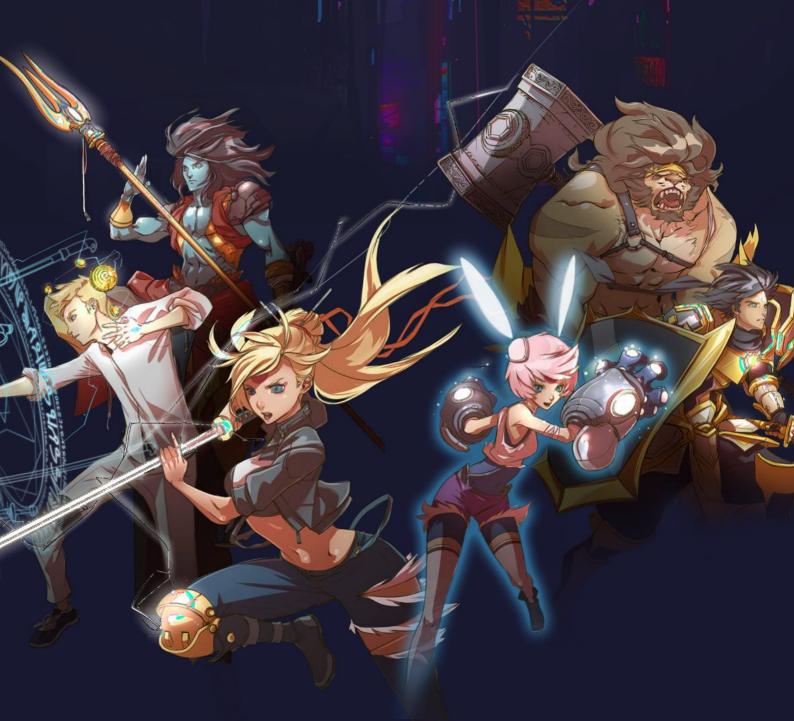# CHAINGUARDIANS

OFFICIAL WHITEPAPER AS OF MARCH 2021.

Please note, the whitepaper is considered to be a working document and will be updated as and when required in line with the latest developments.

1. OVERVIEW

ChainGuardians is an ecosystem which enables users to earn tokens through playing gaming experiences and participating on our platforms. Players can collect, battle, enhance their armies and hone their skills across numerous game scenarios.

Currently, the majority of ChainGuardians' collectible assets are represented as ERC-721 token standards on the Ethereum blockchain. However, some assets are also held on our central databases to pave the way for traditional gamers to enjoy our experiences.

Currently, the majority of ChainGuardians' collectible assets are represented as ERC-721 token standards on the Ethereum blockchain. However, some assets are also held on our central databases to pave the way for traditional gamers to enjoy our experiences. All of these assets can be minted when a user chooses to do so. Moreover, we recently also released the world's first NFT Portal which allows users to move their ETH based assets cross-chain to Binance Smart Chain.

Since 2019 our community has grown at a steady rate; however since launching our governance token in March 2021 our community has began to flourish massively. The number of daily active users across our flagship products: the NFT Mining Platform and RPG, has grown massively. This is also reflected in the number of NFTs we have sold as well as the community's resilience in holding ChainGuardians' non-fungible tokens ("NFT"). The average ETH price of a ChainGuardians NFT being roughly 1ETH which to us, reflects dedication of the community to our mission of mass blockchain adoption through blockchain based gaming.

We believe our community is the heartbeat of our ecosystem; therefore we endeavor to make all our players' experiences inclusive and socially interactive, with a view to implement governance driven decision-making tools.

Our vision is to enable mass adoption of blockchain gaming through creating imaginative, innovative and immersive cross-chain gaming experiences.

We aim to achieve this through combining play-to-earn blockchain gaming concepts and free-to-play dynamics which are centered upon a balanced in-game ecosystem.

Our philosophy is underpinned by forming integrations with other ambitious projects in order to work collaboratively towards breaking through technological and ideological barriers; whilst placing you, our gamers, at the forefront of every systematic and economical decision which is implemented.

2. GUARDIANS AS ERC-721 TOKENS (NON-FUNGIBLE TOKENS OR NFTS)

Whilst all Guardians are the dedicated defenders of their respective blockchain worlds; all Guardians are represented as ERC-721 NFTs.

