



# BLOCKEY WHITEPAPER

**Blockey Team**

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# I. Preface

One cell produces life and two cells produce behavior. The basic composition of energy wave is sine wave. When sine wave interferes with each other, interference standing wave is formed in space. We can see its existence. We call it "particle" or particle. If the two waves do not interfere with each other, they are only information in space and are the existence of an invisible wave. Wave-particle duality of energy wave is one of the principles of constructing the world. Beyond that, there are a large number of unknown fields between cosmic stars, beyond time and space. Awe is the beginning of high-dimensional wisdom.

Since the Big Bang, the infinite energy wave has split, interfered, fused, reconstructed and reassembled in space and time, producing nuclei, genes, cells, life, organizations, society, nature, planets and the universe in an infinite cycle. The generation of all things is an evolutionary process of interference, linking, reorganization and fusion of "generalized" information flow.

This evolution has grown from small to large, from simple to complicated, from molecules to planets to galaxies. The matter in the universe has its own individuality and commonness. While human beings use groups to fight against nature, A common behavior pattern and foundation of trust and cooperation have emerged. When a common ideology is formed, culture begins to emerge, and civilization is established, greater unity is needed in order to obtain more natural resources. From clans to tribes, to the emergence of countries, human society continues to develop in order to live freely and have freedom of mind.

Judging from the development and evolution of traffic, it can be summarized as human network flow, information flow and intelligent flow.

Tens of thousands of years ago, human ancestors were still in a barbaric period, relying on the aggregation of individuals to form organizations. Through the manufacture of tools, they continuously improved their ability to claim resources from nature in order to survive freely.

The changes in human society in recent thousands of years, from clans to tribes to the emergence of countries, have led to the continuous evolution of science and technology, the improvement of productivity and changes in production relations. From closure to opening, from independence to union, from fair trade to globalization, the world trend is integration.

In modern times, a modern commercial society with unprecedented prosperity was born and a complete set of perfect structural system was established on the basis of double-entry bookkeeping law, company system and law to protect private property. Compared with mature traditional financial markets such as stocks, foreign exchange futures, there are exchanges, securities dealers, fund companies, banks, clearing houses, registration and settlement centers, financial IT service providers, etc.

In recent decades, the Internet civilization has gone from free development and reorganization in its infancy to the monopoly of traffic by the Internet giants. Most of the Internet services, Google, Facebook and Amazon, are actually intermediaries to some extent, a platform or a market, and they charge certain intermediary fees in the middle.

After the Internet came into being, it was like the largest photocopier in the world. At the most fundamental level, it copies all the behaviors, all the characteristics and all the ideas we produce when using it. The

copies flow so freely that we can imagine the Internet as a superconductor. Replicas entering this system can flow endlessly through the network, just like the current in superconducting wires.

The Internet allows us to exchange information and the world is getting smaller and smaller. In theory, no matter where you are, you can connect to anyone at low cost and without obstacles. Because of the exponential increase in the number of connections, our living conditions have actually begun to undergo essential changes. With the rapid development of Internet of Things, artificial intelligence, cloud computing and other technologies, the era of interconnection of everything is getting closer and closer.

The number of connections has gradually reached the threshold of qualitative change from quantitative change. In the process of this evolution, the machine trust technology based on block chain has brought about more wonderful changes, bringing us from information interconnection to the new era of value interconnection.

## 2. Background

The development of block chain in the past 10 years, a new computing paradigm, and even the opening of civilization paradigm.

No one paid for the original e-mail service on the Internet. It is an Internet protocol that has been defined for a long time and a skill protocol. A protocol is to define a game rule for communication. Once defined, it is an open and transparent rule and does not depend on any intermediate party. In fact, as a next generation computing paradigm platform, the block chain has done a very fundamental thing, that is, we have the ability to flatten what only one platform and one company can do, and flattening to a skill agreement can replace it.

So in the near future, we can see services such as Twitter and Google. Now their companies have a market value of 500 billion US dollars, which may be flattened into a network protocol with many nodes and many individuals participating. This is a huge revolution to the Internet business model. Today's Internet business model is either charging or advertising. We will see great subversion.

With the vigorous development of the scale of digital assets, the number of exchanges is also increasing rapidly. According to coinmarketcap statistics, the number of global digital asset exchanges has reached 12,000, and the number of digital asset wallets is even more numerous. Behind the prosperity, the exchange is facing risks and challenges brought about by poor stability and security of the trading system, unstable customer volume and trading volume, and insufficient asset liquidity. Retail investors, on the other hand, need to open accounts in several exchanges and repeat KYC certification. The market is fragmented in liquidity, scattered in funds and priced at more than one currency. As for institutional funds, due to the lack of professional brokerage services that lack integrated flow, the admission channel is narrow and the cost is high.

Securities dealers, exchanges and custody liquidation will eventually become independent systems. Compared with mature traditional financial markets such as stocks, foreign exchange and futures, there are roles such as exchanges, securities dealers, fund companies, banks, clearing houses, registration and settlement centers, and financial IT service providers. If the encrypted digital asset trading market is to form a complete financial system, various roles will inevitably emerge in the future.

Exchange competition has entered a new pattern, with different exchange competition strategies in each period. The next hot spot of competition is the competition with brokerage as the core, transforming the flow and customers into real transactions on the exchange. The non-exchange flow side will partially assume the business of securities dealers and investment banks in the future and become a new engine for flow realization.

In the end, everything went from disorder to order, from dispersion to integration. From acquisition to becoming itself.

