

Market	3
Overview	3
Market Research	5
Existing Challenges	6
Prom: GameFi Infrastructure	8
Features	8
Solution	9
Safe Vaults	9
WalletConnect and EIP1271	11
Rentals	11
EIP4337	12
Prom DAO	13
Other Functions	14
Mortgages	17
Marketplace	18
Growth Points	20
Roadmap	22
Team	22
Alternatives and Competitors	27
General	27
Collateralized Rentals	27
Centralized Vault	28
ERC (EIP) 4907	29
Wrapped NFTs	30
Overview	31
Business	33
Go to Market	33
Business model/Monetization	34
Value Proposition	35
Guild Relations	36
PROM zkEVM	37
Overview	37
Technical Insights	38
Architecture and Functionality	39

Last year, blockchain gaming peaked with projects quarterly, earning \$500 million in profits. Thus, experts expect it to keep growing despite the current blockchain crisis.

The idea to create blockchain gaming as we know it today dates back to the 2000s, when blockchain itself didn't exist. The thing was that gamers of popular games were interested in buying, selling, and exchanging their assets. However, such deals were problematic because P2P deals tended not to be fair. As for the players' revenues, they were accessible only to professional gamers who took part in online contests. However, average gamers couldn't make any profits despite their investments in assets.

In 2008, the world learned about blockchain, and in 2015, Ethereum, the blockchain network currently used to make most NFT games, was introduced. Thus, gaming visionaries tried to launch their projects. The first successful one, Axie Infinity, entered the market in 2018 and attracted a huge audience thanks to the special Play-to-Earn mode where users could acquire, breed, and monetize the axis. The project peaked in the Philippines during the lockdown and paved the way for other impressive games of various genres that keep boosting the industry.

Market

Overview

To explore the market, we collected the main data about the gaming industry, blockchain gaming, and its aspects. Next, we highlighted the most revolutionary way of its development.

Being one of the fastest-growing industries of this millennium, in 2021, gaming was estimated to be worth \$192.7 billion, with over 2.8 billion gamers worldwide. Meanwhile, [experts](#) suppose this is only the beginning and that gaming is projected to be worth \$260 billion by 2025 and 292.31 billion by 2030. The main part of players is represented by 77% of Millennials and 81% of Gen Z consumers, who spend an average of 7 hours and 20 minutes per week. Thus, the industry is sure to keep growing.

According to [researchers](#), the potential growth of the whole gaming industry is closely connected to the boost of blockchain gaming, estimated to be worth \$755 million in 2021 and [is expected](#) to reach \$3618.4 million by 2028. Considering that blockchain gaming is closely connected to the hyped metaverses, the prospects are even more impressive during the first three months of 2022, when there were already 38 different deals in these two sectors, with the smallest being \$1 million and the largest being \$450 million.

To analyze the potential of blockchain gaming and define the problems and needs of its audience, we have studied its geography, demography, level of adoption, and launchpad statistics.

Geography and Demography

- Players: India has the highest number of respondents (34%) that have ever played a P2E game. Hong Kong follows with 29% of respondents interested in blockchain gaming, and the United Arab Emirates is third with 27%.
- Investors: the Asia-Pacific region made 45% of its game-related investments in Blockchain and Metaverses. North America was second with 37%. Europe came in third with 16%. Africa and the Middle East make up the rest.
- Asset owners: the majority of NFTs' owners are located in the Philippines (32%), Thailand (27%), Malaysia (24%), the UAE (23%), and Vietnam (17%). As for potential

NFT adopters, the most willing enthusiasts are from Nigeria (21.7%), Peru (14.5%), Venezuela (13.5%), Colombia (11.9%), and Vietnam (11.6%).

- Demography: the demography of blockchain gaming is quickly expanding; however, there are some key tendencies. Firstly, according to [Finder](#), men are almost four times more interested in NFTs than women. Secondly, ages 25 to 34 are the most likely to acquire NFTs.

NFT Adoption and Launchpad Statistics

Though NFT adoption is constantly growing, 90% of respondents from Japan, 83% from Germany, and 79% from the United Kingdom know nothing about the industry. However, in countries with a high level of adoption, over 50% of citizens are aware of NFTs, and their sales are rapidly increasing. For instance, in 2021, the number of wallets with assets reached about 28.6 million.

Launchpad Statistics are very promising for the industry because, in the last quarter of 2021, GameFi token sales accounted for 153 out of the 325 total sales across all launchpads.

Next Gen Gaming

Analyzing the potential future of blockchain gaming, we figured out that the current market is full of similar simple projects inspired by popular games. With the development of technologies and the increasing complexity of users' needs, new, Next Gen games will reshape the industry, broaden its audience, and attract more resources. The thing is that the new projects, designed by gamers for gamers, will enable users to explore new unconventional plots, aesthetics, graphics, and genres. However, such games will require certain characteristics and complex hardware that guilds, as we suppose, will not be able to afford. Thus, Next Gen projects will be explored by ordinary gamers from Web2 and e-sports companies.

Prom is sure to fit them, being a link between Web2 players and Web3 games. On the one hand, being a Steam-like platform, it will comfort players who are not familiar with crypto. For instance, via Prom, they will be able to find any information about games. On the other hand, considering Prom's convenience, the platform will attract lots of Web2 players and introduce them to Web3 gaming.

Market Research

To design a fit product, we have analyzed the current market according to critical criteria such as the number of web3 players, distribution of assets, evaluation of projects, users' profit, strategies to earn, gameplays, and genres.

Distribution of Assets

As we have found, dozens of games entering the market are still in development, but they are already selling compatible NFT assets that are highly popular among investors and collectors. As a rule, assets are distributed by game devs as collectibles via OpenSea.

Evaluation of Projects

Most games may be tracked using [DappRadar.com](https://dappradar.com). However, non-browser games cannot be properly monitored. So, we suppose that the catalog requires resources to be kept up to date. Thus, it would be fit if game devs maintained their pages.

Earnings

Currently, most Web3 games bring comparatively small income to most casual players. Average daily earnings vary from \$0 to \$0,5. However, even the “unprofitable” games, such as Alien Worlds or Splinterlands, benefit because most casual players can be defined as “spenders”, not as “earners”, and don't choose games for profit. Instead, they focus on their fun side, meaningful gameplays, and fancy graphics.

Strategies

Considering the previous paragraph, you may see that Play-to-Earn is turning into Pay-to-Play and Invest-to-Earn. Thus, the legit strategies to acquire solid income include:

- Buying and lending lands in popular Metaverses is the most profitable way to earn. Meanwhile, it is the most expensive one because the floor price may vary from \$3k to \$4k.
- Investing in NFT creatures that can be bred and trading their offspring is also financially beneficial and enables asset owners to reach the breakeven points quickly. However, this strategy requires impressive investments: the bigger and the more promising the game is, the more expensive its NFTs are.
- Training hard to become a professional gamer, participating in monthly tournaments, and gaining rewards from hundreds to thousands of dollars.

Gaming portals such as rmg.io provide users with information on earnings and minimum investments. However, all the data is approximate due to fast changes in native token cost, gaming NFT supply, and demand dynamics.

Gameplays

Web3 games are constantly developing and becoming more enjoyable. Meanwhile, the industry is expanding quickly, and now there are numerous projects in development and beta. Thus, the competition is growing, with developers doing their best to attract users with high-class graphics and advanced features such as VR and AR experiences.

Genres

As we have found, game genres blend with gaming modes. So most devs describe their projects as a mixture of different genres that don't fit the conventional classification. Thus, games should be described via tags.

Existing Challenges

Like every new market, GameFi has enormous potential as well as complexities its participants have to struggle with.

Participants can be divided into four main groups: players, asset owners (investors), guilds, and games. Let's define the main problems they face.

Players

1. As in traditional gaming, players have a vast choice of games that leaves them lost. Meanwhile, considering that potential revenue also plays a significant part in their decision-making, the situation gets even more tricky.
2. To benefit from GameFi, players need to deploy their initial capital. Thus, they either have to join guilds, share a significant part of their income, or choose games with internal rental solutions.
3. Gamers who play multiple games have to spend a lot of time acquiring and managing their assets because each project has a separate platform.
4. Gamers who want to benefit from GameFi get disenchanted because they can't track, estimate, or predict their earnings.
5. All the ongoing NFT marketplaces were designed for collectibles. As a result, if any exact game does not have its own marketplace, players have problems discovering the needed asset.

