

A PLAY-TO-Earn Gaming Ecosystem



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1 INTRODUCTION

The economy for play-to-earn blockchain games is growing at an exponential rate. Nakamoto Games will build a first-of-its-kind ecosystem that provides a seamless experience for gamers and developers looking to participate in the lucrative opportunities present in play-to-earn. The Nakamoto Games whitepaper provides insights into the current market for online games and the growing relevance of blockchain and play-to-earn games. The paper also detail the gaps in the play-to-earn makret and how Nakamoto Games will address these gaps. The vastly experienced team behind Nakamoto Games is building a cutting-edge solution that is underpinned by a carefully considered tech stack. The solution will address the key gaps in the current play-to-earn ecosystem and the team has outlined a realistic roadmap to gradually build and deploy this solution to the market. The NAKA token will play a critical role in the Nakamoto Games platform and this paper will also detail the economics and role of this token.

2 MARKET RESEARCH

Valued at over <u>\$300 billion</u>, online gaming is the fastest growing industry in the entertainment world, outpacing the markets for both music and movies. Over 500 million new gamers were onboarded in the past three years as the share of netizens that participate in gaming continues to grow. Blockchain gaming is also capturing a growing share of the online gaming market and this trend has accelerated with the emergence of play-to-earn games. However, the current ecosystem is not void of limitations with significant gaps in the current play-to-earn market.

2.1 ONLINE GAMING

The origins of online gaming date back to <u>1980</u>. Two undergraduates in the University of Essex launched a fantasy adventure game called multi-user dungeon (MUD) that allowed people from outside the college to connect and play. Since then, the tech infrastructure supporting online gaming has radically improved, giving rise to more enhanced and immersive user experiences. Moreover, the industry has continued to see an exponential growth in its user base.





The top three online games — <u>PlayerUnknown's Battlegrounds (PUBG)</u>, <u>Counter Strike</u> and <u>Dota 2</u> — have a combined 100+ million monthly active players. Counter Strike alone had 700k active players at the time of writing, with over 370 million hours spent on the game in the past 30 days.



Online gaming has also evolved into an extremely lucrative industry with users spending decabillions on ingame experiences and assets. In 2020, gamers spent over \$54 billion purchasing in-game items. This is anticipated to grow to over \$74 billion by 2025.





The top five online gaming companies are Tencent, Sony, Apple, Microsoft, and Google. These companies alone <u>generated \$20 billion</u> in revenue in the last quarter of 2020, with the next five companies (NetEase, Nintendo, Activision Blizzard, Electronic Arts, and Bandai Namco) managing roughly half the amount during the same period. There is no indication that things are slowing down as investors continue to bet big on emerging online gaming companies.

In the first half of 2021 alone, total investment into companies in the online gaming sector <u>\$32.7 billion</u>, roughly four times the amount over the same period in 2020. Blockchain and crypto-based gaming contributed to 9% of the total value raised, a significant portion given the nascency of blockchain technology.

2.2 BLOCKCHAIN-BASED GAMING

Blockchain-based gaming refers to online games that run on the blockchain or adopt the underlying technology to improve the gaming experience. Blockchain offers several enticing properties to the gaming industry:

- Decentralized ownership of in-game assets: Gamers are spending <u>billions of dollars</u> in purchasing virtual goods that enrich their experience. However, they do not truly own most of these assets as they are issued and managed by the game's developer. Using blockchain technology to create in-game assets gives gamers a greater degree of control, allowing them to transfer, auction, or trade in a decentralized manner.
- Permissionless transfer and use: Most in-game assets are confined to the particular game for which they're created, forcing users to create black markets for trading these goods. In a <u>survey</u>, 62% of gamers noted that they'd be more open to purchasing virtual goods if they could use them across different games while 84% of developers said they'd create such items if there was technology to do so. Blockchain technology facilitates such creation and allows gamers to easily transfer their assets across the underlying network.
- Investing: Rather than being only spenders, blockchain gaming incentivizes gamers to invest in in-game assets and tokens that are likely to accrue value overtime. In recent years, the <u>top five gaming-focused</u> cryptocurrencies and most of their in-game assets have continued to rise in value.

As a result of these enticing properties, blockchain gaming companies are catching up with their mainstream counterparts. In the first half of 2021, blockchain gaming startups raised \$476 million, roughly 9% of the total money invested in gaming companies. The three largest raisers — Forte (\$185 million), Animoca Brands (\$89 million), and Mythical Games (\$75 million) — give evidence that investors are willing to bet on a future where blockchain gaming becomes increasingly adopted.



