CRYPTOGODS WHITE PAPYRUS

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1. Introduction: Blockchain Games

This is potentially a new and exciting era in gaming. Since blockchain emphasizes decentralization and freedom, perhaps us gamers can truly harness the capabilities of some of our favorite games. So far, gamers that have taken part in this phenomenon have taken part in some truly uniting experiences within games. The approaches in blockchain gaming are mainly towards transactions of assets in the game. Some of these transactions are more akin to charging an entrance fee to fellow players to receive admittance to your personally built environment. Or as in **CryptoGods**, there is a market place for trading the items you own or you have crafted with Ether, a cryptocurrency which in turn can turn into fiat currency. The game is simply owned by the players themselves as each player becomes somewhat of a developer of the 'chain'. Basically you can earn money off of your creations in the game.

CryptoGods unlike some other blockchain games truly aims to create an amusing and entertaining environment for its users to enjoy gaming and making a profit out of it at the same time.

2. The Product

CryptoGods is a NFT card-based game including battles between players, a marketplace and a system that allows players to craft items and breed their 'God Cards' in order to generate new consumables, items and new God Cards. There will be 400 initial God Cards introduced, all of which will be auctioned to players before the launch. The prizes and payouts of the players, will be the SNX that will be generated by staking all the SNX that players have to spend while personalizing their God Card in CryptoGods' SNX pool.

2.1 Getting Started

In the first step players have to purchase a God Card that belongs to a unique deity with their own set of abilities and traits that can be upgraded indefinitely through different methods and challenges and can possibly earn Ethereum for their owners by collecting items called 'God Tokens' and later trading or selling them on the marketplace. These unique mythological gods can participate in breeding, battles and different crafts to be massively personalized to their owners' liking, indefinitely increasing in value and staying productive.

2.2 God Cards

Initially, there will be 400 unique God Cards that will be put on auction prior to the game's launch. These initial cards include the gods in the 'S', 'A' and 'B' tiers that are derived from ancient Greek mythology such as Zeus, the god of gods, Hera, the Goddess of child birth and Hephaestus, the god of crafts and volcanos.

The God Cards are classified into 4 categories:

1. The 'S' tier: The gods who resided in Olympia along with their siblings and the members of the Pantheon.

2. The 'A' tier: The gods whose parents are the original members of Olympia and are major characters.

3. The 'B' tier: The gods with ties to Olympia, but are less powerful than the S and A tier. They include a lot of the less known gods.

4. The 'C' tier: These gods are the result of the breeding of the already existing Gods and will inherit their powers and abilities. These are completely unknown Gods that will surface once the game launches.

Differences between these classes are massive and take reflect in their stats, abilities and powers. However, considering all the massive difference in numbers among these tiers, players can upgrade their cards as much as to overshadow the contrast in tiers and even defeat God Cards from higher tier divisions and ultimately generate more value and currency at the same time.

2.2.1 God Card Upgrades

Each existing card will start at level zero, and it has to be staked with a SNX to consequently be upgraded to level one and activated by the one who purchases it. After that, cards can be upgraded by gaining the needed experience in battles and tournaments or buying/crafting "Tomes of Knowledge" to level them up. Each level-up will result in the increase of stats and the power of abilities of the related card, which can happen indefinitely, allowing the players to put more and more value in their own NFT God Card(s).

At each level, players have to collect a set amount of experience to then become eligible for leveling up, the process of which requires staking of more SNX. At the end of the process, the card will receive its upgrade bonuses that will be stored on the block chain.

2.2.2 God Card Energy

Each card has a unique Energy Bar that indicates how much energy that card has available. Since gods are usually immortal, they only suffer in energy in battles and tournaments and other possible acts that are available. A God Card's energy can be regenerated by resting, that happens passively when not in combat and also by buying/crafting Healing Salves. Salves can be created by some of the cards and can be bought and sold on the marketplace. Applying the salves will regenerate a cards energy by the amount that depends on the salve's tier. (More details on Salves in Consumables)

2.2.3 God Card Abilities

Each God Card has its own set of unique abilities. There are generally two classes of abilities that are possessed by different cards:

1- **Combat Abilities**: These are abilities that are provided to be a means of fighting other players' God Cards in the arenas. Combat Abilities for each card include a Unique Attack, three active abilities, one passive ability and an ultimate ability, that together are the tools at the players' disposal to defeat their enemies and upgrade their cards.

2- **Non-combat Abilities**: The traits that benefit the God Card owner out of combat. These abilities are in regard to crafting items, mixing potions and salves, providing knowledge and wisdom tomes and forging God Tokens.

In the final product at launch, each God Card will have 6 combat abilities available to them. These abilities are:

Unique Attack: Each card has its own unique attack that usually related to the weapon of choice of the god associated with the card. This will be the most useful ability while in combat as it generates rage and allows the player to use their other abilities.

Active Abilities: Cards have three abilities of different sorts available to them when activated. They can use these abilities in fights in order to defeat their rivals. They can be to deal damage, leave buffs and debuffs, heal, stun, summon, etc and either cost or generate Rage in combat.