Asset Owners (Investors)

1. Asset owners experience the lowest market capital efficiency as they can't make the additional yield on assets. Investors either have to risk asset thefts or choose games with internal scholarship systems.
2. Investors lack management and analytic tools for holding assets of different games. Meanwhile, they also have no instruments for bulk liquidations, transfers, or purchases across multiple games.

Guilds

1. Limited in terms of game selection, guilds either have to risk an NFT being stolen or choose between games with internal rental solutions.
2. Guilds have to attract and deploy significant capital that increases the risk factor.
3. Guilds don't have enough tools for asset distribution between the scholars for bulk purchases, transfers, and liquidations.

Games

1. To attract guilds and initial audiences, projects have to spend additional time and development resources to build their own scholarship system and marketplace order.
2. WEB2 games that enter the GameFi market lack expertise. Consequently, they have problems with users' onboarding, building initial audiences, and launching products.

Prom: GameFi Infrastructure

Prom is a unified access point to GameFi that includes an NFT marketplace and an aggregator, decentralized rental and mortgage solutions, a launchpad, and DEX.

Prom is using non-custodial smart-contract-based wallets, Safe Vaults. Thus, rentals and mortgages without game integrations or approvals are real and completely decentralized. So the platform is the most accessible and secure solution.

Features

Non-custodial

Prom does not store or access users' funds as a marketplace or rental solution provider. This approach significantly increases the platform's security. Rented assets are being stored in individual safe vaults exclusively belonging to borrowers. All the data is stored on-chain, while Prom serves as a technology provider and ensures direct transactions between borrower/lender or seller/buyer.

Decentralized

Prom rentals and mortgages do not require integration on a dApp or game level. Thus, the features can be adapted to any ongoing products that meet Prom's criteria.

Collateral-free

Prom rentals and mortgages are collateral-free. Meanwhile, the security of deals is guaranteed on a programmatic level.

Simple

Prom GameFi marketplace has been created by gamers for gamers. The unique asset discovery system allows users to find the desired NFT in a few clicks.

Aggregator

Prom aggregates order books from internal marketplaces and serves as a delivery agent. Thus, it enables players to acquire multiple assets from different games in one payment.

Solution

For Players

- Enables entrance to the GameFi without deploying initial capital.
- Navigates during game selection.
- Provides a unified rental solution across the games.
- Educates about recent strategies.
- Works as a management and analytics tool across multiple games.
- Is a convenient way to discover and purchase assets.

For Investors (Asset Owners)

- Enables receipt of an additional yield on their investments.
- Works as an investment management and analytic tool.
- Is a suitable gateway for bulk purchases and liquidation across multiple games.
- Is a relevant way to increase capital efficiency.

For Guilds

- Works as a corporate managerial solution.
- Expands and scales games with scholarship systems.
- Helps to run a business without attracting significant capital.
- Works as an analytical and tracking tool.

For Games

- Attracts more players than in-built rental solutions.
- Saves development, financial, and time resources.

Safe Vaults

Being the core of the decentralized rental system, Prom's Safe Vault is a smart contract type of wallet the borrower uses to hold rented assets. It prevents any malicious interactions with assets on a smart contract level. Thus, NFTs can't be transferred, burned, or reforged.

Meanwhile, Borrowers are welcome to use assets to play.

Prom Safe Vaults are based on the GnosisSafe fork that we have adjusted to our needs and wants.

Every Safe Vault belongs entirely to its creator (borrower) and can't be accessed by the technology provider (PROM) or the rented asset owner. Consequently, the highest standard of decentralization is met.

How Safe Vaults Work

Every transaction can be encoded into the `execTransaction()` method and executed by a smart contract-based wallet. Transactions executed by a smart contract-based wallet get decoded and can be found via unique bytecodes. For example, the `safeTransferFrom(address,address,uint256)` contract checks whether the interaction is related to the lent asset by calling the lent asset register. If an asset has not been lent via our platform, the transfer may happen. However, if the asset is rented, the transaction reverts: there is no way to bypass the contract.

This approach enables us to set restrictions exclusively for assets rented via Prom without influencing the accessibility of the pre-owned NFTs that a user may already own. For instance, some borrowers have a part of their own assets when they play a game requiring several NFTs. However, they need more assets to rent. In such cases, the pre-owned NFTs may be transferred to borrowers' safe vaults and used without any restrictions, while NFTs rented via PROM will not be transferable.

Safe Vault Factory

Safe Vault Factory is a set of smart contracts that creates personal Safe Vaults. The Factory copies the original Safe Vault's on-chain logic, tracks every Safe Vault, and checks whether borrowers try to rent assets via the "certified" Safe Vault.

Creation of a Safe Vault

To create a Safe Vault, the user will need to connect their conventional wallets via Metamask. The conventional wallet is necessary to mark a Safe Vault's owner and is used to confirm transactions. To create a Safe Vault, a user needs to:

1. Connect any EOA (externally owned account).
2. Sign the transaction and wait until a Safe Vault is generated by the Factory.

WalletConnect and EIP1271

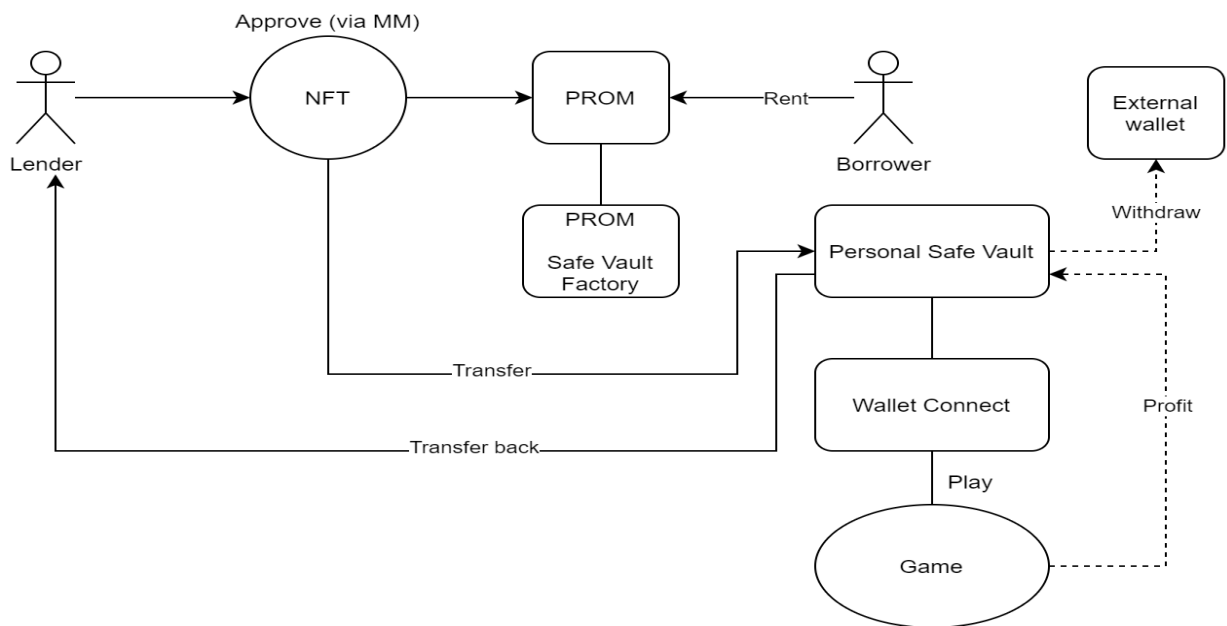
Though Prom does not require any integration with its own smart contracts, it has some specific requirements. Safe Vaults are smart contract-based wallets. Thus, they need a gateway to connect with the dApp. The easiest solution is WalletConnect.

A smart contract-based wallet connects with the game application. The difference is that most game applications use the `personal_sign` method to verify when an exact user owns a specified account. Thus, a private key is used to sign a message that may later be decoded via a public key to check whether a user actually owns the account.

However, smart contract-based wallets have no private keys. To solve this problem, Prom uses [Ethereum Improvement Proposal - 1271](#) (EIP1271), introduced by Ethereum Foundation back in 2018 and known as a standard signature verification method for contracts.

