White Paper on Global Game Chain

Build the Optimum Ecosystem for Game Assets Storage and Interactive Sharing

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Microchain Inc.

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Abstract

According to Newzoo, the revenue of the global game industry is expected to reach $137.9 billion (equivalent to approximately RMB873.2 billion) in 2018, of which $70.3 billion will come from mobile platforms, accounting for more than 50%. China's game market revenue will reach $37.9 billion, accounting for more than 25% of the world's game market revenue. The Chinese market is expected to be ranked number one in terms of revenue and number of gamers.

Blockchain is regarded as a kind of disruptive technology. The characteristics of the game industry make it become one of the best application of the blockchain.

Through building the optimum ecosystem for game assets storage and interactive sharing, Global Game Chain (hereinafter referred to as "GGC") aims to redefine the play method in the game field:

The consensus mechanism will enable the manufacturers, channels and players in the game ecosystem to realize the "fair, just, open" distribution of benefits, and to enhance mutual trust and develop a win-win environment, which will effectively resolve the industry pain points and achieve the following goals:

1.To encourage precise and effective promotion of games;
2.To help game companies raise funds;
3.To improve the interaction and playability of games;
4.To allow players make money while playing;

5.To realize the custody of virtual property and in-game equipment, cross-platform transaction as well as value preservation and appreciation.

GGC is the world's leading ecosystem integrating game assets storage, value charge and interactive sharing. Through GGC, gamers, developers, flow

channel vendors and game assets transaction platform are allowed to easily create their own blockchain applications. The GGC token is a digital token used in the GGC ecosystem for purposes of commission distribution, reward, advertisement, blockchain-based game development, mining and other ecological construction.

Currently, GGC has been working with many game platforms, Internet cafes and excellent companies in the industry to introduce several elements o the community ecology of GGC, including internet game development, eSports, Internet celebrities, Internet cafes, flow channels and game asset transaction platforms. Meanwhile, no less than 30 million of the game users will be also introduced to GGC directly. It is believed that GGC will bring a big innovation to the multi-trillion-dollar scale internet game industry, e-sports, Internet celebrities, and Internet cafes, and will grow with the development of the autonomous blockchain economy of online games.

Contents

Chapter 1 GGC Summary

1.1 Features of GGC

Global Game Chain (hereinafter referred to as “GGC”) , as an epoch-making product, will demonstrate and test how to build a decentralized and community-autonomous game asset platform. The platform can integrate internet game developers, eSports, Internet celebrities, Internet cafes, flow channel vendors, game asset transaction platforms and other various third-party games and assets.

1.2 Existing problems in the game industry

1.2.1 Transparency issue

In the existing online games, through in-game monster strike, upgrade and other activities, players can obtain some valuable game equipment or win game gold, such as chess and card games. However, in the existing internet game system, the core data algorithm, including content, quantity and extraction probability of of such virtual equipment, are all based on centralized management models, which fails to be completely open and transparent, posing negative impacts on the fairness and the playability of games.

1.2.2 Security issue

With the development of the game market, the security of virtual property has been paid more and more attention. Game virtual equipment theft in transactions and frequent hacker attacks bring great losses to players.

More seriously, game equipment is typically issued by a single game company, therefore game props are locked in a single game. With the decline of the game, the players will lose all game properties as well as money, time and energy inputs .

1.3 Design concept of GGC

To effectively solve such problems in the game industry, GGC aims at constructing a community ecosystem by integrating the blockchain with the game. In the future, GGC will not only encourage sound entertainment and playability of internet games, but also allow all parties involved a more secure, fair and independent game environment. Through blockchain community ecosystem construction, GGC will help players protect their virtual property from theft or loss.

1.3.1 Data reliability

By virtue of blockchain technology which allows record of online digital assets, the core data of games, including the content, quantity and outputs of virtual props, are stored in the blockchain. In the GGC community ecosystem, game companies will be regulated to prevent over-issuance of game products and props. Similarly, GGC makes game data more transparent and reliable, which will reduce conflicts and disputes between game companies and players due to information opacity.

1.3.2 Game property right

Online game world is deemed as a small society in which a large number of game players invest time and money in games to create a large amount of virtual assets. The GGC will provide safe and controlled storage for the protection and rights exchange of game assets. Due to the immutable and decentralized nature of the blockchain, it is difficult to tamper with the production and sale of game equipment. In the GGC community ecosystem, all players' virtual assets can be preserved forever and freely exchanged.

1.3.3 Inheritance and permanent recording of game progress

Once the game virtual assets are passed through the GGC, the transfer, split, withdrawal and other operations will be strictly controlled through the public and private keys of the account. All operations need signature verification, and both parties will be marked. The inheritance of the game property will be permanently recorded, establishing a full emotional connection between the player and the digital property. In the future, players can access, view, and interact on the GGC at any time, making it an eternal memory for the players, preserving the joy and memory permanently.

