



# IIC

## Technical White Paper

As one of the most popular concepts today, blockchain has the features such as decentralization, time series data, collective maintenance, programmability, security and trustworthiness. It is particularly suitable for the construction of digital currency system, financial system and even macro-social service system. Blockchain itself has captured the attention of governments and financial institutions around the world, and its application has attracted the technology companies and capital markets.

As the first application of blockchain technology, digital financial assets that denominated by digital currencies have mushroomed, forming a rapid alternative that could replace traditional finance. In the face of the numerous and diverse digital financial markets, how should people participate? This is regarded as a barrier-to-entry for most investors and financiers.

Based on market demand, Intelligent Investment Chain focuses on the management and operation of digital currency assets and traditional financial assets. It gathers users through one-stop and process-based services. It integrates financial engineering, big data analysis, and artificial intelligence with blockchain technology in order to help investors quickly make the right investment decision and to assist their implementation. Then, Intelligent Investment Chain forms an ecological digital asset management platform, and ultimately achieves the connection with between digital currency assets and traditional financial assets.

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# 01

# Background

# 1.1 Industry status

## 1.1.1 Industry Introduction

### **a The Blowout of The Digital Currency Market**

At the end of 2017, the total market value of global digital currency market has reached \$572.4 billion (including digital currency and the release sizes of various Token based on blockchain). The cumulative year-on-year growth reached 3028%; The highest daily transaction value during the year peaked at \$55.659 billion, which equals to the average daily trading volume of New York Stock Exchange in 2017. Apart from that, according to data from Coinmarketcap, the types of digital currencies have reached 1381 (including 764 new digital currencies) at the end of 2017, which counted for an increase of 123.8% compared with 2016.

### **b The Acceleration of Assets Digitalization**

Digital assets refer to the forms of assets that are denominated by digital currencies and owned or controlled by individuals and enterprises, which correspond to the physical assets or other forms of property rights that could be exchanged or exercised in daily activities. In the long run, the trend of assets digitization not only realizes the convenient circulation of assets, but also reduces costs and waste of resources.

In the existing financial system, some assets that are difficult to circulate could also be digitalized through blockchain technology in order to improve their liquidity. Nowadays, the related applications are gradually becoming a global consensus and the scale of digital assets is accelerating as well.

## **c The Absence of Digital Assets Management Services**

In 2017, Bitcoin prices rose from a few thousand RMB to over 20,000 US dollars. The scale and transaction volume of the digital currency market both hit historical peaks. Despite the skyrocketing scale of digital asset transactions, the management of digital assets is lacking. In order to meet the demand of ordinary investors to participate in digital currency investment, digital asset management began to gain public awareness.

Compared with traditional asset management, the digital money market is more volatile and the policies of the various regions and platforms around the world differ a lot from each other. In contrast to the traditional asset management, digital asset management targets digital currencies represented by Bitcoin, Ethereum, various types of Token that are based on blockchain technology, financial derivatives of digital currency and other related assets. Due to the wide varieties, rapid variation and globalization of digital currency markets, the market urgently needs institutions or platforms that could provide professional digital asset management services.

## 1.1.2 Industry Pain Points

### **a Disordered Development of Platforms**

Currently, there are a large number of various digital currency trading platforms, at least more than 200 countries in the world. At the same time, the digital currency market also lacks relevant supervision, resulting in the mix of good and bad platforms across the whole market.

### **b Blindness of Investors**

At present, the digital currency market is in a wide variety of situations and is mixed with good players and bad players. Investors do not understand the market well, cannot make accurate judgments, which results in blind investment and follow investment. In addition, it costs long time to cultivate and educate individual investors because they lack the concept of long-term investment and asset allocation.

### **c The Lag of Regulation**

Compared with mature capital markets, the digital currency market, which is still in its emerging stage, lacks corresponding supervision and does not have supporting laws and regulations. As a result, the market is mixed with good players and bad players and makes it difficult for ordinary investors to make judgements.



## **d The Missing Arbitrage Opportunities**

Traditional asset management can hardly give consideration to digital assets. The wide varieties, rapid variation and globalization of the digital currency market makes it difficult for individual investors to grasp market trends at the first time, thus they are likely to miss investment opportunities and lose the possibilities of new wealth.

# 1.2 Project Background

## 1.2.1 Team-up of Financial Experts

The Intelligent Investment Chain team has rich experience and strong technical background in cooperation with leading hedge funds and investment banks. The Intelligent Investment Chain members come from top financial institutions such as Deutsche Bank, Lianxun Securities, Visa and other top academic institutions such as PBC School of Finance at Tsinghua University. The Intelligent Investment Chain team not only know the cutting-edge technology but also apply them to products, let the technology go out of the laboratory and ultimately serve the public.

## 1.2.2 Solid basis on Artificial Intelligence and Big Data

Intelligent Investment Chain is a platform that integrates financial engineering, big data analysis, and artificial intelligence with blockchain technology to help investors quickly make the right investment decisions and implementation of those decisions. The Intelligent Investment Chain platform focuses on the management and operation of both digital assets and traditional financial assets, gathers users and help users achieve asset enhancement through one-stop standardized services.

### 1.2.3 Surpassing Competitors

Currently, there are many intelligent advisor products for the digital currency market, but their asset management forms and services are relatively simple. The intelligent investment platform of Intelligent Investment Chain is not only a strategic management platform for digital assets and traditional assets, but also a reliable bridge linking the safe storage of digital assets and real-time arbitrage, as well as linking the exchanges and investors.

The platform accesses the current mainstream digital currency exchanges and provides one-stop services such as account opening, trading, and arbitrage, with one-click registration, eliminating the need for multiple investors and repeated registration. At the same time, the platform introduces a variety of certified third-party strategies that use machine learning to continuously aggregate and optimize various investment strategies and investment derivatives.

## 1.2.4 The Advantage of The Intelligent Investment Chain

The main chain development of the Intelligent Investment Chain has three advantages over Ethereum:

- a) The consensus time is short, the minimum consensus time can be reduced to second, and the throughput can be up to 10 times compared with Ethereum;
- b) The intelligent contract virtual machine of the Intellectual Investment Chain is provided for the continuous optimization of intelligent investment advisors;
- c) Each consensus node is officially reviewed, the quality is controllable, and the relationship between the nodes is balanced with each other to prevent evil.



# 02

## Structure and Design of The Intelligent Investment Chain

## 2.1 The Structuring Philosophy

The structuring principle of the Intelligent Investment Chain is "Safety, Efficiency and Credibility". The Intelligent Investment Chain fully exploits the characteristics of “decentralization, trust enhancement, distributed consensus, and non-discretion” of the blockchain technology, digging out the application scenarios of intelligent advisor, and focusing on implementing the landing applications into broader areas that benefit more people.

## 2.2 Key Concepts

### 2.2.1 System Nouns

**Blockchain** A distributed data storage technology that associates data blocks through a hashing algorithm and synchronizes data through a consensus mechanism.

### **Intelligent Investment Advisor**

An automated portfolio investment strategy.

## **Intelligent contracts**

A set of digitally defined commitments that contain enforcement agreements that allow for trusted transactions without third parties, which are traceable and irreversible.

## **Blockchain Oracle**

An online entity that provides data sources for intelligent advisor.

## **Digital Assets**

Marketable valuables that are registered in the blockchain network in the digital form.

## **Digital Assets Investment Advisor**

Portfolio investment strategy that specifically aimed at digital assets.

## **Intelligent investment Advisor Contracts**

Intelligent contracts that include investment strategies and models. The contract can automatically execute investment strategies based on the data given by the algorithm. In order to make the implementation of the investment strategy open and transparent.

## **Consensus mechanism**

The protocol in the blockchain network that determines the accounting rights and data synchronization rules between nodes.

## **Intelligent Investment Coin**

The original Token of Intelligent Investment Coin ecosystem.

## **2.2.2 System Participants**

### **Governance Committee**

In charge of the managing the Intelligent Investment Chain community, checking the consensus node certificate and reviewing the intelligent contract code.

### **Digital Asset Exchange**

The major investing venue that provides digital asset trading and financial derivatives trading services, at the same time, it is also a major blockchain oracle of Intelligent Investment contracts.



## **Intelligent Investment Advisor**

The developer of the Intelligent Investment contracts, providing open and transparent Intelligent Investment strategies and user P&L statements.

## **Ordinary Users**

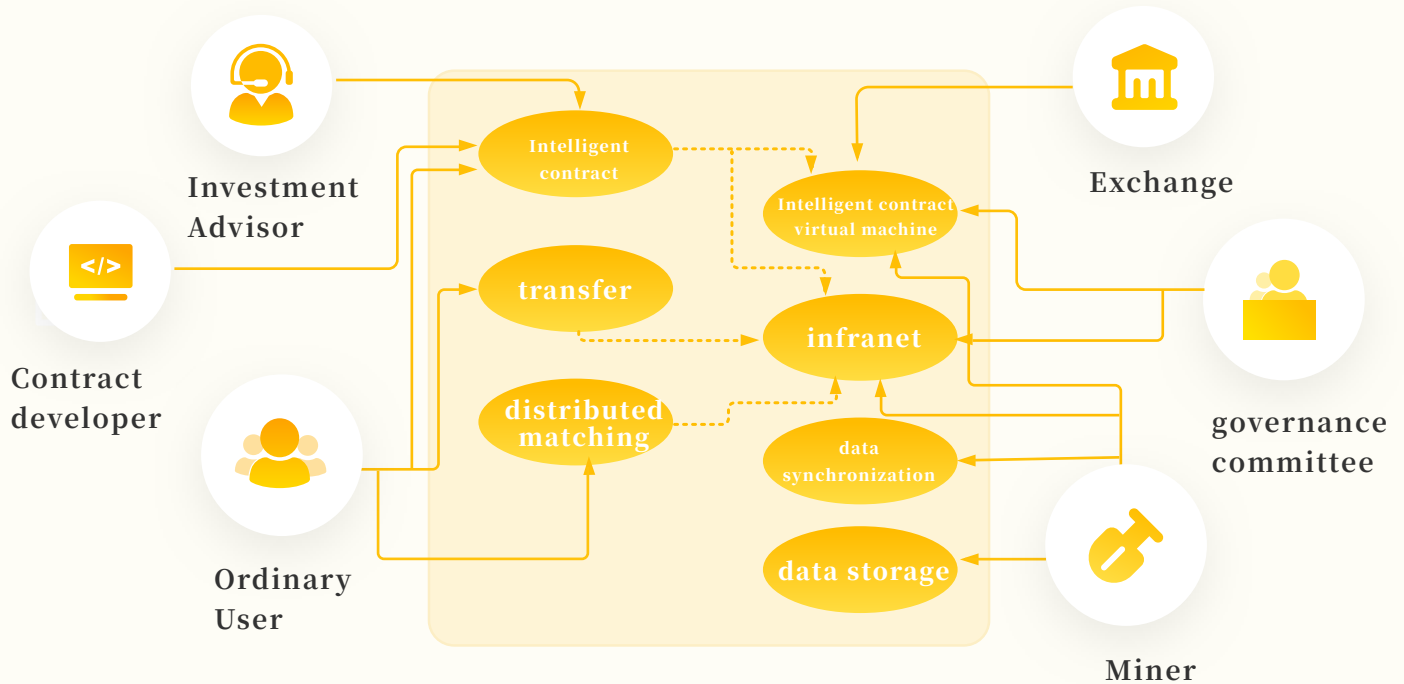
The Intelligent Investment Chain ecosystem users who enroll in Intelligent investment contracts and other intelligent contract-based DAPPs.

