Interconncet Cash
(ICC)

A decentralized ecological environment that is changing the world

Chengdu Jia Chi Technology Co., Ltd.

September 2017

Content

Chapter 1, Summary

Background

In 2009, Bitcoin came into being, which opened the door of a new world for us. With this centralized, tamper-resistant, and permanent preserved feature, different partners are able to build distributed trust mechanism.

But today, when it comes to the technology that will change the world in the future, AI, gene editors, quantum computers, etc. are often known to the public. While block-chain technology has a rather low development threshold, it has not yet been widely accepted by ordinary people. Let's make a simple comparison, from 2009 to date, the price of Bitcoin has reached 30000RMB/1BTC, and the actual users are about 5.8 million to 11.8 million Note 1. And the Mtxiuxiu that is found in 2008 has won 400 million active users. What's more, the Wechat generated from 2011 has accumulated users of 1 billion approximately. Someone may say that they are not supposed to be compared, but the reality is that the value of Bitcoin relies on its current 10 million or so users, and the entire digital currency market value has not reached the level of a world-class enterprise. In regard of that, we have found the following reasons: 1.digital currency is divorced from the lives of ordinary people. Bitcoin and other digital currencies do have real value, but an ordinary white-collar, a farmer, or a peddler is only leading a normal lifestyle, who will have no intersection with all the digital currencies currently in circulation. 2. The mixed digital currency market has become a game of the makers and the investment speculators, that is, the gamblers ' carnival.

Now, digital currency, which has experienced a few years of development, such as Bitcoin, has real trading volume. With the exception of that, the rest is mostly unregulated class-two market, and the buy-in and sell-out is aiming for making profit with certain legal currency. 3. The purpose of Bitcoin is to provide a way of decentralized free trade. Today it has become a kind of financial derivative. And the current fanatical ICO market puts forward an innovation point and develops a type of tokens, like beating a drum to spread flowers. Conclusion: The digital money market needs an ecosystem that can catch up with or even surpass Wechat. And we are doing a new experiment like such.
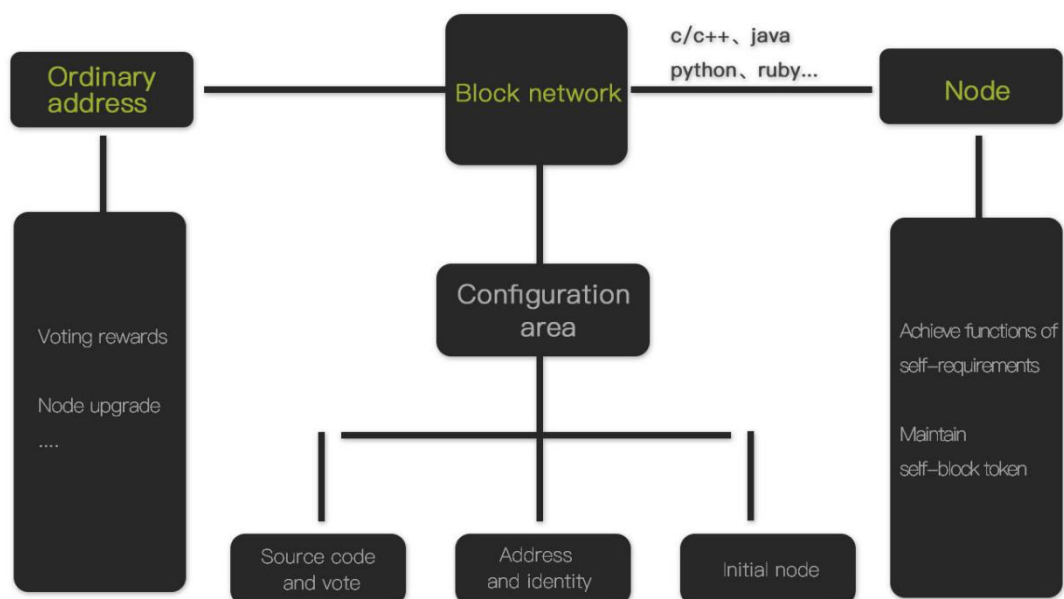
ICC, based on a variety of technologies, such as Block chain, has built a new domestic autonomous platform for the grass root. Through POA algorithm to achieve absolute fairness of currency allocation and to transfer or replicate all the existing mature nodes with advantages in terms of decentralization on ICC block net, thereby promoting the development of block chain technology in China.

