



MPOGG

DECENTRALIZED DEEP VIRTUAL WORLD

WHITE PAPER

The free MPOGG team is building a unique virtual world in which players can use the main utility token of the platform-MPOGG to build, have their own game experience and profit from it.

MPOGG owners can also participate in the governance of the platform through a decentralized autonomous organization (distributed autonomous organization), where they can exercise voting rights on key decisions of the free MPOGG ecosystem. As a player, you can create digital assets (non-fungible tokens, also known as NFTs), upload them to the market, and drag and drop them through the free MPOGG game development software Game Production to create a game experience. Free MPOGG expects to build an interesting and creative "game to make money" game platform owned and produced by players. Free MPOGG aims to bring blockchain into mainstream games, attracting encrypted and non-encrypted game enthusiasts by providing advantages such as true ownership, digital scarcity, monetization capabilities, and interoperability.

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目录

1. Executive summary.....	5
1.1. Ecosystem of user-generated content.....	6
1.2. Blockchain games and NFTs (non-fungible tokens).....	6
1.3. What is MPOGG and what is it used for?.....	7
1.4. What is our next plan?.....	8
2. Free MPOGG platform.....	9
2.1. Mission.....	9
2.2. Game overview.....	9
2.3. Land and LANDS map.....	10
2.4. Game Avatar.....	10
2.5. MPOGG tokens.....	10
2.6. MPOGG Stakeholders.....	11
2.7. Revenue.....	12
3. Market overview.....	12
3.1. Game Creator Market.....	12
3.2. Creator Market.....	14
3.3. Player Market.....	14
3.4. Market solutions.....	15
4. Platform.....	15
4.1. Game experience.....	15
4.2. Map-Lands Land.....	16
4.3. Asset Market.....	17
4.4. Editor.....	17
5. Economic model.....	18
5.1. Token Economics.....	18
5.2. Other power sources.....	20
6. Technology.....	21
6.1. Future technology integration.....	21
6.2. Multi-type fungible tokens (MCFT).....	21
6.3. Decomposition of technical solutions.....	22
6.4. Project Agency.....	22
6.5. Game Engine.....	23
6.6. Wallet.....	23
6.7. Security.....	24

1. Executive summary

Free MPOGG is a virtual world where players can use the platform's utility token MPOGG to create, have their own game experience and profit from it in the HECO chain.

Our vision is to provide a deep virtual world in which players can collaborate to create virtual worlds and games without the need for centralized governance. Our goal is to break the existing game development models, such as "Minecraft" and "Virtual World", provide creators with true ownership of their works through non-fungible tokens (NFTs), and use our utility tokens (MPOGG) to reward their participation.

In the current game market, centralized governance and control of user-generated content limits the rights and ownership of creators. Centralized control over the transactions of virtual items created by players restricts them from creating fair value for their creations. Worse, it is difficult to prove the creative ownership of a work, especially when the content is copied, modified, and constructed.

With free MPOGG games, our goal is to overcome these limitations while accelerating blockchain applications to expand the blockchain game market. We will achieve this by creating a voxel game platform. On this platform, creators can create, play, share, collect, and trade without centralized governance, enjoy secure copyright rights, and earn money. Get cryptocurrency (MPOGG). This copyright right will be established and guaranteed by using non-fungible tokens (NFTs). In NFTs, each item in the game will have a unique and immutable blockchain identifier.

1.1. Ecosystem of user-generated content

The free MPOGG game ecosystem consists of three integrated products, which together provide a comprehensive experience for user-generated content (user-created content).

- A. Editor: This easy-to-use but powerful free 3D voxel modeling package allows users to create and animate 3D objects such as people, animals, leaves, and tools, and export them to the free MPOGG market as game assets.
- B. MARKETPLACE market: Free MPOGG launched the web version of the MARKETPLACE market, allowing users to upload, publish and sell the works (assets) they created in the editor for trading in tokens.
- C. Game Production Game Maker: Anyone who owns assets, whether by making assets in the editor or purchasing assets, can use them for the third and most important ecosystem product-game makers and games itself. When the product is released in Game Production mode, users can place and use their assets in a piece of land owned in the virtual world. Users can decorate their land with assets. More importantly, it uses visual script nodes to assign predefined behaviors to assets to achieve interesting and nuanced game mechanisms, transforming the land from a decorative experience to a potentially complete game experience.