## **Consensus Node (Miner)**

The Intelligent Investment Chain network defenders who obtain reward Tokens by recording transaction data and running intelligent contracts.

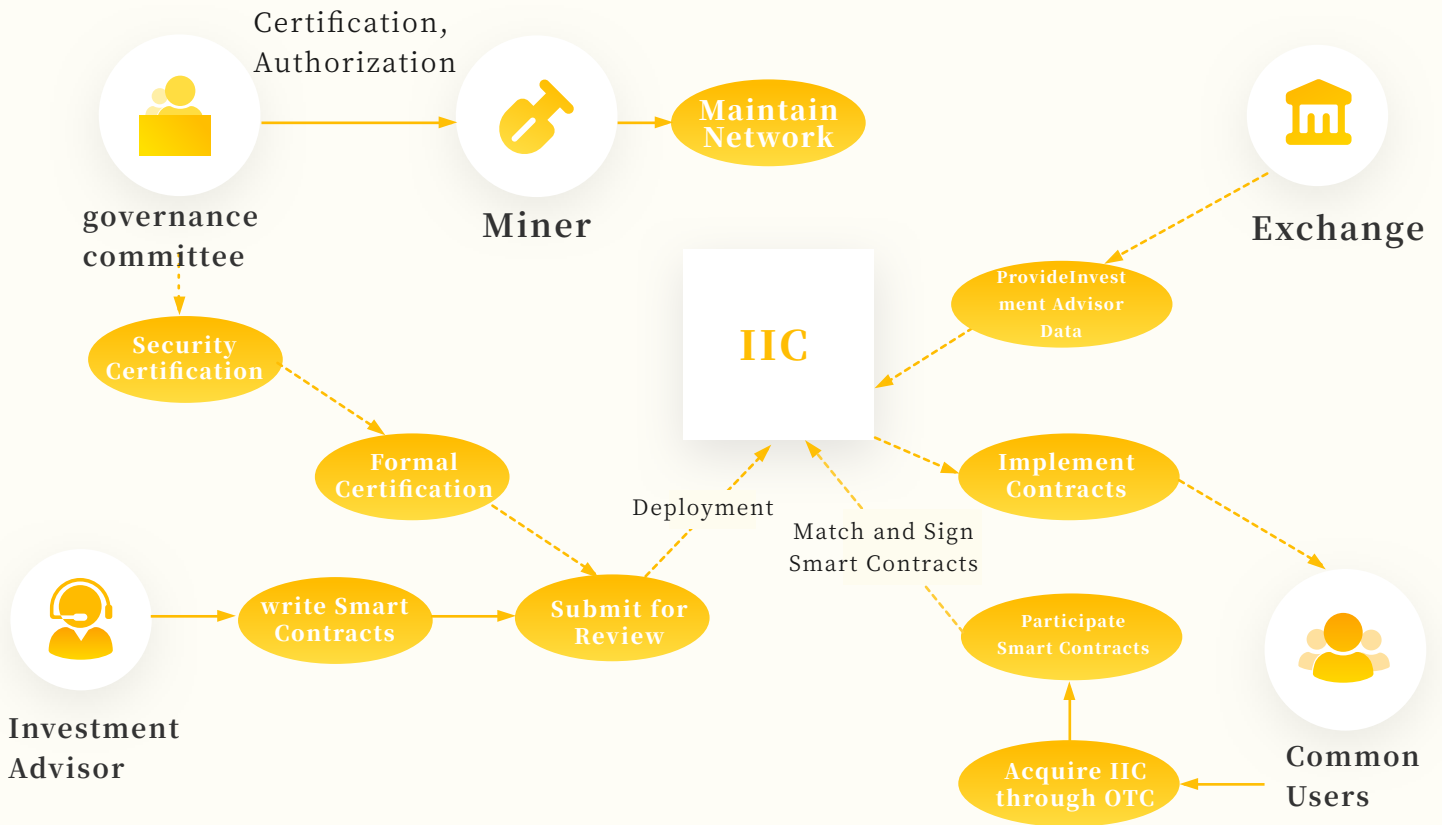
## 2.3 System Structure Description

### 2.3.1 The Overall Ecosystem



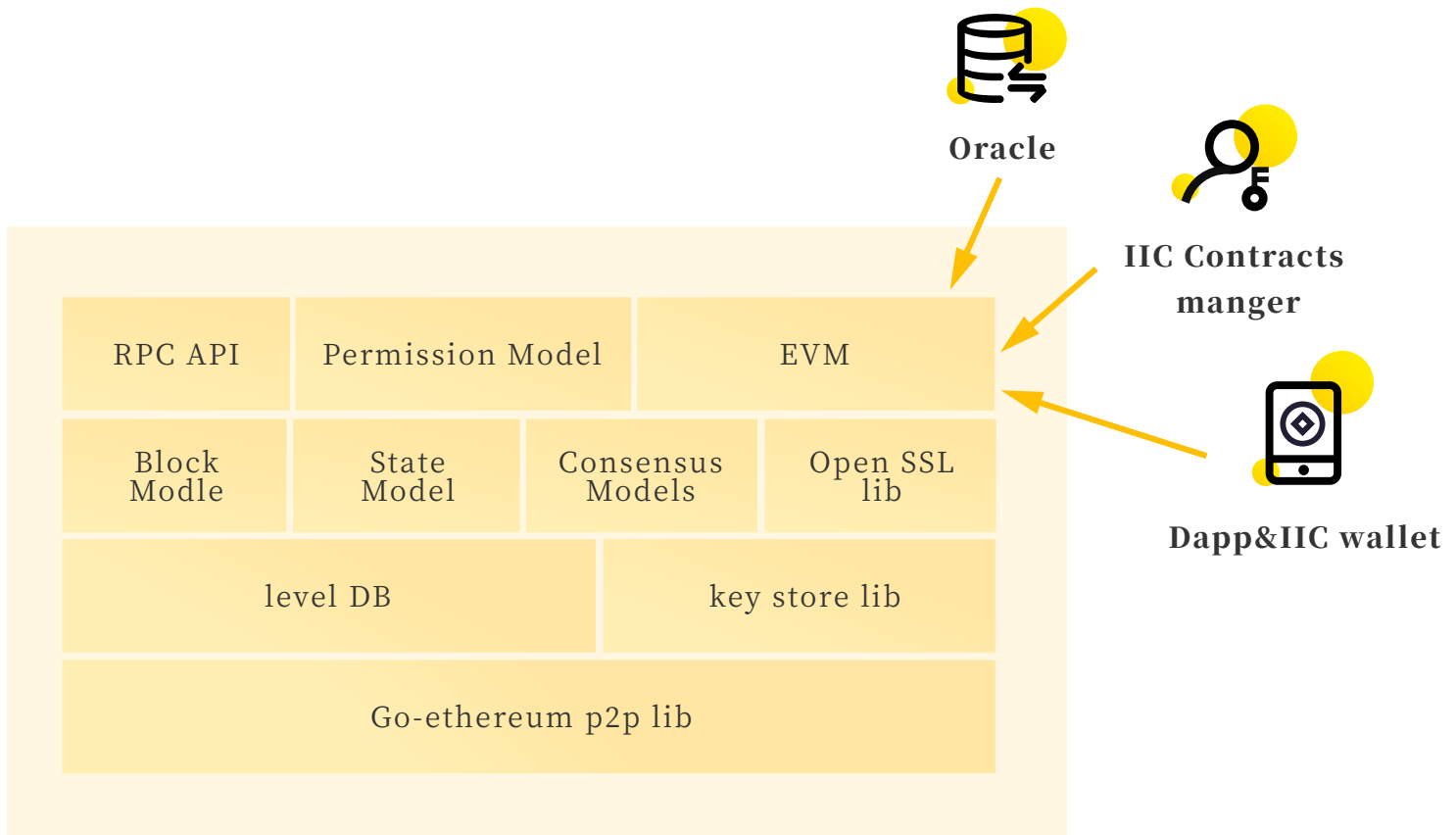
The Intelligent Investment Chain ecosystem consists of both infrastructure and participants: First, the infrastructure consists of the basic Intelligent Investment Chain network, the hardware and software to run consensus nodes. It meets the basic conditions the interconnection between nodes, and synchronizes data through the consensus node software, the storage of data and the execution of intelligent contracts. Second, the participants utilize the infrastructure to conduct transactions, transfers, intelligent contracts, and other related operations. The final Intelligent Investment Chain ecosystem is formed through the coding and invoking of intelligent contracts.

