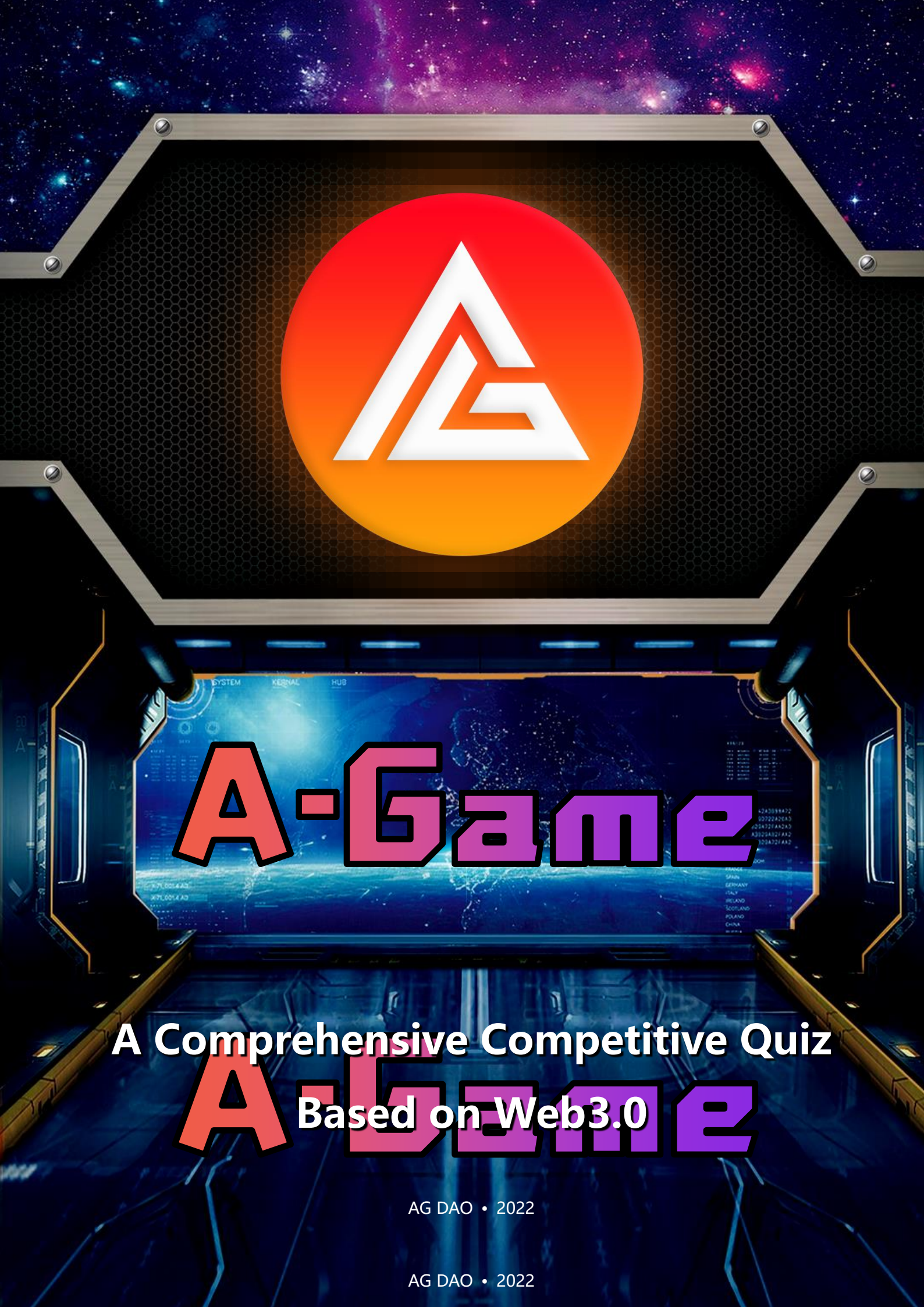
A-Game
A Comprehensive Competitive Quiz
Based on Web3.0
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Contents

Chapter 1

Web3.0 Empowers the Era of Encryption

Web3 (also known as Web 3.0, also written as Web3) is a concept about the development of the World Wide Web, mainly related to blockchain-based decentralization, cryptocurrencies, and non-fungible tokens. In Web3.0, users conduct interactive operations to meet their own needs, and use blockchain technology in the interaction to realize the creation, distribution and circulation of value. This entire process of user interaction and value circulation forms the Web3.0 ecosystem. Compared with the platform centralization feature of Web2.0, Web3.0 is committed to realizing a "decentralized" network ecology that is owned by users and built by users.

1.1 The birth of Web3.0

1) Web1.0 —— "feeding mode"

With the emergence of "WWW", people began to make various displayable information on the page, such as news, information and various pictures, etc. Through the Web, the resources on the Internet can be displayed more intuitively in a webpage , and resources can be linked back and forth on the web page. At this time, many well-known companies were born, such as Google, Yahoo, Sohu, and Sina. They formed major portals through the display of various webpage information, and then attracted users to click and watch, so as to customize advertisements and monetize through traffic. Later we often refer to this period as Web 1.0 (roughly from 1991 to 2004).

According to some, "In Web 1.0, there were very few content creators and the vast majority of users were just consumers of content." The web at the time was seen as a way to democratize access to information, but nothing but access to friends There is no good way to navigate outside of the GeoCities page. It's very confusing and overwhelming.

2) Web2.0 —— "interactive mode"

When the concept of Web 2.0 was proposed, there was no such thing as Web 1.0. Web2.0 was invented by Darcy DiNucci in 1999, and was promoted by Tim O'Reilly and Dale Dougherty at the O'Reilly Media Web2.0 conference at the end of 2004, and Web2.0 was more accepted by everyone. In order to distinguish, the previous network development period is called Web1.0. The characteristic of Web1.0 is that the website provides content, and users read the content, just like watching TV, we can only watch the content that others want to show us, and we have no way to control the content broadcast by the TV station.

However, as more and more people join the Internet industry, some more interesting business models are gradually born, such as the birth of blogs and the birth of Facebook social platform. The biggest feature of this type of websites and applications is that they allow users to independently Generating content, interacting with websites and others, and interconnecting, this is the characteristic of Web2.0. From the "read-only" of Web1.0 to the "interaction" of Web2.0, it is not actually a replacement process. Although most Internet applications and products now belong to Web2.0, there are still many that belong to Web1.0. project is running. And many Internet practitioners in Web2.0 are also thinking about how the Internet should develop in the next step, so they have various ideas of Web3.0.

The emergence of platforms like Google, Amazon, Facebook, and Twitter brought order to the internet by simplifying online connections and transactions. Critics say these companies have amassed too much power in the Web 2.0 era over time. These tech giants of Web 2.0 have become big intermediaries and gatekeepers of the Internet. Most of the things we do on the Internet today, like searching the web, connecting with people, and sharing content, are forced to rely on opaque service code with proprietary rights developed by these companies, or else it would be impossible to do those things.

3) Web3.0 —— "Decentralized model"

All of this will undergo profound changes in the Web3.0 era: the Web3.0 world will be fully open, and users' behavior in it will not be restricted by ecological isolation. It can even be considered that users can freely (based on basic logic) swim in Web3 World; user data privacy will be protected through encryption algorithms and distributed storage; in the Web3 world, content and applications will be created and dominated by users, fully realizing user co-construction and

co-governance (DAO, decentralized governance), and users will Share the value of the platform (protocol). In addition to a completely different Internet model and user experience, Web3 will bring a new traffic entry paradigm. There will be some interesting changes in the traffic entry mode that occupies the user's attention in the Web2 era.

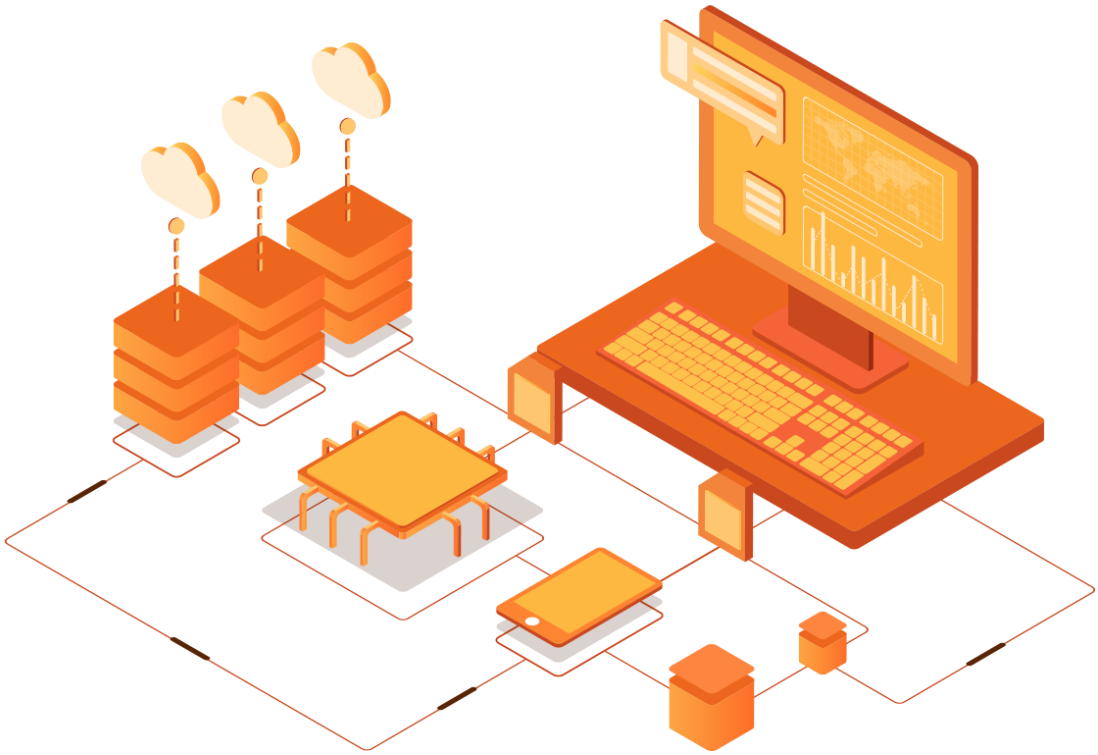
Web3.0 is an optimization of Web2.0, roughly labeling Web 3.0 with 4 labels:

- Unified identity authentication system
- Data confirmation and authorization
- Privacy Protection and Censorship Resistance
- Decentralized operation

Driven by distributed technology represented by blockchain, from the decentralized point-to-point ledger experiment to the decentralized smart contract platform, countless new applications (Dapps) have been born, and DeFi has gradually formed a "financial" in the digital world. services" , and NFTs accelerate the on-chain of assets. We see that beyond the traditional world (online and offline), users are getting closer and closer to a digital world that blends together. At this point, people are calling for a brand new online world - the Metaverse, which can credibly carry personal social identities and assets, and the community will have stronger dominance.

The Web 3.0 technology stack can be mainly divided into three layers: the protocol layer, the application layer and the network base layer. All of this is mainly built on the blockchain (of course the protocol layer can also have auxiliary parts off-chain). From an application point of view, Web 3.0 covers DAOs (and tools), privacy, applications, storage and data, games, creators' economic platforms, social networking, etc. It covers almost most of the fields of Web 2.0.

With the vigorous development of the cryptocurrency industry, a large number of Web 3.0 applications have emerged in the past two years. Of course, most of these applications may eventually be transitional products. Even some applications have flaws in economic models and user pain points, and do not reflect more real needs than Web2.0. In any case, the Web3.0 ecosystem has taken shape, and in the continuous application exploration, the Web3.0 will be unveiled step by step.



1.2 Web3.0 ecological building blocks

1) user ID

Users use wallets, master multiple virtual avatars, and participate in the interaction of the Web3.0 network ecosystem.

2) User interaction

User interaction through blockchain technology to achieve value creation, distribution and circulation。

3) user organization

Users form autonomous organizations and create various applications, tools, protocols, etc. for the Web3.0 ecosystem in collaboration.

4) bottom support

Blockchain from the technical layer, distributed storage from the data layer, together provide the underlying support for Web3.0.

Users participate in the interaction of the online world through virtual avatars. In Web3.0, the collection of virtual avatars is the user identity, which is truly owned and mastered by the user, also known as the decentralized identity DID (Decentrliazed Identity). Compared with the user identity in the Web2.0 era, the user identity of Web3.0 is very different in terms of identity control, openness, security, and privacy.

The user identity of the Web3.0 ecosystem is decentralized, and its manifestations and usage methods have the following characteristics:

- Decentralization: DID, as a collection of user identities, is completely controlled by users and is not completely controlled by any institution. The authentication of user identity by any institution is only one element in the set.
- Form of expression: The user stores the identity authentication information issued to him by various institutions on the blockchain address that the user fully controls, and this blockchain address is often also the user's wallet address.
- How to use: Log in to each application on Web3.0 through the wallet. The user experience is similar to the WeChat login in the Web2.0 era. The difference is that DID is owned and controlled by the user, while WeChat will be restricted by the platform.

1.3 The Value Features of Web3.0

The Value Features of Web 3.0: An Open, Private and Co-constructed World

1）openness

The user's access in a certain Internet application "field" is fully free and the threshold is low; for example, users often use a blockchain account address to log in to the application on the chain, without registration permission, and the operation is convenient;

User behavior is not restricted by third-party entities, Internet applications break the original so-called intra-ecological and inter-ecological boundaries and barriers, and under the principle of complex code operation logic, applications are highly combined and complex; the most direct The case is the so-called DeFi Lego, any application can call or aggregate the underlying basic protocol (such as DEX), and the synthetic asset platform maps real-world assets to the chain (no delivery relationship), which is equivalent to breaking the so-called online and offline relationship. The boundary between virtual and reality. In addition, applications based on different infrastructures in Web3.0 can be interconnected by "cross-chain" protocols; therefore, users' behaviors in multiple applications in the Web3.0 world can produce similar social relationship graphs, further enhancing the value of data. tap potential。

Taking the analogy of a game application, users can easily enter a game world without being restricted by third parties; users can freely implant their favorite characters/images into the game, and even make characters act across platforms/domains, while In the era of Web 2.0, in games such as PUBG, you can't decide the choice of the character, let alone enter the character you like into World of Warcraft - it is not difficult to connect the platform in this regard, just because the control is not in the hands of the user. Of course, you can also trade equipment such as character skins (with the help of NFTs), and even build complex derivatives markets for game equipment based on other DeFi protocols. In a word, complete the Web3.0 survival mode across application platforms, across virtual and reality.

2）privacy

Transfer of data ownership and value. Data privacy has become the focus of global regulation. The current solution is to strengthen legal protection and make users aware that theft of user data is illegal; the second is to introduce privacy computing, through homomorphic encryption, multi-party secure computing, and

trusted execution. Environment and other technologies to ensure that data is invisible in plaintext during use.

In the era of Web 3.0, users will tend to protect the privacy of personal data in a more thorough way, which will lead to the transfer of data ownership and value. With the decentralization of applications, when the data on the chain can be checked, user behavior, generated data and even application protocols also need to be protected by privacy. Privacy protection is multi-faceted, including basic blockchain platform privacy protection, storage data privacy (distributed storage), user private key management, anonymity protocols, etc.

3) DAO: An online world of co-construction, co-governance and shared value

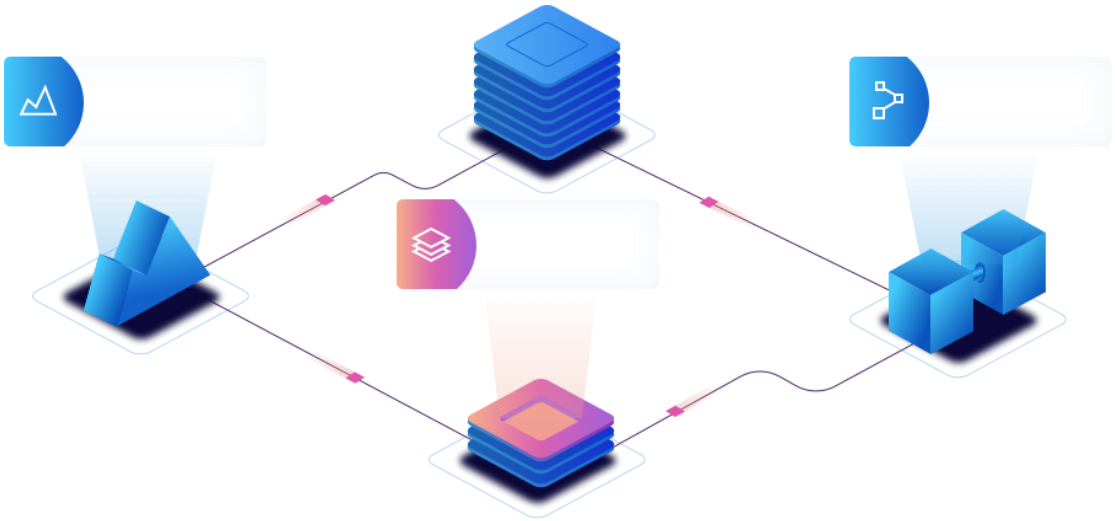
The construction of the Web3.0 ecosystem, such as applications, tools, protocols, etc., is inseparable from collaboration. The organizational form that enables users to cooperate in an orderly manner is called DAO (Decentralized Autonomous Organization). The full name of DAO is a decentralized organization. Users are organized and formed due to common goals. They use blockchain technology and smart contract procedures to formulate and implement rules, so as to achieve a form of community self-governance that can ensure fairness.

