DEEPLINK PROTOCOL WHITEPAPER

AI + DePIN + GPU + 3A GAME

Decentralized AI cloud 3A Gaming Protocol

Building ultra-low latency rendering infrastructure for Cloud Gaming

Contents

1 INTRODUCTION

1.1 Background

With the development of internet technology, cloud gaming has gradually become an importa nt trend in the gaming industry. In cloud gaming, players can smoothly play games through cloud servers without the need to purchase expensive gaming devices. Additionally, cloud ga ming enables game developers to conveniently release games, thus providing vast market pro spects for cloud gaming.

The market size of cloud gaming is continuously expanding. In 2019, the global cloud gaming market reached 1.05 billion US dollars, and it is projected to reach 5.65 billion US dollars by 2023, with a compound annual growth rate of over 50%. The development trends of cloud gaming mainly include low latency, high image quality, and multi-device compatibility. At the same time, cloud gaming also faces technical challenges such as network bandwidth, latency, and security. In the future, with the development of cloud computing, 5G, and other technolo gies, cloud gaming holds significant potential and will become an important trend in the gam ing industry, exerting a significant impact on the gaming industry, cloud computing industry, network communication industry, and others.

In addition to the challenges posed by network, technology, copyrights, and security, the glob al cloud gaming market also faces other challenges. One of the biggest challenges is the limi tation of hardware devices. Currently, cloud gaming relies on high-performance servers and ne twork devices to ensure smooth game operation. However, the costs and maintenance expens es of these devices are extremely high, requiring cloud gaming operators to invest a substanti al amount of funds in establishing the infrastructure for these devices.

Furthermore, another challenge faced by the cloud gaming market is geographical and politic al factors. As cloud gaming relies on cloud servers for game streaming, cloud gaming operat ors need to establish server clusters globally to provide better services. However, policies and regulations vary among different countries and regions, which may have a negative impact o n the operation of cloud gaming. Additionally, there are variations in network bandwidth and stability across different regions, which also affect the operation of cloud gaming.

In summary, the development of the global cloud gaming market faces many challenges. How ever, with the continuous progress of technology and intensifying market competition, the pro spects for the cloud gaming market remain vast.

1.2 Objective and Vision

DeepLink is a remote-control software and cloud gaming platform that focuses on gaming. It aims to provide users with high-quality, low-latency cloud gaming experiences through blockc hain technology. DeepLink is also committed to addressing the challenges and issues faced by the cloud gaming industry. Its objectives and vision include:

- ✓ Enable everyone to easily play games without the need to purchase expensive gami ng devices..
- ✓ Provide high-quality, low-latency cloud gaming experiences that offer users the same gaming experience as traditional gaming.
- ✓ Collaborate with game developers to offer users a more diverse range of game cont
- ✓ Address the technical challenges and security issues faced by the cloud gaming indu stry through technological innovation and continuous improvement.
- ✓ Build a globally leading cloud gaming platform that becomes an important trendsett er and driving force in the gaming industry.

2 Global Cloud Gaming Industry Analysis

2.1 Overview of the Cloud Gaming Industry

Cloud gaming, as an emerging form of gaming, has gained increasing attention and investment in recent years. It is based on technologies such as cloud computing and streaming media transmission, delivering game content to players' end devices in real-time over the internet. Compared to traditional gaming, cloud gaming offers advantages such as a good user experience, low device requirements, and lower developer costs, gradually gaining favor among a growing number of players.

Currently, the global cloud gaming market is rapidly expanding. According to data from market research firm IDC, the global cloud gaming market reached 1.05 billion US dollars in 2019 and is projected to reach 5.65 billion US dollars by 2023, with a compound annual growth rate of over 50%. Considering the rapid development of the cloud gaming market, it is expected that the global cloud gaming market size will surpass 10 billion US dollars by 2025, with a compound annual growth rate continuing to exceed 50%.

The main drivers of this market growth are the development of cloud computing and 5G technology. Cloud computing technology provides powerful computing and storage capabilities, enabling cloud gaming to run in the cloud, thereby reducing device requirements and allowing more players to experience high-quality games. 5G technology, on the other hand, provides faster network connections and lower latency, further enhancing the cloud gaming experience.

In addition to these factors, cloud gaming offers other advantages. For example, cloud gaming allows gaming on different end devices, enabling players to enjoy the same game on various devices such as mobile phones, tablets, and televisions, significantly improving game accessibility and convenience. Furthermore, cloud gaming can provide a broader range of game content, allowing players to access more games in the cloud without the need to purchase expensive gaming devices. As the cloud gaming market continues to expand, it will have a significant impact on the gaming industry, cloud computing industry, network communication industry, and others. For game developers, cloud gaming offers lower development costs and a richer game content ecosystem, enabling them to enter the market quickly. For the cloud computing and network communication industries, the demand for cloud gaming will drive their development and innovation.

2.2 Market Size and Growth Trend

According to data from market research firm IDC, the global cloud gaming market reached 1.05 billion US dollars in 2019 and is projected to reach 5.65 billion US dollars by 2023, with a compound annual growth rate of over 50%. It is predicted that by 2025, the global cloud gaming market size will surpass 10 billion US dollars, with a compound annual growth rate continuing to exceed 50%. Further predictions indicate that by 2026 and 2027, the global cloud gaming market size will reach over 13 billion US dollars and 20 billion US dollars, respectively, showing strong growth trend.

With the continuous development of cloud computing technology and 5G networks, the cloud gaming market will continue to expand. From a technological perspective, cloud computing technology and 5G networks will greatly enhance the visual quality and smoothness of cloud gaming, further improving the user experience. From a market perspective, the popularity of cloud gaming will attract more players and game developers, further promoting market growth. With the increasing global internet penetration rate, the cloud gaming market will also expand further.

In summary, the global cloud gaming market has vast development prospects, and its market size will continue to expand, becoming an important trendsetter and driving force in the gaming industry. With the continuous progress of technology and market development, the cloud gaming market will also face more opportunities and challenges, requiring ongoing attention and research.

2.3 Key Players and Competitive Landscape

Currently, major participants in the global cloud gaming market include tech giants such as Amazon, Google, Microsoft, Nvidia, as well as startups like Ubitus, GameFly, PlayGiga, and others. In addition to Amazon, Google, Microsoft, Nvidia, and other tech giants, many other companies are also exploring opportunities in the cloud gaming market. For example, some game companies are considering moving their games to the cloud to enhance gameplay and smoothness. Telecom companies are establishing cloud gaming service platforms to attract more users, and startups are leveraging new technologies and innovative business models to break barriers in the traditional gaming market.

In this highly competitive market, tech giants have strong technological and financial capabilities, enabling them to invest significant funds and resources to improve the quality and performance of their cloud gaming services. However, startups also have their unique advantages. Due to their smaller size, these companies are more flexible and agile, allowing them to respond quickly to market changes and break barriers in the traditional gaming market through innovative business models. Furthermore, as the cloud gaming market is still in a rapid development stage, startups can find their niche in this market and quickly grow and expand. Overall, the competition in the global cloud gaming market will become increasingly intense. Both tech giants and startups will engage in fierce competition in this market, and users will benefit from higher-quality cloud gaming services..

2.4 Technical Trends and Challenges

The development trends of cloud gaming technology mainly include low latency, high image quality, and multi-device compatibility. However, cloud gaming also faces technological challenges such as network bandwidth, latency, and security. Compared to traditional gaming, cloud gaming offers advantages such as a good user experience, low device requirements, and lower developer costs. Cloud gaming is based on cloud computing technology, which enables real-time transmission of game content to players' end devices via the internet.

