Blitz TCG® Whitepaper

A reimagining of competitive trading card games using blockchain technology to facilitate digital ownership and longevity for players

All Socials: Blitz TCG

Contents

Introduction

The basic premise of competitive Trading Card Games (TCGs) has remained unchanged since the early 90s when *Magic: The Gathering* stormed onto the scene paving the way for the many physical and digital card game variants to follow [1]. Competitive TCGs revolve around players using preplanned decks from which cards are typically drawn at random throughout a match. Players then use those cards to outplay enemy cards in a turn-by-turn environment. In the most popular of TCGs, there is often a resource payment associated with playing certain cards; a few examples: *Hearthstone*'s mana [2] (i.e., primary resource), *Pokémon*'s energy [3] (i.e., secondary cards), and classical *Yu-Gi-Oh!*'s monsters [4] (i.e., primary cards).

Blitz TCG® breaks free from these traditional factors through several key traits: allowing players access to their entire deck, implementing a chess-like timebank system, General abilities, and adding NPC alternatives to the gameboard. Our goal is to create a digital TCG that mixes iconic aspects from several game genres together to create a refreshing alternative to standard TCG gameplay. Balancing Blitz's two primary resources, Gold and XP (experience), while choosing a General that compliments a player's deck, will ensure that there are always new strategies to explore. Learn about the world of Blitz, game design, decision making, mock-ups, rules, tokenomics, and more in the following sections.

Theory

Blitz draws inspiration from several sources, including *Warhammer*, *Gods Unchained*, *Hearthstone*, *Magic: The Gathering*, *DOTA*, *BattleForge*, and the *Blitz* format of chess. *Gods Unchained* is an excellent example of what is possible using blockchain technology to facilitate digital ownership of cards and exchanges between players [5]. However, there are opportunities for innovation in both standard gameplay mechanics and digital ownership. Development, design, and general decisions about the game and tokenomics will always lean toward a "Gameplay First" mantra: by creating fun, engaging, and low barrier-to-entry gameplay, other aspects of the game will naturally prosper. This section will focus on the thought processes associated with the specifics found in the Mechanics and Tokenomics sections.

Mechanics Theory

For many competitive players, one virtue of gaming remains desired: consistency. In TCGs, this is the ability for a player to predict how their strategy will affect the state of a match, given the chance of drawing a specific card within a given number of turns. Some might compare consistency to fairness, specifically the minimizing of the chance a player will win or lose based on luck. Thus, one of the most inconsistent factors in TCGs is the drawing of cards used in each match. For some, this is a staple of what makes a TCG unique. For others, it is a reason to avoid the game genre. Blitz will remove this factor from matches entirely, allowing players to access their entire decks from the start of a match. The only limiting factors in playing cards will be the amount of Gold a player has acquired and, in some cases, the level of their General. Blitz's deck concept is most like an item store available in popular MOBAs.

Competitive TCGs like *Hearthstone* and *Gwent* have 7-minute and 12-minute average game lengths, respectively [7, 8]. Blitz will be a turn-based game and rely on a timebank system with the similar parameters as the *Blitz* format of fast chess [6]. Players will start a match with 3 minutes of banked time. After each player's turn, they will be awarded 2 additional seconds of banked time (may change based on playtesting outcomes). Thus, assuming turns take at most 20 seconds, the maximum amount of time a Blitz game can last is approximately 15 minutes. A timebank system will help ensure gameplay remains active and engaging. Matches will only end in a draw if neither General has been damaged.

Gold is Blitz's first approach to a unique TCG resource system. Players will start a match with the same amount of Gold. At the start of a match, players will bid a certain amount of Gold to determine which player moves first. Gold will be obtained passively throughout a match, by defeating enemy cards, and by defeating NPCs. Hence, players will need to weigh the benefit of spending versus saving to acquire stronger cards. For example, players might purchase cards with the intent to defeat NPCs to obtain more Gold than otherwise could have been gained by just saving. Given that a player's cards must be active on the board before they are able to attack NPCs and the limitation that, unless specified otherwise, a single card can only attack once per turn, it may not always be advantageous to spend a turn attacking NPCs when there are enemy cards to consider.

Level is Blitz's second approach to resources. Generals will start a match at Level 1. Level can be increased by gaining XP through battling enemy cards, NPCs, or card abilities. Higher level Generals can use more of their abilities. In addition, some of the most powerful cards will require a certain General, minimum Level, and some cost of Gold to be able to play. By Generals directly influencing the game

through unique abilities, it will encourage players to strategize their gameplay to some degree around what their General brings to each match. The player who defeats an opposing player's General or whose General has the highest amount of Health at the end of the match will be declared the winner.

Gold and Level will maintain a strong relationship over the course of individual matches and, moreover, game design and balancing. Players will develop varying strategies surrounding both resources e.g., rushing one resource over another with the intent to overwhelm in the early game versus late game.

Tokenomics Theory

Ergo, Cardano, and Nervos are slated to be the backbone of the smart contracts and tokens necessary to facilitate the player-to-player exchange ecosystem. Ergo was selected due to it being an up-and-comer in the crypto space, it being backed by a strong and active development team, and the low fees inherent to its Layer 1 (L1) platform. There is less competition and more room to grow on a blockchain like Ergo relative to a platform like Ethereum. The Ergo community is known to be one of the best in crypto, providing an excellent platform for engagement and feedback. Cardano brings a significant userbase and maintains similar ethics and great community. Nervos allows for a novel approach to cross-chain integration that will ideally allow Blitz to become the first true interoperable blockchain game. Blitz will be the first of its kind to utilize three separate blockchains that have varying consensus algorithms.

The *Gods Unchained* TCG on the Ethereum network is a notable example of implementing digital ownership for players. Much of the theory surrounding the tokenomics of Blitz was derived from understanding the successes and pitfalls of *Gods Unchained* [5]. In Blitz, there will be improvements made to the *Gods Unchained* card token ecosystem.

