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According to the current development trend, the digitization of the currency equivalent of wealth is becoming faster and faster, indicating that wealth and assets will be fully digitized in the foreseeable future, and the asset digitization process will be the biggest opportunity in the coming decades. Based on the underlying technical features of blockchain, cryptocurrency has safe reliable decentralized trust mechanism, efficient robust system performance and excellent wealth asset representation properties. During the evolution of consensus mechanisms for cryptocurrency, a wide variety of cryptocurrencies, cryptocurrency assets based on different kinds of consensus mechanisms, and types of value-added income in a complex way have been derived. As a result, how to simply and efficiently graft financial services into the big trend of asset digitization process has become a new round of blue ocean for the blockchain technology.

The existing blockchain cryptocurrency market lacks financial service infrastructure, and the traditional financial system cannot provide fair services for the cryptocurrency market at all. Under this background, TRX.PUB will create a new generation of complete decentralized financial service platform. TRX.PUB will apply DAO drive and AI technology to manage the rule set, with great containment. The decentralized system’s role of high efficiency and transparency can be fully played to realize the credible flow of different on-chain assets, thus providing services for users of the TRX.PUB financial system comprehensively.
TRX.PUB mainly provides the following three services:
1. The Liquidity mining lowers the threshold for more users to enter the digital asset investment field.
2. TRX.PUB perfects the application scenarios of digital assets. The inclusive finance will bring users more digital asset finance services.
3. TRX.PUB builds up a decentralized financial service public blockchain to have the blockchain technology transform the traditional industries.

TRX.PUB will build up a new co-venturing, sharing, consensual and win-win platform, keep improving the capability for digital currency application and management, provide a favorable investment and application environment for investors and users, and push the digital assets to develop in a virtuous and cyclic way.
1.1 Market Background of Blockchain

In fact, the essence of economic development is the process of continuous improvement of human efficiency in the use of resources. Since the Industrial Revolution in the 18th century, science and technology have advanced by leaps and bounds, and the allocation of industrial factors has been continuously optimized, bringing tremendous economic prosperity to human society.

In addition to technology, the human organization and collaboration is another important driver of economic development. 10,000 years ago, humans organized in tribes to fight against wild animals and natural disasters; 5,000 years ago, humans organized as a nation to transmit ideas and culture; 400 years ago, humans organized as corporations to develop commerce and trade; Since the beginning of the 21st century, the development of basic science and technology has almost come to a standstill, and the impetus of science and technology for human economic development has become less and less. How to increase efficiency, reduce consumption and stimulate economic growth by tapping into stock space has become a new economic development strategy for all countries. This has created a higher demand for the way human society is organized.

In 2008, the concept of blockchain was born. It is a social revolution that redefines the collaborative relationship between all people and all organizations. It will illuminate the prospects of economic growth for humanity.
revolution that redefines the collaborative relationship between all people and all organizations.

The concept of blockchain is put forward to reduce the time cost and economic cost of carrying out the value transfer worldwide in the traditional way, and establish a decentralized internet basic protocol based on the method of pure mathematical algorithm, so as to solve the worldwide credit consensus problem.

All people should see the trend of era: all assets of humans will be digitized finally; and the process of asset digitization is inevitable and irreversible. The blockchain technology has greatly forced the pace of such transformation. At present, all industries are accelerating digitization, and blockchain is the greatest opportunity in the future ten years. Although Bitcoin witnessed a low ebb in 2018, it quickly entered into the rising channel, which fully proved that asset digitization has become a consensus of many people. What’s more, Facebook, which has 2.7 billion users, released the white paper of its cryptocurrency (Libra) in June 2019. Affected by Facebook, the Bank of International Settlements also advanced its plan to issue cryptocurrency, and will support all countries to create the national currency of digital version. Chinese Central Bank will also launch its independent digital currency: DECP. According to the 2019 Digital Economy Report issued by the United Nations Conference on Trade and Development on September 4, 2019, the global digital economy activities and the wealth created by it grew rapidly, which was
highly centralized in U.S. and China. After going through the dormancy in 2018 and the ups and downs in 2019 and 2020, Bitcoin has come to a high level again, with its price surging to new highs repeatedly. All these make us believe that in the future, cryptocurrency will gradually and inevitably become an important asset in the human society.

