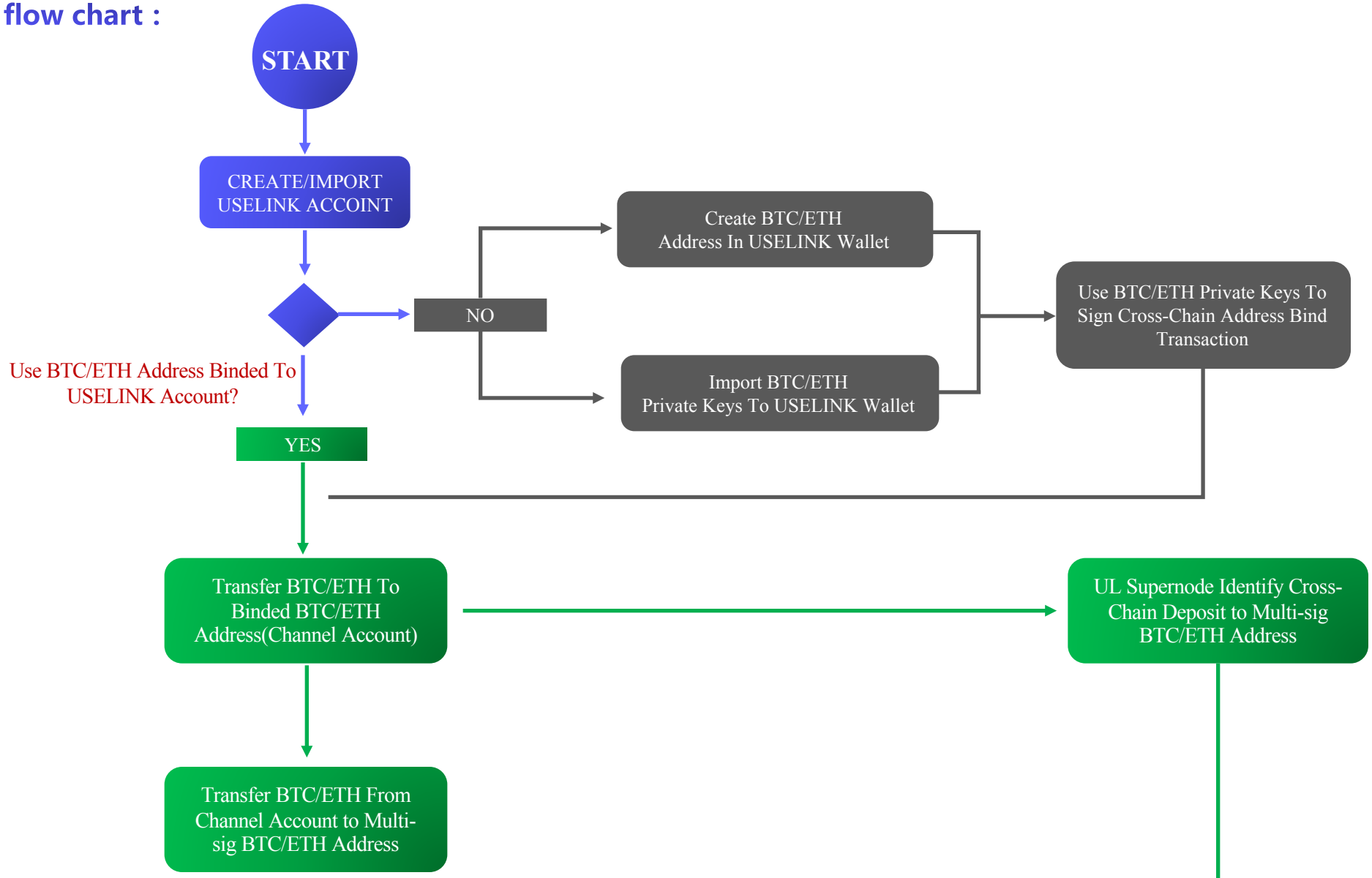
7. After being verified, judge whether the current account balance is sufficient or not. If sufficient, directly create a withdrawal, if not , then create a withdrawal after completing the fund acquisition process.

8. Witness nodes Create a BTC or ETH transfer after automatically approving the withdrawal and broadcasts it to the corresponding UL main chain.