Cloud gaming utilizes streaming media transmission technology, allowing for low-latency and high-quality gaming experiences.

Compared to traditional gaming, cloud gaming has lower device requirements, allowing users to play games on ordinary end devices without the need to purchase expensive gaming hardware. Cloud gaming enables game developers to conveniently release games, thereby reducing development costs.

Cloud gaming allows players to play games anywhere, anytime, providing convenience and practicality.

Cloud gaming offers multi-device compatibility, allowing players to enjoy games on different devices without worrying about compatibility issues.

Cloud gaming eliminates the need for game downloads, enabling gameplay in the cloud and avoiding issues related to insufficient storage space on user devices.

Cloud gaming provides storage and backup in the cloud, allowing users to play games anyti

me, anywhere, without concerns about data loss.

Cloud gaming enables real-time interaction and social features, allowing players to communica te and interact with other players, enhancing the user experience.

Latency

As cloud gaming requires game content to be transmitted from the cloud to players' end devices, there is a certain delay before players can see the game visuals and hear the game audio. This latency can affect the gaming experience, especially for games that require fast reactions, such as shooting games and racing games. To address this challenge, cloud gaming needs technological improvements to reduce latency, enhance gameplay smoothness, and improve responsiveness.

Network Bandwidth

Cloud gaming requires substantial network bandwidth, which can result in high costs. In some developing countries or regions, there may be insufficient network bandwidth, limiting the development of cloud gaming. To address this challenge, cloud gaming needs to collaborate with internet service providers to enhance network bandwidth and transmission speed while reducing costs.

Network Security

Cloud gaming involves the transmission of large amounts of game data and user information, which can lead to data leaks and privacy concerns. To ensure the security and privacy of player data, cloud gaming needs to strengthen data encryption and privacy protection measures to prevent unauthorized access and data breaches.

Device Compatibility

Cloud gaming needs to support gaming on various end devices, which requires addressing device compatibility issues. Different end devices may have different operating systems and hardware configurations, which can result in games not running properly on certain devices. To address this challenge, cloud gaming needs technological improvements to enhance device compatibility and game stability.

Image Quality

Cloud gaming transmits game visuals to players' end devices in real-time, which can impact the visual quality of games. To improve image quality, cloud gaming requires technological advancements, such as adopting advanced video encoding techniques and network transmission technologies.

Audio Quality

Cloud gaming transmits game audio to players' end devices in real-time, which can affect the audio quality of games. To enhance game audio quality, cloud gaming needs technological improvements, including the use of advanced audio encoding techniques and network transmission technologies. Cloud gaming transmits game audio to players' end devices in real-time, which can affect the audio quality of games. To enhance game audio quality, cloud gaming needs technological improvements, including the use of advanced audio encoding techniques and network transmission technologies.

In summary, the technological challenges of cloud gaming encompass latency, network bandwidth, network security, device compatibility, image quality, and audio quality. To address these challenges, cloud gaming needs to rely on technological innovations to enhance the gaming experience and user satisfaction.

2.5 Opportunities and Future Development Prospects

With the development of technologies such as cloud computing and 5G, the prospects for the cloud gaming market are extremely promising. In the future, cloud gaming will become an important trend in the gaming industry, exerting a significant impact on the gaming industry, cloud computing industry, network communication industry, and others. As the cloud gaming market continues to expand, the opportunities and future development prospects for cloud gaming are becoming increasingly vast.

Firstly, cloud gaming can lower device costs, enabling more people to conveniently play games, which will further drive the growth of the cloud gaming market. Secondly, cloud gaming ca

n provide higher-quality gaming experiences, allowing users to enjoy the same gaming experience as traditional gaming, which will enhance user satisfaction and loyalty. Additionally, cloud gaming can collaborate with game developers to offer users a more diverse range of game content, further propelling the development of the cloud gaming market.

With continuous technological innovation and intensified market competition, cloud gaming will become an important trendsetter and driving force in the gaming industry, with significant future development prospects.

3 DEEPLINK PROTOCOL PLATFORM OVERVIEW

3.1 Platform Introduction

The DeepLink protocol is an innovative decentralized cloud gaming protocol, designed to provide a solution for connecting game developers to cloud gaming platforms. It allows game developers to integrate their games with cloud gaming platforms, enabling players to stream games through cloud servers and play on almost any device.

The main objective of the DeepLink protocol is to offer broader game accessibility and interoperability. Traditional games typically need to be run on specific game consoles or devices, which restricts players' gaming experience across different platforms. The DeepLink protocol, with its cloud gaming technology, streams games in real-time to players' devices, allowing them to play on any device that supports cloud gaming.

The DeepLink protocol also possesses a decentralized feature, meaning there is no centralized server governing the game data transmission. Instead, game data is transmitted via the distributed network of the cloud gaming platform and is jointly processed by multiple nodes. This decentralized structure offers higher reliability and fault tolerance, while also reducing reliance on a single server.

In general, the DeepLink protocol provides game developers and players with greater game accessibility and interoperability. It leverages cloud gaming technology and a decentralized structure, granting players the capability to enjoy games on any device, and enhances the game's reliability and fault tolerance. The DeepLink protocol incorporates technologies like blockchain, cloud computing, and streaming transmission. It's also built upon the globally distributed GPU server clusters and network infrastructure of DeepBrain Chain, ensuring the platform's speed, efficiency, and stability. The DeepLink protocol provides foundational infrastructure for ultra-lo

w latency rendering technology in the cloud gaming and metaverse sectors.

The DeepLink software is the first product built on the DeepLink protocol. It offers users remote control and cloud gaming platform services. In addition to providing a premium gaming experience, the DeepLink platform also has various business models and profit strategies. The platform's business model mainly includes subscription-based and payper-play models. Users can opt for a subscription to enjoy more benefits or pay according to their playtime. The software's business model also encompasses advertising and promotional collaborations, which can generate more revenue for the platform. The platform can expand its user base through partnerships and distribution channels. It can optimize its business model and profit strategies through data analysis and user insights. The marketing and promotional strategies for the DeepLink software primarily focus on brand positioning and communication. Through clear brand positioning and effective communication strategies, brand awareness and user loyalty can be enhanced.

In conclusion, the DeepLink software is an innovative cloud gaming platform with core features and advantages, delivering high-quality, low-latency cloud gaming experiences to users. The platform also offers a variety of business models and profit strategies, promising more revenue. In the coming years, the cloud gaming market will continue to grow rapidly, and the DeepLink software holds vast potential and market opportunities.

3.2 Core Features and Characteristics

DeepLink platform offers two core features: remote control and cloud gaming. The remote-control feature enables users to remotely control their PC, mobile devices, and other devices, allowing them to use the same software across different devices. The cloud gaming feature allows users to play games smoothly through cloud servers without the need to purchase expensive gaming equipment.

DeepLink's remote control feature enables users to access their devices from anywhere and at any time, providing convenience and practicality. The remote-control functionality of DeepLink platform supports devices and operating systems such as Windows, Mac, Linux, iOS, and Android. The remote- control feature utilizes real-time streaming transmission technology to ensure the smooth and real-time transmission of audio and video data. Additionally, the platform has optimized the latency issue to greatly reduce delay and enhance the user experience. The remote-control feature of the DeepLink platform utilizes blockchain-based encryption technol

ogy to ensure the security and privacy protection of user data. The cloud gaming feature of DeepLink platform employs advanced streaming media transmission and rendering technologies to deliver high-quality, low-latency gaming experiences. The cloud gaming functionality is compatible with various platforms, including PC, mobile phones, tablets, and other devices, enabling users to play the same games on different devices for convenience. The cloud gaming feature of DeepLink platform supports multiplayer gaming experiences, allowing users to play games with friends and enjoy social interactions.