1.2. Blockchain games and NFTs (non-fungible tokens)

The free MPOGG virtual world uses blockchain technology and NFTs to enhance the capabilities of players and creators. NFTs are an emerging part of the global gaming market: virtual tokens that represent digital scarcity, security and authenticity. Each non-functionality is unique, indivisible, and cannot be exchanged with another non-functionality.

By using NFTs, free MPOGG users will benefit from the following:

- A. True digital ownership: Even if the game is closed or abandoned, players are still the true and permanent owners of their digital items. Through the blockchain, every game item can be tagged, allowing players to decide how they want to trade, sell or give away their items.
- B. Security and immutability: Digital game projects can be easily marked and traded in the primary and secondary markets governed and promoted by blockchain technology. Projects based on scarcity and demand usually trigger fraud and theft, but blockchain minimizes these risks because it is a distributed ledger.
- C. Transaction: A blockchain-based game platform can provide users with ultimate control over their digital assets. They can buy and sell items freely, without worrying about being

blackmailed, or worrying that the platform will shut down and cancel all the value of their in-game items.

- D. Cross-application interoperability: Blockchain provides the ability for games to utilize shared assets. Assets, avatars, land, and any other game elements can be used in other games that make it. These game projects are no longer limited to a narrow digital ecosystem.

The free MPOGG meta-universe uses several different tokens to create a circular economy among all user profiles (that is, players, creators, administrators, and landowners) interacting with the platform. These are land, assets, and MPOGG, which are based on a token on the HECO chain. When goods and services are purchased in the game market, it will be used as the official currency (and other rights) in the ecosystem.

1.3. What is MPOGG and what is it used for?

MPOGG is an important part of the free MPOGG platform, and the free MPOGG is working to establish a key mechanism to make it closely connected with the free MPOGG platform and its value. MPOGG is a token built on the HECO chain. It serves as the basis of free MPOGG transactions and has the following uses:

- Access to the free MPOGG platform: Players spend MPOGG to play games, purchase equipment, or customize their own avatars-and can collect MPOGG through games. Creators spend MPOGG to obtain assets, land, and through bets. Land sales drove the demand for MPOGG land. Artists spend MPOGG to upload assets to the market and buy gems to define rarity and scarcity.
- Governance: MPOGG is a governance token that enables holders to use a distributed autonomous organization structure to participate in the governance decisions of the platform. They can exercise voting rights on key elements, such as the attributes that Foundation grants to content and game creators, and the priority of functions on the platform's roadmap. Owners of MPOGG can vote by themselves or delegate the voting rights to other players of their choice.
- Charging model: 5% (transaction fee) of all transactions conducted with MPOGG tokens will be allocated 50% to the staking pool as a reward for token holders betting on MPOGG tokens, and 50% will be given to the "Foundation" .
- Foundation: The role of the foundation is to support the free MPOGG ecosystem and provide funding to encourage high-quality content and game production on the platform. So far, the foundation has funded more than 15 game projects and awarded 100 artists to make NFTs before the public release of NFTs in December 2020. The overall valuation of Metaverse will grow through the valuation of all games funded by the foundation, thus

forming a virtuous circle that can provide funding for larger games.

1.4. What is our next plan?

We have a strong product roadmap and a top team to execute a strong vision of building a unique virtual world gaming platform. On this platform, players can build, own and monetize their own gaming experience, and spread the power of blockchain as a leading technology in the gaming industry.

In the short term, we will launch the fourth LAND preale (land pre-sale planning consultant) and Game Production (game producer). This will be a supplement to the public release of MPOGG. We hope to have MPOGG that can be used by individuals and businesses to increase liquidity and usability. The main purpose is to cooperate with community growth and ecosystem mobility.

Regarding the proposed MPOGG supply, the community of creators and players will need to obtain MPOGG. We plan to enable the community to use MPOGG through a controllable supply mechanism, such as purchasing MPOGG from multiple exchanges.

As the number of creators, players, and the number of assets exchanged in the community increases, the demand for MPOGG in the ecosystem may increase. Therefore, when the total supply of MPOGG is fixed, the amount of MPOGG initially provided will have a scarcity effect, reducing the available MPOGG per capita, thereby promoting demand.

2. Free MPOGG platform

2.1. Mission

The mission of the free MPOGG team is to build a system. In this system, creators can create, play, share, and trade without centralized governance, enjoy secure copyright rights, and earn MPOGG.