1.2 DeFi Development Trend

In the thousands of years of human history, the financial industry has always existed along with our production and life. Since the modern era, technology has permanently transformed many industries. However, the trillion-dollar financial industry has entered a period of development bottleneck, with problems such as fraud and counterfeiting, over-concentration of resources, and increasingly high service costs.

The problems in the financial sector are caused both by the increased monopoly of the industry and by the internal management issues of the practicing institutions. Under the traditional information technology, the organizational relationships between people are unchangeable. Nevertheless, the financial industry is precisely an industry that relies heavily on interpersonal relationships. Its development to the extreme will inevitably put new demands on the organizational structure, so the inefficiency and information opacity brought by the centralized structure of the traditional organization becomes the biggest obstacle. Blockchain technology is the result of the deepening of the contradictions of the traditional value distribution
system, which is unable to provide more support for productivity and brings objective change. In 2018, the concept of DeFi was born. The full name of DeFi is Decentralized Finance, or “DeFi” or “Distributed Finance”. As opposed to the traditional centralized finance, “DeFi refers to various applications in the field of finance built in an open decentralized network, with the goal to create a multi-faceted financial system and to recreate and improve the existing financial system based on the blockchain technology and cryptocurrency. Compared to the traditional centralized financial systems, the DeFi platform has three major advantages.

1. Individuals with asset management needs can rebuild a new trust in machines and code, without having to trust any intermediaries;
2. Anyone has access yet no one has central control;
3. All protocols are open source; anyone can collaborate on protocols to build new financial products and accelerate financial innovation with network effects.

DeFi is the inevitable result of our desire for new changes in the traditional financial industry as well as the challenge of new technologies for the development of the traditional financial industry. We believe that DeFi will have more and more impact on the real economy in the future.

1.3 Pain points

Finance is an old industry, but by no means a backward industry. On the contrary, finance must be an industry that keeps up with the times.
reason, technology is the key driver of contemporary finance, and it can be listed alongside institutions and practices as the three pillars. Any restriction through the system and any constraint on innovation runs counter to the most essential intent of this industry. Therefore, finance must be an industry with a technological gene. Finally, the development of finance must point to financial inclusion, and digital technology itself is a foundation on which to expand the reach of services. One of the major issues to be addressed after the market boom is how to regulate digital finance more effectively to guard against the social, spillover and highly destructive nature of the risks that may arise.

The emergence of cryptocurrency shows the possibilities that digitization brings for reconfiguring the financial chain and the boundaries of financial organization. Governments show varied attitudes towards digital currencies vary. Nevertheless, the general trend is that the traditional financial industry can accept cryptocurrency to a larger extent: Many financial organizations or large companies have launched encrypted digital currencies; central banks in some countries are also considering launching their own digital currencies. However, as a newcomer, digital currency has begun to force market changes for a lack of financial infrastructure.

In the digital currency market, the power of traditional finance has not yet entered on a large scale, and the rights of users have not been greatly harmed. However, the lack of financial infrastructure construction also brings many pain points:
1.3.1 Non-transparent data

The common feature of the digital assets investment lies in a demand for extensive participation by a large number of users, with an extremely high requirements on justice, equity and transparency. However, because of involving abundant benefits, fraud is common in many projects, because the final data are grasped by centralized organizations, and the results presented eventually can be controlled by the background. Fraud and other cheating behaviors are major means to disturb the market. Many investment companies have fraud and cheating behaviors in order to gain profits. Although customers are aware of it, they have no way to restrict it and can only vote by feet. This kind of centralized operation makes the traditional entertainment platforms lack public trust, which has affected the overall development of the investment industry.