Initially, players will be able acquire digital packs of cards. These packs will have their own associated token for each production run, akin to how cards are printed for physical TCGs. Purely for example, the "Initial 1st Edition Set" will have packs minted, say 100,000 minted packs. Those packs will be acquired by players for a set amount of currency, say 5 ERG. There will never be additional packs minted of the "Initial 1st Edition Set" after they are sold, but there will be "Unlimited Edition" runs produced to ensure players can gain access to limited high value cards – very similar to *Pokémon* and *Yu-Gi-Oh!* print runs.

Acquired packs will be exchangeable via a smart contract for five cards. Card generation will follow a pseudorandom methodology based on the type of pack purchased. A player will be able to connect an Ergo, Cardano, or Nervos Wallet that maintains packs and open (i.e., exchange) those packs for cards. Based on our 100,000-pack example above for the Initial 1st Edition Set, this means that there will only ever be 500,000 cards minted for this imaginary set. Like in many modern physical TCGs, players might choose to leave packs unopened as demand for unopened packs could exceed individual cards depending on the cost of individual cards. In the spirit of proper free-to-play games, there will be a standard set of competitive non-blockchain cards that all players can use.

Rarity is a topic of debate and is one of the most diverse aspects when comparing TCGs, both physical and digital. Blitz will maintain a more traditional approach to rarity. Card rarity will follow rarity indicators more like *Pokémon* and *Yu-Gi-Oh!* compared to *Gods Unchained*; each of the 4 card rarities will have an associated rarity symbol and card frame. Pull rates of rare cards will be dependent on the types of packs purchased (i.e., a common pack will cost less but be less likely to provide players with rare cards).

Although not necessary for initial release, a future requirement to allow a better player driven economy to flourish on the Ergo blockchain is a Layer 2 (L2) solution like the Immutable X platform on Ethereum. L2 solutions cut down on fees associated with exchanging tokens and currency, and increases transaction speed (i.e., the opening of packs). Ergo already has the capability to facilitate a L1 player exchange system, but it will carry across the current transaction fee and speed of the Ergo blockchain. At minimum, players will be able to view tokens and exchange tokens (i.e., MetaMask-like signature confirmation when confirming a transaction, review of transactions able to be acted on, and routing of tokens/funds based on what was exchanged). Linking Ergo, Cardano, and Nervos Wallets to user accounts will be necessary to utilize cards in-game.

After the technical blockchain aspects of packs and cards are solidified, blockchain-based General variants and gameboard variants will be able to be acquired and traded (completely cosmetic in utility). The theory for these items does not differ much from what was stated above; additional ways to add ownership to a player's experience will help ensure longevity and interaction with the game.

As of July 2023, a novel approach and inclusion for a BLTZ token was introduced. Starting on Ergo, the BLTZ token will be generated based on a new internally named "Proof of Burn" algorithm. In short, the total available supply of BLTZ tokens at launch will be 0, much like Bitcoin. BLTZ tokens will only be generated as cards are burned. For example, Margo may be valued at 100 BLTZ tokens at launch so players could burn Margo to receive 100 BLTZ tokens, removing the Margo that is burned from the blockchain entirely. This allows players to have an alternative to selling cards on an open exchange. In addition, via Ergo smart contracts, a halving mechanism will be implemented that activates after a certain number of cards are burned. Purely for example, after 10,000 total cards are burned, the Margo card will be worth 50 BLTZ instead of 100 BLTZ. This creates a unique and dynamic economy where the value of BLTZ tokens will be purely based on the amount of cards burnt, whereas the value of cards will very likely be based on the availability of the cards themselves. As this is a new and novel approach to tokenomics, it is a fact that there is an inherent risk to implementing it. However, we feel strongly that a fair launch and open economy is the only way to promote an organic and transparent ecosystem for collectors and players.

Lore

Longevity in games is often dictated by replayability and investment into its characters or story. Blitz's central theme will be that surrounding a time and society millenniums ahead of today. In Blitz, a universal conflict is inevitable as resources have grown too thin for the many races that inhabit its worlds. To circumvent an all-out war and destruction of races, all intelligent lifeforms abide by the Blitz Treaty. The Blitz Treaty states that every century each race will pit their best leaders, tacticians, or warriors (i.e., Generals) against one another in a battle of wits. By winning matches of Blitz, Generals secure resources for their race under the Blitz Treaty, thus prolonging their races longevity.

As the game progresses, specifics regarding races, their interests, their Generals, the universe, and more will be expanded upon. Our official website will maintain all Lore documentation. For example:

Margo, Queen of the Masquerades
Little is known about the Masquerade clan. What is known paints images of violence and countless tragedies spanning the cosmos. Margo, the current leader of the Masquerades, is told to be a ruthless fighter, unforgiving and lacking any notion for mercy. The mask she dons is rumored to be carved and painted from the skull of the Masquerades previous leader, Margo's father.