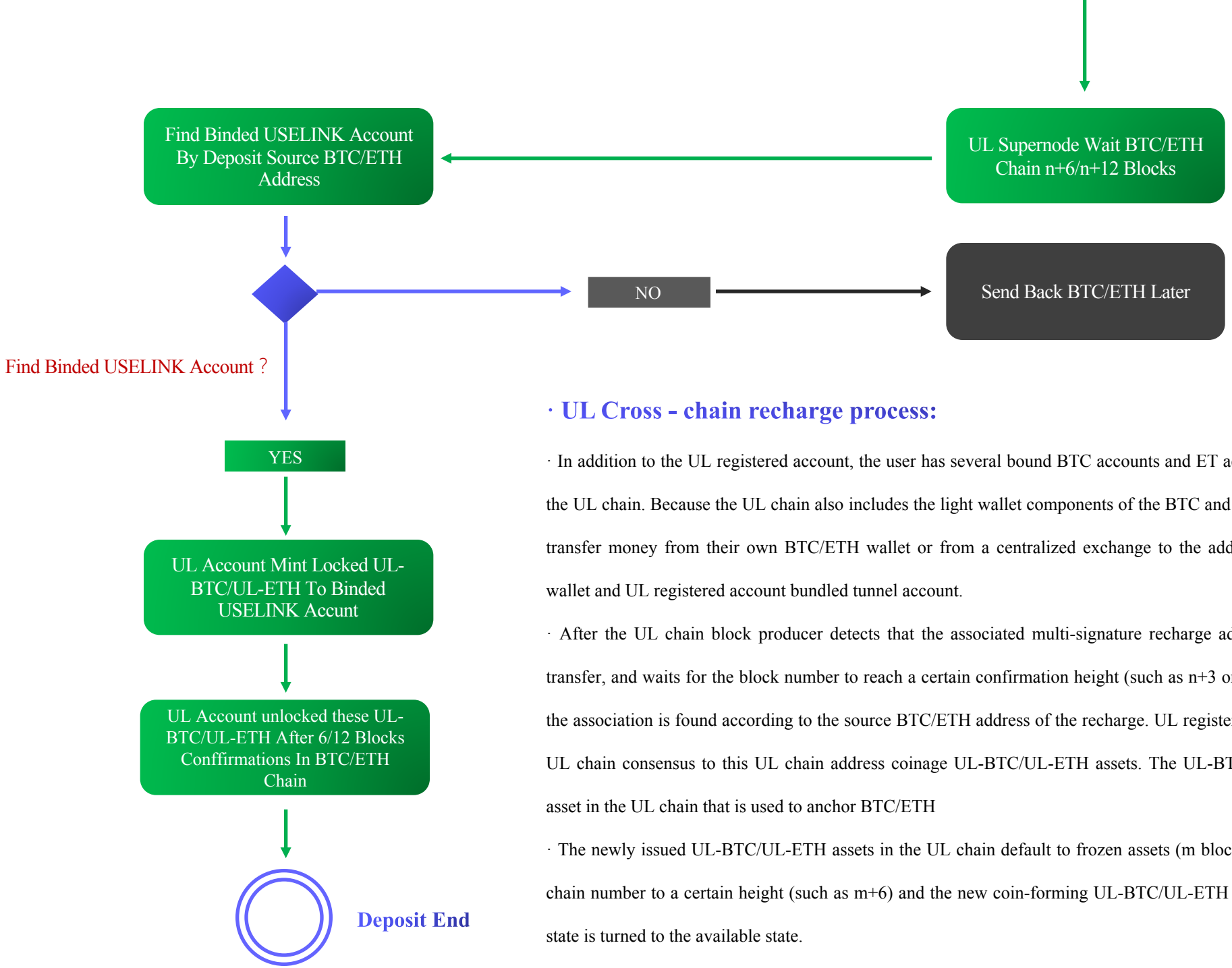
Uselink

USELINK CROSS-CHAIN MULTI CHAIN PARALLEL TECHNOLOGY

The cross-chain recharge operation flow chart :



Uselink



· UL Cross - chain recharge process:

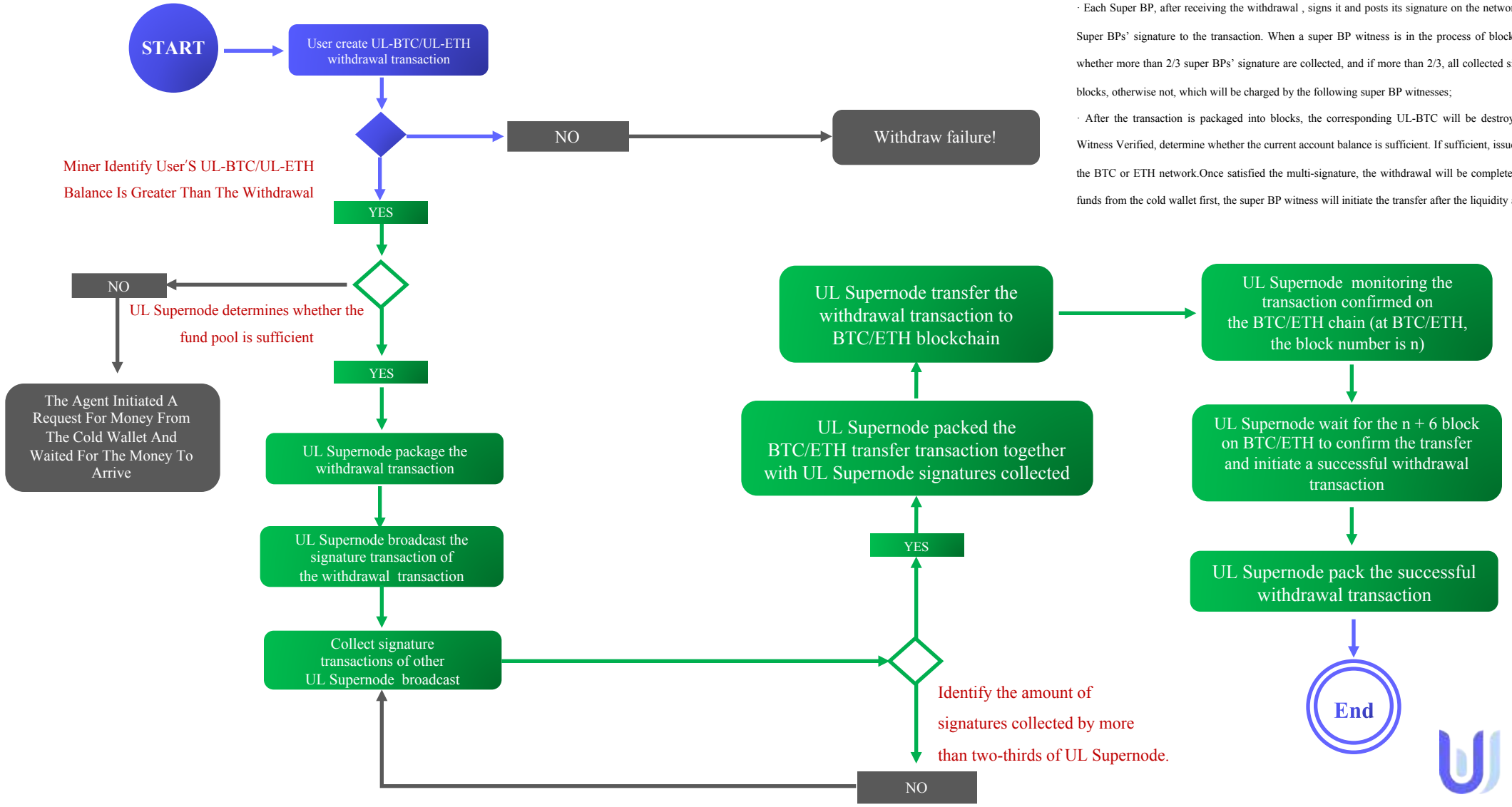
· In addition to the UL registered account, the user has several bound BTC accounts and ET accounts in the wallet of the UL chain. Because the UL chain also includes the light wallet components of the BTC and ETH chains. Users can transfer money from their own BTC/ETH wallet or from a centralized exchange to the address of their UL chain wallet and UL registered account bundled tunnel account.

· After the UL chain block producer detects that the associated multi-signature recharge address has received the transfer, and waits for the block number to reach a certain confirmation height (such as n+3 on the BTC/ETH chain), the association is found according to the source BTC/ETH address of the recharge. UL registered account. And in the UL chain consensus to this UL chain address coinage UL-BTC/UL-ETH assets. The UL-BTC/UL-ETH asset is an asset in the UL chain that is used to anchor BTC/ETH

· The newly issued UL-BTC/UL-ETH assets in the UL chain default to frozen assets (m blocks), waiting for the UL chain number to a certain height (such as m+6) and the new coin-forming UL-BTC/UL-ETH assets from The frozen state is turned to the available state.

