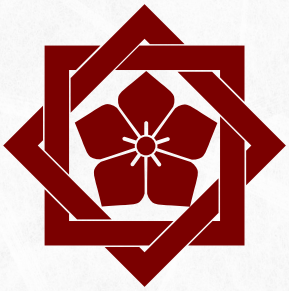


RYOMA

GAMEFI DAO

WHITE PAPER

V 2.1

RYOMA TOKEN 2021

INDEX

Introduction

1. Market background

2. Ecological Construction

2.1 BakumatsuSwap mining center
2.2 Game application center
2.3 Virtual mall products
2.4 Community forum
2.5 Wallet

3. Technical Solutions

4. Token Design

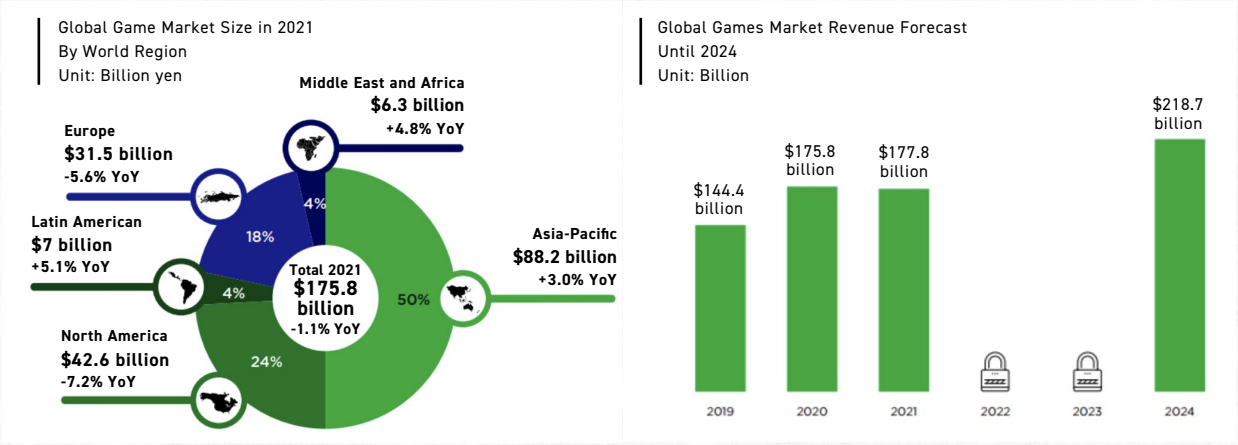
4.1 Distribution Method
4.2 Function Description
4.2.1 Ryoma Token
4.2.2 Ryoma Traffic Path NFT
4.2.3 Ryoma Point
4.3 Mining Rules
4.3.1 Asset Liquidity Mining:
4.3.2 Flow Mining
4.4 Transaction Fees
4.5 Flow Start Logic
4.6 Ryoma Currency Soaring Logic

Introduction

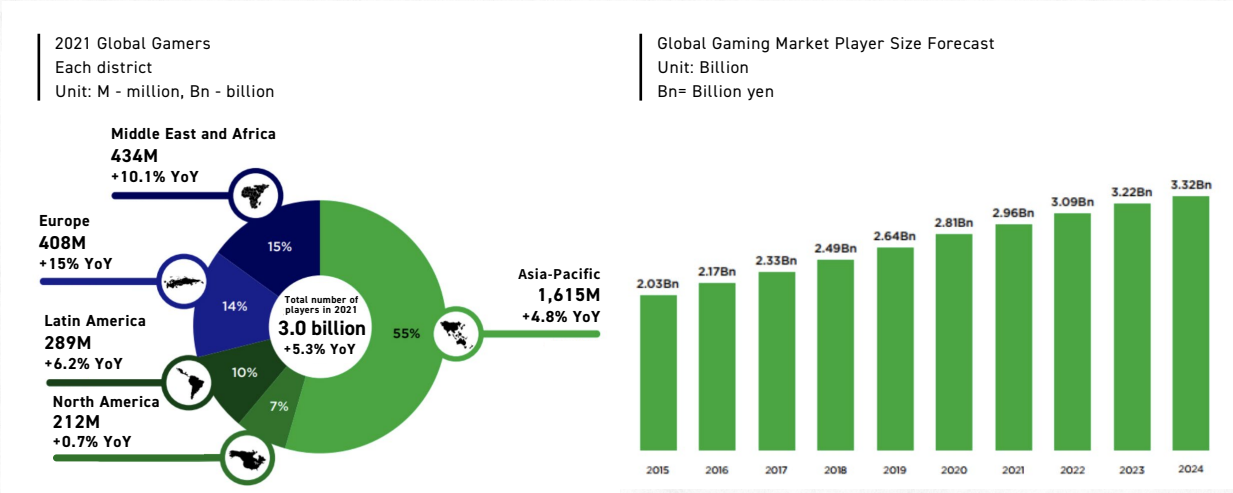
In 2021, NFT Games has evolved from a small ecosystem of a few hundred million yen in revenue to a multi-chain ecosystem where individual projects like Axie Infinity generate over a billion yen in revenue. OpenSea is targeting sales of $24 million for the full year 2020 and over $1 billion by August 2021. NFT transaction value grew from $13.7 million in the first half of 2020 to $2.5 billion in the first half of 2021. NFT is still in its early stages, but through overnight from Beeple's unprecedented auction, the NFT boom is sweeping across the entertainment, gaming, sports, social and luxury goods sectors, with major players joining in. Ethereum, on the other hand, has experienced one of the steepest growth curves in its history. Its market capitalization has grown from less than $50 billion a year ago to more than $300 billion today. Millions of users use the application, and billions of dollars are traded every day.