## 2.3.2 The Logic Structure



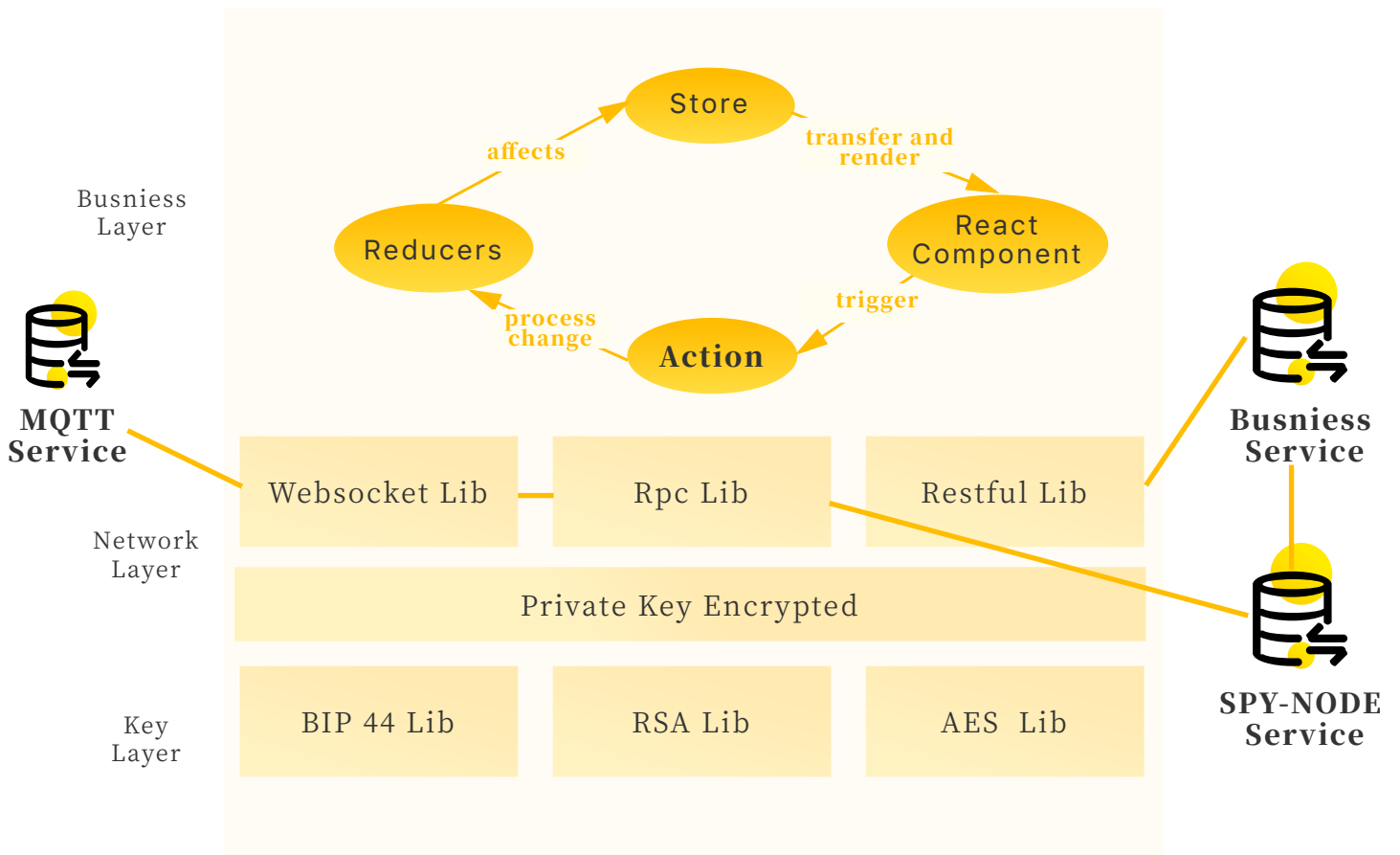
The Intelligent Investment Chain logic utilizes intelligent contracts as the center of interaction. After the intelligent contracts that are written by the investment advisors got approved by the governance committee, they can be deployed in Intelligent Investment Chain. Investment users can participate in intelligent contracts, receive strategies from Intelligent investment advisors, and automatically execute investment strategies with the data function of the exchange oracle.

## 2.3.3 Node Structure



The consensus node is based on the secondary development of go-ethereum version 1.7.2, which implements self-innovation functions such as pluggable consensus mechanism, two-way ssl certificate authentication and a virtual machine that can formally verify intelligent contracts. All of the functions are specifically optimized and customized to IIC.

## 2.3.4 Wallet Structure



The Intelligent Investment Chain wallet implements MQTT-based instant messaging and BIP44-based HD public and private key management. It also supports Intelligent Investment advisor contracts.

The wallet was developed using React Native technology and make cross-platform and hot-updates come true. React Native enables you to build a world-class application experience on the local platform using a consistent development experience based on JavaScript and React. React Native puts the focus on the development efficiency of that all developers care about --- developers could easily write code for any platform efficiently by learning one single language. Facebook has already used React Native in multiple applied products and will keep investing in React Native.

# 03

## Intelligent Investment Chain Technical characteristics

## **3.1 Transferable Consensus Mechanism**

In the selection of the consensus mechanisms, Intelligent Investment Chain adopts a flexible and hot-pluggable consensus mechanism plan to support RAFT, IBFT, DBFT, and DPOS. Because of the audit system and certification system of the consensus node, when the scale of the network changes, the committee could decide which consensus to switch.

### **3.1.1 Consensus Network Structure**

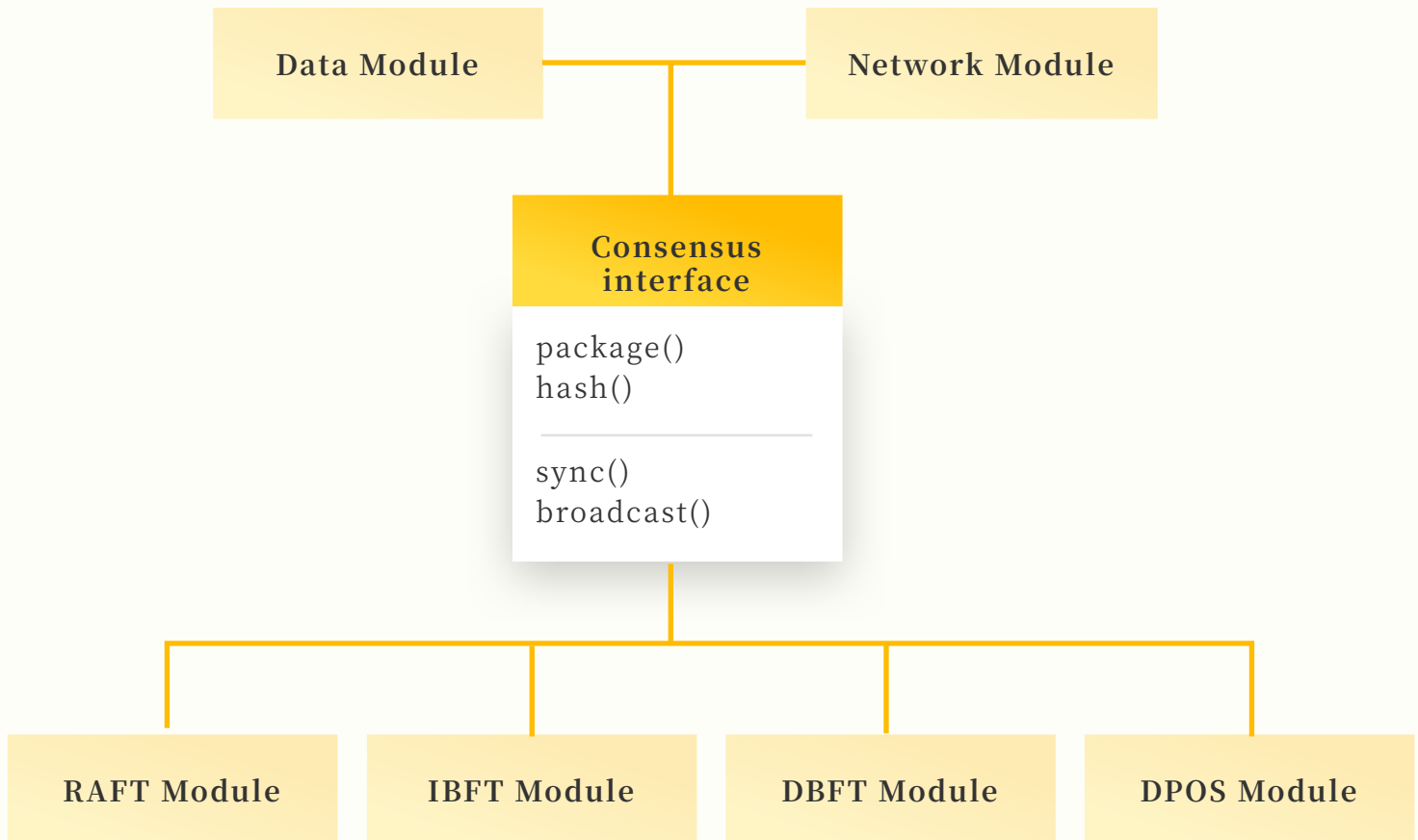
The consensus network consists of a number of consensus nodes that can be dynamically added and removed. Nodes should have the ability to interconnect each other, but they do not have to be completely connected.

The data communication module based on socket-rpc ensures that the broadcast of data synchronization can be received by enough numbers of nodes; The underlying data storage module guarantees the integrity and verifiability of the blockchain data structure; The consensus protocol module is completely decoupled from the network module and completes data synchronization and storage through hot-pluggable consensus protocol interface.

## 3.1.2 Hot-pluggable Consensus Module

The hot-pluggable consensus module uses interface-oriented programming and is completely decoupled from other modules (network, data) of the node. The governance committee send a handover consensus mechanism order to all nodes in order to achieve the alignment of the consensus-sharing mechanism. Only when more than 51% of nodes in the entire network switch to a common consensus could this consensus mechanism be initiated.





### 3.1.3 Switchable Consensus Mechanism

The Intelligent Investment Chain plans to support the free handover among the following four consensus mechanisms:

**1. RAFT:** Raft is a more understandable consensus algorithm proposed by Stanford. In Raft, each node will be in one of the following three states:

**Follower:** All nodes start with the state of follower. If no message from leader is received, the node will become a candidate state.

**Candidate:** They will ask for votes from other nodes and become the leader if they receive the majority of the votes. This process is called the Leader Election.

**Leader:** All changes to the system will go through the leader first. Each change will generate a log entry. The process after the leader receives the modification request, which is called Log Replication, is as follows:

- # Copy logs to all follower nodes (replicate entry)
- # Submit logs when most nodes respond
- # Notify all follower nodes that the log has been submitted
- # All followers also submit logs
- # Now the entire system is in a consistent state

When the followers do not receive append entries from the leader within the election timeout, they become the candidate state. In order to avoid election conflicts, this timeout is a random number between 150 and 300 ms.

