PlayBlock Whitepaper

Executive Summary

PlayBlock is a scalable Orbit Any-Trust EVM-compatible layer-3 gaming blockchain designed specifically to address the evolving needs of the web3 gaming segment from both the perspective of gamers and builders. The web3 gaming community is poised to grow further and there is true demand by game developers and users for blockchain infrastructure that caters to their unique requirements. PlayBlock is built to meet the demands for a fast and user-friendly gaming ecosystem with native built-in tools for easy integrations of web3 modules. Scalability and security are properties that dictate PlayBlock's technical architecture, utilizing Arbtrum Anytrust and Arbitrum Nitro's rollup technology, running on Gelato's RaaS platform. PlayBlock achieves a 250ms block time and near-instant finality. PlayBlock's ecosystem is fueled by the use of $PBX being the main utility token. A plethora of utilities are designed for $PBX that serve the purpose of creating a sustainable economy for both gamers and developers where new users are incentivized to join the ecosystem and stay engaged.

Overview

Gaming Industry

The global mega-industry of gaming accounts for 2.9 billion players worldwide and a revenue of $406.2 billion in 2023, projected to reach $626 billion by 2028 [1]. Positioned as one of the main pillars of the entertainment sector it has showcased the tremendous value and opportunities existing within gaming that are captured by the big studios monopolizing it. Activision Blizzard, Valve, and Electronic Arts dictate the development, monetization, and distribution channels of games, often controlling the entire lifecycle of a game.

Blockchain has found a great fit within the gaming industry as a disruptive technology diverging from the traditional centralized infrastructure towards decentralized solutions, new in-game economic models and user experiences. Thus, a new segment is born, widely recognized as Web3 gaming.

The state of web3 gaming

The Web3 gaming market size is valued at $23,9B in 2023. The market is likely to surpass $134 by 2033 at a CAGR of 18.7% during the forecast period [2].

With over 500 active blockchain gaming cryptocurrencies and 1.2 million unique active wallets, the sector showcases significant potential and establishes itself as a vibrant and evolving ecosystem.

CoinMarketCap, a leading cryptocurrency data platform, reports that the blockchain gaming sector boasts more than 500 active cryptocurrencies. The collective market capitalization of these projects exceeds $20 billion as of December 31, 2023. These metrics are signaling substantial financial activity within the space.

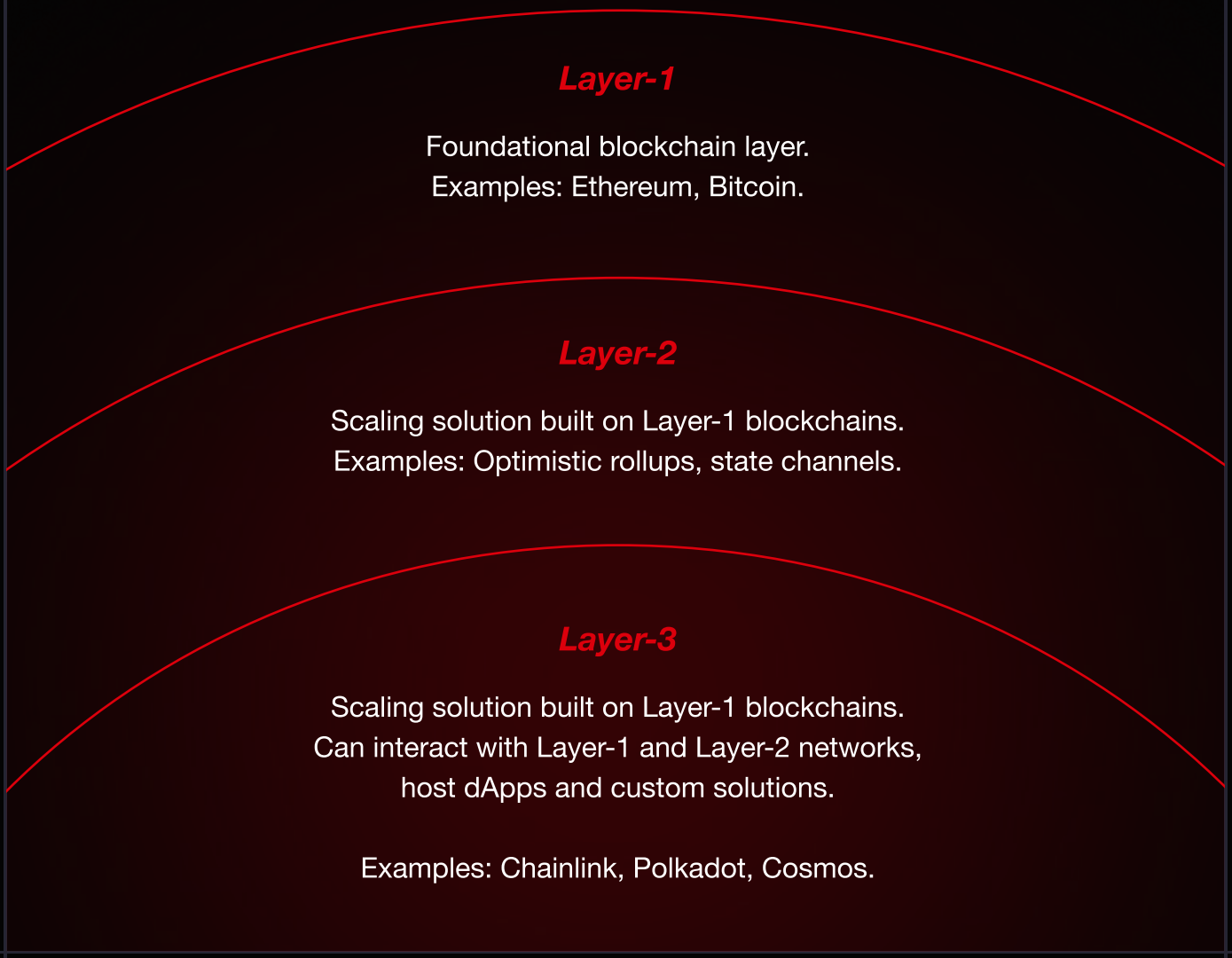
Dappradar, a prominent Dapp analytics platform, sheds light on user engagement within the blockchain gaming sector. With approximately 1.2 million Unique Active Wallets (UAW) participating in blockchain gaming projects, the sector demonstrates a growing community of users actively involved in decentralized gaming experiences.

These figures exhibit great potential for the web3 gaming segment overall from both the perspective of user activity as well as the perspective of new gaming projects entering the space.

Web2 Incumbents

A recent report by Coingecko sheds light on a significant trend within the gaming behemoths of Web 2.0. Over 70% of the top video game companies, including industry giants like Microsoft, Tencent, and Sony, are venturing into the realm of Web 3.0. Their foray into this new era of technology involves direct investments in gaming projects, their development, and the strategic recruitment of professionals specifically skilled in blockchain-related disciplines. Out of the 29 top video gaming companies that have ventured into Web 3.0, a significant portion, specifically 22 or 75.9%, have chosen a more measured and indirect approach. In contrast to the six companies actively engaged in the development of blockchain games, these industry leaders have strategically opted for investment and infrastructure development, showcasing a cautious yet forward-thinking stance.

L3 Landscape



An innovation in the field of blockchain infrastructure is the introduction of layer-3 (L3) protocols, purpose-built chains developed on top of layer-2 blockchains, providing enhanced scalability for developers to create customized application-specific blockchains based on their requirements and needs.

L3s allow highly customizable and optimized environments for maximum performance and increased throughput. Recently, Ethereum L2s and L3s combined hit a new all-time high of 246 transactions processed per second, with 101 TPS executed on just one gaming-focused Layer-3 chain, Xai. The difference in throughput is better demonstrated when compared to Ethereum's base layer, which only processes 12-15 transactions per second.

When a game runs on its blockchain, there are no competitors with whom to share network capacity. Running a dedicated blockchain allows developers to customize key parameters, namely block size, block time, and consensus mechanisms, to suit their unique game requirements. L3s allow for more agile decision-making, rapid response on updates and improvements without negotiating with other network participants. This leads to more agile decision-making and the ability to quickly implement updates and improvements without negotiating with other network participants.