Passive Abilities: Each card has its own passive ability that aids the player in battle in different ways.

Ultimate Abilities: Ultimates are the most powerful ability available in a God Card's arsenal. They can be of different sorts but they are very effective in changing the tides of battle to the benefit of their user. They cost a big amount of Rage to cast and usually become available after a few rounds in battle.

Also, all cards will have at least 1 non-combat ability. These abilities allow the player owning the card to craft different items or gain passive buffs that somehow benefit them. They can:

- Craft God Tokens

- Mix Salves and Potions

- Scribe Tomes of Knowledge

- Provide different sorts of regen boosts to Rage, Energy, Experience, etc.

All these non-combat abilities work passively though the site and the generated items which are fungible tokens themselves, can be traded on the marketplace afterwards.

*** These abilities might be limited to provide other details for the sake of the hackathon.

2.3 God Tokens

God Tokens are possibly the most important assets in CryptoGods. These tokens are needed to enter the battle and will be consequently given to the winner of battles. They also can be crafted by a number of Gods and bought and sold on the marketplace. The number of God Tokens owned by a player determines how many shares he will get from the currency generated by the game's SNX pool which will be the reward the system will pay to every single player in the CryptoGods community that owns God Tokens. The price of these tokens will be generated by the community itself as they trade it among one another.

By the end of every Spartan day (which consists of 24 hours) in the game, the number of the existing God Tokens up to that moment will be calculated; every owner of these tokens will receive a reward in relation to the number of the total tokens. The more of these fungible tokens a player owns, the bigger is the share that they will get from the prize pool.

God Tokens can be crafted by God Cards that have the 'Creator' trait and depending on the card's tier, they will be generated in different amounts every day, which will be stored in the players' wallet and inventory.

2.4 Consumables

Consumables are crafted during the non-combat phase of the game by God Cards. There are basically 3 types of consumables, all of which come in 3 tiers:

1- **Salves of Regeneration**: Players' God Cards will possibly experience loss of a certain proportion of their energy during each battle and their energy will passively regenerate at only a limited pace; as a result, a player that wishes to participate in numerous battles in a short period of time requires to buy salves in order to enter each battle with their God Cards being at full energy. Salves of higher tiers recover a larger proportion of a God's energy

2- **Rage Potions**: These potions may also be crafted and consumed in non-battle phase of the game. Rage potions can be consumed before a battle in order to generate a higher percentage of rage with each ability that does so, consequently players enter the battle with an advantage. Rage potions of higher tiers give greater buffs.

3- **Tomes of Knowledge**: This type of consumables, scribed by God Cards, may be used to instantly gain experience in order to level up the cards. Tomes of higher tiers grant more experience.

2.5 Breeding

  As mentioned before God Cards have the ability to breed. In order to do so, players need to either have a male and a female God Card to start the breeding process or participate in the action with another player who possesses a God Card of the opposite gender. There will be a specific section for breeding in the game in which players will have to choose one of their male Gods along with one of their female Gods if they want to breed their own cards or see which God Cards are available for breeding from other players and participate with the players who own them and start the process. After 1 week of time, during which the female god is 'pregnant' and cannot participate in battles, the child(ren) will be born. After the labor period, the female God Card will be on a 90 days birthing cooldown during which she can't participate in the breeding process. All the female gods with labor cooldown will be flagged to inform others of their status.

***Note that it is possible that the process ends up in generating more than 1 baby God Card. There will be a 4.5% chance to generate 2 babies through a single breeding and a 0.05% chance to generate 3.

2.5.1 Next Generation God Cards

  The rule here is that the player who owns the female God Card will claim the baby God Card. The baby God Card is at level 0 and requires staking of SNX to be instantly upgraded to a level 1 God Card. The owner of the female God Card may

have to pay a fee in order to be impregnated by a male God Card; the payments can be done in different methods, such as trades.

Like all babies the baby God has an equal chance to be whether male or female and will inherit their powers and abilities from their parents' genetic ability pool.

The appearances of the new God will be derived from their parents and will be randomized using their features.

The generation of new God Cards will abide by the following rules regarding the power tiers.

1- If the parents' God Cards both belong to the same level of power tier, the children will be generated at a one level lower power tier. IE, two 'S' tier parents, will give birth to 'A' tier children and two 'B' tier God Cards give birth to 'C' level God Cards.

2- If the parents' God Cards are from different power tiers that are one tier apart, the children God Cards will inherit the lower power tier. IE, a 'S' and 'A' level God Card will give birth to 'A' tier children.

3- If the parents' God Cards are from different power tiers that are two tiers apart, the children God Cards will be at the level in between of their parents'. IE, a 'S' and 'B' level God Card will give birth to 'A' tier children.

The pool from which a baby God Card's abilities will be chosen from, depends on the family tree of the parents. A random selection of the available abilities and traits in the pool, will make up the features of the baby God Card.