1.3.2 Difficulty in circulation

A country’s currency can circulate smoothly only when it is supported by gold reserve and state credit. The blockchain projects, especially new projects, have not been widely accepted, and also have only a few application scenarios, thus making it very difficult for digital currency to circulate. As a result, the blockchain projects can hardly be maintained without a few means like ICO.

1.3.3 Low income

In the traditional financial system, customers’ information has to flow
between different links, each of which will impose an obstacle to the transaction process and will collect charges. Under such a condition, substantial redundancy costs will be incurred. Ultimately, a low transaction efficiency and a high cost will be caused to customers. As a result, customers will get little benefits.

From the above, we can see there are many problems in the digital assets investment service field under the existing framework, so how can we solve them?
2.1 Positioning of TRX.PUB

Under such background, TRX.PUB Group introduces the Liquidity mining technology, and signs with the Tron platform to push out mining products, so as to build up a new generation of complete and decentralized financial service platform. TRX.PUB uses DAO drive and AI technology to manage the rule set. Being greatly inclusive, it could give the efficient and transparent role of the decentralized system into full play, realize the credible circulation of the different assets on the chain, and serve TRX.PUB users in an all-round way.

TRX.PUB mainly provides the following three services:

1. The Liquidity mining lowers the threshold for more users to enter the digital asset investment field.

2. TRX.PUB perfects the application scenarios of digital assets. The inclusive finance will bring users more digital asset finance services.

3. TRX.PUB builds up a decentralized financial service public blockchain to have the blockchain technology transform the traditional industries.

TRX.PUB will integrate a diversity of financial services to form a new generation of decentralized financial ecosystem which will provide financial support for industrial chain, energize the real economy and provide inclusive financial services for real economy.
2.2 Service Contents

TRX.PUB is a new generation of globalized and decentralized financial service platform, which provides the following core services.

2.2.1 Liquidity mining

In the current financial system, financial services are mainly controlled and adjusted by the central system, no matter in the basic depositing and withdrawing services, transfer services, loaning services or the derivative trading services. TRX.PUB’s Liquidity mining hopes to make use of the distributed open-source protocol to build up a set of transparent, accessible and inclusive peer-to-peer financial system, so as to minimize the trust risks, have participants obtain financing more easily and more conveniently, and enable investors to get stable earnings.

In the Liquidity mining services of TRX.PUB, depositing users deposit USDT to provide liquidity for the capital pool. Users can interact with the capital in different ways, including depositing, redemption, borrowing, repayment, liquidation, flash loan and so on. The borrowing users can borrow funds according to the available deposit money in the reserve funds, and lock more value as the mortgage. Once the borrowing users make the repayment, the interest income will be returned to the depositing users, after a certain amount of service charge is deducted from it.

The liquidity pool runs based on the smart contract, in which there are no bookmakers or major clients. The smart contract ensures the authenticity of
the account, thus saving a series of costs such as bookkeeping cost, auditing cost, anti-counterfeiting cost, security cost and so on. For the reason that the smart contract has its own functions such as authorization, auditing and account checking, considerable operating costs will be saved, and will be returned to the depositing users as subsidies.

2.2.2 NFT Service Platform

TRX.PUB will construct the NFT service platform, establish a complete transaction and asset composition service system, and gradually build up a perfect NFT ecosystem. NFT service platform mainly provides a diversity of services, including NFT casting, transaction, finance, and exhibition. NFT casting: different from the top-down ICO logic in which most NFTs are “produced by issuers and bought by users”, NFT in TRX.PUB is obtained in a way similar to LOOT. This is a more decentralized way of NFT casting. Anybody has the opportunity to participate in the casting and issuing process. Users only need to pay the service charge to generate various NFTs. To produce random scarcity, the contract will distribute an ID to the owners. Anybody can generate NFT, and then combine, connect and extend with other protocols. This is a way similar to DeFi block-building. Creation and construction can be continuously done based on MVP (minimum viable product).

