



WAYKICHAIN

# WAYKICHAIN WHITE PAPER

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## Extract

WaykiChain is a brand new and powerful underlying system of Blockchain 3.0 based on Bitcoin and Ethereum. It is committed to provide enterprise-level blockchain infrastructure and industry solutions. By fully integrating the characteristics of the distributed ledger, distributed database, smart contract, programmable digital currency, as well as the value transfer protocol, WaykiChain will help to build and develop a new business model which belongs to the information society and is totally different with the industrial society, and thus will thoroughly subvert three traditional industries worthy of several hundred billions of dollars, including the financial industry in terms of the assets trading and distribution methods, the foreign currency exchange market in terms of the acceptance method, and the bet industry in terms of the old and tedious business model.

Thanks to the developing and innovating blockchain technology, widely used business applications, and fine governance, WaykiChain has core competitive advantages in the following fields:

◆ **Technology:** WaykiChain has a mature and powerful technological team which has not only accumulated rich industrial and technological experiences in many sectors including finance, entertainment, IT, etc., but also achieved pioneering breakthroughs in R & D and application of the blockchain technologies.

◆ **Target industry resources:** WaykiChain team is made out of not only blockchain technology expertise, but also experienced professionals which come from target traditional industries. Moreover, WaykiChain team has built strategic relationship with target industry firms, who will provide support for the application of WaykiChain.

◆ **Business governance:** unlike common public blockchains, WaykiChain has a clear and accurate strategy towards target industries. Thanks to its characteristics of the blockchain technology, such as the distributed decentralization, irreversibility, encrypted security as well as the point-to-point value transfer, WaykiChain will professionally and persistently permeate into the target industries and gain market shares in a fast way.

◆ **Funds management:** in terms of funds management, WaykiChain will primarily focus on its development under the strict principles of fairness, justness and openness. WaykiChain Team will safeguard WaykiChain development funds in the specially established WaykiChain Funds, so as to guarantee the security and sustainability of the funds. In order to guarantee the openness of funds use, all funds allocation in WaykiChain projects will be disclosed to all investors on a regular basis.

◆ **Market potential:** every WaykiChain target industry is a trillion-level. According to a conservative estimate, in 2017, the market of the sports bet industry reached USD 1.3 trillion. And the sports bet industry is just the first industry which will be subverted by WaykiChain!

◆ **Sustainable growth:** by building up a perfect governance structure, WaykiChain Team has realized effective administration on common procedures, code management, financial management, salary management, privilege operation scope, etc., so as to

guarantee the sustainable growth of WaykiChain.

As the underlying system of blockchain 3.0, WIKI Chain has not only flawlessly inherited the characteristics and advantages of the eco-system of the traditional blockchain, but also solved the technological bottleneck of the current blockchain, thus truly integrating the blockchain and business. Moreover, WIKI Chain is investing vigorously and continually into R & D and innovation of the financial technology with focus on blockchain. Based on its latest achievements, WIKI Blockchain has a clearcut vision to develop Blockchain +, or to upgrade the value of the traditional industries as well as to improve all other industries, so as to build up a win-win blockchain Eco-system in the 21<sup>st</sup> century.

WaykiChain: blockchain application pioneer

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## **Part I Design ideas of WaykiChain**

### **1.1 Development and value of blockchain**

After more than 40 years of development, internet has brought about new things and new concepts, such as email, network company, social media, mobile network, big data, cloud calculation, internet of things, etc. Internet has drastically reduced the costs relating to searching, coordination and information exchange, radically lowered the entry threshold in many fields, boosted new media, new entertainment and new retails, and finally generated the brand new organizational architecture model as well as the unprecedented digital business model.

Thanks to the sensor technology, internet has fully permeated the environment where human beings reside. However, for business and economic activities, only information share and transmission cannot meet the development of the economic society. When no verification information is available from the third party organization (for example, verification of the transaction participant's identification, qualification, technological capability carried out by banks or governmental authorities), people cannot rapidly verify the identification of the transaction participant, and so cannot establish the trust relationship which is necessary in economic activities. Therefore, current internet information share and transmission solutions, if not relying on the third party intermediary, cannot realize the personal identification and establish the trust relationship between the two economic participants. Huge limitations still exist.

It was not until the year of 2008 that Satoshi Nakamoto firstly issued a point-to-point cash system and its infrastructure protocol: Bitcoin: an Electronic Cash in the Point-to-Point Internet. This digital currency, so called as bitcoin, can help two transaction parties to build up the trust bridge in order to guarantee the completion of the transaction based on intelligent codes, not relying on the verification from third party intermediary. After more than 10 years of development, the blockchain technology behind bitcoin has been gradually understood by more and more people, and has undergone continuous development and innovation.

Blockchain's role in trust is like that of internet in information. What is mostly absent in internet is Trust Protocol that is used to confirm the validation and authenticity of every transaction. And the blockchain technology can provide basis to solve such problems, optimizing the approaches and methods adopted by people to deal with trust, security and privacy.

Hence, based on its capability to promote transparency and protect privacy, blockchain connects Trust, the most profound need for human beings, and so as to point the road ahead for a fairer, more efficient and more accessible global financial

system. The blockchain technology has huge potentials, which will bring about great changes for traditional manufacturing, the financial sector, governmental bodies, and all human beings.

Features and benefits of the blockchain technology: a brand new distributed infrastructure architecture and calculation paradigm is established thanks to the block chain digital structure used for data verification and storage, data generation and updating based on the consensus algorithm of the distributed computer node, data transmission and access security guaranteed by cryptography, as well as data programming and operation based on smart contracts consisting of automatic script codes. The blockchain technology will store records in thousands of, or even millions of independent computers, while these computers can work in a coordinated manner, no single entity can control them altering data and software.