4 DEEPLINK PROTOCOL TECHNICAL ARCHITECTURE

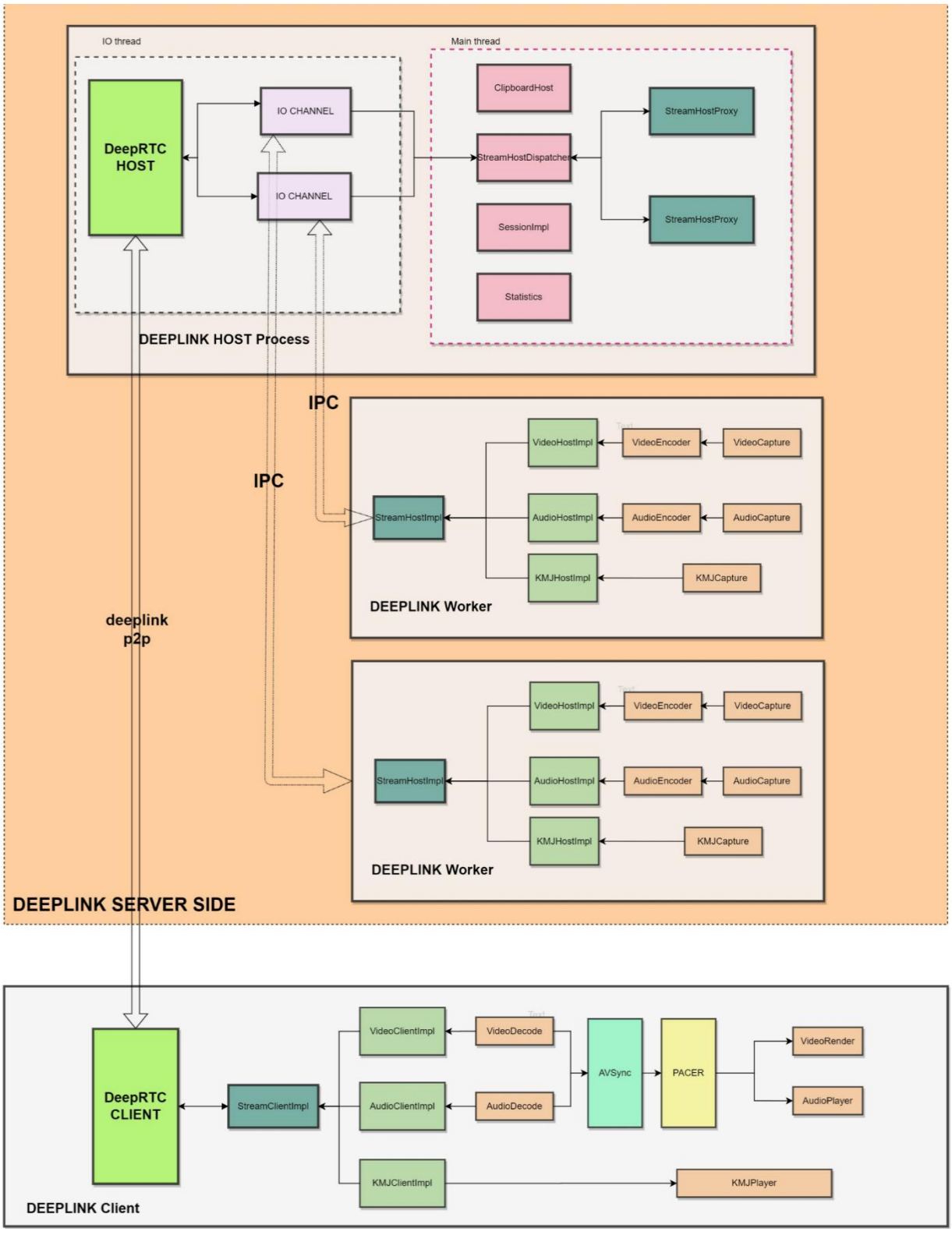
4.1 Design Requirements

The platform adopts a modular design, where each module provides function call interfaces. The basic modules such as audio, video, input devices (keyboard and mouse), networking, and inter process communication (IPC) should not depend on business processing modules. The goal is to minimize the execution overhead and latency of each module. Each module needs to have separate functional and performance testing units, with latency calculations precise to the millisecond level. In the local inter-process communication module, the data exchange along the entire path of large data transfer should not involve more than two memory copies. In terms of security, the business server should not store critical data. If data storage is necessary, sensitive data should be desensitized as much as possible. All network communication must be encrypted, and the user streaming authentication process should not go through our business server. On the host side, when switching Windows sessions or desktops, it should be able to output image, audio data, and receive keyboard and mouse input normally. DeepLink has core technical solutions in the following technological aspects that impact the platform's usability.

4.2 System Module Architecture

The host-side consists of the Server module and the Worker module. The Server module is responsible for network connections, transmission, and management of worker processes. The Worker module handles image capturing and encoding, audio sampling and encoding, and simulated keyboard and mouse input. On the client-side, there is the Client module, which is resp

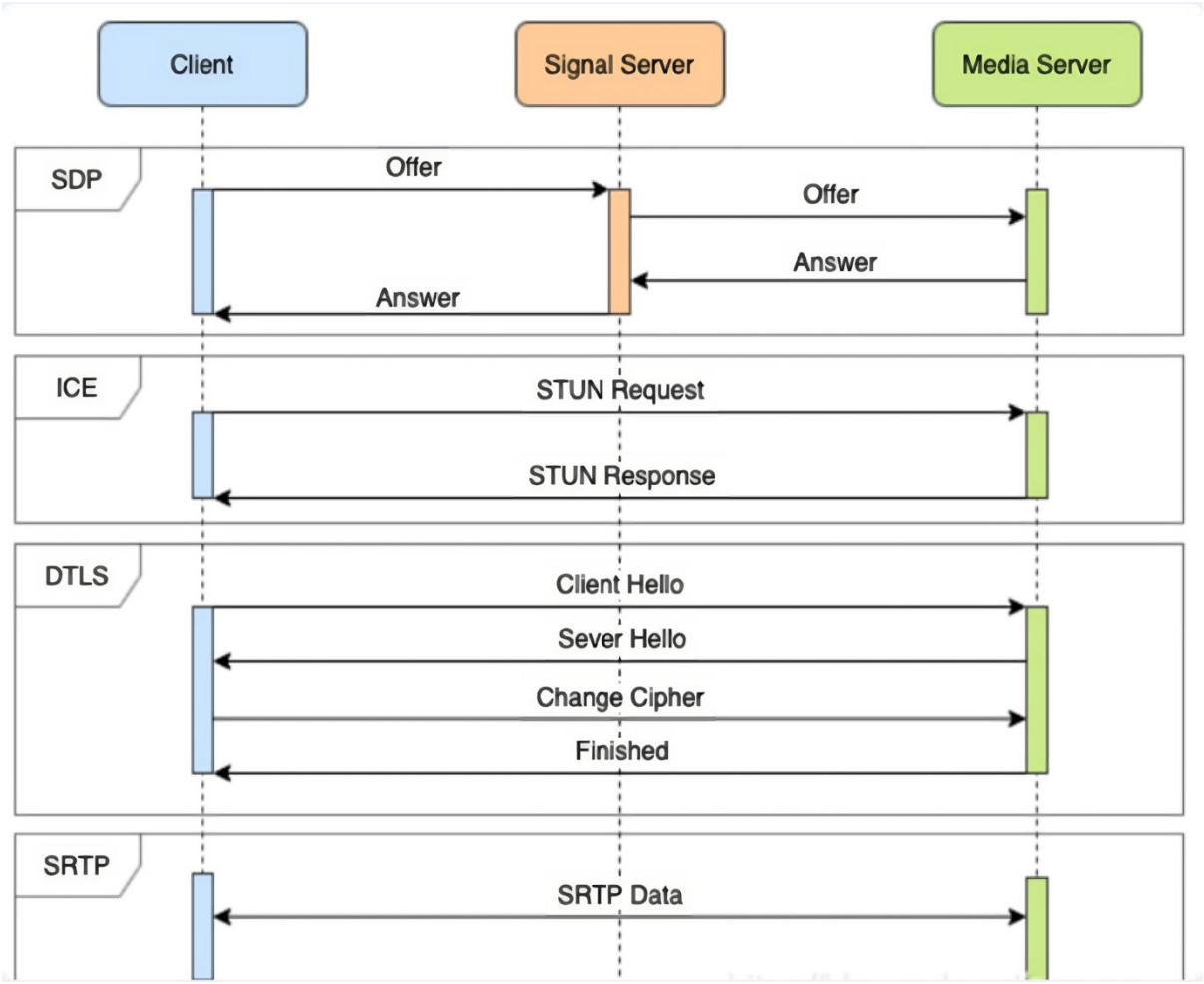
onsible for image decoding and display, audio decoding and playback, keyboard and mouse c apturing, and other related functionalities.