To sum up, to meet Prom's rental criteria, the game has to support WalletConnect (common in the industry) and EIP1271 if it is using the `personal_sign` method. However, the integration of EIP1271 is not complicated. All that is needed is to copy-paste a few lines of code.

Rentals



For a Lender

1. Connect your MetaMask to Prom Marketplace.
2. Select an NFT you would like to lend and create a rental offer or accept an existing one: specify the time period, payment type (flat fee or revenue sharing/pre or post payment), and payment currency.
3. Pre-approve your NFT via MetaMask wallet by the set-approval-for method.
4. Wait until your lending offer is accepted. If you have selected a prepayment type, you will receive it right after a borrower agrees to the offer.
5. When the rental period ends, the NFT will automatically be transferred back to your wallet.

For a Borrower

1. Connect your MetaMask to Prom Marketplace.
2. Navigate to the Safe Vault tab.
3. Create a Safe Vault.
4. Select an asset you would like to rent and confirm it by selecting your Safe Vault and signing the message.
5. The asset will be transferred directly to your Safe Vault.
6. Visit the dApp website and connect your Safe Vault via WalletConnect.
7. Use it as a normal wallet.
8. When the rental period ends, Prom Smart Contracts will automatically return the asset to the owner's wallet.

EIP4337

Safe Vaults are smart contract-based wallets that require the support of the 3rd party solution to ensure the stability of decentralized rentals. Their usage is not complicated. However, it makes users' experience less convenient.

[EIP-4337](#), presented by Vitalik Buterin, changes this. EIP-4337 is promoting smart contract-based wallets (as Prom's safe vaults) as a secure, reliable, and more convenient solution than ordinary wallets.

Once this proposal is accepted, it will lead to a wider adoption of smart contract-based wallets and help us to overcome current UX/UI flow requirements and other limitations.

Prom DAO

Many P2E projects claim that their DAOs are completely decentralized. However, in reality, holders don't influence the development of projects to the full extent. Meanwhile, thanks to the smart contracts, Prom community members will be able to vote in a completely decentralized and, equally as importantly, smooth way. For instance, they may choose which games to add to Prom Rental and which games to exclude. Meanwhile, they will be able to propose the platform's upgrades, such as better potential alternatives to Safe Vaults or aspects related to Prom's gas fees or AssemblyScript. Thus, our development will never stop.

The main distinctive feature of Prom DAO is that community members can submit their proposals as deployed smart contract addresses. Thus, every "routing" field may get a submitted proposal, a structure that includes a submission timestamp, amount of votes, and implementation status. Noteworthy, this structure is a mapping that may be found by the address-to-be-changed-to mapping, for instance, here:

```
function submitTradeListingAdditionProposal(address _collectionToAdd)
    public
{
    require(
        tradeListingAdditionProposal[_collectionToAdd].timestamp == 0,
        "already created"
    );
    tradeListingAdditionProposal[_collectionToAdd].timestamp = block
        .timestamp;
    emit TradeListingAdditionProposalSubmitted(_collectionToAdd);
}
```

These proposals are stored in special contracts. If over 20% of DAO members vote for their implementation within 14 days, the validation method field is available for calling. Calling the method will automatically implement the proposal. Thus, no third parties can intervene in the processes. Even Prom developers can't bypass the smart contract changes made by the community. For instance, cancel or correct them: only other successfully implemented proposals can influence the changes. Thus, Prom DAO is completely decentralized: we provide its members with secure mechanics, and they use them to channel the platform, and, surely, they can even stonewall the project if needed.

This system with the ActionValidator contract can be applied to change the allow-list addresses of NFTs presented at Prom Rental and Marketplace. Meanwhile, we consider that

changes made to ActionValidator can cause security issues. Thus, the community is recommended to vote carefully and consider 3rd party audits.

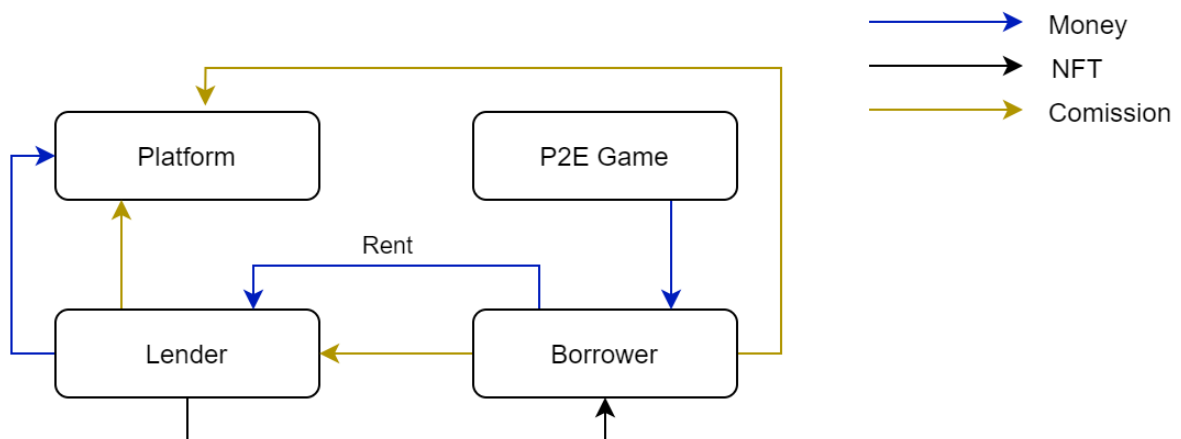
Other Functions

Bulk Transactions

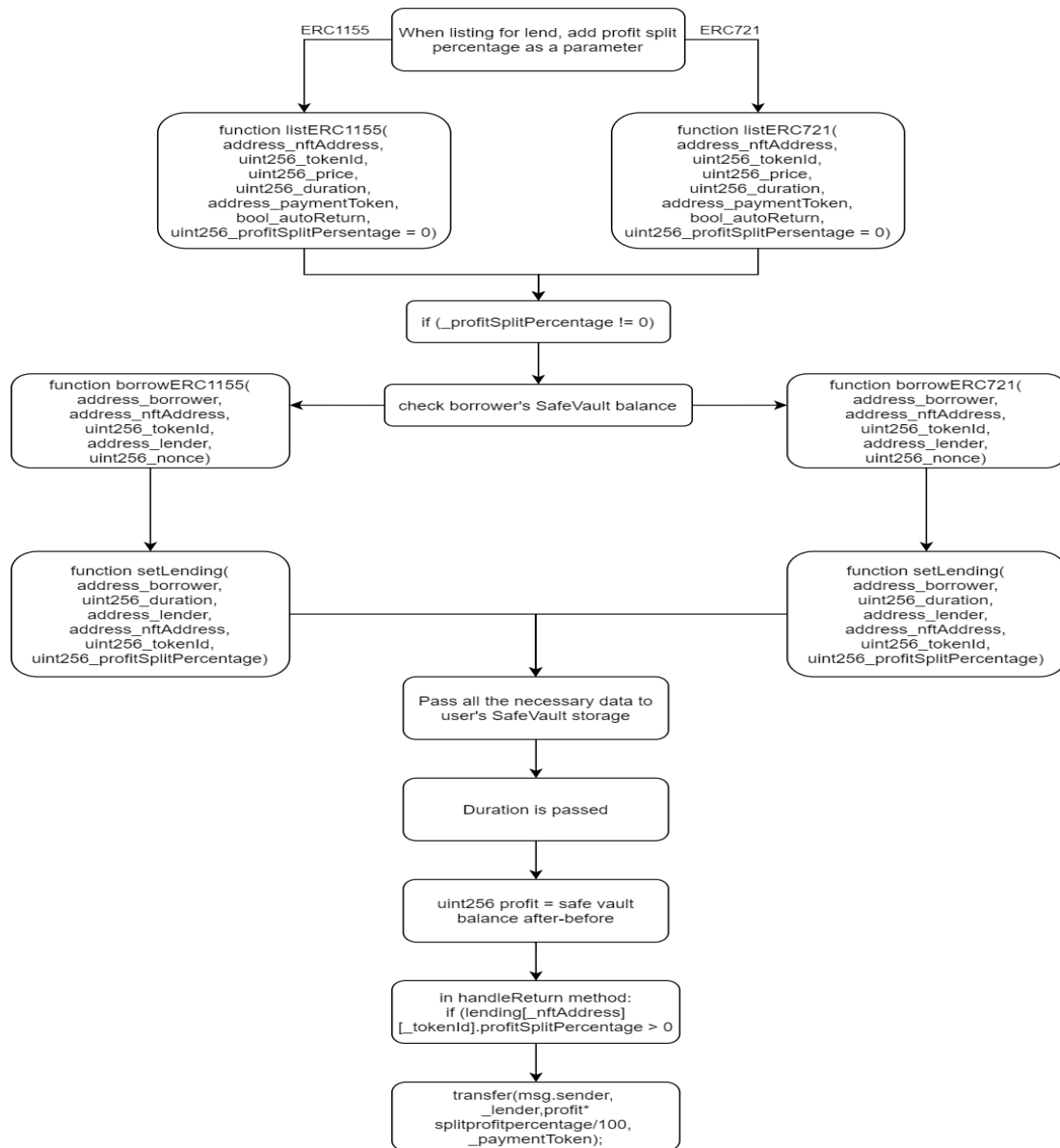
GameFi guilds and medium/large investors need to increase their efficiency. Now they process all their transactions manually and send NFTs separately. Meanwhile, Prom is fit for bulk transactions of NFTs for transfers, purchases, liquidations, and rentals.