BakumatsuGameFi aims to be the GameFiDAO for game development, distribution and prop trading. Ryoma NFTs is the equity license for the platform and Ryoma Token is the functional path for the platform. As GameFi continues to build the financial track of the future, BakumatsuGameFi will also open the door to the metaverse for users by creating a complete GameFiDAO.

1. Market background



In 2021, Asia Pacific, with a market size of US$88.2 billion, will account for 50.2% of global gaming revenue, the highest share of the region. Among them, the Chinese market is the top gaming revenue generator in the Asia Pacific region with US$45.6 billion in revenue. The global gaming market is expected to rise at a CAGR of 8.7% (2019-2024) to surpass US$200 billion by 2023 and reach a total revenue of US$218.7 billion by 2024.



By 2021, the total number of gaming users worldwide will approach the 3 billion mark. This represents a year-on-year increase of 5.3 percent compared to 2020, indicating that the strong growth momentum in the gaming industry in 2020 is not only due to the continued increase in the number of players, but also to the room for growth. It is estimated that the number of game users worldwide will exceed 3 billion by 2022. The total number of players worldwide will continue to grow at a CAGR of 5.6% (2015-2024) and is expected to reach 3.3 billion by 2024.

The vast new world of gaming and virtual space is known as the metaverse. In the age of the metaverse, and in the coming metaverse trend, games will be an important means of communicating the importance of shared experiences as an alternative to space and identity through virtual and digital worlds. Another important element of the metaverse is that it is not the work of one giant industry, but the result of the co-creation of millions of people. Each contributes to the metaverse through content creation, programming, and game design, and adds value to the metaverse in other ways, paving the way for the arrival of blockchain's genes of decentralization, privacy security, and user empowerment.

2. Ecological Construction

BakumatsuGameFi aims to be the GamefiDAO for game development, distribution and prop trading, seamlessly connecting players and game publishers. The BakumatsuGameFi platform coin is the Ryoma Token, and all games on the BakumatsuGameFi platform generate assets associated with the Ryoma Token, which can be circulated across the network regardless of geography or time. Players can play all games on the platform with a single account.

2.1 BakumatsuSwap mining center

BakumatsuSwap is an automated market maker and decentralized exchange in Ryoma. It features ease of use, high gas utilization, and zero-rent extraction using a liquidity pool and a constant multiplication formula.
BakumatsuGameFi provides an interface for on-chain users to create Gamefi tokens that match the characteristics of their game. Platform games typically use TokenX smart contracts (currently ERC20), which are homogenized tokens. BakumatsuGameFi users with a certain number of Ryoma NFTs (officially issued) can create a liquidity trading pool for Ryoma - Token X. Users who provide liquidity with Gamefi tokens will receive the proceeds of the asset liquidity mining.

2.2 Game application center

In the future, we will expose the APIs of the BakumatsuGameFi platform for game publishers to access, as well as provide a set of SDKs written in common programming languages (C#, java, Nodejs, etc.) to realize smart contract function calls, such as monitoring and receiving notifications from the Ethereum network. The software development tools are open source and will be updated in a timely manner.

Game publishers will have a variety of options to customize the user experience of their games. Instead of partnering with BakumatsuGameFi, experienced game publishers with their own platforms can serve players independently by providing their own APIs and SDKs.

The App Center has an app leader board where you can rank your games, servers, teams, and other projects. Each app displays a user's leader board based on one or more dimensions. Users who have a certain number of "Ryoma Token" can start their adventure by clicking on the corresponding game. You can also participate in the voting in the App Center.

