

DigiGold Token

**Decentralized Content Delivery and Cloud Storage on the
Blockchain**

Whitepaper V1.0

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1. Overview

Gold Chain is a global blockchain project that aims to decentralize the CDN and cloud file sharing ecosystems. It achieves this through the Newifi smart router, which acts as a node for the network.

Gold Chain currently consists of two products:

1. **Gold Chain Sharing CDN (Content Delivery Network)**, which is a decentralized CDN network formed by all Newifi smart router users who share their bandwidth and storage. Gold Sharing CDN was launched in November 2016 and already has over 100,000 users ¹.
2. **Gold Chain Sharing Cloud**, which will be launched in January 2019, is a new Turing-complete public chain with a decentralized storage network. Gold Chain Cloud provides a complete solution for deploying smart contracts and storing data. It also provides blockchain cloud storage for decentralized applications that require data storage; the Gold Chain Cloud provides a platform for content and data protection.

2. Gold Chain Products

2.1 Gold Chain Sharing CDN

Using Newifi smart routers deployed all over the world, Gold Sharing CDN is able to quickly deliver desired content nearby to reduce network congestion and improve access response speed.

Newifi smart router users share idle bandwidth and storage resources to support this process. In return, Gold Chain rewards users with DigiGold, a digital asset residing on the Ethereum blockchain.

This allows DigiGold to come with all the security afforded by the blockchain. Transfers can be done securely, speedily, and transparently without needing a trusted third-party; the smart contract handles all transactions.

Currently, Gold Sharing CDN is not a public blockchain; it uses Ethereum's consensus algorithm where only a few nodes with high computing power do the hash calculation to achieve a consensus. Routers that share bandwidth (i.e. miners) do not participate in this hash calculation and are not working as full-nodes for the first year.

However, this will change in the next twelve months. We are working with a blockchain 5.0 technology team to launch a new consensus algorithm, which will further democratize the mining process. The new algorithm is a weighted consensus pool (WCP) algorithm based on trading prosperity; mining is based on one's contribution to the economic system using an economic value added (EVA) issuance mechanism. The WCP algorithm has very light energy requirements, and all Newifi routers can work as a full-nodes on this new chain.

2.1.1 What is CDN?

A CDN (Content Delivery Network) is a geographically distributed network of NNS (Network Node Server) groups located in different areas. This network through service protocols delivers

content such as images, video, and scripts to the network edge node server closed to users. As a result, users see faster loading times. Aside from speed considerations, CDNs have other benefits like solving ISP interworking/network link problems, reducing the pressure on source servers, and fighting DDoS attacks.

2.1.2 The CDN Market

As online video quality increases, the demand of bandwidth grows, with contributions from e-commerce sites, streaming services, online gaming, and other sources. Data show that the global CDN market size in 2017 has reached \$6.4 billion USD, and by 2020 is expected to reach \$11.73 billion USD².

2.1.3 How It Works

Gold Sharing CDN is based on the open-source project Squid³. By using P2P connections, Gold Sharing CDN able to accelerate the process of delivering content to users, with the router acting as a “CDN node”.

The Gold Chain team has strong expertise in managing CDNs, intelligent scheduling, layers publishing, dynamic deployment, and dynamic DDoS defense to accelerate the service for video, intelligent hardware, livestreaming, and other high throughput usages.

Table 1 illustrates how users use blockchain smart contract to complete the payment. Terms in use are defined as below:

Wallet: A digital wallet which can hold DigiGold.

CDN demander: Buys idle bandwidth and storage resources shared by users to enhance user experiences on their services, such as YouTube, etc.

Provider: Also known as **miners**, these are participants whose router becomes a CDN cache node and provides distributed acceleration for the website. In return, providers obtain corresponding DigiGold based on the uploaded resources.

Third-party trade platform: A cryptocurrency OTC market or exchange, e.g. coinbase.