The purpose of the ICC is to bridge the gap between digital currency and the countless scenes in real life, and to help more individuals and enterprises to use block chain technology easily to realize their own needs and enterprise goals.

1.2 Basic Introduction

ICC is based on the concept of block chains and cryptographic currencies, and if you're unfamiliar with this field, it's worth taking some time to read about the basics of Bitcoin and block-chain technology. The following article is written assuming that the reader has a basic understanding of how Bitcoin works.

In operating a block network that cannot be stopped, censored, or tampered, there is a large number of functional nodes and ordinary users, while there is an independent area with network configuration. The production consumers in network are similar to the prosumers and the sun in biology. In addition to the existence of a configuration block that coexists with the transaction books, there are three kinds of permission roles, inactive wallet address, activated wallet address, and node address, as shown in the following figure:
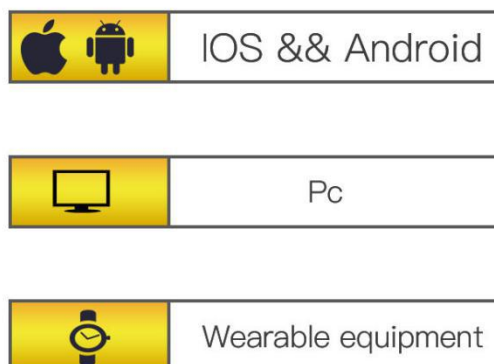
What is ICC?

ICC is a network that exists on the Internet consisting of a large number of block chains, which is a decentralized computer network that has the characteristics of absolute fairness, tamper-proof, anti-censorship, and anti-stop features. ICC starts from the existing block chain technology, but it has independent innovative POA algorithm, and improves the mass data of single block chain with the concept of block network.

How to operate ICC wallet?

ICC wallet is designed for PC-end, IOS, Android and other smart devices. At present, our development plan on the client is mainly focused on the IOS & Android of mobile end, as well as the PC Windows/linux system. MAC, BSD and the other hardware are still in plan.

Scope of application

🍎🤖	IOS && Android

🖥️	Pc

⌚	Wearable equipment

By operating ICC wallet software, one can be connected with other users in the network. The number of wallet address is unlimited and arbitrary application, but in ICC network, there will be an activation address of the configuration area only when the wallet address has been activated. And thereby one can gain the right to allocate the block net reward and send & receive ICC.

What the client-side of ICC can do?

•Obtain an inactive wallet address

• View all current functional nodes and activated wallet addresses

• Apply for activation of wallet address

• Apply to become a functional node

• Receive block rewards

• Enjoy all the services provided by all functional nodes

What are the similarities and differences between ICC and Bitcoin?
The similarity lies in that ICC takes reference to the intelligent contracts, block chains and other underlying technologies of Bitcoin. The difference is that ICC does not have special financial attributes, but emphasizes traditional Internet enterprises, thereby transferring them into functional node of the ICC block network in the case of that decentralization is taking the lead, so as to "upgrade" the traditional Internet enterprises.

1.3 Core Goals

"Our mission is to guide or replicate the functions of traditional enterprises to a decentralized network to achieve an absolutely equitable and central ecological environment."

Through years of development, the majority of user needs have been excavated in Internet field today, which is also the opportunity for the late comers, for that they can stand on the shoulders of countless giants to better look at the whole world, and to clearly see all the needs of everyday life, The core goal of ICC is to replicate the functions of traditional enterprises in current market that has advantages in decentralization to the decentralized network of ICC. Therefore the nodes of fixed center interest will be broken and the equal benefits will be redistributed. Use function nodes to retain users, and apply block incentives to promote the development of the entire ecological network.

We will give two simple examples to illustrate:

1. Baidu, with largest search engine business, provides users with the index and guide of all the web pages in the Internet. Its market value is about 80 billion U.S. dollars. Baidu Company's main way of gaining profit is Baidu promotion and priced ranking, which has been widely criticized. The essence of this profit model is that users are applying the search engine functions. Users provide value of their own attention, which lays a foundation for the priced promotion of Baidu.