USELINK CROSS-CHAIN MULTI CHAIN PARALLEL TECHNOLOGY

· Cross-chain withdrawal flow chart is as follows:



· UL cross-chain withdrawal process:

· Users initiate a withdrawal, which includes the withdrawal address of BTC or ETH;

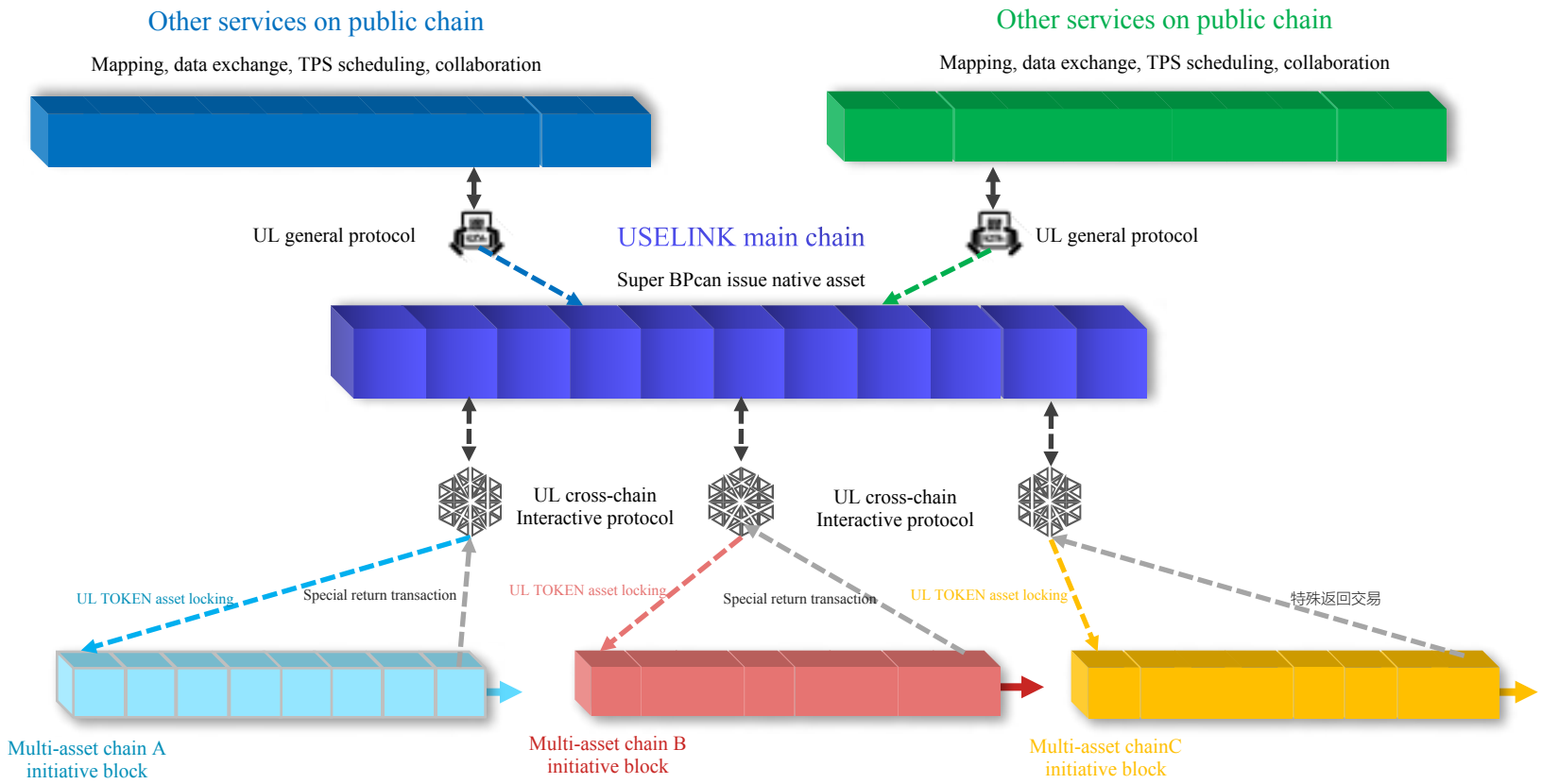
· Each Super BP, after receiving the withdrawal , signs it and posts its signature on the network, while collecting other Super BPs' signature to the transaction. When a super BP witness is in the process of block generation, it is judged whether more than 2/3 super BPs' signature are collected, and if more than 2/3, all collected signatures are packed into blocks, otherwise not, which will be charged by the following super BP witnesses;

· After the transaction is packaged into blocks, the corresponding UL-BTC will be destroyed. After the Super BP Witness Verified, determine whether the current account balance is sufficient. If sufficient, issue the transfer signature in the BTC or ETH network.Once satisfied the multi-signature, the withdrawal will be completed. If not enough, get the funds from the cold wallet first, the super BP witness will initiate the transfer after the liquidity account is sufficient.

Uselink

USELINK MULTI ASSET CHAIN PARALLEL

· UL chain & multi-asset chain, Cross-chain asset interaction and communication diagram:



Native multi-asset cross-chain technology is designed to achieve two-way anchoring, allowing various cryptocurrencies to transfer between the main chain and multiple asset chains.

· **UL main chain:** can be understood as a formal, independent blockchain network;

· **Multiple asset chain :** Not specifically referring to one blockchain, it's a general term for all blockchains complied with multi-asset chain protocols.

· Through multi-asset chain technology, UL coins can be transferred from the UL chain to other blockchains and used on them, meanwhile returning to the UL chain safely; keeps the same value all the process. Therefore, the concept of multi-asset chain is relative to the main chain, and it can be in accordance with the multi-asset chain protocol.

Uselink

USELINK MULTI CHAIN PARALLEL TECHNOLOGY

· Native asset＆Multi-chain ：

UL multi-asset - other tokens issued on the UL blockchain under the guarantee of UL currency.

For example, if you send 10,000 UL coins to the initial block of multi-asset chain A, there will be 10,000 multi-asset chain coins on the multi-asset chain A for circulation.