Moreover, the blockchain technology can establish the reliable point-to-point trust in the internet, so the value transfer doesn't rely on the intermediary. Blockchain discloses information yet protects privacy, and makes collective decisions yet protects the interests of the single entity, which increase the efficiency of value exchange and reduces costs as well.

The blockchain technology has gradually become mature, bringing about the business ecologic circle of generation, storage, transaction and application. In the industries covered by the blockchain technology, banking, securities and insurance have gained the biggest share. In the future, the entertainment and media industries powered by the blockchain technology will develop in an accelerating speed, and other industries including medical treatment, internet of things, and supply chain will also see more and more applications of the technology.

WaykiChain is committed to the booming development of all industries. Based on thorough incorporation of the benefits of bitcoin and ethereum, it has built up the enterprise-level blockchain infrastructure by integrating the on-chain and off-chain of the blockchain, and thus formed the third generation blockchain eco-system. In the financial and entertainment sectors, WaykiChain will use the blockchain technology to redefine the traditional concepts including assets, currency, investment and transaction, in order to solve the difficulties of exchange, transaction and transmission of values on the internet such as funds, contracts, digitalized assets, etc. Natural persons and financial organizations can, through the eco-system established by WaykiChain, realize the on-line value transmission and exchange in a highly trusted manner by using the whole set of decentralized mechanism as constructed by the blockchain technology.

## **1.2 Design principles and meanings of WaykiChain**

Although there are many blockchain platforms in the market, and new platforms are

emerging every day, it is rare to see the platform that not only incorporates with the traditional business but also enters into reality, and the terminal application incorporated with the blockchain technology hardly exists. Even bitcoin, which is the earliest in reality, has much more collection value than its use value as currency. Such situations have more or less deviated from the final objective given to the blockchain technology to change the society, or even subvert the current business model.

We hope to build up a brandnew blockchain Eco-system which will be an option for the internet value transmission protocol in the future, and so as to promote the usability and operability of the whole blockchain industry. This is WaykiChain.

Thanks to its leading blockchain technology, WaykiChain will, based on its clear business positioning and strategic plans, firstly permeate into and gain shares of the target markets, such as the bet, assets transaction, foreign currency exchange, etc. After building solid users' supports, WaykiChain will gradually develop into a blockchain technological platform incorporated with real business applications.

## **Part II WaykiChain technological solutions**

### **2.1 Smart contract**

WaykiChain is a smart contract platform that supports Turing devices. It adopts DPOS consensus mechanism, sets up 11 voting nodes, and generates a new block every 10 seconds. According to detailed calculation by WaykiChain Team, currently the confirmed transaction speed can reach 1000+tps. WaykiChain smart contracts are compiled with lua scripts. Lua was born in Brazil in 1993. After 30 years of development, lua is widely used in various kinds of fields, such as games, internet of things, built-in devices, etc. It is easy to learn and use by community developers because of its detailed development materials, and thus enjoys global supports of developers and enterprises. With only a small number of WaykiChain coins, community developers can publish their lua smart contracts into WaykiChain decentralized blockchain networks. And thanks to smart contracts, we can realize a plenty of applications scenarios, such as assets issue, bet application, copyright sourcing, mutual insurance, decentralized exchange markets, cross-border settlement, etc.

### **2.2 Voting mechanism**

WaykiChain adopts DPOS consensus mechanism with 11 accounting nodes. When every block is generated, one accounting node is elected according to the random perturbation algorithm from the 11 nodes with the most number of votes. Then the accounting node gains all of the transaction handling fees in its accounting block. If the user locks his WaykiChain coins, he may earn the related interests. When the votes of the corresponding user account change, the interests will automatically accrue. According to the design of the system, the annual rate of return is 5% for the first year, and the rate of return will decrease by 1% every year, and finally, the annual rate of return will be fixed at 1% permanently.

### **2.3 WaykiChain applications**

WaykiChain decentralized bet application is the first smart contract which is released by WaykiChain Team. In the application, the built-in application bet super-coin will be published. Every term of bet will be triggered by the initiator through the smart contract transaction. During the valid period as stimulated by the contract, the user may initiate the betting contract transaction, and all of the transactions can be searched and traced in the block browser, and can never be revised. All of the super-coins in the betting will be frozen in the smart contract. When a certain term of bet is over, the bet initiator will publish final betting results through the contract

transaction. And such results are from official authorities. The smart contract will issue awards to the correct bet user according to final results.

WaykiChain decentralized assets exchange market is another smart contract application released by WaykiChain Team. The user is allowed to transfer his personal real assets into his own Wayki assets in the form of mortgage, and trade them openly in the market. The smart contract provided by WaykiChain allows the assets initiator to compile dividend sharing rules triggered by certain conditions. And all of the market behaviors towards the object in the transaction will decide the final price of the assets in circulation.

The user who needs foreign exchange acceptance may also realize cross-border remittance, transaction and payment through WaykiChain. The foreign exchange acceptant may have Wayki coins necessary for the acceptance by means of pledging his assets to WaykiChain, and earn profits by the rate of exchange. The user in need of foreign exchange can directly look for the acceptant in WaykiChain. WaykiChain forex platform based on the blockchain technology features high vertical efficiency that exceeds traditional means. Thus more and more acceptants will be lured into the business opportunities in order to meet their increasing demands for foreign exchange transactions.

## **2.4 Sidechain**

The hottest platform which supports smart contracts, Ethereum, has received much recognition in the market. However, there are still much improvement potential for Ethereum, which could be seen from the recent network congestion. Many times in the history Ethereum had been stuck from network congestion, or hacked. WaykiChain would apply to its own sidechain technology, which allows the applications based on WaykiChain could have its own sidechain. Sidechains are mutually exclusive and able to set up its own consensus. Sidechain will be required to download specific blocks when using the sidechain application. Therefore enhancing the efficiency and reduces the resources waste. Sidechain will transfer and receive information from the main chain, and ensure the information security by registering its hash on main chain.