Mechanics

Design Mockups

The gameboard shown below is a minimalist mockup that will help readers understand and visualize the key mechanical and gameplay features inherent to Blitz. Further below, readers can find actual images of the gameboard and examples of cards.
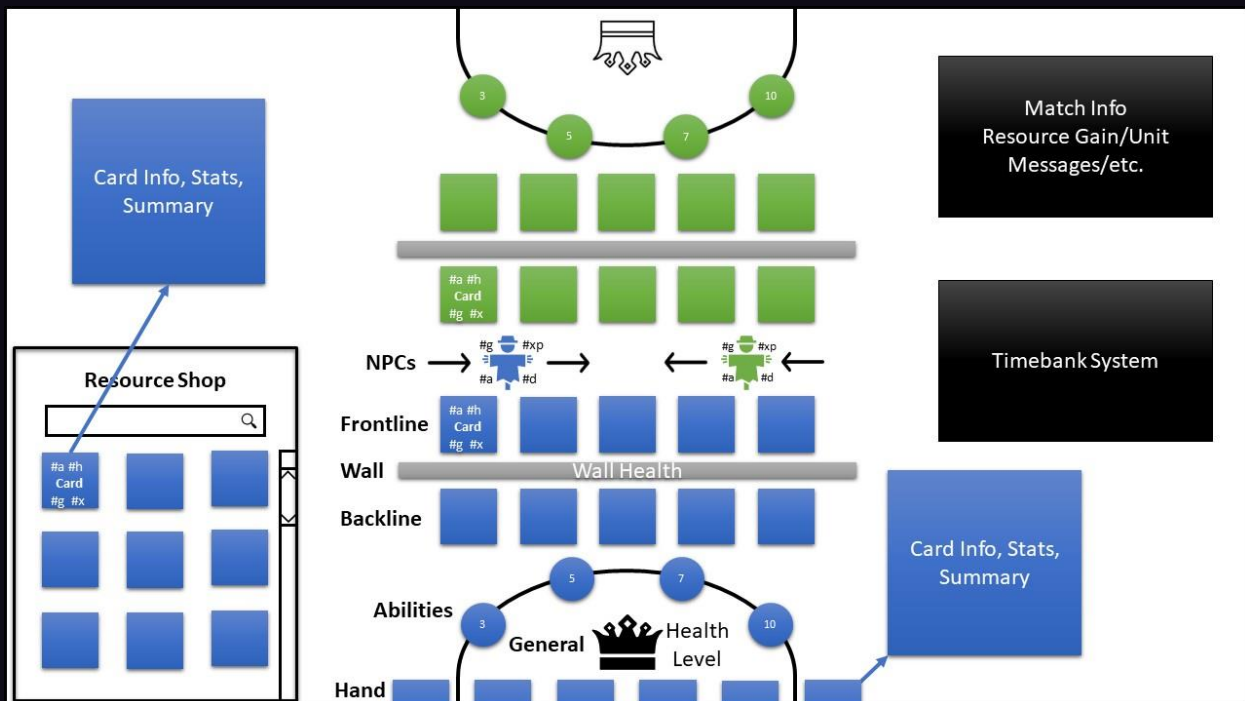

Image 1: Basic layout of a Blitz gameboard where the blue arrow indicates hover to discover, #g is Gold, #x/#xp is Experience, #a is Attack, and #d is Defense.

Although the locations and format of all content shown in Image 1 will inevitably change, the core elements are summarized as follows.

1. **Resource Shop**: UI dedicated to allowing players to purchase cards from their preassembled decks assuming adequate Gold and Level requirements have been met.
2. **Hand:** holding area for all cards that have been purchased but not yet played.
3. **Match Info:** announces resources gained, unit information, and any major abilities played.
4. **Field:** location available to play purchased cards. As show in Image 1, there is a **Frontline** and **Backline**. The total amount of playable field spaces is yet to be determined.

5. **Wall:** the first line of defense to destroy before an enemy General can be attacked. Hides cards in the backline while active.
6. **NPCs:** targetable NPCs will spawn along the center line of the game board and be attacked by both players. NPCs will offer Gold and XP that scales depending on the length of the game.
7. **General:** an artistic representation of Generals will be visible on-screen as well as the current health and Level of each General.
8. **Abilities:** Generals level up by defeating enemies, allowing them access to stronger units and new abilities. Abilities will be a mix of active use skills or passive effects depending on the General.
9. **Cards:** players will find cards in the Resource Shop, a player's Hand, and Field. Most cards will have seven distinct gameplay elements: Attack (top left), Health (top right), Gold (mid left), XP (mid right), Race, Ability, and Level Requirement. See Image 2 below for the basic visual detail.
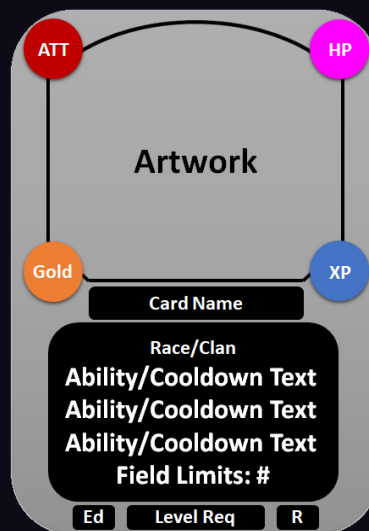

Image 2: Basic layout of a Blitz card where ATT is Attack, HP is Health, Ed is Edition, and R is Rarity.

Examples of in-game UI and cards can be found below.

Image 3: Mockup of current in-game Blitz TCG gameboard (no text and no General abilities).

Image 4: Mockup of a Blitz TCG card.

Rules

Details of the ruleset below are subject to change based on playtesting. The Roadmap and Future Vision section explores additional ideas that could alter the ruleset described below e.g., 2v2 matches.

1. Each player will each start with the same amount of Gold.
2. Each player will start with their selected General at Level 1. Generals will have a max Level of 10.
3. Players will start a match with 3 minutes of banked time. After each player's turn, they will be awarded 2 additional seconds of banked time. If a player took less than 2 seconds to move, they will not gain any time back. A player that moves within 2.0 to 3.9 seconds will only receive 1.0-1.9 seconds of time back, respectively.
4. Players will receive gold passively at the ends of their turns, ramping up depending on how long the match has lasted.
5. Each player is allowed up to a certain number of total cards in their decks (number to be determined based on future balancing).
6. Each player will only be allowed up to a certain number of cards based on Level requirement e.g., up to 10 Level 1 cards, up to five Level 2-5 cards, and so forth (actual numbers to be determined based on playtesting).
7. Field Limits will exist for some cards meaning that only a limited number of said cards can be on a friendly field at the same time. This is to prevent game breaking stackable buffs or debuffs.
8. Each player will have a max of 20 seconds per turn to set and use cards or abilities. Turns will automatically end at the 20 second limit. There will be incentives for moving faster based on time thresholds. For example, if a player moves in less than 5 seconds, they will receive some ## of Gold at the end of their turn. Players that end their turns between 5-10 seconds will receive some lesser amount of Gold, and so forth.
9. Players can purchase cards during their opponent's turn but can only set and use cards during their own turn. Some General abilities will be useable during an opponent's turn.
10. Some race-locked cards will only be playable when using a General of the same race.
11. After a global countdown for the match to begin, there will be a blind auction that lasts up to 30 seconds or until each player bids to determine which player moves first. For example, if each

player starts with 500 Gold and Player 1 bids 300 and Player 2 bids 400, Player 2 will get to move first. Player 2 loses 400 Gold in exchange for moving first, whereas Player 1 loses no Gold. If players do not bid or there is a tie, then a player will be chosen at random.