The Free MPOGG team believes that these innovations are very important, because although the current voxel-based creative game market already has 500 million creators and 160 million monthly active users, if it is not resolved, it will face four key problems, which may be Impeding future growth:

Concentrating user-generated content in mainstream games, such as Minecraft and Roblox, restricts the rights and ownership of creators;

The centralized control of virtual goods created by players restricts players from creating fair value for the goods they create, restricting the goods they can or cannot sell and obtaining a large part of the sales revenue;

Given the nature of voxel art, it is difficult to prove the creative ownership of the work, especially when the content is copied, modified and constructed;

The existing game market is based on legal currency, which does not support real small transactions and is vulnerable to credit card fraud, which leads to imbalances in the game economy.

2.2. Game overview

The core of Free MPOGG is an ecosystem for players and creators, consisting of three main components: the voxel editor (named "editor"), the market, and the game itself.

Free MPOGG provides a unique way to create, assemble and share 3D voxel models. We give creators intuitive and powerful content creation tools. You can make your own 3D voxel objects, animate them, and publish and sell them in our global market. The editor is our 3D tool, which allows anyone to create or import their own voxel objects, set them up, and export them to the market. Users can convert them into limited tokens, called ASSETS assets. ASSETS assets are digital scarce, safe and real virtual tokens. They are unique and limited, unique and indivisible.

Blockchain allows creators to have real ownership. It is precisely because of this technology that, as a developer, we can finally reward players for their time and effort in content creation, so that they can realize their assets and trade freely.

Our asset smart contract makes content a new platform and creates a new paradigm. This is because they provide multiple uses, not just one game. This "second-layer programmability" gives any developer the ability to bring lasting and growing value to assets that can be shared across games, platforms, and chains.

The market is a trading environment for assets, and assets can be given away for free or sold to other participants.

The game is an overall game system that can enjoy and share the game experience. In the game, not only creators can profit from their creations, but players can also earn by collecting resources, rewards and tokens.

2.3. Land and LANDS map

LANDS land is supported by blockchain Virtual tokens are represented as physical packages of the free MPOGG meta-universe. LANDS allows players to own a part of the meta-universe so that they can host content (assets and games).

The free MPOGG meta-universe is based on a map of 166464 pieces of land (408*408). Land is the physical space in the meta-universe that players use to create games and profit from it. The land is used to publish your game and can be rented out to game creators. Each piece of land has a set of pre-built terrain, but it can be transformed and modified by the user who owns it (or other players they invite).

In the future, players will be able to combine land together to form real estate, and real estate may be owned by multiple players to form regions.

2.4. Game Avatar

The character is the avatar of the player in the game, and the player can modify it little by little. Character avatars have specific specifications and formats, and come with a set of default animations, such as walking, running, jumping, and fighting. This avatar can be modified piece by piece (helmet, arms, torso, legs, etc.) by equipping it with different compatible ASSET tokens.

2.5. MPOGG tokens

MPOGG is an important part of the free MPOGG platform. We are working hard to establish a key mechanism to make it closely linked to the free MPOGG platform and its value. MPOGG is a utility token built on the HECO blockchain. It serves as the basis of free MPOGG transactions and has the following uses:

- Access to the free MPOGG platform: Players spend MPOGG in order to play games, purchase equipment or customize their own character avatars. Creators spend MPOGG to obtain assets, land, and through bets. Land sales drove the demand for MPOGG land. Artists spend

MPOGG to upload assets to the market and buy gems to define rarity and scarcity.

- **Governance:** MPOGG is a governance token that enables holders to use a distributed autonomous organization structure to participate in the governance decisions of the platform. They can exercise voting rights on key elements, such as the attributes that the foundation grants to content and game creators, and the priority of functions on the platform's roadmap. Owners of MPOGG can vote by themselves or delegate the voting rights to other players of their choice.
- **Foundation:** The role of the foundation is to support the free MPOGG ecosystem and provide funding to encourage high-quality content and game production on the platform. So far, the foundation has funded more than 15 game projects and awarded 100 artists to make NFTs before the public release of NFTs in December 2020. The overall valuation of Metaverse will grow through the valuation of all games funded by the foundation, thus forming a virtuous circle that can provide funding for larger games.