Chapter 2 Blockchain Functions of GGC

2.1 GGC platform strategy

For game players: GGC platform strategy aims to construct a brand - new online game ecosystem, which provides ordinary entrepreneurs or players with full operation supports, including products, marketing, payment capital and flow. Through cooperation with third party partners, it provides all-round and personalized service to small and medium-sized internet game operators .

For game companies: GGC will connect all links including “internet game development - operation - promotion - payment – profit distribution”, so that all partners can enjoy the corresponding rights and interests in the development, marketing, payment and technology of the GGC community ecology. GGC can provide a complete blockchain operation solution to millions of internet game developers, game operators, community ecosystem builders, etc., forming a giant blockchain-based network ecosystem which integrates internet game development, operation and consumption behavior.

GGC is a channel resource integrator. GGC allows game developers, flow channels, players, community ecosystem builders, operators and others involved to obtain their respective interests. Each person can participate in the operation of the game and get rich rewards .

2.2 Decentralized blockchain function of GGC

2.2.1 Permanent preservation of game assets on the chain

Currently, traditional internet game companies, eSports or internet celebrities’ economy normally choose in-game gold coins as the main value carriers. However,

there are some problems such as weakness of game value exchange, severe centralization, difficulty in redemption after game product replacement, etc.

Focusing on a personal perspective in the global game blockchain, GGC allows users to save and display personal digital assets in virtual world and create content to influence others, forming a unique ecosystem for personal game asset storage and interactive sharing. In simplple words, in GGC, all virtual assets will be well preserved and can be shared with others .

2.2.2 Addition of electronic business function and intelligent distribution to assets

In the GGC ecosystem, participants can share or exchange digital assets online, all of which will facilitate transactions, and such transactions are decentralized without any restrictions on conditions. By introducing large-scale game companies, distributors and players, Microchain Inc. will provide richer ecology for the game community. Players are also allowed to share the digital assets of others while managing their personal digital assets. Distribution and commission systems play very important roles in traditional marketing activities, and they are very diversified and complicated. Such traditional systems suffer weak hierarchy and limited coverage. By contrast, in GGC, the benefits distribution of various marketing modes can be determined by game manufacturers and players. Benefits for all parties involved will be distributed automatically upon completion of interactive sharing. Meanwhile, participants can view distribution steps on the chain to ensure the fairness and transparency of the whole process. In such way, the matrix marketing effects will be achieved.

2.2.3 Blockchain-based smart contract throughout the ecosystem

Users can obtain GGC token through community incentive mechanism (such as mining, participation in games and contents, sharing, distribution, etc.). Creation of

personal digital assets through GGC token, purchase and distribution will all be written in blockchain smart contract to protect user ' s rights and interests .

2.3 GGC smart contract operation mode

GGC issues a fixed amount of tokens which are used for the healthy operation of community ecosystem. With the assistance of smart contract, GGC uses such tokens as settlement currency for commission distribution, flow advertisement and interaction in the community, so as to improve the running efficiency of the game ecology. Meanwhile, the appreciation of tokens will enhance the ecosystem continuous iteration, so that the GGC community can develop healthily and orderly. The overall architecture of GGC is shown in Figure 2-1 below .