As it stands, the most widely adopted blockchain games are <u>The Sandbox Evolution</u> and <u>Axie Infinity</u>, which have both reported at least 1 million active daily players in certain instances. Other games, such as Alien Worlds, have secured user bases in the hundreds of thousands. These games highlight that blockchain-based games can attract user bases that compete with those in the mainstream. General interest in blockchain-based gaming has also been rising. Over the past 12 months, search volume and interest for "blockchain games" have risen by 300-400%.



Google Trends search volume the term "Blockchain games" (Source: Google Trends)



2.3 PLAY-TO-EARN (P2E)

A growing number of blockchain-based games allow players to compete for in-game assets that can later be transferred into real world value. This has allowed for the emergence of virtual economies where users participate in gaming activities to generate real world income. This trend has received significant traction in Southeast Asia particularly. Many have turned to play-to-earn (P2E) gaming as a viable income source after <u>COVID-19 impacted their earning capacity</u>. The play-to-earn movement has gained such traction that some governments are planning to create taxation schemes for play-to-earn game developers and players.

Axie Infinity is currently the industry leading P2E game and was responsible for much of the growth in Southeast Asia. The game allows users to breed cute creatures called Axies, which can in turn be used to battle other Axies or compete in quests for rewards in the form of in-game tokens and assets. At this time, Axie infinity boasts at least 250,000 daily active users, and a significant portion of that uptick has taken place in the past year.





⁽Source: Consensys.net)

While there are up to <u>220 million cryptocurrency users</u> globally, there are fewer than <u>10 million gamers</u> within the play-to-earn ecosystem. However, both users and interest has been exponentially growing. In July, there were over 40,000 searches for the term "play-to-earn crypto games", an over 300% increase from the previous month. Despite the surge in interest, the play-to-earn industry is still in its nascent stages and significant gaps remain in the market.









2.4. PLAY-TO-EARN SHORTCOMINGS

The play-to-earn ecosystem remains at a rudimentary stage of development. Gaming options are fragmented and only relevant to a limited audience. There is no platform that offers a broad array of play-to-earn gaming options. This section details some of the key gaps in the play-to-earn market.

Limited options – The current play-to-earn gaming options are limited and relevant to only niche audiences. Games like CryptoKitties and Axie Infinity will only appeal to those with an affinity for collecting tokens representing cute creatures. The optionality in the play-to-earn industry is far behind the optionality in the mainstream gaming industry. In the mainstream gaming industry, there is a significant market for enterprises who offer a broad suite of gaming options.

Fragmented ecosystem – Play-to-earn games are currently fragmented across different blockchains. For instance, Axie Infinity runs on Ronin (an Ethereum sidechain), The Sandbox Evolution is on the Ethereum mainnet, and CryptoBlades runs on the Binance Smart Chain. This fragmented ecosystem forces users to switch between different chains to access their favorite play-to-earn games. It also forces users to hold the native assets of different chains and applications if they wish to have broad optionality. This is extremely inconvenient for blockchain gamers and they will often face high costs through the storage, usage, and conversion of such assets. Having a single ecosystem where players can find a variety of games will improve engagement, user experience, and reduce costs.

Lack of developer support – The complex nature of blockchain games mean that both crypto-focused and traditional developers require extensive support to safely create and deploy decentralized applications. There are few tools available to such developers to help them safely build and deploy such applications. After development, there is no place that they can deploy their games to an already established audience. They must launch their games into a widely competitive market.





3 NAKAMOTO GAMES SOLUTION

Nakamoto Games is building a first-of-its kind ecosystem around earn-to-play blockchain games. The solution provides a lucrative environment for both gamers and developers, allowing them to tap into the vast opportunities present in the play-to-earn industry. The solution provides players with unprecedented optionality in terms of cutting-edge play-to-earn gaming options. Developers receive the tools necessary to build and deploy their own play-to-earn games.

3.1 INTRODUCING NAKAMOTO GAMES

Nakamoto Games is introducing a versatile blockchain-based gaming platform that will give gamers unprecedented optionality in the field of play-to-earn. As it stands, blockchain-based gaming and play-toearn is extremely fragmented with gaming options having vastly different tech stacks and being spread among different chains. Few games have succeeded in achieving significant user bases. Nakamoto Games is positioning itself to be a one-stop-shop for cutting-edge play-to-earn crypto gaming options. Players will be able to choose from a sublime suite of games while developers can deploy games to an already established user base. Developers will be working from a software development kit (SDK) which will be released in Q1 of 2022. The SDK will ensure that a common standard is maintained among the games available in the Nakamoto Games store.