PlayBlock's Positioning

Gap in the market

The Web3 sector is nothing if not resilient, and amid the challenging conditions of late 2022 and 2023, projects did what they do best; build. In the case of Web3 gaming, the fruits of that labor are now being borne in the form of infrastructure.

Recent data from Tingbits.com reveals a noteworthy paradigm shift in the blockchain gaming sector as of 2023. The dominant platform is no longer Ethereum, accounting for 19.12% of total games, but BNB and Polygon are identified as the clear winners for now. Still, transaction fees on BSC have a cost of approximately $0.02, while network capacity is limited to 170 tps. 2023 marked an all-time high number of web3 games migrating to different networks with BNB, Polygon, ImmutableX, and Arbitrum being favored destinations.

The infrastructure shift showcases the dynamic nature of the blockchain gaming industry and the increasing diversity in platforms chosen by developers. In parallel it depicts the ability and willingness of developers to migrate to platforms that better accommodate their project requirements.

This diversification aligns with the decentralized ethos of Web3 gaming, where no one-size-fits-all solution exists. Different platforms offer distinct benefits and trade-offs, allowing developers to choose what best suits their needs.

Playblock is leveraging the low stickiness of developers on existing platform solutions and the current gap in the layer-3 gaming landscape to build a Layer-3 blockchain network designed to address the evolving needs of the expanding Web3 gaming community at scale.

Target Market

The total available market (TAM) is defined as the global gaming market size estimated at $244.22 Billion in 2024 and expected to reach $397.21 Billion by 2029. With a focus on web3 gaming, the serviceable available market (SAM) is defined as the total web3 gaming market size, valued at $23.9B in 2023 and expected to surpass $134B by 2033.

Competitor Analysis

The emerging landscape of L3 chains has prompted a trend in utilizing the power of layer-3s to create bespoke chains for hosting web3 games.

Analyzing the current market, the closest competitor, based on technological features, to Playblock is Xai Blockchain which is developed by Offchain Labs. Utilizing the Arbitrum framework, the blockchain offers traditional gamers an abstracted wallet and account experience and provides developers with increased gas and contract limits. Xai boasts sub-200 millisecond block times, translating to transaction times of around 100 milliseconds. As of today, 9 projects are operating on top of the Xai blockchain, concrete evidence of the demand from web3 gaming projects to start building or migrate to better-suited blockchain infrastructure.

Similar to Xai Blockchain other projects are building a layer-3 gaming blockchain, using different blockchain frameworks. The projects are tabulated in the table below.

Project Name	Description	Development stack
Anomaly	At the forefront of a gaming revolution that seamlessly integrates the vast potential of blockchain technology with the boundless capabilities of artificial intelligence	Arbitrum
Gudchain	A blockchain platform designed to advance gaming by removing entry barriers for players	
HYCHAIN	A blockchain (Ethereum L2 Rollup) and a suite of web3 infrastructure that was created to eliminate onboarding and technical challenges for web3 games aiming for widespread adoption	
Unite	Unite Blockchain is a revolutionary Layer-3 EVM-compatible blockchain, designed to transform the landscape of mobile web3 gaming	Base
XProtocol	A web3 entertainment blockchain built on the robust Base Layer 2. Entrainment & gaming-focused super chain built for mass adoption	Base

Competition in the market is also exercised by the existing blockchains that have had the first-mover advantage and benefit of time. The key players on the market are BNB, ImmutableX, Ronin, SKALE, and Polygon, all having an active ecosystem of web3 gaming projects on their blockchains.

BNB

BNB chain has created a vibrant gaming ecosystem, experiencing exponential growth in the last couple of years. Over the past year, the number of gaming projects on the BNB Chain (both BSC and opBNB) has surged by 99.3% to a total of 565 projects between 2021 to 2024. BNB has managed to acquire a percentage of the market share previously held by Ethereum, offering a solution better suited to games.

Immutable X

Immutable X saw a 30% surge in total user wallets, surpassing 4 million by the end of June 2024. Active user wallets are estimated over 300,000 and a total of 330 games are using the chain, including 167 listed on the Big Blockchain Game List.

Ronin Chain

Ronin Chain, known for its massive player base from Axie Infinity, continues to grow and maintain its lead in web3 gaming with a record of 1.2 million daily active unique wallets. Ronin currently supports 16 official ecosystem games. Ronin is an example of a chain that is supported by a lesser amount of gaming projects but boosts high activity metrics.

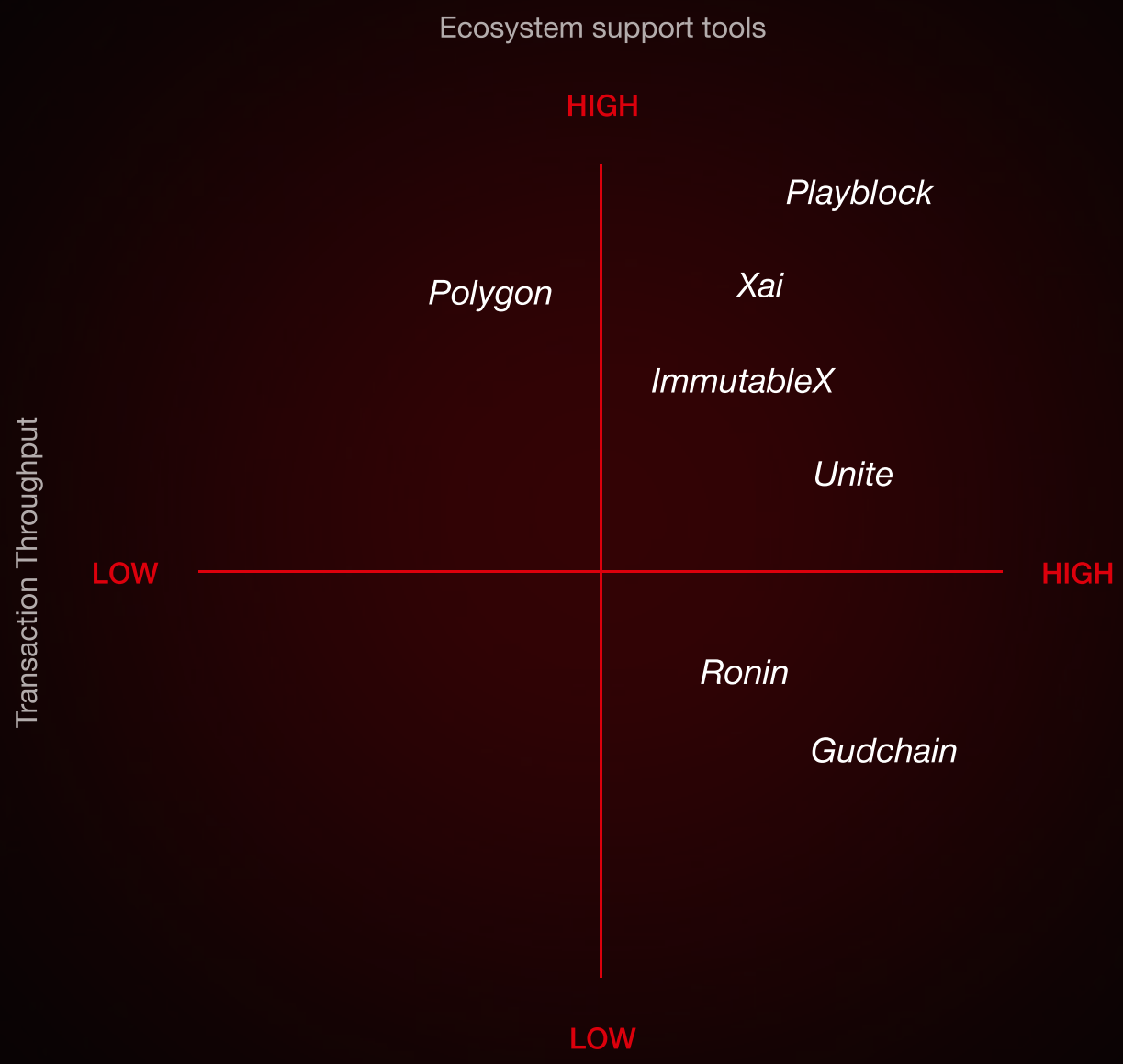
SKALE

Skale's web3 gaming ecosystem is making strides in becoming a leading gaming blockchain with its grant support and zero-gas fee architecture. In May 2024, Nebula SKALE had an average of 282,000 daily active unique wallets.