Transaction: The platform will publicly exhibit the NFT product information which is audited by partner organizations, to customers. The customers can trade by means of auction or mystery box drawing.
Finance: The platform will provide a series of NFT-related financial services, such as trading insurance, renting, loaning and so on. It minimizes the unforeseeable risks arising from NFT custody, collection and trading, and provides user experience.

Exhibition: From the off-line and on-line exhibitions launched, NFT owners will get corresponding earnings.
2.2.3 Inclusive Financial Services

At present, the most popular DeFi platforms in the market mainly include MakerDAO, Compound, Dharma, etc. Their main business focuses on decentralized lending, which is similar to the traditional financial banks. However, these DeFi platforms lack the support of cross-chain technology. They have many problems, such as few users, small size and lack of scale effect. It is difficult to expand the scale and realize inclusive financial services. In response to these problems, TRX.PUB’s decentralized and inclusive financial services will come into being through DAO and cross-chain technology. TRX.PUB’s inclusive financial service can play the role of cross-chain value exchange function, take collateralized TRX.PUB digital assets as the entry point, and gather various services such as DEX (decentralized exchange), SWAP (financial derivative), NFT (Non-Fungible Token), and insurance. TRX.PUB digital assets will thus gain value-added returns and bring the value nature of TRX.PUB digital assets.

2.2.4 Financial Service

Besides supporting the virtual economy, TRX.PUB can also energize the real economy. Many links in enterprises such as manufacturing and sales involve the exchange and deposition of funds in huge amounts, which produces a favorable condition for the intervention of financial services. With TRX.PUB, financial institutions can develop applications, and provide customized financial services for enterprises. The blockchain makes the
transaction process more transparent, and makes it more convenient for people to supervise the funds and logistics, thus avoiding transactions without substance. In this way, the credit cost and risk control cost will be reduced. In the process of loaning, finance lease, pledge and even the investment and wealth management service, people can make use of the features of blockchain to reduce the costs arising from the links such as the review of service object’s background and the risk control, and to reduce the economic cost for the service object.
3.1 Basic Structure

Though built based on the Tron finance, TRX.PUB uses a cross-chain plan which concurrently supports Tron and the blockchains which are compatible with TRX, thus to effectively solve the problems of Tron’s DeFi project, including the high transaction cost and the running difficulty in the front end of the oracle model. For users, what they need to do is to concurrently build an Tron-based wallet and an TRX-compatible wallet. TRX.PUB will assist the two wallets to hook with each other, and record their hooking on the smart contract. In this way, the two wallets will operate just like how one wallet does. By separating TRX.PUB’s smart contract kit into two individual blockchains, you will get the following advantages.

1. Getting the most support from DeFi community.
2. Having the opportunity to have DeFi cooperation with other protocols.
3. Improving the user experience through the smart contract which is deployed on the EVM-compatible blockchain, thus almost saving the fuel fee in the whole process of liquidity construction and transaction.
4. Enabling users to construct liquidity based on the timelier price update provided by the oracle model. In this way, it greatly lowers the threshold for previous operating window, and provides good protection for debt inflation.
5. Providing a simplified and standard flow.
3.2 Design Goal

TRX.PUB is designed with the goal of building a global-oriented DeFi service platform. It applies various technologies including smart contracts, DAO and cross-chain. The details are described as follows: 3.2.1 Smart contract

TRX.PUB uses a hierarchical thought similar to the storage system of computer, to realize the function of smart contract. The smart contract, similar to the legal contract, offers a high safety. The service charge of the smart contract is calculated based on the byte it occupies. The TRX.PUB smart contract is made up by the declarative sentences and the complete Boolean sentences, so it is more like the language of traditional legal contract. It supports Boolean operation, arithmetical operation and even data storage. TRX.PUB provides the templates of a variety of frequently-used declarative smart contracts for users, or makes improvement on them, so as to meet the user-defined requirements and to reduce the difficulty in contract deployment and the error rate.