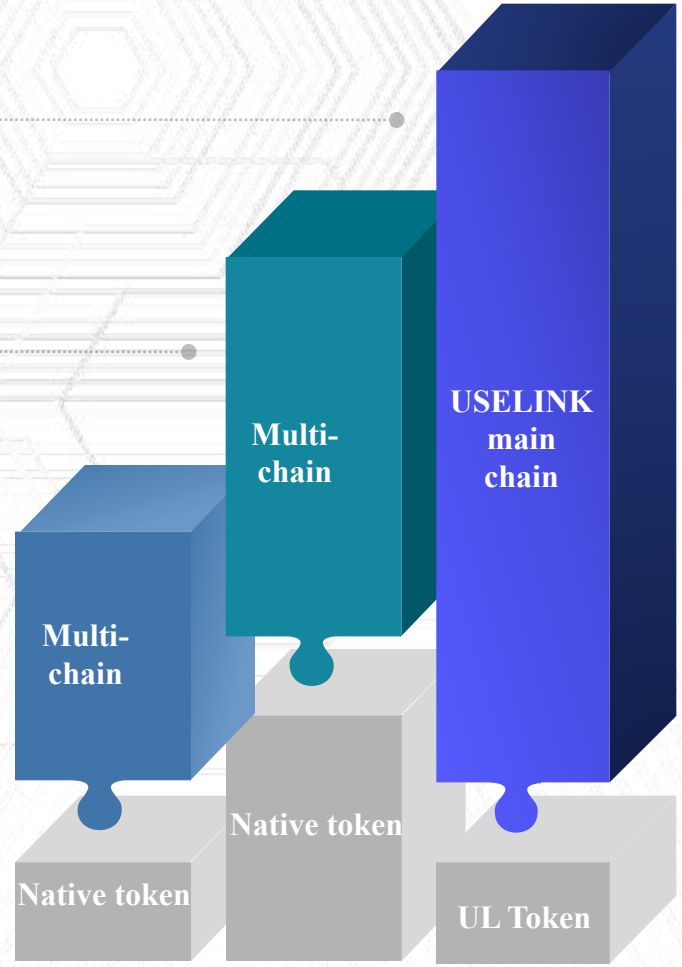
· Security ：

Each UL node can install a multi-asset chain because the owner of the UL node does not need to trust the developers of multiple asset chains. This requires a measure of security precautions. In the UL system, multiple asset chain codes are started as child processes. The child process first loads a Javascript virtual machine isolated using a sandbox mechanism. The JS virtual machine is a naked virtual machine without Require and any extra modules. At the same time, this virtual machine is populated with a custom require and some common and secure modules. Finally, load the code of the multi-asset chain. A range of API are also provided through interprocess communication. In this way, the multi-asset chain framework has enough APIs, and the installers of multiple asset chains do not have any risks.

1. Advantage : The code and data of multiple asset chains are independent, without increasing the burden of the UL chain and avoiding excessive data expansion. A multi-asset chain has separate blockchains and node networks. A block generated by a multi-asset chain will only be broadcast between all nodes where the multi-asset chain is installed.

2. Mutual benefit : The UL chain and the multi-asset chain are mutually beneficial relationships. The UL chain provides infrastructure for multi-asset chains, such as database write API, network communication API, encryption API, and so on. Multiple asset chains can add more nodes to the UL chain to grow the entire system.

3. Flexible : The UL chain provides a template development framework for multiple asset chains. The infrastructure functions are perfect, and Dapp developers only need to complete business logic. The multi-asset chain framework language is nodejs, which has many built-in libraries for developers to use directly. It can also be installed by itself and backed by a huge javascript community. Developers of multiple asset chains can take advantage of existing UL chain nodes, and only need the node owner to install the application. In addition, the tokens of the UL chain can be transferred to multiple asset chains.



Uselink

USELINK CRYPTOGRAPHY PRINCIPLE AND ALGORITHM

· Cryptography Principle：

· **Private key：**Non-public, is a 256-bit random number that is kept by the user and is not open to the public. The private key is usually generated randomly by the system. It is the only proof of the user account usage rights and the ownership of the assets in the account. The effective length is large enough, so it is impossible to be compromised and there is no security risk.

· **Public key：**It can be made public that each private key has a public key that matches it. The ECC public key can be generated by a private key through a one-way, deterministic algorithm. The candidate schemes are secp256r1 (international standard), secp256k1 (bitcoin standard), and SM2 (Chinese national standard).

· **Symmetric encryption is the same key used for encryption and decryption:** That is to say, when using this encryption method, the encryption party and the decryption party need to use the same key for encryption and decryption. This method only needs one key + specific algorithm to encrypt the data content, and the encryption and decryption efficiency is relatively high, so The pair is widely used. But because the decryptor also needs a key, securing the key is also a problem.

· Contrary to the above, if encryption and decryption are different keys, that is, **asymmetric encryption key cryptosystem**. Each communicating party requires two keys, a public key and a private key, which can be encrypted and decrypted by each other.If the data is encrypted with a public key, it can only be decrypted with the corresponding private key. If the data is encrypted with a private key, it can only be decrypted with the corresponding public key. Because encryption and decryption use two different keys, this algorithm is called an asymmetric encryption algorithm. The public key does not need to be kept secret, and the private key is held by the individual and must be kept safe and confidential.

· Address: The address is a summary of the public key, which is generated for the user to facilitate the transaction, because the public key is about 130 characters longer, and the address is shorter, about 35 or 36 characters.

· Private Key >> Public Key >> Address. The process is irreversible. Having a private key has everything.

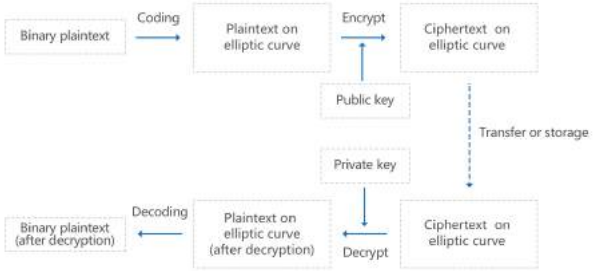
· The ECC (Elliptic curve cryptography) used by this platform ensures that the public key cannot reversely derive the private key. The Sha256 hash algorithm ensures that the public key cannot be derived from the address backwards.

USELINK ELLIPTIC CURVE CRYPTOGRAPHY

· **Elliptic Curve Cryptography，ECC** is a public key algorithm based on elliptic curve mathematics. Its security depends on the difficulty of elliptic curve discrete logarithm problem.

(1) Advantages

1. Short key length, meaning small bandwidth and storage requirements.
2. All users can select different elliptic curves on the same base domain, allowing all users to perform domain operation using the same operations.

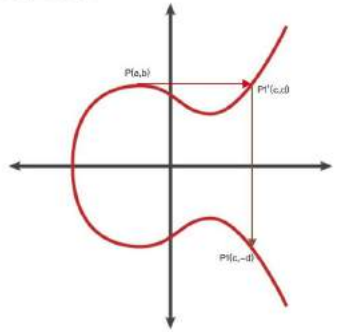


Encryption and decryption process

(2) Secp256k1 Elliptic Curve Cryptography

Secp256k1 is an elliptic curve based on the Fp finite field. Due to the special structure of its special structure, its optimized implementation can be 30% higher than other curves. It has the following two advantages:

1. Occupy a small amount of bandwidth and storage resources, the length of the key is very short.
2. Let all users use the same operation to complete the domain operation.



Secp256k1 Elliptic Curve Cryptography

Uselink

(3) Elliptic curve signature and verification signature

1. Elliptic curve signature generation

Suppose the user signs the message m, and the elliptic curve parameter he uses is D=(p,a,b,G,n,h),

The corresponding key pair is（k，Q），Q is the public key and k is the private key. Signature steps:

step 1, generate a random number d, 1 ≤ d ≤ n-1;

step 2, calculate dG=(x 1, y 1) and convert x 1 to an integer x;

step 3, calculate r=□x mod n, and if r=0, go to step 1;

step 4, calculate d-1mod n;

step 5, calculate the hash value H(m) and convert the resulting string to an integer e;

step 6, calculate s=d-1 (e+kr) mod n, if s=0, then go to step 1;

step 7, (r, s) is the user's signature of the message m.