Polygon

Polygon is revitalizing its gaming ecosystem, placing Polygon CDK and zkEVM at the center. Seeing the industry trend towards cheaper and faster infrastructure as well as tools for onboarding developers, Polygon launched two new products to remain competitive. Polygon averaged 3 million daily active wallets in April 2024, ranking among the leaders in the sector alongside Ronin and Near.

It is evident that the market is highly competitive with big blockchains having a market share but lacking the innovative features that the new players are bringing on the market. Developers are always looking for solutions that will better accommodate their project requirements and thus a platform that offers better performance and greater infrastructure support will make an attractive case for new and existing projects.


Ecosystem support tools
HIGH
Playblock
Polygon
Xai
ImmutableX
Unite
Transaction Throughput
LOW
HIGH
Ronin
Gudchain
LOW

Challenges

The current challenges encountered in web3 gaming affect two main stakeholders. It is essential to create a distinction between user-centric and infrastructure-centric problems. The former is concerned with problems regarding user onboarding, user friction, and user retention, and the latter is concerned with infrastructure problems that affect developers and founders from both an individual perspective and as gaming studios holistically.

User-Centric

Low Playability

Despite the surge in the number of blockchain games, Tingbits.com reports that only 14.49% of them are playable. This low percentage points to potential hindrances, including development challenges, regulatory concerns, and market reception.

The complexity and technical challenges of developing games on decentralized platforms contribute to the limited playability of blockchain games. Overcoming these challenges, such as integrating smart contracts and ensuring secure transactions, is crucial for delivering engaging gameplay experiences.

Market reception is pivotal in determining playability. Educating the gaming community about the benefits of blockchain-based gameplay, building trust, and showcasing immersive experiences are crucial for adoption.

User Experience

The necessity for users to interact directly with non-specialized cryptocurrency wallets remains a significant obstacle to mainstream adoption. This cumbersome process often discourages players unfamiliar with blockchain technology or those hesitant to manage wallets, hindering the seamless integration of a broader player base. Crafting interfaces that resonate with traditional gamers while integrating blockchain functionalities poses challenges in terms of optimizing user interactions. Navigating complexities such as wallet management, private key understanding, and token transactions necessitates solutions that simplify these processes without compromising security.

Gas Fees

Gas fees persist as a pervasive challenge in blockchain gaming. The inefficiencies and congestion on mainstream blockchain networks lead to steep transaction fees, rendering even simple in-game actions economically impractical. High gas fees not only deter potential users but also stifle the growth of blockchain gaming ecosystems. The problem becomes more intense considering that the majority of blockchain gaming users are coming from developing countries in Southeast Asia.

Unstable and Unscalable Blockchains

Blockchain networks, touted for their reliability and security, sometimes fall short in providing a stable infrastructure for gaming. Stability issues result in buggy gameplay and frustrating user experiences, making it challenging to attract and retain players consistently. Scalability emerges as a pivotal concern, requiring innovative approaches to enhance transaction throughput. The technical hurdle lies in developing consensus mechanisms, layer 2 solutions, and sharding techniques that can seamlessly scale blockchain networks without compromising decentralization and security.

Monetary-focused Game Design

Many blockchain games exhibit an overemphasis on monetary rewards within game design. Prioritizing aggressive tokenomics over creative and enjoyable gameplay experiences alienates players seeking genuine entertainment value, rather than focusing solely on financial gains. Introducing diverse and captivating game content on the blockchain necessitates overcoming challenges in smart contract design and execution.

Infrastructure-Centric

Lack of Integration and Interoperability with Traditional Blockchains

Bridging the gap between blockchain and traditional gaming requires standardization of protocols and middleware. Developing adapters and APIs that facilitate seamless data exchange between different gaming architectures poses a significant technical challenge.

Complex Game and Economic Design

Some blockchain games feature overly complex game and economic systems, deterring new users due to a steep learning curve. The intricate nature of these systems inhibits user acquisition and mass adoption, creating a barrier to entry into blockchain gaming.

Complex Systems for Game Devs

Simplifying developer tools, optimizing documentation, and enhancing user-friendly development frameworks are formidable technical challenges in making complex game and economic designs accessible.

Lack of Creativity in Blockchain Benefits

While blockchain technology offers numerous advantages, such as interoperability and composability, there's often a lack of imagination about how these benefits are incorporated into game design. The industry needs to explore novel and innovative ways to leverage blockchain's capabilities to enhance gameplay and user experiences.

Lack of Network Effects

Expanding the player base involves intricate technical considerations and marketing expenditure.

PlayBlock is solving these challenges

Playblock is more than a layer-3 gaming blockchain, it provides an ecosystem for gaming developers to build, launch, and scale their projects utilizing the infrastructure and tools offered. Scalability, security, and user-friendly integration are the basic pillars supporting PlayBlock's solution, aiming to catalyze adoption and foster a vibrant community of gamers and developers.

Gaming has always been one of the most promising segments for Web3 technologies, offering benefits such as ownership and interoperability of assets, transparent gameplay, and token rewards, however, the road to acceptance and adoption is rarely smooth. Following the 2021 crypto hype, which sparked interest in Web3 games and particularly play-to-earn, there was a backlash from corners of the established gaming community who complained of issues such as low-quality gameplay and NFT shills ruining the experience.

In light of that, the industry has been listening. According to a comprehensive report into the state of the Web3 gaming market published by gaming DAO Game7 in December 2023, the last year has shown a marked shift in the way the industry is approaching Web3 game development. For instance, in 2021, there were 29 times more games launched than networks built to support them. By 2023, this ratio had dropped to 2.8 times. This trend indicates a strong focus on infrastructure rather than attempts to 'replace' existing Web2 games with Web3 equivalents.

The blockchain revolution in gaming is not merely a technological advancement; it is a paradigm shift that challenges the established norms, empowers creators and players, and ushers in a new era of decentralization, transparency, and economic inclusion within the gaming industry.

PlayBlock emerges as a groundbreaking blockchain designed with a singular focus — to redefine the landscape of blockchain gaming. Playblock's solution resonates with the current approach toward web3 game development and the shift to tailor-made decentralized gaming infrastructure. The characteristics of Playblock are outlined below.

Purpose-built architecture

PlayBlock's architecture is meticulously crafted for the dynamic requirements of games and applications. The design prioritizes scalability, ensuring that the blockchain can seamlessly handle the demands of an ever-expanding gaming ecosystem.

Environmental stability

PlayBlock adopts the energy-efficient consensus mechanism. This choice not only contributes to environmental sustainability but also enhances the scalability of the blockchain, enabling it to process transactions rapidly without compromising security.

NFT-specific functions

Technical Integration: At the heart of PlayBlock's innovation lies NFT-specific functionalities deeply embedded in the protocol. This ensures that NFTs, the backbone of blockchain gaming, are seamlessly integrated, facilitating a robust and standardized approach to in-game assets, collectibles, and virtual economies.

Easy integration into games

PlayBlock redefines how developers integrate blockchain into games by offering an intuitive and straightforward process. The blockchain minimizes the need for extensive blockchain coding resources, allowing game developers to effortlessly incorporate into their projects with minimal friction.

Low-cost NFT integration

PlayBlock's design emphasizes cost-effectiveness. Developers can integrate blockchain into games and platforms at a low cost, making blockchain adoption more accessible to a broader range of game developers and contributing to the democratization of blockchain technology in the gaming industry.

User-friendly integration

A key technical feature of PlayBlock is its commitment to user-friendly integration. Game developers, even those without extensive blockchain expertise, can seamlessly integrate PlayBlock into their games and platforms. This ease of integration opens new possibilities for a wider spectrum of developers to explore blockchain gaming.

Playblock Ecosystem

The PlayBlock ecosystem has 4 modules that are used by developers and users. These modules are created to position PlayBlock as the best blockchain infrastructure for building a web3 game and playing a web3 game as they target all the challenges and pain points of the current solutions in the market.

