GameX Option – A Narrative Business Plan

Overview

In recent years, in-game assets have evolved from purely aesthetic items into highly valuable digital commodities. Skins, weapons, and characters are now traded for real money. Some of them have even reached prices in the six or seven-figure range. However, the traditional model of game asset trading remains fundamentally flawed. It is centralized, inflexible, opaque, and inaccessible to a wide range of players.

On platforms such as Steam or OpenSea, trading happens in a closed environment. Buyers and sellers have little transparency about how prices are determined or whether assets are truly unique and secure. In addition, there are no financial tools available to manage risk. If a player believes that a particular asset will increase in value, the only option is to purchase it outright. That often requires hundreds or thousands of dollars, which excludes many players from participating. If they are wrong, there is no mechanism to hedge or limit potential losses. Moreover, although in-game assets are often bought for personal use or aesthetic appeal, there is growing interest in treating them as investment vehicles, yet current platforms lack the financial infrastructure to support this.

Meanwhile, in-game economies are often siloed. Developers may operate multiple games, but there is no economic system that connects them. If one title becomes popular and others do not, assets in the lesser-played games lose value. Developers have no tool to rebalance engagement or value between games. The current impact of these issues is already visible in popular games. For example, in Counter-Strike 2, a single AK-47 skin sold for one million USD [1], reflecting the extreme value certain digital items can hold. Meanwhile, Roblox reported over 110 million USD in chargebacks in 2023 alone [2], highlighting the severity of fraud and disputes in existing in-game transaction ecosystems. These examples illustrate that while player demand for valuable digital assets is real, the underlying infrastructure is far from adequate.

This is where the GameX Option comes in. Our platform reimagines the trading of game assets as a layered financial system built on blockchain. We are not just building a marketplace. We are designing a decentralized asset exchange with derivative instruments, tailored for gaming environments.

Market Analysis & Opportunity

The market for gaming skins is a rapidly expanding and highly active sector of the gaming economy. High-value gaming cosmetics—such as the Sapphire AK-47, Dragon Legend AWP, and Butterfly Knife—continue to rise in price, fueled by limited supply and huge demand from collectors and competitive players. The global Blockchain Gaming Market size is expected to exceed 65.7 billion USD by 2027 [3]. There are more than 2.6 billion gamers worldwide [4], many of whom are already familiar with digital ownership and virtual economies. However, most are unable to participate in premium asset trading due to high capital requirements and a lack of secure infrastructure. GameX Option reduces entry barriers, increases flexibility, and provides financial tools that transform static in-game items into dynamic assets.

In addition, the GameX Option is designed to meet real market demand. GameX Option uses real-time asset data from Counter-Strike, a game with over 1.8 million active players worldwide [5], and is currently experiencing a strong and sustained upward trend in player activity. GameX Option builds infrastructure that connects in-game economies with decentralized finance, aiming to unlock liquidity, reduce fraud, and enhance financial flexibility. To unlock new forms of value from digital assets and change the way gamers interact with ownership will always be our core mission.

Product Idea

The core product idea of GameX Option is to optimize the trading and ownership of in-game virtual assets by providing a decentralized platform that supports fragmented NFTs (fNFTs) and options. If we were to develop a minimum viable product, it would allow players to mint game assets as NFTs, fragment them into ERC-20 fNFTs, and have the option to create and trade call or put options on these assets. This solves the core problem in today's gaming space: most valuable items are locked up at high prices, difficult for ordinary players to obtain, and difficult to trade flexibly. Our MVP lowers the barrier to entry by allowing fractional ownership, speculation through options, and even allowing fNFT holders to redeem their entire assets after collecting all shares.

Existing platforms (such as OpenSea) focus only on full ownership and basic buy and sell operations. They lack fragmentation, financial instruments, or cross-game integration. GameX Option's differentiation lies in combining DeFi-like tools with real game logic, creating a model where users can not only invest in assets, but also use them (For example, holders with 30% NFT and above can unlock 1 hour of temporary in-game access). Blockchain is crucial here. This solution would not be possible without the blockchain. Blockchain provides secure and verifiable ownership records. It supports programmable logic that enables trustless options contracts, fractionalized trading, and redemption systems. Smart contracts ensure fairness and eliminate dependence on central authorities. Public ledgers allow players to verify transactions, preventing fraud and enabling dynamic market design. As discussed in class, smart contracts and token standards such as ERC-1155 and ERC-20 are ideal for structuring digital asset economies. The transparency and composability of blockchain make it uniquely suited to this kind of application.