Each batch of NFTs is unique to their respective blockchains, for example: whilst Bitsee Naka is the defender of the Bitcoin within our game experiences, she is represented as an NFT on the Ethereum blockchain.

Only a set amount of each Guardian will be produced for each blockchain, and they are only purchasable through our sales. Afterwards, Guardians can only be bought and sold through secondary marketplaces.

There will never be any more Guardians produced beyond what is stipulated by the ChainGuardians team. We envision this will protect the assets' values and reward players who join the ChainGuardians' ecosystem.

Further Guardians and supporting characters will be developed in due course, with a particular focus on the introduction of Guardians which represent the blockchain world of the most popular blockchain projects.

3. GAMING EXPERIENCES

Within the ChainGuardians ecosystem there are currently two ways to play and earn tokens: our NFT Mining Platform and Role-Playing Game (Beta). We are consistently aiming to develop new and improved gaming experiences for our users.

Please note, the ChainGuardians RPG is currently in Beta and rewards are currently disabled whilst balancing and testing is ongoing. The target for implementation of rewards is Q2 2021.

3.1 – NFT MINING PLATFORM

The NFT Mining platform is widely acknowledged within the blockchain gaming space as an innovative experience which enables users to stake their assets in order to earn tokens.

The platform can be likened to an idle game, where users select their NFTs and submit them to pools in order to earn in-game credits. In turn, the credits are redeemable for governance tokens, which can be used to affect key ecosystem design decisions, purchase other NFTs and more.

3.2 – ROLE-PLAYING GAME (BETA)

The ChainGuardians RPG is currently in Beta, however new updates are consistently rolled out to the community. The RPG, which has been built for web browser game-play, is a turn-based strategy game which requires skill, luck and quick reactions. Whilst the RPG can be played on mobile, optimisation for mobile game-play is not planned until later in 2021.

The current focus for RPG development is loot rewards and balance, with the development aim of player versus player (PvP) game-play by Q2 of 2021.
For an overview of the current RPG game, please see the following guide.

3. GAMING EXPERIENCES

3.3 – 3D PVP – ROADMAP ITEM

<The ChainGuardians Team reserves the right to develop a different gaming product if deemed more appropriate for the community, or as a result of community feedback or governance decisions in the future.>

The next gaming experience, expected to be released as an MVP or Alpha in Q4 2021, is 3D PvP game scenarios. Here, players can look forward to combat scenarios with their assets which resembles traditional fighting games such as Tekken or Street Fighter. Considerations for these scenarios are currently underway: metaverse experiences are being considered as well as client-based solutions.

4. CHAINGUARDIANS GOVERNANCE TOKENS – CGG

ChainGuardians Governance Tokens (CGG) are ERC-20 tokens which underpin the ChainGuardians ecosystem. They can be used for:

- Governance: submitting proposals and voting on ecosystem design changes
- Staking: earning rewards such as powerful NFTs
- Payments: purchasing in-game assets, items and consumables

The purpose of the CGG token is to:

- Reward players for actively participating in the ChainGuardians ecosystem
- Empower users to make key decisions regarding the direction o fthe ChainGuardians ecosystem
- Encourage users to engage with the tokens' use-case and redeem rewards

Ecosystem design and game-balancing are two of the most fundamental challenges faced by all game developers.

The community governance token paves the way for exciting game-play opportunities and innovative ecosystems through breaking through traditional gaming barriers.

5. THE MARKET

The player base for blockchain games has increased steadily as blockchain adoption accelerates. 2021 is the year of NFTs. As AAA game studios continue to explore innovative ways to play, blockchain gaming will become even more prominent in the years to come.

It is clear that as the demand for blockchain games grows, so does players' desire for a game with longevity and balance. Many blockchain games, whilst starting out with unique ideas and promise, often stall beyond their pre-sales. From a player base perspective, there are several reasons for this, as outlined below:

The concept of excessive 'Pay to Win' is considered a problem in many prominent games today, as this hinders the entry of new players. This is true of many games and not just blockchain games. Players are often left in a position where they have spent large amounts of money, whilst their assets have often failed to hold any value.

More specifically to blockchain games: if the issuance of the first items (NFTs) are the strongest, in order to reward early players, and the subsequent items or characters are always weaker; whichreduces the motivation for new players to continue the game shortly after joining.

