

MyMasterWar

Technical whitepaper version 1.1

I. Overview

[MyMasterWar](#) is a gaming ecosystem with the difference that blockchain technology is applied to the game along with the Free Play to Earn model, which revolves around the plot:

- People crave power, desire to live forever, change heaven and earth, and master the vast universe.
- To do this, humans need evolutionary thought and power. The best scientists research, invent, search and refine the most elitist genes in history, crossing time and space to create real battles to hybridize, improve and evolve, role-playing as various kings to rule the kingdom.

The first set of games will take place in the Middle Ages. Players can choose their own scenario, each player is like a king of a country, they can choose generals, build armies, devise strategies and fight battles.

The second part of the game will take place in a future where humans cross space and time building their own virtual metaverse empires. Players will no longer use traditional devices such as laptops or mobile phones to participate in the game, instead they will enter a 3D virtual world, transforming into gods with endless strength and ability to create and conquer the new worlds

II. Medieval battles - the beginning of a journey

Mymasterwar is a series of different game scenarios, starting with medieval battles. The Three Kingdoms is one of the epic periods of Chinese history and was chosen as the beginning of a journey through the ages.

In the three kingdoms game, players can choose their own scenario, each player is like a king of a country, they can choose generals, build armies, devise strategies and fight battles. The secret to winning battles, conquering strongholds and unifying the world lies in the selection of generals, the equipment for the generals and the tactics of the battle. We realize that those things are very important, affecting the player's experience and the ability to win in the game, so we have put these generals and game items on the blockchain (tokenization), helping players really experience the game and own these permanently and transparently.

There are two types of tokens in the game: the fungible token and non-fungible token (NFT)

1. The fungible token (MAT Token)

MAT refers to *My Master War Token*, the token for the game ecosystem. MAT follows the standard BEP20 token on the Binance Smart Chain platform (BSC) and is controlled by smart contracts. MAT token can be used for:

- Buying game items: such as weapons, equipments
- Upgrade levels: such as VIP-01, VIP-02 ...
- Game rewards: players will receive rewards when they win a battle, conquer the stronghold ...
- Referral system: When players refer friends to play the game, they will receive an amount of MAT tokens proportional to the referral's trading volume.
- Staking: Players can stake their MAT token in the game system to receive rewards.
- Exchange on centralized/decentralized exchanges

Most of the token is controlled by smart contracts, please check the tokenomics session for more detail.

2. The non-fungible token (NFT)

The non-fungible token (NFT) is the unit of data stored on a blockchain network which can be associated with a particular digital or physical asset. NFTs function like cryptographic tokens, but, unlike cryptocurrencies, NFTs are not mutually interchangeable, so not fungible. In the *My Master War* game, the NFTs will represent the generals. There are many generals in the game, each of them has many attributes such as the *five basic elements, health points (HP), strength, intelligence, defense, attack, abilities, mashal and technique*. These attributes determine the shape, color, strength and combat ability of the generals. The combination of attributes can create a nearly infinite number of generals with different idiosyncrasies, and therefore also a nearly infinite number of NFT tokens to be generated. We can think of the attributes as the gene elements and the combination as the human gene.

The gene code of generals

The gencode of generals (or DNA) represents the unique general. It is a digit integer like 8809173684077363656 with the maximum value of 2^{256} .

Just like real DNA, different parts of this number will map to different traits of generals. The following table maps the numbers parts with the general traits

#	Attribute	Number position	Attribute Value
1	Version (not in real gene)	First 2 digits	10-99
2	Type of generals	Next 3 digits	001-100
3	Five basic elements	Next 1 digit	1-5
4	Attack	Next 6 digits	565-1045
5	Defense	Next 6 digits	258-578
6	HP	Next 8 digits	5759-10559
7	Intelligence	Next 3 digits	72-88
8	Mashal	Next 3 digits	72-88
9	Strength	Next 3 digits	72-88
10	Technique	Next 3 digits	82-85

For example: general Guan Yu in version 1 may have the gene code: *10001200068500049800009359084072076085*

Collect generals

Gamer players can collect and use NFT general in the game marketplace. When a new general is borned, Its corresponding NFT token is minted and available in the marketplace. If players buy the NFT general, the token id will be transferred to the player's wallet and they can use that general in the game. They can also upgrade the generals level, join the battle and then sell them back to the game marketplace.

Breed generals

Players can generate a new general by combining two generals. Only generals with the same type can be combined. The gene of a new general is derived from its parents and therefore the appearance may look like its parents too.

Evolve generals

Generals can be upgraded to the higher levels. Players must win the battles or buy MAT tokens, game items to have opportunities to update their generals. Generals with the high level have a better price on the marketplace.