Our MSPD illustrates this vision by focusing on two fractionalization modules and option-based financial interactions. The Fractionalization Module converts a full NFT into fNFT shares and stores them on-chain. It shows how users can lock assets, create tradable shares, and redeem full ownership. There is also a supplementary contract to verify that the user holds a sufficient number of fNFT shares to temporarily unlock the game asset. This feature allows us to demonstrate the real usability of fragmented ownership in games. At the same time, our MSPD also emphasizes the Options Module, where users can create and exercise call options on NFTs or fNFTs, enabling risk management access and delayed purchases - similar to how options work in traditional finance. In all, these modules solve two fundamental problems: the accessibility and flexibility of high-value digital asset ownership.

User Interface

The platform has a user-friendly market interface where players can trade fNFT shares and browse the ownership and usage rights of assets. In addition, the platform has introduced

user wallet identification and a detailed options market panel. The panel displays the available call options for the asset (including price, expiration date and strike price), allows users to purchase these options, and displays the user's existing call options and exercise or transfer operations. All transactions, including purchases, exercises, and redemptions, are processed through Ethereum-based smart contracts to ensure security, autonomy, and auditability

Smart Contracts

GameX Option enables players to buy, trade, and speculate on both full and fractional ownership of digital assets. When a player owns more than a certain share of fNFT, a limited-time game can be unlocked.

1.Asset Minting

First, we mint each game asset as an ERC-1155 token. This standard supports batch creation and includes rich metadata such as name, rarity, and item attributes. Additionally, the contract supports real-time integration with external gaming data sources. These assets are created either by partnered game developers or a community minting interface, ensuring traceable provenance and uniqueness.

2. Fractionalization (fNFTs)

These assets can then be fractionalized into ERC-20 tokens, called fNFTs. A single legendary weapon can be split into one thousand shares, which players can trade individually or accumulate for full redemption.

To encourage broader participation and enhance the utility of fractional ownership, GameX Option introduces a usage-based incentive mechanism. When a user owns 30% or more of the fNFT share, the user can obtain the right to use the full item in the game for 1 hour. This encourages entry-level investment and participation while retaining exclusivity for full owners.

3. Options Module

The innovation lies in the Options Module. Players can purchase call or put options on any full NFT or fNFT. Each option includes a strike price, expiry date, and upfront premium. This gives players a way to benefit from price changes without having to buy the full asset. It also introduces new strategies such as hedging and leverage.

Options on fractional assets allow players to speculate or protect their value holdings at a much smaller scale, increasing capital efficiency and reducing risk. The options contracts are executed via smart contracts, and all financial parameters are on-chain, ensuring transparency and tamper resistance.

4. Cross-game Trading Contract

The contract acts as an automated market maker (AMM), allowing users to exchange NFTs or fNFTs between multiple games using dynamic pricing curves. This feature increases

interoperability and flexibility, enabling GameX Option to scale across the gaming ecosystem.

The contract has been deployed and tested in Remix, and our demo is streamlined to only include a few steps: creating or obtaining asset data from an external game, minting a new NFT, fractionalizing it, transferring some fNFTs to users, and demonstrating that users can get game time when they reach a share threshold, as well as buying and exercising options within the option price.

References

[1] 1v9.gg. (2023). *The most expensive in-game items ever sold*.https://1v9.gg/blog/most-expensive-in-game-items-ever-sold

[2] Inside AI News. (2023, December 20). *Defeating fraudsters at the finish line: The power of AI in gaming transactions*.https://insideainews.com/2024/12/20/defeating-fraudsters-at-the-finish-line-the-power-of-ai-in-gaming-transactions

[3] *Blockchain Gaming Market Size & share, Global Trends, industry forecast by 2030*. MarketsandMarkets. (n.d.). https://www.marketsandmarkets.com/Market-Reports/blockchain-gaming-market-167926225.html

[4] *Statista. (2024). Number of video game users worldwide from 2019 to 2029. Statista. https://www.statista.com/statistics/748044/number-video-gamers-world*

[5] Steam database · steamdb. (n.d.-b). https://steamdb.info/