As such, factors for sustainable growth of the ChainGuardians ecosystem is as follows:

- An environment where it is easy to join the game for new players
- Development of interesting games and playing methods
- Item prices and power are appropriately balanced
- The balance of moderate 'Pay To Win' and 'Play to Win' is accurate

5. THE MARKET

Factors for players wanting to play the game (in no particular order):

- Play for fun
- Play for social
- Play to show
- Play to win
- Play for profit

The ChainGuardians Team intend to achieve this through the following methods:

- Taking regular feedback from the community and governance proposals/voting
- Focused development of end-game content in addition to advancements in playability
- Multiple game modes including: PvP, PvE, and collaborative player versus environment raids
- Thorough balancing of Guardians, lower ranking characters, items and economy
- Continued development of the battle meta and 'elemental' type balancing
- Introduction of exciting new game experiences
- The 'Loyalty System'
- Thorough in-game testing, balancing and simulations
- Whitelisting to prevent bots and excessive multi-account creation
- Events and competitions

6 GAME MECHANICS

<This section is subject to change, with or without notice, for game balancing>

ChainGuardians is a persistent multi-world turn-based real time strategy game which incorporates desirable rewards and transparent economies; player rewards are driven by both player purchases and through participation within the games in our ecosystem.

Guardians will be able to join forces to take down opposing forces and GateKeepers in order to gain: power, credits, armaments, and even ever evolving powerful world artifacts.

ChainGuardians is a player controlled turn based battle game which is active in real time; whilst during idling (when a player is not online), advanced AI based battles can take place governed by a Guardians' attributes.

Battle in the world of Bitcoin, or expand into the world of Ethereum, Dash and beyond.

Join the ChainGuardians project and play with real players whilst obtaining unique rewards!

6. GAME MECHANICS

PVP AND PVE COMBAT

Guardians and supporting characters are able to challenge each other to team battles as well as battle through the story mode. Duels are played out through a series of turn-based offensive and defensive skills. The basic moves (slash, thrust, strike) provide equal expected value results against (parry, dodge, block). In other words, the first duel meta will consist of 33.33% chance of dodging an attack when defending; whilst attackers maintain a 66.66% chance of dealing damage. See the table below for a basic breakdown.

Guardians, as they are unique characters, have a special offense skill (Charge), and defensive skill (Dash) that have an expected value advantage over non-guardian characters. Some Guardians through their adventures may also learn a special move (Flash) that have a significant advantage over basic moves. Guardians may also equip rare, long range offensive weapons which also give them an extra offensive (Ranged) move. This move maintains the strongest offensive capability and is also especially powerful against the special Guardian move (Flash).

		DEFENSE			Guardian	Special	
		ALL					
		Parry	Dodge	Block	Dash	Flash	Total
OFFENSE	ALL Slash	0	1.5	1	0.5	0.5	3.5
	ALL Thrust	1	0	1.5	0.5	0.5	3.5
	ALL Strike	1.5	1	0	0.5	0.5	3.5
	Guardian Charge	1.5	0.5	1	1	0	4
	GunSword Ranged	0	1	0.5	1	1.5	4
	Total	4	4	4	3.5	3	

6. GAME MECHANICS

PVP AND PVE COMBAT

It is worth keeping in mind that there is more to the ChainGuardians' battle meta than initially meets the eye. For example: a strike move may be more effective on an opponent that has steel armour equipped, whilst slashing it may prove quite useless. Meanwhile, a non-playable character (NPC) with no armour will have little in the way of additional protection. It is also noteworthy that the Guardian or character's attributes will play a key role in determining the effectiveness and outcome of a battle. Thorough testing and balancing will continue and occur throughout all stages of the game's development.

7. GUARDIAN ATTRIBUTES

<This section is subject to change, with or without notice, for game balancing>

All Guardians have an overall Power Rating which constitutes a maximum score of 100. This rating is composed of the 12 attributes as outlined below:

- Rarity (Max 20)
- Natural Ability (Max 15)
- Armour & Weapon Score (Max 5 + Max 5)
- Magical Item Score (Max 10)
- Guardian Skills (Max 5 for each of the 5 Skills)
- Strength
- Intellect
- Stamina
- Charisma
- Agility
- Fame Score (Max 10)
- Active Score (Max 10)
- Age (hidden metascore)

Rarity: some original Guardians have a greater value than their rivals as part of the natural universal order. The first four Guardians will always be amongst the rarest.