Revenue Split

When posting lending offers, asset owners can choose the flat fee or revenue split payment method. Revenue split requires setting the desired proportions (for example, 30/70%). Thus, at the end of the rental period, we will estimate the generated revenue and split it between the lender and the borrower.



Technically, the distribution looks this way:



Corporate Solution

Prom's smart contracts are completely decentralized. Thus, we can monetize them by providing our clients with the opportunity to integrate them into their platforms.

For instance, games may benefit from our rentals: Prom's clients can connect to the platform via API building branded UI. Thus, their user will feel that they are renting inside the game, but all the blockchain transactions will be made via Prom.

Meanwhile, games can also integrate Prom Marketplace and build their own UI on top of it. In this case, Prom UI will duplicate connected marketplace order books, and all transactions will be processed via Prom contracts.

Fiat Integration

One of the most important things in crypto is to lower the technical barriers for end users. Thus, we've signed a contract with Binance Connect that will provide them with card purchases of NFTs and rentals with 0,5-1% fees per transaction.

Re-listing

The re-listing feature lets users automatically post the same lending offer after the previous rental period is over.

Referral Program

Referral programs are one of the best ways to increase the user base. To make the most of it, we offer from 10 to 50% fee kickback rates.

Counter Offers

Counter Offers help users reach a negotiated rental price. Borrowers and lenders can directly communicate via Prom to settle a deal on reasonable conditions.

Auctions

Asset owners can host "rental auctions" to collect potential borrow bids and rent their NFTs under the best conditions.

Premium Posting

To speed up the process of finding a borrower/lender/seller/buyer, we enable users to pin their offers to the top of the page for some compensation.

Cross-chain Support

Prom marketplace supports all EVM-comfortable chains (Ethereum, BSC, Polygon, Fantom, Avalanche, etc.) and Solana. However, the initial version will not support Solana rentals.

Extended Rentals

Lenders and borrowers can renew their rental agreements prior to the expiration of old ones.

Bundles and Starter Packs

Newcomers tend to have problems finding the initial set of assets needed to start. Thus, we have added the "Bundle" feature that will enable asset owners to lend or sell sets of NFTs.

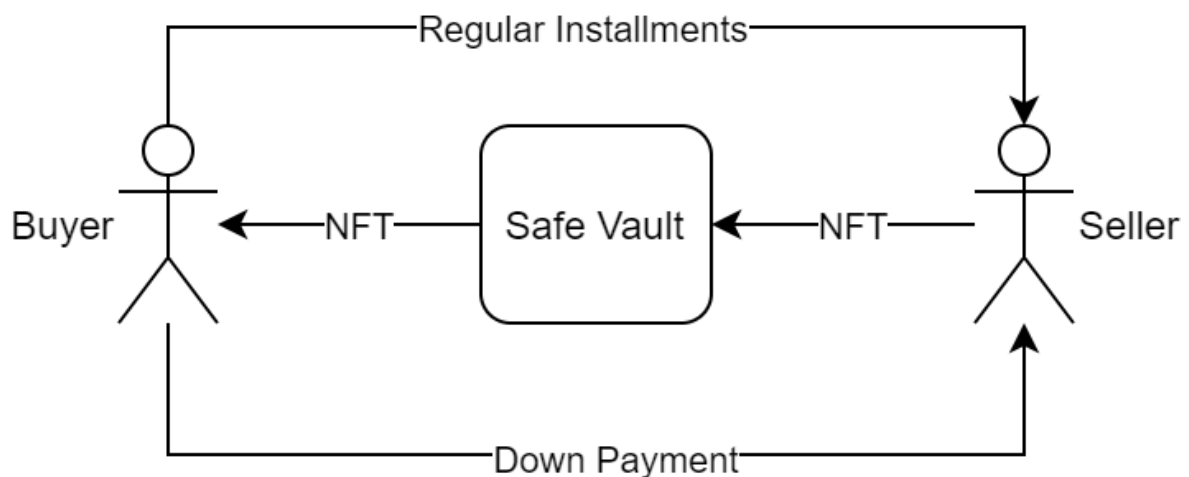
Education and E-sports

Prom aims to help Web2 gamers to migrate to Web3. We are working closely with e-sport teams to build an educational section.

Mortgages

We have not focused on this function because we aimed to release and test rentals first. However, with the adoption of GameFi and, especially, Metaverses, it can be a product growth point.

As Safe Vaults are programmatic wallets that follow predetermined conditions, we can apply this method to mortgages. Thus, users will be able to acquire expensive NFTs in regular installments.



Suppose a user wants to purchase some land to run a business, for instance, in Decentraland. In that case, they need to make an initial down payment of X% (depending on the evaluation of asset liquidity, price, etc.) and cover the rest in daily/weekly/monthly (or any other specified periods) installments.

Once the down payment has been transferred, a user will immediately receive land to their Safe Vault and will be able to use it. However, if they miss the regular payments, their mortgage will be liquidated, and the NFT will automatically be returned to the owner or the 3rd party.

Being a programmatic wallet, any Safe Vault can be customized, and literally, anything related to the mortgage can be included in the safe vault contract. For instance, such details as the acceptable delay, changing rates, restructuring, etc.

There can be two types of mortgages:

- P2P: a seller agrees to receive payments on a regular basis in exchange for some additional profit.
- Sponsored: a 3rd party will cover the remaining part for the seller, who will instantly receive the whole sum. Thus, the 3rd party will become a “loan owner”.

In the future, mortgages can become Prom's additional source of revenue.

Marketplace

Ongoing NFT marketplaces can be divided into two types. Each of them has its pros and cons.

The first one is an off-chain NFT marketplace. Users who want to sell/buy/list an NFT via such a platform have to sign a transaction that includes wallet address, collection address, token id, price, and duration with their private key. Contemporary cryptography enables everyone to decode the phrase using the owner's public key. Thus, the message will be stored in the database and shown on the front end. This approach helps listers avoid spending much on gas fees. However, the signed messages can be tracked by a backend and analyzed. This approach complicates the further aggregation and decreases the decentralization level.

The second type is an on-chain marketplace. With no “written statements” applied, users interact with smart contracts that store their listing in a dedicated data field on a blockchain. This data may be easily accessed by every user without decoding. Thus, such marketplaces may be accessed.