PlayBlock Native Wallet

Most existing wallets lack a tailored focus on the gaming niche. To address this gap, we introduce a blockchain wallet designed for the gaming community. The PlayBlock wallet streamlines user onboarding by incorporating automatic wallet creation. This feature eliminates the complexity of setting up a wallet, making it more accessible to gamers who may not be familiar with blockchain technology.

Password-free sign-on

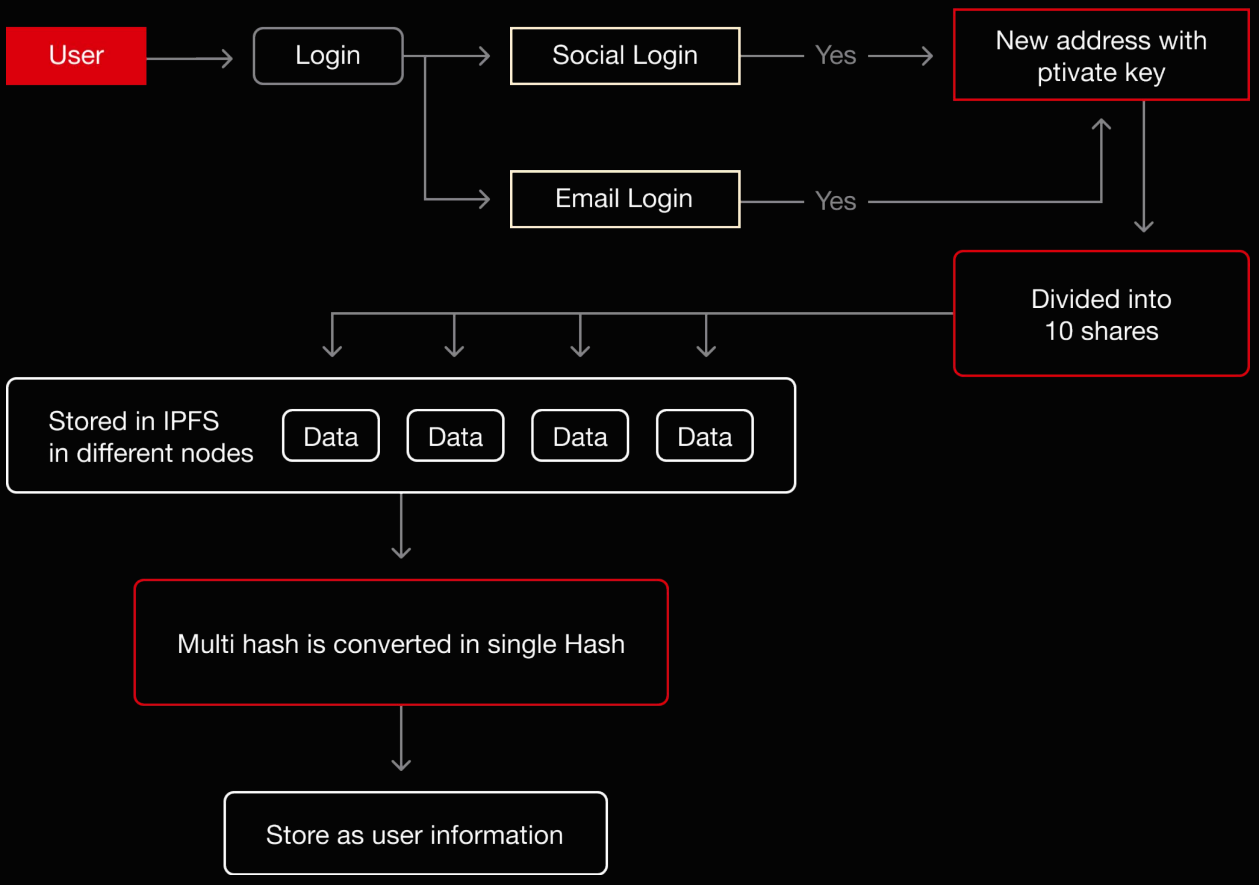
Security is paramount, but usability is equally essential. The wallet implements a password-free sign-on mechanism, leveraging advanced authentication methods to ensure a secure yet seamless login experience. Users retain consistent control over their cryptographic keys and in-game possessions. The wallet prioritizes ownership and security, allowing gamers to manage their digital assets with confidence. This will be achieved with email and social media login.

Access to the gaming community and commerce

Beyond serving as a secure storage solution, the wallet functions as a gateway to a vibrant gaming community and online e-commerce platforms such as NFTs marketplaces. Users can seamlessly engage in peer-to-peer transactions, trade in-game items, and participate in the Web3 gaming ecosystem.

Community of web3 gamers

The wallet provides users access to a dedicated community of Web3 gamers through community-designed initiatives.



Built-in Native No-Code RPG Game Engine

Our native No-Code RPG Game Engine serves as a comprehensive solution to democratize the creation process and unlock new possibilities for immersive gaming experiences.

Token issuance on the blockchain

One of the core features of the RPG game engine is its native capability to issue fungible and non-fungible tokens directly on the PlayBlock blockchain. Developers can effortlessly integrate in-game currencies, assets, and rewards as blockchain tokens, fostering true ownership and value within the gaming ecosystem. The engine boasts a user-friendly, no-code development environment, allowing developers of varying expertise levels to create RPG games without the need for extensive coding knowledge.

This democratization of game development empowers a broader community of creators. Developers can implement complex game mechanics, in-game governance, and decentralized economies, all executed on the blockchain for transparency and security. Our RPG game engine supports dynamic world-building features, enabling developers to craft expansive and evolving game worlds. This includes the creation of quests, interactive environments, and a narrative structure that responds to player actions. In line with the blockchain's potential, the engine facilitates interoperability, allowing players to transfer assets seamlessly across different games and platforms. This feature creates a connected gaming ecosystem where virtual possessions hold value beyond individual game boundaries.

GameFi and NFT Launchpad

PlayBlock will come with a cutting-edge GameFi and NFT Launchpad designed to empower visionary developers in bringing community-driven gaming projects to life. In the rapidly evolving landscape of blockchain gaming, Our launchpad stands out as a GameFi and NFT Launchpad with a singular mission: to support and nurture the pioneering game projects of tomorrow.

By integrating NFTs, virtual land, airdrops, and more into project releases, our launchpad enables developers to craft immersive experiences that extend beyond mere financial investment. This reward-driven approach not only attracts players but also builds a dedicated and enthusiastic user base. At the heart of our launchpad lies the "Magic of Mystery." The platform provides deeply customizable mystery boxes that serve as a compelling tool to inspire and engage communities. By incorporating mystery elements, developers can motivate players to actively participate in every stage of a project's release, fostering anticipation and excitement.

A cornerstone of our philosophy is the belief in community-driven decentralization. The platform empowers developers to create projects that are not only technically decentralized but also driven and sustained by an engaged and active community. PlayBlock serves as a launchpad for projects that prioritize the principles of transparency, fairness, and community participation.

Our GameFi and NFT Launchpad encapsulate a vision where gaming projects are not just about technology but also about building vibrant and participatory communities. By incorporating reward-driven initiatives, the magic of mystery, multi-chain compatibility, and a commitment to community-driven decentralization, PlayBlock is positioned as a catalyst for the next generation of groundbreaking blockchain gaming projects. As the gaming landscape continues to evolve, PlayBlock remains at the forefront, supporting and amplifying the creativity of developers who dare to redefine the gaming industry.

Game Marketplace Hub

At the core of our gaming hub comes a robust game discovery portal. Users can explore and find the latest games across various genres, platforms, and themes. The portal utilizes advanced algorithms to tailor recommendations based on individual preferences, ensuring a personalized and enriching discovery experience. The gaming hub functions as a social platform, enabling users to connect, socialize, and form communities based on shared gaming interests. User-generated content is a key component of the gaming hub. Gamers can leave reviews and ratings for the games they've experienced, providing valuable insights to the community. Beyond gaming, the hub serves as a content-rich platform offering articles, blogs, and videos on a variety of gaming-related topics. Engaging content is curated to keep users informed and entertained. The gaming hub is not just a static platform but a dynamic space where users can participate in and stay updated on gaming events and tournaments. Integration with live streaming services and event calendars ensures users can immerse themselves in the excitement of competitive gaming.