Here is the model for a smart contract:

```json
["contract template", ["hash of unit where the template was defined", {param1: "value1", param2: "value2"}]]
```

TRX.PUB has a built-in software package for smart contract module. It can be seen from the module structure that the module of TRX.PUB smart contract lies between the external service module (such as RPC module) and the underlying facility module (such as network module, storage module,
account module such as storage module, basic encryption algorithms, account module, network module and so on, provide underlying support for the smart contract.

The smart contract is defined by the upper-layer application, interpreted by the interpreter, stored by the storage module, and operated by the software package for TRX.PUB smart contract module. TRX.PUB smart contract interpreter will support a variety of high level programming languages. The application developers can use the languages they are proficient in to design the TRX.PUB smart contract.

3.2.2 DAO Design

DAO (decentralized autonomous organization) may be the best tool to further improve the decentralization degree of blockchain products. DAO allows users to decide some important matters, such as the addition of new functions or the deployment of a new protocol version. In addition, users can take a vote on who to start the emergency switch in critical moments, and even create a “sub-DAO” to specially handle such moments.

To solve the problems existing in the decentralized autonomy of DAO, TRX.PUB creates TRX.PUB DAO, a DAO 2.0 version. The control power is handed to TRX.PUB DAO to realize true decentralization. A sustainable and effective model is established. Within TRX.PUB DAO, the DAO membership is open, not being confined to a certain group. Members / shareholders of DAO can make a proposal / take a vote on which changes will be made. No central
institutions can impede or change the decisions made.

TRX.PUB DAO members can receive direct or indirect economic incentives according to the degree of their participation, thus to ensure the consistency of incentives. These features mean a lot to effective decentralization. In this sense, Bitcoin is the most successful DAO. In Bitcoin network, anyone can get in by operating a node or holding Bitcoins. Users can make a proposal on, support or object BIP (Bitcoin improvement proposal), and get rewards (at least indirect rewards) at last according to the degree of participation and their efforts made to make the system run by rule. It is precisely because of these features, DAO becomes a powerful governance mechanism and enables projects to achieve true decentralization.

TRX.PUB DAO allows participants to decide which cross-chain projects to choose. Participants can choose an ERC-20 currency to form a transaction pair with TRX.PUB, and create a liquid pool. Participants can get a share of the pool and are entitled to take a cut from the income of the pool, as long as they provide liquidity for it. Participants also have the right to go offline. They only need to withdraw the liquidity and destroy their share. TRX.PUB DAO organization has the power of final ruling. Through this process, participants have full powers to decide whether a project can become one supported by the TRX.PUB decentralized distributed bank.

In addition, all the service charges collected by TRX.PUB will be handed to providers of pool liquidity. In this way, participants can directly get benefits
from the operation of system. It can be seen from the architecture that TRX.PUB DAO not only conforms to the definition of DAO, but also makes dimension-raising deduction for DAO application scenarios. It is an exploration of the DAO2.0 era.

1. TRX.PUB DAO is an open organization, where everyone can get a certain share by providing liquidity.

2. Participants can inject / withdraw liquidity, and effectively decide whether to go online / offline. TRX.PUB team cannot impede the decisions made by participants.

3. Participants can directly get gains by holding shares. In spite of this, TRX.PUB can still make decisions on the charging structure, the improvement of automatic fundraising model, function addition and so on, thus to push TRX.PUB distributed bank to develop in a sustainable way.

4. A single DAO member (no matter an organization or individual) is not allowed to hold the amount of TRX.PUB that is more than 5% of the aggregate. In this way, the distribution of MakerDAO tokens will not become too concentrated.

3.2.3 Cross-chain technology

TRX.PUB is aimed at solving the flow of value between blockchains. In order to solve the problem of cross-chain technology, TRX.PUB proposes Multi-Chain, a blockchain cross-chain transaction architecture, including Multi-Chain architecture, Multi-Chain consensus mechanism and protocol,
and Multi-Chain privacy protection mechanism. Multi-Chain realizes the interoperability between independent blockchains, and guarantees the validity of cross-chain transactions and the security of users’ private data. Its advantages are as follows: (1) It supports not only cross-chain operations between isomorphic blockchains but also cross-chain operations between isomerous blockchains; (2) With richer cross-chain scenarios, it not only supports cross-chain transfers of multiple digital assets, but will also support cross-chain operations between smart contracts and distributed applications in the future; (3) It provides sound privacy protection mechanisms.