## **2.5 Whole node wallet**

WaykiChain Team will publish Windows version whole node wallet that includes the first WaykiChain application, namely, Wayki bet. The wallet will be integrated with the money transfer transaction for Wayki coins and super betting coins as well as the bet application center. By the wallet application center, the user can directly publish the bet smart contract in order to participate into the betting. And the bet bonus will be

automatically issued to the user wallet after the bet results are released.

## **2.6 Mobile terminal**

WaykiChain is estimated to publish Wayki android and IOS applications in 2018. Mobile terminal applications will be integrated with Wayki coin light wallet. The user can store Wayki coins and super-coin digital assets in the local mobile terminal, and can participate in to bet games conveniently. All of the bet bonus will be automatically issued to the user mobile application after the betting is over.

## **2.7 Block browser**

Block browser is a WaykiChain application data display system that displays money transfer records of Wayki coins and super-coins, balance of the address account, betting transactions and drawing results, etc. according to the application data in blockchain. All of the data are open, transparent, and irreversible by nature.

## **Part III Application outlook and realization scenarios in WaykiChain industry**

### **3.1 Global decentralized betting application**

#### **3.1.1 Pain points of global betting industry**

##### **(1) Credit of traditional betting platforms**

When all the online betting platforms adopt the centralized business model (i.e. run by a certain organization or firm), all the participants in the game must have their assets managed by those centralized platforms. The truth is that the credibility and qualification of many online platforms are worrisome to say the least. Problems such as technical loopholes, black box operation, illegal collateral, money pool setup, platform scam, non-real-name, authentication, information insecure and lack of legal protection bring grave, risk to the participants.

From technical perspective, after being tested by the five major security tests, including code security, data storage security, data transmission security, network port security, and multilateral interacting process security, most of the online betting Applications and clients showed symptoms of encryption algorithm misuse, encryption protocol incorrect implementation or partially missing. They also scored poorly in areas such as user trading information protection, user deposit protection, preventing transaction history tempering and user identity theft and more. As a result, hackers are given plenty of opportunities to play their tricks in this process.

If one looks closely at these online platforms, he or she will soon find out that most of them share the burden of poor credit. Various platforms that involved in the betting business ended up pulling a fast on their users and run away. These online betting platforms do not own enough capital to hedge their risk and would therefore dissolve the second that they encounter any major loss. Some platforms would choose to scam their users ‘investment even before they had any loss. Besides, black box operations such as embezzlement, underground lottery, fraud, lack of transparency in the rule put a thorn in the heart of all the players.

##### **(2) Limitation of market supervision**

The authorities in different countries have different attitudes towards the betting industry. Some countries regard betting as financial activities, while some regard it as gambling. Betting activities are treated with strict and tedious supervision, which has substantially limited their development and innovation capabilities.

##### **(3) High percentage of commissions by traditional betting platforms**

Operators of centralized betting platforms require high returns to offset their risks, because centralized betting activities or the events themselves mean high risks. So the participants in the betting activities are forced to bear some of the costs of the operators. The legal compliance fees brought about the supervision authorities as mentioned above also covertly reduce the returns which should be enjoyed by users. Now the total rate of return in the sports contest betting in China is around 70% usually, and some illegal platform can provide 80%-90% returns. However, this is far from enough in the market. According to probability theory, nobody can win in the long term in such a distorted market.

#### (4) Niche betting market

Traditional betting activities are supervised by the government, which has resulted in the situation where most betting platforms are hidden in the underground market. The outside world knows little about the platforms, and so the market demand is not satisfied effectively. Therefore, the seller, or the operator of the betting platform, enjoys more price negotiation power, which further squeezes the returns of investors. On the other hand, providers of betting activities, due to their covert characteristics, are more difficult to gain the trust of users, because users feel very difficult to distinguish the qualifications of the providers in the covert market, or such providers intrinsically bear risks of trust breach. Hence the participants of the betting activities are further discouraged, and new users are blocked from the market.

#### (5) Lack of diversity in traditional platforms

In the traditional business model of the centralized betting platform, the operator, as the opponent to participants, will put bet in the opposite way. The operator can only make profits when participants make wrong judgments. Therefore, most traditional betting platforms have established their own risk control systems and product research departments. If the betting rules of a certain event will give participants with some advantages, then definitely such event betting will not be adopted and published by the operator. A philosophical question is raised: only the products and events which are regarded by the operator as advantageous can be published in the platform, while those published for participants are proved to be advantageous for the operator. Therefore, in the market, there are only much limited number of events available to betting participants; and in most cases, such events are disadvantageous for participants.

### **3.1.2 Business solutions for decentralized betting games**

The decentralized betting application built on the WaykiChain system has inherited the features and benefits of the blockchain technology, so it will perfectly solve the

unreasonable problems in the current betting industry, including the low rate of return on the traditional betting platform that is criticized badly, shortage of available betting products, and non-openness, non-transparency, legal risks, funds security, and cheating of the operator, etc.

As the betting application built on WaykiChain is decentralized, it will not be controlled by any party with direct interests. Moreover, the betting information is recorded in the distributed ledger, and cannot be altered by any party, so false betting results are impossible.

All users can check the real-time betting records through the blockchain browser. Any frauds or other illegal malicious behaviors will be found out and prevented in a timely manner. For example, in the soccer betting, the WaykiChain application will refer to the officially published match results or those trustworthy results accepted by the public, and collect and verify real-time data. All users will get a result recognized in consensus, then WaykiChain smart contract will execute gains distribution according to the automatically calculated betting rate of return.

As the execution of the smart contract is preset, and the betting information of all users are recorded and cannot be altered in blockchain, so all users enjoy a just, open, and fair gaming environment. The blockchain technology itself has become the most powerful credit endorsement for the betting application.