2.3 Virtual mall products

In this mall, you can not only trade virtual assets of BakumatsuGameFi games. It also integrates with current mainstream NFT protocols to provide trading scenarios for NFT assets in other ecosystems. The mall offers sellers a range of pricing options, including fixed price, drop price and auction.

In addition to this, BakumatsuGameFi provides a functional interface for users to mint personalized NFTs, but this requires users to consume a certain number of Ryoma Token.

2.4 Community forum

The forum is the center of player communication, where the reward system, reward features, donation features, and paid advertising promotions are integrated, and players can also enjoy valuable feedback on their interactions.

2.5 Wallet

BakumatsuGameFi will provide players with a smart wallet client, which will greatly improve the user experience when buying and selling game items on Gameflip's marketplace. Players can also choose other wallets that are compatible with ERC-20 to trade on other marketplaces. It also allows game publishers to develop their own smart wallet apps and integrate them directly into their games.

Within the wallet, you can not only trade and vote, but also subscribe to content and services provided by game players and individuals on the platform through simple smart contracts.

3. Technical Solutions

Ethernet has a problem of network congestion, which has been a major constraint on growth, especially as many applications are deployed on the network, resulting in higher gas charges. Before the ETH 2.0 upgrade was complete, BakumatsuSwap packaged complex transaction calculations off-chain through the Layer 2 solution and fed back the results to the chain. By performing complex transaction calculations off-chain, transaction speed has been greatly improved, and since the chain only calculates transaction results, low gas rate transaction results have been obtained.

BakumatsuSwap is currently choosing the ZK-Rollup technology solution. All you have to do is do all the calculations off-chain at once and submit a small zero-knowledge proof (which should not be a forged proof) to Etherpad for verification. ZK-Rollup has Etherpad-layer security because Etherpad validates these proofs and stores enough data to accurately determine the status of off-chain accounts.

ZK-Rollup's ZK means zero-knowledge proof, and Rollup is considered convergence packaging. Currently, there are several zero-knowledge proof frameworks, but the roadmap protocol eventually chose zkSnark as the zero-knowledge proof framework. The main reason is that zkSnark currently has the smallest proof data size and the lowest on-chain cost. The technology framework itself has been tested by ZCash for many years. The logic of ZK Rollup is that all funds are held by smart contracts on the main chain, and calculations and storage are done off-chain.

Each Rollup block generates a state transition zero-knowledge proof (SNARK) and is validated by the mainchain contract. The ZK-Rollup system requires the operator to provide a concise zero-knowledge proof (SNARK) for each state transition, which is validated by the Rollup contract on the masterchain. Such SNARK proves the existence of a transaction properly signed by the initiator, updates the balance of the associated account correctly, and changes the old Merkle root value to a new value that represents the new state. This prevents the operator from submitting invalid status or tampering with it.

The biggest reason ZK Rollup has achieved such a significant improvement is the compression of transactional data. The method of packaging and verifying transactions is realized by zk-SNARK technology, which solves the problems that Plasma has experienced so far, such as significant reduction of transaction costs and ensuring security. According to the calculations in the Hermez white paper, trading a "compressed" ZK Rollup requires only 8 bytes, while trading on the Ethernet mainnet requires more than 109 bytes.

By reducing the amount of data per transaction, transaction throughput for the entire network is improved.

ZK Roll up = transaction compression + zero-knowledge proof

4. Token Design

4.1 Distribution Method

Token: Ryoma Token; total amount 2 billion

Ratio	Amount of money	Distribution method
45%	900000000	Asset liquidity mining
8%	160000000	Flow mining
15%	300000000	Team
8%	160000000	Ecology
22%	440000000	Distribution
1%	20000000	Initial liquidity start
1%	20000000	Consultant

- ☐ Forty-five percent of this will be used for liquidity mining of BakumatsuSwap assets, rewarding long-term Ryoma Token holders.
- ☐ Use 8% for traffic mining to provide feedback depending on the player's contribution to the platform.
- ☐ It will be released as a team incentive at 15% in 4 years, locked in the first year, and released at an annual rate of 5% from the second year onwards.
- ☐ 8% locked in to eco-building with smart contracts.
- ☐ 22% will be sold in the primary and secondary markets, and unsold tokens beyond the sales period will be automatically destroyed.
- ☐ 1% provides RYOMA initial liquidity. It will be used for decentralized trading platforms such as BakumatsuSwap and Uniswap within a year of the launch of the mainnet. 20 million RYOMA / 4 million USDT.
- ☐ 1% is assigned to a consultant and is released at an annual rate of 0.25% over a four-year period.