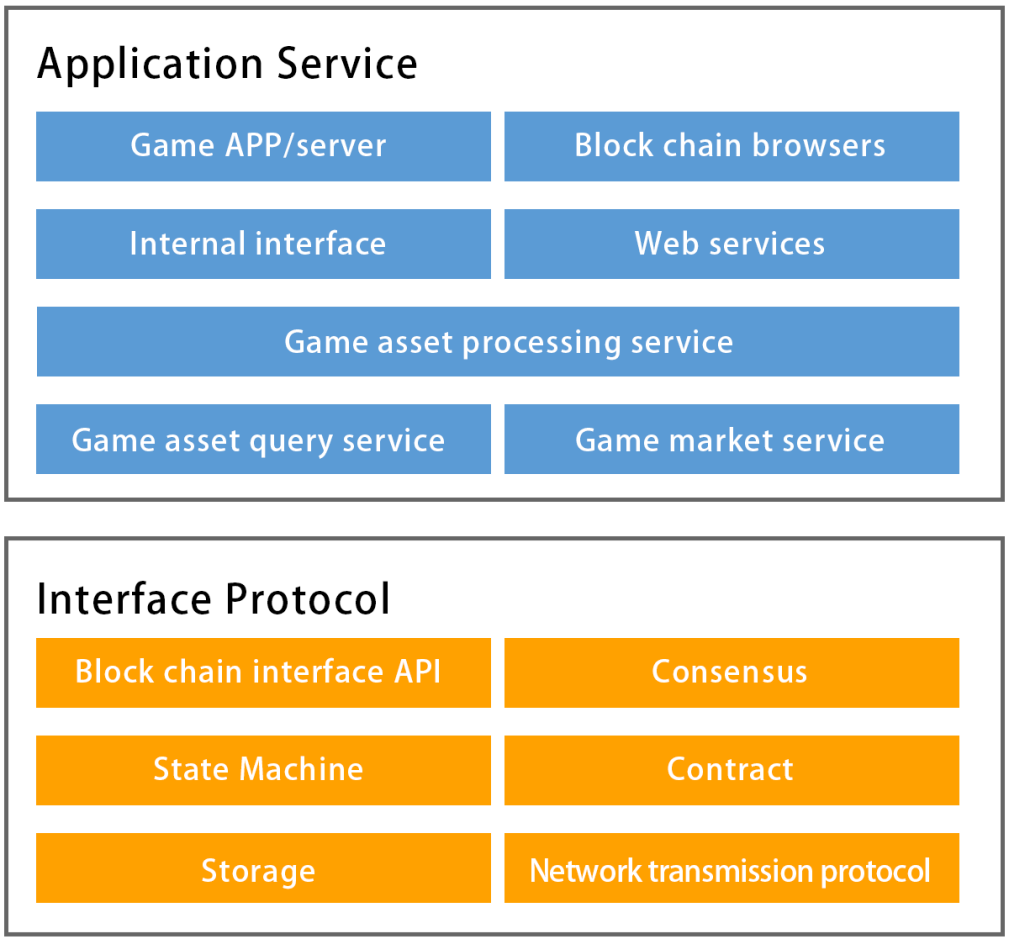

Figure 2-1 Overall architecture diagram of GGC

Chapter 3 Introduction to GGC Game Digital Assets

3.1 What's blockchain?

Blockchain technology is to realize the cooperation of the parties in the system through cryptography to achieve the recognition and verification of the information without mutual trust. Such cooperation is achieved through a number of nodes in a decentralized and de-trust manner, so as to record, maintain and confirm an immutable and reliable distributed ledger. Blockchain technology enables users to have complete control and trust on digit without node server, which makes production relation more reasonable and secure in the digital era.

since each block is generated by cryptography, and the blocks are linked through chain, we call such structure "blockchain". As each full node has all transaction records or data logging general ledger, we also call it "Distributed Ledger Technology". A representative project of blockchain technology and the first successful application is the Bitcoin network.

3.2 GGC digital assets

Digital assets are blockchain-based record or token. GGC is digital asset and token based on global game blockchain technology. It is an incentive for all participants for their contribution, and it is also blockchain-based digital asset rewards for users who participate in game interaction and sharing or provide spare computing resources. GGC token is also an incentive to those producers of original content such as eSports and Internet celebrities. The content producers can obtain GGC incentives for sharing their original photos, videos, files and so on in global game blockchain.

GGC shares are presented by token. GGC tokens are mainly used as virtual shares in the GGC system, and also serve as a basis for dividend allocation. Tokens can be paid to GGC shareholders as well as delegates who running system. Further, GGC tokens can be used to buy game coins. GGC provides a new model to improve the token allocation scheme, and also explores a way to reward game winners.

GGC digital assets are mainly obtained via mining masters and players' participation in games.

3.3 Operation mode of Mining Master

The Mining Master is a distributed computer network composed of game flow nodes distributed in different regions (such as home computers, Internet cafes, etc.). Each mining node provides certain game flow, CDN, storage resources to the outside, forming massive game resource pool, and also provides game acceleration services to the outside. The Mining Master conducts decentralized distributed computation through certain redundancy and security rules, and allows users a quick, safe and nearby access to the contents of their digital assets, achieving privacy and security of the digital asset.

The Mining Master can effectively reduce the construction cost of the game server resources, enhance the response speed of the game service and improve the users' experience. The Mining Master can also make full use of the edge nodes of the mining server to expand the layout and number of nodes, and improve the safety and stability of the game network.

The blockchain-based game flow mining node service provided by GGC is an industry leading internet game resource ecosystem, which can significantly reduce the waste of computing resources of personal computers, increase the utilization rate of spare computing resources by more than 50 %, substantially improve the utilization rate of the overall social resources, and meet the society's great trend of environmental protection and resource conservation.

GGC Mining Master is created on the basis of blockchain technology, which is characterized by "decentralized"and "distributed".The core value of the network belongs to the resource providers and the users of the mining.

3.4 GGC wallet

The framework of GGC wallet is divided into user layer, application layer, service layer, transaction layer and technology platform layer, providing decentralized account management, sharing reward, settlement interface, secure storage and transaction, etc. The main body is light-weight client.

3.4.1Basic functions

The GGC wallet provides functions such as wallet registration , account import and export, and key replacement. The user's wallet file and private key are stored by himself / herself. The user's rights are fully returned to him/her, and therefore the system is more private and secure. Once the user's private key is lost , the wallet will never be retrieved .

3.4.2 Asset function

The GGC wallet has functions of asset payment, asset transfer, and asset exchange. The GGC digital asset will be managed safely and conveniently through the wallet. Users are allowed to view the GGC transactions and bills to make all the GGC's data in full control. The functions at each level of GGC are shown in Figure 3-1 below.