2. To recruitment platforms such as Zhilian.com /NASDAQ, they built sites with recruitment functions allowing users to upload resumes and companies to select resumes. On the one hand, Zhilian.com uses advertising to attract a large number of job seekers, at the same time it collects fees from the enterprises for letting them to carry out recruitment, but the value the enterprises pay for is actually offered by the job seeker, not the platform. Every time we open the browser, certain value will be provided. A small part is to the member number behind of URL of the navigation bar, one part is for the promotion platform for the member, and the remaining part is contributed to the navigation station;

When we walked on the road and see the billboard, certain value will be provided to the contractor of the ads board. And the application of genuine or pirated operating systems, Microsoft or Ylmfeng will collect value. Every minute of our lives is creating value that does not belong to us.

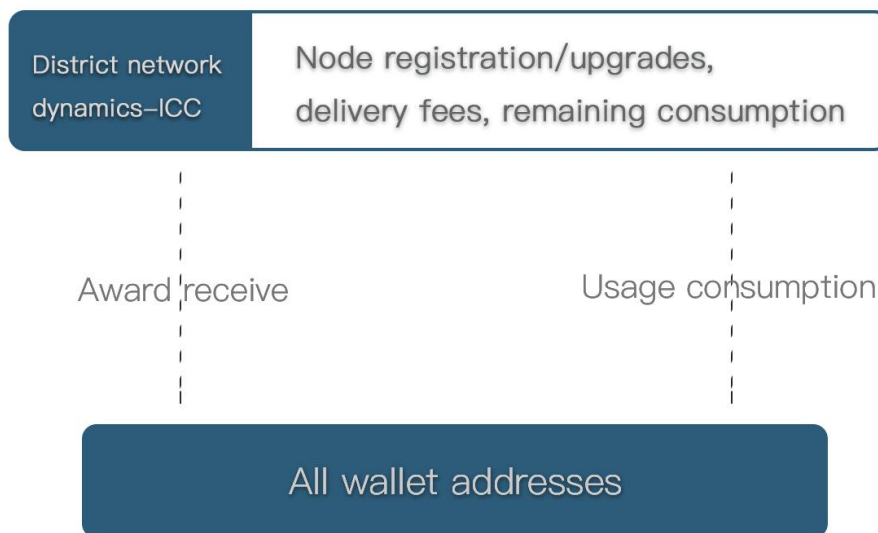ICC is a digital currency trying to change the current situation.

Chapter 2   Innovation Technology

2.1 POA consensus mechanism

In order to ensure the security and normal operation of the whole block chain, the owner of account-keep right and the production of the block chain must obey certain consensus mechanism. POW algorithm was brought by Bitcoin in 2009, and the NXT and PPC's POS algorithm as well as the DPOS of BTS also brought new vigor to the digital currency. The consensus mechanism of the ICC is a brand new POA (Proof of address) consensus mechanism, which includes the following attributes:

POA (address proving algorithm)

| District network dynamics–ICC | Node registration/upgrades, delivery fees, remaining consumption |

Award receive   Usage consumption

All wallet addresses

(1) The right of accounting: active nodes of the entire network obtain the right to account in accordance with the order of the node activation sequence. Due to the nature of the currency of POA, the competitiveness of accounting rights has disappeared, and the nature becomes the released body of transaction information. The rest of the nodes and addresses have the right to audit the assigned amount and the assigned address. If accepted, the block will be synchronized.

(2) Normal block reward: each block award referred will be allocated a dynamic number of tokens, and each block generation will automatically adjust the block award to ensure that the award is the mean value of the half of the total amount of token remaining in four years. The calculation formula is as follows:

$$\mathrm{Re}\,wards = \frac{\mathrm{Re}\,main}{2} \bullet \frac{1}{210240}$$

$$\mathrm{Re}\,ward = \frac{\mathrm{Re}\,main}{2} \bullet \frac{1}{210240} \bullet \frac{1}{Actives}$$

(3) Additional block bonus: the additional block bonus of the whole network generated by node registration/upgrade and the general user consumption will be obtained by the user address participating in the behavior.

(4) Block award rule: the normal block award will be evenly allocated to all the activated wallet address with balances exceeding the average balance, and the additional block bonus will be obtained by the user address participating in the behavior according to its contribution.