12. After the blind auction ends, the match will officially start after 5 seconds. Players can purchase cards with their remaining Gold in this timeframe.
13. Cards set, unless specified otherwise, must wait 1 turn before attacking or moving.
14. Players can only set up to 12 cards on the field at a time and hold up to 8 in their hand (numbers expected to change based on playtesting). Other than available field space and resources, there is no limit to the number of cards a player can set per turn.
15. Cards will remain on the field until defeated (i.e., health reaches zero).
16. If a player's friendly Wall is intact, any cards placed on the friendly Backline are hidden from opposing attackers and unattackable unless specified otherwise.
17. If a player's friendly Wall is intact, any cards placed on the friendly Backline will be unable to attack any cards or NPCs unless specified otherwise.
18. Frontline cards will be able to attack the opposing players cards, NPCs, and Wall. Once an enemy Wall is destroyed, attacking players can attack any opposing Cards on the field and enemy General. After a friendly Wall is destroyed, Backline cards will be able to attack opposing cards, NPCs, and enemy General (assuming the enemy Wall is also destroyed).
19. Players can move a card from the Backline to Frontline or vice versa. Moving a card from one field area to another will cost that card its action for the turn unless specified otherwise. Once a player's friendly Wall is destroyed, there is no longer any concept of Backline or Frontline, and their friendly field is treated as a singular entity.
20. Walls will have some set amount of health (not yet defined). Upon the health of a Wall reaching zero, it is destroyed and cannot be rebuilt.
21. Cards will deal damage based on their current Attack.
22. Cards and NPCs that are attacked (i.e., defending cards), unless specified otherwise, will damage the attacker for the Attack of the defending card.
23. Each player will have a friendly NPC that spawns at the start of the match and at the end of every sixth turn. NPCs that meet one another will attack each other at the end of each player's turn. If there is no opposing NPC, the friendly NPC will continue to move. If an NPC makes it into the enemy player's NPC spawner, the friendly player will receive a substantial number of resources. For example, on turn 1 both NPCs will be as is shown below and proceed toward the center of the gameboard by turn 3. It takes 6 turns for an uninhibited NPC to reach an enemy spawner. Further, when an enemy NPC is destroyed, the friendly player will gain resources.

24. When the health of a Card, NPC, Wall, or General reaches zero it is destroyed, and the opposing player will get some amount of Gold and XP in return (defeating a General will end the match).
25. When the health of the friendly or opposing General reaches zero the match is over, and the player of the conquering General is victorious.
26. At the point a player's timebank reaches zero, the opposing player will get one additional turn, and then the player whose General has the highest percentage of health remaining is victorious.

If no Generals have been damaged or Generals have the same remaining health, then the match is counted as a draw.

27. *Future*: Some cards will have tiers meaning that they will have evolved or upgraded forms available during a match. Although the previous form of a card will not be required to play the upgraded form, the previous form will be able to be exchanged for the upgraded form for the player to receive some amount of Gold in return.

Tokenomics and Rarity

Packs and Cards

There are two factors proven time and time again that must remain consistent for a competitive game to flourish and remain relevant: removing or minimizing any pay-to-win aspects and ensuring gameplay remains fresh. To some degree, these two concepts are at odds with the notions of purchasing cards, cryptocurrency, tokens, and the like. For example, when tokens are minted on the blockchain, they are often unable to be changed and thus the balancing of card abilities becomes more difficult. Moreover, as sets are produced, there will be a limited number of packs able to be purchased and thus prices of cards within those packs could increase making the barrier of entry too high for some players.

To avoid these pitfalls, Blitz will implement tokenomics and gameplay choices that ensure players are able to remain engaged despite typical token complications.

1. The first minting run of every set will be the "1st Edition" (1ED) version of the set. The 1ED version of sets will have a very limited production and provide players with unique cosmetic experiences in-game. For example, certain cards within the 1ED set will have different skins, appear differently on the gameboard, or even have different sound effects when compared to the "Unlimited Edition" (UED) of the same card (specifics TBD). The 1ED sale period ends when all 1ED packs have been sold or after a certain length of time.

2. Upon the start of a competitive season, an "Unlimited Edition" (UED) run will occur. The UED run will allow players to acquire all cards necessary for competitive play, albeit with less exclusivity and thus less collectible value. UED packs will be purchasable throughout the entirety of the competitive season in which they were introduced. After the current competitive season ends and new sets are introduced, pack token generation of the previous set will be terminated. Therefore, although UED packs have no upper limit during a competitive season, the supply of UED cards will hit a cap once the season ends. Since cards can be balanced in Blitz, cards from previous seasons will still be sought after in subsequent seasons, cementing their value for both the player and collector.

3. Much like *Hearthstone*'s approach to competitive gameplay balancing, sets will be rotated out of competitive play on some seasonal basis. All cards will still be useable in

certain noncompetitive game modes, but only approved cards from previous sets and current in-season sets will be useable in competitive play.

4. Players will be able to burn cards in exchange for BLTZ tokens (i.e., exchange cards directly to a standing smart contract). For example, if a player opens 20 packs (100 cards) and only wants to keep 10 of them, they can choose to sell the remaining 90 cards on the open market, or they can choose to exchange those cards for a set amount of BLTZ tokens based on card rarity. Those acquired BLTZ tokens can then be used to purchase additional packs, sold on an exchange, or perhaps at some point used to vote on game direction and balance.

5. Cards in Blitz will be more like fungible tokens versus typical NFTs. There will not be any mint numbers. For example, 1 Margo = 1 Margo, and no Margo is rarer than another Margo in each set outside of 1ED and UED. The token images will have a character image, card frame, some character descriptions, and so forth, but the card values like Health and Attack will not be present. This will allow us to freely balance our cards to put gameplay and game longevity first. Learn more about this different approach to card tokenomics by watching this video.