Comparing with the traditional forecasting betting platform, the betting application built on WaykiChain features another big advantage, namely, operational costs. WaykiChain is jointly operated by whole nodes and users, so no organizations like the traditional operator will share the interests that are payable to the betting participant. The rate of return in WaykiChain betting application may reach 99%, which no other competitors in the market can do. Therefore, the blockchain technology can bring about another big competitive advantage, namely, the participant can gain the highest rate of return in WaykiChain betting application.

Any individual who is very confident about a certain event can also publish a betting activity freely towards such event. WaykiChain betting application allows all participants to publish their own event bets. A publisher, by using the smart contract provided by WaykiChain, can write his event which he trusts into WaykiChain, and place his assets limits which he pledges in WaykiChain as the betting return. Any user who is interested in and has opposite opinions towards the event can participate into the betting. And the rate of return is decided by the ratio of investment funds of all the participants in the final event result. The smart contract will help strangers to solve the biggest trust obstacle, and at the same time, it will not cost much as the third witness party.

Besides, the betting application built on WaykiChain can almost evade legal

supervision. Firstly, participants will use the digital currency issued by WaykiChain, not legal currency. Secondly, like bitcoin, WaykiChain is distributed in many nodes in the world, which can neither be destroyed, nor caught. Finally, the anonymity brought about by blockchain can help users to carry out games in a safer manner.

More importantly, thanks to the decentralization in WaykiChain betting application, there is no control of the rate of return or market manipulation on the part of the dealer, and thus no dealer's runaways. Users in WaykiChain betting application is worry free completely.

The WaykiChain application will be gradually open and provide all the betting products and games available in the market. In the early stage, the sports contest betting is used as the beginning point to lure and accumulate initial users. Moreover, it will be open for all users to create their own independent event bets. As time passes by, it will become a killer-level unprecedented betting application on internet thanks to its comprehensive betting products and highest rate of return.

## **3.2 Global decentralized assets transaction application**

### **3.2.1 Pain points in the global centralized assets exchange**

The traditional security market is developed around the exchange. The transaction system in the exchange guarantees the normal procedures of all transactions. Once the system is attacked or doesn't work, the whole network may become compromised, and all transactions must be halted. When the centralized assets exchange suffers loss because of outside malicious attacks, all users on the platform normally suffer too. Famous examples include Mt. Gox, MF Global, and Bitfinex exchanges. Users must bear the loss when the exchange is attacked by hackers or goes bankrupt; and in some extreme cases, there are embezzlements in the exchange.

By selecting the centralized assets exchange, users must trust it completely, giving out their assets for keeping without any doubts. This means that the assets disposition right is transferred from the proprietor to the trustee, i.e. the centralized assets exchange. Therefore, the exchange not only is entitled to dispose your assets, but also sees all of your transactions. No one can guarantee that the exchange will not execute the transaction to its benefits, and as a matter of fact, many exchanges are doing it. Moreover, every exchange has many employees, which increases the difficulty of internal supervision.

#### **(2) Unfairness of the centralized assets exchange**

As users' transaction information is visible in the exchange records, the scandals of insider transaction in major exchanges can be seen from time to time. Besides, the

transaction speed is not very fast in the exchange. If some traders can always execute their transactions more quickly, they can gain benefits by means of computing advantages and transaction proceeding speed, which is the so-called high frequency transaction. This is very unfair for other traders. And to compete for faster transaction speed requires more investment, hence increasing the costs of transaction.

### (3) Rules limits in the centralized assets exchange

In the traditional centralized assets exchange, such as NASDAQ, and in the emerging digital currency exchange, such as Coinbase, users are required to follow the rules as stipulated by the exchange, including limited trading time, quota of cash withdrawn every day, etc., and even the proof of user's assets income as required by some exchange.

Moreover, the assets products that can be traded in the traditional exchange are limited too. The traded assets registered with the exchange must pass various kinds of inspections and supervisions, which causes legal compliance costs and time costs as well. And many quality assets are thus refused to trade by the assets market.

### (4) Time costs and high transaction fees caused by the centralized assets exchange

The foreground system in the exchange is responsible for matching transactions, while the background system for settlement and delivery. There are many procedures and links in the two systems, which leads to high time and funds costs. Moreover, according to rules, real time settlement cannot be made in the date of transaction, which also brings about potential risks to assets.

Furthermore, the operational and promotional fees in the exchange are expensive, and such fees will be amplified and transferred to the handling fees of users' transactions. Take the digital currency trading website Bitstamp as an example, a user must pay USD 5 for every transaction worth USD 1000. However, the handling fees of Bitstamp are not the most expensive among digital assets exchanges.

## **3.2.2 Business solutions of decentralized assets transactions**

The blockchain technology helps to realize the concept of the decentralized assets exchange.

The decentralized assets exchange built on WaykiChain system will inherit all the functions in the traditional centralized assets exchange, such as stock trading, rare metal trading, commodity trading, etc. The decentralized exchange can not only bear the load of the same or even bigger trading volume comparing to the centralized exchange, but also solve the pain points that are common in the centralized one.

Decentralization of WaykiChain technology means that no stakeholder groups or organizations can control the decentralized exchange, and to achieve its fairness, openness and transparency. At the same time, users don't have to worry about the credit of the exchange, because the object of trust has changed from the traditional centralized organization to blockchain smart contract. In WaykiChain decentralized assets exchange, all the transactions are realized through smart contracts, without the existence of any fraud or malicious breaking promises. Therefore, the blockchain technology and smart contract can provide more effective supports for the transaction of digitalized assets products, hence laying foundation for providing transactions of digitalized assets.