(5) Punishment: the connection refusal of a certain period (default:1440s）will be carried out to the node or user address that has malicious deception, tamper with transaction data, etc, which will be strengthen according to the severity and frequency of the specific situation.

(6) Tamper-proof: after block has been generated and obtained a certain number of confirmation, through a large number of ordinary users' complete ledger and record-type function node to ensure that its content cannot be tampered with. It is unavoidable that51% attacks will still appear in POA algorithm, but compared with the 51% force attacks in POW algorithm which concentrate in mining pool, with the increase of user volume, the probability of POA algorithm's 51% wallet address can be neglected.

2.1 XHTTP   protocol

2.1 XHTTP

The HTTP protocol is the abbreviation for Hyper Text Transfer Protocol), which is used to transfer hypertext from the server of World Wide Web to the local browser. While the XHTTP protocol applied by ICC is aiming for better data exchange between the ICC client-side and the node server, and simple innovation and definition are carried out in terms of the HTTP protocol.

For specific details about HTTP protocol, please see rfc2616、rfc2617、and rfc7230 these three documents of the Internet Engineering Task Force (IETF), and the following has only listed the new protocol definition of XHTTP that are not available in the rfc document:

Token indicates the method to be performed on the resource identified by the

Request-URI. The method is case-sensitive.