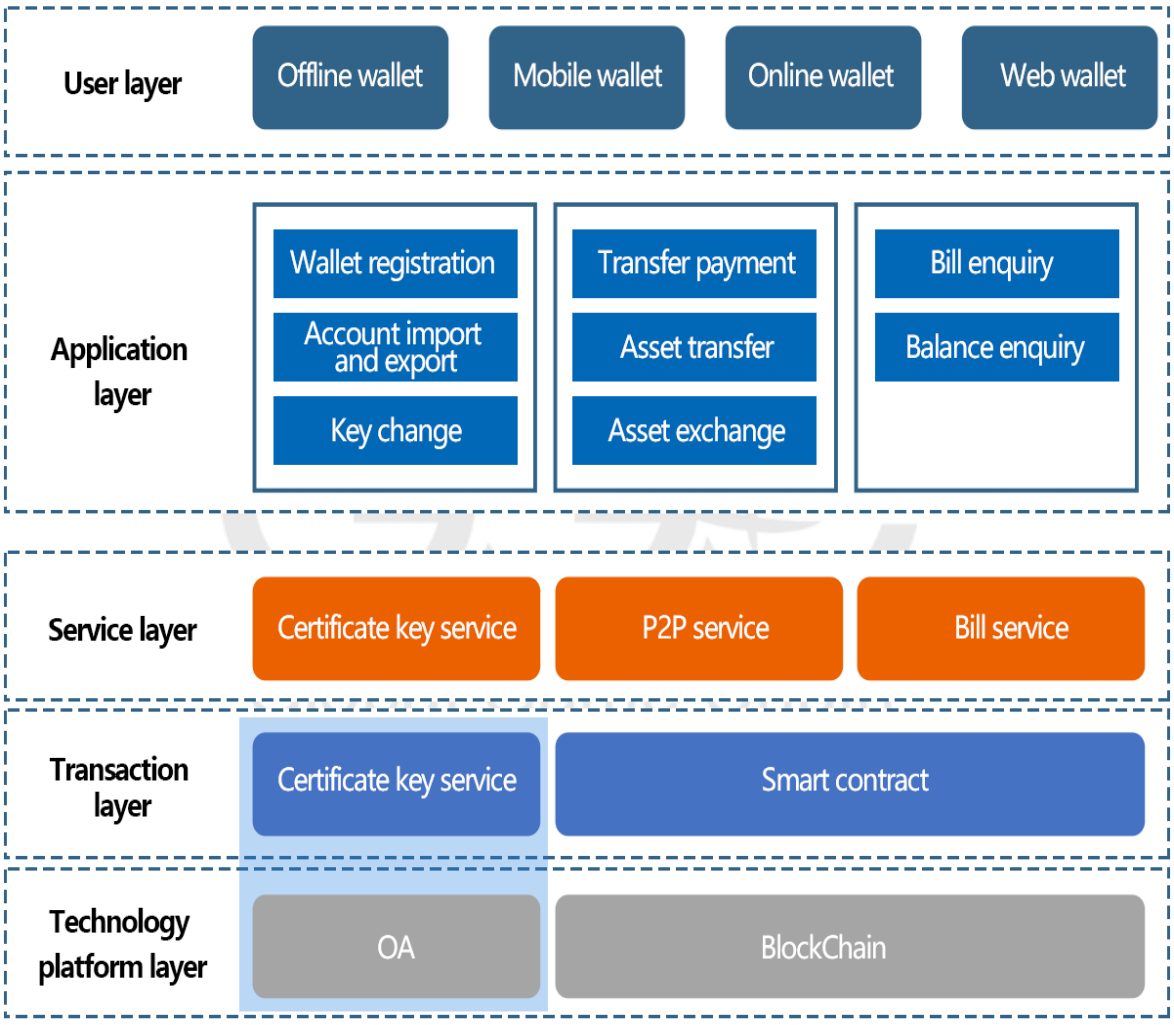

Figure 3-1 GGC Functional Architecture

Chapter 4 Basic Framework of GGC

4.1 Basic framework of GGC assets

Currently, game companies typically use game coins as the value exchange and circulation credentials within the system, specifically, such as various tokens, also including in-game equipment assets or game coins assets issued by game companies. However, these assets are only limited to a single game, and such game assets cannot be saved and circulated upon the termination of game products.

GGC tokens circulated within the system of GGC blockchain assets are special. Whether game coins are created or destroyed is determined by the system depends on the increase of their current market price and the withdrawal of the GGC margin, which is represented by exchanging GGC tokens for game coins or exchanging game coins for GGC tokens by players. In other words, the price is determined by the ratio of the current GGC margin to the total game coins supply. It means that the supply of game coins will vary depending on the user's needs in the game. As the game becomes more profitable and more popular, the more GGC tokens will be used as collateral to endorse the increased game coins. Meanwhile, game coins will not be created without basis, as each game coin is endorsed by GGC token. When game coins are destroyed, the corresponding GGC tokens will be returned to the system. The initial margin and supply are set by game developers, and the same is true for the price. Once the price is set, the game creators can no longer modify it. The price of the game coin is calculated based on the total amount of the GGC margin and the total amount of game coin. Meanwhile, based on the transparent game rules of the blockchain, the margin and game coins owned by the game can be allocated. In the system, there are a wide variety of game coins. Normally, each game has one corresponding kind of game coin. Otherwise, the system will need to achieve consensus on a new type of game coin.