2. Elliptic curve signature verification

To verify user's signature (r, s) for the information m, the miner can get user's elliptic curve parameters and public key Q. The miner will follow the steps below.

step 1, verify that r and s are integers in the interval [1, n-1]; step 2, calculate H(m) and convert it to an integer e;

step 3, calculate w=s-1mod n; step 4, calculate u 1 =ew mod n and u 2 =rw mod n; step 5, calculate X=u 1 G+u 2 Q;

step 6, if X=O, the signature is rejected, otherwise the x coordinate x 1 of X is converted to the integer x, and is calculate v=x mod n; step 7, if and only if v=r, the signature approved.

Using the elliptic curve signature and verification algorithm, on the one hand, it's guaranteed user's account will not be replaced, on the other hand, it can ensure that the signed transaction cannot be denied. When user initiates transaction, which is signed with his own private key. After receiving the information, the miner verifies user's public key signature.Once passed, the transaction information can be recorded by the miner and the transaction is finally completed.

USELINK SAFETY SYSTEM

Blockchain technology has been applied in many aspects, but there are still many problems in terms of performance, permissions, and security.

(1) Safety of the infrastructure code

One feature of the blockchain is open source. But the open source code also makes it easier for attackers to attack blockchain systems.

1. Use professional code auditing services.

2. Understand the security coding specification and prevent it from happening.

(2) Safety of cryptographic algorithms

Blockchain relies primarily on elliptic curve cryptography to generate digital signatures for secure transactions. Security can be improved through UL safety methods.

(3) Safety of digital wallets

Digital wallet mainly has three hidden dangers:

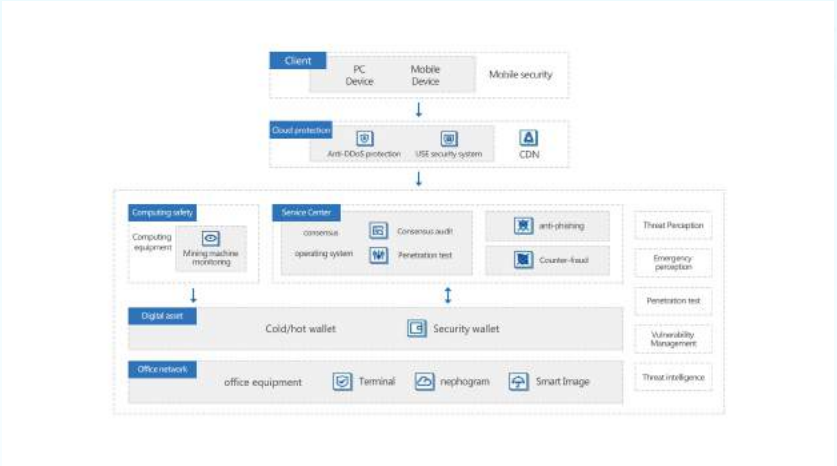
1. Design defect; 2. Malicious code is included in the digital wallet; 3. Lost assets caused by loss or damage to your computer or mobile phone.

The response measures have the following aspects:

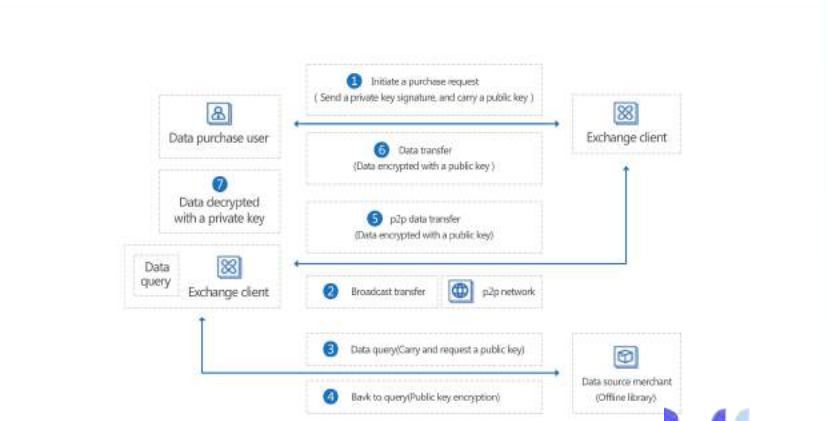
1．Ensure the randomness of the private key; 2．Perform a hash check before installation to ensure that the digital wallet software has not been tampered with; 3．Use cold wallet; 4．Back up the private key; 5．Wallet cloud serving;

6．Warehouse storage (online and offline accounts)；

· UL schematic diagram of safety system：



· UL safety method diagram：



Uselink

PART FOUR

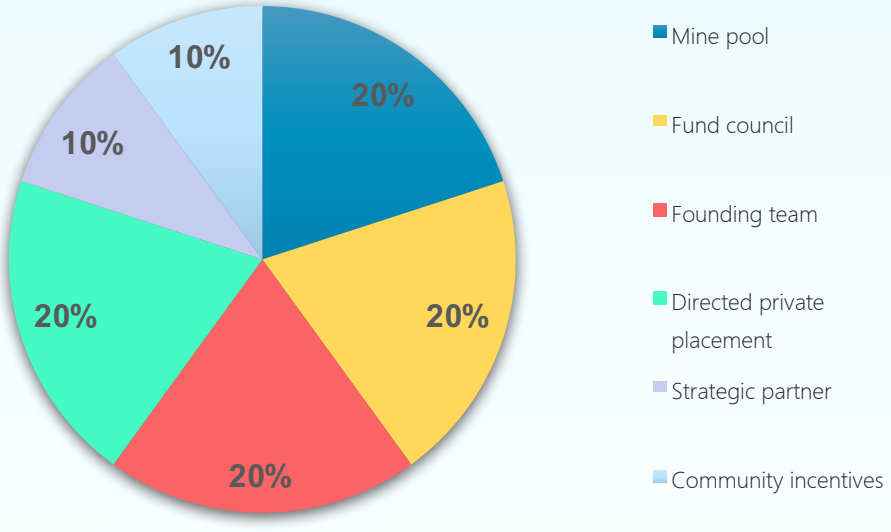
USELINK TOKEN

USELINK ECOLOGICAL CIRCULATION TOKEN

Uselink

USELINK TOKEN DISTRIBUTION MECHANISM

USELINK TOKEN Distribution Chart



USELINK TOKEN Distribution Plan：

Distribution Plan	Proportion	Amount
Directed private placement Used for community, crowdfunding, airdrop, practice Token Economy mechanisms.	10%	21 million
Mine pool It an mine UL Token and used as a reward for block producers.	20%	42 million
Community incentives Used for community construction, development, market transactions, user downloads, commercial applications and other funds.	15%	31.5 million
Founding team motivation Used for team initial project preparation and development and technology research and development awards (locked warehouse for 20 years, release 5% every 5 years)	20%	42 million
Fund council It will serve as a council operating fund to ensure the sustainable development of the community and the entire project, as well as the later ecological construction. (Locked for 10 years, 4% released every 2 years)	20%	42 million
Strategic partner Used in UL market strategy, partner institutions, consultant teams, ecological construction, etc.	15%	31.5 million

USELINK TOKEN：

· **Token name：** USELINK; · **Abbreviation：** UL;

· **Chinese name：** 优令; · **Total circulation：** 210 million;

· **Distribution Plan：** The mine pool releases 1 block every 10 seconds, and the release amount is 20% of the total; the remaining 80% is used for different proportions of the fund council, strategic cooperation fund, founding team, community incentives, and targeted private placement.