2.6. MPOGG Stakeholders

We have formulated 4 stakeholder approaches to ensure that Free MPOGG can successfully add value to the token. Therefore, we will sign a smart contract to distribute the benefits generated through the free MPOGG to 4 stakeholders to support the creator and player ecosystem and provide the resources needed to grow the market and develop a high-quality game experience.

The 4 stakeholders are:

- 1) **Fund pool:** The purpose is to ensure that the income generated through the game can increase the value of the token. The token distribution of this basic pool will gradually be decentralized, because we have implemented a distributed autonomous organization/community-driven solution for a decentralized model, which will benefit the token ecosystem.
- 2) **Staking pool:** Designed to provide revenue and value to token holders. Its governance will migrate from the centralized decision-making in the first year to the distributed autonomous organization mechanism in the future. Token holders who are also active players will generate additional revenue to reward their activities.
- 3) **Company treasury:** This refers to the MPOGG owned by the company, derived from the sales income of the company's 12-month banned assets. The MPOGG generated through the treasury will be sold back to the market to pay for operating expenses.
- 4) **Company reserve:** This is the company's first reserve of 6 million MPOGG (accounting for 20% of the total token supply). The reserve will be provided by the six-month lock-up period from the sale of the company's own assets.

2.7. Revenue

Compared with current non-blockchain systems, creating a decentralized blockchain-based gaming platform provides multiple benefits, as shown in the following figure:

3. Market overview

The current game market provides favorable conditions and provides unique opportunities for free MPOGG to develop on PC/Mac computer and mobile platforms, because in the ever-growing user-created content game market, it transfers power and profit potential to players. The opportunities in hand will add important value to their gaming experience.

- By 2025, the global game market is expected to reach US\$171.96 billion;
- As one of the target platforms of free MPOGG, smartphones are expected to gain growth momentum in the next few years due to their increasing global penetration rate and show a compound annual growth rate of 7.3%;
- The online segment is expected to achieve substantial growth in the next 8 years, with a compound annual growth rate of 8.6% from 2020 to 2025. This can be attributed to the ever-increasing broadband penetration rate and the ever-increasing online gambling, gambling and social network games;
- The Asia-Pacific market is expected to develop further, and the market size will reach US\$86.84 billion by 2025. Emerging countries such as China, India and South Korea provide lucrative growth opportunities for expanding the market, which can be attributed to the growing penetration of smartphones and Internet in these countries to a certain extent.

3.1. Game Creator Market

The task of the free MPOGG team is to establish a system in which creators can create, play, share and trade without centralized management, enjoy secure copyright rights, and earn MPOGG at the same time.

Creator games with voxel graphics are mainly dominated by players in two major industries, namely Minecraft and Roblox. Minecraft is the leader in this field. In the past five years, the number of players has increased by more than 30% year-on-year, and Roblox is among the most profitable iPhone mobile game apps in the United States as of January 2018 (ranked by daily revenue) Ranked sixth. Roblox estimates that his daily income is more than \$750,000. According to reports, in 2017, some creators earned more than \$30 million from a 70% income share of their creations.

Both games can now be played on various platforms, including PCs, mobile phones and consoles. The following figures show the scope of the market in a tangible way:

Minecraft our world

- The number of monthly active users in 2019 exceeded 100 million, an increase of 74 million over 2017;
- The global sales volume exceeds 144 million;
- In 2014, Microsoft acquired the "Minecraft" series for US\$2.5 billion;
- In all units, the purchase price is approximately equal to \$17/unit of sale.

Roblox

- There will be 100 million monthly active users in 2020;
- In February 2020, Series G raised US\$150 million with a valuation of US\$5 billion;
- In 2017, Roblox World released 11 million games;
- More than 1500 games, each game has brought more than 1 million user visits to other players;
- "Meep City" released on Roblox in February 2016 is Roblox's first game with more than 1 billion views.

Free Evolution Free MPOGG Evolution

- 1.2 million monthly active users in 2018;
- Users have created more than 70 million works in the game.

CryptoKitties (Mystery Cats)

- Raised more than US\$12 million through asset sales
- Created more than 1 million kittens;
- Has approximately 500 daily active users;

- Kittens with various special themes from partners, including NBA

platform

- Sketchfab is one of the largest 3D creator markets, about 400-1000 models are uploaded every day;
- Upload 100,000 3D models within 700 days;
- TurboSquid is the source of professional 3D models worldwide, with more than 500,000 models and 3.5 million users.