## 3. Introduction

Headquartered in London, Blockey Finance is founded by Morgan Stanley DMG & Partners Securities, Swiss Blockchain Foundation, DCG, Gilder Technology Fund, and Boost VC. Frank Tusar, Founder and CEO of Blockey Finance, used to serve as the Strategic Director of BlackRock, Inc., and Alex Johansson, Co-founder and CTO of Blockey Finance, was in charge of the electronic trading business for Charles Stanley Securities. The core team members is comprised of alumni from world-renowned enterprises, including BlackRock, Inc., Charles Stanley Securities, Roland Berger, Netherlands' ING Group, Google, Facebook and more. Each of these professional has over 10 years working experience in the fields of artificial intelligence, technology, computer, finance and blockchain.

Being a blockchain financial innovation service provider, the core of Blockey Finance lies in digital identity, digital asset trading and management. It provides BaaS (Blockey as a Service) with Identity-Based encryption algorithms ,distributed database system(DDBS) and Blockchain intelligence hardware as the core underlying hardware and software technology framework. The 2B2C universal platform network it built is designed to provide application transformation for commercial finance, social entertainment, Internet of Things and artificial intelligence, offering a convenient, secure and trusted blockchain to different roles and organizations on the internet. It weaves isolated trust value islands into a value network and provides safe, efficient and trustworthy blockchain basic services.

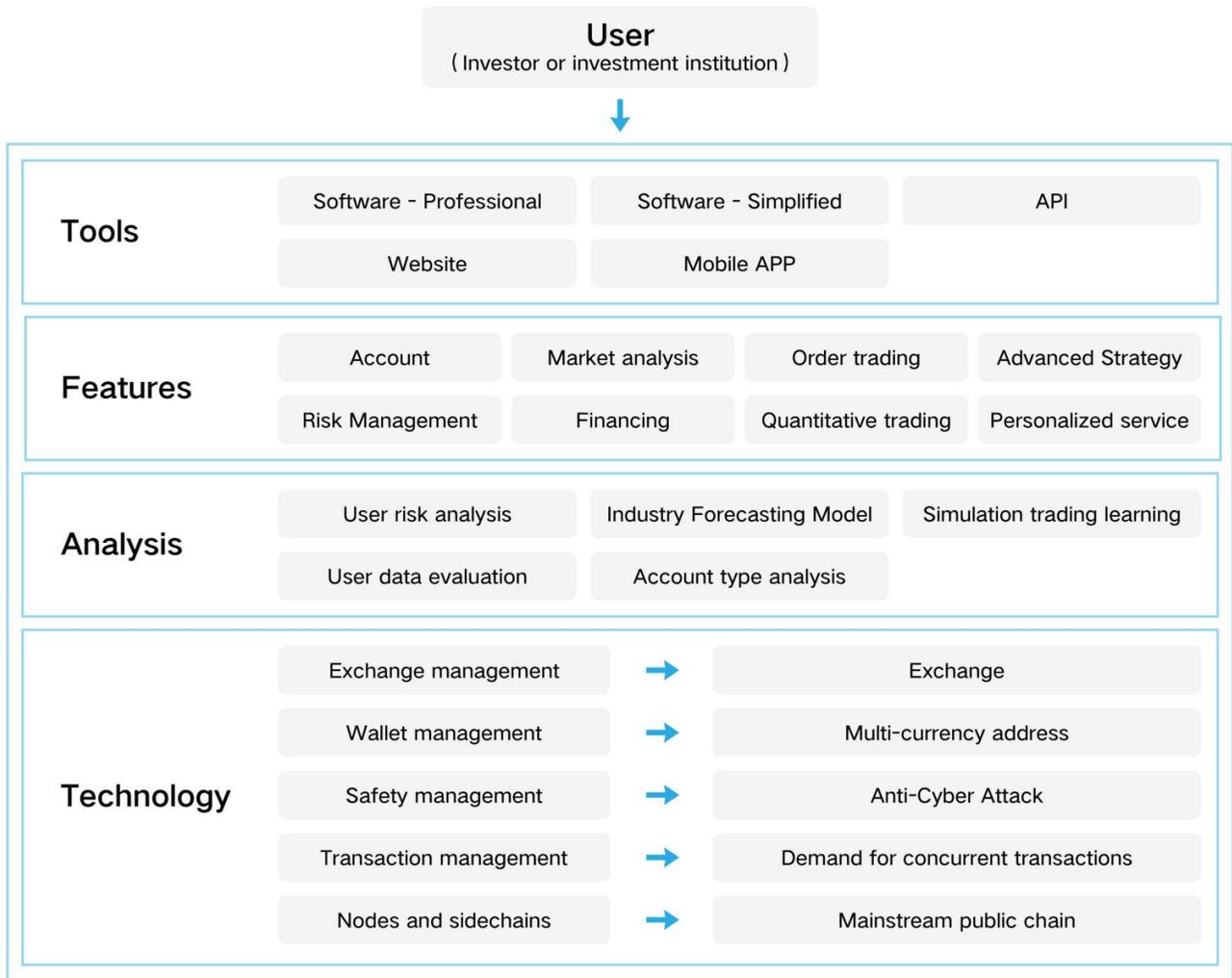
The R&D team of Blockey has grown to 100 people and has research branches in London, Switzerland, Finland, New York and Chicago. The business includes Blockey Convofitting &Trading Network, Blockey Marker System, Blockey of Things and Blockey Intelligence. The company has recruited top academic and research resources from Oxford University, Harvard University and DeepMind Blockchain AI Lab to build a reliable network among people and people, people and things, people and AI through cross-field integration in blockchain, internet of things, artificial intelligence, finance and culture, exploring the symbiosis and common prosperity between human and technium.