The content creation of users in Web2.0 Internet applications is limited in many aspects (restricted by platform auditing, cross-platform restrictions), and even more restricted in community governance, which limits users' ability to share creators' economy. value capture. The openness principle of Web 3.0 will break these limitations, and the incentive mechanism of the blockchain will effectively feed back the value of the content economy to the creators.

Blockchain technology is the core technical basis for the establishment of the DAO form. Organizational rules are written through blockchain smart contracts, and the execution is guaranteed by the program. At the same time, the rules are stored on the block and cannot be easily tampered with. During the establishment of DAO, the creation, distribution and circulation of value will also occur. DAO is established in user interaction and continues to create value in interaction. DAO distributes value by issuing project tokens and NFTs, enabling users to enjoy DAO's governance rights and income rights. DAO tokens and NFTs can also be circulated

in DeFi.

As an organizational form in the Web3.0 era, DAO is quite different from traditional organizational forms in terms of organizational structure, organizational rules, and ownership of rights. DAO has the following advantages: the organization rights are distributed to all organization members in the form of organization tokens, thereby realizing community autonomy and rights distribution, thereby greatly stimulating the participation and enthusiasm of organization members, and promoting the construction of Web3.0 community projects. have an important role. (For the detailed organization of DAO, the chapter "2.4 Wide Application of DAO Model" will be described in detail.)



1.4 Web3.0 creates the metaverse

In the era of Web3.0, the metaverse will be an extremely imaginative and creative network form. In the Web2 era, people are accustomed to using "virtual world" and "real world" as the boundaries between online and offline worlds. The metaverse built on the basis of Web3 will be a deep integration of the so-called "real world" and "virtual world".

The Internet in the Web2 era has obvious ecological boundaries (this is the result of the operation mode of centralized companies), an Internet giant controls the core access to the ecology, and there are relatively few cross-ecological

applications - for example, online payment tools cross-border Ecological restrictions, blocking of hyperlinks between important Internet application portals. The so-called Internet applications are actually restricted to activities in different ecological local areas. In the metaverse world of the Web3 era, the "chasms" and boundaries of the Web2 era will be broken.

From the era of Web 1.0 independent computer hardware and wired networks, to the era of Web 2.0 mobile phones, software, cloud storage, and wireless networks, to the current era of Web 3.0 cloud computing, blockchain, AI, and decentralization, every technological change The transition is accompanied by the blessing of advanced technology or new concepts, and the integration of Web3.0 and the Metaverse is generally considered by the market to be the ultimate form of the Internet.

1) The real world from Earth to space

Since ancient times, human beings have been curious about the universe and have been diligently seeking the mysteries of the universe. The history of human exploration of the universe is a magnificent picture. In the process of exploring the universe, with the continuous progress of science and technology, human beings' cognition of the universe has been deepened, and the development and progress of human society itself has also benefited deeply from the promotion of astronomy, astronomy, and aerospace technology. In the early 20th century, astronomers identified the existence of galaxies other than the Milky Way.

Today, the number of visible galaxies is estimated to be in the trillions. In the universe, our galaxy is just a drop in the ocean, and the sun is just an ordinary one among the hundreds of billions of stars in the galaxy. So far, as the only high-level intelligent life in the universe, human beings are undoubtedly lonely. Human beings are eager to seek connections from other planets and work together to explore the vast universe.

2) The virtual world of the metaverse

"Metaverse" is a virtual space that is parallel to and independent of the real world, an online virtual world that mirrors the real world, and an increasingly real digital virtual world. In 1992, Neal Stephenson's science fiction novel "Snow Crash" was published to rave reviews. "Avalanche" describes the perception and understanding of two parallel worlds by a generation of Internet people born out of

the real world. However, neither the author nor the book reviewer foresaw the shock wave of the concept of the "Metaverse" proposed by this book three decades later.

How to interpret this phenomenon? The definition of "metaverse" needs to be answered. The most representative definition of "metaverse" is: "metaverse" is a virtual space that is parallel to and independent of the real world, an online virtual world that mirrors the real world, and an increasingly real digital virtual space. world. Comparatively speaking, Wikipedia's description of the "metaverse" is more in line with the new features of the "metaverse": physical reality augmented by virtual, showing the characteristics of convergence and physical persistence, based on the future Internet, with link awareness and a 3D virtual space with shared features.

In other words, the connotation of the "metaverse" in the context of 2021 has surpassed the "metaverse" recognized by "Avalanche" in 1992: it has absorbed the information revolution (5G/6G), the Internet revolution (Web3.0) , artificial intelligence revolution, and the achievements of VR, AR, MR, especially the virtual reality technology revolution including game engine, show to mankind the possibility of building a holographic digital world parallel to the traditional physical world; triggering information science, quantum The interaction of science, mathematics and life sciences changes the scientific paradigm; promotes breakthroughs in traditional philosophy, sociology, and even humanities systems; includes all digital technologies, including blockchain technology achievements; enriches the digital economy transformation model, Integrate digital financial achievements such as De-Fi, IPFS, and NFT. The main body of the "metaverse", biological human, electronic human, digital human, virtual human, and information human, eventually evolved into organic and inorganic bodies, and the combination of artificial intelligence and biological gene technology formed the so-called "post-human". The metaverse may be the most poorly defined concept at present. There is no one. A true metaverse product should have eight elements:

- Identity: You have a virtual identity, whether related to your real identity or not.

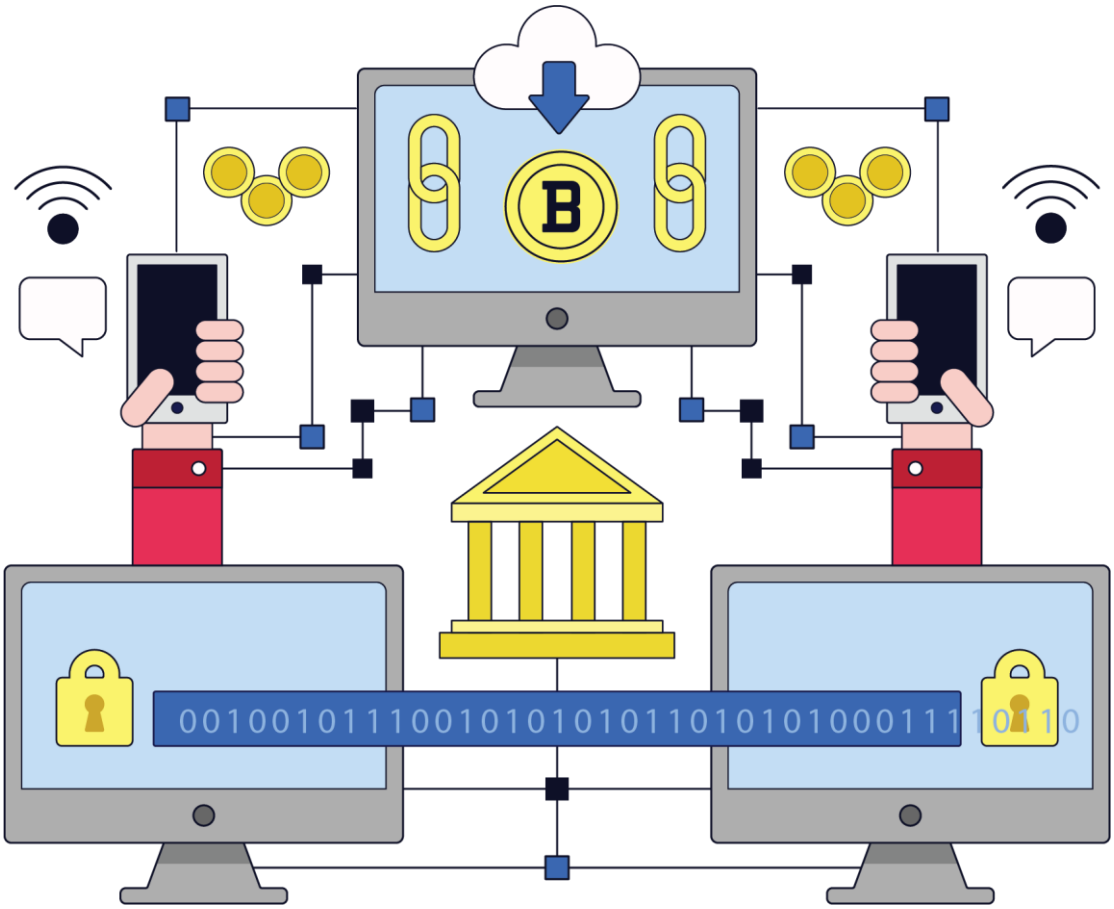
- Friends: You have friends in the metaverse that you can socialize with, whether you know them in reality or not.

- Immersion: You can immerse yourself in the experience of the metaverse and ignore everything else.
- Low Latency: Everything in the Metaverse happens synchronously, with no asynchrony or latency.
- Diversification: Metaverse provides a variety of rich content, including gameplay, props, art materials, etc.
- Anywhere: You can log into the Metaverse from any device and immerse yourself in it anytime, anywhere.
- Economic System: As with any complex large game, the Metaverse should have its own economic system.
- Civilization: The Metaverse should be a virtual civilization.

Today, the "metaverse connected by virtual worlds" has been regarded by the investment community as a grand and promising investment theme, and has become a new frontier for digital economic innovation and industrial chain. Not only that, "Metaverse" provides a new path for human society to achieve the ultimate digital transformation, and has an all-round intersection with "post-human society", showing a world that can be compared to the era of the great seafaring, the era of the industrial revolution, and the era of spaceflight. A new era of historical significance.

In addition to the cross-chain application mentioned in the above section, which solves the integration between different main chain ecosystems, the metaverse world and the so-called "real world" will continue to integrate. For example, a subject in a metaverse, in addition to engaging in economic activities in the DeFi market, can also hold real-world asset rights. That is to say, there is no isolation between the "virtual world" account and the "real world" account system for the assets in the metaverse, and the metaverse will be a fusion of the "real world" and the "virtual world". It is generally believed that although the world of the Metaverse is jointly built by users, different applications can be freely integrated through various means, but the virtual world of the Metaverse cannot be connected with the asset accounts of the real world, because the real world exists between ecosystems Therefore, the "external metaverse" cannot penetrate into the ecology of the current Web2 era.

Therefore, based on the broad prospects of Web3.0, the A-Game game platform is actively deployed, with a view to creating new value-added modules for global users through wider ecological integration.



Chapter 2 The explosion of the DeFi ecosystem

2.1 The application of blockchain technology gives birth to DeFi

With the support of blockchain technology, the financial industry has more

possibilities for innovation. Among them, DeFi is a more typical model. The full name of DeFi is Decentralized Finance - decentralized finance. DeFi refers to financial behaviors and services based on digital currency or Token. For example, token-based lending services, exchanges, payments, insurance, investment and even wealth management services. Among them, DeFi services and products based on Ethereum are the most prosperous at the current stage. DeFi in a broad sense refers to financial businesses and services built around decentralized technology.

In a broad sense, DeFi includes two meanings: business and services are completely based on decentralized technology. For example, mortgages, transactions, loans, etc. based on blockchain decentralized technology and smart contracts. The service itself is not a decentralized technology, but the objects of the service are digital assets and other objects based on decentralized technology. For example, digital currency exchanges, etc. These financial businesses and services can be upgrades of existing traditional financial businesses and reconstructed using decentralized technology; they can also be brand-new financial services, such as digital currency-based transactions and other financial behaviors.

For the financial industry, DeFi is a very important direction. Because the decentralized operation mode can greatly reduce the cost of financial operations. And in the process of operation, it can eliminate the information asymmetry in the industry and make the entire financial industry open and transparent. For example, the traditional field of lending has flaws of one kind or another, such as the phenomenon of pure fraud in mortgages, or the phenomenon of multiple mortgages in mortgages. Another example is loan reminders and loan terminations. In fact, there are many opaque links in the traditional lending field. The significance of decentralized finance is that it is transparent and irreversible. When a lender initiates a loan, as long as the value of the collateral meets the requirements, it will not be subject to the pressure of loan collection from traditional institutions, nor will it be threatened by loan termination, because decentralized finance is the automatic execution of contracts, thus It eliminates the interference of human nature and can well protect the rights and interests of lenders.

Although the loan assets in the DeFi field were only aimed at digital currencies and stablecoins at the beginning, with the development of technology, they are extending to more possible value spaces.

2020 and 2021 will be a hot year for decentralized finance (DeFi), and various projects will be launched one after another. There are many application directions

of DeFi, including decentralized exchanges, lending platforms, stablecoins, etc. At present, hundreds of DeFi projects have emerged in the market around these application directions. DeFi lending leader Compound uses COMP tokens to attract users to participate in deposits and loans. Within a month, the amount of funds deposited has increased by 10 times, and the valuation of COMP has been high, which kicked off the DeFi carnival. Since then, new concepts of DeFi have emerged one after another. Lending platforms, decentralized exchanges, decentralized autonomous organizations, stable coins, and oracles have continued to emerge. Excellent DeFi projects have used token liquidity mining to achieve user cold start.

This makes DeFi one of the fastest growing areas in the blockchain ecosystem. As people's awareness of the scope and usability of blockchain technology increases, people are developing the underlying core of blockchain with great enthusiasm. R&D and implementation of technologies, on-chain applications and scenarios. In particular, the popularity of DeFi has made concepts such as NFT, GameFi, AMM, and liquidity mining widely popularized, making it possible for blockchain technology to be applied in more business scenarios.

2.2 The prosperity of the NFT market

NFT (Non-fungible Token) is a non-fungible token, which is an indivisible and unique digital certificate that can be mapped to a specific asset, and record the relevant rights content of the specific asset, historical transaction flow information, etc. In the label information of the contract, a unique code that cannot be tampered with is generated for the specific asset on the corresponding blockchain to ensure

its uniqueness and authenticity.

NFT realizes the assetization of virtual items, so far, digital assets have tradable entities.

1) Features of NFTs

- Marking the ownership of a specific asset: NFT uses blockchain technology to mark the user's ownership of a specific asset, becoming a recognized tradable entity for the specific asset, and the price of the NFT reflects the market's recognition of the value and scarcity of the mapped asset .

- Authenticity and uniqueness: NFT records property rights by virtue of the characteristics of blockchain technology, such as immutability and traceability, and ensures authenticity and uniqueness. NFTs can be used to represent various assets such as virtual collectibles, in-game assets, virtual assets, digital artwork, real estate, and more.

- Anchoring the value of non-fungible assets: Compared with homogenized tokens (such as real currency, virtual currency), the essential difference between NFT and its is that NFT anchors the value of non-fungible assets. FT anchors homogeneous assets such as gold and US dollars. Both have tradable attributes, the same FT value is interchangeable, but the value corresponding to each NFT is unique.

2) Comparison of Fungible Tokens (FT) and Non-Fungible Tokens (NFT)

- Homogenization Token (FT): The so-called homogenization means that assets follow the same rules and can be exchanged and divided freely. For example, the encrypted digital currency bitcoin, at the same time point, the corresponding price of each bitcoin is the same, one bitcoin can be exchanged for another bitcoin, and bitcoin can also be divided into 0.1, 0.01 or 0.0001 Bitcoin.

- Non-fungible tokens (NFT): Non-fungible means completely unique and unique, and cannot be divided and exchanged freely with each other, such as real estate, cars, passports, etc. that are common in life. Any 2 villas are different in type, price, developer, location, property, area, etc., and the owners are also different, and a villa cannot be divided into many parts and

sold to many people.

3) NFT application example

In theory, NFT can be applied to any field that requires unique authentication, including artwork, games, property rights authentication and many other aspects:

- Art: NFT's protection of the ownership of artistic works has become the artistic driving force for open source and creation. For many artists, especially those in the field of digital art, the biggest advantage of NFT is that it provides protection for the ownership of artistic works, and to a certain extent, provides digital art creators with the proper economic returns through their works. new path.

- Gaming: One of the most popular applications of NFTs. NFTs provide an excellent solution for digital ownership of game assets, enabling players to safely trade assets and even decide for themselves the future direction of the game. In some of the current popular NFT games, players can buy digital land blocks, which can then be resold or used as in-game advertising space.

- Authentication: NFTs have unique information about a specific asset, which makes it better for logos, licenses, qualifications, and certifications, etc., registered on any blockchain network; It will also be very useful when waiting for other digital information.

- Intellectual property rights: For any intellectual property rights, such as song copyright, film and television copyright, invention patent, picture copyright, painting copyright, etc., NFT can be used for authentication. Simply put, it is equivalent to putting an unalterable and unique barcode on the back of each thing, which is used to confirm and identify the copyright of the asset.

- Real estate: Real-world real estate assets are tokenized on the blockchain, which enables smoother transactions, eliminates third-party intermediaries, and prevents ownership conflicts. With the continuous development and progress of technology and cognition, the application of NFT is far more than that. It is believed that more potentials and application scenarios will be tapped, and the future can be expected.

2.3 NFT helps chain games upgrade

With the application of the NFT model in games-encrypted games or chain games, or Play to Earn is quietly recovering, which is reflected in the bright data at the level of encrypted games in the past six months, and people's attention to the field of encrypted games is also change.