Uselink

USELINK TOKEN FUNCTION

USELINK TOKEN – UL's FUNCTION

- Issue Token in native asset
- Hold voting,get bonus
- Super BP mining
- Cross-chain exchange consumption / requirement
- Transaction fee GAS consumption
- BP campaign requirement
- Mainnet function application

Uselink

PART FIVE

DEVELOPMENT ROADMAP & FUTURE PLANNING

Uselink

USELINK DEVELOPMENT ROADMAP

07.2017

USELINK

The project was officially launched, the team was formed, and the community was initially constructed.

03.2018

USELINK

Core technology R&D, community construction completed, mobile APP development completed, test mainnet development

07.2018

USELINK

UL wallet officially launched, mainnet beta
Convene a global press conference for the project

Uselink

Q4.2018

USELINK

UL will list trading platform

Launch several global famous trading platforms later

Q2.2019

USELINK

Complete core technology R&D, and issue multiple financial native asset products

Q2.2020

USELINK

List centralized exchange, and the UL asset trading ecosystem is basically completed.

PART SIX

UL TEAM & CONSULTANT & DISCLAIMER

Uselink

USELINK CORE TEAM

Winson

Co-founder

Kong Ling, one of the co-founders of Uselink, Deputy Dean of Uselink Asia Pacific Business School, Operations officer of Uselink Asia Pacific Community, Dean of JLL Business School, senior executive of several capital institutions, and executive director of the three exchanges, famous angel investor, is the famous block chain training instructor with 9 years training experience. Has participated in the establishment of Huaying Capital and invested in many projects. He is also a block chain senior educator, establishing block chain education platform with China Electronic Commerce Association (a block chain technology union).

Eddie

CHIEF BUSINESS OFFICER

Eddie is original founder and Global Business Officer of Uselink, president of operation for the Singapore CT Foundation, former Vice President of the Investment Authority in Cape Town, South Africa, and a graduate of the University of Cape Town with a Master degree, As an overall solution expert in IT technology and sales field, he also is a block chain developer with perspective on block chain, enterprise application framework and product design.

Simon

CHIEF TECHNICAL OFFICER

Simon focuses on the public chain infrastructure, public-chain operating system development, cryptocurrency, smart contract security, and distributed consensus algorithms. He has more than 8 years of experience in blockchain technology research and has worked in the code editing of blockchain companies in various industries around the world. He is a technical consultant for Bitcoin and Ethereum seminars, and also an early technology development for EOS projects and BTS projects. team member. After successfully developing multiple blockchain projects, he began to participate in the development of several startup projects, and led the technical team to develop more than 30 infrastructure technical architectures and smart contract systems!

Uselink

USELINK CORE TEAM

Wouter

SENIOR TECHNICAL CONSULTANTS

Wouter graduated from Yale University with a degree in Computer Science. As a top IT engineer, Wouter was the Technical Director of Australia at Microsoft. Later, he served on multiple blockchain teams with excellent code and architecture skills. And participated in the planning of multiple blockchain projects, with rich experience in blockchain development.

William Theodore

BLOCK CHAIN INVESTMENT MANAGER

William Theodore is a professional investment manager in the context of Global Investment and Credit Suisse's technology and banking business, and later served as director of risk management for the Americas region at Kohler Capital.William has enough trust and influence in investment institutions, venture capital funds and investors. William is a famous professional investor. In 2013, we focused on the blockchain industry and invested in multiple blockchain projects, especially in the development of blockchain infrastructure technology public chain projects. Now one of the main investors of USELINK.

Woodrow Dean

CHIEF LEGAL COUNSEL

Dean Woodrow has a wide range of international tax and legal experience in IT/media/real estate, M&A FinTech and BF investment multinational investment companies. He is the lead attorney for the board of directors of several companies. Now he is the legal team leader of USELINK.

Lucas Lee

STRATEGIES CONSULTANT

Lucas Lee formed the PCA Blockchain Lab
Developed by PCA Labs for financial, he has developed and supported many technology blockchain projects and is a contributor to several blockchain open source projects.

Uselink

USELINK TECHNICAL TEAM

Jacky Yang

BLOCKCHAIN ARCHITECTURE DEVELOPMENT ENGINEER

Good at public chain infrastructure development and SDK design and development. Through HTTP RPC, SOCKET RPC provides a variety of access packages with autonomous public chain. I have participated in the development of the underlying technology of several blockchain public chains, the background design, and development of the light wallet server, and the background front-end function development of the blockchain browser function. It is very good at the development of public chain technology.

Richard Reiner

BLOCKCHAIN TECHNOLOGY R&D ENGINEER

It is a global developer of ETHEREUM BITCOIN BITSHARE ZCASH technology project, an open source nlp project that is proficient in various machine disciplines, research, analysis, and development of blockchain mainstream projects. Analysis/architecture/encoding capabilities of mature software projects (100,000 lines of code). Participated in such design projects and code development as rdk robot development board project, intelligent data collection and processing platform, INTEL tablet project MOUNTHILL, mainstream blockchain dynamic analysis server. And developed a blockchain application project in multiple scenarios.

Ocean Lee

BLOCKCHAIN PRODUCT TECHNICAL DIRECTOR

Former technical advisor to the Asian DACA Blockchain Technology Association, proficient in high-level language programs, discrete mathematics, algorithm design and analysis, blockchain technology architecture development, blockchain cryptography, has participated in Ethereum smart contract development, independent development completed Based on the compatibility of the bit-share to Ethereum key system, the customization of the uplink business is carried out, and the product project design, R&D and management of multiple public chains are dominated .Rich experience in the development of blockchain main sidechain, cross-chain technology, trading platform!

Jetao Joe

BLOCKCHAIN TECHNOLOGY R&D ENGINEER

His research focuses on game theory incentives in blockchain agreements and formal verification of smart contracts. Study the application of smart contracts in the formal verification of computer programs and systems. He is also an experienced software developer with more than 5 years of experience as a senior software engineer and technical leader. He is good at multithreading image processing, realizing virtual & reality interaction, building robot models, writing interfaces to simulate real environments, and algorithm design. , database design and other top capabilities!