### 1. SYSTEM ARCHITECTURE

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The pipeline low coupling architecture is adopted to separate the technology layer, AI algorithm layer, product platform layer and trading tool layer, which has the characteristics of high efficiency, robustness and good expandability. Among them, the technical layer includes exchange management system, wallet management system, security management system and transaction management system, and nodes and side chains will be developed in the later period. The operation data collected by the technical layer will be transmitted to the AI algorithm layer, and the artificial intelligence algorithm will be combined for user risk analysis, market forecast model, user data evaluation, account type analysis and simulated transaction learning. Based on the analysis and combination of AI algorithm layer, the product platform layer is implemented with the support of technology bottom layer. The main business functions of the system include account management, market analysis, order trading, advanced strategy, research report, risk management, information services, financing and currency financing, quantitative trading and personalized services.

In terms of user interaction, Blockey system provides a variety of access methods through the transaction tool layer: web page end, desktop client end, APP end and API interface for quantifying transaction users, which is convenient for users to use Blockey system anytime and anywhere. In addition, the Blockey system uses intelligent front ends on the platforms covered, gathering multiple exchanges and multiple currency pairs in a single front end. Compared with users who need to open multiple web pages or install multiple APP on mobile phones when using multiple exchanges by themselves, the intelligent front ends of the Blockey system can bring great convenience to users.



**Fig.1 Overall Architecture**

## 2. VALUE BROUGHT TO USERS BY THE SYSTEM

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### One-stop trading experience

Users only need to register an account on the Blockey platform to trade multiple currency pairs in multiple exchanges, and can also enjoy services directly related to transactions such as financing and currency financing.

### Lower costs, higher returns

Users trading in digital cash through Blockey platform do not need to meet the restrictions such as the lower limit of deposit and the minimum turnover set by the single exchange, and can enjoy the preferential rate of the single exchange. At the same time, users can easily search for the best executable price in the whole network through Blockey platform to improve the yield.

### Easy to use professional trading tools

Blockey provides users with multiple sets of ordering algorithms to meet their different needs. Blockey system can provide customized market risk monitoring and management system according to user requirements; In addition, Blockey system will also provide investors with real-time transaction confirmation, transaction cost analysis, portfolio analysis and other investment tools.

### Diversified Investment Demand

Through Blockey system, users can buy digital cash derivatives in addition to spot products in digital cash to meet hedging or speculative needs.

### Diversified value-added services

Blockey establishes diversified value-added services such as investor education platform, investor service market and social service for users.

Fitting trading system is Blockey Broker's demand for the development of brokerage business in the digital cash trading market. It is a professional-level digital cash asset management trading control system designed and developed independently. Fitting trading system can fully meet the needs of the current development of brokerage business in digital cash trading market. It can help digital cash brokerage business to quickly realize many business needs such as professional transaction management, business risk control, customer development management, etc.

The fitting trading system combines mature traditional financial IT with the emerging digital cash business, taking the lead in introducing a multilevel account structure system, a perfect trading segment and a complete risk management and control process in the digital cash trading field. For the first time, it will take financial IT services as products, bringing complete lightweight professional financial IT solutions to the brokerage business in the digital cash market, and will inject brand-new, mature and steady nuclear technology initiatives into the development and business innovation of the brokerage business.

The fitting trading system will enable the brokerage business in the digital cash market to make heavy technological changes in the fields of business landing, innovation and expansion, and push the entire digital cash market to change from technological composition and business form to faster, safer and safer.

## 4. Product Advantages

The system is based on the nuclear demand of the brokerage business in the digital cash market, and Blockey has proposed a complete securities firm's stand-by solution. It has created a digital cash brokerage business transaction control platform with investment transaction as the core and asset management, risk control, customer management, special functions, etc. At the same time, it can effectively meet the needs of securities firms for business expansion.

Securities firms can solve the challenges and problems faced by the current brokerage business and investors in the process of asset management and trading in digital cash through a unified management platform.

As the first professional digital cash brokerage solution, the system has the following seven product advantages:

### 1. STRONG ASSET MANAGEMENT

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Convoftting System for securities firms, the system sets fees for multi-tier accounts at different levels, allowing securities firms to manage trading assets and fees hierarchically and hierarchically. At the same time, it is necessary to carry out hierarchical asset accounting for multi-tier accounts to ensure the uniqueness and accuracy of assets at each account level of securities firms.

Convoftting System holds a variety of asset accounting and statistical exhibitions in digital cash, and multi-level accounts can enter into independent asset calculation, profit and loss calculation, and can form independent asset accounting statements in the process of transaction and accounting.

Convoftting System solves the processing of securities firms' digital asset payment related businesses from the source, and realizes the globalization of digital assets, cross-category and cross-asset payment transactions through the docking of Blockey-PAY (Blockey Digital Payment Platform) with digital asset OTC market, digital commodity market and other businesses.

To enable the overall platform to solve the rapid exchange between different countries and regions, mainstream legal tender and digital assets, and to greatly promote the expansion of new households in securities firms and other businesses. The digital asset trading business is connected with OTC's outgoing business, reducing the complicated process in the transaction preparation process and helping customers to reach the trading business as quickly as possible.