In the system, users are allowed to exchange GGC tokens for game coins to play games. All the game coins spent will be returned to the player as rewards, but

a small portion will be deemed as the profits earned due to the system's advantage and will be returned to the game creators or the system delegates. The system's proceeds are managed by the delegates and such proceeds can be reserved as operating expenses or donated. A portion of such proceeds can also be destroyed, which is equivalent to allocating dividends to GGC token holders. In this system, the functions works with the honest delegates, and no centralized entity can obtain such system proceeds.

GGC tokens can not only be used for exchange for game coins, but also be treated as investment assets. Players can trade GGC tokens on open markets for purpose of playing games, but not for investment. Both actions will drive demand for GGC tokens, which in turn makes holders benefit from holding GGC tokens.

4.2 GGC economic model

GGC tokens provide a good economic model that protects users' game assets from being diluted. The platform shall find a way to ensure that the newly released tokens have corresponding GGC shares as collateral endorsement, or the rules and mechanisms in the game contracts shall be written in GGC in hard coded form. In GGC, games shall not be given the ability to randomly issue game coins only based on trust.

4.3 Internal transaction model between GGC and third-party game coins

Game coins issued by third-party game companies are different from quasi BitUSD assets and user-issued assets in the GGC market. There is a fixed price conversion model between GGC tokens and other game coins, and there is no limit order or matched trading, which is part of the GGC system consensus. In GGC, each type of game coin asset requires some GGC tokens to be created as collateral, and the total amount of such tokens will be recorded in the system. After creation, such

GGC tokens will be reserved in the system's balance as frozen collaterals.

A third party game developer can write the economic model to the game system based on their needs, but the total supply of game coins and the relevant rules regarding GGC collateral shall be transparent. Based on the ratio between GGC collateral and the amount of game coins supply, the exchange price formula between the game coins and the GGC system is determined as below:

1 game coin = (total amount of GGC collateral / total supply of game coins) * 1GGC token

This means that anyone can exchange, buy or sell (in other words, create / destroy) game coins from the system at the price of the current block. The GGC tokens used to buy game coins will be added to the collateral corresponding to the game coins, and the game coins exchanged will increase the total supply of game coins. In each new added block, the price will be recalculated based on the GGC collateral supply and the updated supply of game coins.

In this model, the more popular, the game will have more collaterals, and the price of those game coins which witness more disposal will rise and thus generates profits accordingly (relative to GGC or other assets). Game coin assets may also be diluted, but it is different from uncontrolled dilution. Contracts between games and GGC, total supply and dilution rules shall be written in hard coded form in smart contracts to ensure absolute openness and transparency.

In order to make game coins satisfy the constraints of the abovementioned transaction model, the contract of each game shall include:

1. The verifiable total supply of game coins; and
2. Integration with a third-party centralized game;

In GGC, conversion between game coins and its game system will be achieved at a ratio 1:1, or via cross-chain transaction or supporting system delegates. The simplest solution is to build the game in the GGC system, or use GGC blockchain for the fund record of the game.

Chapter 5 Blockchain Technology Framework of GGC

5.1 GGC consensus algorithm

The concept of cryptocurrency technology and blockchain came from Satoshi Nakamoto's "Bitcoin: A peer-to-peer Electronic Cash System," creating a distributed ledger without an intermediary. There are many algorithms, including POW, POS and DPOS, etc. The most important role of these mechanisms is to maintain the safe and stable operation of blockchain networks and maintain the consistency of distributed ledgers. GGC's consensus algorithm can make the delegates' role more important, as they are not only responsible for collecting transaction information and signing blocks at planned time points, but also in charge of providing fair proofs and using randomly assigned keys in games, accepting new games to enter the system based on applications.

5.2 Radom number generator (RNG) algorithm

RNG Overview

- **Random number provided by a trusted third party**

In the field of games, one of the most common practices is to use the existing lottery results directly as a source of random data, for example, using the winning numbers of New York Grand Lottery Quick Draw. However, it is not reliable enough, as the source can be modified, and people can not even prove that it is not selected in advance, which means someone in the internal of the channel may modify the result. If players has to rely on an individual who may cheat or fail, it is undoubtedly very dangerous.

- **Verifiable key used by a central trusted entity**

Ideally, the randomness of the random number generator should be verifiable and unpredictable beforehand. At the same time, it is deterministic and can be easily

reproduced to verify afterwards. The P2P network node or player should be able to verify that the random number generator is fair after the lottery.

One verifiable way is to publish a one-way hash value of a random selected key in advance. After the next block output, the key will be published, the participants can verify the hash value. This can be easily realized by delegating it to a central trusted entity, but this method has a defect: any entity that knows the key (such as the classic Satoshi Dice) can be cheated by submitting selected transactions. Therefore, the central entity has a relative advantage over the other players, and the key is not so random for them. They can use this to cheat. It has to rely on the point that an entity can keep long-term honest, which undoubtedly is a serious shortcoming.