4.3 Communication Protocol

To support browser H5 access, the chosen communication protocol is WebRTC. Specifically, th e development is based on the Chromium 93 version of WebRTC, with additional modification s and enhancements. WebRTC utilizes DTLS (Datagram Transport Layer Security) and SRTP (Sec ure Real-time Transport Protocol) for secure communication.

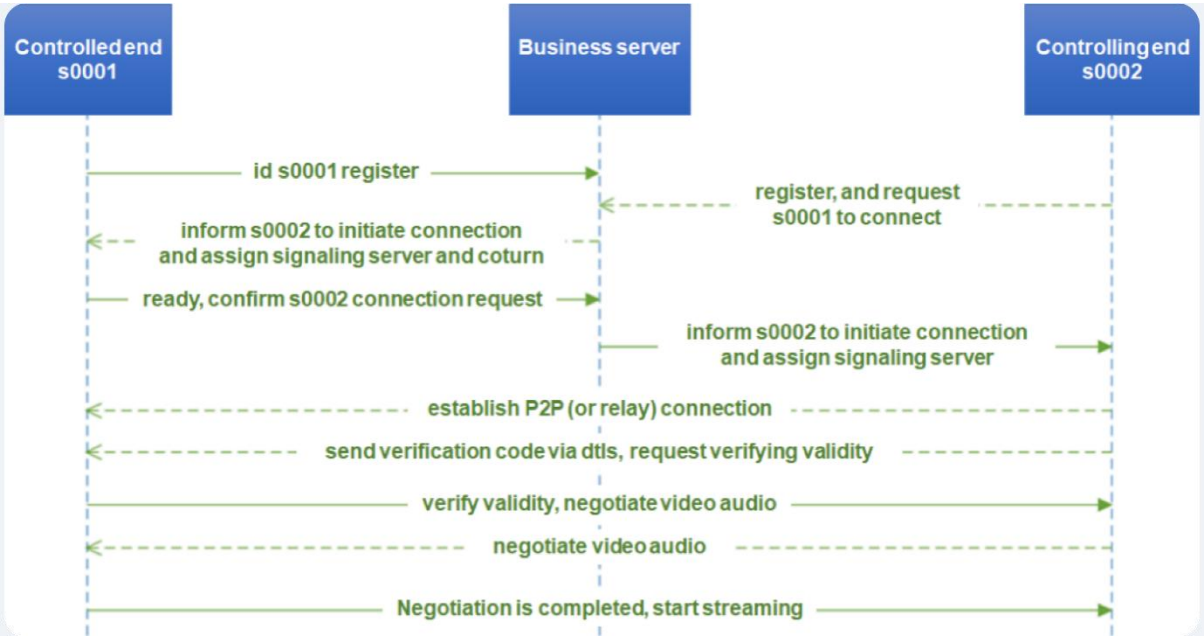
This ensures end-to-end encryption for the transmission of data across the platform.



4.4 Authentication Mechanism

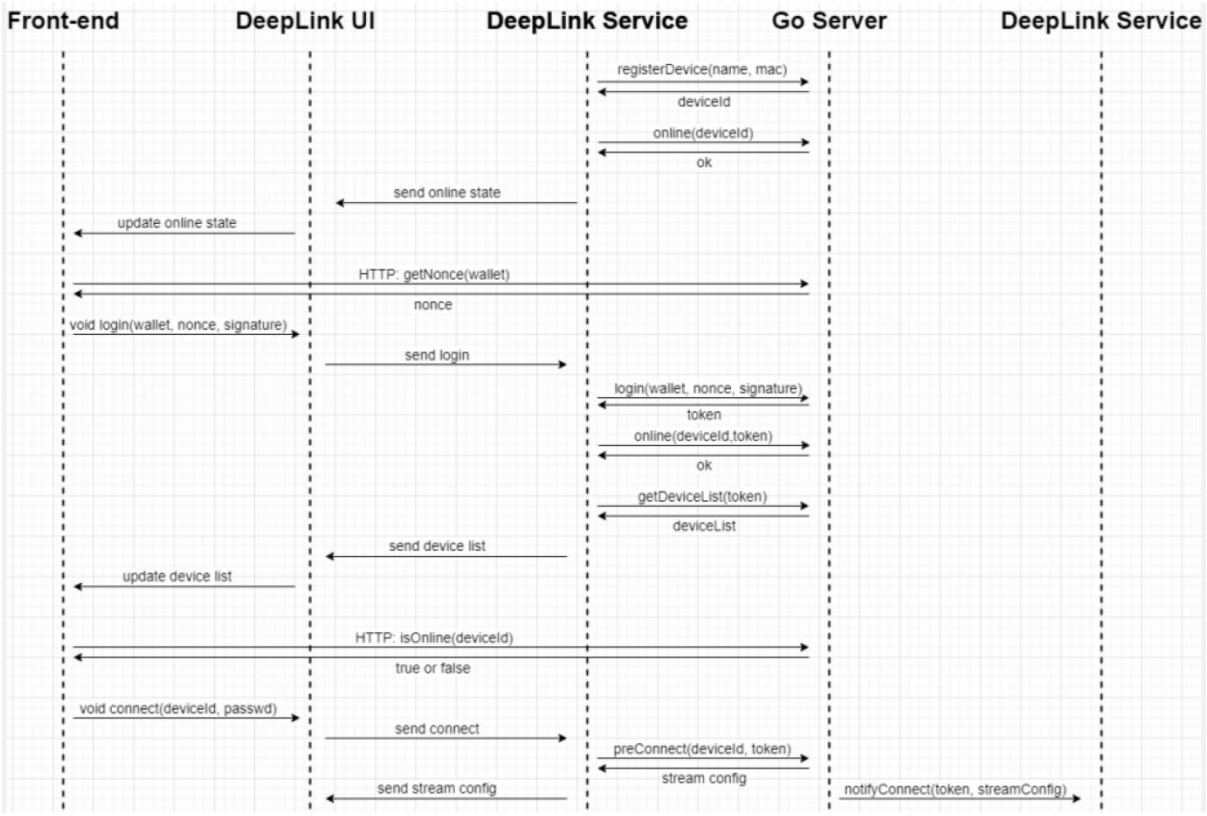
Due to security concerns, DeepLink server is not allowed to access the user's machine verifica tion code. Instead, the authentication process is designed to be negotiated between the contr

olled and controlling ends after a successful P2P connection is established.