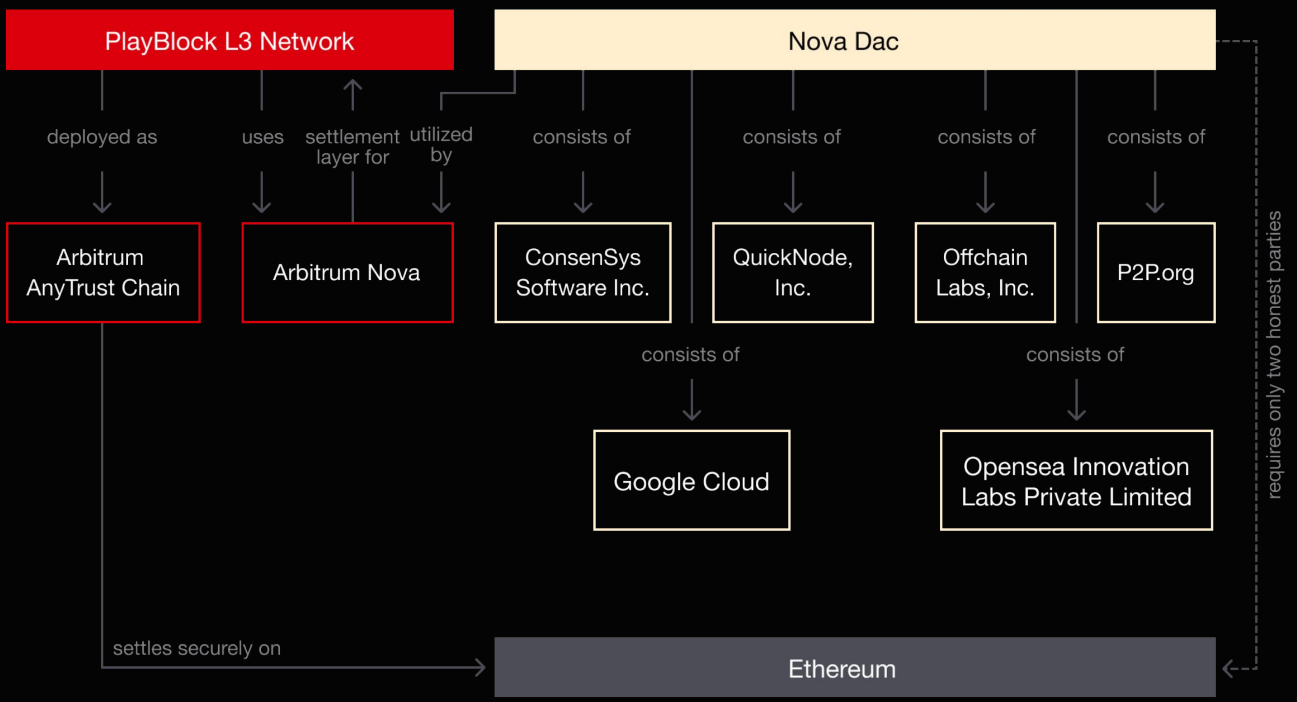
Playblock Tech Stack

A trend towards L2/L3 solutions is evident in new network launches, yet the EVM remains the primary execution environment for smart contracts in the gaming realm. Blockchain technology has ushered in a new era of decentralized applications, but the challenges of scalability and data availability have persisted.

In response to these challenges, PlayBlock emerges as an AnyTrust L3 network and inherits Arbitrum's AnyTrust properties, which introduce a trust-minimized ecosystem that settles securely on Ethereum.

The PlayBlock chain, developed using Arbitrum Nitro’s rollup technology, will be run on Gelato’s RaaS platform that natively leverages a suite of industry-leading web3 services like Relayers, VRF, Functions, and Account Abstraction, to meet PlayBlock's unique ecosystem needs.

This allows developers to create more user-friendly gameplay directly on the blockchain, thereby enhancing transparency, fairness, and ownership of in-game assets.



Choice of Arbitrum Framework

Arbitrum, a leading Layer 2 scaling solution for Ethereum, offers a framework for building decentralized applications with enhanced scalability and lower costs. Arbitrum Nova emerges as a key component in PlayBlock's architecture, offering a unique blend of ultra-low transaction costs and enhanced security.

The AnyTrust protocol, introduces a cost-reduction mechanism through a Data Availability Committee (DAC), significantly lowering fees for end users. This protocol underpins the efficient and secure data management system that PlayBlock leverages for its Layer 3 network.

Arbitrum Anytrust

Leveraging Arbitrum Anytrust technology, the new PlayBlock chain achieves a 250ms block time and near-instant finality, capable of processing thousands of transactions per second.

PlayBlock is leveraging Orbit’s native gas token feature by introducing the $PBG token set to guarantee a zero-gas user experience. Additionally, PlayBlock Layer3 will feature its own stablecoin, USDP, to eliminate volatility and enhance the gamer experience by ensuring fair rewards payouts are always pegged to a dollar.

The PlayBlock Layer-3 chain is designed to abstract away the need for users to pay for gas, enabling persistent, session-based, gasless gameplay supported by sponsored transactions through Gelato’s natively integrated Relayer. The integration eliminates the need for frequent wallet confirmations and transaction approvals, ensuring uninterrupted and immersive gameplay. PlayBlock will feature a dedicated self-custodial native wallet called PlayWall, based on ERC-4337. The PlayWall wallet aims to streamline onboarding processes by offering seamless social login and account creation.

AnyTrust addresses the challenge of data availability by introducing an external Data Availability Committee (DAC), which stores data off-chain and provides it on demand. This innovative approach significantly reduces costs by eliminating the need to post all transaction data on L1 Ethereum, while still maintaining a trust-minimized environment.

The DAC is central to PlayBlock's operation, ensuring data integrity and availability. Comprising reputable entities like ConsenSys Software Inc., QuickNode, Inc., P2P.org, Google Cloud, Offchain Labs, Inc., and Opensea Innovation Labs Private Limited, the DAC offers a robust, trust-minimized framework where at least two members are assumed to be honest.

The DAC's primary function is to store Layer 2 transaction data off-chain and make it available upon request, thus facilitating the efficient functioning of the PlayBlock network. The trust assumption in the DAC that at least two members are honest—ensures that data availability is never compromised, enabling PlayBlock to operate with integrity and reliability.

By leveraging Arbitrum Nitro technology under the AnyTrust model, PlayBlock offers a cost-effective, scalable, and secure solution for decentralized applications.

The future of PlayBlock includes further innovations and expansion. Potential developments include deeper integration with Ethereum's evolving ecosystem, increased decentralization, and the exploration of new applications and services that leverage PlayBlock's unique capabilities. As the blockchain space continues to evolve, PlayBlock remains at the forefront, driving progress and redefining what is possible in a decentralized world. Looking ahead, PlayBlock aims to further refine its technology stack, exploring new opportunities for scalability and efficiency within the Arbitrum ecosystem.

Gelato RaaS

PlayBlock utilizes Gelato’s RaaS platform that natively leverages a suite of web3 services to provide a service “without limits”. Developers can create more user-friendly gameplay directly on the blockchain to enhance fairness.

Over time, PlayBlock will move towards a multi-chain vision on Arbitrum Orbit. This transition led by the Gelato RaaS team, will involve scaling to multiple horizontally interconnected PlayBlock Layer-3s chains with a mission to achieve limitless scalability and increased bandwidth to accommodate an economy of hundreds of millions of gamers. The implementation will include a shared sequencer for smooth cross-chain interoperability.

Gasless Mechanism

PlayBlock is committed to delivering the best user experience, a vision brought to life through its gasless transaction mechanism. One of the significant hurdles in blockchain game development has been the management of transaction fees. These fees can deter developers from implementing complex or high-frequency interactions within games, limiting creativity and the scope of gameplay.

This mechanism consists of three key components:

Initial gas token distribution

Upon their first connection to a game or dApp on the PlayBlock chain, users holding Playnance Game Token (USDP) in their wallets are automatically credited with Playnance Gas Token (PBG). These tokens cover the transaction fees on the platform, facilitating a smooth and uninterrupted gaming experience.