- **Future events**

Another way is to use certain future events as the result of random numbers. The definition and publication of the randomness of future events can occur simultaneously. However, such events shall be selected carefully, as there may be some individuals who can have an impact on the outcome of future events. To solve this problem, it is advised to select future events that are difficult to be influenced and predicted or reduce the influence of individuals on these future events, such as increasing the number of influence factors.

There are some future events, such as radioactive sources, which are difficult or impossible to predict or calculate. Their definitions and occurrences can be at the same time, then immediately followed by publication (without any calculation), and therefore such events will not be interfered.

5.3 Distributed random number generator algorithm

Providing keys in a verifiable and distributed manner can produce a real random number generator (RNG) algorithm. DPOS uses this RNG algorithm, in which the delegates' sequence is shuffled randomly each round.

The entire process can be divided into the following steps, where no "board" is required. People who wish to contribute to the random number generation can

provide a HASH (S) of the key. After all HASH (S) are published, and after all the participants provide S, HASH (S [0... N]) will be calculated and selected as the random number.

Anyone who worries about the randomness of the result can participate in the process with two transfers. Everyone can easily choose to trust other people who are not involved in collusion. As long as only one person in the group is honest, the result will be random. If all the board members are involved, we can safely assume that at least one of them is honest.

It will be well-balanced to appoint 101 delegates as the board members of RNG, which will also allocate the proof-of-security costs to those who care about the matter most. It means that we will let the board members draw lots, as they have 99% online time to guarantee RNG, and are generally trustworthy. As long as one of them is honest, the result will be really random.

"Distributed" means that the random number of a block is generated via the key provided by the previous round of 101 delegates. As long as at least one of them is honest, the result is truly random. “Verifiable” means that they need to publish the hash of the key to the blockchain in the next round. The hash value derived from the key must be the same as the hash released previously. As these two must be identical, the delegates cannot cheat by disclosing the dishonest key.

In this way, everyone can simply confirm fairness and accept the risk that others may be involved in collusion. In games involving probabilities, you can make each game transaction have its own key, and once the ticket window is closed, everyone can display his key. The hash value of all keys can be a game result (such as a winning number), as no effective transactions will be excluded from the blockchain by the board in one or two rounds, we can safely assume that no one knows what the random numbers will eventually be. However, the random algorithm process involves too many game processes. Therefore, the time for collecting all the keys may be very long. It may not be guaranteed that all the keys will be collected before the end of the game.

Chapter 6 The Road to the Gaming Entertainment Ecosystem

6.1 Rules layer and core layer

GGC is designed to include two abstract layers: the rules layer and the core layer. This design can easily separate the game integration from the GGC asset model. At the rules layer, game developers can develop GGC built-in games, or integrate chip assets of third-party games with the help of smart oracles, in which the delegates of DPOS play an important role.

The core layer performs blockchain and general ledger functions. The design of the rules layer allows others to develop games and allows different game coins to achieve economic balance while maintaining security and integrity.

In GGC, game assets shall be strictly in compliance with the contracts with GGC. It may be not trustworthy and may actually be malicious. This is realized by fixing the prices of coins (chips) with different rules based on the GGC tokens pledged and the current supply of coins (chips). Meanwhile, users can exchange for game coins at current price by depositing or withdrawing GGC tokens. The transaction model of GGC is shown in Figure 6-1.