The node that becomes the candidate initiates a new election term to ask for votes:

Reset its own timer

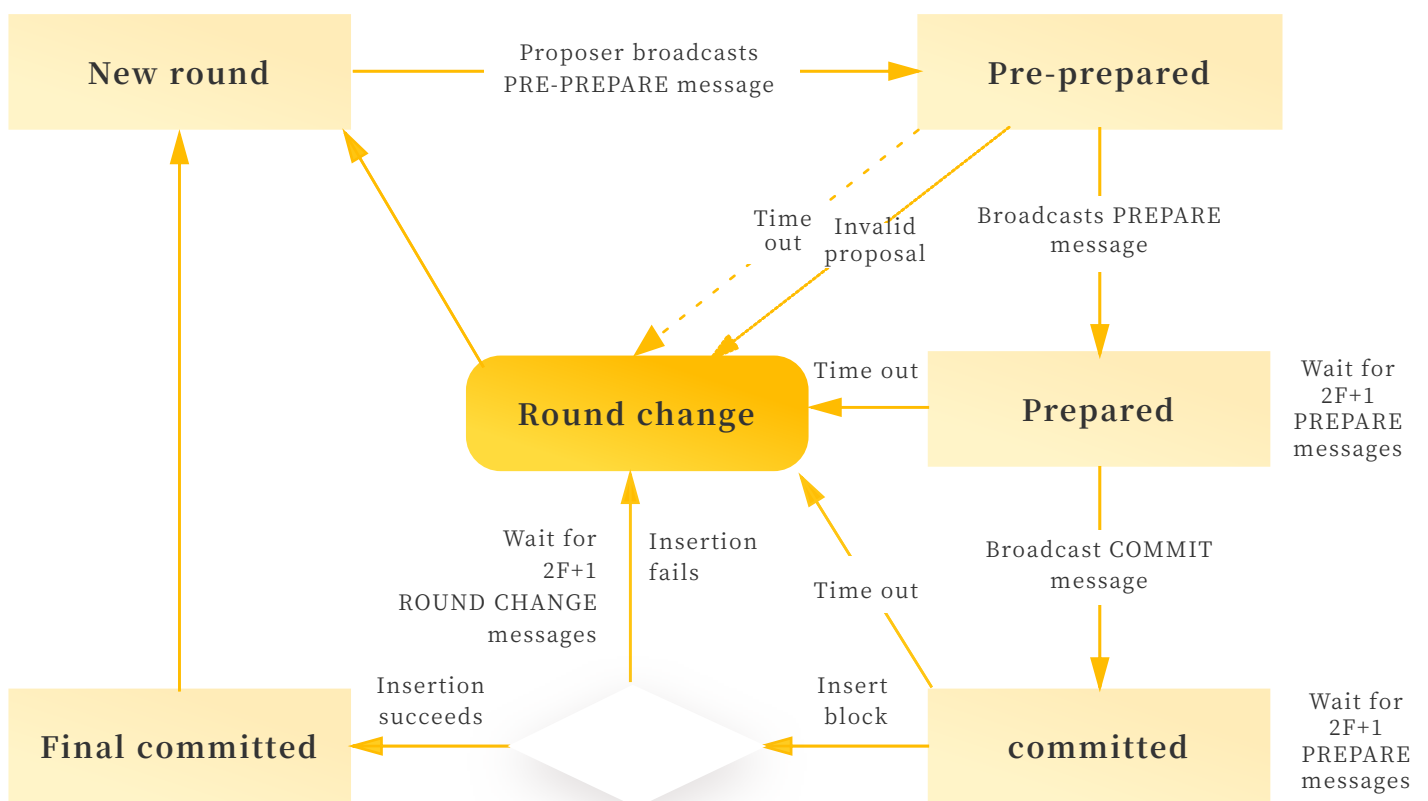
Vote for itself

Send the Request Vote message

If the receiving node does not vote in the new term, it will vote for this candidate and reset its own election timeout. When the candidate received most of the votes, it will become the leader, and periodically send the Append Entries to reset each follower's timer. The current Term will continue until some follower receives no Append Entries and becomes a candidate.

**2. IBFT:** Istanbul BFT is a distributed state machine algorithm. Each candidate node maintains a state machine for the sake of redundant backups.

The state transition is demonstrated in the figure below:



The selection of the leader node is using the rotation mode.

**3. DBFT:** Delegated BFT is a Byzantine fault-tolerant consensus mechanism that enables large-scale nodes to participate in consensus through proxy voting. The holders of the Token can vote for the bookkeeper they support. Then, the selected bookkeeper group uses the BFT algorithm to reach consensus and generate new blocks. DBFT provides a fault-tolerant capability for  $f = \lfloor (n-1)/3 \rfloor$  for a consensus system that has N consensus nodes. This fault tolerance includes both security and availability at the same time. It can withstand general failures and Byzantine failures, and is applicable to any network environment. DBFT has good finality: a confirmation is the final confirmation; the block cannot be forked and the transaction cannot be cancelled or rolled back.

**4. DPOS:** The Witness mechanism is used in the DPOS algorithm to solve the centralization problem. There are N witnesses who sign the blocks, and these witnesses are generated by the entity who votes using the blockchain network. Since a decentralized voting mechanism is used, DPOS is more democratized than other systems. DPOS does not completely remove the requirement for trust. Trusted entities, which represent the whole network to sign the block, ensure that under the protection mechanism the behavior is correct without prejudice. In addition, each signed block has a proof that the previous block was signed by a trusted node. DPOS eliminates the time spent to wait for a certain number of blocks to be verified by untrusted nodes.

By reducing the requirements for confirmation, the DPOS algorithm greatly accelerates the transaction. By trusting a small number of honest nodes, unnecessary steps in the block signature process can be removed. The DPOS block can accommodate more transactions than PoW or PoS, making the transaction speed of encrypted digital currency closer to centralized settlement systems such as Visa and MasterCard.

## 3.2 Safer Intelligent Contracts

Intelligent contracts are double-edged swords for blockchain. Admittedly, they extend the functionality of blockchain and give a full play to the characteristics of blockchain trusted data. However, at the same time, intelligent contracts without formal verification and security verification also brings security risks to the blockchain system. Some contract codes that do not meet the standard also have an adverse effect on the storage and bookkeeping efficiency of the blockchain.

Therefore, for a blockchain system that focuses on building a new ecosystem of Intelligent Investment advice, an intelligent contract deployment and implementation approach is needed to meet the high scalability requirements of digital finance without sacrificing security and efficiency.

The intelligent contract of the Intelligent Investment Chain meets the above requirements in the following four ways:

## **1 Contract Template**

The contract template is a constraint on the intelligent contracts of the Intelligent Investment Chain. An application with an intelligent contract requirement first needs to write a contract template. The contract template consists of a solidity script, exposes a call method with a unique name. The parameters contain the contract implementer and quantity parameters.

## **2 Intelligent Contracts Governance Committee**

The Intelligent Contract Governance Committee is the management agency for the contract template of the Intelligent Investment Chain. It is responsible for the formal verification and security verification of the contract templates submitted by users. Applications with intelligent contract requirements first need to write “contract templates”. After the completion of the writing, they submit contract templates to the intelligent contract governance committee and pay 999 Intelligent Investment Chain as management fee. The governance committee is in charge of the organization of formal verification and safety verification. After the verification, it is deployed to the blockchain network and assigned intelligent contract call addresses.

### **3 Node Automatic Execution Mechanism**

In contrast to intelligent contracts such as Ethereum, intelligent contracts of the Intelligent Investment Chain are stored in block data. When each consensus occurs, the node that acquires the bookkeeping right searches intelligent contracts (time, price, etc.) that meet the execution conditions through the map index, and then automatically execute the agreed actions in this contract.

## **3.3 The Distributed Intelligent Advisor System**

Compared with the centralized traditional intelligent investment advisor system, the distributed intelligent investment system that are based on the Intelligent Investment Chain has the following advantages:

- 1 Investment recommendations that combines full-chain data are more convincing towards the investors;**
- 2 The trading engine combines the Intelligent Investment Chain distributed matching, which enriches the configurable digital assets;**

- 3 The cost of investment is reduced, and the investment strategy is automatically adjusted according to the market conditions. If there is no profit, no fee will be charged;
- 4 The process of the contract and transaction are transparent, and users can terminate their investment strategy at any time.

## 3.4 Intelligent Advisor Platform based on HD Wallet

The intelligent advisor platform that is based on HD Wallet HD can make assets more flexible to configure, while allowing each trading module to interact more naturally.

HD Wallet can also make users' funds more secure.