Andrew Tsaran

BLOCKCHAIN APPLICATION DEVELOPMENT ENGINEER

His research focuses on game theory incentives in blockchain agreements and formal verification of smart contracts. Study the application of smart contracts in the formal verification of computer programs and systems. He is also an experienced software developer with more than 5 years of experience as a senior software engineer and technical leader. He is good at multithreading image processing, realizing virtual & reality interaction, building robot models, writing interfaces to simulate real environments, and algorithm design. , database design and other top capabilities!

Uselink

USELINK COOPERATION AGENCY

CT基金会

PCA laboratory

BZLM

ROBIN8

PROMETHEUS PRO FUND

Canadia Mobile Banking

ELAFUND

Uselink

RISK WARNING

Encrypted assets are a relatively new asset class with considerable investment risk. Potential investors need to be fully aware of these risks and invest in their respective risk tolerance levels.

a) Risk of incomplete information announce

As of the date of this white paper, Uselink is still in the development stage, and its technical specifications, consensus mechanisms, algorithms, code and other technical specifications and parameters may be constantly updated and changed. Although this white paper contains specific information about Uselink, it is not intended to be complete and the seller may make adjustments and updates to it from time to time, depending on the specific purpose. The seller cannot and is not obliged to keep the participants informed of every detail in Uselink development (including its progress and expected milestones, whether delayed or not), so it does not necessarily allow participants to be informed of Uselink development in a timely and sufficient manner. Information generated from time to time. Insufficient disclosure of information is inevitable and sensible.

b) Regulatory risk

Encrypted tokens are being or may be regulated by regulatory agencies in different countries.The Seller may from time to time receive inquiries, notices, warnings, orders or rulings from one or more regulations and may even be ordered to suspend or terminate any actions related to this public sale, Uselink development or UL.The development, marketing, promotion or other aspects of Uselink and this public sale may be severely affected, hindered or terminated.As regulatory policies are subject to change at any time, existing regulatory approvals or tolerances for Uselink or this public sale in any country may be temporary.In various countries, UL may be defined as a virtual commodity, digital asset or even a security or currency at any time, so in some countries, UL may be prohibited from trading or holding in accordance with local regulatory requirements.

c) The risk of accelerated cryptography

Cryptography is evolving and cannot guarantee absolute security at all times. Advances in cryptography (such as password cracking) or technological advances (such as the invention/improvement of quantum computers) can be dangerous for cryptographic-based systems, including Uselink. This may result in the theft, theft, disappearance, destruction or devaluation of the UL held by anyone. To the extent reasonable, the project party will be self-prepared to take preventive or remedial measures, upgrade the underlying Uselink agreement to address any advances in cryptography, and incorporate new reasonable security measures where appropriate. The future of cryptography and security innovation is unpredictable, and the project side will work with other members of the Uselink community to adapt to the changing world of cryptography and security.

d) Risk of project failure or termination

Uselink is still in the development phase, not the finished product that is ready for launch. Due to the technical complexity of the Uselink system, the seller may face unpredictable and/or insurmountable difficulties from time to time. Therefore, Uselink development may fail or terminate at any time for any reason (eg due to lack of funds). Failure or termination of development will result in the failure of UL tokens to be delivered to any participant in this public sale.

e) Risk of incomplete information announce

There may be people trying to steal the crowdfunding funds received by the seller (including those that have been converted into legal currency). Such theft or theft attempt may affect the seller's ability to fund Uselink development. Although the seller will adopt the most sophisticated technology solutions to protect the security of crowdfunding, some cyber theft is still difficult to completely prevent.

RISK WARNING

f) Source code vulnerability risk

No one can guarantee that the source code of Uselink is completely flawless. Code may have certain flaws, bugs and vulnerabilities that may prevent users from using certain features, exposing users' information, or causing other problems. If such defects are present, it will undermine the usability, stability and/or safety of Uselink and therefore have a negative impact on the value of UL. Open source is based on transparency to facilitate code-based identification and problem resolution from the community. The seller will work closely with the Uselink community to continuously improve, optimize and improve the source code for Uselink.

g) Risk of no access permit, decentralized ledger

Among the contemporary blockchain projects, there are three popular types of distributed ledgers, namely,ledgers with no access permits, affiliate books, and private books. The infrastructure distributed ledger of Uselink is not licensed, which means it is freely accessible and usable by everyone, without being restricted by access. Although Uselink was originally developed by the seller, it is not owned, operated or controlled by the seller. The spontaneously formed Uselink community is fully open, decentralized, and accessible without permission. It consists of users, fans, developers, UL holders, and other participants worldwide. No relationship with the seller. The community will be decentralized and autonomous in terms of Uselink maintenance, governance, and evolution. The seller is only an active member of the community and equal status with others. There is no supreme or arbitrary power, regardless of its previous efforts and contributions to the birth of Uselink. Therefore, after Uselink is launched, how it will be governed and even evolved will not be dominated by the seller.

h) source code upgrade risk

The source code for Uselink is open source and may be upgraded,modified, or changed from time to time by any member of the Uselink community. No one can anticipate or guarantee an accurate result of an upgrade, revision, modification, or change. As a result, any upgrades, modifications or alterations may result in unpredictable or unexpected results that could materially and adversely affect the operation of Uselink or the value of UL.

i) Risk of security vulnerability

The Uselink blockchain is based on open source software and is a distributed ledger with no access permissions. Although the seller strives to maintain the security of the Uselink system, anyone may intentionally or unintentionally bring weaknesses or defects into the core infrastructure elements of Uselink, these weaknesses or defect sellers may not prevent or compensate by the means of security measures.This may eventually result in the loss of the participant's UL or other digital tokens.

j) "Distributed Denial Service" attack

Uselink is designed to be open and has no licensed ledgers. As a result, Uselink may suffer from "distributed denial service" cyber attacks from time to time. This type of attack will cause the Uselink system to be adversely affected, stagnant or embarrassed, so transactions on this side are delayed or written into the block of the Uselink blockchain, or even temporarily unavailable.

RISK WARNING

k) Risk of insufficient node processing capacity

The rapid development of Uselink will be accompanied by a sharp increase in transaction volume and the need for processing power. If the processing power needs more than Uselink

The load that the node can provide during the blockchain network may be stunned and/or stagnant, and may result in fraud or fraudulent transactions such as "double spending." In the worst case, any person holding a UL may be lost, and a Uselink blockchain rollback or even a hard fork may be triggered. The consequences of these events will compromise the usability, stability and security of Uselink and the value of UL.

l) The risk of unlicensed UL tokens being claimed

Anyone who obtains the purchaser's registered email address or registered account access rights by decrypting or cracking the UL purchaser's password will be able to maliciously claim the UL purchased in this public sale. Accordingly, the UL purchased by the purchaser in this public sale may be sent incorrectly to anyone who claims UL through the purchaser's registered email address or registered account, and such transmission is irrevocable and irreversible. Each purchaser should take the following measures to properly maintain the security of their registered email address or registered account.