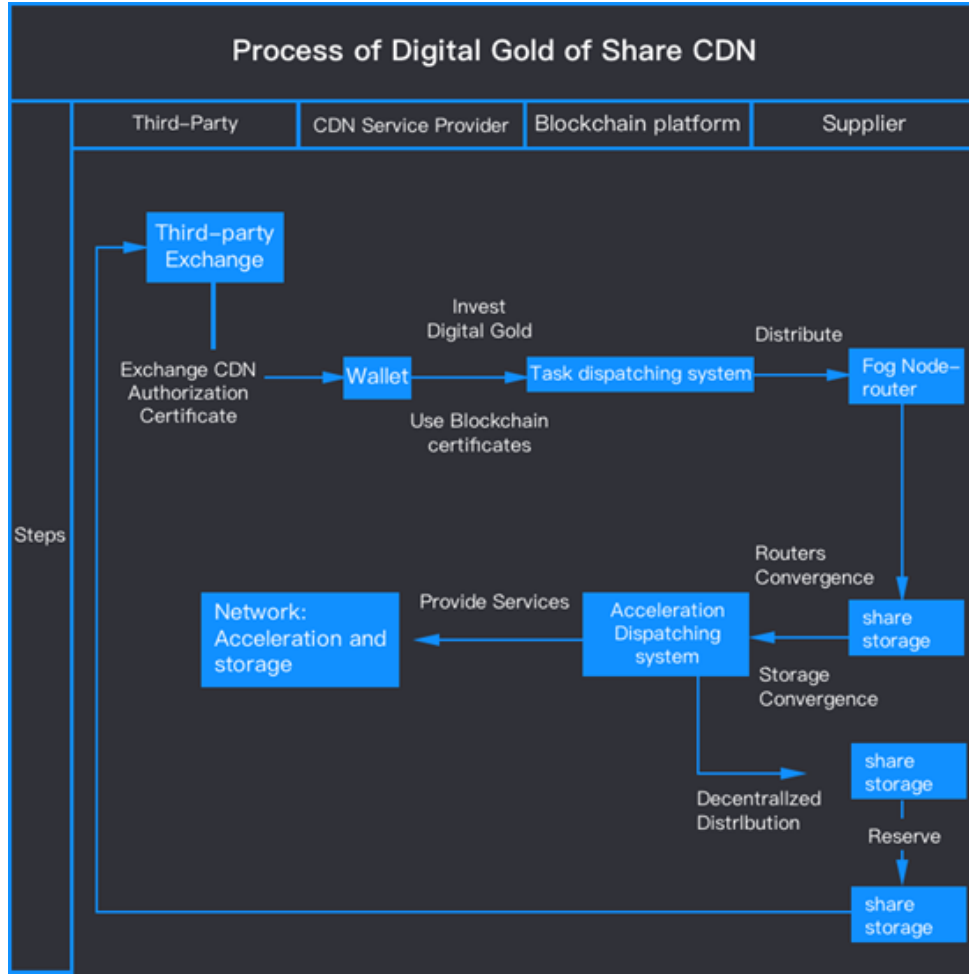


Table 1: Process of Ethereum Smart Contracts Generating DigiGold

Overview of the process:

A CDN demander uses the DigiGold which they have purchased from the third-party trade platform, such as an online exchange market, to secure a CDN service at Gold Chain’s Task Dispatching System.

For example, when Tom is watching Sarah’s live video on Live.me, the backend of this platform sends out a CDN request, so that Gold Chain’s Task Dispatching System can immediately allocate tasks to Tom’s nearest fog node-router and deliver accelerated content (i.e. Sarah’s live video) to Tom.

This process generates an extra block, and Gold Chain’s decentralized distribution technology allocates DigiGold to the smart router in question and deposits it into the Wallet.

2.2 Gold Chain Sharing Cloud

The second Gold Chain product is decentralized cloud computing on the blockchain, focused on data storage and management. As we mentioned in 2.1, we will adopt a new consensus algorithm which will allow routers to run as a full node. The new public chain, called Gold Sharing Cloud,

will have a decentralized storage network which provides a one-stop shop solution for deploying smart contracts and storing data.

Gold Sharing Cloud is being released in January 2019.

2.2.1 Cloud Storage and Cloud Computing

With the development of distributed computing, parallel computing, and grid computing, cloud computing is able to divide a huge and complicated calculation process program into numerous smaller subprograms, and then sends the results to a huge system composed of a large number of servers for computing and analyzing. Finally the processed results are sent back to the users.

With cloud computing technology, network service providers can process tens or even hundreds millions of messages in just a few seconds to reach the same level of computing power as supercomputers. The goal of a cloud computing system is to move independent and personal computing running on a PC or on a single server into a large number of cloud servers. The cloud system is then responsible for handling users' requests and delivering results. Data computing and processing is the core of Cloud system.

Cloud storage is a new concept that extends and evolves from the concept of cloud computing. It refers to a system that uses cluster applications, grid technologies, distributed file systems and other applications towards the goal of having numerous different types of storage devices work together to provide data storage and business functions.

When the core of cloud computing and processing is the storage and management of a large amount of data, a large amount of storing devices are needed in the cloud, which turns the cloud system into a cloud storage system. Therefore, a cloud storage system can be seen as the core of a cloud computing system, and it is a part of the overall cloud computing market.

The current cloud computing service providers such as Amazon S3 and Microsoft Azure install a large number of computing devices and storage devices in one or few physical locations. Gold Chain is aiming to decentralize this process through the Newifi smart routers, which are distributed all over the world.

2.2.2 Global Cloud Computing Market

Statistics show that global public cloud computing market in 2017 has reached around \$130 billion and is estimated to reach around \$160 billion in 2020.