1. Multi-Chain architecture

Multi-Chain networks have the following subjects: (1) Parachain Node: The blockchain that communicates directly with Multi-Chain is called parachain, and the node that runs a parachain program is called parachain node. (2) Multi-Chain Node: It runs the Multi-Chain program and contains the data transceiver node and verification node. (3) Data Transceiver Node: The data transceiver node belongs to both the internal parachain node and the Multi-Chain node; its main function is to collect transaction data from inside the parachain and transmit it to the verification node for validation. (4) Verification node: The verification node is only inside Multi-Chain. It is mainly responsible for obtaining transaction data from the parachain, verifying the validity of the transaction, and achieving synchronization and consensus transactions in the Multi Chain network.
Blockchains with cross-chain features can read data records of each other, invoke smart contracts provided by each other, and complete the cross-chain transfer of digital assets. The cross-chain technology breaks down the barriers between different blockchains, making cross-industry and cross-domain value flow a reality. In other words, cross-chain technology weaves the “chain” into the “network”, which is expected to create a global value network system.
2. Multi-Chain Consensus and Transmission

The Multi-Chain network will enable interconnections between parachains. As an architecture capable of accessing parachains, Multi-Chain guarantees high transaction speed, and matches the high transaction generation frequency of parachains, thus forwarding transactions from each parachain in a timely manner. Multi-Chain maintains a queue structure that performs data transfer between multiple parallel blockchains. Specifically, each parallel blockchain contains an input/output queue. Multi-Chain places transactions on the output queue of a transaction initiator’s parallel blockchain on the input queue of the destination address’s parallel blockchain. Either pair of parachains can use Multi-Chain as a bridge to complete the cross-chain operation. Assume that parachain A initiates a cross-chain transaction to parachain B, the main steps are as follows.

(1) The transaction initiator of parachain A constructs a cross-chain transaction. The initiator needs to declare the source chain, source account, destination chain and destination account information in the cross-chain transaction. Subsequently, the initiator broadcasts it to the network of parachain A, and parachain A reaches a consensus on the transaction.

(2) The cross-chain transaction is broadcasted into the parachain network, so the data transceiver node of parachain A is also able to receive the transaction. The data transceiver node temporarily stores the cross-chain transaction and its evidence in the output queue, extracts the cross-chain
2. Multi-Chain Consensus and Transmission

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(1) The transaction initiator of parachain A constructs a cross-chain transaction. The initiator needs to declare the source chain, source account, destination chain and destination account information in the cross-chain transaction. Subsequently, the initiator broadcasts it to the network of parachain A, and parachain A reaches a consensus on the transaction.

(2) The cross-chain transaction is broadcasted into the parachain network, so the data transceiver node of parachain A is also able to receive the transaction. The data transceiver node temporarily stores the cross-chain transaction and its evidence in the output queue, extracts the cross-chain
(3) The data transceiver node of parachain A broadcasts the encapsulated cross-chain transaction to the Multi-Chain network. The verification node will verify the validity of the cross-chain transaction. If valid, the transaction will be written to the Multi-Chain blockchain.

(4) The data transceiver node of parachain B is also in the Multi-Chain network, so it can also receive cross-chain transactions broadcasted in the Multi-Chain network. Once the data transceiver node of parachain B recognizes the transaction whose destination chain is B, it will construct a new transaction conforming to the format of parachain B according to it, and temporarily store it in its own input queue. Subsequently, in a particular order and frequency, it extracts the transactions from the input queue, and broadcasts them to the network of parachain B.