# 04

## The Application Introduction of Intelligent Investment Chain

## 4.1 IICPay – The Panacea of The Communication and Trading in The Coin Community

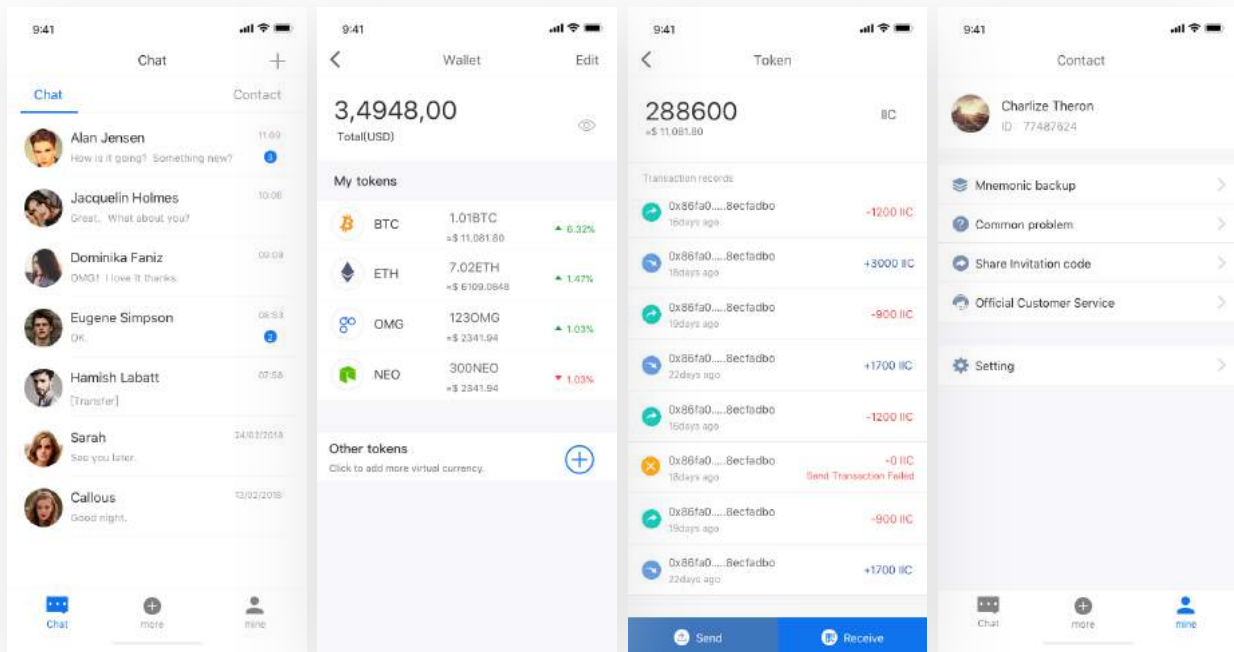
### 4.1.1 Application Background

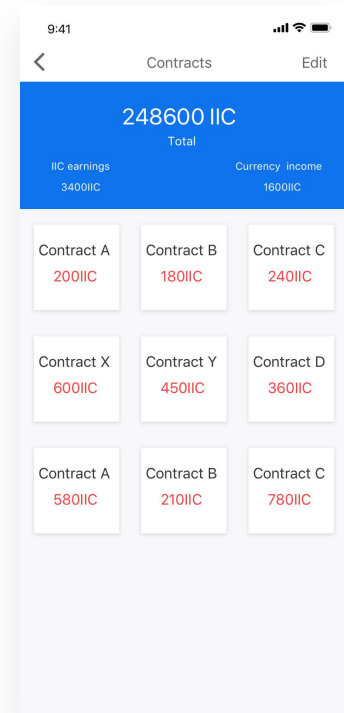
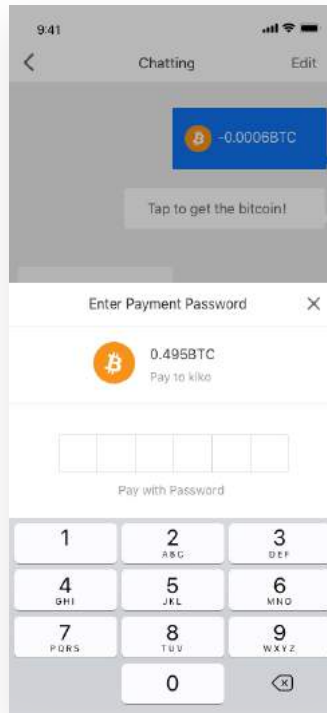
Currently, the coin community lacks a convenient communication and trading tool. Most of the operational procedures looks like this: trading digital currency in the exchange, lifting coins into various wallets, and recharging money from wallets to other platforms to trade. The OTC transaction is even more tedious and requires multiple steps of offline communication and operation.

To solve this series of problems, IICPay combines instant messaging, red envelopes during chatting and HD wallets, supplemented with trading APIs of the major exchanges and the intelligent contract of the Intelligent Investment Chain to provide the smoothest interactive experience. Users can experience everything of the coin ecosystem on an app.

## 4.1.2 Application Note

IICPay is mainly composed of four functional modules: instant messaging, HD wallets, user centers, and intelligent contracts.





### 4.1.3 Application Features

Compared with traditional methods, IICPay have the following advantages in instant messaging and asset management:

#### 1 Smooth Experience:

During the instant communication, various operations of the coin community could be realized in the dialog box.

## **2 Low Cost:**

OTC does not request service charge to conduct intelligent investment contract through the distributed network to match the transaction. The cost is only a few small amount processing fees to cover Intelligent Investment Chain trading.

## **3 Transparent Capital:**

Blockchain-based asset management can effectively supervise the flow of funds so that investment advisors have records to trace back, so that asset management is not separated from investor supervision.

## **4 Share Intelligent Investment Chain Development:**

Intelligent contracts that are based on Intelligent Investment Chain could be displayed in the form of DAPP on IICPay. Users can share the ecological development of Intelligent Investment Chain while using IICPay.

## 4.2 The Fundamental of Digital Asset Management

To summarize, digital asset management is the investment and value-added management of digital assets. It borrows the idea of the traditional asset management, but in the new practice, it pays more attention to the collection and analysis of big data, and the interaction between investors and financiers, as well as the interaction between ordinary investors and investment professionals.



### **The monitoring and collection of big data:**

layout across the entire network, listen, monitor and collect information data of the entire network through the public APIs of social media, portals, platforms, as well as the collection and disclosure of company P&L statements.



### **Data analysis:**

Integrate public information across the entire network, historical investment income reports, and user background data to establish a multi-dimensional investment strategy model for data analysis.



### **Machine learning:**

Create artificial intelligence direct investment platform through large-scale and multi-dimensional machine learning, including natural language processing, approximation theory, market securities analysis, Naive Bayesian classifier and other algorithm optimizations

## **a) Acquisition of product and platform data**

In terms of data acquisition, Intelligent Investment Chain layout goes across the network, listens, monitors and collects information data of the entire network through the public APIs of social media, portals, platforms, as well as the collection and disclosure of company P&L statements.

## **b) Lay more emphasis on social big data**

The Intelligent Investment Chain pays special attention to the utilization of social big data. With the development of the Internet, social media has gradually become a platform for individuals and businesses to exchange information. At the same time, from individual users who update personal dynamics, to corporates who publish financial statements, social media has become an indispensable part of people's lives. Therefore, the collection and analysis of social big data plays an irreplaceable role both in the search for investment targets and in the judgment of investors' risk preferences.

### **c) Machine learning ability**

The Intelligent Investment Chain integrates public information on the entire network with historical investment income reports, user background data, etc. to establish a multi-dimensional investment strategy model, conduct data analysis, establish linkages with investment conclusions, and continuously validate the model based on the latest strategies and investment conclusions. The conclusions drawn from the system received continuous and real-time optimization through the continuous correction of the model and the collection plus process of the data.

Correct and optimize the data acquisition and processing so that.

### **d) The generation of the investment strategy**

The strategy generation of the Intelligent Investment Chain is mainly composed of two parts: On one hand, the investment strategy is based on AI big data analysis. On the other hand, the community of Intelligent Investment Chain has a large number of trading experts. Investors could easily follow their investment strategies and set up a stop loss intelligent contract to achieve the goal of maximizing profits and minimizing losses without spending too much time to stare at the screen.



## 4.2.1 The Generation of The Investment Strategy

**Investment Strategy =  
Platform Strategy Learning + Other Platform  
Strategies Sharing + Big Data Collecting and  
Analyzing + Public Opinion Monitoring +  
Blockchain Smart Contract Execution**

The platform of the Intelligent Investment Chain grabs millions of real time news reports and hundreds of millions of big data about stocks, political and economic related information every day. It quickly learns about the investment hotspots across the entire network, as well as the driving events and related stocks behind these hot spots. Then, it generates investment strategies through technological modeling and artificial intelligence. On the other hand, Intelligent Investment Chain platform provides professional quantitative investment tools to provide a large number of strategies to serve stocks, future contracts quantified investors and production quantification strategies. Strategic producers can choose to publish strategies for ordinary users to choose. Meanwhile, ordinary users only need to check the risk preference, investment preference, stock selection method and stock selection strategy, and then the system will list the strategies that meet the conditions.

At the same time, Intelligent Investment Chain Platform will also rely on its own professional analyst team to track dozens of global asset types, study different stock and bond indices, and constantly adjust and optimize its investment algorithms. In addition, the Intelligent Investment Chain platform will also cooperate with other major platforms to share quantitative strategies to increase the reserve of quantitative strategies and to optimize the current strategy.

After the user selects an investment strategy, the investment platform will host the selected strategy of the investor and its trading account on a server based on the blockchain technology, then regularize it and model it. The investment conclusions based on financial data are executed by computers. Various security measures are adopted to ensure that the trading account could receive the signal 24/7 so that the investors' accounts could be managed safely and securely.

### **During the trade execution :**

**First:** open a trading account: On the Intelligent Investment Chain platform, it is very easy to open and bind the account of its trading partners through one-step operations.

**Second:** start global investment: let its partners achieve a variety of global asset investment.

**Finally:** liquidate on Intelligent Investment Chain. All history is open and traceable and cannot be changed. The platform supports transparent transactions.

The investment process requires the user to fill in the questionnaire before registering. This enables the platform to understand the user's risk preference based on the questionnaire, and then the platform recommends the user with a customized investment plan.

First of all, users answer a few questions about the investment objectives, then Intelligent Investment Chain will make an analysis based on the answers and give the corresponding portfolio recommendations, and make direct investment through the Intelligent Investment Chain quantify platform. User's various investment accounts are bound. The Intelligent Investment Chain quantified platform allows users to connect their accounts in the form of electronic accounts through Intelligent Investment Chain services. In this way, users can quickly and easily transfer funds between different accounts. The whole process is real-time without any lag.

The Intelligent Investment Chain platform calculates the annual fee based on user's account balance, which is approximately 0.15% to 0.35% of the account balance. The more the investment amount, the lower the cost.

The Intelligent Finance of the Intelligent Investment Chain platform has its special value. The competitive advantage is that its financial plan is not provided by human being, but automatically generated based on the Markowitz effective frontier model and neural network algorithm. Users could choose from generated plans. This model applies the asset portfolio theory and its derived model to products, solves various data operations in the cloud at low cost, at quick speed, and in batches, and then, it provides a personalized asset allocation combination scheme according to the user's preference. This is incomparable with traditional wealth management services because it allows many people to enjoy low enter barriers and low cost to manage their assets even without leaving their homes.

## **4.2.2 Intelligent Investment Service Process**

Compared with traditional intelligent investment advice or digital asset management service products, The Intelligent Investment Chain has obvious advantages. The typical service process mainly includes the following steps:

**1) Client Portrait:** The system evaluates the user's risk tolerance preference and investment objectives through questionnaires;

**2) Portfolio Configuration:** The system recommends customized portfolios from alternative asset pools based on user's risk preferences;