4.2 Function Description

4.2.1 Ryoma Token

▼Platform coin, main use:

1. Platform games require a Royma Token as an access condition, and Ryoma is locked during play to record play time.
2. Payment of platform transaction fees
3. NFTs mint for game assets
4. Voting involves the Ryoma community using the DAO governance model to get voting rights by pledged RyomaTokens to participate in governance and vote online for the first batch of new game mining pools.
5. In order to create a new mining pool, platform users will need to create Ryoma Token, a liquidity pool for Token X.

4.2.2 Ryoma Traffic Path NFT

The NFT Flow Card, modeled after the Ishin Shishi (patriots of the Restoration), is the path required to open a liquid mining pool on the BakumatsuGameFi platform.

The first 10,000 cards will be issued in various shapes depending on the production probability of the components, but they are functionally consistent and will be standard vintage cards. Subsequent follow-ups will no longer be over-issued.

☐ Role of NFT path:

By pledging the path, you can allocate a pool of Ryoma-Token A. Ryoma is produced in the pool and its output is determined by the ratio of NFT paths held to the total number of pledged NFTs. Token X is any ERC20 token, usually a token issued by the game itself. Early mining pools will open randomly, and six months after going online, a weekly pledged Ryoma vote will be required to decide to open a new mining pool, but the exact rules will be announced at a later date.

☐ NFT Path Automatic Blind Box Auction System:

Users can put NFTs into the auction contract system. The detailed rules will be decided later, but the overall rules are as follows. :

1. Three highest bidders appear in the system
2. NFT will be randomly acquired for one person from among them
3. 10% of Ryoma's contribution is collected from the winning bidder who could not get 2 points

NFT Path Flow Lending System:

As many Gamefi teams gain access to the BakumatsuGameFi platform, the price of NFT paths will be significantly boosted and Gamefi teams will not be able to get traffic. Therefore, we will start a traffic right rental contract within two quarters from the product launch.

1. Users who own NFTs can pledge NFTs to the corresponding contracts and set deadlines to produce NFT-timetokens.
2. It is possible to sell the NFT-time to the Gamefi team, but at that point the original NFT will be locked and the team that purchased the NFT-time will be able to exercise the power of the original NFT traffic path.
3. After the configured time elapses, the NFT-time is destroyed, the original NFT is unlocked by the original owner, and the NFT's traffic rights are leased.

4.2.3 Ryoma Point

Ryoma Point is an energy value that is automatically generated and accumulated during the traffic incentive cycle (currently designed for 7 days) based on the user's platform contribution behavior and cannot be transferred for trading. The system distributes Ryoma Token rewards for the current cycle throughout the network in proportion to the number of points each user has. When an incentive is issued, Ryoma Point is automatically destroyed and moves on to the next production cycle.

4.3 Mining Rules

4.3.1 Asset Liquidity Mining

By pledging an NFT path on the Ryoma platform, you can launch a mining pool with BakumatsuSwap, injecting Ryoma's daily production into each pool and allowing users to mine. The number of pledged NFT paths determines the daily production of the pool and indirectly determines the relative yield of the pool. Users participating in asset liquidity mining must be active users of the platform (6 hours of play in the incentive cycle).

4.3.2 Flow Mining

Within one incentive cycle (currently 7 days), the system distributes Ryoma Token rewards in proportion to the number of points each user has for the entire network.

- [ ] Ryoma Point (6 hours of gameplay is possible in one incentive cycle) is required for stable game operation.
- [ ] You can invite new entrants to the BakumatsuGameFi platform (play for 6 hours in the incentive cycle) and receive points.
- [ ] Inviting 3 or more (including 3) valid new participants directly will generate bonus points, and the bonus relationship will be valid for a long time by satisfying the number of active users.

4.4 Transaction Fees

Trading on the BakumatsuGameFi platform requires payment of the corresponding Ryoma fee, which will be injected into the asset liquidity mining pool to ensure the operation of the eternal mining mechanism.

4.5 Flow Start Logic

The new game team will purchase an NFT path to build its own mining pool and add the project's own GamefiToken to it. This way, as users can play the game only to get the project token to mine the valuable Ryoma Token because the initial return is very high and the secondary market is inaccessible, the Gamefi team will be able to play the game to quickly attract a large number of users to make a cold start of the game.

4.6 Ryoma Currency Soaring Logic

As the number of games and players increases, the risk of the Ryoma Token price falling will decrease significantly under the following conditions.

1. NFT paths will be more expensive and will require a large number of Ryoma Tokens to be auctioned.
2. Users purchase large amounts of Ryoma Tokens to participate in mining.
3. Significant increases in transactions and fees are returned to many Ryoma holders.
4. The gamer buys more Ryoma Tokens to get more NFT paths to get traffic.

Demand is increasing, but liquidity is declining, so the price of Ryoma Tokens will continue to rise as long as inflation stays below (collateral growth rate × demand growth rate).

RYOMA