At the same time, it holds a variety of digital assets, a variety of legal tender, and transactions clearing and settlement between other asset categories. From

It enables digital assets to realize cross-platform transactions with other assets.

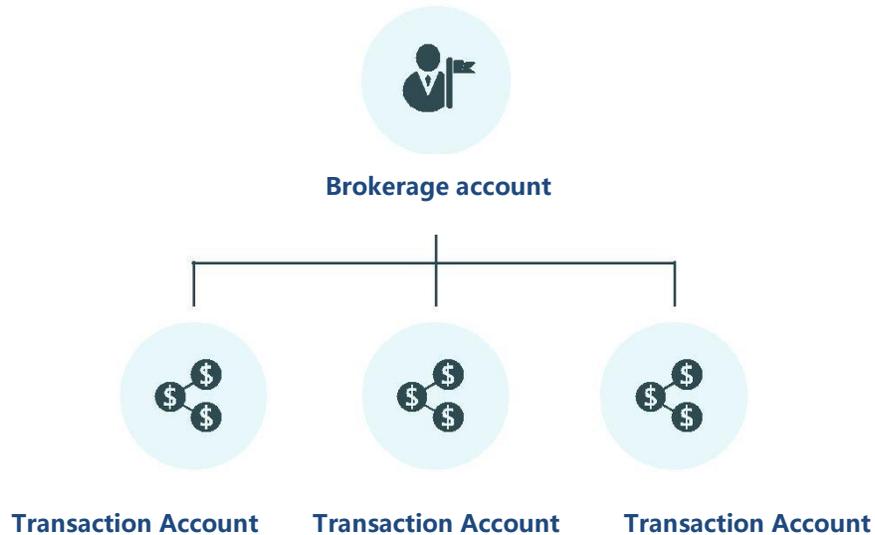
## 2. FLEXIBLE BROKERAGE ACCOUNTS

Convofitting System holds a multi-layer account structure, which can assist securities dealers to quickly build according to the needs of their business.

An independent account structure system that conforms to the business. The profit brokerage account system can quickly establish a multi-level brokerage agency relationship, with clear management levels, full incentives and give full play to the unique advantages of brokers in developing new accounts and customer service. The professional brokerage account system provides functions such as brokerage classification, customer classification and commission classification, which is convenient for marketing activities and account transformation.

Securities firms can systematically and completely supervise and manage the assets and business conditions of various accounts, and easily realize the functions of unified management of accounts across multiple exchanges, so that households can trade any currency of any exchange in different countries in the world with only one account.

For each level of accounts, the system holds separate operation and management authority, and calculates assets and profits and losses for each split trading account, effectively realizing core business scenarios and requirements such as cross-market multi-trading account unified management and brokerage account split management.



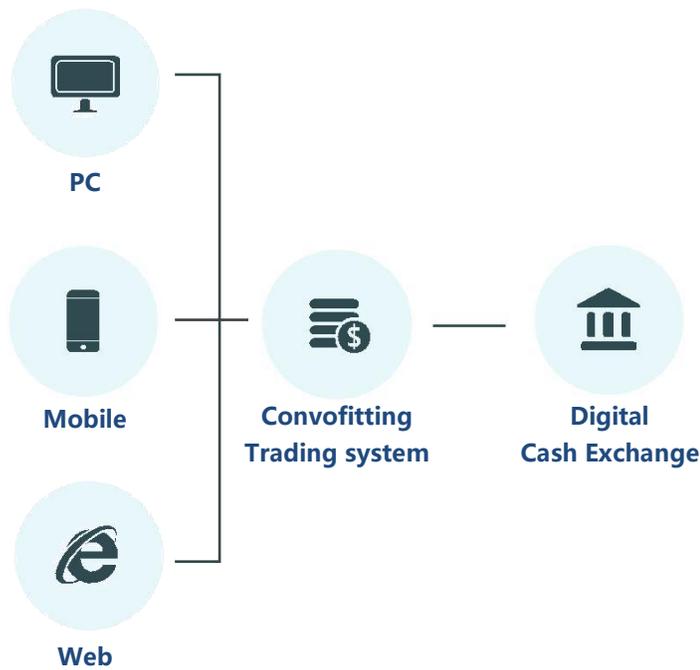
**Fig.2 Flexible Brokerage Accounts**

### 3. SPECIAL TRADING MODE

The Convofitting System has faster trading speed and richer trading terminals. Its API connection integrates the connected exchanges, which is more in line with the standard of financial transaction communication protocol and safer and more reliable.

The Convofitting System can meet the different needs of securities firms for trading speed and trading complexity. He holds a variety of scenarios such as cross-exchange unified trading and independent account trading. At the same time, it provides a variety of enabling modes such as PC client, Web client, mobile device client, etc., so that customers can operate according to the actual situation.

The strategic trading service held by the Convofitting System can help securities dealers and exchange customers to complete relevant transactions with more trading tools and strategies. Simple and easy strategic trading can help securities dealers and exchanges to bring more trading volume and better trading experience. The previous open trading strategies include: conditional order strategy, surplus and loss strategy, ice strategy and brick removal strategy. The rich special trading mode aims to bring more special functional experiences to securities dealers and enhance professionalism and innovation.



**Fig.3 Special Trading Mode**

## 4. INNOVATIVE CURRENCY LEVER

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The Convofitting System puts forward a new solution to the personalized innovation business of securities firms, various profit models and the reduction of operating costs. Bear markets continue, the market is sluggish, short selling is scarce, and the development of currency financing leverage business has led to long/short selling in any currency, which has greatly improved the innovation of securities firms' services, and at the same time has also improved the dominance and flexibility of securities firms' leveraged trading.