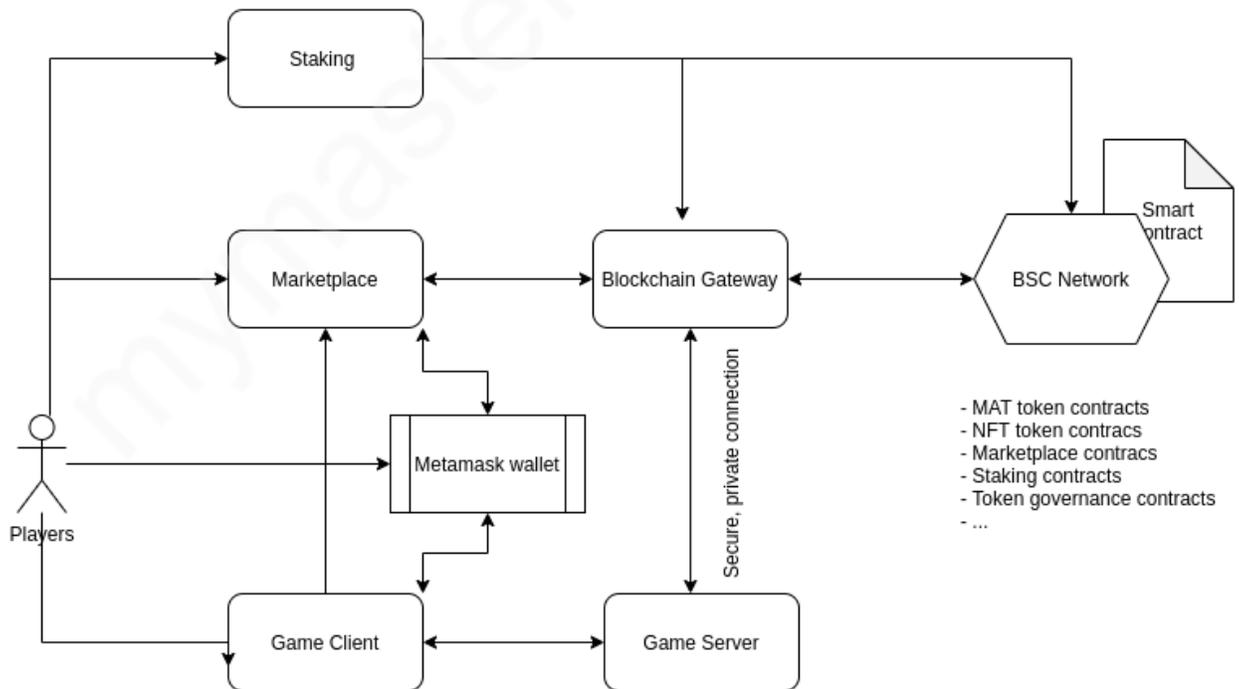
Trade generals

Only owners can trade their generals in the marketplace. When the transaction is completed, the ownership will be transferred to the buyers, the sellers will not be able to access and use their generals in the game as well as in the marketplace.

Destroy generals

Owners can decide to destroy their generals. When generals are destroyed, they cannot be neither used in the game nor in the marketplace.

3. The game components and architecture



Picture 1. The high level architecture of game system

The system follows the microservice architect and is designed with highly secure and scalable in mind.

The scalability and availability

We use cloud service and follow the best practice of scalability and availability from high load web application:

- All services are inside the EKS cluster which has at least two available zones.
- Cluster is set to auto scaling mode which means that EKS will adjust resource in cluster by adding or removing nodes to meet the demand
- Horizontal Pod is set to auto scaling mode which means that the number of pods in a deployment, replication controller, or replica set are automatically scaled based on resource's CPU utilization.
- Each database is in multi AZ cluster and can scale on demand

The security

- All connections are using SSL/TLS (https, wss) version > 1.2
- All applications and blockchain services are running inside VPC's private subnet. Only API Gateway, ALB, Nat Gateway can be accessed from the internet.
- Confidential information is encrypted, encryption keys stored in KMS
- Databases are separated and encrypted. Each service can only access its database.
- Game server IP is white listed when calling blockchain service. It also has to provide the valid credential (authentication) and the message signatures when working with blockchain service.
- Private key for the operation's wallet is encrypted, stored on KMS and loaded into memory only. The wallet has little coin/token for daily operation and will be funded from cold wallet.

III. Play to earn model

Unlike many other NFT games, My Master War NFT game does not require players to spend any money to start playing. Only when players have a real need to buy items and upgrade their VIP levels, they need to spend a small amount of money to do those things. It is also an investment to generate profits later on.