*** Note that the baby God Cards' traits and abilities are shown before they reach level 1.

2.6 Battle

Players select their desired God Cards to enter battles and tournaments. At the start, we are going to balance the heroes out by limiting the number of God Cards that players can deploy to their deck to 1. Battles will be 1vs1 and round-based.

Before the battle starts, both players are required to put in a God Token which will be the entrance fee to the battle. Ultimately, the winner will collect both tokens.

Once the battle commences a coin flip will determine which player is to take the first actions. The winner of the coin flip will start the battle by managing their rage to attack the enemies and cast spells. Each player has to commit their abilities in a given time and their turn will end when they either press the 'Ready' button or the timer runs out. At that point, the other player can start committing their own abilities and the process repeats until either one of the players surrenders or runs out of Energy. During the battle players have to outmaneuver the enemy using buffs, debuffs, damages and heals, while they manage their rage generations and consumption with different choices that they have to make depending on their own God Cards and their enemies'. This system is currently developed to cover a one on one battle and will be optimized for the multiple card battles when it's complete.

When the battle is finished, both players will gain experience. The amount of experience they gain depends on several factors:

1- **Win or loss:** The winner will get more experience than the loser, but the loser will still receive a close amount of experience.

2- **Difference in tiers:** If the opposing God Cards are different in power tiers, the participant with the lower power tier will receive bigger amounts of experience.

3- **Difference in levels:** If the opposing God Cards are different in level, the participant with a lower level, will receive more experience. The amount of experience for the lower level God Card will depend on the level difference and the bigger the difference, the bigger the amount of experience.

Afterwards the winner will also claim both God Tokens; the results will be inscribed into the blockchain.

2.6.1 Tournaments

This system was implemented due to the 3 days gameplay timeframe that was required by the applicable hackathon, but it can be a proper way of organizing tournaments in this game. Players have to put in a God Token (or more depending on the type of the tournament) to enter the tournament and there, they will be matched against other players and challenged in battle in single-elimination knockout bracket with 8 to 16 participants. The winner of the tournament will collect all the God Tokens and a huge amount of experience, allowing the owner to upgrade his card and increase its value.

2.7 Marketplace

One of the most important sections of CyptoGods is its marketplace. We might use a third-party crypto market for taking care of the trades; but at the time the final product is going to be released, the website will include a detailed marketplace that will include advanced search options. In this marketplace, players can trade, sell, buy and auction the items that they own including but not limited to consumables, God Tokens and God Cards. These trades will all be engraved on the blockchain and the price of the items will gradually be determined by the community. The advanced filters in the final product will allow players to look for specific items that they desire.

2.7.1 Auctions

In the marketplace, players can put their belongings, like God Cards, God Tokens and different consumable up for sale or bid on the already listed items. The system will allow players to trade items, set different buyout prices and also setup auctions which will happen during the preferred timeframes that can be set up. Players are privileged with a system that allows them to set a time and bid frame for their request and ease the process without requiring the players to spend their money to bid on an item.

3. Token Economy

We are proud to present the CryptoGods token economy system which is a self-sustaining system rewarding the players daily depending on the number of God Tokens they own. As was mentioned earlier, CryptoGods relies on a SNX pool that will provide the rewards given out to players on a daily basis. Some activities, most importantly upgrading God Cards, require players to stake SNX into the game's SNX pool. This pool will then start generating more SNX which will be stored into the 'Prize Pool'.

At the end of each day at 11:59 UTC/GMT +2 hours (the local time of Sparta, Greece) our system will calculate the total number of God Tokens that are owned by players in the community, and each player will be rewarded by a share from the prize pool depending on the number of the God Tokens they own in relation to the total number of God Tokens; therefore, the system is rewarding every single player in the community based on their in-game possessions.

In time, there will be more and more actions available that will need staking of SNX, which will result in more reward being paid to our players, while the SNX pool will grow and grow indefinitely, making the game a valid promising investment as well. The pricing of the items in the community will depend on the community itself and makes the experience unique and personalized for every member of CryptoGods.

4. Technical

  All of the God Cards are all ERC721 compliant NFTs with some additional meta data which will be used to record their heritage and powers. For upgrading the level of the God Cards, owners must pay a specific amount of SNX which will be redirected to another smart contract and staked there, giving shape to what we call the SNX Pool. The profits from the SNX pool will be distributed among the owners of the God Tokens that are all non-divisible fungible tokens. Every other consumable in the system is also a non-divisible fungible token. God Cards and other tokens will be stored in Ethereum mainnet but for creating the battle functions, we are going to use a selection of L2 technologies like Loom Network.

5. Conclusion

  We believe there is infinite room for this game to grow and grow when it comes to development. Not all the mentioned features in this document are working practically right now, however we had to settle on some of the parts to provide for the requirements of this hackathon in the set time frame and given more time, all of them can be quite easily developed and implemented. In this project, we had to discover ways to set up a challenging environment that would promote participating in different battles and tournaments to win prizes and have a proper gaming experience, as well as committing to a promising investment that could increase in value indefinitely and CryptoGods is the outcome of that idea. A lot of

people have put themselves in the shoes of gods; CryptoGods is the place where people can own those gods.