There are many reasons why the combination of NFTs and blockchain games is a match made in heaven. For example, on the one hand, in almost all previous online gaming community models, items that can be purchased are limited to use within that game through a single account. If a player's account is stolen, disabled, or even if the user just gets bored and moves to another game, all the money they spend will disappear; this is a reality that many gamers have come to accept. This pattern continued because there was no viable alternative - until NFTs came along and changed everything. By making in-game item NFTs, players actually own and control what they buy, earn or craft. It's not just that new accessories for a user's character are rare; it also means that these items can be bought and sold on the secondary market, moving between multiple games, and allowing players to retain the value they originally invested in these items.

By introducing a new economic model, NFT+ games enable gamers to directly participate in the underlying construction of the game and obtain long-term development dividends of the game. This new model depicts a beautiful "play and earn" that everyone can participate in. picture.

In addition, NFT has spawned an upgrade of the out-of-chain game model, and

GameFi is a typical example. GameFi refers to presenting financial products in the form of games and gamifying the rules of DeFi, such as using NFT equipment to increase revenue, introducing a battle mode, etc. Compared with traditional liquidity mining, GameFi projects are more interactive with users , but also more interesting. GameFi is attracting more people into the DeFi space. The fun of gamification attracts users who don't want to understand the complex technology of DeFi projects. They don't have to understand the code, logic, and mechanism of DeFi projects. They just need to figure out how to play this "game", which is neither brain-burning nor boring. Second, GameFi gives retail investors more opportunities to enter.

The benefits of traditional mining projects depend on the proportion of the LP provided in the entire mining pool. Therefore, large investors who enter the market early will often make a lot of money, while retail investors have little profit, and they have to risk large investors. Risk of unpaid losses from selling. Turning mining projects into "games" brings more possibilities to retail investors.

Overall, in the context of the continuous rise of blockchain concepts and new models, whether it is NFT or GameFi concepts, games are undoubtedly one of their best landing scenarios. Through blockchain games, players can enjoy the following main benefits:

- Ownership of game items, scarce resources, props, loot, and characters and avatars in the game are confirmed through the blockchain;
- Provably fair gameplay, when the game is on-chain, game logic and gameplay elements are also shared;
- Cross-game communication, game on-chain, can communicate in any other environment on the same blockchain;
- Reduce costs to build games on the blockchain, all of which can potentially be outsourced to miners or validators;
- Enhancing the player base, blockchain games connect developers and the "super player" community with more resources and investments in gaming。

On the basis of the decentralized game operation rules formed by blockchain + games, the addition of NFT and GameFi provides a more superior asset circulation

foundation and a realistic experience of virtual reality for this chain game ecology。

2.4 Wide application of DAO pattern

Whether it is DeFi, DEX, or Web3.0 applications such as NFT, GameFi, Metaverse, etc., DAO is more or less attached. The full English name of DAO is Decentralized Autonomous Organization, which is also translated as "Autonomous Organization". The continuous commercialization of DAO is creating more value for users。

The governance rights of a DAO are usually expressed by a set of homogeneous or non-homogeneous governance tokens (governance tokens), and

participants can obtain tokens by purchasing or contributing and become the governance of the organization. The governor can use the token as the credential to participate in the decision-making and operation of the organization, and enjoy the corresponding rights and interests. DAO usually does not set up decision-making layers and management layers, and adopts the method of community democratic voting to govern. Whether it is the adjustment of governance rules or major business decisions, it generally needs to be implemented by the governor in the form of governance token voting. Stakeholders cooperate and compete to change the rules described in smart contracts, thereby achieving democratic autonomy.

As a sociological idea, DAO is also a paradigm of organizational relationships, and it even became a buzzword when the crypto world broke. Bitcoin itself can be understood as the earliest DAO. After more than ten years of growth, DAO, like all collaborations, will produce division of labor and development differentiation among participants. It is necessary to follow the vein of DAO to look forward to its future.

In the pre-Ethereum era, DAO was embodied as Bitcoin's on-chain consensus and community governance. With the diversification of the underlying public chain, here comes the first differentiation of the DAO implementation. The formulaic negotiation model of off-chain proposals represented by BIP provides continuous support for network upgrades, but there are still disputes over development efficiency and on-chain execution. Some communities believe that more events should occur on-chain, and decred The governance logic of the upgrade is automatically executed on chains such as tezos and tezos. DashDAO, a node dedicated to governance work, was created in Dash.

After the launch of Ethereum, there was a watershed event "The DAO", the earliest financing DAO project, culminating in the successful raising of 150 million US dollars, and ended with the theft of funds. Although the project fell quickly, the model of "creative projects get financing from the community, DAO token holders contribute and enjoy future benefits" has remained and has become the basic logic of the popular venture DAO. The Moloch, the prototype of the financing DAO, fully inherits this logic in its concise functional design. Before DeFi formed a prairie prairie in 2019, due to the relatively centralized token economic distribution of most projects and the limited scale of funds and users, voting governance has not yet become a normal operation for crypto players. And some visionary practitioners recognize that DAO, as the organizational premise of the crypto world,

is a must for any community-based organization.

The DAO service platform represented by Aragon (2016) and DAOstack (2018) has provided DAO tools for thousands of community-based projects, and has deposited hundreds of millions of dollars of funds into governance. According to incomplete statistics, the number of DAO participants exceeded 60,000 addresses, an increase of more than 60 times from 10,000 at the beginning of last year.

The success of Shib has made more people see the potential of DAO. Shib is a social practice that comes from zero and eliminates zero. The underlying mechanism supports the logic of the DeFi distributed capital pool that grants every participant the right to be a shareholder of SHIB. . The more people involved, the safer the fund pool. Shib's startup method with no interest priority also brings together the consensus of global players. Strong infrastructure is a necessary guarantee for late-mover advantages. As a necessary component, DAO is especially valuable in its service platform.

DAO has obvious advantages, and its core features include:

- distributed and decentralized
- autonomous and automated
- organized and ordered
- intelligence and tokenization

In the future, we will see more and more people active in multiple DAOs, using their skills and expertise to deal with the affairs they care about. For example, a strategic technologist for a DeFi protocol can use her skills to guess the value of an NFT collector's portfolio in a DAO and fund entry creators through the DAO; provide a new governance model for NFTs, which puts her virtual identity and reputation on the line Ported to different applications to demonstrate the value created by users across the ecosystem. and many more.

Based on the above background, we believe that the integration of blockchain technology and diversified DeFi application concepts with Web 3.0 can provide an ideal state for commercial use, that is, an encrypted ecosystem with extremely immersive experience, time and space, rich and colorful Content gameplay, an

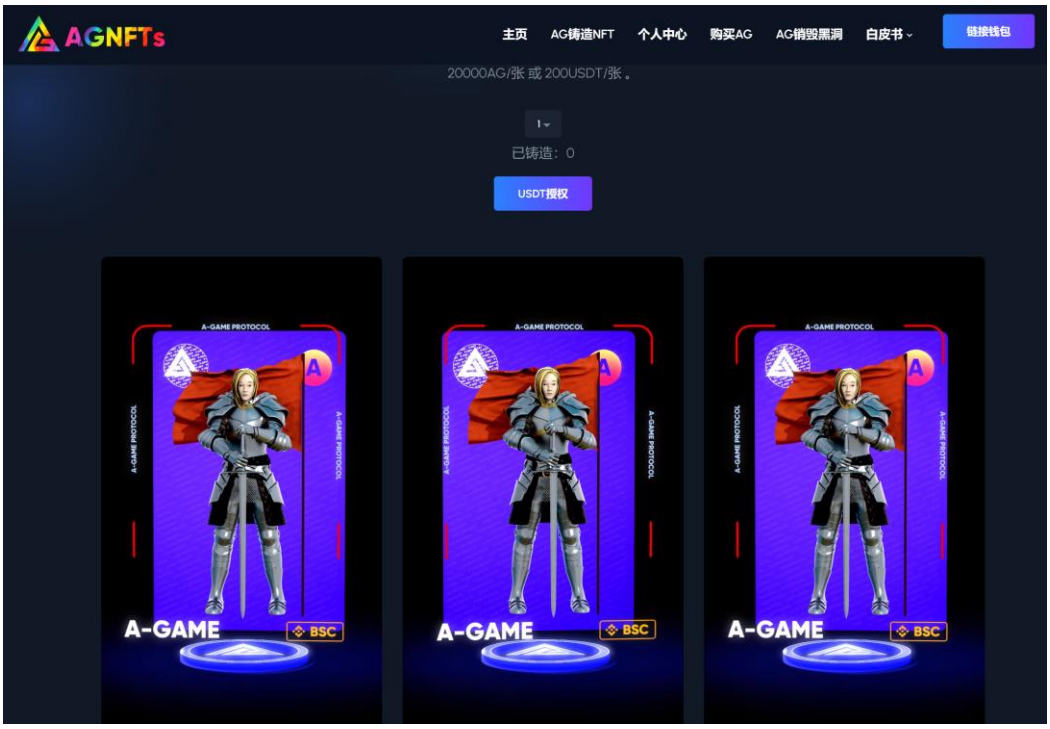
economic system that combines virtual and real, and a super-large digital community that can map real human social civilization. Therefore, we launched the A-Game competitive quiz game platform!

Chapter 3 A-Game Platform Overview

3.1 A-Game Platform Introduction

A-Game (AG for short) is a comprehensive competitive quiz game application ecological platform based on Web3.0. The application of mining pools and innovative token economic models creates an ecological integration space with high value increment and participation convenience for global users. At the same time, under the DAO operation mode, a transparent and credible game economic model supported by Web3.0 is brought to the world. This is a decentralized, shared, co-creation and community autonomy (DAO) game element that can generate value exchange. Cosmic infrastructure, and focus on investor ownership and value realization, eventually forming a super-large open and free trading platform.

A-Game's vision is: Use blockchain technology to build a fair and open comprehensive Wed3.0 ecosystem. Solve the trust and fairness issues faced by the industry, and make the entire competitive environment more fair, open and efficient. At the same time, in the Wed3.0 era, we will build a complete DAO value space for the global community and users, and hope that this complete ecological chain including DeFi, Metaverse, NFT, games, etc. can create value for users' free will and personal value, especially time value.



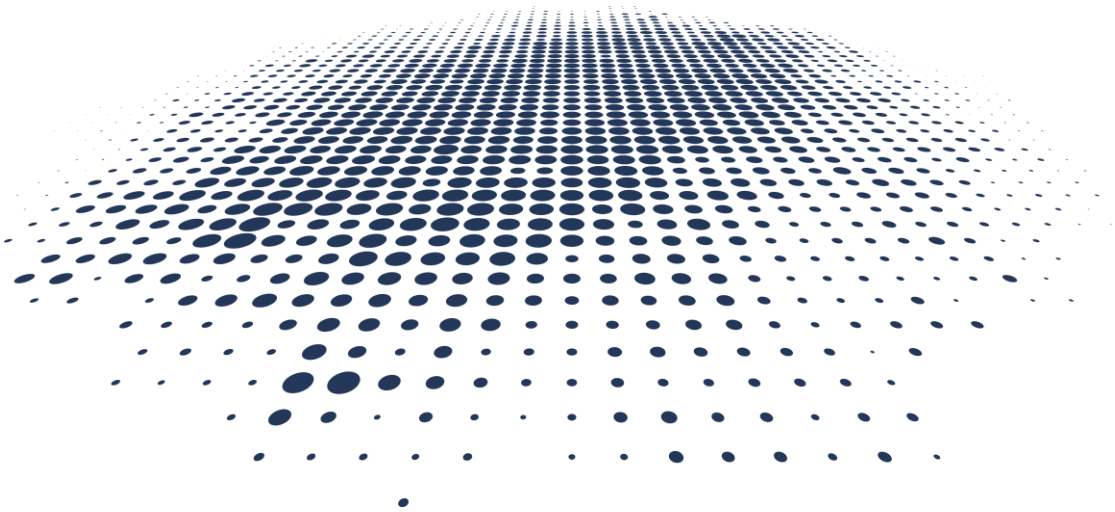
We hope to realize the intercommunication between independent ecosystems and build bridges between each continent, so that human beings can understand the new world empowered by Wed3.0 from a new dimension. Therefore, A-Game creates a community effect through the DAO model, which will bring common sustainable development to node holders, token holders, and new models. At the same time, aggregating multiple ecological scenarios such as DeFi, Metaverse, NFT, content and data resources, with platform tokens AG and AGNFTs as the core, to launch the implementation of the token economic incentive model to drive players to maximize the return value of participating in ecological construction. On A-Game, users, institutions, investors, project parties, etc. can achieve more diversified and high-return needs/functions.

A-Game believes that the real asset freedom comes from the privacy and security of information. Only by allowing assets to flow at their own will and always in a safe place is real asset freedom. The diversification of A-Game's ecology does not mean unconventional, but to make players' assets more free and make the experience more humane. Therefore, as a practical decentralized application platform with high value return potential, A-Game will provide a series of technical and functional characteristics to support the value mapping between the real world and the encrypted world, for exploration and early realization of value Mappings provide possible implementation paths. At the same time, the logic of non-fungible

tokens, DID and DAO is introduced to solve the pain points of the industry.

In the end, through the implementation of application practice, A-Game will provide global users with a fast, safe and reliable game and basic tools for the construction of the Web3.0 compound interest investment ecosystem. Establish connections between different blockchain ledgers, realize cross-ledger transfer of digital assets, multi-chain barrier-free transactions, cross-chain flash swaps, simple and easy operation, low GAS fees, etc. Diversified applications (World Cup concept currency, NFT world, HIEX, AMM standard mining pool, etc.) provide an infrastructure.

In the future, A-Game will maximize the value-carrying and value-transmitting functions of the blockchain, maximize the equality and openness of Wed3.0, and make the assets of hundreds of millions of users more free.



3.2 Development Concept and Value Pursuit

1) development concept

On the basis of the independent competitive guessing game protocol, A-Game expands the underlying design of the blockchain on which the application ecology

relies, comprehensively considers and integrates the advantages of many projects, and conducts pioneering explorations to lead the industry towards the next generation of competitive guessing game network.

- Core design concept: A-Game will retain all the core features of mainstream digital currency systems in design, such as P2P system, decentralization, asymmetric cryptography to ensure exclusive ownership of assets, anonymity, borderless, global application, etc. For example, A-Game retains the most valuable part of the Bitcoin system, adhering to its essence as a network of trust, enabling low-cost value transmission.

- Application concept: The development of blockchain has entered the era of application development, and everyone is trying to combine their work with the blockchain to give full play to the advantages of the blockchain. However, there are many bottlenecks in current blockchain projects, such as Bitcoin, and capacity has become the core issue hindering its development. In order to adapt to large-scale applications, A-Game will adapt to the development of the times and serve the application of competitive guessing games.

- Compatibility concept: Bitcoin, Ethereum, BSC, etc. are the most successful and stable digital currency systems at present. Many of the design concepts have been proved to be feasible. A-Game pays special attention to the integration of Bitcoin, Ethereum and BSC networks. compatibility issues.

Adhering to the principle of "standing on the shoulders of giants", the A-Game technology development team will combine the core technologies of mature applications such as Bitcoin, Ethereum and BSC, and rely on the core technology of the independent competitive quiz game protocol to provide stable development for the application. The infrastructure and node management supporting capabilities, and through the open platform and node consensus to build a complete decentralized consensus circle layer.

2) value pursuit

A-Game wants to create the ultimate virtual reality hub that will focus users on an immersive and engaging environment - for the first time ever, users can access encrypted information and immersive content from anywhere in a competitive guessing game content, and obtain different levels of resources and realistic participation experience, transaction resources, game resources, and experience

any form of competitive guessing games through more application scenarios. Therefore, A-Game will provide users with immersive participation in community interaction, sharing, trading and creation through NFT assets, metaverse immersive participation, World Cup concept coins, open DeFi2.0 and future self-developed personality Avatar.

- Interaction: Rendered via VR and AR, allowing users to view a realistic metaverse in more detail. Among them, AR supports virtual objects to be attached to the real environment, providing a virtual and real experience similar to that of a movie out of control player; the metaverse is projected into real life to complete preset actions and interact with elements in the real environment.

- Creation: For digital collections in NFT, users can customize them to generate a unique NFTs with individual elements, and this secondary creation product can generate anti-counterfeiting certificates based on NFTs.

- Sharing: Users can project their purchased resources into the real world through AR, users can interact with NFTs and publish the content in the community, and can also share their secondary creation products in the same way.

- Trading: Cooperative NFT holders, not limited to companies or individuals, can list and trade on A-Game. In the future, A-Game will also create more competitive quiz game scenes with immersive experience in multiple gameplays.

A-Game will make the experience in competitive guessing games more realistic and interesting, and in these applications, A-Game will integrate virtual reality with the physical industry, users can experience the same as the actual experience, and without the need to go out, All the goals you want to achieve can be achieved. At the same time, applications of different projects (third parties) can also be connected to our A-Game world to achieve common development。

3.3 A-Game Ecological Integration

A-Game fully absorbs the advantages of the existing blockchain 1.0, blockchain 2.0 and blockchain 3.0 projects, and based on the application goals, launched the World Cup concept currency, game platform B2C, empowerment platform B2B, NFT world, HIEX (contract transaction Ecosystems), AMM standard mining pools and other ecosystems, introduce the logic of developer incentives, metaverse, ecological funds, token incentives and DAOs to solve the outstanding problems and technical defects currently faced by similar projects, and build a more prosperous ecological and community economic model.