(i) use a high security password; (ii) do not open or reply to any fraudulent email; and (iii) strictly keep confidential or confidential information.

m) UL wallet private key loss risk

This may be irreversible if the private key necessary to access the UL is lost or corrupted. UL can only be manipulated by a local or online UL wallet with the unique public and private keys. Each purchaser should keep the private key of their UL wallet. If the UL purchaser's private key is lost, compromised, damaged, the seller or any other person cannot assist the purchaser in accessing or retrieving the relevant UL.

n) System fork risk

Uselink is an open source project initiated by the seller and supported by the community. Although the seller is influential in the Uselink community，it is not impossible to arbitrarily develop, market, run Uselink or otherwise. Anyone can develop a patch or upgrade of the Uselink code without the authorization of any other person. Once part of the Uselink blockchain certifier accepts a Uselink patch or upgrade, this may cause the Uselink blockchain to "split", resulting in two forked networks until the forked blockchain merges or one of them terminates the block (both of which may never happen). Each branch of the Uselink blockchain that is forked will have its own crypto token. Therefore, there are separate ULs with almost identical technical features and functions on the two forked branches. The Uselink community may split into two batches, supporting two branches. In addition, the forked Uselink blockchain branch can theoretically be further infinitely bifurcated. Temporary or permanent presence of a forked blockchain can adversely affect the value of Uselink operations and UL. In the worst case, the sustainability of the Uselink system may be destroyed. Although the forks on the Uselink blockchain may be resolved by combining the two branches after the community led efforts, they are not guaranteed to be successful and may take a long time.

RISK WARNING

o) The risk of token inflation

Depending on the underlying protocol at the time of Uselink release, the total UL may increase slightly over time and may increase further due to patches or upgrades that incorporate Uselink source code. The resulting UL supply inflation may cause market prices to fall.

As a result, UL holders may suffer economic losses. UL purchasers or holders are not guaranteed to receive some form of compensation or compensation for UL inflation.

p) Risk of platform consolidation

From a technical perspective, Uselink may be combined with other blockchain projects to achieve synergies or based on other valuable considerations in specific situations. This form of merging may result in the Uselink blockchain being abandoned or discarded in exchange for a certain number of crypto tokens on the newly created other blockchain. These new crypto tokens will be distributed at a certain exchange rate and distributed to the pre-merger UL holders. Under certain valuation models, UL holders may receive insufficient compensation in these mergers.

q) Application risk of lack of attention

The value of UL is highly dependent on the popularity of the Uselink platform. Uselink is not expected to be popular, prevalent or widely used in a very short time after its release. In the worst case, Uselink may even be marginalized for a long time, attracting only a small group of users. In contrast, a large UL demand may be speculative. Lack of users may cause UL market price volatility to affect the long-term development of Uselink. In the event of such price fluctuations, the seller will not (and is not responsible for) stabilizing or affecting the market price of UL.

r) Risk of insufficient liquidity

UL is neither a currency issued by any individual, entity, central bank or state, supranational or quasi-national organization, nor supported by any hard assets or other credit. The circulation and trading of UL in the market is not the responsibility or pursuit of the seller. UL's transactions are based solely on the consensus of the relevant market participants on their value. No one is obligated to redeem or purchase any UL from the UL Holder, and no one can guarantee the liquidity or market price of UL at any time. If a UL holder wants to transfer a UL, the UL holder must look for one or more buyers who are interested in purchasing at the agreed price. This process can be costly, time consuming, and ultimately unsuccessful. In addition, there may be no cryptocurrency exchanges or other online UL on the market for public trading.

s) Token price fluctuation risk

If trading on the open market, crypto tokens usually fluctuate wildly. Price shocks often occur in the short term, and prices may be quoted in Bitcoin, Ethereum, US dollars or other legal currencies. Such price volatility may be caused by market forces (including speculative trading), regulatory policy changes, technological innovations, the availability of exchanges, and other objective factors that also reflect changes in the balance of supply and demand. The Seller is not responsible for UL transactions in any secondary market, whether or not there is a secondary market for UL transactions. Therefore, the seller has no obligation to stabilize the price fluctuations of UL and does not care about it. The risk involved in UL's transaction price is at the sole discretion of UL trader.

RISK WARNING

t) Competitive risk

The underlying protocol of Uselink is based on open source computer software, so anyone can legally copy, copy, reproduce, design, modify, upgrade, improve, recode, reprogram, or otherwise utilize Uselink's source code and / or underlying protocol. In an attempt to develop a competitive protocol, software, system, virtual platform or virtual machine to compete with Uselink, or even catch up with or replace Uselink. The seller has no control over this. In addition, there are already many and many competing blockchain-based platforms (such as BitSharess) that compete with Uselink. Under no circumstances can the seller eliminate, prevent, limit or reduce this competition to compete with Uselink or to replace Uselink.

u) Third-party developer risk

Uselink will provide an open platform for third parties (especially Uselink community members) to develop any type of distributed applications and smart contract programs. All of these applications and smart contract programs can be accessed or built on the Uselink blockchain without being subject to censorship, restrictions, controls, prequalification or access requirements. The seller is neither intended nor able to act as an examiner to any extent to review any procedures that will be developed or related to the Uselink system. Therefore, procedures that are prohibited or restricted in a particular jurisdiction, such as those involving gambling, betting, lottery, lottery, pornography, etc., may utilize the Uselink blockchain's non-access requirements to develop, promote, and market. Or operate. Regulatory authorities in specific jurisdictions may take appropriate administrative or judicial measures for specific procedures or even their developers or users. Penalties, penalties, sanctions, repression, or other regulatory measures by any government authority may more or less scare or deter future or potential Uselink users using the Uselink system and hold UL, thus giving Uselink prospects Causing significant adverse effects.

v) Platform migration risk

Uselink will initially have a separate underlying blockchain as its own ledger. Then Uselink may migrate to one or more other distributed platforms in the future, as long as the platforms are more efficient, valuable, or suitable for transactions executed on Uselink. In the event of such a migration, all UL that existed at that time will be converted into a new built-in crypto token on the migrated Uselink with similar or equivalent technical specifications and functionality. The original blockchain used by Uselink before migration will gradually die out.

w) Risk of other cryptographic assets

Various cryptographic assets will be created or produced and circulated in Uselink. Some of these encrypted assets may be issued by a specific person, and the issuer will have a specific commitment or obligation to the holder. Some other cryptographic assets may have been created by smart contracts within Uselink. These encrypted assets do not have the same or similar functionality as UL. These encrypted assets are neither sold or provided by the seller, nor are the seller responsible for them unless otherwise specified by the seller.

THANK YOU

WHITE PAPER VERSION 2.0

WRITER：PCA实验室

http://www.uselink.cc/

Uselink