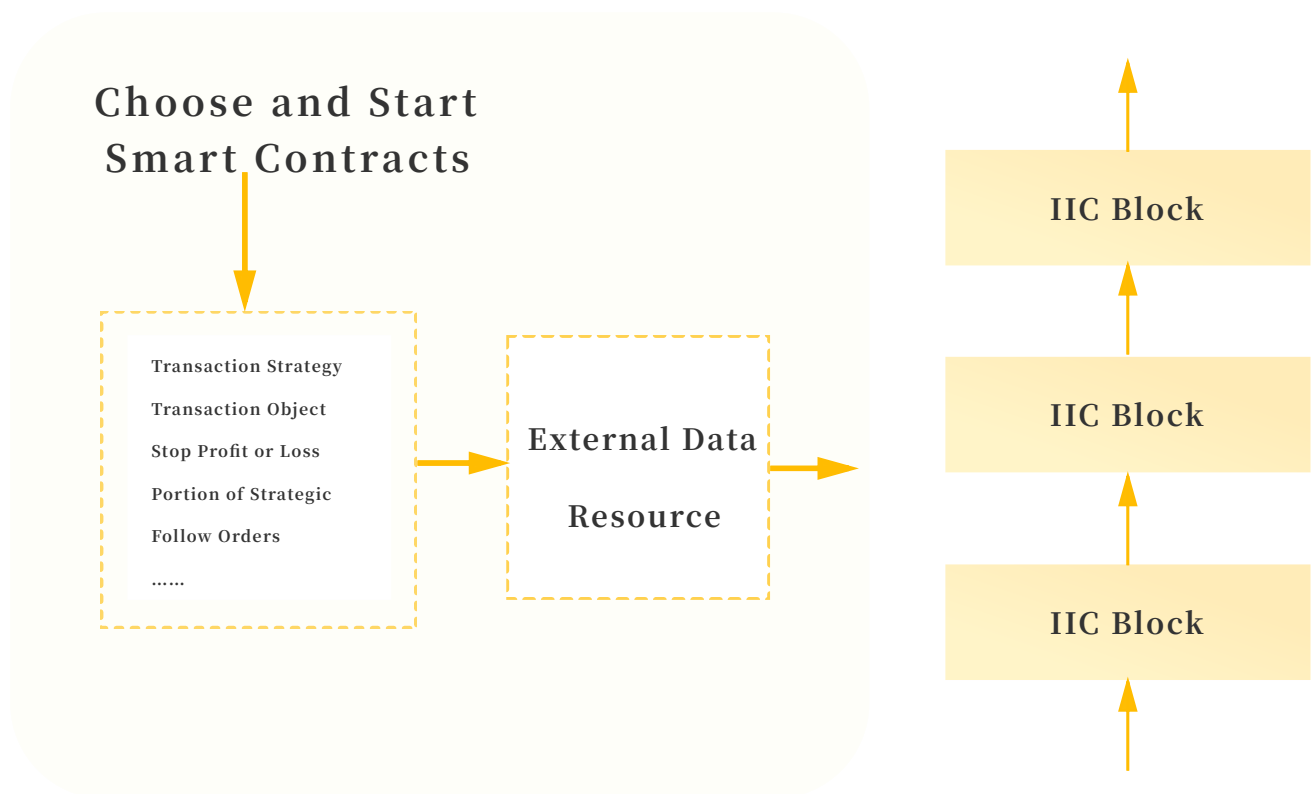
**3) Custody of Customer Funds:** Funds of the users are transferred to third-party custody;

**4) Transaction Execution:** System agent clients issue trading instructions, then buy and sell assets;

**5) Portfolio Rebalancing:** Users regularly monitor asset portfolios, and the platform monitors and adjusts in real time based on changes in market conditions and user needs;

**6) The platform charges a corresponding management fee.**

The Intelligent Investment Chain re-optimized the process of portfolio allocation, transaction execution, and portfolio rebalancing. The following figure is an example of the intelligent contract of the Intelligent Investment Chain. Investors set up the condition order-following on Intelligent Investment Chain, such as trading strategies, targets of trading, the cease of profit and loss and the ratio of strategic order-following. Intelligent contract records conditions and supervises execution.

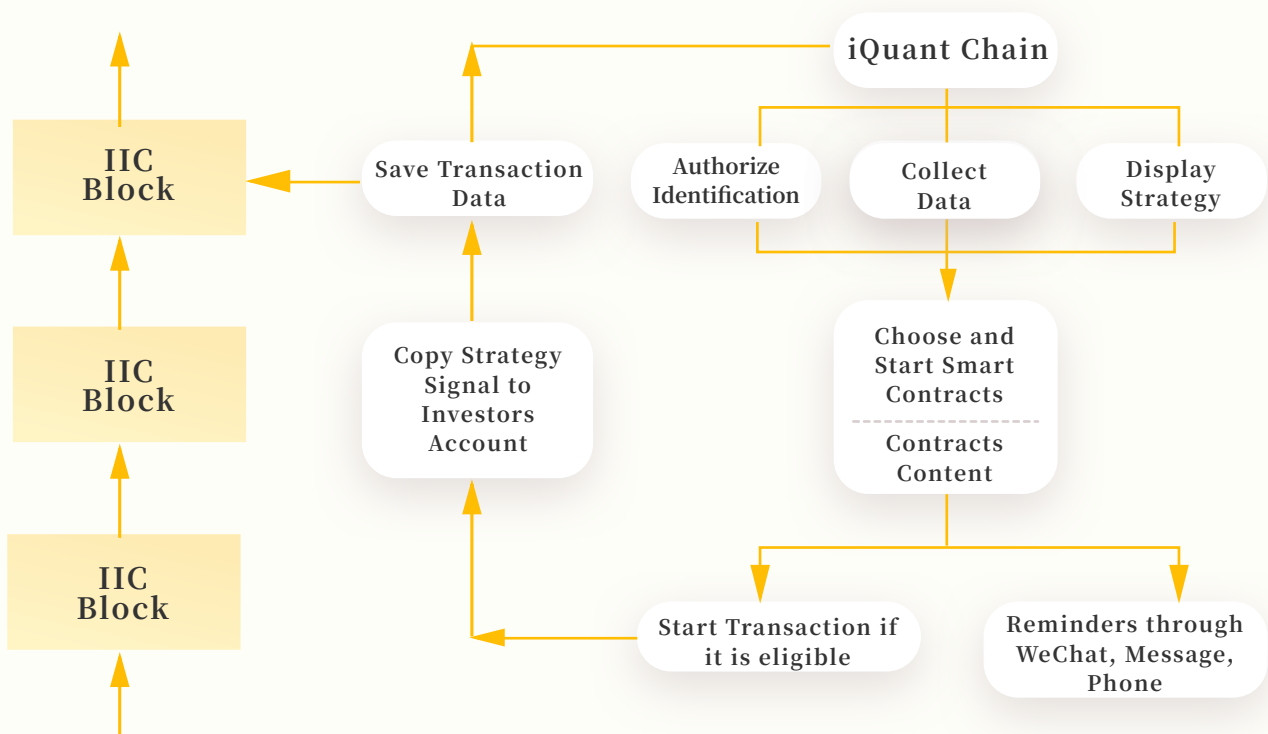


## 4.3 The Business Features of Decentralization

### a) The Trading Strategy of Decentralization

When ordinary investors start the trading strategy from the professional investors with one click, and then the intelligent investment contracts of Intelligent Investment Chain will combine the setting information with real-time data to ensure that the correct automated strategy transactions of investors are performed correctly.

As shown in the figure, investors register information, choose their own platform and strategy, set conditions, and start trading automatically with one click of the account. intelligent contracts of the Intelligent Investment Chain will be monitored and executed according to the conditions set by investors.



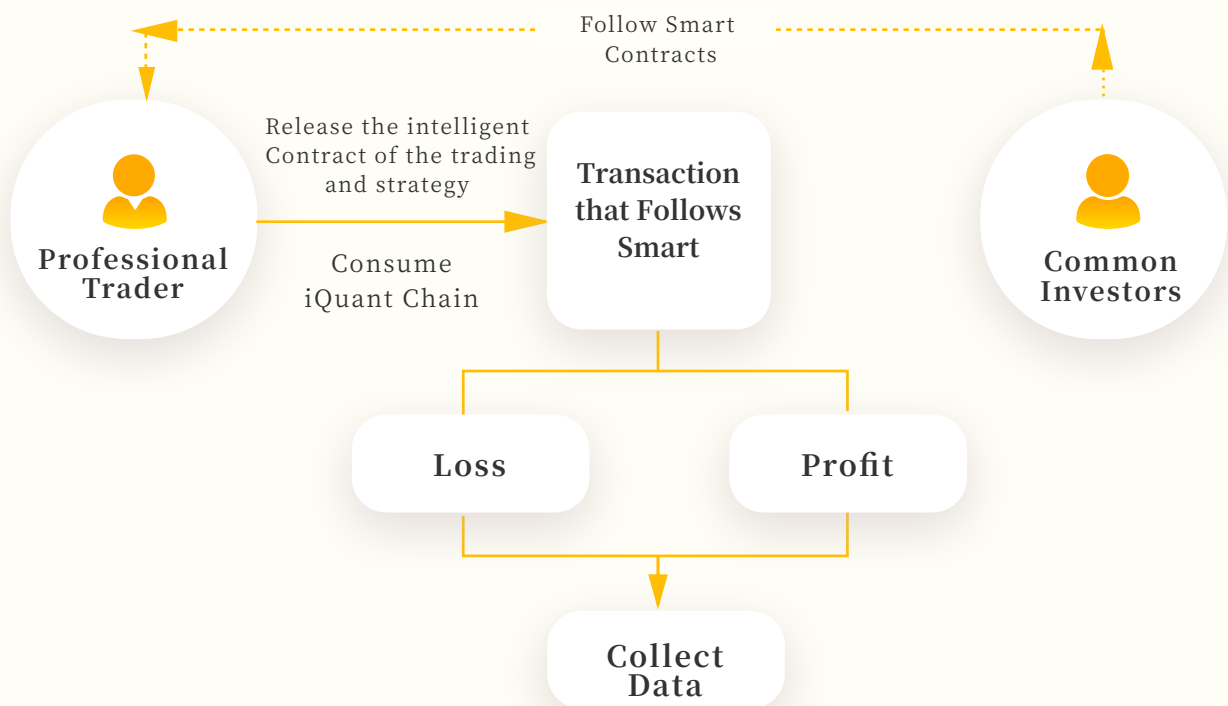
## **b) Document Follow Fulfillment of Decentralization and Automatic Trading of Accounts**

Professional traders can upload trading strategies that can be followed through Intelligent Investment Chain. Investor accounts can automatically follow transactions through Intelligent Investment Chain.

The Intelligent Investment Chain makes all following transactions transparent and open. Investors need to follow the strategies of professional traders to pay Intelligent Investment Coins in advance as Intelligent Investment Chain energy, and strategies uploaded by professional traders consume Intelligent Investment Chain energy. All trading strategy records will be recorded through the contract only. The system uses these real-time big data to conduct multi-dimensional tracking analysis to get the rating results for the strategy and professional traders. When the rating reaches the bottom-line request, the strategy will automatically stop the display of automatic delisting operations at the platform. This will greatly enhance the credibility of the platform and reduce the likelihood of new investors being deceived.



As shown in the figure, the professional traders consume Intelligent Investment Coins and publishes a quantitative strategy for a certain trading market. Investors who want to start following this strategy need to pay a certain amount of Intelligent Investment Chain power. When a strategic trade generates a signal, the intelligent contract will call the API of the investor platform and automatically copy the trade of the strategy to the investor's account.



## 4.4 The meaning of Intelligent Investment Coin

The Intelligent Investment Coin is the basic Token of Intelligent Investment Chain. It is based on the Ethereum blockchain underlying framework and is accepted by Ethereum intelligent contract. The total number of Intelligent Investment Chain releases is 21 billion.

Intelligent Investment Coin is the basic tool for Intelligent Investment Chain users to carry out strategy execution, strategy production, and project initiation.