Prom marketplace will start as the on-chain type of marketplace. However, it may switch to the off-chain approach. The reasons for our choice are the following:

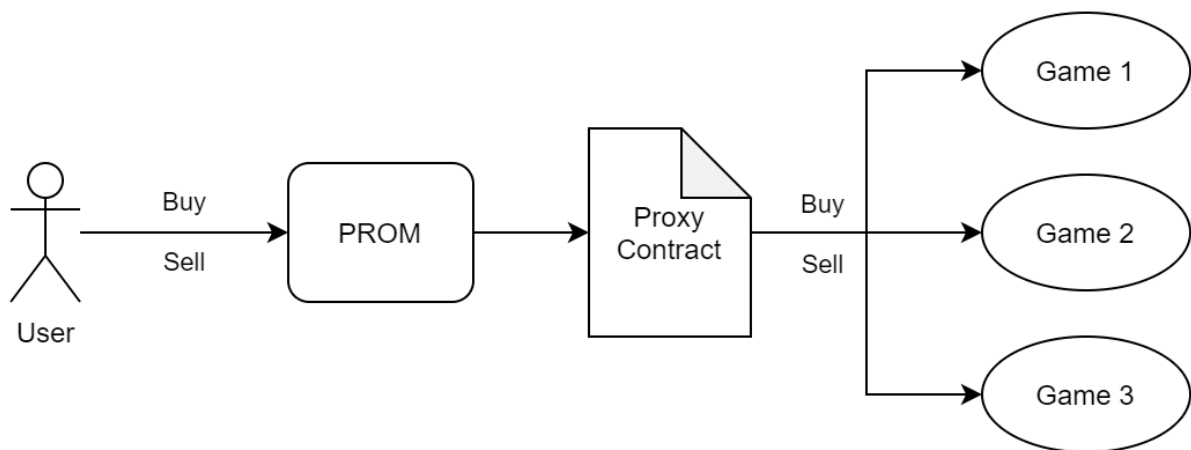
1. The development of off-chain marketplaces requires at least twice as much time, while we aim to release the product as soon as possible.
2. The main disadvantage of on-chain marketplaces is the listing fees. In comparison to ordinary transactions, they are not huge, but users will still have to pay for the listing.

Being a GameFi assets-focused marketplace, we have conducted research on the most popular networks. Usually, it's a layer 2 solution with lower fees than Ethereum.

3. We're trying to follow the decentralized approach. Thus, we have to do everything on-chain.
4. It's never too late to switch to the first option.

Prom marketplace consists of four main parts with different business models: an aggregator, an original marketplace, partnered marketplaces, and API marketplaces.

The Aggregator



Most existing games use on-chain types of marketplaces. Thus, we have created a proxy contract that will serve as a delivery agent on behalf of Prom users. Prom Proxy Contract plugs into the existing Game Marketplace and drains the order book, making it accessible via Prom Marketplace. When a user wants to purchase an asset and confirm it via MetaMask, our proxy contract emulates their activity, navigates to the original marketplace, and delivers an NFT to their wallet.

The Original Marketplace

This one is relatively simple and has the same approach as ongoing marketplaces. Basically, it includes buy/sell orders originally posted at Prom Marketplace. We are going to list in this category games that have no personal marketplaces and are traded via such collectible marketplaces as OpenSea.

Partnered Marketplaces

This is a subcategory of Prom aggregator created for games that have an off-chain marketplace. Using the endpoints, we can plug in their order books to Prom. Thus, games will get new users.

API Marketplaces

Being an infrastructure provider for GameFi, Prom enables its clients to use the code of its marketplace as a white-label solution. At the same time, all the transactions are processed by Prom's smart contracts. Meanwhile, Prom marketplace will also duplicate the order book of the game.

Growth Points

We want to add some additional options in the future, as such development suits the product and will help expand our user base. However, all of these options are currently at the design and research stage.

The NFT Launchpad

As we have mentioned before, Web2 companies have problems entering the world of Web3. The industry lacks platforms with initial NFT offerings that can attract more users. Meanwhile, in crypto, the issuance of a new asset is the best way of marketing, profitable both for the platform and the game.

However, the launchpad can ruin the platform's reputation if a hosted project doesn't show good performance. To avoid such cases, we will have strict selection criteria.

Currently, Prom Launchpad is aimed to be released within Q1 of next year, for we want to finish the development of the platform's core functions first. Besides, its launch will be technically more simplified than, for instance, its business development.

The Decentralized Exchange (DEX)

Players need a place where they can liquidate their earnings, so the decentralized exchange seems to be a perfect match for the platform. Prom decentralized exchange will be integrated into the main platform UI and only focus on GameFi tokens.

To filter spam, listings will be made via Prom Dao Vote.

We don't regard this feature as the main source of our revenues. Thus, we will not spend much development resources on it. There are plenty of options available in the open source.

ERC rentals

ERC rentals are another use case for Safe Vaults we would like to explore. The way Safe Vaults work for NFTs can be applied to any existing EVM-compatible chain tokens. For instance, such as BEP20 or ERC20. Thus, Safe Vaults can be used for margin trading.

Roadmap

We have already conducted huge market research and identified the industry's main needs. Next, we worked out the needed solutions and prioritized them to release the initial part of the product as soon as possible. Considering Prom's defined audience and our business model, we have decided to start with the core functionality that includes the rental and marketplace options. As we have already mentioned, such features are in high demand for they solve the leading industry's problems. Thus, they are to bring revenues that will enable Prom to keep on growing.

This September, Prom will have a complete landing placeholder, the main page, sell & buy NFT options, and filtration. Meanwhile, our plans for the near future include the development of such features as the check-out, basket, profile, compilations, wishlist, and rental functionality. To learn more and see exactly what we have already done, check our detailed [roadmap](#).

Team

Prom has been created by a team with impressive Web3 experience.

Total headcount: 29

General Management: 3

Technical: 6

Product: 4

Business Development: 5

Marketing: 7

Consultants: 4

General management

Iva Wisher: serial entrepreneur and crypto enthusiast. In crypto since early 2015.

Background: analytics and investment banking. Ex. 3 commas, VTB Capital. In 2021, built a prediction market startup later acquired by Animoca Brands.

Vladislav Semjonov: serial entrepreneur and crypto enthusiast. In crypto since early 2015. Background: law and business development. Ex. Block Rock Capital, Grindeks. In 2021, built a prediction market startup later acquired by Animoca Brands.

Nick Shershnev: product director, 1 year in Web3, 5 years in IT, 12 years in banking. Digital product of the year in the digital transformation area (according to the HSE/CDO summit in 2022). INSEAD program for CDO (Chief Digital Officers).

Product

Name: Olexandra Antonenko

Position: Senior product designer

Experience: 1 year in Web3; 7 years in IT

Previous companies: Carsfromwest, Dashcam, City 24

Name: Marina Dmitrieva

Position: Product designer

Experience: 1 year in Web3; 5 years in IT; 12 years in banking

Name: Artemii Pyankov

Position: Product designer

Experience: 2 years in IT; 2 years in Gaming

Previous companies: AlexCo, LC.Digital

Name: Maria Favorova

Position: Senior UX-researcher

Experience: 1 year in Web3; 7 years in IT

Previous companies: Vimpelcom, Rabota.ru

Technical

Name: Georgy Skryuchenkov

Position: Full Stack Blockchain & Front-end developer

Experience: 4 years in Web3; 8 years in IT

Name: Aleksei Dmitriev

Position: Senior Full Stack software developer (front-end & blockchain)

Experience: 5 years in Web3; 9 years in IT

Name: Max Valenko

Position: Senior Full Stack software developer (front-end)

Experience: 3 years in Web3; 10 years in IT

Name: Viacheslav Kruglov

Position: Senior Full Stack software developer (back-end)

Experience: 1 year in Web3; 11 years in IT

Name: Ivan Timoshenko

Position: Senior Full Stack software developer (back-end)

Experience: 1 year in Web3; 10 years in IT

Name: Vladislav Ugarov

Position: Senior QA engineer

Experience: 1 year in Web 3; 5 years in IT

Business Development

Name: Dmytro Larikov

Position: Head of BD

Experience: 5 years in Web3

Name: Fotis Sach

Position: BD manager

Experience: 3 years in Web3; 7 years in IT

Name: Esko Koivula

Position: BD manager

Experience: 3 years in Web3

Name: Mike Nikolaev

Position: BD manager

Experience: 3 years in Web3; 3 years in IT

Previous companies: V6 services, Startup lab

Name: Leonid Sagaydachniy

Position: Research

Experience: 2 years in Web3; 3 years in Analytics

Previous companies: V6 services, Auchan, Danone

Marketing

Name: Max Kan

Position: Marketing manager

Experience: 1 year in Web3; 2 years in IT

Previous companies: KamaGames

Name: Thomas Lowers

Position: Copywriter

Experience: 15 years in education; 10 years in marketing

Previous companies: Saint Petersburg State University, Bank of America, iMotors.com

Name: Dmitry Grebeniuk

Position: Marketing director

Experience: 2 years in Web3; 10 years in IT marketing

Previous companies: Textime, DoubleV, Aquarelle

Name: Margarita Sapozhnikova

Position: Marketing manager

Experience: 1 year in Web3; 3 years in marketing

Previous companies: British American Tobacco, MILK Creative Agency

Name: Darya Sobol

Position: Graphic Designer

Experience: 1 year in IT

Previous companies: SMM Malbert.Digital

Anastasia Ostapenko

Position: Copywriter

Experience: 5 years in WEB3; 5 years in writing

Previous companies: Forklog, Forbes

Name: Ilyaz Velemeev

Position: Vital marketing manager

Experience: 1 year in Web3; 2 years in Marketing

Previous companies: Youtube/Twitch — content creator

Consultants

Alex Svysiuk — E-sports player

Oleksii Trushliakov — E-sports columnist

Dmitriy Scheglov — Head of Design, Revolut

Vasiliy Shapovalov — CTO, Lido, P2P validators

Alternatives and Competitors

GameFi has proven to be a financially beneficial industry. Thus, it keeps on growing, getting more complex, and attracting more visionaries and crypto enthusiasts. As a result, more and more companies are entering the market, and the competition is growing to boost the development of the whole industry and speed up the launch of such projects as Prom.