(5) The nodes of parachain B reach a consensus on the new transaction. This consensus process belongs to the internal processing method of parachain B. The above steps explain how the two blockchains forward cross-chain transactions through Multi-Chain. Based on this, the Multi-Chain architecture can complete operations such as cross-chain transfer, call of cross-chain smart contract, and cross chain data sharing.

3. Privacy Protection

TRX.PUB puts forward a zkSNARK-based cross-chain transaction privacy protection method. zkSNARK, a zero-knowledge proof algorithm, is one of the relatively mature and feasible privacy protection technologies. It offers better...
anonymity. In addition, it neither has to trust the central node, nor needs to be participated by other users of the network. By interacting with anonymous currency, users can trade anonymously, which effectively protects the privacy of users.

As the carrier to forward and verify the cross-chain anonymous transactions, Multi-Chain should be able to verify the validity of cross-chain anonymous transactions. The cross-chain transactions are divided into the cross-chain transparent transaction and cross-chain anonymous transaction. The former provides information about the transaction itself and the related Merkle branch proof. The verification nodes of the Multi-Chain network verifies the validity of a transaction in accordance with the verification rules for the registration of parallel blockchain. In contrast, the cross-chain anonymous transaction will not disclose any other information except the validity of such transaction. The verification nodes of the Multi-Chain network need to learn the public parameters generated in the booting stage of each parallel blockchain network, and then use these public parameters to verify the validity of cross-chain anonymous transactions from the parallel blockchain. Zero-knowledge proof algorithm ensures that the verification nodes of the Multi-Chain network can learn no other information except the validity of such cross-chain transaction.

In addition to the zkSNARK zero-knowledge proof algorithm, TRX.PUB applies the following two methods to further protect user privacy:
The first one is to add post-TRX.PUB quantum digital signature schemes to the hashing algorithm during the encryption process.

The second is to use a method called TRX.PUB-Quantum Key Distribution to verify the identity of each participant in the message comparison process.

3.2.4 Non-Interactive Random Algorithm

The non-interactive random number generation algorithm refers to that users can participate in the generation of random number seeds without having to provide additional custom information. We have fully considered the security of financial games, so we apply the random number generated by hardware seed, in order to ensure the system security. The process of TRX.PUB non-interactive random number generation is shown as follows.

- Users request registration in the TRX.PUB service which will monitor the on-chain behaviors of registered users.
- A password generation request made by the user will enter the blockchain ledger in the form of Snapshot after it is verified by TRX.PUB nodes.
- TRX.PUB will monitor the Snapshot information produced by this transaction in the ledger in real time, and acquire the ID of the Snapshot as the random number seed.
- A specific random number generator – rand is chosen to generate the random number \( r = \text{rand} (\text{seed}) \) for users.
TRX.PUB aims to establish a globalized and decentralized financial service platform. With this as the driving force, we will keep forging ahead. In the development of TRX.PUB, we have done a lot of fruitful work. In the future, we will keep it up. The following part concerns the introduction of the TRX.PUB project team.

• **Spencer Stuart:**
  He provides market strategy services for the world’s top 500 companies, and directly serves Microsoft, Google, Salesforce and so on through the social-media-oriented B2B marketing platform. As the former senior marketing manager at the Microsoft headquarters, he successively participated in the research and development of a good many strategic products such as business intelligence. Stewart has developed a deep understanding of the industry, especially of the channels such as joint operation, media purchase, social contact and RTB. More than that, Steward has also gathered abundant experience in the development of overseas blockchain project market and in the creation of social-media-oriented marketing solutions.

• **Jocelyn Della:**
  Graduating as an MBA from the Harvard Business School, Jocelyn Della once worked at FunBox, Undev and Voltmobi. Devoting most of her career life to the promotion and marketing of related projects in Chinese mainland market, she has accumulated rich experience in the marketing management and the e-entertainment project management, and has been skilled in product
promotion, business relation and new media operation and planning. Since coming into contact with Bitcoin in 2011, Della has kept a close eye on the digital currency field, and has developed a deep understanding of the blockchain technology.