Daily wallet scan and top-up

To ensure users continuously enjoy a gasless experience, while avoiding spamming on the network, PlayBlock implements a daily wallet scan to identify users with USDP tokens. Wallets with PBG balances below a certain threshold receive an automatic top-up of PBG tokens, keeping the gaming journey on the PlayBlock chain seamless.

Faucet for RBG tokens

Acknowledging the diverse needs of its community, PlayBlock provides a PBG token faucet. This allows users, especially new or infrequent ones, to request PBG tokens daily if their balances fall below the set threshold. This inclusive feature ensures every user can access and enjoy dApps on the PlayBlock chain without concerns about gas token balances.

By eliminating concerns over transaction fees, PlayBlock empowers developers to explore new dimensions of gameplay and interactivity. This freedom paves the way for richer, more complex game worlds, leading to more engaging and immersive experiences for players.

For users, the gasless mechanism translates to hassle-free access to blockchain games and applications. This ease of use is crucial for attracting a broader audience to blockchain gaming, breaking down barriers to entry, and fostering a more inclusive and vibrant gaming community.

$PBX Token Utility

The $PBX token on the PlayBlock chain introduces a variety of innovative utilities designed to enhance user engagement, maintain token value, and promote ecosystem growth.

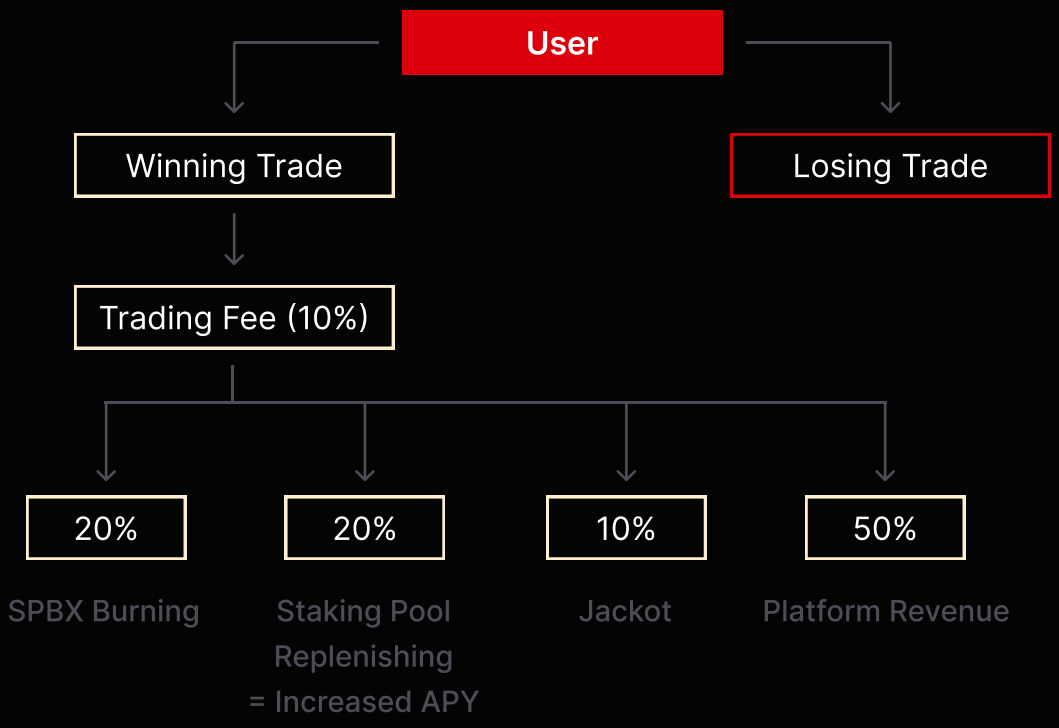
$PBX should not be defined as a security, as the token is utility-driven, serves the purpose of effectively acting as a coupon for discounts within the PlayBlock ecosystem, aiming to be sufficiently decentralized through a series of 50 distribution rounds to a multitude of individuals who have no connection to each other or even a central foundation.

Trading Fee Reductions

The $PBX token offers users of PlayBlock to get transaction fee discounts. Users can utilize PBX to receive reduced fees for transactions, purchases, and trades within the platform. This not only encourages the use of PBX but also makes participating in the PlayBlock ecosystem more cost-effective, driving higher user adoption and engagement. A striking example is playing the game UpvsDown in a pool with $PBX which reduces your trading fee by 50%.

$PBX provides to users is the ability to engage with all the games inside PlayBlock's gaming ecosystem with a single native currency that in parallel is more cost-effective for the individual. A user who intends to spend a lot of time in the PlayBlock ecosystem is incentivized to use $PBX and bulk-buy to have it easily accessible. This kind of early commitment is generally good for the project and ecosystem at large since you can easily distinguish the committed users.

Trading Fee Distribution



Income source (in $PBX token):

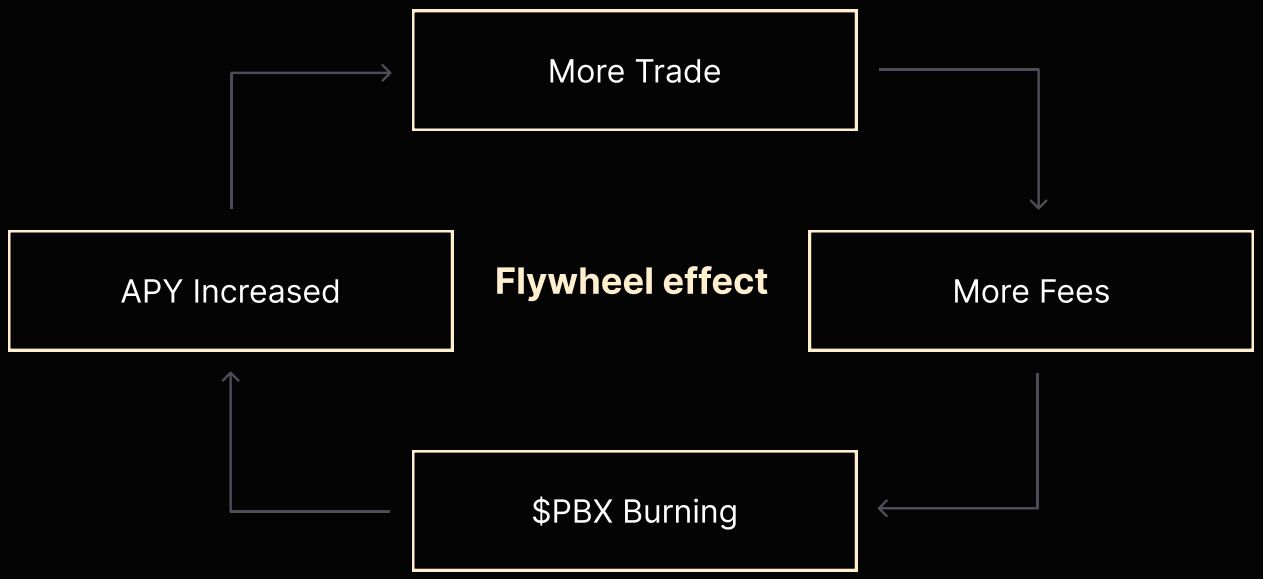
- *Trading fee 10% which only applies on a winning bet*

Allocation of a Trading Fee:

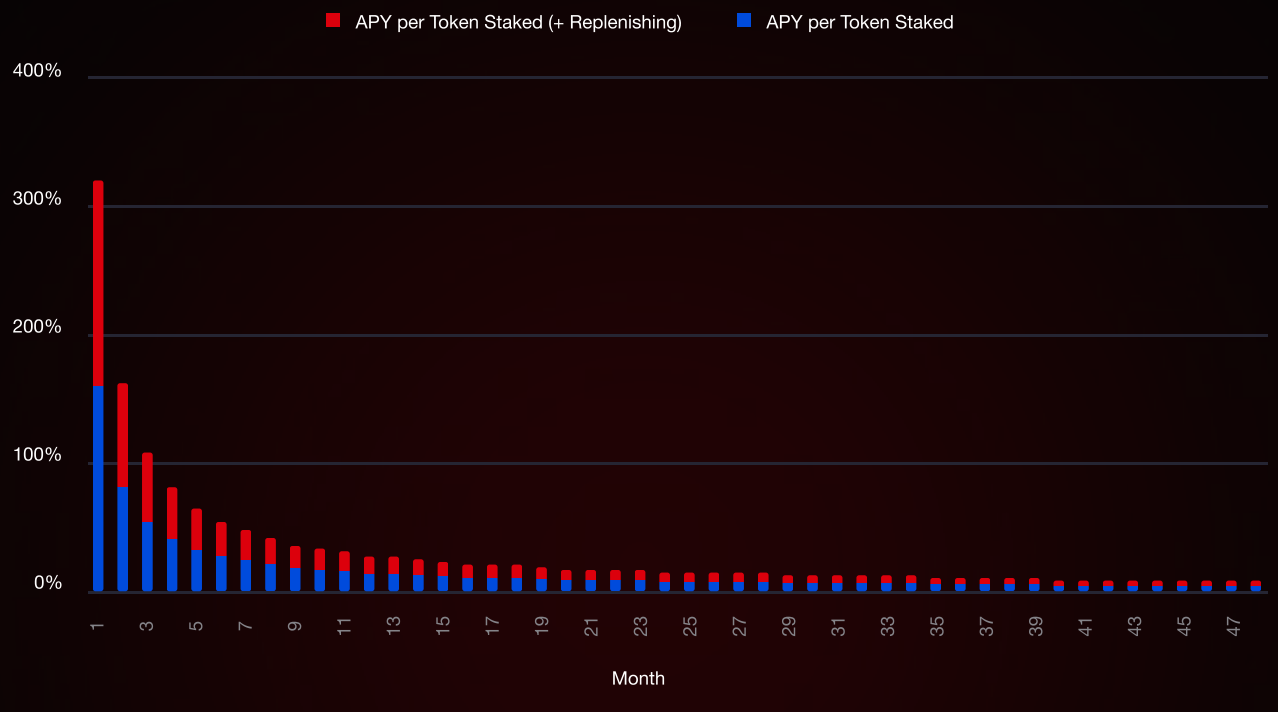
- *Burning (20%)*
- *Staking Pool Replenishing (20%) (Increasing APY)*
- *Jackpot (10%)*
- *Platform revenue (50%)*

Staking Pool Replenishing

20% from a Trading Fee goes into the staking rewards pool to increase APY for stakers.



APY vs Replenished APY



Algorithmic Burning

The Algorithmic Burn mechanism for $PBX is designed to coordinate inflation for PlayBlock's economy and provide the basis for a healthy environment for the project to grow, inviting new users. This system automatically burns a portion of tokens based on specific events within dApps on the PlayBlock chain, such as high-volume transactions, significant achievements, or the completion of milestones. By reducing the circulating supply in a controlled and algorithmic manner, this mechanism helps prevent inflation and ensures the long-term value of $PBX.

1. *30% of a trading fee is allocated to burning.*
2. *100% of a 1% Tax Fee is allocated to burning - only the sell-side.*
3. *100% of a 5% Unstake Fee is allocated to burning.*
4. *Demand-driven lottery excess is allocated to burning: from 20% ETH pool and 5% BTC pool.*
5. *100% of Jackpot collected $PBX*

Protocol Owned Liquidity (POL)

PBX-USDP LP

The purpose of the Protocol Owned Liquidity Pool being paired with $PBX and the native stablecoin to the PlayBlock chain is to serve as a value capture pool across any subset of actions that the project wishes to monetize.

For example, if a purchase of a product or a pool swap happens on Crypto Fights, then a small % rake can be taken as a fee and accrued to the PBX-USDP LP (on the USDP side) to effectively create a proportionally linear growth system for token holders and PlayBlock users to maintain price stability and appreciation as user traction and activity grows.

Additionally, the POL LP can be configured to allow for a trigger to initiate either an automated burn of PBX tokens to a burn address, or it can be configured to allow for PBX tokens to be re-introduced into the Staking Rewards pool to increase staking APR and also remove float from the market.

This effect should occur algorithmically when the POL accrues value from automated actions, with the USDP being captured and to balance the xy=k pool, the PBX tokens that are outstanding should be redirected to one or both of the above routes.

Having a baked-in method for the POL to accrue USDP and reduce supply float is critical for any token with a large amount of float that unlocks early in its life-cycle post-TGE. The Protocol Owned Liquidity will ensure consistent liquidity and value growth for $PBX. By capturing value from various actions and maintaining a balanced pool, it helps stabilize the token's price and reduce market volatility. The ability to burn tokens or redirect them to staking rewards will further manage the token supply and incentivize long-term participation.

By systematically decreasing the number of tokens in circulation, this mechanism helps to counteract inflationary pressures.

Tax Fee

The Tax Fee is a 1% fee applied to every sell-side transaction within the PlayBlock ecosystem, including swaps, deposits, unstakes, withdrawals, locks, and claims. This fee is fully allocated towards burning $PBX, acting as another measure to limiting inflationary pressures. The purpose of the fee is to keep protocol inflation low and provide a fair and cost-effective gaming ecosystem to both users and developers building.

Lottery & Jackpot

A demand-driven lottery and jackpot systems are designed to reward active users of PlayBlock and increase user engagement and retention.

- *Demand-driven Lottery*

(ETH & BTC pools) (Oversubscription is allocated to burning)

- *Jackpot*

Collected from 10% of Trading Fees.

The Jackpot reward tokens will be collected through the trading fees in the blockchain, allocated 10% towards the Jackpot reward pool.

Users earn entries into the Jackpot by burning $PBX tokens, the more $PBX tokens a user burns - the more entries he gets and thus a higher chance to win.

The chance for the user to win in the Jackpot is defined as:
How much $PBX a user A burned / How much $PBX other participants burned

Also, Jackpot entries can be earned by participating in various activities on the platform. Regular jackpots, drawn daily, weekly, or monthly, offer substantial $PBX rewards. This system not only incentivizes frequent participation but also enhances the excitement and engagement of the user base by providing opportunities to win significant token rewards.

Expected Effect on Token

The Jackpot Strategy will drive user engagement, deflationary effect by burning $PBX and increasing the active participation rate within the PlayBlock ecosystem. By offering substantial rewards through regular jackpots, will encourage users to engage more frequently with dApps, thereby increasing the overall transaction volume and activity on the platform. This increased activity can positively impact the demand for PBX, supporting its value and utility.

Staking Duration & Boosts

PlayBloc's staking system gives the opportunity for users to lock their tokens and get benefits for using PlayBlock.

Users can Stake for up to 2 years (730 days) with a minimum staking period of 10 days and a maximum of 2 years. The maximum staking boost that can be attributed to the user's staking balance is 3.5x their initial balance.

A penalty is associated with users unstaking their tokens before the minimum staking period is completed. If a user unstakes before the pre-determined period, a 2-week freeze on their staking balance is applied. Moreover, when the user wants to unstake his balance without facing a 2-week freeze, he can pay an unstaking fee of 5% known as a performance fee in other protocols.

Staking Periods & Boosts ($PBX)				
$PBX	Staked $PBX	Days in Staking	Multiplier	USD Stake Eqv.
350 000	100 000	750	3,5000	$70 000

Engagement & Developer Points Rewards

Modeled after the Blast Gold and Points system, the Engagement & Developer Rewards mechanism is designed to encourage both user participation and developer innovation. Users earn Playnance Points (PNP) by engaging in activities such as gameplay, completing challenges, and participating in events. Developers are awarded Playnance Gold (PNG) based on user engagement, transaction volumes, and the innovative features of their dApps. These points can be redeemed for rewards, premium features, or development resources, fostering a dynamic and active ecosystem. Based on how much PNP and PNG are collected by the end of the “Season” or “Phase”, users will have $PBX claimable at the end of the designated period.

The Engagement & Developer Rewards system will drive both user and developer activity within the PlayBlock ecosystem. Rewarding participation and innovation, it will increase the overall engagement, leading to a more active and vibrant community. It is critical to leverage the PNG system to make sure that enough developer mindshare is captured by PlayBlock, which is necessary to ensure that PlayBlock does not become stale from the users’ perspective, bringing in additional developers and projects that can further incentivize users to stay in the ecosystem. While PNG is not going to users, it has a multiplicative effect from projects bringing in their own marketing, development, BD, and liquidity, creating synergies with the PlayBlock ecosystem.