The following illustrations and numerical values represent the current plan and estimations for initial pack sale volumes and pack types. As Blitz gets closer to the minting of the first set, these values are expected to change. See Appendix [A] for additional calculation detail surrounding how these values were derived.
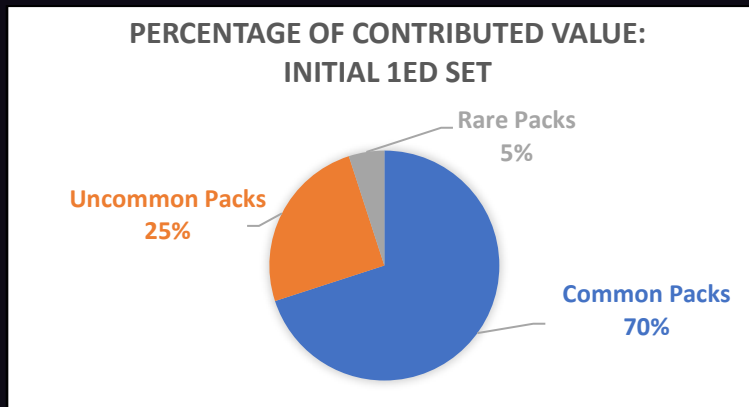
Image 5: An estimation of the percentage of contributed values based on pack types for the 1ED run. Assumes a 1,000,000-pack sale total across all blockchains and all packs selling.

Pack Type	USD/Pack	ERG/Pack (8/21/22)	Percent of Packs	Total Packs	Total Cards	Total Value (USD)
Common Packs	5.00	1.60	70.00%	700,000	3,500,000	3,500,000
Uncommon Packs	7.50	2.40	25.00%	250,000	1,250,000	1,875,000
Rare Packs	10.00	3.21	5.00%	50,000	250,000	500,000
		Totals:	100	1,000,000	5,000,000	5,875,000

Assuming packs are purchased in the percentage distribution described by Image 5, the average cost of a Blitz card will be 1.18 USD. This is in line with what a consumer finds reasonable to pay based on the research conducted into prior TCG card sales, specifically those of *Gods Unchained's* initial set (Appendix [A]).

Cards in Blitz will maintain 1 of 4 rarity indicators (CURL):

1. **Common** – the most basic and standard cards
2. **Uncommon** – cards that inherently have more depth, restrictions, or specific uses
3. **Rare** – cards that are likely General-specific and improve General-based strategies
4. **Legendary** – cards likely key for end-game strategy or that bring overwhelming change

Cards in Blitz will also have a Level Bracket:

1. **Starter** – level 1 cards.
2. **Low** – level 2-4 cards.
3. **Mid** – level 5-7 cards
4. **Upper** – level 8-10 cards

Thus, in total, there are 16 potential rarities in Blitz. The rarest card will be Legendary-Upper (LU), while the lowest will be Common-Starter (CS). If edition per set is considered, then there are 32 potential rarities per set (16 1ED and 16 UED)

Tetlon's Medium article does an excellent job describing and analyzing what a user could expect rarity-wise from purchasing certain pack types from GU's initial pack sale. Much of the detail here uses Tetlon's analysis as a basis, albeit Blitz's rarity will be simpler in that there are no card "shines" [9]. In Blitz, the chances of receiving certain rarity cards will depend on the rarity of the pack purchased; higher rarity packs will have higher chances of containing higher rarity cards. Again, these values are expected to change as the game matures. There will be 3 types of packs in Blitz; in ascending order of rarity: Common, Uncommon, and Rare.

Card Rarity	Common Pack	Uncommon Pack	Rare Pack
Common	50.00%	15.00%	5.00%
Uncommon	25.00%	50.00%	15.00%
Rare	15.00%	20.00%	50.00%
Legendary	10.00%	15.00%	30.00%

Upon opening a pack, cards will be assigned pseudorandomly based on this percent distribution. On average, users can expect something like the table below when it comes to cards received per pack type (5 cards total per pack).

Card Rarity	Cards per Common Pack	Cards per Uncommon Pack	Cards per Rare Pack
Common	2.5	0.75	0.25
Uncommon	1.25	2.5	0.75
Rare	0.75	1	2.5
Legendary	0.5	0.75	1.5

A more comprehensive breakdown of card rarities obtainable per pack type can be found in
Appendix [C]; the figure found there describes the relationship between the CURL rarities and
Level Brackets insofar as chances to obtain each type of card per pack.

Blitz TCG Token (BLTZ)

This section is reserved for future information about the BLTZ token outside of what has
already been described in previous sections. As the Ergo smart contracts necessary to facilitate
the fair start "Proof of Burn" algorithm become production ready, this section will be expanded
upon.

Roadmap and Future Vision

The Blitz TCG 2023 roadmap is provided in a visual format below. Dates are rough estimates based on
how long similar well-thought projects in this space typically take.

Image 6: Blitz TCG 2023 Roadmap.

There are additional features that could be added into the game if time and resources allow. Examples
can be found below.

1. **Gameboards and Skins:** gameboards, skins, and other cosmetic collectables add value to a
   player's experience – blockchain tokens or otherwise. The more there is to achieve, the more
   likely players will stick around. *Gameboards are in scope as of February 2023.

2. **Campaign:** computer AI are often a good player teaching and practice tool, and it would be fun to have an in-game story mode where, upon completion, additional Generals or non-token cards could be unlocked.

3. **2v2 Game Mode:** due to the nature of Blitz, specifically its more active gameplay style, expanding the amount of field spaces in a thoughtful manner and allowing two players to simultaneously play together would add a level of complexity and engagement unprecedented in the current digital TCG landscape.

4. **Additional Content:** broadly speaking, given enough time and resources, additional cards, additional Lore, Generals, game modes, collectibles, ladders, and more could be introduced.

Team

Blitz TCG will remain a small, talented, and decentralized team for the foreseeable future.
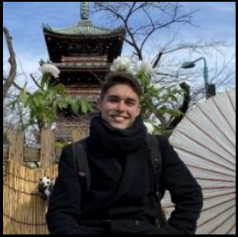
Mick Blackwell (Project Lead)
An avid competitive video game player and card collector (@mickblac) with prior presences on YouTube and Twitch, Mick has ample experience knowing what makes good games tick. Mick's academic background is in Engineering and Mathematics whereas his professional career is most notable as an Implementation Lead at Epic, one of the largest healthcare software companies on the planet. His goal is to create a novel and unique TCG that leverages blockchain technologies to their fullest potential.