3.2. Creator Market

The main challenge facing voxel art creators in the current gaming environment is that they have limited or no legal rights to the intellectual property they create. This may cause artists or creators to spend days or even months to create their game world, but with little or no financial benefit.

Another obstacle that players face is to establish creative ownership of their own work, especially when other players or entities copy, modify, or build on the original work. Without a system to identify and track the ownership of a work, it is almost impossible to distinguish whether a work is original or plagiarized.

Finally, the common reliance on fiat currency and credit card transactions means that the factor of credit card fraud has never been far away. At present, due to credit card fraud, the proportion of illegal transactions in the game is as high as one in 7.5, which may disrupt the entire game economy.

By registering all assets created as non-functional assets, Free MPOGG allows creators to truly own everything they create. Creators own the copyright and ownership of all works created by themselves, can sell and trade works, and at the same time obtain all the proceeds of the works. In HECO, transactions are conducted through the blockchain, which effectively avoids the problem of credit card fraud. In addition to solving all these problems, the goal of Free MPOGG is to bring more value to the creators' items. For the first time ever, when creators see their uploaded assets being used on a piece of land, they will be able to see how they come alive, which is part of the great experience.

3.3. Player Market

For players whose main purpose is to play games and purchase items rather than create and sell them, issues such as ownership or compensation are less important. However, another problem that directly affects these players is that they spend money to buy items in the game, but they cannot get the money back.

For example, if they stop playing games, all the items they buy immediately become worthless. If the game is closed for some reason, such as a decline in popularity leading to reduced profitability, all in-game purchases by the player will be wiped out. This is especially true in free games. Shopping is a one-way street. Players spend money to buy items in the game, but if they no longer use an item, they cannot restore their value, nor can they legally sell it to other players, so if the game is withdrawn from the market, they cannot get compensation.

3.4. Market solutions

This game's player-centered innovation and improvements to existing games on the market enable the free MPOGG game to expand its users to 40 million downloads, excluding the players who downloaded the free MPOGG old version and 1.2 million monthly active users.

The first stage of this process is to create a semi-decentralized gaming community, some elements of which are under the centralized management of free MPOGG, while other elements are dispersed to creators and players themselves.

4. Platform

4.1. Game experience

The game experience on the new version of the free MPOGG platform will be launched through several intermediate stages, each with more and more complex functions. When the internal beta is released, players will be able to trade and store their digital voxel assets, while also being able to play and interact with other voxel asset creators and players in different user-generated worlds. The gaming experience will make Free MPOGG a powerful blockchain-based alternative to existing platforms (such as Our World and Roblox). Even for players who have not created items for sale in a user-created content store, the combination of creativity and security can reward players who create attractive lands. This is because a piece of land may have different sources of income, such as small transactions. In addition, players can also collect rewards through the game. We hope that all kinds of players can enjoy the game experience in the free MPOGG market. We have identified some types of game creators who will be able to bring them:

Social experience: The asset market will enable creators to decorate their spaces with beautiful pictures and structures, such as fairy tales and wonderlands, medieval towns, and even future space stations.

These types of experiences can attract a community of friends in the game, and they will participate in activities that combine social and gameplay elements.

Construction and craftsmanship: Our voxel maps are ideal for creators to create architectural and

crafting experiences. Creators will be able to promote interesting experiences for players, such as setting up competitions and creating their own game space.

All these tools and mechanisms will be able to interact with the terrain to modify, build and even destroy it.

Explore and adventure: solve the secrets of the cursed swamp, kill the mercenary king of the endless desert, help the exiled elder Prince Lands in the rebellion, and even discover all the hidden secrets of the ancient temple!

Creators will be able to bring narrative, exploration and adventure games to their land. Every new land will be different, offering new potential to discover new land, meet different people, and discover secrets that have never been seen before!

4.2. Map-Lands Land

The persistent map determines the player's specific land coordinates. In most blockchain games, player domain names are sold like real estate. The specific location of the domain name is crucial because it will determine who and what is next to you. Similarly, in the free MPOGG, the amount of land is limited, and their location is initially determined on the map and cannot be moved from one coordinate to another on the world map.

This structure has several advantages:

- Players can unite the land through agents and create a larger game space with or near friends;
- Friends can collaborate to create these larger experiences, and share the rewards (whether economically, purely socially or artistically) by creating experiences together on the joint land.