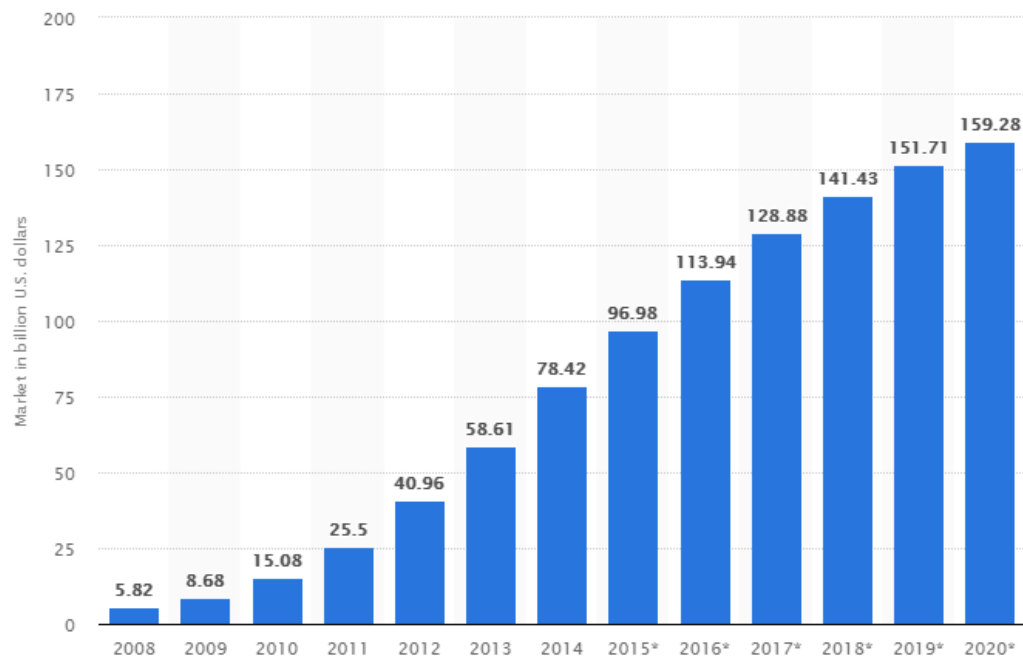


Table 2: Total size of global public cloud computing market from 2008 to 2020 (in billion U.S. dollars)⁴.

2.2.3 Diverse Applications and Huge Market

The underlying technology for Gold Sharing Cloud is fog computing, which enhances the concurrency capabilities of blockchain networks, provides a unified district fog storage network API, and enhances third-party ability to develop storage on Gold Chain blockchain.

Gold Sharing Cloud provides blockchain cloud storage for decentralized applications (DAPPs). Currently, most DAPPs are still using traditional cloud storage such as Google Cloud, Amazon S3 and Microsoft Azure. However, the blockchain provides a potentially more secure platform for storage.

Any DAPP that requires data storage can be built on the Gold Chain Cloud to receive content and data protection. On the Gold Chain Cloud blockchain, a limited amount of data is directly stored, and most of the data is divided into small pieces and encrypted, and then randomly distributed and stored on decentralized nodes. Without a private key, no one can read or rewrite the data. Even when nodes are offline, the data is still safe and recovered completely. Moreover, DAPP developers can also set precise security configuration based on the level of security required for the data.

DigiGold generated on Gold Chain connects the information among all DAPP users, opens up data interaction and builds a multi-dimensional interconnected network. Multi-dimensional data can better integrate global community consensus and exchange values. For example, Gold Chain Cloud storage users can share data to third parties. This is extremely significant for DAPPs in areas such as Internet of Things (IoT), AI and Big Data.

For example, if user A wants to run some algorithms on user B's data to get some result, then A does not need to own B's data itself. All that A needs to do is to send his algorithms and requirements to the market, and the market will run the algorithms based on B's data and then send the result back to A. By doing so, A will get the result without accessing B's data, while B can maintain the confidentiality and security of his data and receive rewards.

This application will ensure that everyone can benefit without having to worry about losing data value through unauthorized transactions. Therefore, DApp developers can not only better protect the data security and privacy of their users, but can also provide them with better services.

Gold Chain Cloud also allows for more complex applications. Gold Chain is negotiating strategic cooperation with State Grid Corporation of China to use blockchain technology solving problems such as electricity stolen and wrongly measured. With blockchain 5.0 technology powered by the innovative consensus pool algorithm with weighted dynamic index based on trading prosperity, Gold Chain is the perfect solution for the payment problems of electronic and other new energy in future.

More technical details about Gold Sharing Cloud will be illustrated in the Gold Chain Whitepaper 2.0.

3. Smart Hardware

3.1 Newifi Smart Router

Gold Chain has been partnered with a smart router brand, Newifi to act as a node for its distributed ledger technology.

In June 2014, Lenovo Group Ltd. invested in Chengdu D-Team Inc. (hereafter DT), a tech startup. DT owns the most advanced smart router technology among startups in China. It developed Newifi, enabling it to hold the top one domestic brand in China market.

DT and Gold Chain have collaboratively developed the Newifi 3. It is the only high-end smart router available for mining in the global market today, which means that ordinary families can use the router to share idle bandwidth and computational capability.

The Newifi 3 has the following hardware configurations:

- 7621A dual-core processor
- Wireless speed 1200Mbps
- CPU dual-core 880MHz
- 512MB RAM
- 32M Flash
- External symmetrical balance oscillator 4 antennas
- 1 Gigabit WAN port
- 4 Gigabit LAN ports
- 1 USB3.0 interface

Of course, the most notable feature of the Newifi 3 is that the router can become a private cloud (Network attached storage, NAS) by plugging in a 200G or above portable hard drive. The Gold Chain team has developed a mobile app that can manage the router configuration and also automatically store photos and videos taken by the phone on the portable hard drive.

The Newifi 3 also has other stellar features, such as photo album backup, unregistered device alerts, multi-screen interaction and security protection, making it the best NAS specifically for everyone from freelancers, photographer to typical users to videographer enthusiasts.