LinkedIn: https://www.linkedin.com/in/mick-blackwell-eit-b034aba0/

Maxim Khodyriev (Concept Artist):
Maxim is a freelance digital artist (2D Artist/Concept Artist/Game Designer), and he has been working for more than 12 years in the game development industry (iOS/Android/Mac/PC). Maxim is passionate about games, art for games, and the broader games industry. He started drawing seriously in 2008 and wants to continuously improve his art skills through game design and development.

Fiverr: https://www.fiverr.com/maximkhodyriev

LADOPIXΣL (Dev Advisor)
Self-taught and wildly creative; LADOPIXΣL learned to program in MS-DOS and Cobol a long time ago (using 5¼" floppy disks and no internet). Now, he writes code to relax – it's his personal Yoga. He enjoys collaborating in OpenSource projects and developing new electronics devices. As a kid, he beat both Monkey Island games in English without knowing the language, just by trying everything that could be done in the game.

Insta: https://www.instagram.com/ladopixel/

Clarence Yapp (Composer)
Clarence Yapp started as a film director enthusiast before realizing that film composition was equally fun. He has been writing since 2010 while attending graduate school at Oxford, UK. Some of his work has been used in movie campaigns for Hydro, the Hunger Games, and Xmen Apocalypse. Recently, he has written music for science animations at Harvard Medical School where he is also responsible for helping scientists design better experiments and developing computer models to look for diseases.

Sound Cloud: https://soundcloud.com/epickayay-musicflavor

Yassine Ennaim (Website Developer)

Yassine's passion is making ideas come to life, be it working solo, as part of a team, or leading a team of fellow developers. Throughout his 10 years of development experience, he's worked everywhere from startups to large firms, building products from the ground up and implementing new features for existing products.

Fiverr: https://business.fiverr.com/freelancers/ennaim

Feliciah Delrie (Character Designer)

Feliciah is a 2D character designer and illustrator who has worked as a freelancer for over two years. She is a self-taught artist and has been drawing for most of her life. Feliciah is incredibly passionate about game design, character creation, and the various nuances that go into creating illustrations.

Fiverr: https://www.fiverr.com/feliciah_delrie

Nilson Vilela (Card Artist)

Nilson has been an illustrator for 6 years and has been drawing digital art for about 2 years. He's been working in this field as a freelancer and has experience as a character designer, concept artist, and environment designer. His passion for games led him to want to draw game related characters and concepts.

ArtStation: https://www.artstation.com/noslinart

Jeferson Sadzinski (Card Artist)

Jeferson is a 2D digital artist. He worked for about five years as a freelance comic book illustrator. He is currently looking to expand his experience in the games industry. He is passionate about expanding his understanding of art and loves to work on exciting new art projects.

ArtStation: https://artstation.com/jefersonsadzinski

Benj Galutan (Card Artist)

Benj has been a freelance illustrator (character artist/comic illustrator) for more than 4 years. He is a self-taught artist and has been drawing since his childhood. Benj is also a passionate sculptor; during longer breaks on his illustration projects, he diverts his artistic skills to sculpting characters to further improve his skills.

Twitter: https://twitter.com/benjkreations

Abner Koenigma (Card Artist)

Abner has been working as a professional illustrator since 2018. His dream started with traditional illustration during his first years of art study and expanded to other areas such as character design and environments. After a digital painting workshop, he acquired a love for digital mediums which allows us to be creative and versatile. His love continues for both traditional and digital art. Abner is always looking to learn and improve his skills.

Instagram: https://www.artstation.com/abner-1994

Levi Aquino (Card Artist)
Levi has been a student of art for about 9 years and started teaching art classes around 5 years ago. This led her to start to draw digitally in 2020 during the pandemic and now her main job is illustration and concept art. Levi is a big fan of horror, rainy days, and MF DOOM!

Instagram: https://www.instagram.com/mrs.aquinoart

Douglas "Dogzy" Azevedo (Card Artist)
Dogzy, from Brazil, has been working with illustration for 6 years and has spent 1 year in the digital space. He's been drawing since he was a child. His passion and creativity awoke very early, mainly due to strong influences from the games he played. He loves creating and discovering new things – themes like apocalyptic, futuristic, space, fantasy, and so on are always fun to work on!

ArtStation: https://www.artstation.com/dogzy

Matheus da Costa Brisola (Card Artist)
Matheus is a freelance illustrator with 4 years of experience, and he is currently working in the concept art and character design fields. He has a strong love for art and truly wants to improve and leave a legacy on the world in the form of his art. Aside from art, Matheus is a huge fan of JoJo's and dark fantasy everything!

Instagram: https://www.instagram.com/_joestrela/

Satoshi Yoshihiro (Card Artist)
Since he was young, Satoshi has worked as a traditional artist and has spent 2 years as a digital illustrator. He began drawing digitally on his phone and quickly developed skills and passion for it. He later started working as a freelancer and earned enough to acquire a pen, tablet, and laptop to further his ambitions. His confidence in his abilities is high, which is sufficient for him to continue producing new art while improving his skills.

Twitter: https://twitter.com/Yoshihi1Satoshi

Lara Melo (Card Artist)
Lara started studying illustration in 2018 and it quickly became her primary passion. In 2020, she had the talent and experience to turn her illustration efforts into a career. She currently works as a freelance illustrator for various projects and groups. She simply loves to draw, paint, and is always looking for new opportunities to improve her skills.

Twitter: https://twitter.com/larameloart

Nathaniel "Dough" Dela Cruz (Card Artist)
Nathaniel is a freelance artist living in the Philippines who focuses mostly on character art. He does art because he loves it. Two years ago, his journey started with the advice from his friends and drawing using his phone. He's now drawn hundreds of works, completed several freelance projects, and is slowly improving his art setup. Passion leads Nathaniel to better his skills to increase his artistic capability and provide a better service.