Through a joint land, players can also get financial incentives. For example, if several players unite together, they can create a "theme park" experience. Each member focuses on a key attraction, or members can focus on different communities to create a "city" experience together. In each case, the team's efforts can allow players to cooperate to create a stronger motivation to visit and enjoy their creation-and more visits will bring more benefits.

Yes, a player can maintain the income of all LAND land with one LAND. But the combination of larger and more diverse land can increase financial incentive sharing fees. For example, for a super pass that allows the player to access all the land combined with the game experience, and the income from the super pass is shared between all the owners of the land.

There are restrictions on connecting LAND land together in case only certain groups have too much control and power against solo players.

4.3. Asset Market

The market will use smart contracts to control the auctions and transactions of items. This open market for creators and developers will enable free trading of in-game assets between platform users. The added benefit of this market is that the principles of economic supply and demand are automatically integrated into the system, allowing the community to determine fair prices for user-generated assets. However, the real advantage of this market is that the creators of these assets can ultimately generate real, tangible, real-world value from the physical content they create.

In our market, asset tokens will require several pieces of information in order to display correctly as a saleable commodity. The information is:

- **Name and type:** In order to better identify the asset for sale and help potential buyers find it in the market, the asset needs a name and type;
- **Description:** The description will help the creator add specifications, such as size, model, potential use, and even attach a small piece of fictional knowledge to the asset;
- **Thumbnails:** The market will show what the asset itself looks like through some thumbnails. We will include a feature in our voxel editor that will automatically generate these thumbnails for the creator;
- **Price:** The creator will fully control the price of the asset in the market. The price will be determined.
- **Value:** Due to the gem and catalyst system, the creator will define rarity, scarcity and attributes.

Once all these needs are met, the asset will be successfully displayed on the market and available for purchase.

4.4. Editor

Under the philosophy of "create, animate, play", the editor is a voxel modeling software that allows artists to sculpt and animate the model through user-friendly key frame interpolation on the timeline.

- **Modeling:** Different from other modeling editing software, the editor is aimed at artists. It has a user-friendly interface and powerful tools that allow artists to model and create any model they want. The editor also keeps in touch with the artists, listening to their feedback, what is the best, especially how to make the editor easier to use.
- **Animation:** This is where the editor stands out. The editor uses a hierarchical skeletal system,

like Maya, 3D Max, Cinema 4D, etc. used in professional 3D software, allowing artists to assemble whatever they want and animate it. It is the only voxel modeling software that can model and animate your assets.

Once the skeleton is completed, the artist can create any type of animation and move different parts of the model through a simple and easy-to-use timeline. The working principle of the timeline is like a video editing software timeline, using layers to indicate which part of the model you are moving, and creating key frames to set position, rotation, and zoom. The magic happened thanks to the interpolation of these keyframes, and the timeline was done in the background.

- **Export:** The editor enables artists to export their work in .VXM and .VXR formats. Our market and games use these formats to create a super smooth communication between these three parts. In addition, it can also export standard formats such as .OBJ, .DAE and .GLTF for models with animation.

5. Economic model

Regardless of whether it is a revenue model or a symbolic model, we are all excited to be able to build a new business model in this player-driven economic environment.

MPOGG will provide instant liquidity to players and investors. The value of MPOGG tokens is calculated based on the number of players that can build, play, trade, and win in our meta-universe. Our goal is to replicate the real-world economic system so that players can buy, rent, vote, place bets, and so on.

The main sources of income are as follows:

- **Company asset tokens:** sell assets created and developed by the company (land, assets, attributes, other);
- **Transaction fee:** Free MPOGG charges a 5% fee (transaction fee) on all transactions completed with MPOGG tokens, and allocates 50% to the staking pool as a payment for token holders holding MPOGG tokens. Rewards, 50% is allocated to the "foundation".
- **Player subscription fee:** We obtain income from exclusive in-game features, high-quality assets, etc. through various subscription models.

5.1. Token Economics

MPOGG is a tool mark used as a basis for transactions and interactions in the entire free MPOGG ecosystem. It is a utility token built on the HECO blockchain. It will be used by players, creators and publishers throughout the ecosystem, allowing creators and players to exchange assets and

games, and establish a user-based reward platform, while developing an ecosystem for creators and players to share various A truly unique gaming experience.

Digital assets generated by users are represented as tokens. In order to ensure the lasting scarcity and verifiable scarcity of irreplaceable items, each item has a unique identifier and a unique attribute (optional) stored as metadata.