The construction of the A-Game ecosystem will go through the following stages:

- Establish trust - based on the encryption algorithm of the independent competitive quiz game protocol, establish a decentralized trust foundation;

- Design ecology - based on the logic of DAO, establish a consensus mechanism, and design an ecological model;

- Formulate rules - based on smart contracts and AMM, formulate rules and reward and punishment measures, and the system automatically executes the rules;

- Issuing tokens - AG tokens and AGNFTs, etc. provide value circulation media and incentive models for the ecology;

- Start the ecology - access various applications, start the ecology of competitive quiz games, and provide users with functional applications such as DEX, chain games, wallets, etc.

In the future, A-Game will seamlessly integrate competitive guessing game applications with blockchain and encryption applications, and explore more distinctive development paths in a wide range of application fields.

At the same time, based on the characteristics of Web3.0, A-Game already has a certain foundation for ecological construction in the following fields:

- DEX: The early cost-free "game theory" is clearly beneficial. When we consider the development of Web 3.0, we can see from the data of the continuous growth of trading volume announced by major exchanges in the market. The daily trading volume of the head platform alone reaches 30-40 billion US dollars. Another data shows that more and more people are starting to own cryptocurrencies and use exchanges as transit points to participate in Dapp interactions.

- Wallet: As the core wallet application, it is natural to be included in the scope of investigation. It can see the market's interest and participation in this field at the current stage. At present, Metamask is the most popular wallet. Its active users have soared from 500,000 to more than 10 million within one year. Second, the weekly active users of Coinbase, TokenPocket and Phantom have also exceeded 500,000.

- NFTs: At the beginning of 2021, NFTs that are out of the circle with works of art are gradually enriched in the fields of collectibles, games, domain names, tickets, etc. It is trying to solve the ownership problem faced in reality. According to the data returned by OpenSea, the leading NFT trading platform, there are currently more than 600,000 users on the platform, and the monthly transaction volume has reached an astonishing $3 billion, a steady increase of more than 500 times. This is even faster than many public companies are growing.

- Chain Games: Chain Games is the place closest to the practice of Web 3.0. If Web 3.0 is implemented, it must be in the field of chain games. The P2E model powered by Axie has 2.2 million active players and over 500 million monthly transactions. The old classic game Decentraland now has a market value of more than 4 billion US dollars. The famous singer Lin Junjie announced on his personal Twitter that he had purchased three virtual lands on the platform, causing quite a virtual sensation. So far, more than 100,000 users of the app have built new territories here.

- DAO: DAO is the most intuitive form of Web 3.0, and people are widely and actively discussed around a common goal. According to data from DeepDao, the total assets managed by the decentralized autonomous organization are currently as high as 14 billion US dollars, and a total of 1.3 million users have become members of the DAO. At the same time, in the application direction, social DAOs, charity DAOs, and guilds have been established one after another, and following the continuous improvement of DAO infrastructure, new progress has been made in governance, asset management, communication, and cooperation.

Based on the development experience of different players in the above market, A-Game's layout in the competitive guessing game market can touch more fields, and these will achieve the continuous explosion of A-Game ecology.

In our plan, A-Game will develop the competitive quiz game ecology into an overall economic system, which includes the above-mentioned applications, games, and metaverse, as well as social networking, creator economy, DAO tools, and trading platforms. , automated market making pools, etc. That is, A-Game will become an aggregated competitive quiz game application platform under the

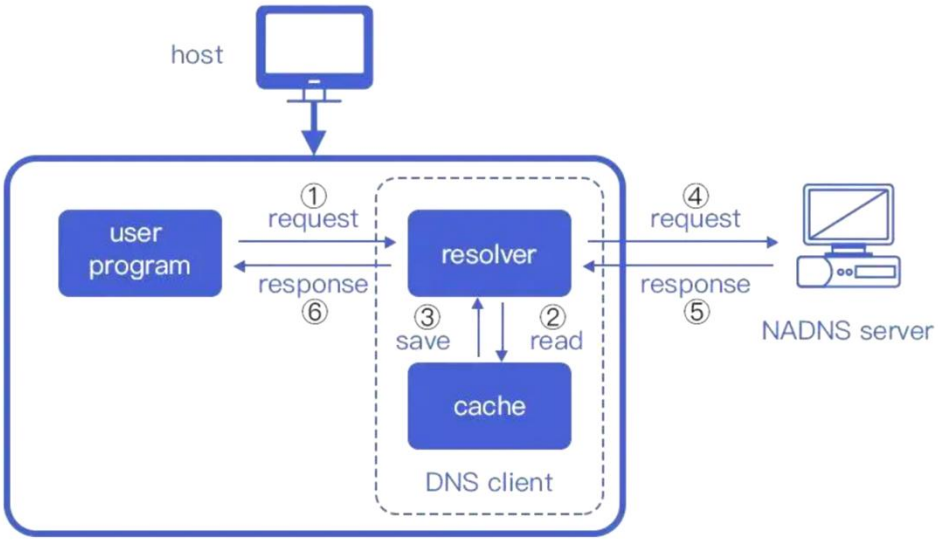
support of diversified ecology. A-Game's huge application ecosystem will open the door to competitive guessing games. Anyone can enter Web3.0 through its open applications and connect to DeFi, NFT, GameFi, DEX, and Metaverse.

3.4 Technology realization path

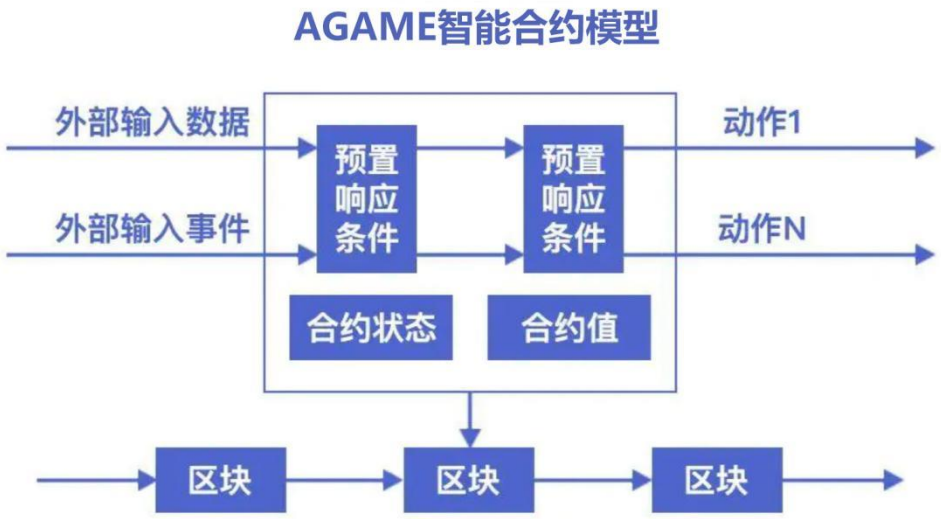
In order to realize the application ecology of competitive quiz games, A-Game has reconstructed the basic bottom layer. This is an all-round low-level technology. Equipped with advanced concepts, the heterogeneous composite chain model pioneered can make the data separate. The integrated consensus algorithm is used to process different levels of data on the application chain (main chain) and the composite chain (composed of the logic chain and the data chain), so as to meet the modern classification requirements to the greatest extent, so as to achieve high burst transaction results. With the launch of the mainnet and the implementation of various decentralized tools, the heterogeneous composite chain has also been effective in the real world, which also marks the beginning of the technical process belonging to A-Game, and will move forward at a faster speed set off.

In addition to the leading heterogeneous composite chain, A-Game has more pioneering technical capabilities: A-Game DNS decentralized domain name system, SVM innovative virtual machine, N++ programming language, A-Game DFS decentralized storage system, USDN With cross-century skills such as swap agreements, various skills are coordinated and blended with each other, showing an overall state of mutual tolerance and mutual achievement, truly bringing a high TPS, efficient, and low-cost trading experience to the industry.

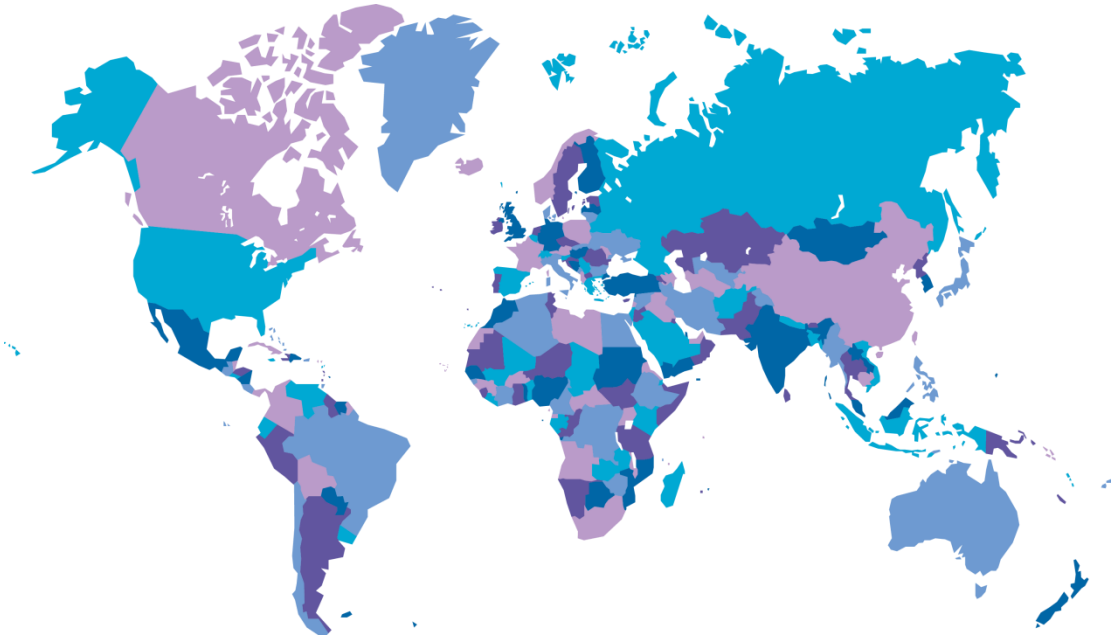
A-Game realizes domain name resolution and on-chain through the internal integrated DNS server, and allows users to host and lease domain names, completely anonymous, and can be handed over to the system for automatic execution in a few easy steps. At the same time, A-Game DNS can put domain names, UI, logic programs, and data on the chain to achieve 100% true decentralization of Dapp and DWeb. It is completely driven by the community. Anyone can independently operate and maintain the application through consensus. Theoretical The application can run forever, never stop.



A-Game has mature technology and meticulous smart contracts, and has also launched a series of development tools to help users track the interaction status of related functions and observe packaging transactions in Web3.0 application scenarios. All toolsets, ledger systems and private key management on A-Game are upgradeable. It divides all functions into templates, which can be provided to enterprise-level users on demand, and can be embedded in the centralized system for implementation. Centralized charm.



In addition, A-Game's competitive guessing game application ecosystem not only provides hardware and software measures and API interfaces for applications, but also provides them with solutions that fully integrate AI, Internet of Things, cloud computing, and big data technologies. Microservices split the services and databases of the system, so that each part has heterogeneous capabilities, and each service can coordinate and cooperate with each other, and use seamless computing to complete efficient computing on-chain and off-chain. The wall combination exerts platform-level characteristics.



Chapter4 A-Game Business Ecological Module

A-Game takes the application of competitive guessing games as the core, and expands the concept of World Cup (integrated entertainment native APP), game platform B2C, empowerment platform B2B, NFT world, HIEX (contract exchange), AMM standard mining pool, etc. Business Ecology Module.

4.1 Integrated entertainment native APP

In order to realize the global application of competitive guessing games, A-Game has launched the world's first integrated entertainment native APP, showing smooth and perfect operation. Bringing together a large number of sports, fishing games, live entertainment, lottery betting and electronic games, etc., the latest and most complete entertainment projects are in the palm of your hand. At the same time, the online event quiz game based on blockchain can solve the time and geographical limitations of C-end users, achieve full interaction with the scene and contribute revenue to the event. Relying on the openness, transparency, and immutability of blockchain technology, it completely solves unfair situations such as fraud and fraud, and reshapes the trust system of the online sports industry.

The content section of A-Game's native APP includes:

1) electronic games

Thousands of games, multiple cumulative bonuses, insist on innovation and create high-quality products, through rich game world view, exquisite game design, innovative rules and gameplay, to provide you with an excellent and extreme game experience.

2) live video

The latest and most dazzling live online entertainment, classic, microphone, package table baccarat to choose from, beautiful women such as clouds and multi-terminal compatibility, hundreds of professionally trained dealers and simulated casino environment, let players enjoy the fun.

3) fishing game

Fishing games with extremely diverse gameplay are loved by many gamers, with a variety of fish tides, gorgeous fish arrays, rich fish species, super high

explosion rate, and instant hits! Bring you a different fishing feast.

4) lottery game

The industry's first blockchain lottery, multi-regional official lottery, 11 pick 5, PK10, PC egg and official Mark Six, the game interface is novel enough and easy to operate, and it adds luster to your game process.。

5) sporting events

Asia's leading product research and development organization, rich sports events, diverse project play methods, and exciting and popular sports entertainment games created by all efforts, bold and new gameplay in the second half, the most complete event coverage to help you win the peak of life with fancy rice harvesting.

In order to realize the safe and comfortable and real-time betting of the above content sections, the A-Game native APP has the following support: 30-second average deposit time, 50-second average withdrawal time, 28 cooperative payment platforms, 32 cooperative game platforms.

- More professional: provide you with nearly 1,000 exciting sports and e-sports events every day, enjoy a variety of gameplay, and choose from real people, chess and cards, lottery, electronic games and other entertainment methods.
- Safer: Exclusively developed, using 128-bit encryption technology and strict security management system, customer funds are fully guaranteed, allowing you to fully enjoy entertainment and event betting without worries!
- More convenient: The self-developed Web, H5, and iOS and Android native apps allow you to play and bet as you want anytime, anywhere! 7×24 hours online customer service to provide the most intimate and high-quality service.
- Faster: The financial processing system independently developed by the latest technology can truly achieve extremely fast deposit, withdrawal and transfer. Exclusive network optimization technology to provide you with a first-class gaming experience and maximize network latency.

The A-Game team has strong technical capabilities and offline resource

integration capabilities. At present, it has reached strategic partnerships with many top sports media and communities around the world, actively interacts with the world's top sports competition providers and service providers, and interacts with the world's top football stars. Waiting to reach a consensus on blockchain cooperation.

In the future, A-Game will use blockchain technology to provide developers with a complete set of convenient and fast payment, settlement and application development interface agreements, combined with applications and business scenarios on the World Cup and the sports ecological chain. The ecological applications will include sports information and community Open platform, sports IP asset trading and promotion platform, quiz entertainment platform and application development platform, etc. At the same time, A-Game will also provide an unprecedented open-source blockchain platform that uses decentralized distributed ledgers to record the interaction of all participants in the community, as well as the promotion of World Cup IP asset transactions, sports and entertainment applications, etc. All transactions. By providing APIs for core applications, it helps developers realize resource monetization. Ultimately, to build a decentralized, global coverage, sports industry chain, public rights, and value co-creation, a full sports blockchain platform.

4.2 Game Platform B2C

A-Game will build the world's top game platform B2C and become the core link linking games, players, project parties, investors and third-party developers, etc., and will provide top game IPs, game developers, etc. with an easy-to-use and complete area The blockchain game application infrastructure includes a visual development kit and on-chain ecological environment. Developers do not need to pay attention to the implementation of blockchain technology, and can directly complete blockchain games in a diversified way with low thresholds, fast and efficient development and on-chain distribution of.

A-Game hopes to provide game players with a fair, just and open game environment with transparent data, transparent rules, no background manipulation of prop drop rates, and maliciously induced consumption. It hopes that game players' assets can be long-term, safe, and decentralized. are saved on the A-Game gaming platform. At the same time, we hope to help developers and players achieve better interest consistency through the digital asset economic model carried by the blockchain:

- Help developers to capitalize the content they produce, so that they can continue to benefit from the use, management and circulation of assets, and provide convenient and decentralized game distribution channels;

- Help players convert the data and props obtained from consumption of time and energy into assets that can be safely stored and circulated, so that players have the right to manage and commercialize them.

Therefore, the A-Game game platform will integrate game resources and brands in the market, and bring the game into the blockchain, so that every participating user and brand can reflect the value of the game, and promote the circulation and realization of asset value. Users get more benefits by participating in the game.

A-Game game platform has the following functions in terms of function settings:

1) Game Asset Issuance

A-Game game platform has self-service game and asset issuance portal, mortgage basic Token and value measurement, digital asset value guarantee.

- Self-service game and asset distribution portal: A-Game game platform opens a self-service asset distribution portal to qualified users. Developers, project parties and game IPs can design their own distribution plans, and communicate with their own games through open APIs. Program docking.