Twitter: https://twitter.com/_doughnath

Edson Cavalcanti (Card Artist)
Ed lives in São Paulo and has been working as a freelance illustrator and concept artist for over 4 years. He started studying digital illustration in 2016. Ed is currently working as a 2D artist for a studio in the USA but is completely open to new, fun, and challenging opportunities in the freelance space.

ArtStation: https://www.artstation.com/edtavares

Foeniculum (Card Artist)
Foe is a self-taught artist who is both cursed and blessed with a constant need to vomit all the wacky creatures that populate his mind. He gives his creatures that "WTF" factor that makes people question his mental wellbeing. Foe grew up on bread and Pokémon, which ignited a passion for character design from an early age.

Twitter: https://twitter.com/ERGnomes

Luca D'Angelo (Ergo Smart Contract Developer)
Luca has always been interested in science and how it can be used to better the human condition. Having studied physics and computer science in university, he circuitously found his way into the cryptocurrency industry. He currently works on developing applications built using the Ergo blockchain.

Twitter: https://twitter.com/ldgaetano

Sophia Krainyk (Director of Media and Creative Writing)
Using her colorful background and thirst for adventure, Sophia cobbles together Mick's lore into captivating short story arcs. Since she could hold a pencil, Sophia has been writing award-winning stories ranging in genre from horror to high fantasy. In her free time, Sophia is an underwater fantasy photographer for her business, Shivering Siren Studios, and free dives chilly Wisconsin waters in a mermaid tail.

Facebook: https://www.facebook.com/shiveringsirenstudios

Rafal "SoundRav" Ostropolski (Sound Designer)
Raf is a seasoned sound designer with a knack for creating bespoke audio assets for video games, proficient in Reaper, iZotope, and Adobe suites, and skilled in Unreal Engine 4 and Wwise. With a vast collection of sample libraries acquired over the years, he excels in tailoring unique soundscapes. Open to collaboration, Raf is your go-to for immersive and personalized audio experiences in gaming.

Website: https://soundrav.com/

Laura Faraci (Animation Artist)
Laura Faraci is an Italian illustrator and animator based in Stuttgart, Germany, with a foundation in Communication Design from Politecnico di Milano. Her expertise spans from multimedia content for exhibitions to dynamic digital illustrations and animations. Laura's work is a testament to her passion for storytelling through visual art.

Fiverr: https://pro.fiverr.com/freelancers/lauraf_graphics

Partners

Blitz TCG will be working with other respected and notable groups to ensure our product is reliable and that we are able to meet your expectations.
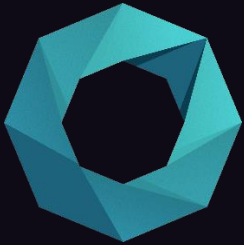
ErgoPad
ErgoPad is a token launch platform on the Ergo blockchain. They help teams crowd source funding and have built an open-source python-based tech stack that Ergo developers can take advantage of. They have sponsored Ergo hackathons, produced the bi-weekly Proof of Ergo podcast, and will continue to contribute to the Ergo ecosystem as it grows into the future.

Website: https://ergopad.io/

Keshav Infotech
2006 was the birth year of Keshav Infotech when two friends, Ghanshyam and Samir, decided to take their passion and provide revolutionary web and mobile solutions to the world. They started with just 3 computer systems out of which one was borrowed in a small room. Today, Keshav Infotech holds the finest technology to provide all kinds of IT Solutions with a staff of 75+ skilled professionals.

Website: https://www.keshavinfotech.com/

SkyHarbor
SkyHarbor is an NFT Marketplace Platform, and our goal is to upgrade the ENFT space to match the full potential of Ergo. Verified collections help prevent scams, NFT trading histories allow users to view prices overtime, and set-price trading ensures trades remain consistent and valid. We continue to improve our platform, enable more wallet options, and follow the latest dev trends to ensure our users have the best experience possible.

Website: https://www.skyharbor.io/

Disclaimer

This section will maintain information about Legal Notices, Risks Disclosures, and other pertinent information related to playing Blitz TCG® and purchasing any related content.

In brief, all statements and information documented in this Whitepaper and on any other official Blitz TCG® platforms linked from within this document involve many risks and uncertainties. All statements and information other than statements of referenced historical fact are forward-looking (i.e., optimistic) statements and should not be taken as fact. No information or content inherent to any of the Blitz TCG® Whitepaper or official Blitz TCG® platforms should be considered financial, legal, investment, business, tax advice, or advice of any other broker related offerings. Ensure to verify any information related to Blitz TCG® has been provided and communicated by a Blitz TCG® authorized representative.

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Appendix

[A] Excel estimations for God's Unchained first pack sale and Blitz's fist pack sale

	A	B	C	D	E	F	G
1	GU Goal:	33,333	ETH				
2	GU Genesis Sale Approximate Length:	8/1/2018	10/29/2019	454	days		
3	GU Avg Cost Basis:	188	USD/ETH				
4	GU Cards per Pack:	5	Card/Pack				
5	GU Packs						
6	Rare	0.012	ETH	2.256	USD		
7	Epic	0.075	ETH	14.1	USD		
8	Legendary	0.112	ETH	21.056	USD		
9	Shiny Legendary	1	ETH	188	USD		
10	GU Genesis Sale Value:	6,266,604	USD				
11							
12	Need to make **assumptions** about % of packs sold compared to the Genesis Sale Value						
13	Rare	40.00%	Goal is to adjust these values to get				
14	Epic	40.00%	reasonably close to the Actual Card Token				
15	Legendary	15.00%	amount based on Eth Card Token Address.				
16	Shiny Legendary	5.00%					
17							
18	Calculating the amount of money made from each pack and the amount of cards generated						
19	Rare	2,506,642	USD	1,111,100	Packs	5,555,500	Cards
20	Epic	2,506,642	USD	177,776	Packs	888,880	Cards
21	Legendary	939,991	USD	44,642	Packs	223,212	Cards
22	Shiny Legendary	313,330	USD	1,667	Packs	8,333	Cards
23							
24	GU Calculated Total Genesis Cards Minted:	6,675,925	Cards	Within 5% of Actual amounts			
25	Actual Current Card Count in Eth Address:	6,966,063	Cards	was deemed sufficient.			
26	GU Calculated Total Packs:	1,335,185	Packs				
27	GU Calculated Average Cost per Card:	0.94	USD/Card	These values give us an idea of what			
28	GU Calculated Average Cost per Pack:	4.69	USD/Pack	consumers were willing to pay.			