Artists, creators, players, and landowners can use and obtain MPOGG in a variety of ways:

- Player:

How to play: Players can earn MPOGG coins when the game is uploaded to different games in the free MPOGG ecosystem. They may win MPOGG by killing legendary monsters, opening boxes, or even completing a task; almost unlimited possibilities can be created in the game;

Skill-based challenges: Players will be able to pay entry fees to enter a challenge, such as a tournament, card game, battle royale, or any other type of competitive tournament. The winner will receive all the prize money. Experience creators can extract parts from the entire pool to create and host experiences;

Tip: A player who happens to be a game anchor can get a small amount of MPOGG based on his audience size or good at any game.

- Creator

Asset sales income: the founder can sell assets on the market and get 100% of the MPOGG price of the assets;

In-game purchases: Experience creators will be able to establish many different monetization systems, allowing them to charge players for exclusive content. These monetization technologies include item purchases, data enhancement, subscriptions, and even the entry fees of the game itself;

Creator Fund: In the first stage of this ecosystem, we will have a reward program to incentivize creators to fill the gaps in the market with outstanding voxel creation. In return, the creator will receive a large amount of MPOGG tokens;

Art challenge: We intend to maintain a key market in the community center. With this in mind, we decided that we will hold an art challenge competition, where creators can upload their assets and win MPOGG tokens in the reward pool, which will depend on how many votes their assets get from the community;

Crowdfunding request: We will enable a part of the market to enable individuals and user groups to request certain types of assets in exchange for MPOGG provided by all requesters.

The flow of MPOGG in the ecosystem can be expressed as:

5.2. Other power sources

As the number of community creators, players, and market assets increase, the demand for utility tokens will increase to reward the increase in the number of stakeholders participating in the platform.

● Growth model and KPI

The key success factors for building an ecosystem include ensuring that creators and players grow organically on the value proposition provided by the free MPOGG, while ensuring customer satisfaction. In order to ensure the gradual growth of the community and its model, we have identified some key variables that will be measured and motivated through marketing, promotion and communication strategies to ensure the growth of the ecosystem:

- ◆ The growth rate of creators;
- ◆ Player growth rate;
- ◆ New assets created and uploaded by each creator;
- ◆ New assets created and uploaded freely;
- ◆ Sale assets created by creators every month;
- ◆ The sale of assets created by Freedom every month;
- ◆ Inflation rate of assets in the market;
- ◆ The average price of each asset developed by the creator (in MPOGG);
- ◆ The average price of each asset developed freely (in MPOGG);
- ◆ Asset prices rise;
- ◆ MPOGG is initially supplied;
- ◆ MPOGG is initially provided to creators and players;
- ◆ MPOGG price;
- ◆ The commission in the market is 0%.

Therefore, although the total supply of MPOGG is fixed, the initial amount of MPOGG provided to the ecosystem by creators and players will be limited because the following key factors will cause a scarcity effect:

- ◆ More and more creators and players will eventually reduce the available MPOGG per capita;
- ◆ Reward effect, increase the holding time of MPOGG.

6. Technology

Blockchain technology is used to record the ownership of tokens and enable owners to transfer/sell/use tokens without restriction. Store the actual digital assets, and the assets cannot be changed without the owner's permission.

6.1. Future technology integration

Why should we use HECO? We have found that doing so has many benefits, as follows:

- **Ease of use:** HECO was built with flexibility in mind, which perfectly fits our use cases and asset tokens. HECO has the most developers to establish complete standards, best practices and support;
- **Robustness:** So far, it is one of the most stable blockchain protocols. Its widely adopted network has been verified by many players, so it is more secure;
- **Interoperability:** HECO is a protocol, a base layer, on which all applications can be built and interact with each other.

The Liberty MPOGG team is working on second-layer solutions (using the HECO chain as the basis for security)-they are currently not ready to be implemented or have not yet reached the production stage. We do it through integration. We will pay close attention to the technological progress on this topic and decide to integrate our solutions with the best advantages of our products, use cases, and users.

6.2. Multi-type fungible tokens (MCFT)

In Free MPOGG, we spent a lot of time researching how to maintain the security and integrity of blockchain assets while still enabling the speed and flexibility required by players and creators. Like many aspects of game design, you cannot easily get everything you want, so you need to balance various elements to achieve the best solution

In the free MPOGG, users can fully control their assets by creating assets, and they can also use our free tokens to buy, sell and trade these assets in the free MPOGG market.