Natural Ability: rarer blockchain Guardians generally have a greater natural ability than other Guardians, however depending on the extent of their testing during escaping their oppressors, some have had to endure harder tests than others.

Armour & Weapon Score: Players can obtain stronger items through PvE and PvP combat which will enhance your Guardian's armour and weapon score. Players can also obtain armour and weapons through the official marketplace or private deals with other players on eligible platforms. Longer term, integration of other NFT equipment items is envisaged on our road-map.

Magical Item Score: In the deep depths of the cryptoverse elusive magical items exist. These items can be obtained through PvE and PvP combat which improves your Guardian's Magical Item Score.

7. GUARDIAN ATTRIBUTES

Guardian Skills: Depending on your Guardian's journey they will have obtained particular skills which were required to free themselves from the shackles of control. These traits vary from Guardian to Guardian, with some traits being strong against certain Guardian traits, however weak against others.

Fame Score: Your Fame Score is calculated based on your PvE and PvP successes. Guardians with a high Fame Score (PvP ranking system) will receive bonus Charisma (Char) points; with the ability to carry more soldiers in their armies.

Active Score: Your Guardian's Active Score is calculated based on how frequently the Guardians have been used undefeated. This will create bonuses for the Guardian's unit. An undefeated Guardian, over time, can become very powerful due to a Guardian's force becoming well trained and seasoned.

Age: Wisdom is a hidden attribute. Guardians gain additional passive resistances over time such as against certain elemental types. This ensures some of the oldest Guardians become the strongest amongst their peers.

Experience: Engaging in PvE combat or PvP battles will increase your overall Experience Score - those who are more experienced in the art of war are stronger.

All Guardians, Lieutenants and Apostles start with a base level of one (1); with each battle your Guardians or characters will become stronger. Winning a battle will reap a greater amount of experience points. It is also noteworthy, that the above statistics are composed of off-chain and on-chain values.

7. GUARDIAN ATTRIBUTES

EXPERIENCE GROWTH

A Guardian's skills, including: Strength (Str), Intellect (Int), Stamina (Sta), Charisma (Char), and Agility (Agil) will govern a Guardian's power in different ways; the base numbers for duelling and battling will be affected as a result. For example: Strength will provide an offensive buff; whilst Agility will provide a defensive buff. Meanwhile, Intellect and Stamina determine a Guardian's Magical ability and Hit Point growth per level. Finally, a Guardian's Charisma will increase their Command (the number of units a Guardian can command over in battle – this is a roadmap item). See below for a typical indication:

Off. Buff				Def. Buff
Wield	MP	HP	Command	Speed
Str	Int	Sta	Char	Agil
2.00	3.00	2.00	3.00	3.00

A Guardian's skill statistics also impacts the type of Weapon, Armor and Magical Item that a Guardian can wield. Higher skill scores allow for a higher level item to be equipped.

Whilst a Guardian can equip the most powerful item in the world, it may still be capped by it's max Weapon and Armor score.

Requirement		
Str	Sta	Int
Offense	Defense	Magic
Weapon	Armor	
2.00	2.00	3.00

7. GUARDIAN ATTRIBUTES

ELEMENTALS

There are seven Elemental Types: Psychic, Light, Sound, Air, Fire Water, Earth within the ChainGuardians' worlds. These elemental types generate advantages that are applied as a final buff/resistance after all other battle meta statistics are calculated. A Guardian's Elemental Type or types are determined based on their: rarity, LORE and developments leading up to game play or gained over time.

Most Legendary Guardians have 2-3 elemental types from the outset, whilst only a very selected few will maintain beyond three Elemental Types. As of the time of updating the whitepaper (March 2021), Guardians only have one elemental type active.

Bitsee Naka is the original ChainGuardian and is dubbed 'The Chosen One'; ; thus she is granted 'enlightenment' (Psychic Elemental Type). Bitsee maintains strong compassion to her people (Air Elemental type), and has overcome much in her early struggle for survival (Earthly Elemental Type). Having journeyed through the emotional challenge of losing her family, she has also developed significant emotional strength (Fire Elemental Type).

Captain Devex Attazar 'roams the open seas' and has grown universal love (Air Elemental Type) of all things in all worlds. Having chartered the endless open seas that connect the worlds he has also developed Independence (Water Elemental Type).

A more thorough revelation of Guardian and character attributes will be revealed through story LORE and future Chronicles.