Image 3: The Newifi 3 smart router

3.2 Newifi Team

DT is the founder of the Newifi brand. Milestones of DT:

2009	Company founded. The initial product was a NAS that managed large-scale systems for banks and hospitals. Single order reached \$50,000 USD.
September 2011	Emma Russell invested DT Angel Fund \$160,000 USD. DT team transformed to develop a smart phone app managing NAS hardware. XIAOYUN, an app compatible with all major NAS hardware on the market, served around 6 million oversea NAS users.

January 2012	Chengdu Hi-Tech Investment Group Co., Ltd angel invested \$320,000 USD. The team transformed to research and develop smart routers.
August 2013	The first generation of smart router, Ruyi Cloud (RY-1), was the most mature smart router with its NAS feature on the market.
October 2013	Xunlei angel invested 2 million USD.
June 2014	Lenovo invested 20 million USD in Series A round funding.
June 2015	Lenovo and JD.COM invested 30 million USD in Series B round funding.
January 2016	Company listed on New OTC (Over the Counter) Market in China.
April 2016	Microsoft Jiangmen Investment Center invested 2.5 million USD.
November 2016	Launched smart router Newifi 3, capable of mining and allows users to receive cash bonus.
June 2017	Gold Chain project started.
January 5 th , 2018	Launched DigiGold project on the market.
January 31 st , 2018	Over 100,000 Newifi 3 models shipped.
May 31 st , 2018	300,000 units expected to ship.

3.3 Strategic Plan of Mining Smart Hardware

3.3.1 Release Plan

From 2018 to 2019, the hardware team plans to launch the Newifi 3 (entry level), Newifi 5 (high-end), and Newifi 7 (ultra-luxury), three series of smart router on the market. Gold Chain only focus on mining project by Newifi smart routers.

3.3.2 Competitive Advantages

Compared with other projects that make every Internet device a shared node, Gold Chain has several strong points in its favor:

1) Environmentally friendly: The Newifi 3 boasts zero additional power consumption, zero noise, zero pollution, and zero additional cost. Routers are an essential family utility, and each router acts as a shared node. Thus, the power consumption of the Newifi 3 is the same whether or not it is

mining, so there is no extra power consumption. More importantly, power consumption of Newifi 3 is a very low 1 kilowatt hour per month (1 kWh).

2) Low barrier of entry for acquisition of mining hardware: A Newifi router plus a portable hard drive (such as 2TB storage capacity) can immediately start mining, so the total cost is very low. By comparison, if a user invests in a 2TB-storage computer or a smart TV, the total hardware costs could total over to \$1000 USD.

3) High degree of decentralization: Gold Chain does only use Newifi routers as nodes, which has its excludability. However, when other branded routers are installed with a Newifi operation system, they are essentially Newifi routers. In addition, the global market for smart routers is still large and empty, so there is a good degree of space for uptake. Nowadays, most families use entry-level routers, but they are willing to upgrade them to high-end smart routers because:

1. They can enjoy a NAS, saving hundreds of dollars on a year of public clouds, to protect personal privacy.
2. Families receive a better internet experience.
3. They can participate in a global token economy, allowing them to soon earn back their router expenses and even an amount of extra income every year.

One potential criticism is that Gold Chain is not really a decentralized blockchain project because it only uses a router, not other internet access devices. However, DigiGold distribution in Gold Chain is through the smart contract based on Ethereum, rather than the currency of the central bank. Therefore, Gold Chain is indeed a real decentralized blockchain project.

In contrast, few ordinary users spend up to \$1000 USD for mining hardware. Instead, enterprise-class computer room or super computers are used for mining, so ordinary users only receive a very small number of tokens, which results in less economic incentives for most users. Thus, there are less participants on those projects than will be on Gold Chain.

4) Fair token allocation: Gold Chain only uses the router for mining, which means users cannot easily gain hardware advantages. The configuration of the Newifi 3, Newifi 4, and Newifi 5 are very similar, so token allocation is fair. Many projects that allow users to share idle resources on their computers are dwarfed enterprise-class computers or supercomputers in mining, crowding out normal users. More importantly, some companies provide malicious API for small unknown websites to steal the visitors' data, computational ability, and storage.

4. Why Gold Chain

4.1 Mature Technology and Products

The Gold Chain founding team has fully mastered core technologies such as distributed CDN, intelligent scheduling, dynamic deployment, DDoS dynamic defense and so on. The team has more than 10 years of experience in P2P cloud computing. The Newifi smart router has been on Chinese market more than a year with 100,000 units. Tencent is one of the biggest buyers of Gold Sharing CDN.

4.2 Great Business Model

Buyers of Gold Sharing CDN are big online streaming platforms, video platforms, etc. Currently, Tencent is one of these partners. Gold Chain's decentralized cloud computing service will be first sold to Baidu Cloud, Tencent Cloud and other big cloud computing service platforms, and then be sold to dApps. The Gold Chain team focus on research and development of cloud computing technology, as well as business development and branding of DigiGold in the global market.