- Mortgage of basic Tokens and value measurement: A-Game game platform by default requires asset issuers to hand over a certain percentage of basic Tokens as collateral for digital asset issuance to ensure the initial value and credit of the issued assets. At the same time, forming a trading pair with the underlying Token is also an indicator of asset value.

2) Game Asset Trading

It has a safe and free decentralized game asset trading function composed of multiple high-performance nodes. The trading nodes can be expanded and adjusted at any time, providing users with all-weather, real-time safe and stable free trading or directional trading services. The acceptance gateway group across the game chain provides currency exchange and consumption services for game assets circulating in the application game. In addition to providing automatic acceptance system construction services for game manufacturers, A-Game game platform also accepts them as transaction node service providers to jointly maintain the transaction network.

3) democratic gaming environment

- Fair and open game environment: All game data on the A-Game game platform, including game item reward probability, random event parameters in the game, player matching balance values, etc., inherit the non-tampering characteristics of the blockchain system, and benefit from The efficient processing power brought by the underlying framework perfectly solves the inequity problems of most game platforms such as low transaction efficiency and game oligopoly.

- Open and transparent system: A-Game game platform will open more than 90% of the source code of the core system on Github.com, the world's largest

third-party open source site. Users around the world can witness the openness, transparency, safety and reliability of the A-Game game platform system. Attitude.

4) Game Fi's ecological application

A-Game's introduction of GameFi into games will create a whole new kind of gameplay where the digital economy doesn't end when the game is closed, blurring the line between in-game resources and real-world assets. For billions of gamers around the world, A-Game represents a paradigm shift, an opportunity to put time and ownership back in the hands of ordinary gamers.

In the A-Game ecosystem, the Play-to-earn mode will become one of the cores of many on-chain games, and earning while playing is the biggest feature of A-Game. Tokens and equipment, props, NFTs, etc. can all be sold on the blockchain marketplace.

- Earn in-game tokens: A-Game supports projects to issue in-game native tokens. These tokens are used to give holders governance rights, buy and sell in-game NFT items, and even be used for staking. Players earn tokens in the process of playing the game, and then exchange them for other tokens or fiat currency through the platform, thus bringing the income to the real world.

- Earn in-game NFT assets: NFTs include but are not limited to in-game items, characters, skills, tools, etc. Since they are suitable for in-game use, they can also be other purely decorative collectibles. Players can obtain these NFT assets through the game, and trade them to other players in need in the secondary market to achieve the effect of earning income.

4.3 Empowering Platform B2B

A-Game will provide an enabling platform B2B for global developers, project parties and third-party game applications based on its experience in the field of competitive guessing games to support the development, construction, improvement and trading of these third-party applications on the A-Game

platform.

1) Game Integrated Runtime Environment

A-Game platform blockchain system will technically provide a complete set of blockchain game development tools, gather the strength of the third party to improve the game mechanism, and the third party will contribute to the improvement of the system, and will also receive The generous rewards include tokens, NFTs and other rewards provided by the platform. We believe that the future game operating environment should have the following characteristics:

- Consistent and complete chain interoperability interface;
- Downward transparent undertaking;
- Encapsulated Atomic Operation;
- Multi-platform compatible

In order to simplify the use process, A-Game has designed a set of integrated operating environments that can adapt to various types of APPs, as well as supporting interoperability interfaces. Simplify the docking process between game programs and blockchain, make the interaction within the chain transparent to developers, and allow traditional game developers to use the A-Game system to develop or migrate blockchain games without any barriers.

The on-chain game running SDK is integrated into the A-Game engine Runtime, providing a complete chain interaction interface for games. Game developers complete the access of game content to the blockchain network based on the A-Game SDK. The chain interaction process is transparent and Structured, the game development team no longer needs to invest in R&D to adapt the chain network and different devices. At the same time, the operating environment will be compatible with native Android, iOS, PC Web, mobile H5 and other systems and environments. Games in the operating environment will have native cross-platform capabilities, enabling on-chain games to run smoothly on multiple platforms.

2) Blockchain interactive interface

A-Game provides a development environment for chain interaction, so that developers can easily interact with the chain through this environment. A-Game's

blockchain interactive development environment provides development components compatible with various work platforms, including SDKs for Android and iOS systems, javascript libraries for front-end web applications, and python and PHP libraries for back-end applications Wait.

Developers can use these development environments to develop their own blockchain software to realize data interaction, such as user registration, user information and asset operations, and user game data operations. The on-chain data interface allows users to store homogeneous or non-fungible asset (NFT) data on-chain, and in order to provide the best compatibility and customizable features, the blockchain system does not mandate that asset data be stored in plaintext, Game developers can design their own on-chain data storage structures more flexibly, so that this information can be parsed more securely through game clients and market plug-ins. At present, the chain interactive development environment mainly provides homogeneous and non-homogeneous digital assets (NFT) and encapsulation of props query, transfer, ownership change, transaction submission, proposal and voting, etc.

4.4 NFT world

In A-Game, AGNFTs (which will be described in detail in the following chapters) will play the role of increasing interest and incentives. In addition to the gameplay in the ecology, we will expand the service chain of NFTs to global users and developers. Create an NFT world - an NFT integrated application platform to increase the value transfer and realization of users after obtaining NFT in the application, thus forming a closed loop from production, rewards, auctions, transactions, etc. Users can enter the game scene through the "AG Ecology" in the AGNFT platform.

A-Game NFT world not only serves platform users, but will also become a comprehensive service market in the NFT market.

- Build an NFT basic service platform to provide transaction support services for the tokenization of project ecological assets and the digital economy derived from NFT;

- Provide NFT industry application solutions, third parties can formulate reasonable NFT application models based on the actual situation of each industry;

1）NFT creation

A-Game will create an NFT creation space that belongs to everyone, hoping to drive the creator economy to a new level, allowing creators to enjoy permanent royalties, revenue sharing and affordable minting fees. A-Game will provide global artists and NFT institutions with low-cost, high-performance blockchain technology support through self-innovative underlying systems and cross-chain protocols. Artists only need to focus on the creation of works, and they can enjoy the super market of incremental users. High liquidity empowers its NFT works and fully obtains value from the NFT wave. By linking NFT artists/institutions and users, A-Game has become an important channel for NFT concept popularization, market education and liquidity expansion, and provides artists, ordinary users and professional NFT institutions with platform empowerment, low-cost coinage, works display and sales. All-round experience, promote the popularization and promotion of NFT, jointly explore the infinite possibilities of NFT in the field of artistic value

and application, and let everyone become an NFT artist!

2) NFT auction

A-Game will create a bidding service ecosystem for NFT items and valuable products, providing artists, players, investors and collectors with a brand-new and reliable business model and platform. A-Game NFT items and valuable product auctions are DApps developed based on independent protocols, providing infrastructure for NFT creation, trading and circulation. A-Game also set up a special NFT investor protection fund to invest in and deploy leading NFT platforms and works, incubate top leading NFT artists, provide bridges for traditional top artists to enter NFT, sponsor art galleries, and organize art exhibitions Or publish, set up awards, support art creation and art criticism, and establish related art collections, etc.

3) Primary and secondary market transactions

A-Game will help high-quality projects, users, investors, and related institutions to conduct primary issuance, trading and circulation of NFT assets. Through A-Game, users or players can buy in before NFT flows into the secondary trading market, so as to obtain a better entry price or the priority right to experience the project earlier. For example, users can directly participate in the market subscription on the A-Game platform in order to obtain a better entry price or the priority right to experience the project earlier. In terms of secondary market liquidity, A-Game's secondary market will rely on the huge traffic of partners to help users solve the problem of secondary market liquidity. On the A-Game platform, buyers and sellers can freely trade on the NFT secondary market.

4) Fragmented NFT transactions

Users can fragment one or more NFT assets they hold in A-Game's NFT fragmentation transaction. On the basis of NFT fragmentation, automatic market maker (AMM) and liquidity mining (Liquidity Farming) are introduced. NFT holders can create MTokens by depositing and locking their own NFTs based on the ERC-721/ERC-1155 standard in a smart contract. MTokens are an ERC-20 token whose issuance is set by the creator. MToken contains one or more collections of NFT collections. Buyers can obtain partial ownership of the NFT collection by purchasing MTokens (determined by the number of MTokens held). NFT collectors can bid for a single NFT in the NFT collection, and MToken holders vote on whether

to accept the highest bid. When the number of votes who agree to accept the highest bid reaches a certain percentage (this percentage is set by the creator when creating the MToken), the NFT will be unlocked, the highest bidder can claim the NFT, and the MToken holder can obtain the proceeds from the sale of the NFT proportionally.

The essence of MToken is a governance token that empowers holders to vote and share profits. In order to obtain more benefits, the model encourages MToken holders to actively participate in voting when the bidding for NFT collections reaches the expected valuation, and also gives MToken holders motivation to promote the collection, so that NFTs have the opportunity to obtain higher bids.

4.5 HIEX (Contract Exchange)

In order to drive higher-dimensional value realization, A-Game has launched HIEX (contract exchange).

1) HIEX (Contract Exchange)

HIEX will build the safest, stable and efficient digital currency value network for global users and provide the best quality digital currency AMM services. The self-developed matching system can process millions of transactions per second. In addition, in order to meet the diverse needs of users, HIEX not only developed an advanced matching system, but also built a continuous, transparent, low-friction, and non-discriminatory trading environment.

While focusing on improving user experience, HIEX will continue to upgrade platform technology, improve the ecosystem, and use scientific and efficient management and operation methods to accumulate distributed ecological resources and energy and export this energy to the entire industry. The application of empowerment feeds back the entire ecosystem, and finally forms a development trend of cyclic empowerment and continuous growth, so as to establish a trustless and highly decentralized financial infrastructure for global users.

In terms of functional design, the basic functions of the HIEX protocol will implement the following designs:

- Build a decentralized transaction and clearing and settlement network in the "application + protocol" model;
- Strengthen application layer barriers and reduce fork risks;
- Connect and integrate the trading market and trading depth of centralized exchanges and decentralized exchanges;
- Break through the scalability bottleneck of current decentralized exchanges;
- It has cross-chain interoperability and is compatible with native tokens of various underlying public chains;
- Built-in dark pool trading feature, which can support split orders and independent transactions of large-value trading orders.

2) HIEX cross-chain bridge

A cross-chain bridge is a connection method for transferring tokens or data between blockchains. Two chains can have different protocols, rules and governance models. A cross-chain bridge provides a compatible way to secure between the two interoperate.

The cross-chain bridge is responsible for keeping assets on layer1 while releasing the assets on another (and external) service. It defines who will escrow the funds and the conditions that must be met for the asset to be unlocked. In short, bridges are required whenever a layer1 blockchain like Ethereum, BSC is to be connected to any other system. All bridges have similar operation:

- Deposits, users can deposit funds into the bridge, and (tokens) representing the asset will be issued on other systems;

- The account balance is updated, the bridge is notified of the new account balance information, which can be used to facilitate withdrawals;

- Withdrawals, users can withdraw assets from the bridge based on their balance on another system, where the tokens issued on this system will be burned.

Furthermore, the promise of Layer 2 scalability is to move transaction throughput from one layer to another off-chain system. A bridge is required to hold funds issued on another system. Layer2 bridges are the most powerful of all cross-chain bridges. The HIEX cross-chain bridge is a layer2-focused protocol that does not rely on custodians to protect funds. Instead, the bridge has to make sure that everything works off-chain before the funds are released. If for some reason the bridge is convinced that the off-chain system is broken, the bridge can simply bypass the other network entirely.

4.6 AMM standard mining pool

A-Game launched the AMM standard mining pool to improve players' mining services and liquidity creation. The gameplay of the AMM standard mining pool will be introduced later. In this chapter, the AMM model will be analyzed to help liquidity creators and market makers to better understand the gameplay mechanism of the subsequent AMM standard mining pool, etc.

1) AMM Model Overview

AMMs have fundamentally changed the way users trade cryptocurrencies. Different from the traditional order book trading model, both parties of AMM are interacting with the liquidity asset pool in the supply chain. Liquidity pools allow users to seamlessly switch between tokens on-chain in a fully decentralized and unmanaged manner. Liquidity providers earn passive income through transaction costs, which are based on their percentage contribution to the asset pool. A-Game is also constantly researching innovative design patterns that are trying to solve these problems.

- High Capital Efficiency and Low Slip Point AMM: Hybrid CFMM makes the exchange rate curve essentially linear and parabolic, enabling extremely low slip point trading only when the liquidity pool is pushed to the limit. Liquidity providers earn more fees (albeit at a lower cost per trade) because capital is used more efficiently, while arbitrageurs still benefit from pool rebalancing. A-Game offers low-slippage trading services between tokens with relatively stable 1:1 exchange rates, meaning their solutions are primarily designed for stable coins, although they have recently introduced support for encapsulated bitcoin tokens support (e.g. renBTC and wBTC).

- Reduce impermanent loss: A-Game aims to be the first to address impermanent loss of unstable tokens in the upcoming V2 release. V2 mitigates the risk of short-term losses by using a peg liquidity reserve, which keeps the relative value of its AMM reserves constant. This is achieved by mirroring asset pairs at a fixed price ratio of 1:1. And A-Game V2 is an asset and variable exchange rate using chain link quiz. With less risk for liquidity providers, this solution would be a major breakthrough in leveraging volatile

digital assets in asset management systems.

2）A-Game automatic market making principle

From Bancor to Uniswap, AMM technology provides a new foundation for instant liquidity in any digital asset. AMMs will not only trigger price action in previously illiquid markets, but also in a highly secure, globally accessible and unregulated manner. AMM has achieved significant growth so far, with innovations around improving capital efficiency and reducing volatility losses providing the necessary infrastructure to attract larger liquidity providers from traditional markets. A-Game believes that the most basic curve shape of AMM has been finalized, and subsequent innovations should be "strategized" on the basis of the basic curve shape of AMM, so we realize centralized custom liquidity on AMM. In order to solve the limitations existing in the traditional AMM model, A-Game has introduced the concept of virtual reserves. We will analyze the automatically defined liquidity of A-Game through examples.

In the traditional AMM model, Alice injects 500,000 DAI and 333.33 ETH into the reserve pool at one time, with a total value of $1m, providing liquidity in the whole range (0,\infty), but in fact, the price fluctuation range of ETH is in a long period of time. There is a local scope, and this act of selflessly providing liquidity for the entire region greatly wastes the efficiency of capital utilization.

The so-called centralized liquidity is to let LP choose the fluctuation range independently, and only provide local liquidity for this range. For example, Bob believes that the price range of ETH in the future is (1000, 2250), and if the future is really in this range Fluctuations, Bob hopes that he can earn as much as the millionaire Alice, so Bob only needs to invest 91,751 DAI and 61.17ETH at the beginning, with a total value of $183,500, which is far less than the actual investment of Alice. Let us explain the reason according to the following figure.

$$x_c y_c = (x_b + 61.17)(y_a + 91751) = x_b y_b$$
$$y_b = 2250 x_b$$

then

$$D = x_b y_b = 166678636.343 \asymp 166665000 = 500000 \times 333.33$$

That is, the virtual curve (D value) obtained by Bob is almost the same as Alice.

The above calculation process is a proof by contradiction. In fact, the user Bob will put forward his own demand input to the system algorithm, including the price range of the quiz, the current price point, and the final desired virtual reserve scale (ie the virtual curve D value). With the determination of the virtual curve expression, the coordinates of the three determined points a, b, and c can be easily calculated, and then x_{real}=61.17 and y_{real}=91751.

At the same time, it can also be seen that once the future price exceeds the range, one of Bob's assets will disappear completely.

$$i_c = \left\lfloor \log_{\sqrt{1.0001}} \sqrt{P} \right\rfloor$$

There are feeGrowthGlobal0(f_{g},0) and feeGrowthGlobal1(f_{g},1)—f_{g} in the global state, which are used to count the total fee income from a global perspective. For example, when a transaction occurs within a tick, the system will calculate the transaction fee:

$$f_a(i) = \begin{cases} f_g - f_o(i) & i_c \geq i \\ f_o(i) & i_c < i \end{cases}$$
$$f_b(i) = \begin{cases} f_o(i) & i_c \geq i \\ f_g - f_o(i) & i_c < i \end{cases}$$

The f_{a} variable is the fee statistics for all intervals higher than i tick, and f_{b} is the fee statistics for all intervals lower than i tick, so in the above general formula, we accumulate the fee f_ from the global total Subtract all accumulated handling fees below the lower bound i_{l} from {g}, and then subtract all accumulated handling fees above the upper bound i_{u}, which is the sum of (i_{l}, i_{u}) accumulated fees. f_{o} can be understood as a calculation unit, which is used to accumulate the handling fee up to i tick. In its initialization process, we agree as follows: Let' s look at the calculation of f_{a}, which is divided into two sections, which can be understood as——

- If the current tick is equal to or higher than i, then the fee f_{o}(i) "accumulated to i tick" is subtracted from the global total fee f_{g}, and the rest is for all fees above Fee statistics for the interval of i tick;

- But if the current tick has not yet reached i, then according to the initialization of f_{o} is defined as 0, the fee statistics of all intervals higher than i tick have not yet been generated, which is 0.

Likewise for f_{b}——

- If the current tick reaches or exceeds i, f_{o}(i) represents the fee accumulated to i, that is, the fee statistics for all intervals below i tick;

- If the current tick has not yet reached i, the fee statistics for all intervals below i tick are the current global variable f_{g} (the current total fee).