Method   = "OPTIONS"   ; Example

| "CHECKED" :CHECK NODE STATUS

| "STATES" :RETURN STATES ABOUT NODE

| "SEND"   :SEND INFORMATION ABOUT TRANS

……

| extension-method

Status-Code   =

    "100" ; Section 10.1.1: Continue:Example

    | "600" ; Section 10.6.0: Command Success

    | "601" ; Section 10.6.1: Command Reject

    | "602" ; Section 10.6.2: Command Time-out

    | "603" ; Section 10.6.3: Command Waiting

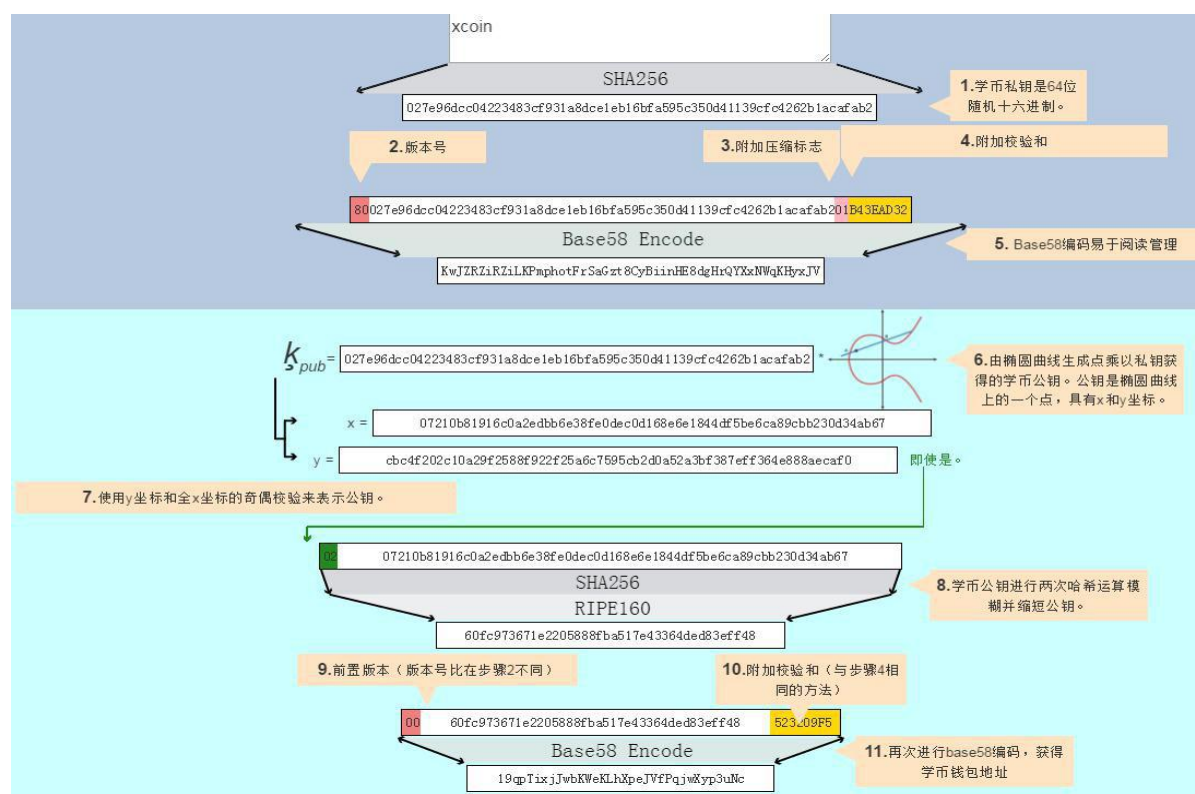 | "604" ; Section 10.6.4: Node Time-out

    ……

extension-code = 3DIGIT

Reason-Phrase = *<TEXT, excluding CR, LF>

2.3 Address available for activation

The wallet generation and format of ICC address take reference to that of Bitcoin, as shown in the following figure:

1. The private key of ICC is 64 bits and operated by random hexadecimal
2. Version number
3. Additional compression mark
4. Additional Checksum
5. BASE58 encode is easy to be read and managed
6. The public key of ICC is obtained through curved elliptic curve generation points multiplied by the private key. A public key is a point on the elliptic curve, which has x and y coordinates
7. Use parity check of y and x coordinates to represent the public key
8. Two HMAC will be applied on the public key of ICC to blur and shorten the public key
9. Prefix version (version number is different from step 2)
10. Additional checksum (same method as step four)
11. Operate Base58 encode for two times, so as to obtain the address of ICC wallet.

Inactivated wallet address: Any client-side can generate an inactive wallet address, which does not have access to block award and functional node permissions. Also, it can send signature message to any node to request activation. Activated wallet address is activated by nodes, and the address is stored in configuration block. The audit of the nodes is responsible for ensuring supervision, and this part of the team has achieved the intention of cooperation with EYEKEY   Note 3. The client-side will provide documents, fingerprints, iris, face recognition and other levels of verification. And the regulatory private key will be signed by all the active address private key Note 4 to ensure that no one's privacy will be disclosed while providing legal supervision. The activated address can enjoy the normal block reward, since the client-side's own behavior will obtain additional block rewards, please see the details in application scenario section. Node address and activated wallet address will submit certain amount of ICC to the entire network. After obtaining the recognition of the whole network, it will be registered as a

node. And there will be a creative node existed at the beginning of network operation.

The nodes run in a sandboxie **Note 5** are used to restrict the permissions of the node, thereby protecting the client's security. The node registers is a server port's formatted data, which is also a kind of web interface. The client-side provides the development interface including the mainstream languages such as C + +, Java, Python, and PHP, so as to reduce the threshold of the node developer and the learning cost from the traditional program development to ICC network node development. The point of the node is to provide a functional service for the activated wallet address, that is, an ordinary user, and the node can also receive additional block rewards.

For more details, please see the Application Scenario section.

2.4 Configuration block and mnemonic word **note 6**

In addition to save the public ledger, each node or ordinary user's personal equipment will also save a configuration block, which should include the activated address, node address, service provider address, address properties of entire network, source code area, version number and other common properties. The block award and transaction information verification are jointly realized by the transaction ledger and the block.

2.5 Mnemonic Word and supervision

Let's take Monerod as an example to understand the meaning of mnemonic seeds:

A 13 or 25 word phrase used to backup a monero account, available in a number of languages. This 25-word phrase (13 words in the case of MyMonero) has all the information needed to view and spend funds from a Monero account.

EYEKEY (http://en.face-key.com/), which cooperated with the team of ICC, is the cloud Platform for face recognition, fingerprint identification, and iris recognition of Techshino Industry. The mnemonic word of ICC is divided into multiple levels, in which the primary level is for card information flow identity, high level is for human face/ fingerprint data stream, and the highest level is the iris flow. The setting of mnemonic word can better generate activated address, and the node's activation order will fully take into account the mnemonic levels of inactivate addresses. The client-side will provide authentication, fingerprint, iris, face recognition and many different levels of verification (requires mobile device hardware and the software version of IOS&Android support). More importantly, the regulatory private key will be signed by all active address private keys on the network, guaranteeing that no one's privacy will be compromised while providing adequate legal supervision.