To make Prom a unique all-in-one solution, we have thoroughly studied all its potential competitors and defined their strengths and weaknesses. To clarify them, we will highlight how they work with a focus on different rental approaches, especially from the technical standpoint.

General

Below you can read a brief description of GameFi and NFT key players.

	Marketplace	Gaming oriented	Rental solution	One-click access to NFT management	Gaming launchpad
Opensea	+	-	-	+	-
Rarible	+	-	-	+	-
Magic Eden	+	+	-	+	+
Altura	+	+	-	-	-
ReNFT	-	-	+	-	-
Vera	-	-	+	-	-
NFT Games	+/-	+	+/-	-	-
Prom	+	+	+	+	+

[Here](#) you can check the detailed comparison.

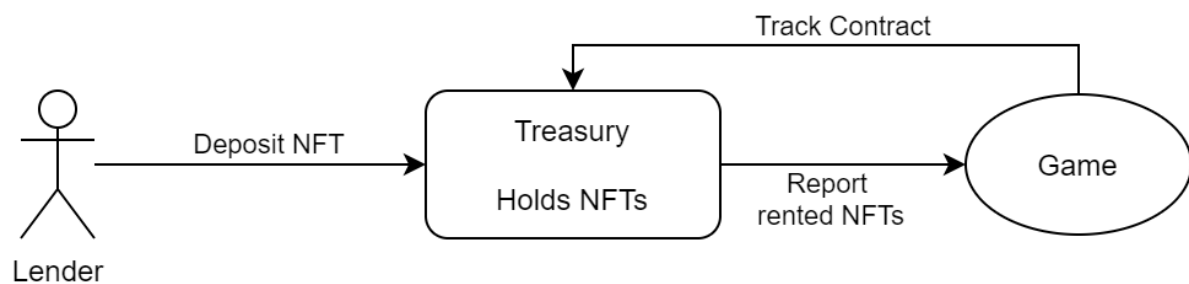
Collateralized Rentals

Collateralized rentals have been around for a while. However, the majority of the GameFi audience doesn't want to invest or risk money via such platforms, for users either do not believe in their security (relevant for gamers coming from Web2) or lack capital. As a result,

collateralized rentals have not been adopted, and probably will not be, because more efficient solutions are to be released soon.

Representatives: NFTfi, Kyoko, and Rentfuse.

Centralized Vault



This is the most simple and simultaneously complicated workaround. Original NFT holders transfer assets to a centralized vault (smart contract) that will update its fields and track renters. To understand if a user, who is trying to interact with their dApp, has assets, the service needs to read the fields of a vault. It can be done via:

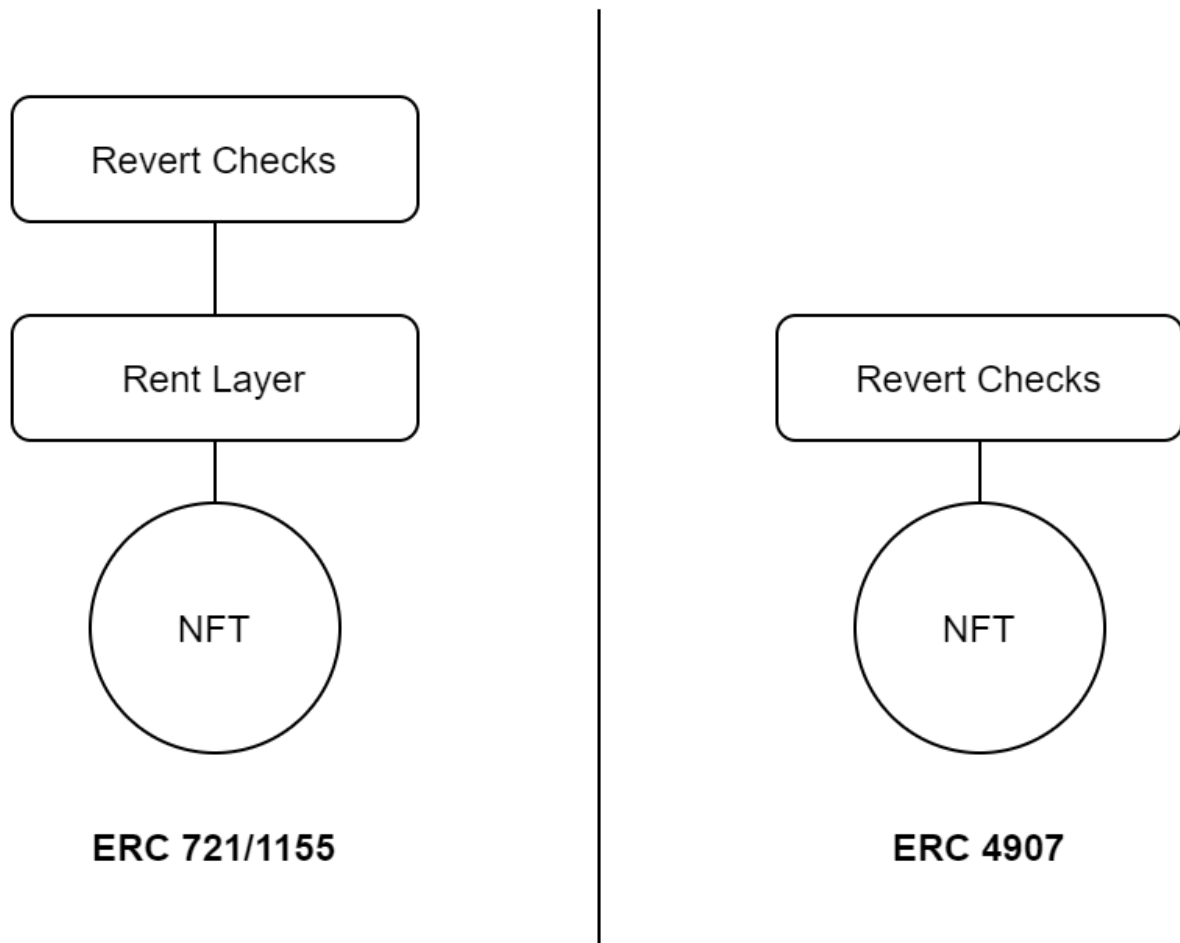
- Balance Check.
- Interaction with 3rd party smart contracts.

Thus, to read the data and perform according to it, a dApp has to change its structure radically, expensively, and with the following risks:

- Security: platform stores user funds.
- Integration: complex integration on the game side.
- Spendings: additional subgraph expenses to track the contract.
- Centralization: direct management of rental agreements.

Representatives: Re-Nft.

ERC (EIP) 4907



The newly accepted EIP brings in a new standard for NFTs. From now on, platforms that want rental solutions may have reliable code written right in their NFTs. Their dApp doesn't have to follow some sketchy ABI as it can use the standard one that accelerates further development.

However, this approach doesn't make any significant change to games. Any additional logic must still be developed and passed through audits. The acceptance of the current proposal saved only about 3-4 development hours for DAOs.