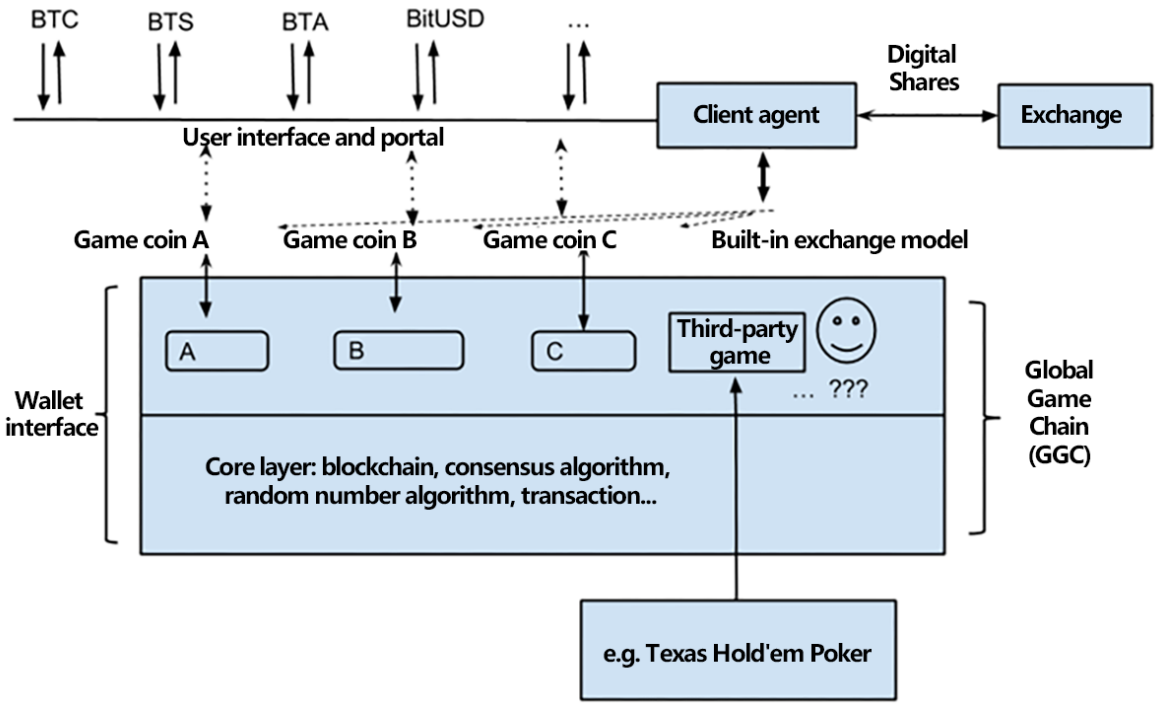

Figure 6-1 GGC Transaction Model

6.2 Including games as part of the system

- Random number generation: GGC needs to generate a random number that may be used directly in the game as a reliable nonce.
- Definition of game rules: There are many rules of games, but their models are similar. In fact, they have so many commons that they can be combined into rules defined by an abstract model / layer.
- We need a mapping method to connect lucky numbers and winning numbers into consecutive natural numbers so that we can simplify the problem into random generation of natural numbers. The lucky numbers are selected by users according to a certain rule model. For the combined input of lottery tickets, we can use CNS.
- A well-designed and well-balanced rule model is necessary to keep the DAC self-sustained. It should not affect the normal operation of the other games due to the defects of the incentive mechanism.
- GGC's market should not collapse due to abnormal fluctuations in a certain game coin economic system, such as significant dilution of a type of game coins and targeted easing thats will result in exposure of all rewards earned by game winners to the market. The default economic model can avoid such situations. In addition, there are also many other measures that can be offered to game developers to avoid fluctuations in game coins.

6.3 Integration with third-party games

The assets or credits in a traditional game cannot be claimed for sale. In some peripheral game transaction markets, such game assets or credits are only IOUs saved in the game manufacturers for game players. These game assets are not backed by collaterals, and there is no built-in supports to deposit or withdraw other assets neither. Therefore, such markets have no liquidity.

GGC introduces an integration model that allows games to benefit from GGC's game assets.

Game operators are not like exchanges, only supporting deposit and withdrawals of GGC game assets, but also providing game software and services. A game conversation is a semi-permanent interactive exchange of information or conversation between the player and the game. For example, players can purchase game assets to play games during the process, and can also withdraw assets after the game. For third-party games, the assets may exist as IOUs in the game experience. For gamers, the best way to avoid game developers or suppliers in bad faith is to claim and store game assets in GGC after the game. Game developers

can prove their game asset stock through techniques such as the Merkle Tree, but this cannot prevent game developers from creating nonexistent assets in their game assets. Cheating on assets will be exposed when players fail to withdraw assets from game developers. Therefore, game developers should preferably provide transparent APIs for smart contract monitoring and review.

A third-party game itself can be a DACs, and its deposit and withdrawal will be slightly different from those centralized games. The assets in a DAC game are no longer high-risk IOUs. Deposits and withdrawals between DACs and GGC can be achieved through the delegation mechanism in the system to allow cross-chain exchange of assets before the DAC. For example, if this mechanism is supported by the two DACs, namely A and B, then there will be a delegation address for both A and B. The coin sent here will disappear in one of the DACs and appear in the other DAC. Some systems, such as GGCX, have user-issued assets that can be used as tokens for certain digital entities. If such systems support the delegation mechanism, some BitAssets (such as GGC assets) can be destroyed within the exchange, and then the same number of tokens (G coins) can be created in the GGC system, and vice versa. This can be achieved through consensus communication between these two systems. For example, when the GGC system detects that a certain number of G coins assets have been sent to the delegation address, then the same number of G coins can be created in the GGC system. The delegation address is a special address within the system. No one knows the private key.

Chapter 7 Incentive System

7.1 Allocation scheme of GGC

GGC token is the digital currency of the GGC platform, referred to as GGC, with a total issuance of 12 billion pieces. Additional issuance or destruction requires the consent of Microchain Inc.

GGC token is used for payment at GGC platform. It is the currency circulated in GGC ecosystem. The rational allocation of GGC token is conducive to the sound development of GGC ecosystem. The specific allocation scheme is shown in Table 7-1 below:

Table 7-1 GGC Allocation Scheme

Holders	Percentage	Amount	Purpose
Founders team	15%	1.8 billion	GGC are allocated as rewards to those making contribution to the structure, manpower, resource and technology at the initial period of GGC's establishment and development, for purpose of motivating them. The lock-up period is 2 years, and in these 2 years GGC will be gradually unlocked and distributed to the founder team.
Technology team	15%	1.8 billion	They will be used to motivate the technology team. The lock-in period is 2 years. They will be gradually unlocked and distributed to the technology team in 2 years.
Early investers holding	35%	4.2 billion	They will be held by early investors and will be gradually unlocked in 5 years.