Game players can earn money by the following ways:

- Stake MAT token

- Invite others to play the game
- Play the game and win challenges
- Sell the NFT token on marketplace

Our play to earn model creates a fair earning opportunity for everyone. Users can start playing the game without paying any money. They can also earn money if they are the good players or staking MAT token to generate benefits

IV. Roadmap

Q1, Q2 2021:

- Verify ideals, start designing and building the My Master War game, starting with medieval battles in China
- Connect with advisors and prepare for official plans

Q3 2021:

- Complete coding the game
- Apply blockchain technologies into the game
 - Buy game items, upgrade levels by MAT tokens
 - Mint general NFT tokens (by game creator)
 - Reward MAT token for players who stake MAT, win the game or their referential.
- NFT marketplace for players to buy/sell generals
- Officially launching the game and starting the staking pool.
- Private sale round

Q4 2021:

- Improve the game
 - Improve UI/UX, animation ...
 - Allow players to breed new generals from their parents and mint NFT token, evolve and trade on marketplace
- Listing MAT on PancakeSwap
- Listing MAT on top-10 centralized exchange

From 2022:

- Improve the game
- Develop the second part of the game will take place in a future where humans cross space and time building their own virtual Metaverse empires;

- Community development
- Business expansion
- Operating and exploiting

V. Tokenomics

We are committed to building games, communities and ecosystems in a sustainable way. So all the token metrics such as the total number, the allocation ratio, the lock rate ... are carefully considered.

Token metrics

- Token name: My Master War Token
- Token symbol: MAT
- Total supply: 100.000.000 MAT
- Blockchain network: Binance Smart Chain (BSC)
- Token allocation as follow

Token allocation

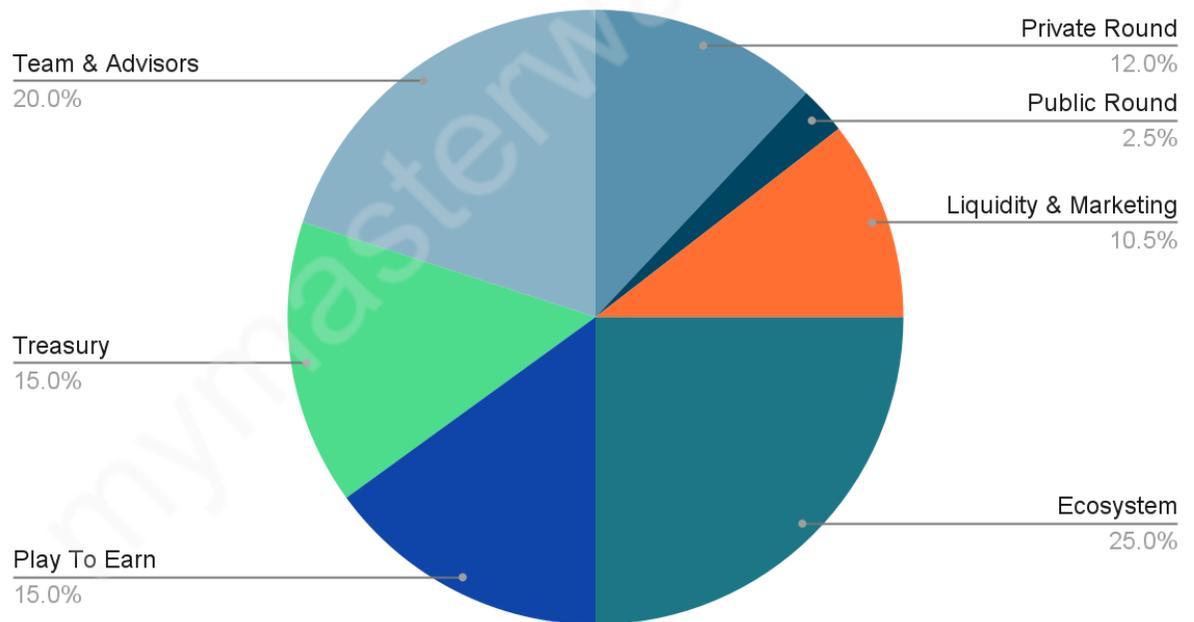


Chart 1. MAT token allocation

Vesting schedule:

- Private Sale (12%): 15% is unlocked at TGE, 2 months cliff then linear vesting block-by-block in 15 months
- Public Sale (2.5%): 25% is unlocked at TGE, then 25% is unlocked monthly over 3 months
- Liquidity & Marketing (10.5%): 15% is unlocked at TGE, then linear vesting over the next 24 months
- Ecosystem (25%): 5% is unlocked over the first month, then linear vesting over the next 36 months
- Play To Earn (15%): Use as rewards for users during the game playing
- Treasury (15%): Unlock over 60 months
- Team & Advisor (20%): The token is fully locked in the first 6 months, then unlock over 18 months

All token metrics, lock/unlock conditions are transparently written in smart contract and source codes are public on the github so that everyone can access, check and audit the project.

VI. Team

My Master War NFT game team comes from all over around the world. They have many years of experience and expertise in the working fields. Please check our official website (<https://mymasterwar.com>) for the detailed information, experience and expertise of the mymasterwar projects.