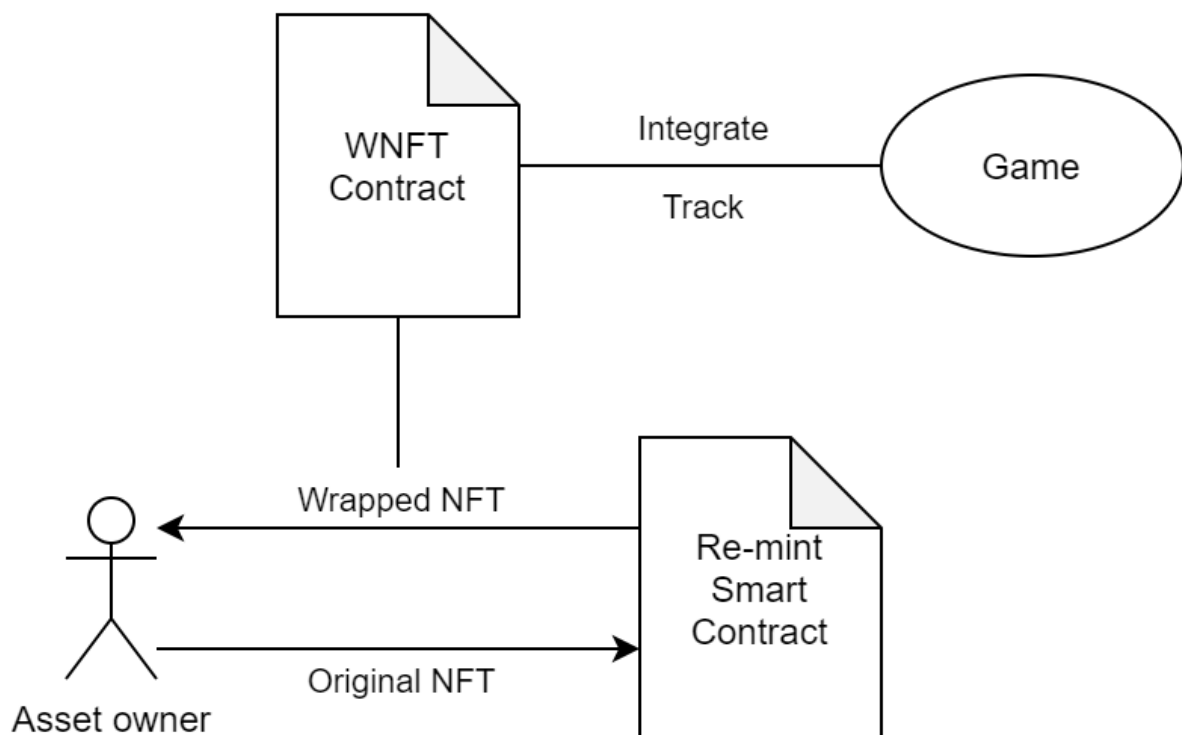
If the platform never started, it's best to use that EIP as a base for rental. However, for such cases as SandBox or CryptoBlades, where DAO has 2.5M of already existing NFTs, it's impossible to re-mint or redeploy them. Thus, such a solution can't work.

However, the ABI is not as tricky as the revert check that enables games to identify transaction types and prevent attempts to transfer the rented assets. Such checks require the most development time, while ABI takes just a couple of hours. Moreover, those revert checks must be done by every game individually, so it will be just a bit faster than developing one's own scholarship system.

Meanwhile, if Prom aggregates someone else's rentals, it doesn't look through every NFT collection. Thus, we save 6-8 hours per every aggregated rental marketplace added to our list in case NFT collection implements that EIP. In a word, this approach:

- Can't be applied to existing tokens in the majority of cases.
- Still requires complex integration on the game side.
- Revert checks are needed.
- Can be integrated by Prom Rentals.

Wrapped NFTs



Asset owners send their NFTs to a re-mint contract that issues a wrapped version of assets with rental under the hood. The game has to implement and track the wrapped NFT contract alongside the original one.

More or less, this way looks completely the same as the previous one, but with one additional step. You can treat wNFTs the same way as ERC4907 because it's an exchange of ERC 721/1155 to ERC4907. Thus, this renting method faces the same problem as the previous one.

The first thing that comes to mind would be to remind the whole collection with the inserted rental system in it and, let's say, add EIP4907 and change the dApp so that it could validate the data coming from the rental fields in the NFT.

However, if you have, for instance, 25M minted assets, the amount of gas money wasted on it will be scary until these gas costs are distributed among all users. In this case, however, you still have to change your dApp and conduct revert checks to track the information provided by fields on the NFT. To conclude, this is not efficient because:

- The whole collection remind leads to enormous gas spending.
- Complex integration on the game side.
- Can be easily aggregated by Prom rentals.
- Additional gas expenses for the game to track the second contract.
- Revert checks are needed.

Representatives: Oiler, UnitBox, Double Protocol.

Overview

	Prom Safe Vaults	Escrow Contract	Wrapped NFTs	EIP-4907
Integration	No	Yes	Yes	Yes
Gas consumption	Low	High	High	Low

Aggregation of other rentals	Yes	No	No	No
Revert Checks	On Vault side	On game side	On game side	On game side
Decentralization level	High	Low	High	High
Asset custody	Decentralized	Centralized	Decentralized	Decentralized

We have studied our competitors and defined that Prom differs from them in terms of security, methodology, and utility.

Security

Prom stands for the on-chain approach. Thus, we store anything on contracts. Contrary to this, the platform works as a completely decentralized technology provider for direct communication between a borrower and a lender. Thus, Prom can't intervene in any users' actions. Meanwhile, it doesn't keep any personal data on central servers. So no individual information can be hacked. Consequently, Prom is more secure than many alternatives, with this security boosted by Safe Vaults.

Methodology

Already unique thanks to Safe Vaults, Prom is also the only rental able to aggregate other rental solutions in real-time mode. Thus, this platform is mutually beneficial for games that are likely to expand their audience and players who will be able to borrow the freshest NFTs.

Utility

In terms of simplicity, Prom can be adopted by any game, any time, without any specific knowledge required. For instance, unlike most rental options, Prom does not require any integration with its contracts on the game side other than the requirement of WalletConnect/EIP1271). Meanwhile, unlike other rentals, designed by gamers for gamers, Prom has fit UX and UI.

As for its financial attractiveness, Prom looks like a more profitable option than most platforms, thanks to comparatively low gas fees. Additionally, all revert checks are conducted by Prom. Thus, games' resources are saved and can be used for the projects' development.

Business

Go to Market

Currently, we have numerous competitors who are in the development stage. Thus, to get the biggest market share, we need to release the initial version of the platform as soon as possible.

As we have already said, we will start with the marketplace because this option is more habitual for users. Thus, it will help us to reach and build the initial audience. Next, we will be successively adding other features to the platform and attracting more users with the help of our fee policy, collaborations with games, vampire attacks, special conditions for guilds, referral programs, and marketing events. Let's briefly explore each strategy.

Fee Policy

Prom is a sustainable company. Thus, we are looking to subsidize the fees 6 months after the release. This approach will enable us to compete with other solutions and successfully onboard initial partners and users.

Collaboration with Games

One of the best ways to attract gamers is to cooperate with games and convert their players to Prom users. To nail this strategy, we offer various mutually beneficial co-marketing and product activities with fee kickbacks for rentals and royalties without platform fees for the marketplace.

Vampire Attacks and Airdrops

As Looks Rare has shown, airdrops are one of the best ways to attract an initial audience. However, this approach leads to unpleasant results, such as additional price pressure on the token. Thus, we seek more secure alternatives such as these two event types:

1. Marketplace Vampire Attacks. For example, we can enable login to Prom using the Steam account and record the number of hours in games. Depending on that, we will distribute \$PROM tokens to participants. This event will encourage Web2 users to migrate to Web3. Tokens distributed during the vampire attack won't be available for withdrawal and can only be used as a payment method for platform fees. Basically, this approach will help us monetize the platform in advance.

2. Game airdrops. Some games have insanely high trading fees. For example, STEPEN charges its users an 8% transaction fee. We will be listing games with high internal marketplace fees and attracting their users to trade via \$PROM airdrops that can only be used to cover the trading fees.

Conditions for Guilds

Our approach to the ongoing model of guilds has been pretty skeptical. We assume that it will be transformed into an esports organization. Thus, we understand that they should be attracted as soon as possible. That's why we've integrated our solution with the APIs to the guild management tools such as Blockchain Space and Tavern.