4.3 Competitive Pricing

Compared with traditional CDN service providers and cloud computing service providers, the price of Gold Sharing CDN and Gold Chain Cloud Storage is extremely low. CDN service providers such as online streaming platform live.me and short video app musical.ly, can purchase DigiGold freely in an overseas market and exchange that for Gold Sharing CDN.

The lowest price for Amazon Cloudfront and AliCloud CDN is around \$2000/PB (1 PB = 1,000,000GB), while Gold Sharing CDN is tentatively priced at \$400/PB, which will significantly decrease the bandwidth cost of online streaming platform and video platform, and increase their competitiveness. The lowest price of Amazon S3 and AliCloud storage is around \$2,600/PB/month, while Gold Chain Cloud is tentatively priced at \$600/PB/month. Thus, Alibaba Cloud, Tencent Cloud, and Baidu Cloud can purchase Gold Chain Cloud directly and then sell it to meet demand.

4.4 High Security

Gold Chain is based on the blockchain's distributed ledger to ensure that the data is transparent, reliable and cannot be tampered.

4.5 Good Social Impact

First, traditional CDN service providers and cloud service providers have very high costs on investment, operations and maintenance. For example, Global CDN giant Akamai has 215,000 self-built nodes in 2000 regions. Amazon Cloud also requires huge investment in hardware, labor and electricity. On the other hand, Gold Chain does not need self-built nodes. Meanwhile, router users share their idle resources, which improve the utilization of social resources significantly. Bitcoin mining (and other proof-of-work systems) use a huge amount of computing power and electricity to generate hashes every year.

Gold Chain users share idle resources for CDN and cloud storage services, which is less resource-intensive than traditional mining.

5. The DigiGold (DGG) Token

5.1 Introduction

The Gold Chain Token's ticker is DGG (DigiGold). DGG is the digital proof generated on the blockchain.

The DGG token works as the exchange medium for the Gold Chain ecosystem in two ways:

One: it is used by many content providers to exchange for sharing CDN services. As such, we define it as a utility token.

Two: miners can use DGG to exchange for digital contents or other digital services such as membership fees, etc. Here DGG is a currency token as it is a medium of value exchange.

The DGG token is not an asset token, therefore it does not offer any dividends profits, or voting rights. While there will be a ways to get DGG to or from other digital cryptocurrencies and fiat currencies, the main purpose of DGG is to be the utility token within the Gold Chain ecosystem.

5.2 Distribution

DGG adopts PoS (Proof of Stake) as the consensus method.

The mining algorithm gives out incentives according to the capabilities of the device: upload internet data traffic, storage size, and time online are all factors.

In each digital PoS period, the digital certificate c_i obtained by node i is decided by the ratio of the current total circulation c multiplied by the capacity value P_i of the node to the sum of the capacity

values of all the nodes $\sum_{k=1}^n p_k$, that is:

$$c_i = c \times \frac{p_i}{\sum_{k=1}^n p_k}$$

The capability of node p is decided by p_h , p_s , p_d and p_b .

p_h is determined by capacity of the hardware on the node (including CPU, GPU, and test value of memory).

p_s is determined by the available storage space.

p_d is determined by the amount of the allocated data.

p_b is determined by the bandwidth.

$$P = w_h * p_h + w_s * p_s + w_b * p_b + w_d * p_d$$

Where w_h , w_s , w_b , and w_d are the corresponding weights, and $w_h + w_s + w_b + w_d = 1$. For example, $w_h=0.2$, $w_s=0.3$, $w_b=0.2$, $w_d=0.3$

For p_h , we set the configuration of the router, the Newifi 3, as the minimum configuration of hardware to mine PoS, and we assign it the benchmark value of 1.

For p_s , where S is available mining storage space with unit of GB and the base is 2.

$$ps = \log_2\left(\frac{S}{200} + 1\right)$$

Here is a table for all these parameters:

Item	Parameter	Notation
1	P	The total capability of a node
2	p_h	The configuration of the router. $p_h = 1$ as the minimum configuration
3	p_s	The available storage space
4	p_b	The amount of the shared bandwidth
5	p_d	The amount of the shared data
6	w_h	The weight of p_h
7	w_s	The weight of p_s
8	w_b	The weight of p_b
9	w_d	The weight of p_d $w_h + w_s + w_b + w_d = 1$

For example:

When S is 200GB.

$$ps = \log_2\left(\frac{200}{200} + 1\right) = 1$$

When S is 2TB.

$$ps = \log_2\left(\frac{2000}{200} + 1\right) = 3.49$$

When S is 3TB

$$ps = \log_2\left(\frac{3000}{200} + 1\right) = 4$$

Newifi hardware will mine most effectively with portable hard disks with storage size between 200GB to 6TB.

We calculate the internet data traffic that users contribute every five minutes and we get a total of 288 values a day. We record it as a vector d of length 288. In the region/time zone in which the node is located, the value of internet data traffic of each time segment corresponding to 5 minutes is not the same, and is denoted as vector v .

Through this calculation, $p_d = d \cdot v$

For example, if one user shares her internet 8 hours a day, $d = 288/3 = 96$. The more hours you share in one day, the more DGG you can get.