The leverage system of the system can quickly hold and carry out special businesses such as ordinary leverage currency financing business and leverage contract (spot leverage contract) business. Securities dealers can choose the currency financing market. Even if the exchange does not have currency financing function, the system can quickly realize currency financing business. In addition, it is possible to select the finishable currency and guarantee the currency, and to set the leverage ratio and raise the main currency.

Diversification of loan types: regular quota, repayment with loan. Diversification of interest settlement types: interest settlement first, interest settlement and interest settlement when due. Multi-level and step-by-step interest collection meets more personalized demand for currency borrowing.

The business innovation of financial currency lever aims to improve the liquidity of the market, improve the function of price discovery, and at the same time make short selling and other transactions reasonably held, providing investors with more investment segments. The development of leveraged business can not only improve spot trading, increase the profit rate of securities firms, bring a large number of domestic income and interest margin income to securities firms, but also create many opportunities for product innovation, provide the possibility of reducing costs and hedging for business operations, and provide necessary weapons for business innovation of securities firms.

## 5. INTELLIGENT MARKET MAKING NETWORK COLLATERALS

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The Convofitting System supports intelligent market-making machine held by the system passes through BGTN (Blockey Global Trading Network), aggregate the market's high-quality liquidity and trading depth; And through intelligent processing of trading orders, depth and transaction details, it provides securities dealers with insurance and real trading depth and liquidity. At the same time, through the intelligent market-making hedging strategy, the market-making income of the corresponding trading categories can be further improved and the corresponding market-making risks can be reduced. Its flexible allocation, effective strategy and full management functions can help securities dealers and exchanges to quickly build up the risk liquidity of the market.

Securities firms can provide depth and transaction details through the intelligence in the intelligent market-making network. It is also possible to designate multiple exchanges to converge, thus avoiding the problem of abnormal or non-liquidity of a single exchange.

Through systematic dynamic processing, the scattered nature of aggregated information can be effectively sorted out and standardized, and real and effective aggregated intelligent information data can be formed, thus effectively completing liquidity integration and spreading out.

Through intelligent routing, hedging transactions can be carried out according to reasonable settings, thus ensuring that internal matching advantages can be obtained to the maximum extent while borrowing liquidity, and reducing or eliminating corresponding open risks. At the same time, it can also find the best price in the allocated market and submit it to the securities firm so as to obtain the most market-making income by comparing the impact cost in the market-making process.

Through its monitoring function, system information can be grasped in real time: monitoring node status, order summary and details, asset status and alarm reminder, asset statistics and synchronization, position information query, detailed orders and transactions. The monitoring function always pays attention to the overall situation and makes notification and police at the first time.

## 6. ALL-ROUND INSURANCE MANAGEMENT

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Fitting trading system has a complete insurance management and control system. It can monitor the real-time trading progress of accounts at all levels, and carry out insurance control, early warning, prohibition and other operational settings in more than one hundred different dimensions such as account trading volume, account positions and transaction types.

Fitting trading system can effectively assist securities firms to prevent trading risks, control business risks, and timely monitor and find possible positions and trading risks.

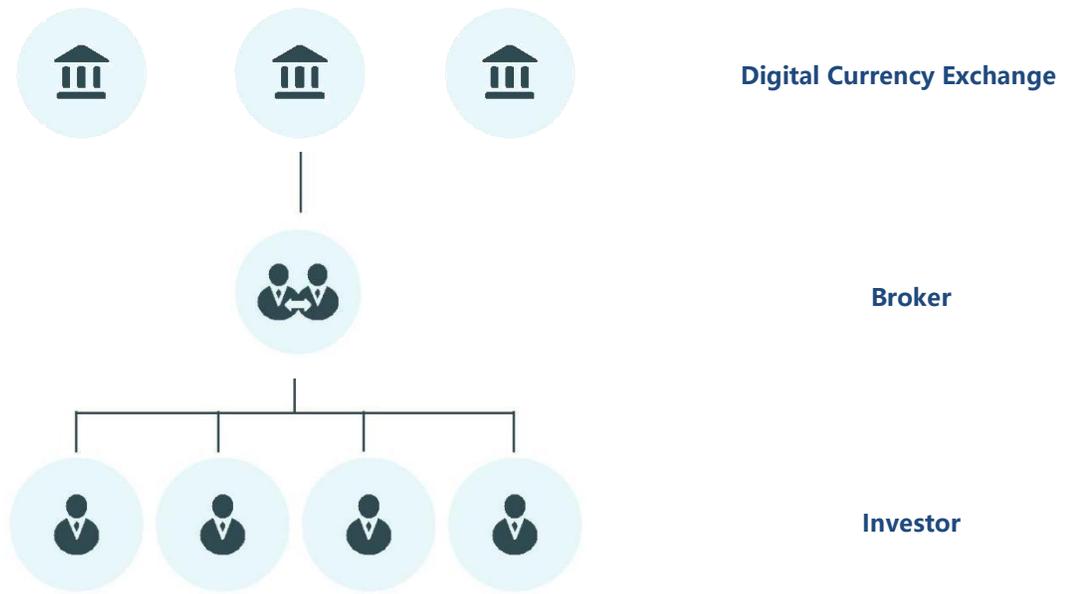
In addition, The API connection of the fitting trading system is more in line with the standard of financial trading communication protocol, which will further improve the safety of external connection and enhance the risk control ability of securities dealers.