7. GUARDIAN ATTRIBUTES

ELEMENTALS

Elemental	Bitsee	Dasha	Captain
Psychic	P		
Light		L	
Sound		S	
Air	A	A	A
Fire	F		
Water			W
Earth	E		

The final attack damage buff is applied when there is a type advantage (indicated below); but the buff is nullified when the defending Guardian or character has the same Elemental Type. For instance, should a Guardian gain all Elemental Types, they would be immune to any type of attack buffs.

Psychic
Light
Sound
Air
Fire
Water
Earth

8. NFT POS MINING

Introducing the first ever NFT Mining through Proof-of-Stake (POS); where you can put your NFT to work to earn rewards. At ChainGuardians, we were the first project to introduce NFT Mining, where popular and rare NFTs can be deployed to mine ChainGuardian Coin (CGC): the official in-game currency for ChainGuardians.

MINING GAME LORE

"Captain Devex Attazer and his pirates roam the OpenSeas between Cryptosphere's worlds; undertaking bounties from time to time whilst ferrying private armies and mercenaries between worlds.

It was all but a regular fair until one day the Blockchain Pirates discovered the hidden secret of the OpenSeas. The Blockchain Pirates learned about the secret of minting coins through Hashing: like money falling from the sky. These digital objects, later became known as (CGC) and sprung into existence as they performed secret rituals"

Some time later, the information spread throughout the Openseas of the Cryptosphere. NFT Heroes, Legends, Friends and Foes from all worlds came to join in the 'NFT Global Hash Wars'."

LET THE GLOBAL NFT HASH WAR BEGINS!

At fixed intervals, new batches of selected NFTs (from other popular NFT that players hold) will be introduced in the NFT Global Hashing Mini-Game. Players can participate with their existing and favourite NFTs. New NFT statistics will be provided by using a reputable and well known API provider in the NFT space. The Hashrate of these NFTs will be based on the 'rarity' of the asset as determined by (ChainGuardians and Partners). Don't get into FOMO mode, and get in the game early with NFT Global Hashing!

9. COLOSSEUM MINI GAME

INTRODUCTION

Powerful beasts and adversaries roam the cryptosphere; some of the rarest and most powerful often take part in the colosseum, either as slaves controlled by their masters, or as independent challengers seeking: money, fame or power.

"BRING YOUR OWN NFTS!"

Once introduced, users with some of the rarest NFT crypto holdings will be able to place their assets into The Colosseum; specific choices will depend on game-lore suitability, popularity, or formal partnership. The power of the NFT will depend on its relative rareness and price. The assets' owner, who participates, are able to reap rewards from winning in The Colosseum.

Players are also able to place their Guardians in the colosseum as challengers for a minimal entry fee. The challenger will be placed against a series of random challengers from low to high difficulty. From time to time, players may also get matched against other players either in real time battle or as shadows of former challengers. Rewards will be granted from entry fee pools as well as unique rewards provided by ChainGuardians only available in the Colosseum.

There will be an entry fee cut for every participant into the revenue stream for ChainGuardians.io.

Rewards are issued from entry fee pools; as well as unique rewards only available in the Colosseum. Rumour has it that one of the cryptosphere's rarest items, the World Sphere, will be granted to the winner of the 1st Seasonal challenge.

10. PLAYER ONBOARDING AND CONSIDERATIONS GUARDIAN SIMULATION MODE

We consider our role and capacity in onboarding users to Ethereum dApps pivotal as new users enter the space; therefore, we will be creating a playable Guardian simulation game mode enabling users to play several of the game modes.

This mode would be a simulation and would therefore not provide actual rewards towards the game nor would the players own the NFTs. The outcomes of this game mode would not affect actual game play ranks or economy; but is designed to provide users with a feel for the initial game.

11. WORLD EXPANSIONS

As the game expands to new worlds, existing cryptocurrency organisations and blockchain gaming platforms can be onboarded and introduce new game-play mechanisms.

Through battling through the newly discovered worlds, Guardians from initial worlds, such as: Bitcoin and Ethereum, may return with revolutionary technology and cultures from their respective worlds.

Some game play modes will be unique to new world expansions. You are able to take your Guardians to explore new worlds for a small fee. Once you have established a foothold in the new world, your Guardians will be able to quickly adapt and once again be amongst the strongest.