5.3 DGG Output

Through the above calculations, DGG provides a total of 2.1 billion in output, providing 50% of the total balance of output each year:

$$C = C/2 + C/2^2 + C/2^3 + C/2^4 + \dots + C/2^T$$

C = 2.1 billion

T = operating cycle (years)

For example:

Daily production of the first year = 1.05 billion/365 \approx 2,876,671

Annual production of the first year (C) = 2.1 billion/2 = 1.05 billion

Daily production of the fourth year = 131.25 million/365 \approx 35,958

Annual production of the fourth year (C) = 2.1 billion /2⁴ = 131.25 million

In the Gold Chain blockchain, a block is generated every 10 seconds, generating a total of 8,640 blocks every day. In the beginning, each block receives 330 DGG and a total of 2,877,120 DGG is rewarded through one day.

5.4 Token Allocation

There will be no initial coin offering (ICO) for DGG, nor will there be any pre-mining. The proportion of DGG mined by customers will be up to 87.50%.

The total amount of DGG will be 2.4 billion, of which about 2.1 billion are mined by customers and 300 million are reserved for operations and the development teams.

8.33% of the whole DGG will be given to the development team under a four years vesting schedule with one year cliff, which fully guarantees the interests of mining users and creates a good market environment.

The distribution of DGG is shown as below:

Number	Quantity	Portion	Distribution
1	2.1 billion	About 87.50%	Rewards to miners.
2	100 million	About 4.16%	Operating expenses; Mining maintenance, taxation, and marketing.
3	200 million	About 8.33%	For development team; Under a four years vesting schedule with one year cliff.

5.5 DGG Value and Liquidity

Gold Chain CDN accelerated services can cover every aspect of internet applications as in the following:

- Acceleration for on-demand streaming, livestreaming such as online live broadcasts of movies, television, entertainment, videos, games, etc.
- Speedy file distribution: app application distribution, software upgrades, cloud storage, cloud download, game acceleration, etc.
- Webpage acceleration: e-commerce, information, news portal, personal and enterprise websites.

The competitive price of Gold Chain CDN ensures a high demand. This preserves the liquidity of DGG. In fact, we already have Tencent as our CDN client. This increase the liquidity of DGG.

Note the DGG token does not present the rental fee of the bandwidth. The value of DGG in a mature DGG market is mapping the value of the right to use DGG currency token in the global community, like how the value of bitcoin maps to the right to participate in the peer-to-peer currency system.

6. Legal Information

6.1 Legal Structure of Gold Chain

Gold Chain has an established foundation, the “Gold Mine Foundation,” a non-profit foundation. As an independent legal entity and non-profit organization, The Gold Chain Foundation will solely be responsible for the development and operation of Gold Sharing CDN and Gold Sharing Computing.

The Gold Chain Foundation will only do private financing with large video on-demand platforms for the Gold Chain CDN and Cloud Computing. It may also pursue VC / PE funds, and family funds. Funds raised from above parties are managed and operated by the Gold Mining Foundation; they will mainly be used for technology development, marketing, legal compliance, financial auditing, and business cooperation.

Large video-on-demand platforms, big live platforms and later dApp developers that have huge demand for CDN and cloud computing will also buy DigiGold from the Gold Mining Foundation. DGG is the payment method and unit of measure for users using the Gold Sharing CDN or Gold Sharing Computing. Sales of DGG are irrevocable and non-refundable,

Gold Mining Foundation will not redeem or repurchase DGG. As a virtual product of practical significance, DGG is not a speculative investment vehicle. Gold Minerals Foundation does not provide any guarantee as to the internal value or any returns of DGG.

6.2 Rules

In order to prevent a few users from exploiting the software and hardware loopholes or cheating to destroy the environment of Gold Chain, or infringing on the legitimate interests of other users, The Gold Chain Foundation hereby formulate the “the Gold Chain rules and penalties for non-compliance and cheating.” All future violations and cheating behavior will be punished according to these rules.

- **Noncompliance and Cheating Behaviors**

Any user cannot exploit loopholes of software or hardware, or any other related vulnerabilities to intrude, intercept, destroy, and modify programs, nor use software / hardware with fake or tamper-related function information to report data such as uplink bandwidth, free storage space, online time, and hardware capability, etc.

- **Punishment for Noncompliance and Cheating Behaviors**

6.2.1 Any user that has been found to have cheating data records or other violations, including but not limited to: use of expanded disks, use of LAN share methods such as samba, nfs, etc., to hook up network storage devices, will be subject to closure of the violating account permanently and forbidden for non-compliance equipment from mining on the Gold Chain.

6.2.2 If users are found only intrude to modify software, but did not falsely report uplink bandwidth, free storage space, online duration, hardware capabilities and other data", The Gold Chain Foundation will permanently stop non-compliance equipment from mining on the Gold Chain.

6.2.3 If the Gold Chain Foundation find that the users have attempted to invade and modify the program but did not actually accomplish the procedures of intruding, intercepting, destroying and modifying the program, The Gold Chain Foundation will stop the violation accounts and non-compliance equipment for one day or for several days.

6.2.4 Chengdu DT Co., Ltd. (as Diting below) will not provide any warranty for the hardware and software for blocked accounts and equipment on the secondary market.

6.2.5 For all acts against fair competition, The Gold Chain Foundation has the right to regard them as cheating or violations and has the right to make appropriate penalties.