## 7. CONVENIENT BUSINESS EXPANSION

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The Convofitting System has good business expansibility and is connected to many exchanges. Securities firms can manage the accounts and assets of multiple exchanges by logging into a terminal.

The Convofitting System holds the expansion of personalized business functions, can provide personalized customized reports and other functions for securities dealers, and can create modules that meet the actual business demand scenarios for each securities dealer, thus enabling securities dealers to quickly carry out special business.



**Fig.4 Convenient business expansion**

## 5. Technical Advantage

The Convofitting System enables the multi-medium distributed architecture of the professional broker trading system, and enables the top-level financial business communication middleware developed by the Blockey to provide a strong technical architecture for brokerage business development and business innovation.

At the same time, Fitting the three-tier technical architecture of the trading system can provide hot plug-level technical response for business update and business innovation. Its underlying technology BGTN (Blockey Global Trading Network) is the underlying basic network of the global digital asset financial market set up by Blockey, which is used for information exchange of financial services. The network is based on the standardized financial information protocol developed and formulated by Blockey, which effectively ensures the stability and security of financial information exchange. It has three characteristics:

1. Covering more than 90% of the global liquidity , it holds thousands of trading currencies and trading currency pairs worldwide.
2. Professional safety, professional multi-level integration and specialization NetNetwork architecture, encrypted transmission, connection security authentication;
3. Unification and standardization, so that the unified financial exchange agreement, at the same time, hold a variety of development languages.

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It is suitable for business interconnection and business information flow between various digital asset-related financial institutions. Fitting the rich terminal types of the trading system and the standard API connection can well meet the needs of terminal customers in various scenarios.

## 6. BKT Token Economy

### 1. FUNCTIONS OF BKT

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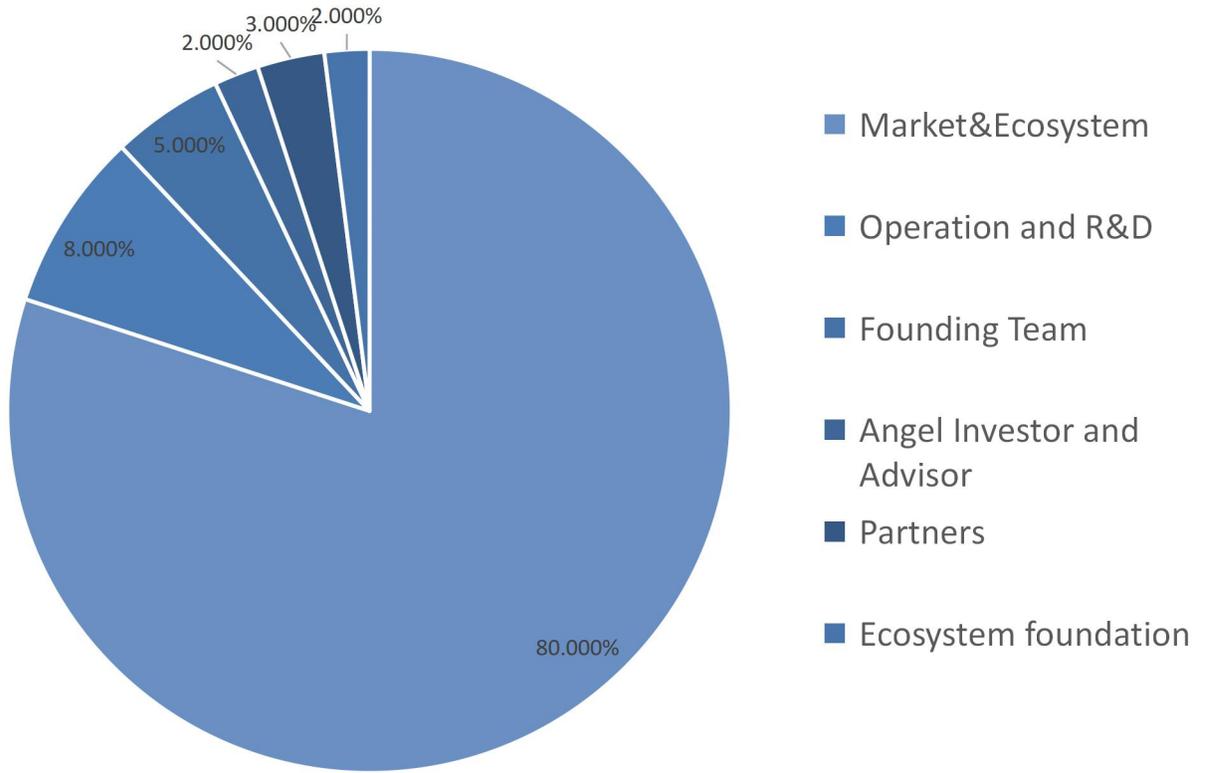
BKT is a functional token used by the entire Blockey community. Users can use BKT to pay any service provided by Blockey, including but not limited to trading commission, fund mall, strategy supermarket, trading commission, social information, etc. BKT was originally issued in the form of ERC-20 on the Ethereum public chain. After the main network of BKT chain (public chain developed by Blockey) is online, BKT will be converted to the public chain as a functional token.