4.5 DeepLink Software Interaction Architecture

The software side of DeepLink consists of multiple sub-modules that communicate with each other through protocols.



4.6 Network Architecture of Genesis Traffic Nodes

As the number of users on DeepLink network increases, more computing power and network traffic are required. The Genesis Traffic Nodes serve as the foundation for DeepLink network, enabling decentralization and facilitating the rapid development of DeepLink. The Genesis Traffic Nodes are responsible for core tasks such as computing and traffic forwarding within DeepLink network. DeepLink employs a mining model, allowing more people to participate and earn rewards.

We utilize a hybrid multi-layer unstructured P2P network architecture (HP2P) at the underlying level. In structured P2P networks, the entire network needs to be reorganized when a node joins or exits, which can result in performance degradation. To mitigate the performance impact caused by network reorganization, we adopt a two-layer hybrid P2P network structure with Chord as the upper layer and groups as the lower layer. Nodes are initially organized into groups, and the addition or removal of a node is limited within a group. By employing mechanisms such as super nodes, metadata redundancy, metadata balancing, and Gossip flooding, the groups are strengthened. Group splitting and merging are utilized to keep the group size within a reasonable range, achieving a balance between the number of virtual nodes in the u

pper layer and the number of nodes within the groups in the lower layer. The adoption of H P2P enhances the robustness of the entire P2P network, ensuring the efficiency of structured P2P while reducing network instability caused by frequent node joins/exits.

The upper layer Chord ensures consistency through mapping nodes and keys to the same sp ace. To ensure the non-repetition of hashes, SHA-1 is chosen as the hash function, which pro duces a space of 2160, with each item being a 16-byte (160-bit) large integer. These integers are connected end to end to form a ring known as the Chord ring. The integers are arrang ed clockwise in ascending order on the Chord ring. Nodes (machine IP addresses and ports) and keys (resource identifiers) are hashed onto the Chord ring, assuming the entire P2P netw ork's state as a virtual ring. Each node maintains a finger table with a length of m (m repres ents the number of bits, which is 160 in Chord). The i-th entry in the finger table of node n stores the (n+2i-1) Mod 2m-th successor (1<=i<=m) of node n. Each node also maintains a predecessor and successor list, which enables fast locating of the predecessor and successor and periodic detection of their health status.

TO FIND A NODE CORRESPONDING TO A KEY.

01

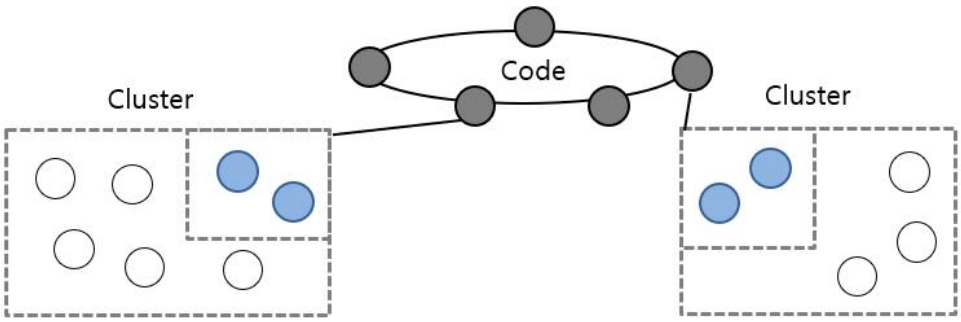
Check if the hash of the key falls between node n and its immediate successor. If so, the se arch ends, and n's successor is the target node.

02

In n's finger table, find the successor with a hash(key) closest to and less than hash(key). Thi s node is also the closest predecessor to key in the finger table. Forward the lookup reques t to that node.

03

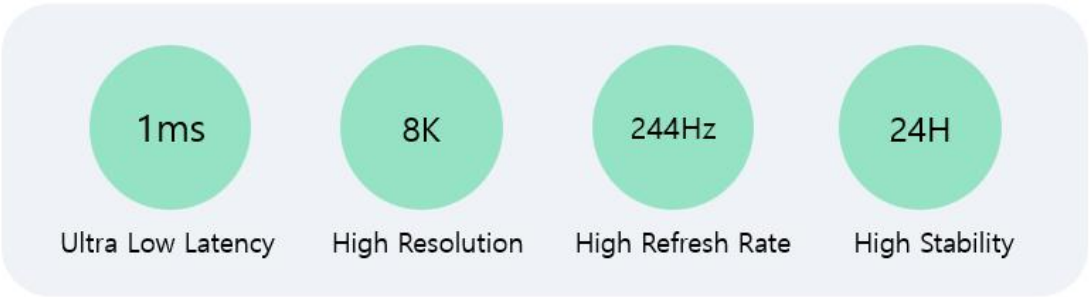
Repeat the above steps until the node corresponding to the key is found.



5 REMOTE CONTROL FUNCTIONALITY

5.1 Overview of Remote Control

The remote-control feature of the DeepLink software is developed based on the DeepLink protocol, allowing users to remotely control devices such as PCs and phones via the Internet. Users can access and use all of their devices from anywhere and at any time. The remote-control functionality of the DeepLink software employs real-time streaming technology, facilitating the real-time transmission of audio and video data, ensuring smooth and instantaneous remote control. Additionally, the DeepLink protocol has undergone extensive optimization specifically addressing latency issues, achieving revolutionary technological breakthroughs. This includes support for the following features, allowing the DeepLink protocol to support users in remotely playing AAA-level games.



5.2 Supported Devices and Operating Systems

The remote-control functionality the DeepLink platform currently supports the Windows

operating system. In the future, it will be expanded to include support for devices and operating systems such as Windows, Mac, iOS, Android, and Vision Pro.

5.3 Security and Privacy

The remote-control functionality of DeepLink protocol incorporates advanced encryption technology to ensure the security and privacy protection of user data.

Connection Security

The DTLS 1.2 protocol is utilized to protect the connection, ensuring that only authorized access is permitted.

Data Security

A 256-bit AES encryption is implemented to maintain confidentiality throughout the entire data transmission process.

Device Security

The visibility of devices is controlled based on your settings, allowing only authorized individuals to view specific devices.

Account Security

A multi-layer account protection mechanism based on blockchain technology is employed, ensuring that device information is not routed through centralized servers and is instead transmitted through peer-to-peer encryption.

DeepLink cloud gaming platform is built upon DeepBrain Chain's distributed GPU network, which schedules GPU nodes to run game services. Users can pay using DLC and DBC tokens and pay based on usage duration, eliminating the need to purchase expensive gaming devices. Users can play games anytime, anywhere. DeepLink cloud gaming platform offers two modes of cloud gaming. The first mode involves the placement of GPU servers by miners in IDC centers, where they pledge a certain amount of digital currency and provide long-term stable services. This mode offers high reliability and stability since the GPU servers provided by miners are dedicated to game services. Additionally, as miners have pledged digital currency, they strive to maintain the stability and reliability of the servers to safeguard their digital assets. The

second mode of DeepLink cloud gaming platform allows individuals to temporarily share their personal home computers with other users. Users can stop sharing at any time after their usage. This mode also requires individuals to pledge a certain amount of digital currency. The advantage of this mode is that the sharer can set their own pricing, making it relatively affordable. This mode enables users to generate income by sharing their computers, providing greater flexibility in managing their assets.