Declaration:

Once the above violations have been verified and confirmed, they will be handled with according to the above statement. For any serious circumstance that maliciously damages the order in the Gold Chain, The Gold Chain Foundation will take all necessary actions including legal action to resolutely safeguard the legitimate rights of the users involved in the Gold Chain.

6.3 Disclaimer and Risk Statement

6.3.1 Disclaimer

The Gold Chain Foundation is fully compliant with any relevant laws and regulations in its jurisdiction. Significant changes in relevant laws and regulations constitute force majeure and are not responsible for the results of major changes in relevant laws and regulations. The Gold Chain Foundation strongly recommends that each participant carefully read the disclaimer here and fully understand all potential risks.

This whitepaper is used solely to convey information and introduce mining projects. It does not constitute any advice or recommendation regarding the purchase or sale of DGG. Any similar proposals or pricing should be based on credible terms and applicable laws and regulations.

This whitepaper does not constitute nor should be construed as any form of purchase or sale, and does not involve the creation or execution of any contract or agreement of any kind in connection with the purchase and sale of an offer.

The examples in this whitepaper on income and profits are used solely to show or represent the industrial average and shall in no way be considered or construed as a guarantee of the profitability of the participating parties.

In addition to the items set forth in this white paper, the Gold Chain Foundation does not provide representation and warranties regarding Newifi routers or digital DGG, particularly its merchantability and intended function. Anyone involved with DGG selling or purchasing DGGs is based on their personal knowledge of DGGs and the information in this whitepaper.

Users explicitly agree to use services in the Gold Chain and to take the risks arising from the services. The Gold Chain Foundation expressly disclaims any warranty, including but not limited to any implied guarantee or liabilities to merchantability, adaptiveness, reliability, accuracy, completeness, virus-free or error-free related with the hardware and software.

The Gold Chain Foundation does not guarantee that services will certainly be able to meet the needs of users, nor does it guarantee that services will not be interrupted, nor does it guarantee the timeliness, safety, or precision. Users understand and accept any information that is downloaded or made available through the services in the Gold Chain Foundation as a User Affidavit.

Users take the responsibility for damage to the system, loss of data, and any other risks. For any direct, indirect, incidental, special and subsequent damages and risks arising from the use or inability to use the services, The Gold Chain Foundation and its cooperative partners shall not be liable for any responsibility.

Supplementary Rules

Gold Chain Foundation has the right to modify and upgrade Gold Chain Whitepaper v1.0 and announce all the update on our website. The Gold Chain Foundation will not send a notice to users via email or mail. If you do not agree to the modification or explanation of the content, you can stop using services in The Gold Chain. The Gold Chain Foundation will not be liable for any refund, or any compensation. If users continue to use the service in the Gold Chain, it shall be deemed that users have accepted the modification or explanation of the content from The Gold Chain Foundation.

- In the situation that any part of any term in the Gold Chain Whitepaper v1.0 becomes invalid, it will not affect the validity of the other provisions.
- All the rights to interpret and modify Gold Chain Whitepaper v1.0 belong to the Gold Chain Foundation.

6.3.2 Risk Statement

As a new technology, there are a variety of risks associated with DGG. Potential participants need to be careful in assessing risks and their own risk appetite.

The market environment for token sales relies heavily on the overall market conditions. If the overall market situation is sluggish or there are other uncontrollable factors, then the cost of long-term undervaluation of the outlook is underestimated.

In addition, tokens traded on the open market often experience price volatility, reflecting changes in supply and demand balances that may be market forces (including speculation), changes in regulatory policies, technological innovations, exchange availability and other objective factors. Regardless of whether there is a secondary market for DGG, the Gold Chain Foundation assumes no responsibility for trading DGG in such markets. Therefore, the risks involved with DGG should be borne by the participants themselves.

7. Milestones

Milestones of Gold Chain:

June 2016	<ol style="list-style-type: none">1. Established preparation team of Newifi Gem Mine project for research and launch.2. Established research team of Newifi Gem Mine project, focusing on fog computing architecture design, research and development.
August 2016	<ol style="list-style-type: none">1. The Newifi Gem Mine project was open to the public.2. Organized offline communication meetings across the country.
September 2016	<ol style="list-style-type: none">1. Research and Development of Gem Mine project completed, testing.2. Cooperated with other parts, testing.3. White paper of Gem Mine project released.4. APP firmware of Gem Mine project released.5. Cash withdrawal function of Gem Mine project in IOS released.
November 2016	Cash withdrawal function of Gem Mine project in Android released.
February 2017	Promoted sharing idle bandwidth.
March 2017	Combined with relative modules of blockchain, launched the first stage of research and development.
April 2017	<ol style="list-style-type: none">1. Established the preparation team of sharing computing implementation project.2. Launched sharing computing implementation project based on the blockchain.3. Researched on technology and market about new project upgrade in the blockchain.
September 2017	<ol style="list-style-type: none">1. Research and development of sharing computing implementation project completed.2. Cooperated with software, testing.
November 2017	Wrote, revised, and finalized project terms of the agreement.
December 2017	<ol style="list-style-type: none">1. December 12th, launched the first sharing economy implementation project based on the blockchain, named 'Gold Chain'.2. December 15th, Gold Chain whitepaper Chinese version released.3. December 15th, declared the matched smart routers.4. December 15th, declared the key information of Gold Chain.5. December 21st, declared the rules on transferring from Gem Mine to Gold Chain for users.6. Product firmware of Gold Chain released.