WaykiChain decentralized assets exchange empowers users so that they don't have to worry about the high time and handling costs in the traditional centralized assets exchange. The blockchain technology can simplify and automate the profound trading procedures, so that the assets publisher and investor can trade with each other directly, reducing interactions between the foreground and background, and saving a lot of manpower and material sources. Moreover, the limits often seen in the traditional exchange exist no more in the decentralized exchange. Users can trade freely and at any time. And cash withdrawal is not limited, every user has full power to dispose his properties.

Thanks to the consensus algorithm and its irreversibility nature of the distributed blockchain technology as adopted by WaykiChain decentralized assets exchange, WaykiChain decentralized assets exchange helps the participants trading assets to perfectly share data. Every user transaction is recorded in the block browser, not being able to alter. Meanwhile, the exchange allows anonymous transaction, users don't have to worry either the spying upon their transaction information, or dealer's counterparty transactions due to information advantages.

Any user can pledge his assets in WaykiChain decentralized assets exchange, publishing his own WaykiChain assets. For example, John owns a company with an annual profit of USD 1 million, so his estimated value of his company is USD 10 million. However, due to various kinds of limits from the stock exchange and supervision authority, John is not able to list his company by issuing stock shares to the public. Now, John may choose to issue his WaykiChain shares in WaykiChain decentralized assets exchange.

John's WaykiChain shares are granted with value because he has pledged the future income and some proprietary rights of his company in the smart contract of WaykiChain decentralized assets exchange. Every year, based on the share ratio of the investors, the profits of the company will be automatically allocated, and the investors also enjoy the shareholder rights in the company. Thanks to the smart contract of the blockchain technology, the costs to establish trust are reduced drastically in the transaction.

WaykiChain decentralized assets exchange allows the user to pledge any assets, issuing the corresponding WaykiChain assets. The price of such assets will be recognized by investors according to market laws.

### **3.3 Settlement time of international remittance and forex**

#### **3.3.1 Pain points of global cross-border remittance and forex**

##### (1) Settlement time of international remittance and forex

In the cross-border transaction, if the remitter and payee doesn't belong to the same bank, the procedures necessary for the transaction will become very tedious. Different banks have different ledgers. When the cross-border transfer is executed, banks involved have to check their own ledgers, and the transaction can only be fulfilled after information is exchanged and verified by every bank. Then comes the breach risk when both parties make the settlement.

Therefore, the common solution is to seek the third party as an escrow account; and only when the transaction is completed, the third party will transfer the funds into the account of the payee. Tedious account verification will slow the transaction speed. Particularly when the cross-border transaction happens, more than one banks are usually involved as the intermediaries if the banks respectively for the remitter and payee intend to complete the transaction. The time necessary in such procedures is unpredictable. Sometimes, the transaction can finish in the day, and sometimes will take several days.

In the forex market, as an ordinary procedure, one trading party transfers its funds to the intermediary, for example, CLS, a foreign currency settlement provider, CSL will hold the funds till the counterparty provides its funds. One problem occurs in the procedure is that, before the settlement is completed, the funds of the initiating party will be frozen in the transaction for one day normally, or even a longer time. Therefore, the forex market as well as the cross-border transfer faces the same problem, i.e., uncertainty and delay of the transaction completion time.

##### (2) Exchange rate risk in the cross-border remittance market

The parties involved in the cross-border remittance and forex must face the risk of exchange rate fluctuations due to the time delay of the transaction. Usually, the parties involved are required by banks to bear the rate fluctuation risk when they use the inter-bank transfer service, which increases uncertainty of transaction for both parties. The risk of rate fluctuations can be particularly fatal for forex parties.

### (3) Fees in the cross-border remittance market

In the market, every participant involved in remittance will be charged with certain fees. And the more the participants are, the higher the relevant fees are. Hence another uncertainty occurs, because the total fees for one transaction cannot be determined until completion of the transaction. Generally, the fees for one transaction is 2% - 3% of the traded amount; in some extreme cases, the fees may exceed 10%.

### (4) Non-transparency in the cross-border remittance market

As mentioned above, either the remitter or the payee is not sure about the necessary time and fees for the transaction, only knowing that they will be fluctuated within a range. Moreover, as the initiators of the transaction, both the remitter and payee can neither search for the trading progress in the trading banks, nor can they carry out effective real-time tracing. As every transaction is usually fulfilled by many different participants, so it is extremely difficult to search and trace the relevant information.

When a mistake occurs beyond expectations, it is very difficult to locate the mistake by tracing the transaction. And mistakes are usually found out after quite some time, for example, wrong account numbers, and even takes a longer time to fix.

### (5) Forex settlement risk

Settlement is a major forex link. The global forex settlement systems are innovated thanks to the development of the information technology. As financial systems are inter-connected, a settlement failure in a large amount of transaction will trigger a series of breaches. The risk is: the cross-border settlement can only be executed during the normal working time of the central bank for the home currency. While both parties in the settlement may reside in different time zones, if one party makes the settlement before the other party, the other party waiting for the settlement will face its counterparty's breaches.

If a forex trader pays its currency but doesn't get the currency payable, it will face the loss coming from the rate fluctuations or of the exact currency payable. The risk comes from the asynchrony of the payments by both parties.

### (6) Supervision requirements in the cross-border remittance and forex

Every state puts much emphasis on the supervision of foreign currency and cross-border transactions. It is also very difficult to increase the supervision efficiency and lower the costs as well.

### 3.3.2 Decentralized forex business solution

Along with the development of WaykiChain, there would be more and more users joining WaykiChain. Some of them speak different language and using different currencies. In order that all users can participate into WaykiChain conveniently, WaykiChain has provided a solution so that different legal currencies can be converted. At the same time, the system will serve the users who need forex transactions and cross-border remittance.