The second mode effectively addresses the challenges faced by traditional centralized cloud gaming platforms:

01

High initial investment cost for GPU servers, making it difficult to recover costs in a short period.

02

Inability to cover global users with GPU servers. To cater to users worldwide, thousands of data centers would be required within a 50-kilometer radius globally to meet user demands.

By leveraging blockchain technology to solve trust issues, DeepLink platform allows individual gamers from anywhere in the world to share their personal computers. Any player in need can rent a gaming computer using their own ordinary computer or mobile device.

This brings several benefits:

01

No upfront hardware investment is required, activating over 100 million gaming computers worldwide.

02

Personal computers are naturally distributed across the globe, providing gaming experiences for users anywhere within a 50-kilometer radius.

In summary, DeepLink cloud gaming platform offers users more flexible and diverse gaming service options through its two different game service modes. Whether users require long-term

stable gaming services or temporary gaming services, they can find suitable service modes on the DeepLink cloud gaming platform.

6.2 DeepLink Internet Café Computer Sharing Feature

The goal of DeepLink platform is to encourage more internet cafes to join by offering them token rewards to incentivize active participation. This sharing feature allows internet cafes to better utilize their computer resources and provide enhanced services. Simultaneously, it offers users more choices and convenience.

Once a computer joins DeepLink platform, users can search for all machines within a 100- kilometer radius. This makes it more convenient for users to find the games they desire. They can use DLC tokens to remotely connect to these machines and enjoy all the available games. This connection method not only benefits users by providing convenience but also allows them to access their games on different devices, enriching the gaming experience.

Therefore, we encourage more internet cafes to join DeepLink platform, allowing more users to enjoy this convenience and fun. We believe that this platform will become an essential component of the future gaming community. The internet cafe computer sharing feature of DeepLink platform not only provides users with more choices and convenience but also improves the services of internet cafes by optimizing their computer resources. This sharing feature brings many other benefits as well. For example, it can reduce the gaming costs for users. Since users can use DLC tokens to remotely connect to nearby machines, they can save the expenses of purchasing expensive gaming devices. Additionally, users can freely choose their favorite gaming devices since they can access games on different devices. This experience not only increases user satisfaction but also contributes to a more vibrant gaming community.

6.3 GameFi Platform

Through DeepLink, users can play GameFi games, and it has the following characteristics:

01

Any user can play GameFi games through DeepLink without the need to download them.

02

Users are not restricted by any country's limitations on game downloads, and they do not need to download games from the Apple App Store. This helps GameFi game developers expand their user base to more countries.

03

Players can play mobile GameFi games on their PC without the need to download them. By launching the DeepLink cloud-based virtual phone, players can open more than 10 mobile GameFi game windows simultaneously. This allows players to play multiple games at the same time and generate more income.

7 DLC TOKEN

7.1 Token Issuance

The total supply of DLC tokens is 100 billion coins. Out of this, 25% is allocated for mining rewards, and 12% is reserved for community airdrops.

7.2 Token Application Scenarios

1. Users pay DLC Token to purchase services

Purchase of NFT: There are three main categories of NFT, and 40% of the DLC tokens will be automatically burned from the revenue generated by NFT.

The first category is advanced features NFT for DeepLink software, such as Professional Crown NFT and Enterprise Crown NFT. These NFTs have four types, each with a duration of 1 month, 3 months, 6 months, and 1 year.

The corresponding prices are as follows:

	1 month	6 months	6 months	1 year
Professional Crown NFT	USD $6	USD $18	USD $36	USD $72
Enterprise Crown NFT	USD $30	USD $60	USD $180	USD $360

The second category is Cloud Internet Cafe Authorization NFT, which also has four types. The pricing for regional agents ranges from 15% to 35% of the final price.

	A Class Supports 50 machines	B Class Supports 100 machines	C Class Supports 150 machines	D Class Supports 200 machines
Cloud Internet Café NFT	USD $3,600	USD $7,200	USD $10,880	USD $14,400

The third category is Genesis Node NFT, which allows participation in providing traffic nodes and earning DLC tokens through mining. The final pricing for each NFT has not been determined yet. Use DLC tokens to purchase cloud gaming time. The price per hour may vary for different games, and users pay based on their usage duration. With this feature, users can play high-end GPU-demanding games like Diablo IV using a smartphone or an inexpensive PC. Please note that users need to purchase the game rights separately from platforms like Steam. The GPU machines running cloud games are paid with DBC, and the premium portion is paid with DLC, of which 40% will be directly burned. The more users and longer durations purchased, the more DLC tokens will be burned.

Use DLC tokens to rent machines in nearby internet cafes within a 100-kilometer radius. The pricing for these machines is determined by the internet cafes. DeepLink platform adds a premium of 10% to 100% on top of the internet cafes' pricing. The machines in internet cafes are paid with DBC, and the premium portion is paid with DLC, of which 40% will be directly burned. Use DLC tokens to rent games shared by personal computers. The pricing for these games is determined by the providers themselves. DeepLink platform adds a premium of 10% to 100% on top of the provider's pricing. The provider's pricing is paid with DBC, and the premium portion is paid with DLC. Of the DLC tokens used, 40% will be directly burned.

2. Miners Providing Nodes and Get Token Rewards

There are two types of miners: those providing Genesis Traffic Nodes and those providing GPU servers. Genesis Traffic Node Miners: These miners provide machines that are responsible fo