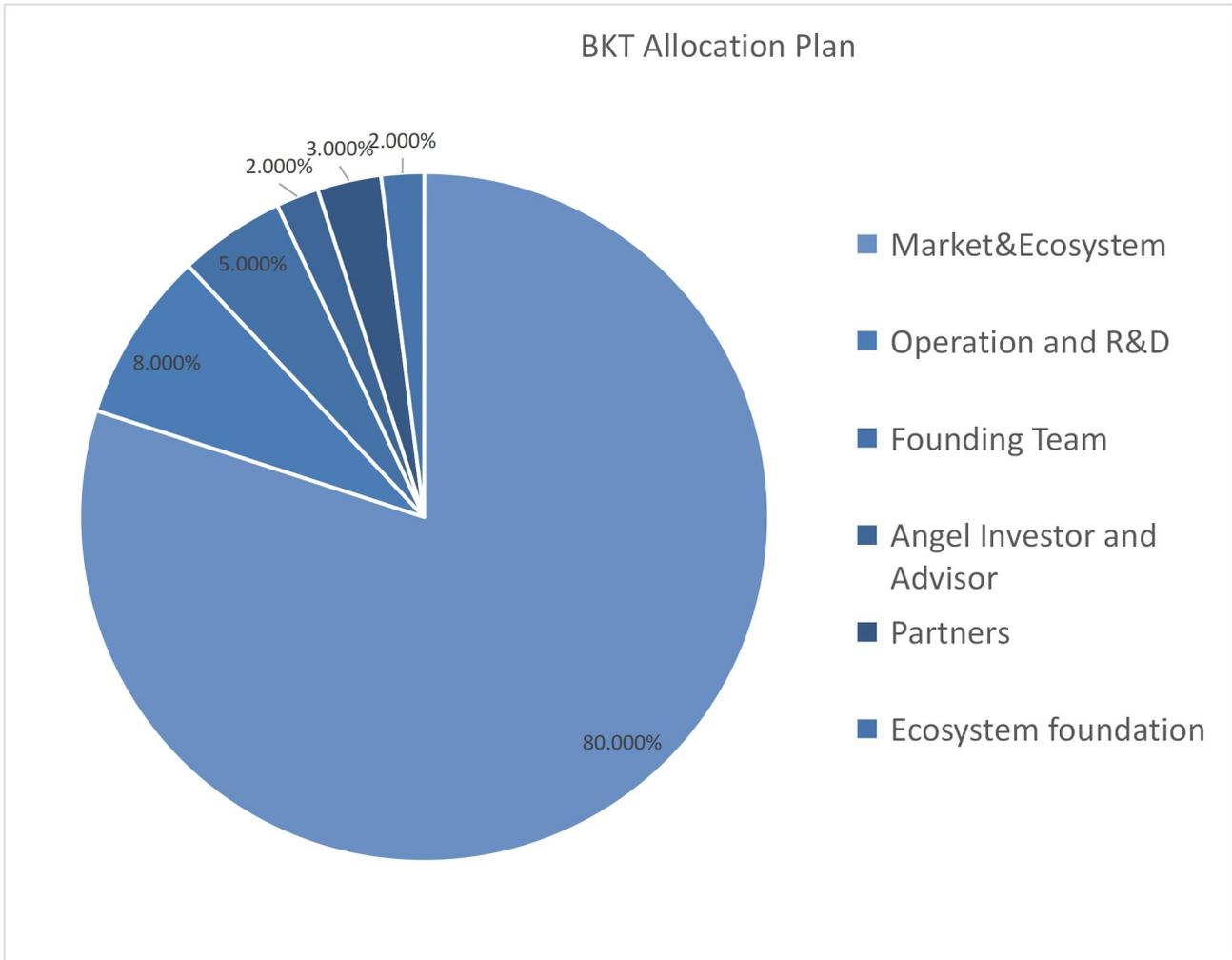
### 2. BKT ALLOCATION PLAN

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The total number of BKT tokens issued is 500 million, which are distributed as shown in the following figure:

### BKT Allocation Plan

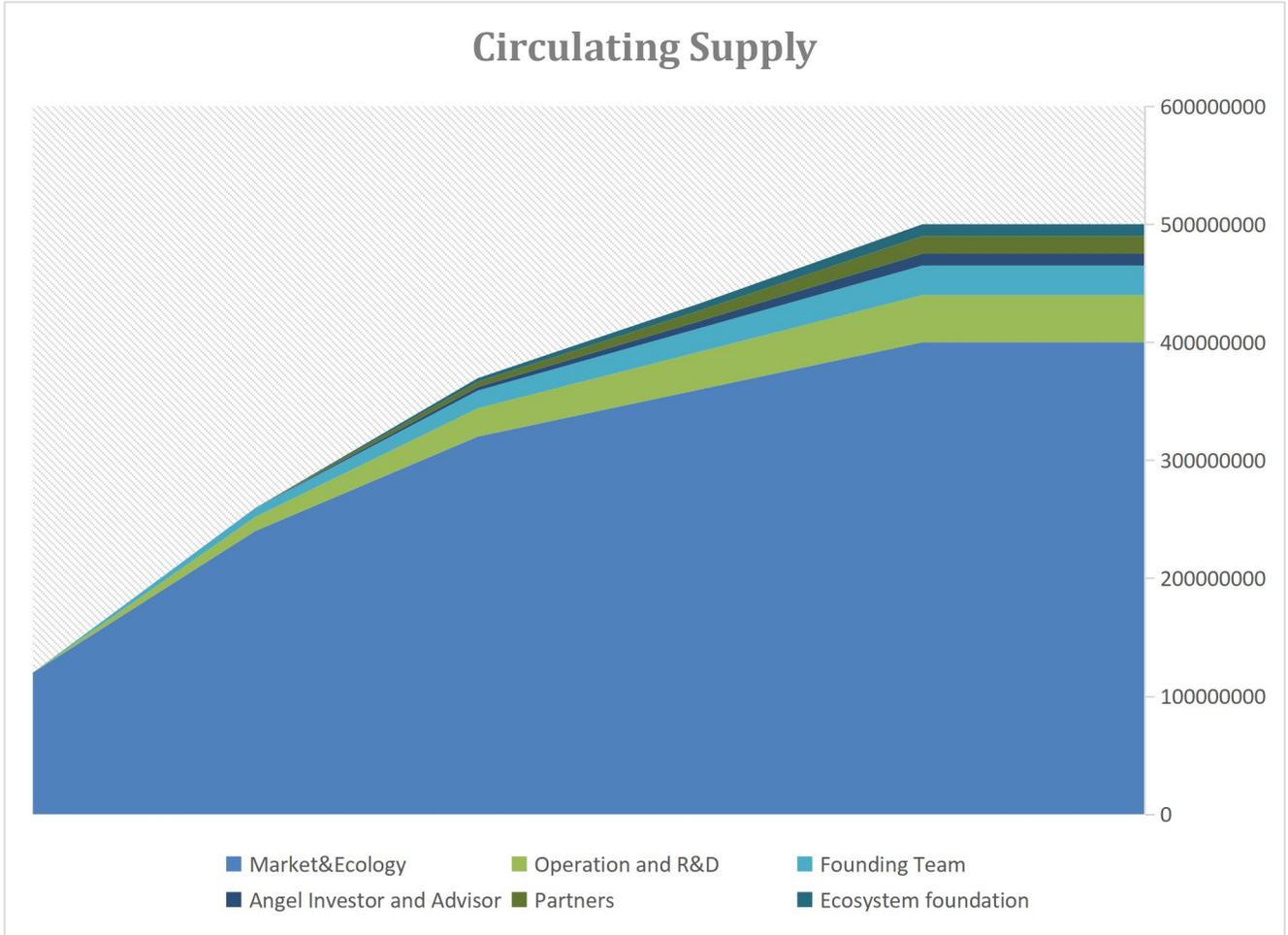




**Fig.5 BKT Allocation Plan**

The 100 million BKT will be released to the market by air drop or public offering in the first year according to liquidity and proportional coefficient, with a total of 200 million in circulation released in the first year. The second year will increase 150 million in circulation, and the third and fourth years will increase 50 million in circulation each year. Among them, the founding team, angel investors and consultants, partners and ecological funds will be released simultaneously in proportion.

The remaining 50 million BKT will be retained by Blockey Ecological Foundation as reserves and emergency funds, and some of them may be released when necessary.



**Fig.6 Circulating Supply**

## 7. Blockey Development Process Planning

**2014** Blockey Finance Finance was founded

**December 2016** Boost VC invested in Blockey Finance, enabling us to enter the business of blockchain, internet of things and AI.

**October 2017** Gilder Technology Fund cooperated with Blockey Finance which entered the field of digital asset relying on decades of experience from its team in hedging transactions and asset management in the foreign exchange futures financial market.

**December 2017** The team has launched 30 special funds with high-frequency, market-making, arbitrage and hybrid, achieving outstanding results.

**February 2018** Reached strategic cooperation with DeepMind Blockchain AI Lab.

**February 2018** Reached strategic cooperation with DeepMind Blockchain AI Lab.

**May 2018** DCG invested in BF Finance and brought more partners from the market.

**July 2018** Blockey Finance and Morgan Stanley DMG reached strategic cooperation.

**September 2018** Reached strategic cooperation with Swiss WISEkey in the field of credible internet of things

**October 2018** Started the R&D on Blockey Broker & Trading Network

**March 2019** Completed V1.0 version Broker system function test verification

**May 2019** Completed the infrastructure design and preliminary development of the first phase of BTN underlying public chain

**June 2019** Upgraded Broker V2.0 with internal testing on Blockey convolution trading engine limit performance

**July 2019** Invited the first group of professional customers from assorted institutions on the whitelist for testing

**August 2019** Invited the second group of professional customers from assorted institutions on the whitelist for testing

**September to October 2019** To perform public network test and technology roadshow in European and North American

**April 2020** To complete the first phase of R & D on Blockey of Things based on CL-PKC/E encryption technology

**December 2019** To complete the development and design of the first phase of BTN underlying public chain, and conduct internal network internal testing.

**September 2020** To finish the second phase of BTN public chain technology development and upgrade and introduce POE algorithm consensus

**October 2020** To launch the blockchain decentralized and convofiting trading system with the basis of BTTN public chain technology, picking a super-node.

**March 2020** To do online testing on the first stage of BTN bottom public chain main network

**December 2020** To complete the second phase of R & D on Blockey of Things project and conduct pre-commercial public network testing.

**March 2021** To develop the third phase of BTTN public chain technology with expansion and cross-chain solutions, and release Blockey Threshold Trusted Network V2.0. Promote the ecological development of DAPP.

**April 2021** To complete the first phase of R& D on BF Intelligence project, and test the blockchain AI network.

**June 2021** To launch Blockey of Things network V1.0 and promote it for commercial use

**2022** To establish autonomous ecological foundation

**2023** To put forward the Game and Ecological Theory of BI and AI

**2024** To form three ecosystems, namely BTN, BOT, and BI