In general, the system algorithm needs to count the accumulated handling fee in a certain range,

- If the current tick is already inside the range, i.e. i_{l}\leq i_{c} < i_{u}, it is only necessary to subtract all the accumulated procedures of the range below i_{l} from the global fee f_{g} fee;

- If the current tick is not within the range and is lower than the lower bound i_{l}, it means that no transaction has been generated within the (i_{l}, i_{u}) interval, and no handling fee has been generated, so the cumulative amount in the range is 0;

- If the current tick is not within the range and is higher than the upper bound i_{u}, it is necessary to remove the respective cumulative amounts of the "two ends" from the global total, that is, subtract all the values below i_{l from the global f_{g}. } Interval cumulative amount, then subtract "from i_{u} to the current tick interval cumulative amount".

A-Game's process of calculating fees is a kind of thinking from microscopic to macroscopic. It divides the space into discrete ones. Each time scale will only generate transactions in one discrete space, thus generating fees. Each records the sum of the accumulated handling fee in the interval from the lowest tick to itself, and then continuously calls the above formula to calculate various macro results.

A-Game has changed the traditional AMM's setting of LP behavior, and no longer calculates fee income for each LP based on Global Liquidity and Share. For A-Game, it only pays attention to how much "virtual" liquidity exists in each tick,

and how many handling fees are generated by these virtual liquidity, and calculate the handling fee value corresponding to the unit of virtual liquidity; under this time and space, Let's cut the perspective to each specific LP. For any LP, there will be an interval setting of "Position", which provides virtual liquidity in the interval set by himself, which may be a tick, or It may be multiple consecutive ticks. From the simplest "one tick" perspective, the system will remember the virtual liquidity value injected by each LP in this tick in the same time and space, and determine a ratio for them, so as to obtain the All fees accumulated in the tick.

In actual situations, LPs still have complex behaviors, such as the time of injection/exit and the selection of range/tick. But the advantage of A-Game is that it uses global calculation to block out a single LP perspective, and only cares about the ticks perspective and the Position perspective. After determining the definitions of the above-mentioned series of global state variables, carefully record the occurrence of each swap transaction in the ticks, and only record the size of the virtual liquidity in each tick, so as to provide The swap transaction formula and how the post-swap fee is distributed to all LPs participating in the tick. The complex behavior of LP is reflected in the discontinuity of space and the inconsistency of time. For the inconsistency of time, A-Game will also introduce a global variable at the position level to record its pairing for each address. range/tick The statistics of fees when joining/exiting (“setPosition”) (uncollected fee/feeGrowthInside), to ensure that subsequent LPs will not participate in the accumulated income distribution of previous LPs.

3) Staking Model

A-Game will give liquidity providers, firm holders (Diamond Hand), liquidity creators and AG token holders the opportunity to obtain real value through smart contracts.

- Farm: Mortgage LP liquidity tokens to earn AG tokens. Compared with using Pool mining pool, it takes more risk of market volatility (unpaid loss), but users can get higher APR to offset the risk (in most cases, they will get a decent return).

- Pool: A-Game will cooperate with well-known projects on various public chains, pledge the tokens of these projects, and each block will receive AG tokens. Pledging AG to obtain partner projects will also bring objective benefits to users.

4.7 A-Game Metaverse

Ultimately, A-Game's goal is to realize the integration of competitive guessing game application ecology and multiple business modules in the metaverse, thereby creating a huge Web3.0 metaverse immersive interactive civilization. The virtual world created by the A-Game metaverse will add more scene support to the value Internet of immersive interactive experience. Introduce human consciousness into the virtual world and make the brain believe in the virtual world created by him. in this virtual world:

- Users/players can make their own image, height, body shape, appearance;
- User/player is the first point of view, there will be a feeling of being in it!
- Sight, hearing, touch, and smell all have, almost the same as the real world;
- Users/players can carry out many types of activities, not only for leisure and entertainment, playing games, shopping, eating, dancing... but also for office work, business negotiations, free time, hanging out, doing nothing, and even doing things that cannot be achieved in the real world. things: flying, teleporting, etc.

In the future, including medical applications, entertainment applications, interior design, real estate development, industrial simulation, emergency deduction, cultural relics, game applications, Web3D, roads and bridges, geographic applications, educational applications, hydrogeology, virtual maintenance, training, shipbuilding , rail transit, biomechanics, rehabilitation training and other aspects can be introduced into the A-Game metaverse.

In the construction and exploration of the metaverse, the A-Game metaverse will be the first stage of interaction by issuing commands through mouse and keyboard devices and touch operations to operate computers and mobile phones and other devices; human-computer interaction through gesture interaction, voice interaction and other technologies , The second stage of the interaction of intelligent experience; the third stage of whole body tracking and whole body sensing through virtual reality and augmented reality technology to obtain a better immersive interactive experience is gradually realized, allowing the A-Game

metaverse to change the world. In addition, the application of the A-Game metaverse will also have more support, and as the benchmark of the metaverse, A-Game will provide support for technical landing scenarios including AR, MR, XR, ER, etc., and at the same time, provide open interface to create a technical foundation for third parties to quickly apply the Metaverse, thereby driving the accelerated arrival of the Metaverse virtual reality era.

Chapter 5A-Game's competitive guessing model

In the A-Game competitive quiz game ecology, the quiz model will play a key role to ensure fairness, justice and the realization of rewards and punishments.

5.1 Overview

The result of the A-Game quiz event is automatically determined by a third-party Oracle. This ensures the efficiency of result determination. At the same time, A-Game draws on the ideas of A-Game and Gnosis. When Oracle fails or is wrong, AG holders can exercise their voting rights and make final judgments on related betting events. The Oracle of A-Game is replaceable. If the user still disagrees with the voting result of the arbitration request, the user can continue to pay the fixed deposit token for the next round of arbitration request. Due to the

increasing number of fixed deposit tokens in each round of arbitration, and at the same time, AG holders will maintain the accuracy of the A-Game platform to protect the value of their tokens. In theory, the vast majority of AG holders will Make a fair decision. A-Game introduces the Oracle abstraction layer to unify third-party Oracles and voting-based decentralized Oracles. This technology allows A-Game to have both the advantages of the existing decentralized quiz market.

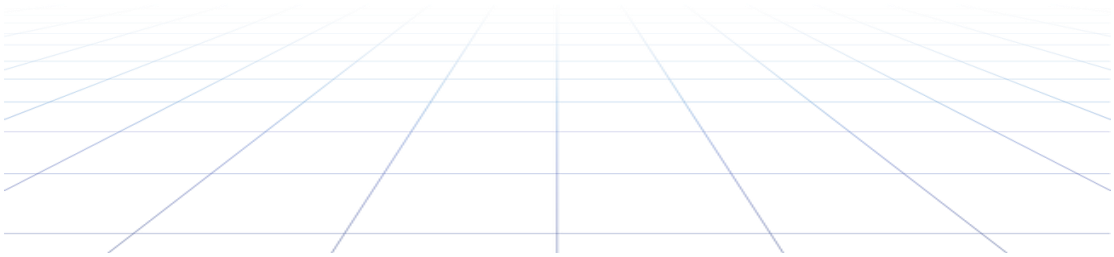
The algorithm mechanism of the A-Game platform is as follows:

- Users create quiz events on the A-Game platform
- Users speculate with tokens and price the probability of each outcome
- When the specified time in the future arrives, Oracle will automatically obtain the result of the event from the outside and determine the result of the quiz event
- Agreement ← F alse
- while Agreement 6 = T rue do
- The judgment result will be announced in the quiz market for 48 hours
- if the arbitration result is valid and no objection is raised then
- Agreement ← T rue
- The party who guessed correctly will be able to get their original tokens and rewards
- else
- Agreement ← F alse
- Users who disagree with the result make a request for arbitration by paying fixed deposit tokens
- end if
- end while

In addition, A-Game is also committed to creating a free and low-cost quiz market. Oracle acts as the referee of events on the A-Game platform. In order to motivate more oracles to provide credible and stable services for A-Game, the oracles on the platform will receive a small portion of the tokens of the betting event determined by them as an incentive (service fee).). At the same time, AG token holders are the maintainers of the A-Game platform. In order to motivate token holders, the platform will deduct a token fee from each quiz event. These token fees will be distributed to AG holders as rewards. For the specific rate, we will formulate an initial value when A-Game goes online, assuming that the token service fee paid to Oracle is Ff (percentage), and the token transaction fee paid to the platform is Fs (percentage), and the party who fails to guess The total loss is Sloss, then the profit Swin obtained by the correct guess will be:

$$Swin = Sloss \times (1 - Ff - Fs)$$

In the future, this rate will be dynamic, and we will create a quiz event for this token rate on A-Game, allowing all AG holders to vote together to determine the best rate。



5.2 Platform quiz event operation mechanism

1) Event

Event in A-Game refers to the future event used for quiz. Users can use A-Game's Event Editor and its Event Template to create Events based on future events in the real world. When creating an Event, you must give a detailed description of the Event, the completeness of the result, and the Oracle that determines the result, etc.

The result of an Event can be of binary type (binary), multiple choice type (list), or range type (range). According to the degree of openness of the event, it can be divided into open and invitational. All A-Game users can participate in open events, and only invited users are eligible to see and participate in invited events. Events created by users will enter a temporary Event Pool provided by the system. The system will also have an Event Filter to filter illegal or unethical events. The filtered events will enter the system's Live Event Pool for users or other users to create Markets.

2) Market

After users create a quiz event (Event), they can open a corresponding quiz market (Market) to provide participants with a trading platform. Users can search the system's Live Event Pool and select the events they are interested in to create a Market. First, the user must determine an integer loss bound, which is an important parameter for the market creator's bounded loss. A larger value means that the market creator is likely to lose more, but the larger it is, the more liquid the market is, and the smaller the impact on the price when participants buy more shares. Second, users must have sufficient reserves in their wallets. This reserve is calculated from the loss circle and the number of outcomes of the event. It is the largest loss faced by the market creator, and the amount of the deposit will be directly related to the total winning and losing of the entire market. The same Event can be used to create Markets with different preferences, and each Market may have different loss bounds, reserves, market liquidity, delivery dates, Oracles, and dispute arbitration mechanisms. Users with different preferences can choose the Market that suits their preferences for trading, truly realizing personalized market creation and matching.

3) Pricing and buying and selling

A-Game adopts the LMSR (logarithmic Market scoring rule) to instantly price each result in the market according to the trading situation of the market. LMSR provides virtually unlimited market liquidity to the market. This is different from the traditional non-LMSR quiz market and stock market. In general, the more an outcome is bought, the higher its price; the more it is sold, the lower its price. Users can see the real-time price of each result and its changing trend in A-Game.

If A-Game users choose and are eligible to participate in a certain market, they can use their AG Token to purchase a certain amount of shares of a certain outcome according to the market price at that time. In the same way, users can also sell their own market share in the market to obtain the corresponding AG Token.

4) Closing and closing

When a market expires, that is, after the event corresponding to the market occurs in the real world, A-Game will determine the outcome of the result according to the Oracle of the event corresponding to the market.

Users who have shares of the correct guessing results become the winners of the market, and their shares will be automatically converted into AG Tokens. After deducting a certain handling fee, the remaining Tokens will be automatically transferred to the winner's wallet in proportion. Users who do not own their share of the correct outcome of the quiz are the losers and will not be liable for any additional fees. If the total amount of shares purchased by the losers is not sufficient to cover the winnings, the difference will be paid out of the reserves provided by the market creator. This process of clearing and transferring AG based on whether the guess is correct or not is called "delivery".

Since there are related transaction fees (gas) for creating events, markets and transactions on Ethereum, and the creator of the market also bears certain risks, the system will collect a certain fee from the winner's profit. These fees are mainly used for the following aspects: used to pay all the creation and transaction fees related to the Market; distributed to the creator of the market as a return; distributed equally to the holders of AG Token as a return; other purposes.

After the market clearing and settlement is completed, the Event & Market is officially closed and no further related transactions are allowed. If the Oracle corresponding to the market cannot decide the outcome or there is ambiguity, or if a user questions the outcome of the decision, A-Game will have a series of methods to resolve the dispute.

5.3 Pricing Principles of A-Game Market

As mentioned in the previous section, the market pricing principle of A-Game adopts the LMSR (logarithmic Market scoring rule) rule. That is, the logarithmic market evaluation rule proposed by Hanson. It is an automated market market creator mechanism that always maintains a consistent probability distribution to reflect the market's estimate of the likelihood of each outcome. LMSR is becoming the de facto standard for prediction markets, it has many excellent properties, such as bounded losses due to logarithmic growth of betting results, unlimited liquidity and modularity of independent relations, etc.

LMSR is used by many companies or projects, such as inkling-Markets.com, Microsoft, yoonew.com, Augur, and Gnosis. In a quiz market, the market creator establishes an event ⌀, and the result of ⌀ can include: Boolean type, list type, and range type. At a certain point, how participants place their bets, how to determine the price at which to buy or sell a share of an outcome, and the market's assessment of the probability of winning are all done by the LMSR.

- Definition: For an event ⌀ with n outcomes, qi represents the current number of shares for the ith outcome.

- Loss Bound ℓ: an integer determined by the market creator itself. It is an

important parameter for market creator bounded losses. The bigger the ℓ is, the bigger the market creator is likely to lose, but the bigger the ℓ, the bigger the liquidity of the market, and the smaller the impact on the price when the participant buys more shares.

- Reserve ℱ: Indicates the upper bound of the market creator's bounded loss, that is, the maximum possible loss value, and is also the reserve that the market creator must provide when establishing an event. ℱ is determined by ℓ and n together. $\mathcal{F} = \ell \cdot \ln(n)$

- Market state: The market state refers to n result share vectors (q1, q2, ⋯ , qn), each transaction will only change a certain qi, thereby changing the market state

- Cost function c: The cost function of the market state is defined as

$$C(q_1, q_2, \cdots, q_n) = \ell \cdot \ln(e^{\frac{q_1}{\ell}} + e^{\frac{q_2}{\ell}} + \cdots + e^{\frac{q_n}{\ell}})$$

ℓ is the loss bound and ln is the natural logarithm. The cost function C is the core function of LMSR, and the specific payment amount for buying and selling shares will be given by the state difference of the cost function. If you buy Δ copies of i results in the current state of the market, you need to pay:

$$C(q_1, q_2, \cdots, q_i + \Delta, \cdots, q_n) - C(q_1, q_2, \cdots, q_i, \cdots, q_n)$$

If you sell Δ shares of i results in the current state of the market, you need to pay:

$$C(q_1, q_2, \cdots, q_i - \Delta, \cdots, q_n) - C(q_1, q_2, \cdots, q_i, \cdots, q_n)$$

When the selling price is negative, it means making a profit from the market. Therefore, buying and selling shares is an atomic operation, and you must wait for the previous transaction to complete before proceeding to the next transaction, which cannot be completed in parallel.

- Instantaneous price function p(qi): Indicates the current price of buying or selling a tiny i-th result share. It is the partial derivative of the cost function:

$$p(q_i) = \frac{dC}{dq_i} = \frac{e^{\frac{q_i}{\ell}}}{e^{\frac{q_1}{\ell}} + e^{\frac{q_2}{\ell}} + \cdots + e^{\frac{q_n}{\ell}}}$$

When the quiz event occurs, if the i-th result wins, then p(qi) = 1, p(qj≠i) = 0

- Probability function p(qi): represents the probability of winning the i-th result of the current market quiz event

- Market creator profit$\mathcal{R}$: After the quiz event occurs, if the i-th result wins, then

$$\mathcal{R} = C(q_1, q_2, \cdots, q_n) - q_i - \mathcal{F}$$

When $\mathcal{R}$ < 0 it means the market creator lost money.

When the quiz is over and the event is determined, if the result i wins, the participants who hold the share of result i will redeem all the shares at a unit price of 1, while the participants who hold the shares of other results j≠i will lose all the shares. If the total funds of outcome j≠j shares are not sufficient to cover the total funds of winning outcome i, the shortfall is deducted from the market creator's reserve $\mathcal{F}$. This means that the more accurate the market guess, the more the market creator loses, the worse the market guess, the more the market creator makes. A good model of LMSR allows market creators to lose the most reserves $\mathcal{F}$.

Market creators will lose their entire reserves $\mathcal{F}$ in extreme cases, which happens when outcome i wins, and all participants buy enough shares of outcome i, and no one buys shares of outcome j≠i. That is, qi is large enough, qj≠i = 0. Therefore, the redemption fund that the market creator needs to pay is qi, and the market is pure profit at this time (bytes invested by all participants)

$$\mathrm{T} = \mathrm{C}(0,0,\cdots,\mathrm{q_i},\cdots,0) - \mathcal{F} = \ell \cdot \ln\left(\mathrm{n} - 1 + \mathrm{e}^{\frac{\mathrm{q_i}}{\ell}}\right) - \mathcal{F} \cong \mathrm{q_i} - \mathcal{F} \ ,$$

That is, $\mathcal{R}$ = T − qi ≅ −$\mathcal{F}$, so the loss of the market creator reaches the upper bound $\mathcal{F}$.

Chapter 6 core technology system

6.1 Supporting module technical support

In order to realize the global fission of A-Game, based on the core application of competitive guessing games, we provide technical support for diversified system supporting functions including asset registration, asset inquiry, payment, etc.