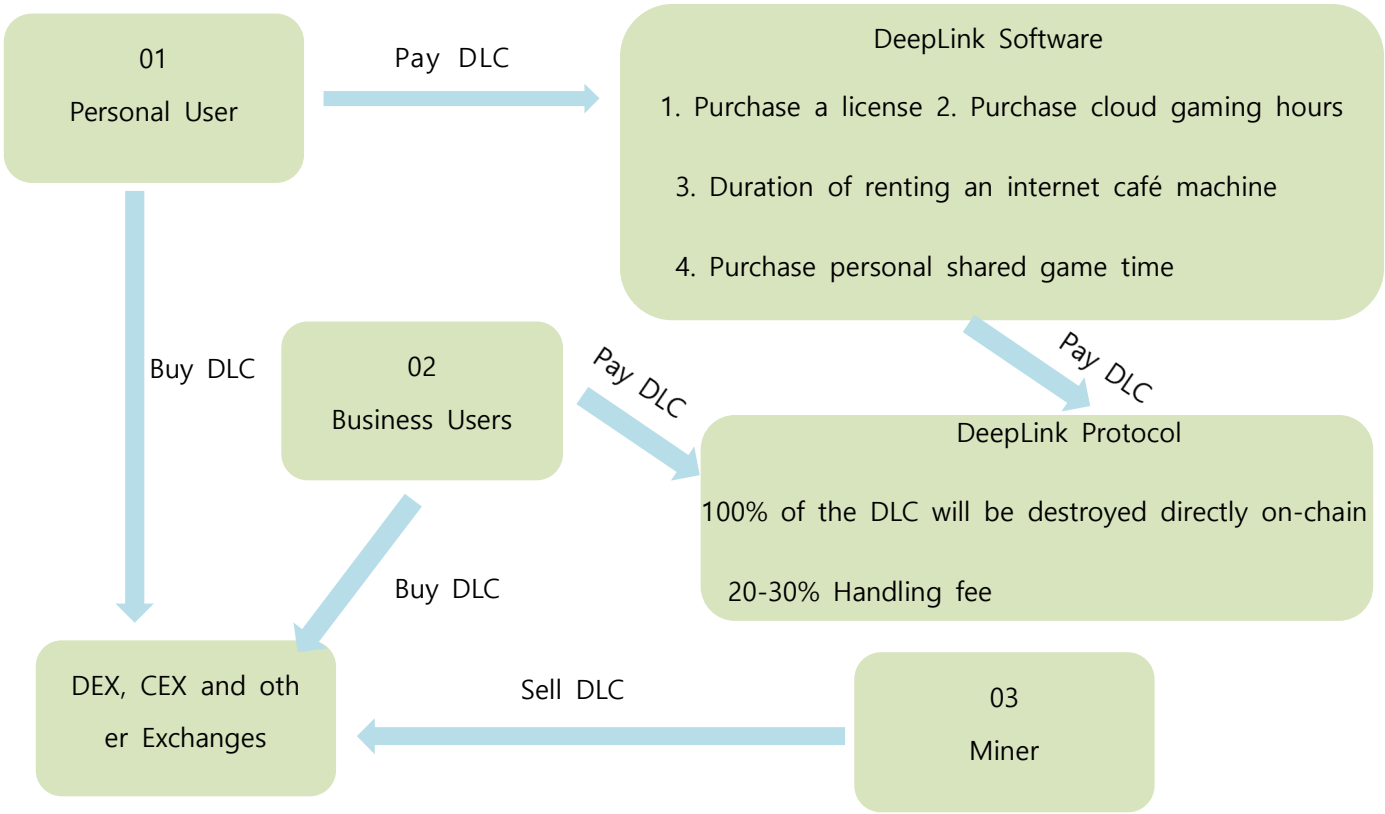
r the core tasks of computation and traffic forwarding in DeepLink network. As the number o f DeepLink network users increases, more computation and traffic are required. Genesis nodes provide the infrastructure for DeepLink network, enabling decentralization and facilitating the rapid development of DeepLink. GPU Server Miners: This group of miners consists primarily of internet cafes. Internet cafes contribute their idle machines to DeepLink, and DeepLink prov ides additional DLC rewards to them.

3. Token Rewards for Providing DEX Liquidity

To increase the number of LP pools on DEX exchanges, liquidity rewards are provided. By pro viding liquidity in the form of DLC and USDT on platforms like Uniswap and PancakeSwap, us ers can earn additional DLC tokens as rewards.

7.3 Token Flow Diagram

The following is the specific use flow diagram of the token, from which you can see a compl ete use process of the token.



7.4 Token Distribution Plan

	Usage				Quantity (B)	Unlocking rules
1	Team		15%		15	2 month cliff , 20 month linear vesting
2	Investment	Seed	10%	29.4%	10	2 month cliff , 20 month linear vesting
		Angel	10%		10	1 month cliff , 10 month linear vesting
		A round	5%		5	1 month cliff , 10 month linear vesting
		Public sale	4.4%		4.4	40% unlock after listing, and the remaining will start unlocking on August 30th, with a 6-month unlocking period, during which 10% will be unlocked each month.
3	Community Airdrop		7%		7	20% unlock before TGE , 8 month linear vesting
4	Ecosystem		5%		5	20% unlock before TGE , 8 month linear vesting
5	NFT Node For Sale		3.6%		3.6	20% unlock before TGE , 8 month linear vesting
6	Mining For GPU		16%		16	16% is for miners providing GPU power, which halves every 4 years. Mining rewards starts after TGE Mining rewards halving every 4 year. 25% of the mining rewards unlock immediately, and the rest follow a 150 day linear unlocking schedule
7	Mining For Bandwith		4%		4	4% is for bandwidth mining, which halves every 4 years. Mining rewards starts after TGE Mining rewards halving every 4 year. 25% of the mining rewards unlock immediately, and the rest follow a 150 day linear unlocking schedule
8	Foundation		10%		10	Begin to unlock 60 days after listing on the

				CEX exchange, with a total unlock period of 2 years, during which 12.5% will be unlocked each quarter.
9	Consultant and Legal	3%	3	Used to solve legal issues in different countries and rewards for consultants , unlocking will start 30 days after being listed on the CEX exchange, divided over 10 months, with 10% being unlocked each month.
10	Short Staking	2%	2	0 month cliff , 90 day linear vesting
11	Long Staking	2%	2	0 month cliff , 180 day linear vesting
12	Mining Race	3%	3	0 month cliff , 10% of the mining rewards unlock immediately , and the rest follow a 180 day linear unlocking schedule
	Total	100%	100 Billion	90 billion will be issued on the DBC chain, and 10 billion will be issued on the BSC chain.

8 ROADMAP AND PLAN

8.1 Roadmap

Period	History
2020.10	DeepLink project initiation.
2021.01	Determining the research and development direction of DeepLink, and starting product design and development.
2021.03	Securing seed funding.
2021.04	Completion of the core team formation, with team members who have been in the cloud gaming industry since 2011, including founding team members from companies such as Cisco, Intel, Nvidia, Huawei, and Shunwang.
2021.08	Release of the first internal development version of DeepLink, achieving a technical latency of 3ms and supporting game keyboards and mouse.
2022.03	Testing DeepLink in the internet cafe industry, achieving a technical latency of 1ms.

2022.05	Release of the first test version of DeepLink's remote control feature, supporting 3K 144Hz displays.
2022.07	Release of the second test version of DeepLink's remote control feature, supporting privacy screens and remote file copying.
2022.08	Release of the third test version of DeepLink's remote control feature, supporting virtual displays.
2022.09	Release of the fourth test version of DeepLink's remote control feature, supporting multiple streaming and 444 true colors.
2022.10	Launch of the official version of DeepLink, supporting Korean, Chinese, and English languages, and establishment of DeepCloudX company in Singapore to operate DeepLink.
2022.11	Set up 10 mini-PC machines and display simulations in Seoul for cloud internet cafe testing.
2022.12	Securing angel funding. DeepLink Protocol is officially released.
2023.02	DeepLink software surpass 100,000 downloads, with users in 50 countries and support for 4K 200Hz displays.
2023.04	Hycons developed a cloud cybercafe feature based on the DeepLink Protocol and collaborated with the largest chain cybercafe in South Korea. They set up a real environment demo room in the cybercafe for cloud cybercafe testing, and it received positive feedback from users.
2023.05	DeepLink surpass 150,000 downloads, with users in 80 countries and support for DLC wallet functionality, as well as support for Vietnamese and Japanese languages.
2023.06	DeepLink surpass 200,000 downloads, with users in 100 countries and support for 8K 60Hz displays.

8.2 Roadmap

Period	History
2023.07	Support the device list and referral reward feature.
2023.08	The cloud cybercafe application, GlowStream, which is based on the DeepLink Protocol and supports NFT functionality, has officially started operations in its first partnered cloud cybercafe in Seoul.