Mining and conmunity construction	30%	3.6 billion	They will be used for mining and community promotion, ecological construction, user rewards and token exchanges, as well as related activities and events, together with games promotion and use, and academic exchanges.
Reserve fund	5%	0.6 billion	Used for charity and as rewards for prominent contributors.

Note: The details shall be interpreted by Microchain Inc.

7.2 Calculation of the GGC outputs from resource nodes by Mining Master

The GGC issued through the smart contract to the mining nodes in the Mining Master blockchain, accounts for 10% of the total amount of GGC, reaching1.2 billion pieces in aggregate, which belongs to the community construction part. GGC will adjust the GGC output difficulty algorithm according to the number of mining nodes and optimize the construction cycle of GGC.

The completion of GGC output means that the construction phase of the global game asset chain is completely over and successfully stepping into the operation phase. At the operation stage, users requires tokens which are regarded as drivers, to complete the operational incentives for game asset chain nodes.

Chapter 8 Development History and Plan

The Development History and Planof GGC project

2017Q1
R&D team was established.
The GGC Project' s technical program and market direction selection demonstration were launched.

2017Q2
Determined mutual entertainment application of blockchain-based games.

2017Q3
The basic chain demo version was completed.
GGC digital assets verification was released.
Microchain Inc., the R&D Center in Silicon Valley in U.S., was established.

2017Q4
GGC wallet was completed.
GGC mining program was completed.

2018Q1
GGC basic chain official version was launched.
Mining Master was added to GGC.
GGC Wallet App Beta version was released.

2018Q2
GGC exchange service and ecosystem construction kicked off.
GGC Wallet was launched in major network.

2018Q3
Nodes in GGC surge, exceeding 50,000.
GGC users exceed 200,000.
GGC game assets chain is released.

2018Q4
GGC V2.0 is released to provide game asset transaction service.
GGC ecosystem is launched, building Internet games sharing platform.
GGC nodes exceed 200,000 in aggregate.
GGC users exceed 2,000,000.
GGC is listed in digital currency exchange.
GGC-based ecosystem services provided exceed 20.

2019Q1
GGC expands beyond online game industry.
Other third-party online entertainments can also be included in the GGC asset ecosystem.

2019Q2
GGC nodes exceed 500,000 in aggregate.
GGC users exceed 5,000,000 in aggregate.

2019Q3
GGC nodes exceed 1,000,000 in aggregate.
GGC users exceed 10,000,000 in aggregate.
GGC ecosystem and cross-system cooperation services exceed 500.

Chapter 9 Governance Structure of the Project

9.1 Introduction to Microchain Inc.

Microchain Inc. is registered in the Silicon Valley of the United States and is the responsible institution for this Project. It is responsible for the general affairs and special matters of the Project.

Microchain Inc. is committed to the Project's technology development, transparent governance, community services and ecosystem construction, aiming at promoting the long-term and stable development of the GGC ecosystem.

The Company's governance objectives are to ensure the sustainability of the GGC Project, management effectiveness, and the safety of the raised funds. The Company undertakes that all the funds raised will be used for the technology development, community development and ecosystem construction of the GGC Project.

Microchain Inc.consists of the Decision-making Committee, Product Center and Operation Center.

9.2 Governance sstructure of Microchain Inc.

The functions of each division of Microchain Inc. are as follows:

9.2.1. Decision-making Committee

The Committee is responsible for the management and decision of major matters, including the appointment or dismissal of the responsible persons of the Product Center and the Operation Center, together with making important decisions. The service term for the members of the Committee shall be three years, and the members can be reappointed. The committee has one chairperson who will be elected by vote by the committee members. The members of the first Committee will be elected by the founders team and early investors of the GGC Project.

9.2.2. Product Center

The Product Center is responsible for the Project's technology development, product testing, product launch, product review and so on. The members of the Product Center shall communicate with shareholders, community contributors, developers of open source projects in the GGC community in respect of technical progress and product development , together with holding technical conferences and product research meetings from time to time, and continuing to expand ecosystem of the the GGC Project.

9.2.3. Operation Center

The Operation Center is responsible for the promotion of technology, products, community, open source projects as well as day-to-day management of finance, legal, human resource and administration. The finance department is responsible for the use and review of project funds; the legal department is responsible for reviewing and drafting various types of documents, preventing various potential legal risks; the administration and human resource departments are mainly responsible for remuneration and other personnel-related matters and daily administration work.

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Disclaimer

As an emerging industry, the blockchain industry has very high investment risks and technological risks. As a technical and product description of the Project, the White Paper on GGC elaborates on the layout and prospects of game industry. People with low risk tolerance are not recommend to invest in the Project.

Release Statement

Where there is a conflict between different versions, the latest version shall prevail.

Interpretation Right

Microchain Inc. reserves the right for final interpretation of this white paper.