1) Asset registration

Asset registration is one of the basic functions of A-Game, and the asset registration process is usually completed by the gateway or gateway agent. All gateway-registered assets or agent-registered assets need to gain the trust of the asset owner, and only trusted parties can trade the same asset.

2) payment wallet system

A-Game Wallet can be used for the storage, management and transaction of digital assets. Users can not only fully control their own digital assets, but also greatly reduce the use threshold and management burden of digital tokens, effectively promoting the flexible application of digital assets. Transactions through wallets will become the main transaction method for users around the world. A-Game is easy to operate. Not only entry-level users can use it freely, but also experienced users can choose different professional investment functions in A-Game according to their unique trading needs.

A-Game can be directly and simply operated on mobile devices. These new technical features will make the application of cryptocurrencies more practical.

A-Game wallet system has the following features:

- More secure: path security, data security, tamper resistance, and no single point of failure;
- Faster: real-time transactions, no payment intermediaries, faster cross-border settlement;
- Cheaper: low-cost transactions, low transaction commissions, no middlemen;

In addition to the changes to the traditional payment mode, A-Game will also realize the construction of a cross-chain payment system through the application of the lightning payment network and the integration of high-frequency payments.

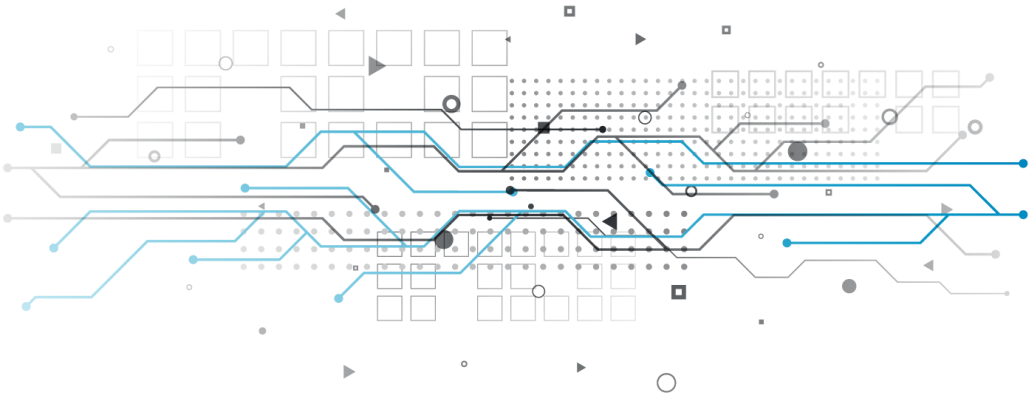
4) Blockchain asset browser

Blockchain is a highly technical distributed ledger technology. In order to meet the needs of ordinary users to understand the ledger situation, A-Game will provide a blockchain asset browser to provide retrieval and use of various blockchain information, which is convenient for ordinary users. Check the number of assets in the game. In order to ensure the validity of the ledger, the A-Game browser supports linking different blockchain nodes to query the ledger status, and can observe the generation of each block and each transaction in real time. When entering the corresponding account, you can query various account information. Asset balances and all transaction records. Key features include:

- Information such as total transaction volume, total transaction volume, and total handling fee;
- Provides a display of block information, including block, transaction summaries and details;
- Provides query function based on block height, block hash, transaction hash, and address;
- Quick access to new currencies.

5) API and SDK

For games, APIs are critical. A strong API infrastructure can enable users to win first and profit from the blockchain faster. A-Game will officially open the blockchain technology through the API released on BSC, providing a brand new game access mode for third parties. In the future, there will be more third-party access, and A-Game will provide a complete set of APIs and SDKs for identity creation, token creation, smart contracts, cross-chain interaction, trusted data, trusted storage and other scenarios. transfer. SDK can support mainstream programming development languages, such as Golang, C++, js, Python and other development programming languages.



6.2 core components

A-Game will provide support including but not limited to the following components:

- A multi-platform operating environment with an interoperable interface for blockchain systems;
- Improved high-speed consensus, and delegated witness mode;
- Test chain including efficient chain network and high-speed contract virtual machine;
- A cross-chain acceptance gateway that supports homogeneous and non-homogeneous digital assets;
- Enhanced asset permission system;
- Smart contracts capable of continuous execution across blocks;
- Atomic transaction operations;
- Syntax-level consensus tasks are supported;
- Small-scale consensus and random numbers;
- Supports endogenous trusted random processes;

- Supports extremely small on-chain transaction confirmation cycles;
- Supports accurate timers in the chain, supports Standby mode, and contracts operation mode with heartbeat support;
- Transaction verification mechanism to prevent BP/developer from cheating。

At the same time, it provides functions including but not limited to the following:

- De-intermediate asset operation interface;
- Examples of non-homogeneous asset circulation platforms;
- Player autonomy and dApp game store mechanism support;
- Visual IDE (including visual editing of game social programs and contracts);
- Complete wallet, user system and blockchain browser;
- Iteratively updated smart contract system;
- HTML5 program and game live broadcast application of blockchain functions such as smart contracts and transactions.

6.3 Improved NFT Asset Protocol

1) Improved non-fungible digital asset (NFT) data structure

Non-homogeneous digital assets (NFT) is a type of digital assets used in distributed accounting networks. Asset instances are unique. By optimizing the structure of non-homogeneous digital assets (NFT), it can be used more flexibly. in blockchain online games.

A-Game redesigns the data structure and adds custom data storage to accommodate data and extended content of possible games, NFTs, and other diverse applications in the future. At the same time, key processes such as

consensus, witness, and block generation are also adjusted accordingly to match the new data structure. The game data in A-Game is only fully recorded in the block data when it is generated and its attributes are changed. During ordinary transactions and transfers, only the hash pointer is recorded to ensure that the volume of the block data will not be too fast due to long-term transactions. growth of.

2) Data separation of assets and contracts

On-chain storage of homogenous, non-fungible assets (NFTs) and smart contract data is separated. There will be a large number of ongoing transactions in A-Game's network. It is necessary to reduce the computing cost of asset analysis and circulation as much as possible. The separation of assets and contracts can realize the separate analysis and execution of contracts and the operation of necessary results on the chain. Under the design of the separation of asset and contract data storage, the asset owner has all the permissions of the asset, and the operation of the asset can only be completed by the owner's authorization. It can avoid the situation of destroying asset properties or calling other people's assets by modifying the contract content due to the non-separation of asset contracts, and it is easier to realize the cross-chain acceptance of non-homogeneous assets (NFT) without considering the constraints of contract factors. Therefore, assets Separation from contracts is a safer design.

3) Security guaranteed using modern cryptography

The full name of the ECC algorithm is Elliptic curve cryptography, which was proposed by Neal Koblitz and Victor Miller in 1985. Modern cryptography technology is a cryptography technology based on mathematical principles. It has been widely used in various industries in the Internet field. Common symmetric encryption technologies include AES encryption used in WiFi, and asymmetric encryption algorithms (public and private key cryptosystems) RSA, ECC, etc., of which ECC (Elliptical Encryption Algorithm) is a commonly used encryption algorithm in the blockchain field. These algorithms use mathematical principles to design an encryption and decryption system with unacceptable computational consumption to prevent encryption from being broken. On the premise that the key is not obtained correctly, attempts to crack such encryption algorithms will take too long to implement due to the excessive computational load (usually it takes nearly a hundred years to try to crack/guess the key system). Lose the value of cracking.

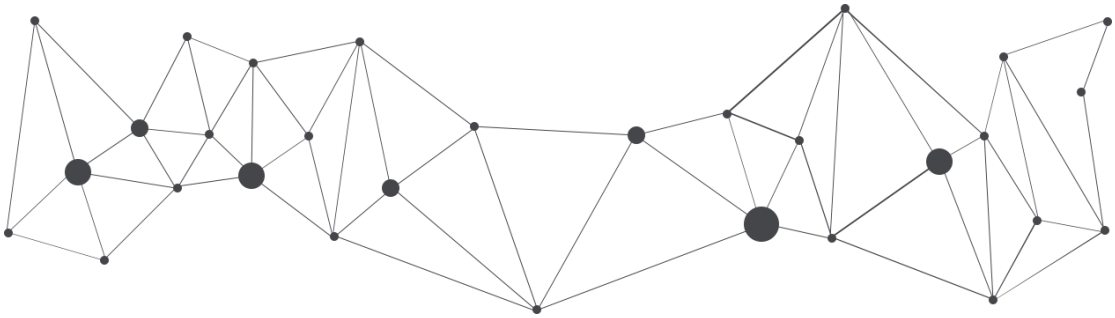
6.4 A virtual machine that supports large-scale games

A-Game has enough high concurrent processing capability. For most of the current online games, when the user scale reaches a certain level, the server needs to process a large amount of data in a short period of time, which cannot be achieved in the existing Ethereum network. A-Game adopts an improved consensus algorithm based on BSC, with a theoretical throughput of about one million TPS. Its high concurrent processing performance is sufficient to support the

development and normal operation of existing games under a reasonable data management mode design, and basically meet the needs of large-scale online games on the platform. The operational requirements in the game ensure that the user's game experience is almost indistinguishable from the existing centralized games.

Due to the high frequency of data interaction in large-scale online games, DNF has set a record of 600,000 people online at the same time, and the Steam game platform has an amazing data of 14.2 million people online at the same time. If every online user submits data as a consensus application, A-Game's extreme throughput is not enough to support such a level of processing requests. The development team has designed different witness delegation modes (Delegation Templates), so that a single witness client does not need to witness and process all running games at the same time, but focus on the work of witnessing and counting blocks for multiple games of the same type. Moreover, in this mode, the data submission/witness of different games is a relatively asynchronous process, each game will choose the appropriate delegation mode, and the data verification in the asynchronous mode can be completed through the on-chain database service, that is, the user Verify and complete data access on-chain. This process is very efficient and is enough to support player data operations in large-scale game scenarios.

A contract is a program that can be automatically executed. At the same time, as a system participant, it performs preset tasks according to the basic rules of the environment (compiler rules). The contract can define input and output, accept and store value, and send information and value. Smart contracts are designed on the premise of the "principle of distrust", and each node believes that each other cannot be trusted. Due to the distributed storage characteristics of the blockchain, each node on the chain saves the same contract execution code, and the operation results of the contracts are jointly witnessed by the computing power of the entire network, and whether the operation results are approved or not is determined through a collective vote. A-Game's contract supports the definition of witness delegation.



6.5 Hybrid data storage model

In A-Game, a large amount of NFT and game data will be stored. Therefore, considering the purpose of large-scale storage and commercial use, we propose a hybrid data storage solution based on TIPFS/Storj/Cloud Service three storage media, aiming to provide faster, safer and more reliable for the underlying traceability chain. Storage System.

1）IPFS

IPFS is a point-to-point network hypermedia protocol, the full name is Interplanetary File System, and its goal is to become a faster, safer and more open next-generation Internet. IPFS is a content-addressable peer-to-peer hypermedia distribution protocol. Each node in the IPFS network will constitute a distributed file system, making the network faster, safer and more open. Since IPFS is based on content addressing rather than file names, and uses content addressing to replace traditional IP and domain name-based addressing, users do not need to care about the location of the server, and do not need to consider the name and path of file storage. At the same time, IPFS calculates a unique encrypted Hash value based on its content, which directly reflects the content of the file. When IPFS receives a file Hash request, it will use the DHT algorithm to find the node where the file is located, retrieve the file and verify the file data. In A-Game, we use IPFS as one of the underlying data storage infrastructures, which is perfectly integrated with the blockchain. The virtual machine can read the on-chain information on IPFS and store the execution results in the IPFS network. At the same time, as a public network, IPFS can also be seamlessly integrated with BaaS and enterprise-level management cloud platforms to support more abundant big data analysis scenarios.

2) Storj

Storj is designed to be a cloud storage platform that is censorship-resistant, surveillance-resistant, or non-stop. It was one of the first decentralized, end-to-end encrypted cloud storage platforms. Storj is a collection of interlocking pieces that work together to create a unified system. Because people interact with different parts of the system, they all understand Storj differently. Home users don't need any knowledge about Bridge or protocols to share storage, and developers don't need to know any home users to use StorjAPI. Therefore, in A-Game, Storj is also used as one of the underlying data storage protocols.

3) Cloud Service

At present, with the development of cloud computing, cloud storage is more and more favored and supported by many blockchain manufacturers. On the one hand, cloud storage can provide massive, secure and low-cost cloud storage services, providing 99.9999999999% data reliability . On the other hand, cloud storage generally uses RESTful API, which can be stored and accessed anywhere on the Internet, elastic expansion of capacity and processing power, and a variety of storage types to choose from to fully optimize storage costs.

6.6 VR and AR technology applications

Augmented Reality (AR) and Virtual Reality (VR) are one of the key ways to realize the immersive interactive experience of the Metaverse.

- AR: Augmented Reality (Augmented Reality) technology is a technology that skillfully integrates virtual information with the real world. After the generated text, images, 3D models, music, videos and other virtual information are simulated and applied to the real world, the two kinds of information complement each other, thereby realizing the "enhancement" of the real world.

- VR: Virtual reality technology (English name: Virtual Reality, abbreviated as VR), also known as spiritual technology, is a new practical technology developed in the 20th century. Virtual reality technology includes computer, electronic information, and simulation technology. With the continuous

development of social productivity and science and technology, the demand for VR technology in all walks of life is growing. VR technology has also made great progress and has gradually become a new field of science and technology.

From the above explanation, we can know that VR technology is to build a completely virtual world in the computer, and can bring our senses into this world. AR uses the virtual world to enhance reality, such as adding some virtual vehicles to a real road.

The movie "Ready Player One" in 2018 depicts a wonderful virtual world for us in the future. People can connect to that wonderful virtual world only through VR devices. Compared with now, everyone stays in the virtual world. longer. The virtual world seems to be far away from us, but in fact, everyone is accustomed to playing and socializing in virtual worlds such as games, and there is no doubt that in the future, the proportion of virtual worlds in each of our lives will be. getting bigger. The virtual world will seamlessly connect with the real world, and even become a haven for many of us to escape reality.

VR and AR combined with blockchain can take existing services to a new level, where people can not only watch concerts, games and play video games in a fully immersive environment, but also receive Targeted advertising and paying for products using digital currency. A-Game competitive guessing games and diversified ecological applications will introduce VR and AR support. For example, in-game items can be virtualized in 3D and presented on AR/VR. Users can experience 3D virtual games through AR/VR. The props are projected on the player, so that you can better understand whether the equipment is really suitable for you, and experience the feeling of wearing the equipment on your body. In the future, the A-Game game community will also introduce VR and AR to experience various activities.

Chapter 7 A-Game Ecological Economic Model Design

7.1 AGToken Economics

AG token is the core asset of the blockchain system and entertainment and competition circulation. This is an interesting and practical digital asset designed for the circulation of game assets. It is the only exchange token for in-game exchange and assets. , provide superior liquidity for the ecology through pledge, liquidity mining, etc., realize the tokenization incentive of game data and prop assets, and create a high-value entertainment token for global players and investors.

The USDT stable currency is the participating currency of the AG platform. All games participating in the AG platform must use AG tokens to exchange USDT for participation; in order to protect the interests of participants, USDT is used as the stable currency under the gold standard.

1) Release plan

Token Name AG Total 1 Billion Token Type: BSC/BEP20

AG will eventually be destroyed to 100 million

Listing on the exchange: at pancakeswap

2) Token Mechanism

◎ Distribution ratio

- AG is launched fairly, and the project party does not reserve a token

◎ Token mechanism and distribution mechanism

- Liquidity Pool of AG Coin: "AG-USDT" Trading Pair
- Handling fee: 5% for buying and selling. 50% of them will be rewarded on a daily basis in the form of USDT to users who add liquidity to the LP pool; 50% will be rewarded to users with AG 3D NFT cards. (All transaction fees are taken from the user and used for the user)
- 3D NFT: The AG community will distribute 10,000 3D NFT cards to users around the world, and each card will be exchanged for 20,000 AG coins. NFT holders can trade on the AGNFTs cooperation platform Element, and their

rights are:

① Enjoy the weighted average reward of half of the transaction fee every day (in the form of USDT);

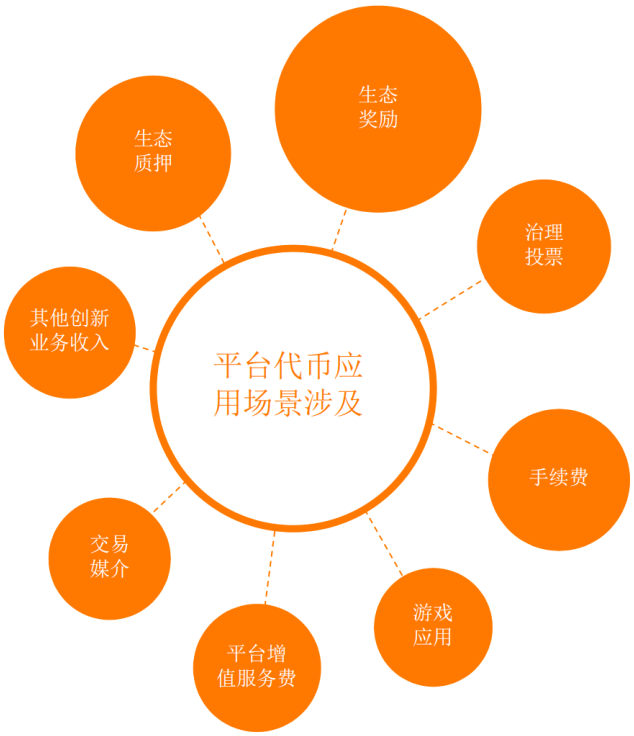
②Enjoy 25% of the revenue of the main business of the AG game project party every day, and the weighted average reward in the form of USDT.