### **a) The Only Currency of the Intelligent Investment Chain platform**

Users can use the artificial intelligence analysis tool of the platform by purchasing the Intelligent Investment Coin. Meanwhile, the Intelligent Investment Coin can be used to increase the efficiency of the data analysis and learning of the artificial intelligence analysis tool, as well as purchase all investment portfolios recommended by the platform. Its value will be upgraded along with the expansion of the Intelligent investment advice platform.

### **b) The Guarantee of Transaction Security**

Intelligent Investment Chain, which is released based on blockchain technology, can protect the security of every transaction on the platform.

## **c) Public Offering in the Digital Currency Exchange Market**

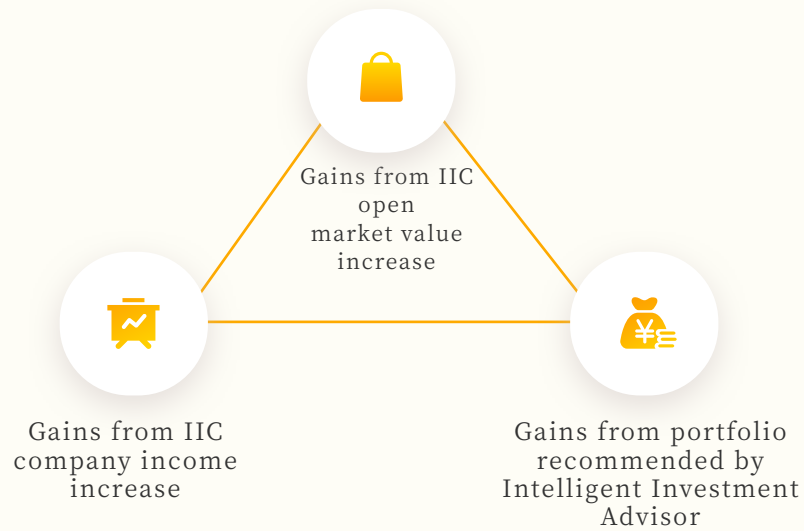
Intelligent Investment Coin has been publicly traded in the mainstream digital currency trading market in China. Intelligent Investment Coin can be exchanged with mainstream digital currencies such as BTC and ETH.

## **d) Expected Return Certificate**

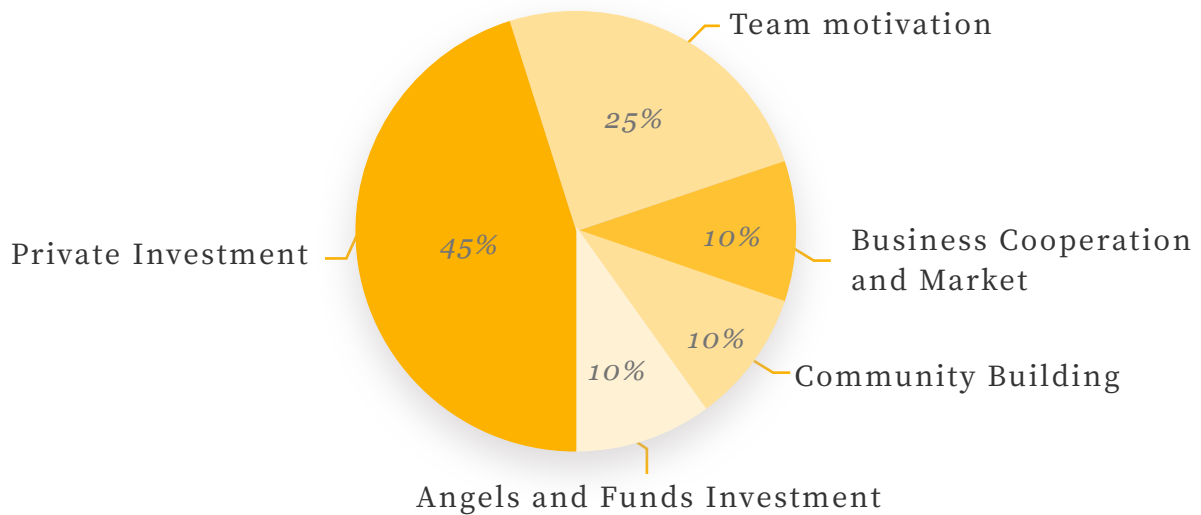
The platform will take 20% of the net profit for each financial year as the incentive mechanism which will be based on the holding weight of the Intelligent Investment Coin. The standard will be determined on a daily basis. At the same time, 20% of the net profit for each financial year will be used to buy Intelligent Investment Coin back. The repurchases Intelligent Investment Coin will be transferred to an open and transparent address that no one has its private key for destruction until 200 million Intelligent Investment Coins are repurchased and destroyed.

## **e) Intelligent Investment Coin Income**

The income generated by Intelligent Investment Coin is composed of multiple dimensions: from the purchase of investment products from the platform, the open market value of the currency itself, to the growth of the bundled performance of the company. The product income has grown geometrically.



## The Distribution Plan of the Intelligent Investment Chain



## 4.5 Application Features

Based on blockchain, big data, artificial intelligence, and mobile internet technologies, Intelligent Investment Chain provides investors with professional, real-time and authoritative financial derivatives and wealth management products so that everyone can have the access to professional tools and services. As an Intelligent investment product for digital assets, it has the following features compared to other products:

### **a) One-click access to the mainstream exchanges, eliminate obstacles between the digital asset management and traditional asset management**

Unlike other intelligent investment products, Intelligent Investment Chain provides digital asset trading functions. At present, the digital currency investment market is still in its early stage, which means many trading assets are distributed across numerous trading platforms in different countries. Ordinary investors encounter various problems during their transaction processes: inconsistent UI, unstable transactions, and single language, etc. Investors need to switch investments among multiple exchanges. However, they could safely, quickly and stably implement the investment plan to realize the one-click intelligent trade of global digital currency assets and global real financial assets through the unified platform that is based on the Intelligent Investment Chain platform.

## **b) Higher Security**

Intelligent Investment Chain developed based on blockchain technology. Compared with other products, blockchain has tamper-resistant features that ensures higher security.

## **c) Professional Quantitative Investment Tools**

The Intelligent Investment Chain platform provides different styles of quantified products for investors to choose.

## **d) The Diversification of Investment Strategies**

On the Intelligent Investment Chain platform, trading leaders provide strategies while investors choose whether to follow or not. This will provide small and medium investors, especially for inexperienced investors, with more investment opportunities. At the same time, the platform also provides users with Intelligent investment consultants based on the professional quantitative analysis of financial big data and practical experience in the market. Users only need to check the risk preference, investment preference, stock picking method and stock picking strategy. The system will list the strategies that meet the conditions.

## **e) Cloud hosting, one-click auto trading**

Intelligent Investment Chain is based on blockchain technology to implement the cloud hosting of trading strategy and 24/7 automated trading to solve the pain points of the office workers, part-time traders --- It is very likely for them to miss the market information, cause losses and over concerned about missing things during work. At the same time, Intelligent Investment Chain allows one-click automatic trading which means investors do not need to stare at the screen.



05

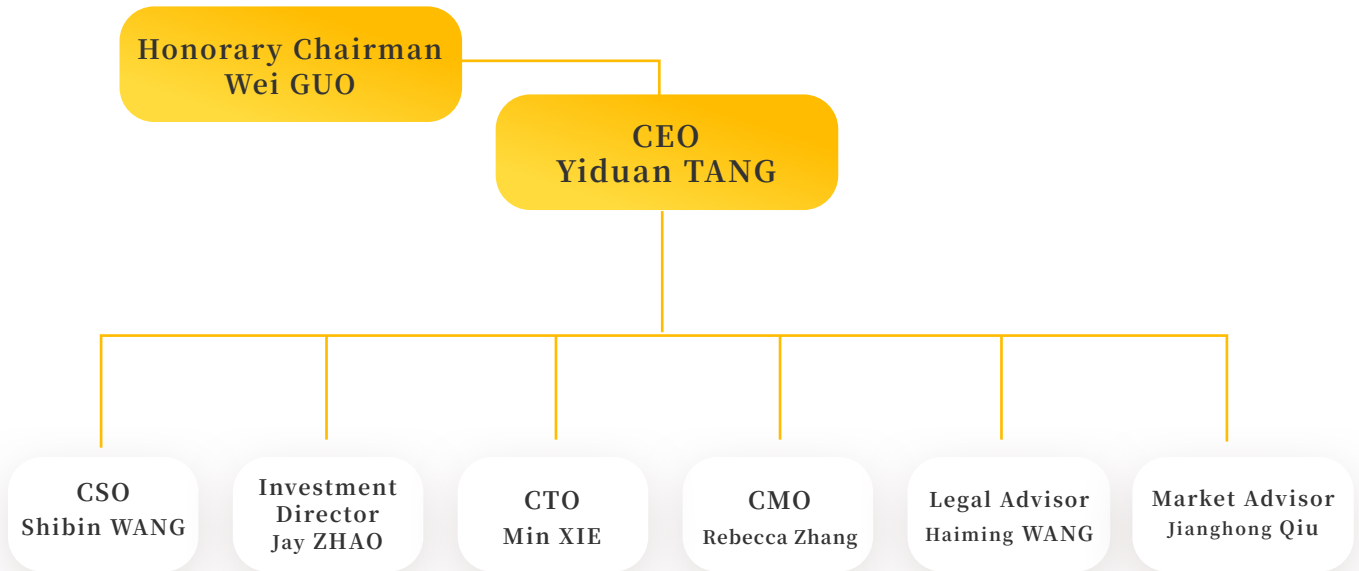
## Intelligent Investment Chain Governance Structure




## 5.1 Governance Mechanism Description

- 1) The company adopts a straight-line hierarchical management structure and implements vertical leadership from top to bottom. The structure is simple, the functions are clearly defined, and the power and responsibility are integrated.
- 2) The board of directors is the highest decision-making entity of the company and the chairman of the board of directors is appointed.
- 3) Appoint CEO to manage the company' s daily operation, implement the decision made by the board of directors and be responsible for it.
- 4) Separately appoint chief strategy officer, investment director, chief technology officer, chief marketing officer, and legal advisor.

## 5.2 The Structure of The Governance Organization





**06**  
Core  
Team Introduction

## 6.1 Core Team Introduction

### **Wei GUO | Chairman**

Director of the China International Technology Transfer Center. Chairman Guo graduated from the Department of Law of Peking University (entered in 1977); During the past decade, he has actively promoted policies of science and technology, technology finance, and technology cooperation between China and Eurasia under the direction of Chinese Premier Li Keqiang.

### **Yiduan TANG | CEO**

Current Chairman of the Board of Directors of Topnew Holding Limited; former general manager of capital operation department of Lianxun Securities.