In WaykiChain decentralized forex application, there will be forex acceptant for various legal currencies. Anyone can become an acceptant. Acceptant can obtain the digital assets titles (WKX) by pledging assets to WaykiChain, such as bitcoins, Wayki coins, Ethereum, etc. WKX can be WKCNY, WKUSD, or WKBTC. WKX to the corresponding legal currency is anchored at the forex rate of 1:1. In WaykiChain, users can either pay WKX to buy the assets priced with the corresponding legal currency, or withdraw cash with WKX, which has provided a channel for funds circulation. WKX supplies will be strictly recorded in the blockchain browser where anybody can access. WaykiChain will increase WKX circulations with the same amount as that of the corresponding pledged deposit, and will recover the corresponding WKX in case of cash withdrawal.

For example, investor John owns RMB 60,000, and intends to convert the money into USD. But due to the forex controls in the country, A chooses to use WaykiChain to exchange for USD. In WaykiChain decentralized forex application, John finds acceptant Terrence who wants to exchange for RMB with his USD, and then sends RMB 60,000 to Terrence. After that, John gets WKUSD at the same exchange rate as that of USD. Suppose the exchange rate of USD to RMB is 1:6, John gets 10,000 WKUSD. At the same time, the title of 10,000 WKUSD is taken back by the system from acceptant Terrence. By continuing to pledge the deposit to WaykiChain, Terrence can gain more WKX titles to provide acceptance services.

The smart contract supported by WaykiChain will ensure the trade's immediacy and security. Foreign exchange transaction and trade will become much faster and become more convenient for customers. Moreover, the transaction cost would be reduced as well.

Unlike the traditional forex acceptance, WaykiChain doesn't charge any handling fees in the service. The acceptant can select his own forex rate and the range of fluctuations. Finally, the actual rate will be close to the officially published rate, because the listed rate exceeding the market rate will be eliminated by the market. WaykiChain contracts guarantees the instantaneity and security of every transaction, because the exchange and cross-border remittance between the currencies of different countries becomes very fast and convenient in the system, and at the same time, the necessary costs are reduced to minimum.

Identity verification, regulator data collection, and enterprise reporting become obsolete now that the blockchain system keeps self-verification record for its data. This will dramatically reduce regulatory costs while increase regulatory efficiency. Transaction query and information backtracking become more convenient and convincing due to the irreversible nature of blockchain. In the meantime, the stability and reliability of blockchain data assured the safety and accuracy of the data when such technology was applied in the supervision of foreign exchange. Besides, irreversible data module and tracking enabled data nodes all facilitate regulatory process and increase its efficiency.

### **3.4 Construction of the blockchain Eco-system**

WaykiChain provides highly usable and expandable infrastructure platforms for blockchain applications. It is open to all of the developers. Anyone can publish his applications on WaykiChain, realizing his business ideas.

In the early stage, WaykiChain will focus on three major applications in order to expand the market, namely, the decentralized betting application, decentralized assets transaction application, and the decentralized forex application. After that, it will gradually increase and perfect the upper-layer blockchain applications

Besides the development of user's terminals, WaykiChain system will provide the development platforms fit for different systems and users. At the same time, WaykiChain Team will continue to develop and provide mobile terminal services, including the mobile wallet, the mobile smart contract application, etc. We believe that only the true realization of the blockchain mobile terminal services can not only change current APP markets and business models, but also benefit a wider population of internet users. In this way, the blockchain technology can be promoted and developed in China.

## **Part IV WaykiChain Foundation**

### **4.1 Establishment of WaykiChain Foundation**

Founded as a non-profit corporation by WaykiChain Team in Hong Kong in 2017, WaykiChain Foundation is committed to the sustainability of the open-source community project, effectiveness of fine governance, and security, openness and transparency of the raised funds.

The foundation is responsible to keep the funds raised in WaykiChain projects as well as the development reserve tokens. At the same time, it will be obliged to rationally use and allocate the funds. According to its agenda, the foundation will disclose the funds usage to the public on a regular basis.

### **4.2 The team of WaykiChain Foundation**

#### **WaykiChain Team**

The team is engaged in the infrastructure construction and implementation in the blockchain industry. It has almost 20 members relating to blockchain R & D, technology and business, including the developers with established reputations and successful project experiences in the industry, as well as the experienced operators and experts in the target industries. Along with WaykiChain's development and the expanding market share, we will be open-minded to recruit the talents willing to serve the community.

#### **Main members in WaykiChain Team**

##### **Sun Yonggang**

One of the earliest entrepreneurs and investors of digital currencies in 2013, worshiped by the industry as Godfather of Dogecoin. Net name: Fencer. More than 10 years in starting businesses in financial and internet industries. The founder of Oulu Crowd Funding as well as the president of Hurricane Digital Assets Management Co., Ltd. He enjoys high reputations in both traditional financial industry and emerging digital currency markets. And he has extremely rich industrial resources, maintaining good cooperation with many famous digital currency exchanges.  
Founder of WaykiChain.

##### **Huang Tianwei**

Founder of Bittimes. Ex-product manager in Tencent. After leaving Tencent, founded and operated famous web game - Fantexi Basketball Managers, functioned as the vice president. After that, acted as the chief strategic officer for Youyue Finance. In May

2013, founded Bittimes Digital Currency Exchange. Good reputation in the industry. Chief consultant of WaykiChain.

#### Huang Lianjin

Well-known blockchain technology expertise, ACM practitioner Board committee, MBA. Huawei technology VP, blockchain department head; Chief architect in CGI, Canada.

#### Liao Wei

Master of Computing Engineering in Zhongshan University. One of the founders of Zhinengfang Ethereum in China. Member of one of the earliest blockchain technology teams in China. Experienced developer of blockchain technology. Years of research in digital encrypted currencies and blockchains. He has participated and instructed the development of many blockchain projects.

WaykiChain CTO.