January 2018

1. January 2nd, launched DigiGold reward program for senior miners.
2. January 5th, launched Gold Chain project and DigiGold wallet APP on both IOS and Android system.
3. January 5th, DigiGold was traded on BEENL exchange (<https://www.beenl.com>), and the total trading volumes on the first day were about 3 million.
4. January 13th, entered the U.S. market, attending The 2nd Silicon Valley Beijing International IoT Summit & Investment and Financing Contest.
5. January 15th, started negotiating with some large cryptocurrency exchanges for DigiGold.
6. January 16th, declare DigiGold wallet will not support transfer function, but will cooperate with oversea live and video platforms to support reward function.
7. January 19th, Gold Chain whitepaper English version released.
8. January 19th, launched Newifi 3 smart router sales project in the U.S. market.

8. Team

8.1 Operation Team

Emma Russell, Chief Strategy Officer

Blockchain and cryptocurrency business model enthusiast. Angel Investor to DT. Former Venture Capital investor in Hina Group. Emma lives in South California and enjoys the sun and beach there.

Sophia Young, Chief Public Relations

Sophia lives in Silicon Valley with her husband. She loves Sichuan food. 10 years of branding in China Mobile.

Ryan Wong, Chief Business Development

Ryan lives in San Diego, California with his parents, wife, and two adorable daughters. Ryan has an MBA degree from UC San Diego's Rady School of Management. Years of business development experience in different countries for Huawei Technologies.

Lawrancer Combs, Business Development Specialist

Rich experience in customer service, sales, performing live events, guest speakers. Acrobatic performer with Riptide and signed as an instructor with Airborne Gymnastics.

8.2 Technology Team

There are more than 70 full-time engineers for Newifi router and Gold Chain Foundation.

Loren Liu, Product Lead

Acclaimed white hat with 10+ years of architect experience, expert in P2P, cloud storage, cloud computing, VOIP, etc.

Alan Zhuang, Tech Lead

Alan Zhuang is the founder and CEO of Pear Limited. DT invested Pear Limited in November 2017. Pear Limited Engineers provides technical development for DGG project in Sharing Fog Computing, Sharing CDNs, and Blockchain Related Technologies.

Alan played a key role in developing smart contract and architecture, fog computing, sharing CDN for Gold Chain. Alan break through the bottleneck to share CDN with other enterprises on Gold Chain in September, 2017. Past: developed a high performance media server which is serving Tencent Video and QQ Music.

Jonathan He, Tech Advisor

Genius in algorithm and Blockchain geek. Acclaimed white hat with 20+ years of extensive experience in enterprise level WMS、TMS、OMS application development. Creator of multiple enterprises software systems that generated more than \$10m loyalty fee. Creator of weighted

consensus pool algorithm based on trading prosperity. Jonathan created an innovative new blockchain consensus pool will make it possible for gold chain a fully decentralized public chain and all miners can work as a full node without any electronic or computing power waste.

Yongming Li, Chief Engineer

Yongming plays a key role in the router OS. He has 10 years of embedded and system software development experience. He is the author of MySmartHome, the largest open source platform for open source C-language open source projects in China and the most influential smart home project among open source gitees Recommended artificial intelligence engineer essential project.

Owen Shen, Copywriter

Winner of the Proffer Hackathon \$4000 Microsoft Prize. Working on Betoken, a decentralized hedge fund for the Ethereum blockchain. Writes on mindlevelup and Medium. Internship experience at Google.

Qiyang Fu, Senior Engineer

Author of real-time operating system for robotics and IoT, Author of open source project. Cloud storage expert. He worked as consultant and tester for the DAO. He also builds trading bots for cryptocurrencies using AI.

Bilei Wu, Senior Engineer

He built trading bots for cryptocurrencies using AI. Bilei played a key role in developing the wallet too.

Jing Wang, Senior Engineer

Senior architect in major Internet companies and expert in distributed system architecture design and high concurrent network server development.

Youchuan Huang. Senior Engineer

Blockchain geek, senior engineer of ETH DAPP; specialized in C, C++, Go, Python and Ruby.

Gawain Wang, Analyst

Expert in business process intelligence.

Rongya Sun, Senior Engineer

Expert in mobile development, proficient in iOS and Android system.

8.3 Investors Team

DGG Investors



8.4 Business Partners

Gold Chain Sharing CDN has already been adopted by the massively popular mobile game Kings of Glory (Arena of Valor in Western countries), by Tencent Games. Kings of Glory is the world's top-grossing mobile game and most popular free-to-download application.



Acknowledgements

We would like to thank all of our partners who participated in this Whitepaper, assisting and supporting us for the development of the Gold Chain for the past months.

We also want to thank our partners, blockchain peers and industry experts who will participate in the development of the Gold Chain in the future, and also sincerely invite more technical and business partners to participate in the project to develop the Gold Chain project with us.

The Gold Chain Foundation

January 2018

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