Appendix Figure 1: Based on discoverable and known data about GU's initial sale, it's estimated that 1,335,185 packs were sold in total across the 4 different pack offerings.

Blitz Packs to be Sold:	1,000,000	Packs				
Blitz Base Sale Length:	365	Days				
Current ERG Price (1/23/22):	3.12	USD				
Blitz Cards Per Pack:	5	Card/Pack				
Blitz Pack Goals and Splits						
Pack Type	USD/Pack	ERG/Pack	Percent of Packs	Total Packs	Total Cards	Total Value (USD)
Common Packs	5.00	1.60	70.00%	700,000	3,500,000	3,500,000
Uncommon Packs	7.50	2.40	25.00%	250,000	1,250,000	1,875,000
Rare Packs	10.00	3.21	5.00%	50,000	250,000	500,000
Assuming all packs sell over sale length						
Blitz Total Cards Generated:	5,000,000	Cards				
Blitz Total Base Sale Value:	5,875,000	USD				
Blitz Average Cost per Card:	1.18	USD/Card	The goal here was to get relatively			
Blitz Average Cost per Pack:	5.88	USD/Pack	close to GU's costs.			

Appendix Figure 2: Although subject to change, using the derived amounts from GU's initial pack sale in Appendix Figure 1, Blitz's initial pack sale will follow a similar format and aim to reach similar goals.

[B] Basic infrastructure diagram for core Blitz TCG integrations
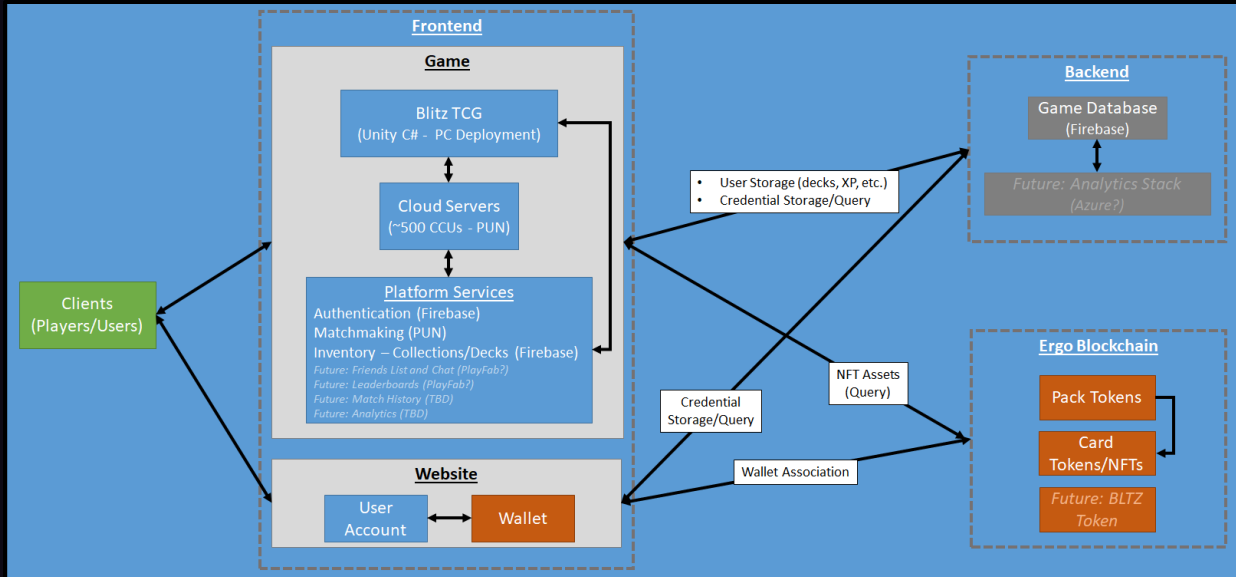
Appendix Figure 3: Some vendors and integration pathways are likely to change as development continues and more is learned about what is needed for the best user experience

[C] Enhanced Rarity Table

Ask yourself: If I looked at 100 random cards from a pack type, what would I see? E.g., 100 cards from Common Pack means I get on average 10 Legendary Rarities. Of those 10 Legendary Rarities, ~3.33 of them would be Uppers and ~6.67 of them would be Mids.

Rarities	Rarity Order	Rarity-Level Bracket	Total Cards	Percent of Cards	Chance to Find Rarity per Pack Type			Chance to Find Rarity-Level Bracket per Pack Type		
					Common Pack	Uncommon Pack	Rare Pack	Common Pack	Uncommon Pack	Rare Pack
Legendary (L)	1	L-Upper	5	3.33	10	15	30	3.33	5.00	10.00
	2	L-Mid	10	6.67				6.67	10.00	20.00
Rare (R)	3	R-Upper	10	6.67	15	20	50	3.75	5.00	12.50
	4	R-Mid	15	10.00				5.63	7.50	18.75
	5	R-Low	15	10.00				5.63	7.50	18.75
Uncommon (U)	6	U-Upper	10	6.67	25	50	15	5.56	11.11	3.33
	7	U-Mid	15	10.00				8.33	16.67	5.00
	8	U-Low	20	13.33				11.11	22.22	6.67
Common (C)	9	C-Mid	10	6.67	50	15	5	10.00	3.00	1.00
	10	C-Low	15	10.00				15.00	4.50	1.50
	11	C-Starter	25	16.67				25.00	7.50	2.50
Sums and Counts:	4	11	11	150	100.00	100	100	100	100	100	100

Appendix Figure 4: Assuming 150 cards are released in the first set, this figure displays the average likelihood to receive all current combinations of Rarity-Level Bracket cards