2023.10	Support personal computer and internet cafe computer sharing, with the goal of reaching over 400,000 downloads for DeepLink.
2023.12	Launch the GameFi platform, supporting Arabic, German, French, Spanish, Thai, and Turkish languages.
2024 Q1	Support game sharing feature for the WEB version and establish partnerships with target to reach over 0.5 million downloads for DeepLink
Future Roadmap	
2024 Q2	Target to reach over 1 million downloads for DeepLink, with 10 cloud internet cafes.
2024 Q3	Target to reach over 2 million downloads for DeepLink, with 3,000 shared computers and partnerships with 50 cloud internet cafes.
2024 Q4	Supports iOS, Mac, and Vision Pro AR versions. The goal is for the DeepLink software to exceed 3 million downloads, with the number of shared computers reaching 10,000, the number of partnered cloud cybercafes reaching 150, and the number of applications based on the DeepLink Protocol reaching 50.
2025	Support multiple brands of VR and AR devices, with the goal of reaching over 6 million downloads for DeepLink, 20,000 shared computers, and partnerships with 300 cloud internet cafes.
2026	With the goal of reaching over 15 million downloads for DeepLink, 50,000 shared computers, and partnerships with 800 cloud internet cafes.

9 ABOUT THE TEAM AND ADVISORS

CEO : HE YONG (Blockchain, AI, and DBC Mainnet)

An entrepreneur from China, Founder of DeepLink and DeepBrain Chain.

After obtaining a bachelor's degree in computer science at China Maritime University, he obtained a master's degree in bioinformatics from Northeast University, and holds an ENT certificate in Singapore.

13 years of experience in AI and 7 years of experience in developing blockchain and distributed computing network technologies.

He Yong has won awards at several regional competitions since childhood for his outstanding math and physics skills, and his high intellectual curiosity and creativity greatly influenced his future career, which laid the groundwork for him to successfully lead innovative companies s uch as CongTu Cloud and DeepBrain Chain.

- Responsible for technology at CongTu Cloud, and has had a career as an advanced ar tificial intelligence expert. He has also been recognized as an innovative figure in Shan ghai's computer industry, and his outstanding technology and vision are drawing atten tion both in China and internationally.
- In 2012, DeepBrain was established using artificial intelligence technology, and later th e world's first artificial intelligence speaker "Xiaozhi Speaker" was developed.
- In 2017, he founded DeepBrain Chain using blockchain technology to lead innovation in blockchain and artificial intelligence.
- He Yong is expanding his influence as a global entrepreneur due to his passion and v ision, and his achievements are driving continuous innovation and development in artif icial intelligence and blockchain.

CSO : Park JIHye

2007 Peking University, Department of Chinese

2023: DeepLink CSO

2022 2023: DeepBrain Chain Chief Director

2019-2021: CELLOGIN Overseas Market Leader

2018: FLOW FACTORY CEO

Marketing : VARUN (DeepLink India Market Leader**)**

Bachelor of Business Administration degree earned in 2020 in University of Mysore. Certificatio

n in digital marketing.

Certification in SEO.

Certification in blockchain.

Sales and Marketing at Technic Constructions:

Sales and Marketing role held in 2019, achieving $500k in sales within a three-month period.

Business Development Associate at BYJU'S : Employed from 2020 to 2021. Played a key role in driving growth, forging partnerships, and streamlining operations for educational technology initiatives at a unicorn startup valued at $10 billion.

Co-founder of Space Inn : Co-founded an independent project focused on developing entrepreneurial skills, strategic thinking, and business acumen.

Stock Market Investing/Trading : Accumulated five years of experience in stock market investing and trading, demonstrating expertise in navigating financial markets and capitalizing on investment opportunities.

Internships in Corporate Companies : Completed multiple internships in corporate companies, gaining valuable insights into corporate culture, efficient processes, and effective business strategies.

Crypto Industry Experience : Worked on multiple crypto and NFT projects, gaining valuable industry experience. Contributed to Empowa, a prominent Real-Fi Cardano project, driving its development and growth. Empowa, a Cardano project in 2022, contributing to its growth. Currently working with DeepLink Cloud, expanding expertise in the crypto space.

Advisor : Yang JunHo

Working as Vice President at Hyunjin ICT, an IoT and communication service company since 2012, for 11 years.

Sales and marketing management, experience in performing multiple large-scale projects in public institutions.

Information strategy consulting, Business innovation project, and SW development at Samsung SDS, the largest IT company in Korea, for 14 years (1998~2012).

Worked for 3 years (2017~2019) as a strategic planning executive at Coinzest, a cryptocurrency exchange with experience of being ranked 1st in Korea and 10th globally.

The founder of Hyunjin Venus, which operates welfare shopping malls for large Korean corporations and public institutions, and has operated the business for 5 years.

Qualified PMP (Project Management Professional) and CISA (Certified Information Systems Aud itor).

Advisor : Derek Park

2003 Guanghua School of Management, Peking University
2023: MetABC CEO 2020: HillstoneHub CEO
2019: Hillstone Business Center CEO
2019: Hillstone Global (blockchain) COO
2017: Foundersbridge Founder
2017: Hillstone Partners (Private Equity) Partner
2014: BrightA Consulting Co-founder
2012: Senior Consultant (Chinese Business Expert)

Advisor: Joseph Alexander

Joseph Alexander is the creator of ChatDBC.com, Deep Brain Chain's custom large language m odel. His speciality is North American business development for DeepLink and DBC. You can f ollow @ChatDBC on Twitter to stay informed on all DeepLink and DBC news

10 INVESTMENT INSTITUTIONS

GOBI PARTNERS

Gobi Partners is a professional venture capital firm with offices in Shanghai, Beijing, and Sout heast Asia. They specialize in investing in early-stage technology projects in China. Gobi Fund' s strategic investors include IBM, Sierra Ventures, The McGraw-Hill Companies, and Steamboat Ventures (Disney's venture capital division). They have previously invested in wellknown startu ps such as Tuniu, Camera360, and Zhuyun. Gobi Partners is an established investment fund in

the industry.

DEEPBRAIN CHAIN

DeepBrain Chain Foundation was established in 2017. In January 2018, DBC Token was listed on Huobi Exchange. The main network was launched in 2021. DeepBrain Chain is a high-performance distributed computing power network with GPU as the core. The vision is based on blockchain technology Construct a distributed high-performance computing power network with unlimited expansion, and become the most important computing power infrastructure in the era of AI+Metaverse. It mainly provides GPU computing services for artificial intelligence, cloud games, movie rendering and other fields. At present, it has served hundreds of artificial intelligence and cloud game-related companies and more than 30,000 AI practitioners.

HYCONS

Hycons is a GPU computing cloud platform based on DBC technology developed by Hyunjin ICT. Hycons stands out with its DBC-based distributed high-performance network technology and DeepLink-based lag-free HD streaming technology. The platform provides comprehensive services such as membership management, registration and payment for different service types such as enterprises, schools, research institutions and franchisees. Currently, more than 1,000 GPU cards and 2 centers are in operation in Korea, and it is planned to expand to 5 centers in the future. In addition, Hycons is testing it by applying it to the franchise business of Internet cafes. With advanced technology foundation, competitive cloud service rates and automated service capabilities, Hycons aims to become the world's leading GPU computing platform.

ROCK

ROCK Capital is a specialized cryptocurrency fund company founded in Korea in 2018, bringing together professional resources in finance and investment, as well as blockchain and decent

ralization experts. With extensive collaboration with various domestic and international busines ses, global projects, governments, institutions, and other economic entities, ROCK have success fully executed over 100 projects, pioneering diverse areas of future finance. Through strengthe ned collaboration, growth, activation, and partnerships, ROCK possesses rich experience and ex pertise in diverse market environments. Upholding unwavering principles like a rock, ROCK stri ve to generate high returns, expand investment opportunities, and maximize capital activities, creating concrete customer experiences.