2.6 Voting and consumption

Voting and consumption mechanism is the core mechanism of ICC ecosystem, which embodies the function of "contribution".

The current client-side voting mechanism has the following functions:

• The voting of source code version: the source of the source code and version number in configuration block for all client-side storage will be changed when voting reaches 51%

• Address penalty: when the vote reaches 51%, the normal operation of the node or the normal usage of the users will be restricted, and the penalty time is determined by the voting starter.

• Node ranking: before the production of the next block, through turning over the ICC to the entire network, the node can expect to obtain a more front node ranking and more exposure usage rate after the next block is generated.

• The notice of entire network: through turning in the ICC to the entire network, the node or user can send notice information to the addresses of the entire network. Similarly, it is also the number of ICC turned over in this time period that decides the notice disbursement situation in the block time of next block generation.

There are more voting mechanisms to be released. In this way, on the one hand, more functional nodes will be migrated to ICC network. On the other hand, the value belongs to oneself will be given back to him, which will be reflected through the ICC additional block reward.

Chapter **3** Application Scenarios

List the main features and effects of the product, such as reliability, safety, high performance, etc. and the advantages the products have.

3.1 With the join-in of proprietary nodes and other node developers, the number of navigation nodes will be expended and the functionality provided will be more diverse. Navigation nodes can classify and organize other nodes of the entire network into the format that is easy to search and read. The navigation nodes with a large number of connected users will receive more tokens in the block rewards for the number of connections they contribute. Reference: hao123. com

3.2 Record node and functional node will then bring the corresponding personalization data, such as self-set nicknames and published articles. The nodes themselves can only be stored locally without a centralized database. And the record node is to provide the function of data migration, which has high-speed upload / download bandwidth and a large number of idle hard disk space to be used to store the private key encrypted personalized data. With personal privacy and network security issues are increasingly serious today, coupe with the rapid growth of net speed, the decentralized storage is bound to be a reliable alternative to cloud storage. Reference: CDN-type cache node. However, it has decentralization and encrypted properties

3.3 The Public opinion node synthesizes the current public opinion platform to provide a display platform for comprehensive real-time digital currency price, news, and trading volume. The public opinion platform will be transferred from the centralized Internet enterprise to a decentralized function node, and the tokens reward from the entire Internet will be obtained through the number of connections. Reference: www. btc123.com

3.4 Live broadcast nodes; the interaction between the host and the audience is not presented with center node; the host can fully receive the reward. But how to integrate the large amount of server bandwidth generated by video streaming into the decentralized ecological environment has not been solved yet. Reference: www. douyu.com

3.5 Scenario expansion: DIDI/Meituan/ NYSE:ZPIN /58.com/charity ... After accumulating a large number of users and enough funds to develop algorithms and expand the market, we will prioritize the construction of hard-demand nodes, such as the nodes mentioned above.

Chapter 4 **J o i n u s**

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Our advantages

• Excellent technical and executional ability.

• Equipped with well-round meeting and voting mechanism. The official website will regularly release the meeting log and work progress.

• Do not take financial and token exchange as development goal. The nodes are utilized to cultivate user stickiness, thereby carrying out the replication of the Internet functions to ecological network to highlight the advantages of block chain and decentralization.

• Can activate address and apply for nodes; there is infinite possibility.

Join ICC Community to know more.

Official website：http://www.ic.cash （the resource plate roadmap is recommended to be read firstly）

Official QQ Group

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199920001(group 1)   199920002(group 2)

199920004(group 3)   199920005(group 4)

Reference and notes:

Note1: 26 bts wallet enterprises including Airbitz，Armory，Bitgo，Blockchain，Coinbase，Greenaddress，Ledger， Jaxx，Mycelium，Samourai and Xapo jointly carry out the survey and the release.

Note 2: The consensus mechanism is a distributed consensus algorithm for block-chain transactions; ICC is the first digital currency applying POA algorithm.

Note 3: EYEKEY is a new biometric cloud service platform of Beijing Techshino Technology Co., Ltd.

Note 4: Fair multi-party concurrent signature scheme, Yeqing,2014

Note5: Design and Implementation of Linux Application Sandbox Based on Multiple Security Mechanisms，Lichen, Feng Shengzhong, 2015

Note6: the backup data with full transaction rights in digital currency, referring to the seed in Monerod