6.2.1. Interoperability

Since we use HECO as the basis of our implementation, any platform/wallet that supports HECO will be able to check and use our assets. This means that independent developers can rely on the large number of assets that our players will create.

The free MPOGG game environment will be divided into 5 types of tokens:

- MPOGG (the game currency we use throughout the system)
- Land (a world played by players created by the community)
- Assets (Voxel models created by players and traded on the market)
- Sintered gems give asset attributes.
- The catalyst burns into new assets. Depending on the function, they allow users to associate a certain number of gems to an asset. They are HECO tokens

The token contract is responsible for the following:

- Tracking creators (address where tokens are made)
- Ownership
- Transfer
- Emit an activity when the state changes

6.2.2. yuan transaction

The goal of Free MPOGG is to introduce non-encrypted currency users into the blockchain world. In order to achieve this, we believe that the system should be as transparent as possible to users.

6.3. Decomposition of technical solutions

The free MPOGG platform architecture consists of several components. In terms of blockchain integration, we have a traditional backend running on the cloud (currently using AWS) to support our web pages. Although we currently guarantee the privacy of artists' works (to protect their works from being copied before production), we envision a system that will prevent us from peeking at artists' works before production.

Once the user-created content asset is generated, our backend will publish the asset on IPFS to make it public. Smart contracts record the hash of the asset so that the owner of the asset can always prove ownership. Not only the number is recorded in the blockchain (the blockchain game space of many projects is stopped), but also the voxel model itself and various renderings are recorded.

6.4. Project Agency

The free MPOGG platform architecture includes a server on the AWS infrastructure that monitors the blockchain and registers status changes.

Then our API will propagate the changes to the backend, and our central database will update the records so that the frontend can pull the most recent changes and display them accordingly to players and users of the free MPOGG platform. Changes in these countries include the transfer of ownership of tokens (land, assets or MPOGG).

In addition, the following are various scenarios that trigger external data input to our smart contract. The data received in the input is always anti-virus processing, and multiple security layers are implemented to ensure that these data are protected. Our smart contract has been reviewed.

- Land sales setting: When deploying, we submit the land configuration to each new sales contract.
- Land sale: The buyer submits the land of his choice, including payment, and then contracts to cast the land in exchange. We provide 2D maps so that buyers can easily choose the land;
- Stable price of land sales Oracle: We do not have any Oracle system to send information to our smart contract. Instead, we use the MakerDAO neutralizer, receive updates from Oracle, and make a median estimate of the dollar price:
- Asset sale settings:

The creator submits a 3D voxel model to our backend, we hash the result and submit it to the smart contract, and then generate a token representing it;

The creator submits a signature specifying the sales price, and our backend will store the signature;

- Asset sale: The buyer submits the payment of a specific token to the smart contract while the seller signs it. It receives exchanged tokens.

6.5. Game Engine

We have developed a custom engine.

Through extensive use of Entity Component Systems (ECS) and operating systems, our engine takes full advantage of the power of the new data-oriented technology (ie DOTS).

By using the new Universal Rendering Pipeline (URP), we can support mobile platforms without sacrificing the rendering quality of desktop games.

Our engine also implements support for custom voxel models, manipulation and animation formats (VXM, VXR, VXA) from the internal voxel editor (editor).

6.6. Wallet

We minimize the back-end security risks by reducing the responsibility of popular wallet systems that are only used for recommendations and whitelisting. Other wallets are hot wallets responsible for updating the platform with new contracts and new parameters. These can

become part of the governance mechanism in the future.

This wallet has the potential to upgrade our MPOGG coin, as well as the ability to expand functions through super operators.

In terms of payment methods, if the user wishes to pay in the following ways:

Based on HECO tokens, and then processed through a smart chain contract, the user will directly receive MPOGG into the wallet;

Bitcoin, Credit card payment is processed by a third-party service merchant solution. After the latter confirms, MPOGG will be issued.

6.7. Security

The free MPOGG market relies on HECO's security to implement its smart contract operations. The only wallet that can influence our smart contract logic is our multi-signature wallet. On our backend, we manage a database that caches smart contract events to track ownership. Our backend also stores temporary assets. Therefore, in this regard, its responsibility is minimal.



MPOGG

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