• Repurchase and destruction: The AG project team will use 25% of the main business revenue of AG games to repurchase AG coins in the secondary market for public destruction, and stop burning when the AG coins are deflated to 100 million. At this time, users who hold the remaining AG coins will firstly enjoy the voting rights of community governance; secondly, they will permanently enjoy the daily weighted average dividend (in the form of USDT) of 25% of the main business income of AG games.

• Extensive empowerment: The AG game platform is an open platform that can empower the currencies of other communities (that is, other currencies can also be recharged, played, and withdrawn in the AG game), but the project parties who need this demand are in the AG One million AG coins are pledged on the platform as one of the cooperation conditions.

• Promotion incentives: The AG project team will use 35% of the main business revenue of AG games to establish an incentive mechanism consisting of eight generations of marketing relationships (15% for the first generation, 10% for the second generation, and 5% for the third generation. 1% each from the fourth generation to the eighth generation).

3) Token application scenarios



7.2 AMM standard mining pool

Each serving is 100u as a standard unit, and multiple servings are available.

- 100u-50u+ AG worth 50, form LP to add AMM standard mining pool.
- User collection method:

①Receive AG

②Receive USDT Q

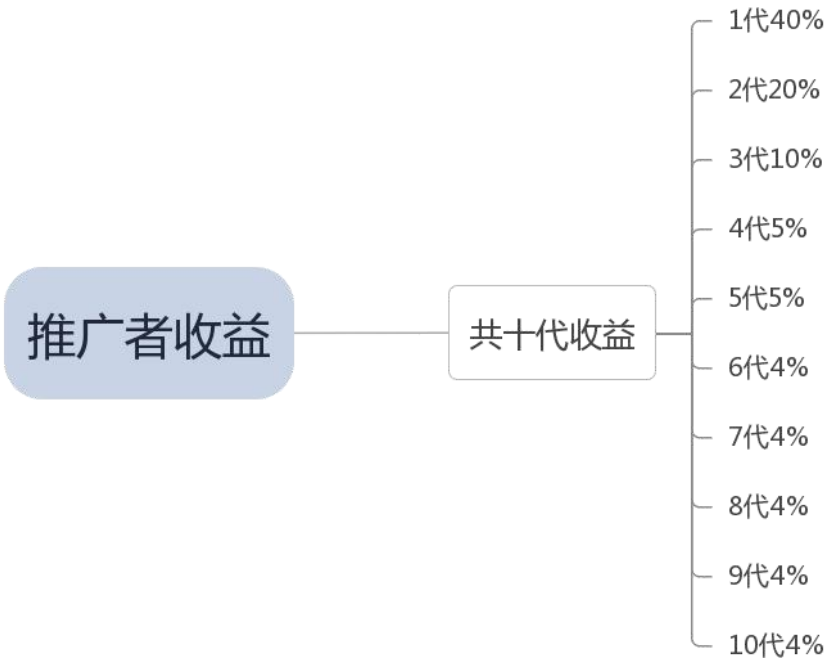
◎ Mining pool type:

Calculated in one standard unit (100u)

时间	周矿 (1星矿池)	月矿 (2星矿池)	季矿 (3星矿池)	半年矿 (4星矿池)	年矿 (5星矿池)
固定收益 (年化)	6%	12%	16%	20%	24%
浮动收益	X%	X%	X%	X%	X%
实际保底收益	0.06÷365×7 ×100 = 0.115	0.12÷365×30 ×100 = 0.986	0.16÷365×90 ×100 = 3.945	0.2÷365×180 ×100 = 9.863	24%×100 = 24
实际结算收益 (固定+浮动)	X	X	X	X	X

◎ Promoter income:

Based on the actual settlement revenue of users pushed by the promoters



How to get the Promoter's Earnings：AG

7.3 AG Future Value Mapping

In the future, holders of AG tokens will enjoy many rights and interests in the A-Game community token economic system. At the same time, the A-Game community is also building more ecological incentive models around the world to drive the point-to-point value transfer under the digital development of everything, and expand the application and technical boundaries of blockchain technology, so that more users around the world can feel the Web3 The value of .0 and the wealth income created by the application ecology of competitive guessing games.

1）The base value of AG tokens

AG Token is to achieve a function similar to currency. Generally speaking,

currency has four functions: store of value, medium of exchange, unit of account, and deferred payment standard. In order to meet the above functions, AG tokens have specially designed the following features:

- Store of Value: A store of value refers to an asset that retains its value and does not depreciate significantly over time. AG Token is a payment medium designed to guarantee price stability and steady rise even in highly volatile markets.

- Medium of Exchange: A medium of exchange refers to anything that represents a standard of value and is used to facilitate the sale, purchase, or exchange (transaction) of goods or services. In different types of transactions all over the world, AG tokens can be used to complete transactions.

- Unit of Account: A unit of account is a standardized measure of value used to price goods and services. While the AG token has not yet become a standard measure of value outside the blockchain, it will serve as a unit of account in the A-Game community and some partner dApps.

2) The application value of AG tokens

In the future, based on the basic functional design of the A-Game ecosystem, we can clearly see that AG tokens will play a greater role in transactions, payments, and investment, and will also enter all aspects of all social members in the future:

◎ Trading field

- Users can use AG tokens to replace fiat currency for transactions, truly realizing P2P cash;

- Users can use AG tokens to trade with other digital currencies instead of legal currency;

- Users can trade other digital currencies as AG tokens to avoid the risk of falling prices.

A-◎ Payment field

B-• Significant savings in payment time, especially in cross-border payments;

C-• Transaction records are stored on the blockchain for better tracking;

D-• Effectively reduce payment costs in cryptocurrency payment scenarios.

E-◎ Investment field

F-• Mortgage other encrypted assets to obtain AG tokens for NFT investment and wealth management, and enjoy the double appreciation of assets;

G-• NFT transaction records are stored on the blockchain and cannot be tampered with, eliminating accounting disputes;

H-• Combine AG tokens and IDO to increase revenue;

I-• Use the characteristics of AG tokens to develop Web3.0-based loans, derivatives, prediction markets and other long-term smart contracts that require price stability.

Game can adapt to diverse business needs and meet data sharing in cross-chain business chains, which means that the underlying protocol of the A-Game consensus has sufficient generality and standards for data recording methods, and can represent various structured and unstructured data. information, and can meet the cross-chain requirements required as the business scope expands. This provides a value basis for the versatility of AG tokens, allowing AG tokens to circulate more easily in various industries and scenarios around the world.

Chapter 8 AG DAO

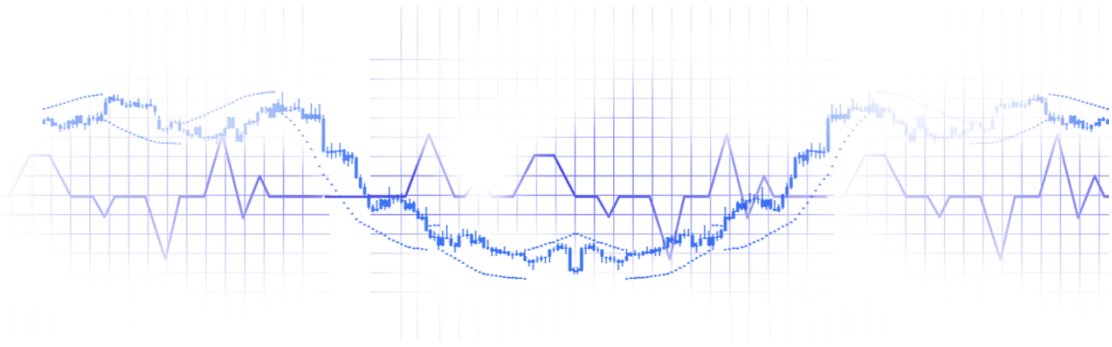
A-Game knows that in order to promote the coordinated development of the ecology, it needs a perfect governance model that can better realize the internal circulation of value and decentralization. Therefore, A-Game innovated on the DAO model, and launched a decentralized community autonomous organization - AG DAO in conjunction with global capital, technical teams, diverse communities, opinion leaders, etc.

8.1 DAO governance model

Under the leadership of DAO, A-Game's community governance organization, AG DAO, will achieve complete decentralization and a high degree of community consensus. The new decentralized autonomous organization initiated by AG DAO belongs to the category of dedicated DAO. The community has a strong consensus and 100% of the community manages it by itself. After the project goes live, the community will vote to develop its own decentralized applications and DAPPs.

AG DAO's global community building follows a high degree of decentralization and is carried out through a combination of on-chain and off-chain models. After all the programs of AG DAO are successfully set, it can start to operate according to the original rules. In the process of operation, it can also continuously maintain and upgrade itself according to the actual situation. Through the continuous self-improvement mechanism, it not only eliminates the trust problem, but also achieves an unprecedented level of collective coordination, thus forming the technical foundation of AG DAO.

AG tokens will be the core driving force for A-Game's ecological governance and development. Therefore, AG DAO hopes to stimulate the initiative of the community in a democratic, collaborative and transparent way, mobilize the high-quality resources of the community, and promote the construction of a decentralized and positive-driven DAO autonomous system.



8.2 DAO governance elements

As a decentralized autonomous organization, AG DAO is a technical tool written in code and running on the blockchain. It is also a new type of governance institution that can achieve openness and fairness, unattended and autonomous operation, and there is no law. entity.

All holders of the governance token AG are entitled to participate in the AG DAO. Under the basic principle of "one AG, one vote", all community members work together to build a scientific governance system to achieve DAO governance with goals, processes and results. Different users may have different voting weights. Exchange addresses cannot participate in voting. AG token holders can participate in the following discussions on what will benefit the development of A-Game:

- Community Development Matters
- Proposal on AG token economics
- Important model parameters of A-Game
- AG DAO cooperation and development
- Marketing activities
- Exchange and cooperation
- Other matters related to marketing strategy

In the future, AG token holders will be able to fully control DAO, A-Game games and decide the development direction, market expansion plan, technology roadmap, asset security and ecological incentives.

8.3 DAO governance introduces staking

AG DAO is still in its early stages, and community members are not yet familiar with the DAO governance mechanism. Therefore, A-Game adopts the DAO principle of "governance earning" in the early stage to encourage and attract more users to actively participate in DAO governance. Before participating in DAO governance, players need to stake a certain amount of AG tokens to gain voting

rights. In return, users can earn rewards for voting and the proposal process.

• Users who pledge more than a certain amount of AG tokens have the right to initiate proposals. If half of the Staking users agree, the proposal will officially enter the DAO governance stage.

• Each user invests a certain amount of AG tokens each time, there is no upper limit. A-Game corresponds to the voting weight, and the proposal with the highest voting weight shall prevail.

• After each round of DAO governance, the AG tokens consumed by the successful proposal with the highest voting weight will be returned to the users who voted on the proposal. AG tokens consumed by failed proposals will be fairly distributed to users participating in successful proposals according to their voting weights.

• All participating users can get a certain amount of AG token pledge rewards.

Adopt parliamentary voting to protect DAO members and community nodes. Any community member can act as a proposer. As a voluntary, self-organizing, self-governing blockchain community, the AG DAO is not a company or entity owned by a handful of founders and investors, but a borderless organization owned by those who contribute to it. Ownership, power and control are in the hands of all community members. Everyone can make a difference, regardless of their abilities and experience. Every community member committed to development and a shared mission is equal. Community members are welcome to initiate proposals, participate in discussions and vote on the following platforms.

Chapter 9 Foundation and Team

AG Foundation is a blockchain fund co-founded by VC bosses and senior investors. It invests in global new technologies and new trends, discovers a 100-fold future track, and dares to run through the fund's investment philosophy first. At present, it mainly invests in artificial intelligence, digital assets and blockchain, network security, and has established offices and research institutions in many regions around the world.

The core members of the AG platform technical team are all from blockchain laboratories such as IOV Labs and Player Labs, and have more than five years of experience in blockchain technology development. The team started the development of blockchain technology in 2014, and has performed well in technology. Combining its own characteristics and technical background, it has devoted itself to the development of AG.

The team brings together industry experts in various fields including computer, information security, communication, mathematics, chain games, NFT, DeFi, metaverse, social, storage, cross-chain, web development and high-frequency algorithmic trading. He has rich experience in distributed databases, cryptographic

algorithms, application layer construction, and cross-chain technology. The team not only has strong technical capabilities, but also has excellent scientific research capabilities, and has continuously made major research breakthroughs in various fields such as distributed ledgers and cryptography.

Adrian - C language expert, blockchain technology expert, long-term research on the application of blockchain technology in the financial field. He has participated in the cross-platform transplantation of mining algorithms for virtual currencies such as Bitcoin and ETH, and the development and management of mining machine software. He has extensive experience in the technical architecture of virtual digital currency wallets and virtual digital exchanges.

Stanford——Senior programmer, Ph.D. in computer from Caltech, senior expert in blockchain technology application, DeFi application expert. He has extensive experience in big data parallel computing and distributed algorithm optimization, and has in-depth research in blockchain, cryptography, and data mining.

Bradley - Graduated from Harvard University, good at intelligent voice technology, game network and traceability technology, Python, application development. In the field of intelligent interaction, he has more than 100 professional works and more than 80 core patents, and he is also the drafter of many international standards. Provide overall consulting services for the project, and help the project realize the project application and provide strategic support.

Giles - technical developer, master of computer science from Harvard University, Python language expert, blockchain technology engineer. His research involves data mining, artificial intelligence and algorithm optimization. Responsible for the construction and optimization of artificial intelligence algorithms for the project.

Justin - Formerly at IBM Computer Research Center. Through the paper "New Directions of Cryptography", he was exposed to digital cryptography, and verified the feasibility of distributed ledger through asymmetric encryption, elliptic curve algorithm and other means. At the same time, he is proficient in the principles and implementation of mainstream blockchain technologies such as Bitcoin, Ethereum, and HyperLedger, and has a deep understanding and rich practice in blockchain consensus mechanism, smart contracts, cross-chain technology, side-chain technology, and privacy protection.

Chapter 10 Disclaimer

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◎ You will voluntarily assume the cost and ensure compliance with all legal, regulatory requirements and restrictions applicable to you (as the case may be);

◎ You acknowledge, understand and agree that Token may have no value, neither guarantee nor represent any value and circulation properties, and cannot be used for speculation-related investments;

◎ The community and its affiliates and team members are not responsible or liable for the value, transferability, liquidity of Tokens and any market that provides A-Game through third parties or other means;

◎ You acknowledge, understand and agree that if you are a citizen, national, resident, residence or green card holder of a geographic region or country that meets the following conditions, you will not be eligible to purchase any Tokens:

i. The sale of Tokens may be defined or construed as the sale of securities (however named) or investment products;

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Attachment: AG multi-currency deposit function document (only supports BSC chain)

Management terminal: support adding multi-currency recharge function, modify currency recharge status

Client: A multi-currency list is displayed in the recharge function.

After the user recharges a certain currency, the real-time USDT price of the currency is automatically obtained. The amount of the user's recharge = the amount of the user's recharged tokens × the USDT unit price of the currency × the exchange rate of USD to RMB

Note: The amount that users recharge in these currencies does not support principal withdrawal, only profit withdrawal and refund.

When the user withdraws: After deducting the total amount of the recharged currency, the profit in the account supports the withdrawal.

User Refund: In the list of different currencies that the user recharged, the user can apply for a refund, and refund 70% of the number of tokens in that currency (30% of which is the refund fee).

There are 2 cases of refund:

1. When user balance > total recharge amount

User refund amount = total number of recharge tokens × 70% (30% of which is refund fee)

2. User balance < total recharge amount

User refund amount = total amount of recharge tokens × user balance / total

amount of recharge × 70% (30% of which is refund fee)

Note: The total amount of recharge = the user has recharged the A currency for n times, and the recharge amount of the n times of recharge will be accumulated.

Example: Token BAA

1. After adding the BAA contract address on the management side, set the token deposit to the open state

2. The list of recharge functions on the client side automatically shows that BAA tokens are supported

3. The user recharges 10,000 BAA tokens. If the unit price of 10,000 BAA is calculated to be equivalent to USDT 200U, the user balance will increase by 200U×7 (exchange rate) = 1400 CNY

4. When the user earns 700 CNY from playing cards, the current balance is 2100 CNY, the user can only withdraw 700 CNY, and the remaining 1400 CNY can only be returned through BAA tokens. The amount of coins returned (7000) = the total amount of recharged tokens (10000) × 70% (30% of which is the handling fee). When the user loses 700 CNY and the balance is 700 CNY, the user can only return BAA tokens, the refund amount (3500) = the total number of recharge tokens (10000) × user balance (700) / the total amount of recharge (1400) × 70 % (30% of which is handling fee)