#### Ma Long

M.A. of Wuhan University. The first inventor of Ma Color Blockchain. Invited lecturer for Asian DACA Blockchain Study Association and iCenter of Tsinghua University. Elected as one of 10 blockchain opinion leaders 2015-2016. Net names: cndx, Maya, idgui, Bite Jiang (for his Wechat public account), etc. 8BTC column writer. Founder and forum host for IDGUI navigation platform as well as 8Doge coin application. He has developed many digital coin applications, including Naokouling wallet tool, haft countdown for coin production, coin website platform, Permanent Wall BBS, Dogecoin voting, bit jokes, etc.

#### Jiang En

Director of Asian DACA Blockchain Study Association. Founder and chairman of China Dogecoin Association that is committed to the promotion of Dogecoin in China. Jiang En has become the synonym of Dogecoin in China. No. 1 in the rank of top 10 famous bitcoin people in 2014. Candidate in 10 blockchain opinion leaders 2015-2016. 8BTC column writer with an article: How to Invest in Digital Currency.

#### Wang Zhongming

Co-founder of btc798.com, co-founder of Jinzhisheng. Experienced media professional.

#### Zhang Yang

Opinion leader in the digital coin industry. Founder of Wechat public account: Digital Coin Speculation Defense Tactics. Column writer for Lianxiang Finance. Invited lecturer of Walstreet Stores App. Invited writer of How to Invest in Digital Currencies.

Believer of local bitcoins.

WaykiChain consultant.

Qiu Beiquan

5 years in internet lottery. 8 years in internet operation and planning. Former employee of Sina Lottery and Ifeng Lottery. Former chief editor of Ifeng Lottery. Profound understandings and rich operation experiences in the internet lottery industry.

COO, WaykiChain betting application

Cheng Chao

Bachelor of Medicine in Wuhan University. Experienced blockchain founder. Founded several blockchain projects. Rich experiences in the private and public fund raising procedures for blockchain projects. He has plenty of channel resources in the industry. Good cooperation with many digital currency exchanges.

Valentina Chai

Bachelor of economics in Hong Kong Baptist University. Former senior manager of a famous Chinese security company. Years of project operation experiences. Good at team construction and project operation. And good at localization and implementation of business plans. Experiences of online of many major products.

Responsible for WaykiChain strategic planning and management.

Tony Chau

Graduated from Canadian University of Toronto. Former employee of a famous private fund-raising organization. Devoted to industrial investigation and commercial analysis. Deep study and unique understandings of commercial operation models. Professional financial knowledge and complete project experiences.

Responsible for WaykiChain financial operation and design of commercial model.

Raymond Yen

Former chief market supervisor of a famous financial company and responsible for the administration of a sales force of more than 100 members. Years of investment experiences as well as rich channel resources in the digital currency field. Experiences of implementation and realization of many projects. Unique understandings and operational experiences in brand package and project promotion.

Responsible for WaykiChain marketing and promotion.

Eva Loo

Former chief supervisor of public affairs in an international group. Plentiful experiences in maintenance of public relations. Years of experiences in investment and operation in the digital currency field, and rich governmental and media resources in the same field.

In WaykiChain, responsible for business cooperation as well as development and

management of public relations.

Alfred Wang

Graduated from University of Toronto, Canada. Certificated financial analyst. Specialized in multi programming languages and has created 4 mature trading models. Expertise in macro-economy analysis. Former financial analyst in China Construction Bank. Entering cryptocurrency market in 2014.

WaykiChain Investment Director

Barry Shi

Master of Computing Engineering. Experienced developer of blockchain technology. Joined the blockchain industry in 2013. Joined several development projects of digital encrypted currencies. Plentiful experiences in the development of digital currencies. Responsible for the development and maintenance of WaykiChain blockchain underlying systems and applications.

Liu Xiang

Experienced developer of blockchain technology. Started research and development of blockchain in 2014. Years of programming experiences. Deep understandings of Python, PHP, JAVA, and C++. Experiences in many famous project software programming in China.

Responsible for the development and maintenance of WaykiChain blockchain underlying systems and applications.

Xu Zhenxing

Senior blockchain developer. Participation and supervision of many application projects of blockchain technology. More than 3 years in consultations of blockchain solutions.

Responsible for the development and maintenance of WaykiChain blockchain underlying systems and applications.

Dr. Guo

Doctor of Medicine with Beijing University of Traditional Chinese Medicine. One of the earliest Chinese angle investors in digital currencies. Experienced blockchain investor. Profound researches in stocks, foreign currency, and digital currency market. Wide knowledge of various kinds of digital currencies in the world. Investments in many mainstream coins and competing coins. Unique understandings on the funds moving and development of digital currency markets.

Chen Shengmin

One of the earliest Chinese angle investors in digital currencies. Good at post-investment management. He has helped more than 100 enterprises to make complete online and offline marketing plans. Rich promotion experiences and internet channel sources. In-depth vision of global industrial trends. Rich experiences and

sources in WaykiChain target industries.

**Ren Zhijie**

One of the earliest Chinese angle investors in digital currencies. 13 years of IT field for financial service organizations and commercial banks. Plentiful experiences in product design, R & D, and operation in the fields of consumer finance, supply chain finance, social finance, etc. Plentiful experiences and industrial sources in the development and promotion of foreign markets.

**Li Li**

Founder of the famous woman apparel brand Danmunier. Years of operating enterprises. Entered into the digital currency field in 2014 and became an active investor. Deep understandings on publicly sold blockchain projects. Founded her own independent project evaluation system. Rich resources in Chinese circle of investors.

**Yang Haojun**

Master of Law in the Institute of Civil and Commercial Law under China University of Political Science and Law. Partner of V & T Law Firm (Shenzhen). Practitioner of law since 2006. Legal consultant for many Chinese and foreign companies, organizations sponsored by the government, official authorities, and individuals. Legal consultant for WaykiChain.

**Xu Renhua**

One of the earliest Chinese angle investors in digital currencies. Experienced blockchain investor. Unique understandings and rich information sources in the trends of global digital currency transactions. Years of founding businesses. Rich experiences and industrial sources in foreign marketing and promotion.