Besides, we offer them a 0% fee policy for the first 6 months after release and reduced fees thereafter.

Referral Programs

To broaden our audience, we aim to start a referral program where users will be rewarded with \$PROM tokens for inviting friends.

Marketing Events

We believe the best way to attract gamers' audiences and foster customer loyalty is to communicate with them. For instance, Axie Infinity has proven the efficiency of live streams. Thus, we are looking forward to hosting weekly sessions with the team and inviting guests to talk with the community and users.

Besides, Prom has already joined the recently formed OMA3 DAO launched by Animoca Brands to support the development of GameFi. Prom is also a member of Blockchain Game Alliance which unites key GameFi players and helps them to promote themselves.

Business model/Monetization

Prom has numerous sources of monetization that may be classified as the main ones that will be introduced soon, the ones to be launched later, and extras.

The Main Sources

The Marketplace

- Aggregator — on-chain marketplaces: a 0,75% trading fee per transaction. Off-chain marketplaces: a 0,75-1,5% trading fee per transaction (depending on royalties).

- Original marketplace: a seller pays a 2% trading fee per transaction.
- API connected marketplaces: a 0,75-1,5% trading fee per transaction (depending on royalties).

Rental: 5% fee from the lender.

Mortgages: 5% fee from the interest rate.

To Be Added

Launchpad: 5-15% fundraising fee (depending on terms).

Decentralized exchange: 0,2% transaction fee, where 0,15% is transferred to LPs, and 0,05% to the company.

Extras

Fiat payments: 0,5% transaction fees.

Premium posting: from \$3 to \$1,000, depending on the type of the deal, price of the asset, and user base.

Value Proposition

As we have already stated in the Market Research, being a unique all-in-one GameFi platform, Prom solves the problems of players, lenders, guilds, and games. Plus, it boosts market competition among similar projects and games.

Competitive Power

Being a visionary on the GameFi market with a fully decentralized DAO, Prom is likely to set new standards for similar projects. At the same time, by aggregating games, Prom contributes to the competition among projects that, to save the day, may either switch their agenda to the Next Gen or work on their technologies and marketing.

Utility

To begin with, Prom is the only GameFi all-in-one option with detailed search filters. Additionally, it is the only aggregator that is automatically renewed. Thus, games expand their audiences, and players don't miss legit options.

Accessibility

Thanks to Prom's rental, players get the adequate threshold to enter gaming without financial risks or impressive investments. Thus, GameFi becomes more accessible to people

from developing countries with high unemployment rates. As a result, the platform contributes to solving a significant social issue and expands the Web3 audience.

Security

Thanks to the smart contracts used and absolute decentralization, Prom guarantees its users, from solo players to guilds and game projects, complete security.

Expertise

Prom has a comfortable and Steam-like UX suitable for introducing Web2 gamers to GameFi. However, another key aspect of its efficiency for NFT gaming beginners is the gamer's expertise used to create and upgrade the platform. Additionally, Prom provides its users with vital tips and guides.

Guild Relations

Guilds are Prom's main corporate clients. Thus, we aim to provide them with a smooth experience.

- The easiest way to reach out to guilds is the native integration with guild management platforms such as Blockchain Space and Tavern. We have already confirmed our cooperative integration roadmap and moved forward.
- We provide guilds with special fee rates (0% at the beginning).
- We're looking forward to developing/integrating corporate management tools that will enable guilds to track their scholars inside the Prom UI.
- We're going to host co-marketing events where guilds will recruit more scholars.
- We make bulk purchases/liquidations/rentals real.
- Prom Foundation covers free trial periods to provide guilds with estimated revenues.

PROM zkEVM

Overview

Prom zkEVM represents a significant advancement in Ethereum Layer 2 scalability solutions, utilizing the innovative approach of zero-knowledge proofs. These cryptographic proofs play a pivotal role in ensuring the authenticity and efficiency of transactions conducted off-chain through ZK-Rollup technology.

Key Features of Prom zkEVM

- **EVM-Equivalence:** Guarantees seamless operation and integration of existing Ethereum smart contracts, wallets, and tools on Prom zkEVM, making the transition easier for Ethereum developers and users.
- **Inherited Security from Ethereum:** Prom zkEVM retains the core security attributes of Ethereum, ensuring robust and reliable operations.
- **Cost-Efficiency and Enhanced Finality:** Offers a significant reduction in transaction costs compared to Ethereum Layer 1, with better finality than other Layer 2 solutions.
- **ZKP-Powered Scalability:** Employs Zero-Knowledge Proofs to achieve high throughput, improving the network's capacity for handling transactions efficiently.
- **PROM as Native Token:** The PROM token, integral to transaction processing and various functionalities within the Prom ecosystem, underscores its importance as the native currency of Prom zkEVM.

Gas Fee Reduction Expectations with Prom zkEVM

Users can anticipate a considerable decrease in gas fees relative to Ethereum Layer 1, thanks to Prom's Layer 2 protocols. These protocols batch multiple transactions, effectively distributing the cost of a single Layer 1 transaction over numerous Layer 2 transactions, further underscoring the utility of the PROM token.

ZkRollups Operations

zkRollups consolidate a large number of transactions into a batch, validating them on the Ethereum network through a single zero-knowledge validity proof. This process not only ensures the efficiency and security of transactions but also plays a crucial role in the utilization of the PROM token within the Prom zkEVM framework.

Technical Insights

zkEVM Unfair Advantages

Prom zkEVM emerges as a trailblazer in the realm of zero-knowledge scaling solutions, owing to the cutting-edge advancements achieved by Prom Labs. The full EVM equivalence, coupled with outstanding performance in terms of throughput, latency, and cost, distinguishes Prom zkEVM from other Layer 1 solutions, optimistic rollups, and ZK-Rollups.

Prom zkEVM's Comparative Edge Over Other zkEVMs

Referencing Vitalik Buterin's neutral analysis, Prom zkEVM distinguishes itself with its efficient zkProver and its remarkable fidelity to Ethereum's operations.

Token Utilization and dApp Deployment

The PROM token is pivotal in Prom zkEVM, and unlike having a necessity of being used as an ERC20 token as a gas fees token and enabling Account Abstraction via ERC-4337 - it may be used as one from the beginning. Prom zkEVM facilitates the deployment of a wide range of dApps, particularly those that are EVM-compatible, thereby expanding the scope of applications and use-cases where the PROM token can be employed.

Cross-Chain Interactions and Use Cases

Currently, Prom zkEVM does not support direct cross-chain functionalities. However, future plans include enabling asset transfers across various Layer 2 networks, further increasing the prominence of the PROM token in cross-chain transactions. Prominent use cases for Prom zkEVM include DeFi applications, NFT, GameFi, enterprise applications, and payments, all of which benefit from low gas fees, high transaction speed, and robust security - aspects that are enhanced by the utilization of the PROM token.

Architecture and Functionality

Transaction Processing and Sequencer Operations

Prom zkEVM utilizes a unique approach to transaction processing. Users generate and sign transactions using their wallets, which are then sent to the Trusted Sequencer's node. The Trusted Sequencer plays a crucial role in selecting and

ordering transactions, further batching them for efficiency. This process highlights the importance of the PROM token in transaction processing within the Prom zkEVM ecosystem.

Finalization Stages of Transactions

Transactions in Prom zkEVM undergo several stages of finalization, starting with the Trusted State provided by the Sequencer and culminating in the Verified State where funds become withdrawable. These stages underscore the reliability and security of transactions in the Prom zkEVM, with the PROM token serving as a fundamental element in these operations.

Sequencer and Prover Roles

The Sequencer and Prover in Prom zkEVM initially operate in a centralized manner, with plans to transition towards decentralization. This transition is key to ensuring the long-term stability and trustworthiness of the network. The decentralization of these roles is expected to enhance the overall utility and acceptance of the PROM token, as it brings greater transparency and fairness to the transaction validation process.

Emergency Protocols and Security Measures

Prom zkEVM incorporates measures like Forced Batches and the activation of an Emergency State to ensure uninterrupted service and security. These measures are vital in maintaining the integrity of the network and the value of the PROM token. The Security Council, comprising esteemed Ethereum developers and researchers, plays a pivotal role in overseeing the network's security, especially during the initial phases of the zkEVM.

Note:

As Prom chain is currently under development - the technicalities described above are still subject to minor changes.