Tokenomics

Main Metrics

The total supply of Play Block's native token, $PBX is set to a total of 6,000,000,000 tokens. The supply is allocated toward a variety of stakeholders and internal economy processes that guarantee a healthy protocol and sustainable growth for the ecosystem.

Token Metrics	
Total Supply	6 000 000 000
Launch FDV	$4 200 000 000
IMC (Excluding Liquidity) in $PBX	$403 607 542

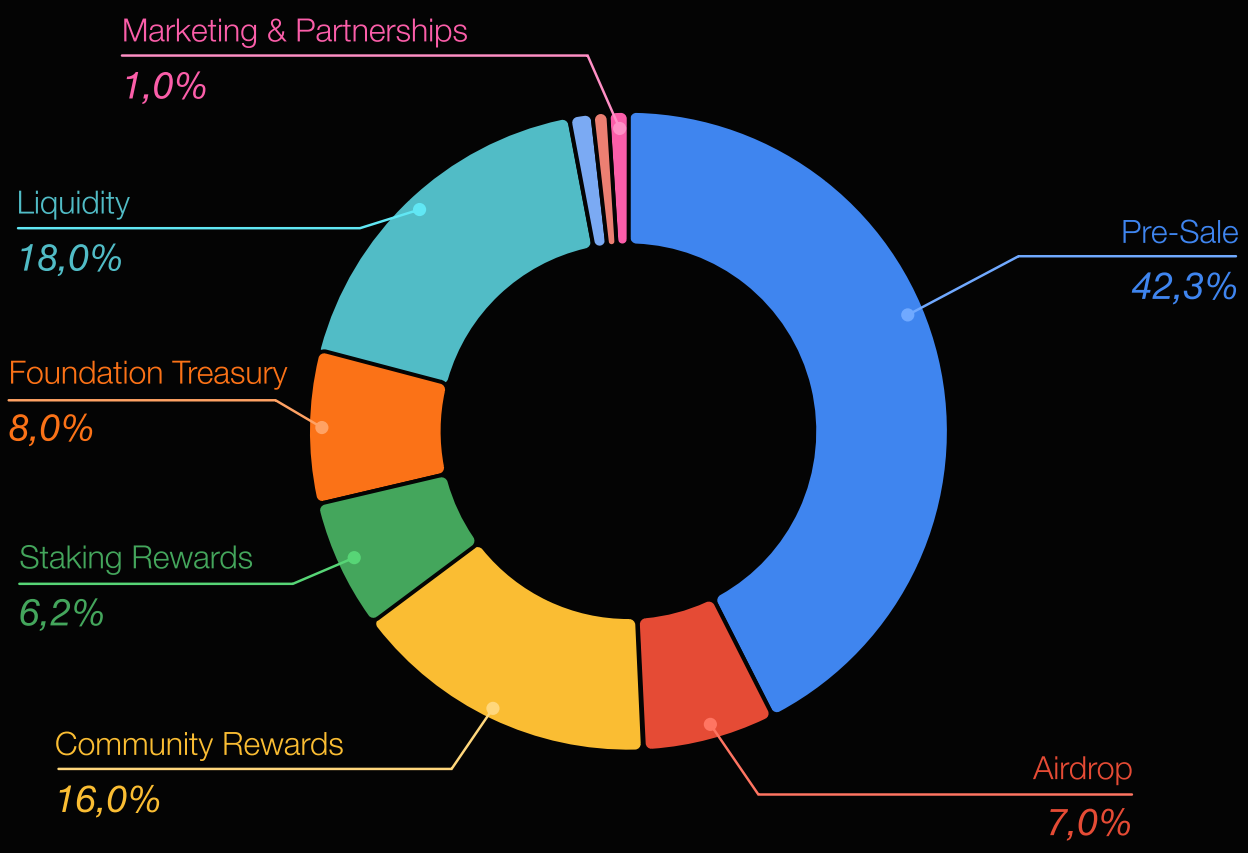
Allocations

$PBX is allocated to the different stakes, depicted in the table below. Pre-sale holds the largest percentage allocation of 42,30%. The tokens will be sold to retail investors who share the vision of Play Block, giving them the opportunity to become early contributors to the project. The tokens will be sold to the public in tranches and be vested linearly in a 6 month period.

Stakes	Allocation	$PBX amount	Cliff (in months)	Vesting (in months)	Unlock type	Unlocked TGE
Pre-Sale	42,30%	2 537 822 027	0	6	Liner/monthly	20%
Airdrop	7,00%	420 000 000	0	6	Liner/monthly	15%
Community Rewards	16,00%	960 000 000	0	48	Liner/monthly	0%
Staking Rewards	6,20%	372 000 000	0	48	Liner/monthly	0%
Foundation Treasury	8,00%	480 000 000	6	32	Liner/monthly	0%
Liquidity	18,00%	1 080 000 000	0	4	Liner/monthly	55%
Team	1,00%	60 000 000	8	24	Liner/monthly	0%
Advisors	0,50%	30 000 000	10	24	Liner/monthly	0%
Partnerships & Marketing	1,00%	60 177 973	3	12	Liner/monthly	10%
	100,00%	6 000 000 000	3			19,5%

Pie charts

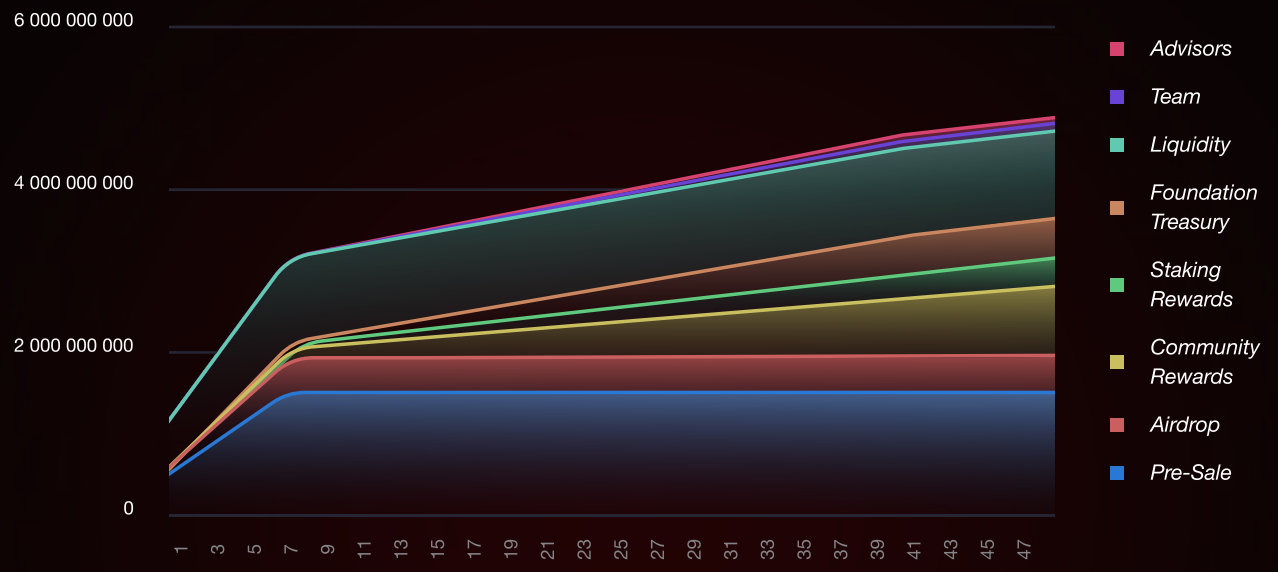
Allocation $PBX



Vesting Schedule

The allocations visualized above are modeled to simulate the impact of different vesting scenarios on the overall health of the project. Considering the needs of Play Block, the growth strategy, and all the actors in the ecosystem the specific vesting schedule is decided that will accommodate all the requirements in every stage of the project's lifecycle.

Vesting Schedule $PBX



Thank you!