### **4.3 HR management of WaykiChain Foundation**

WaykiChain puts strategic emphasis on talents. In order for the smooth technological development as well as the sustainable, effective, and competitive operation, WaykiChain will invite top developers and management talents. Unlike other blockchain teams, Besides technological talents, WaykiChain Team also warmly welcomes experienced talents in target industries because WaykiChain focuses on the integration of technology and applications.

#### **Talents invitation**

WaykiChain Team will firstly consider the talents with experiences and reputations in

the industry under the principle of ability first. And WaykiChain will carry out at least two rounds of interview as well as detailed background investigations on candidates, so as to guarantee that every new member shares the same ideas of WaykiChain. In certain fields, WaykiChain will hire experienced consultants in order to guarantee the feasibility and implementation of WaykiChain projects. The relevant fees will be approved by the foundation, and disclosed to the public.

### **Performance assessment**

Members of WaykiChain Team will receive regular and planned performance assessment under the objective of maintaining the positive attitude and efficiency of the team as well as the project progress of WaykiChain. Main assessment contents are determined by project development, application development as well as funds returns.

### **4.4 Legal compliance of WaykiChain Foundation**

In order to provide a more reliable development environment for value creation, WaykiChain is committed to meeting the legal supervision requirements in different areas of jurisdiction in the world. According to law, the foundation is a non-profit organization, and online users obtain only the use rights of WaykiChain. Buyers should understand that WaykiChain doesn't make any promise of any kind, so no refunding will be made for Waykicoins under any circumstances.

## **Part V WaykiChain's planning and vision**

### **5.1 Purpose and management of Waykicoins**

#### **5.1.1 Purpose of Waykicoins**

Waykicoins are the tokens consumed in WaykiChain operation. WaykiChain users can use WaykiChain applications and functions by consuming their Waykicoins. For better understandings, the coins can be compared to a kind of fuel.

The maximum amount of Waykicoins is 210 million pieces, which will be generated when WaykiChain is official published. All of the coins will be held by WaykiChain Foundation, and available for sale in public funds-raising. The time and rules for public sales will be released on WaykiChain official website.

The minimum trading unit of Waykicoins is to eight decimal places. As WaykiChain adopts DPOS stock authorization certification mechanism, the holder of Waykicoins can gain 5% interests, and the rate of interests will be attenuated annually till 1%. For example, 100 Waykicoins will be increased to 105 coins in the second year. Every piece of Waykicoins corresponds to a voting right, and the holder can take part in the election of book-keepers (self-recommendation allowed).

#### **5.1.2 Attributes statements of Waykicoins**

Waykicoins are only tokens used and circulated in the wallet of the WaykiChain application, so there are no attributes of legal currency in the coins, just like the tickets of a music fair can only be used for the entry of the fair.

After release, Waykicoins can be obtained through mining, voting, subscription, or transactions with other holders, which means that Waykicoins have value of transactions by possible trading with other currencies in other exchanges. However, thi doesn't mean that Waykicoins themselves have attributes and value characteristic of legal currencies.

#### **5.1.3 Allocation plan for Waykicoins**

- 60% for public sales

In order to guarantee sufficient liquidity to start the application in the early stage, and considering equality and credibility of all participants, 60% of WaykiChain tokens will be released in the market of private funds-raising. The funds from the public sales

of Waykicoins will be kept by WaykiChain Foundation, and will be used to pay for the operational fees of WaykiChain relating to product development, technological upgrading, marketing, financing, legal consultation, community encouragement, etc. The foundation is obliged to disclose to the public the usage and details of the funds on a regular basis.

- 15% reserved for the development team, early investors and operational team

They have made contributions in the early development of WaykiChain, by providing manpower, materials, resources, technology, etc. A part of the coins are reserved for them to pay for their contributions.

At the same time, some coins will be reserved to encourage the sustainable development and maintenance on the part of the team. Such coins are configured with a frozen period, so that holders cannot sell them before the time line.

- 10% for private investor

This percentage of WaykiCoin is reserved for those investors who invested WaykiChain early as rewards for taking the highest risk.

- 15% for development reserve

The development reserve will be used as rewards for individuals or groups that make major contributions for WaykiChain in the future. And when necessary, it will be used as merger funds to incorporate the ideal target in order to expand the market share. The reserve will be kept by the foundation, and its details of use will be disclosed to the public regularly.

## 5.2 Milestones and future visions for WaykiChain

Time	Milestones
Jul. 2017	Building of the founding team
Aug. 2017	Entry of seed capital
	Introduction of the resources of strategic target industries
	Startup of the development of the underlying blockchain system
Sept. 2017	Expansion and building of WaykiChain Team
	Startup of the development of decentralized betting application
Oct. 2017	Resources link with the decentralized betting industries
Nov. 2017	Planning and preparation of public funds raising
Dec. 2017	Internal testing of the decentralized betting application
	Online of the decentralized betting application (client terminal)

Jan. 2018	Startup of WaykiChain project
	Online of the decentralized betting application app (mobile terminal)
Feb. 2018	WaykiChain international blockchain technology conference, Tokyo
	WaykiChain international blockchain technology conference, Paris
Mar. 2018	WaykiChain international blockchain technology conference, London
	WaykiChain international blockchain technology conference, New York City
Apr. 2018	Online of the betting application for World Cup matches
May. 2018	WaykiChain international blockchain technology conference, Moscow
Jun. 2018	Online of at least 50 betting games during World Cup
Aug. 2018	Online of the betting application for Asian Games matches
Oct. 2018	Optimization and upgrading of the underlying technology
Dec. 2018	Optimization and upgrading of the betting application
May 2019	Startup of the development of the decentralized assets transaction application
May 2020	Startup of the development of the decentralized forex application