### **Shibin WANG | CSO (Chief Strategy Officer)**

Received Master's degree and P.h.D. of the PBC School of Finance of Tsinghua University; senior investment banker; former executive director of the Greater China region of Deutsche Bank.

### **Jay Zhao | Investment Director**

Worked for many top investment banks in Europe and America, including France Societe Generale; Graduated from Shanghai Jiaotong University and France Engineer School.

## **Simon Shieh | CTO (Chief Technology Officer)**

Received P.h.D. in Information Security at Beijing University of Posts and Telecommunications; In-depth research experience in cryptographic algorithms, advanced persistent threat modeling and assessment, and security protocol design; The inventor of the GEAR consensus protocol; Published many papers in international authoritative journals and conferences, including in SCI and EI.

## **Rebecca Zhang | CMO (Chief Marketing Officer)**

Received Master's degree in Communications at Shanghai Jiaotong University; Former brand manager of Pepsi China; Vice President of digital, Christie's Asia Pacific.

## **Haiming WANG | Legal Advisor**

Received Master's degree in Economic Law at China University of Political Science and Law, co-trained P.h.D. in Financial Law at China University of Political Science and the University of Manchester; Former head of the investment banking department of China Securities Interconnection Co, Ltd, a subsidiary company of China Securities Inter-Organization Trading Center.

## **Jianghong QIU | Market Advisor**

Former Researcher of Tsinghua PBCSF China Finance Case Center; First content director of Tsinghua Financial Review.

## 6.2 The Advisory Group



**Di DENG**

Chairman of  
Tai Cloud



**Yuan YAO**

HB.top



**Jun DU**

Node Investment,  
Coin Time



**Yaohua GAO**

President of CaiMao



**Yuanwen WU**

Founder of JingTum



**Xiong LI**

CEO of ChainFor,  
Co-founder  
of SOSOBTC, ICO365



**Huaqiao ZHANG**

Chairman of SmartPay  
(HK8325); Former Chief  
Economist of UBS China  
and vice president of  
UBS; independent non-  
executive director in  
Fosun Group



**Guoqing ZHAO**

Former Deputy  
Chairman and CSO  
of JD, Current CEO  
of MSXF



## **Chunfeng WANG**

Chairman and Founder of  
Lead Holding Group



## **Jingxian WANG**

Vice director, Hong  
Kong APS TV, Famous  
host of finance and  
economics



## **Dayong YANG**

Senior Vice President of  
SinoCredit Corporation;  
Chairman and General  
Manager of Ianjia



## **Delong YANG**

Chief strategy analyst at  
Southern Fund; Received  
Master of Economics from  
Department of Finance,  
Guanghua School of  
Management at Peking  
University on July 2006;  
Received Bachelor of  
Engineering from  
Department of Mechanical  
Engineering at Tsinghua  
University on July 2003



## **Jun ZHANG**

Co-Founder and CEO  
of PPDai, China's First  
Internet Credit  
Lending Platform



## **Yuhang GUO**

Founder and Co-CEO  
of Dianrong

An aerial view of a city skyline, likely New York City, with a large yellow circle overlay in the center. The circle contains the text '07 Project Milestone'. A smaller yellow circle is also visible in the upper right quadrant of the page.

**07**

## Project Milestone



**Aug 2017**

Intelligent Investment Chain White Paper is drafted;

**Sep 2017**

Draft iic white paper;

**Jan 2018**

Initial Coin Offering(ICO) of the Intelligent Investment Coin;

**Mar 2018**

the blockchain of platform' s core part is completed;

**Jul 2018**

Intelligent investment Chain System Platform Version 1.0 is tested and operated;

**Aug 2018**

Intelligent investment Chain System Platform Version 1.0 is officially launched.



08

# Conclusion

With the booming trend of blockchain technology and digital currency market, the Intelligent Investment Chain platform is committed to help users achieve reasonable assets allocation and stable appreciation, and strives to become the wind vane of the industry in the future.



09

# Risk Warning and Disclaimer

# **Risk Warning and Disclaimer**

## **9.1 Risk Warning**

**As a new investment model, digital asset investment has a variety of risks. Potential investors need to carefully evaluate the investment risk and their own risk tolerance.**

**Risk of the loss of Intelligent Investment Coin caused by the loss of Private Key.**

The loss of the relevant login-credentials of the Intelligent Investment Coin will result in the loss of Intelligent Investment Coin. The best way for the purchaser to securely store login-credentials is to store the credentials securely in several places, and not to store them and expose them to dangerous places. After the purchaser's Intelligent Investment Coin extracts the digital wallet address, the only way to process the content contained in the address is the purchaser's relevant key (i.e., the private key or wallet password). The user is personally responsible for protecting the relevant key for signing the transaction that proves the ownership of the asset. The user understands and accepts that if his or her private key file or password is lost or stolen, the Intelligent Investment Coin which is related to the user's account (address) or password will never be recovered and permanently lost. The best way for the purchaser to securely store login credentials is to store the credentials securely in several places, and not to store it on a public computer.

## **Risks that are related to purchasers' credentials**

If any third party obtains the purchaser's login credential or private key, they can directly control the purchaser's Intelligent Investment Coin. In order to minimize this risk, the purchaser must protect his electronic device to prevent unauthenticated access requests from passing and accessing the content of the device.

## **Risks that are related to judicial supervision**

The blockchain technology has become the main subject of supervision in all major countries across the world. If regulators intervene or exert influence, Intelligent investment Chain platform may be affected by their actions such as restrictions on the use and sales through laws and regulations. Thus, digital Tokens such as Intelligent Investment Coin may be restricted, hindered or in worse case, the operation of the Intelligent Investment Chain platform may be directly terminated.

## **Risks of the Token market**

Token's market is inseparable with the entire digital currency market. For instance, the overall market downturn or other uncontrollable factors may cause the price of the Token remain undervalued for a long time, even if it has good prospects.

## **Competition risks**

With the development of information technology and mobile Internet, digital assets represented by “Bitcoin” have gradually arisen. Various kinds of decentralized applications continue to emerge, and competition in the industry is becoming increasingly fierce. However, due to the endless emergence and continuous expansion of other application platforms, the community will face constant operating pressure and certain market competition risks.

## **Risks of the talent loss**

The Intelligent Investment Chain platform has gathered a group of technical teams and advisors with leading advantages and rich experience in their respective fields of expertise, including professionals who have long been engaged in the blockchain industry and core teams that have extensive experience in the development and operation of Internet products. The stability of the core team and the resources of the advisors are significant for Intelligent Investment Chain to maintain the core competitiveness within the industry. Loss of core staffs or advisors may affect the stability of the platform’s operation or have certain adverse effects on future development.



## **Risks that the lack of funds might cause the failure of the development**

If the price of the Token raised by the founding team drops sharply or the development time exceeds expectations, it may result in a lack of funds for team development, and may also result in an extremely lack of funds for the team and thus brings the risk of failing to achieve the original development goals.

## **The risk of hacking or theft**

Hackers or other organizations or countries might attempt to interrupt the functioning of the Intelligent Investment Platform using any method, including but is not limited to denial of service attack, Sybil attack, random attack, malware attack or consistency attack.

## **Risks of the loss due to the lack of insurance**

Unlike bank accounts or other financial institution accounts, assets stored on Intelligent Investment Chain accounts or related blockchain networks are generally not covered by insurance. No loss will be covered by any open individual organization.

## **Risks that are related to the core protocol**

The Intelligent Investment Chain platform will be developed basing on the own public chain. Therefore, any malfunctions, unpredictable functional problems, or attacks that result from the use of the public chain may cause the Intelligent Investment Chain to stop working or malfunctioning in an unpredictable manner.

## **Systematic Risks**

Risks also exist in the neglected fatal flaw in software or in the large-scale failure of the global network infrastructure. Although some of these risks will be greatly reduced over time, such as fixing bugs and breaking bottlenecks of the computers, other risks remain unpredictable, e.g. political factors or natural disasters that may cause partial or global Internet disruption.

## **Risks that are related to bugs and the accelerated development of cryptography**

With the accelerated development of cryptography or the development of science and technology such as the development of quantum computers, the Intelligent Investment Chain platform will encounter the risk of being decomposed by violence, which may lead to the loss of Intelligent Investment Coin.

## **Risks that the application is lack of attention**

There is a possibility that the Intelligent Investment Chain platform has not been used by a large number of individuals or organizations, which means that the public does not have enough interest to develop these distributed applications. Such a phenomenon may cause negative effects to the Intelligent Investment Chain platform and the Intelligent Investment Coin.

## **Risks of not being recognized or lack of users**

First of all, the Intelligent Investment Coin should not be treated as an investment, although it may have some value after a certain period of time. However, if the Intelligent Investment Chain platform is not recognized by the market and thus do not have users, this value may be very small. What may happen is that, due to any possible reasons, including but is not limited to the failure of business relationships or marketing strategies, the follow-up marketing of Intelligent Investment Chain platform and all the crowdfunding funds will not be successful. If this happens, there may be no follow-up followers or few followers on this platform. Obviously, this is very unfavorable for this project.

## **The risk of application failure**

The Intelligent Investment Chain platform may fail due to various aspects known or unknown (such as large-scale node downtime) and thus cannot provide services normally. In serious cases, it may result in the loss of users' Intelligent Investment Coin.

## **The risk that the application or product fail to meet the expectation of the buyers**

The Intelligent Investment Chain platform is currently in an iterative development stage. It is possible that users are not satisfied with the function or the form (including the behavior of the participants) of the Intelligent Investment Chain platform or the Intelligent Investment Coin. Any erroneous analysis or change in design may lead to this situation.

Cryptography-based Token is a brand-new technology that has not been tested by economics. Apart from the risks mentioned in this white paper, there are also other risks that the founding team have not mentioned or have not yet foreseen. In addition, other risks may also appear all of a sudden, or in a combination of several risks that are already mentioned.

## 9.2 Disclaimer

This document is only for the purpose of conveying information and does not constitute relevant opinions on buying and selling digital currency. Any similar proposal or suggestion will be made under a trustful clause and is subject to applicable laws. The above information or analysis does not constitute investment decision or specific suggestion.

This document does not constitute any investment advice, investment intentions, or abetting investment about digital currency. This document does not constitute nor is it construed as providing any trading, or any invitation to buy or sell any form of digital currency, nor is it any form of contract or commitment. The Intelligent Investment Chain platform stated that it does not bear any direct or indirect losses caused by participating in the Intelligent Investment Coin project, including but is not limited to:

1. The credibility of all information provided by this document;
2. Any resulting error, negligence or inaccurate information;
3. Or any resulting behavior.