- **Joey Lam:**
  Joey has gathered more than 20 years of experience in IT industry. In the past 12 years, Joey worked as a solution architect and DevOps, designing and managing various IT solutions, creating private CDN (mainly used in video delivery), and achieving a mastery of CDN products of different suppliers. Joey has always been passionate about new technologies such as SDN, IPv6, segment router, blockchain, edge computing, 5G and so on. He has abundant experience in content delivery network (CDN), software defined network (SDN), video transcoding and delivery, DevOps (Linux/ Unix/ BSD) and automation, Amazon web service (AWS), blockchain and so on.

- **August Hutchinson:**
  As a senior software engineer and an algorithm geek, he focuses on the development and production of independent games, and is the co-founder of EMPlus, a studio for independent games. He is proficient in JAVA, SQL database, C++, Python, Lisp, Prolog, Erlang and Golang, and knows quite well about a number of development languages and visual tools, such as React, NodeJS and so on. In addition, he has rich experience in product design and development. As a blockchain enthusiast, he once was one of the researchers
on the early Bitcoin mining algorithm. With an insight into blockchain principle and smart contract, he devotes himself to the development of top blockchain projects.

- **Paul Kearns:**
  He is a doctor in information security and cryptography in the University of Michigan, proficient in encryption algorithm, public key and private key-based signature algorithm, network protocol and DDoS networks guard design. He once published almost 30 papers on the international information security and cryptography conferences and academic journals, and has a number of patents for information security-related inventions. He has done in-depth researches on the reliability of data store, the authenticity and consistency of transaction, and protection of user privacy.
5.1 Disclaimer

This document only provides information related to the project. This document or any content in this document cannot be deemed to be any solicitation or proposal to buy or sell securities, futures, options or other financial instruments, or deemed to be any provision of investment advice or service for any person within any judicial district. Any content in this document does not constitute any investment advice, or provision of any suggestion on the applicability of any securities. Past performance does not represent the future performance. Any prediction, market prospect or estimation in this document shall be forward-looking statement based on some hypotheses, and shall not be regarded as any indication of actual event which will happen. All materials are compiled by depending on the reliable information source, but their absolute accuracy cannot be guaranteed.

The interested exchanger, if deciding to exchange TRX.PUB tokens, should completely accept such risks, and should take all the results or consequences caused thereby. The Foundation and TRX.PUB team have explicitly stated that they shall not bear any direct or indirect loss caused due to the participation in TRX.PUB project, including but not limited to the following aspects.

- The economic losses caused by user’s transactional operations;
- Any mistake, negligence or inaccurate information caused due to personal understanding.
5.2 Risk Disclosure

TRX.PUB development and operation team believes that there are numerous risks in the development, maintenance and operation of TRX.PUB, and many of them even go out of the team’s control. The interested users, once participating in the exchange, should be deemed that they have got clearly aware of and known all about the following risks.

Risk from information disclosure: Up to the release of the White Paper, TRX.PUB platform has still been perfected, and its philosophical concept, consensus mechanism, deduction algorithm, codes, other technical details and parameters may be changed and updated frequently and anytime. Though containing the latest key information about TRX.PUB, the White Paper cannot ensure an absolute completeness, and will still be adjusted and updated by TRX.PUB development and operation team from time to time for specific purposes. TRX.PUB development and operation team is not able to and not obliged to inform participants of every technical detail about the development of TRX.PUB platform. Therefore, the inadequate disclosure of information is inevitable and reasonable.

Risk from market competition: The public blockchain platform is a quite competitive field. Thousands of teams are planning and developing such platforms, so the competition will be very fierce. In this era, any good concept, startup or even well-developed company will face the risks of competition. However, to us, competition is the driving force for our development.
Risk from laws and policies: TRX.PUB may be supervised and regulated by competent authorities in many countries. For the reason that the issuance of cryptocurrency is highly innovative, there will be a legal gap in this regard in most countries. For this industry, there is a great uncertainty in law and policy.