Nakamoto Games is an ecosystem that plays a role similar to that of the Google Play Store or App Store for mobile applications. Even the most successful mobile applications will only be appealable to limited audiences whereas the Google Play Store and App Store will always remain relevant as they act as the gateway to countless mobile application options. Similarly, Nakamoto Games will act as the gateway to a myriad of play-to-earn gaming options. By providing such broad optionality, Nakamoto Games expands its relevant audience to all blockchain-based gamers, a population which has been growing exponentially over recent years.

In addition to giving developers the opportunity to build and deploy their own play-to-earn creations, Nakamoto Games also has a team dedicated to building their own suite of cutting-edge play-to-earn games. The vast experience of the team in the gaming industry will be covered in section five. Nakamoto Games has several play-to-earn games in the pipeline over the next year. A shooting-based game Duck Hunter will be the inaugural release in the Nakamoto Games play-to-earn selection. Duck Hunter allows gamers to compete for lucrative rewards in a hunting-based game. Rewards will be immediately distributed to players after each game. The tokenomics section further details this process.



Each of the artwork elements that are utilized in the games will be designed and developed inhouse. Once the independent artwork elements are designed, the developers will tie them together to create a dynamic gaming experience.





Nakamoto Games will be underpinned by the Polygon Network, a high-throughput low-fee network that has attracted a growing number of decentralized applications. The ReactJS framework is used for the frontend of the platform. The NodeJS framework will be used for the backend. Unity will be used for game development. In terms of blockchain development, Solidity will be used to develop any smart contracts associated with gaming activities and payouts. TheGraph and Oracle solutions will be used to interact with external data sources and third-party applications. Nakamoto Games has partnered with several deeply experienced enterprises in the cryptocurrency industry such as Synapse Network, VYSYN Ventures, and X21. These enterprises will help ensure that all of the tech underpinning the Nakamoto Games platform is thoroughly secure and optimized for speed and performance.

3.2 NAKA TOKENOMICS

The NAKA token will play an integral role in the Nakamoto Games ecosystem. NAKA tokens will be required to purchase the requisite ammunition or fuel for the play-to-earn gaming options. NAKA tokens will also be distributed as rewards to gaming participants. In Duck Hunter, gamers will be gathered into 8-person gaming rooms and each participant will receive NAKA token rewards immediately after the game. Everybody earns through their participation in the Nakamoto Games play-to-earn ecosystem. For Duck Hunter, the rewards will be distributed as follows:

- 1.37.50%
- 2.25.00%
- 3.16.50%
- 4.5.00%
- 5.4.00%
- 6.3.00%
- 7.2.00%
- 8.1.00%



All games within the ecosystem will be structured in a similar manner. All players will be able to tap into lucrative earning opportunities and payouts will be coordinated immediately after each game. Players who wish to access games will provide a sustainable source of demand for NAKA tokens which will likely grow as play-to-earn interest continues to grow. Part of the NAKA tokens used to access each game will also be burned afterwards, creating deflationary dynamics for the token. On the supply side, the total supply of NAKA tokens will reduce at an accelerated rate as adoption increases, fostering favorable demand-supply conditions on both sides.



The major components of the Nakamoto Games ecosystem will be gradually rolled out over the next twelve months. To date, Nakamoto Games has released documentation pertaining to the project and has also coordinated an equity funding round. The Duck Hunter release is lined up for Q4 with the NAKA token also scheduled to be listed on both decentralized and centralized exchanges in this quarter.

A second game – Aeroplane Warriors – is in line to be released in Q1 of 2022. The developer SDK is also scheduled to be released in this quarter. At this point, we anticipate that the Nakamoto Games ecosystem will begin to grow at an exponential rate as the core team continues to release more cutting–edge gaming options and developers can also release their own creations. Moreover, the team will release tools and resources that players can use to share their performance on social media, further increasing the awareness of the ecosystem. By the end of Q2 2022, Nakamoto Games will release an SDK for mobile developers, further encouraging the deployment of new and existing games to the broader mobile audience.



4 TEAM

The development and strategic direction of Nakamoto Games is being led by a deeply experienced team. The executive and development team experience that spans the gaming, blockchain, and IT industries. Each team member is highly accomplished in their respective fields and holds a role that leverages their skillset. The remainder of this section will present a profile on each of the key team members.



Chawalit Rugsasri – CEO



Chawalit will be the executive lead at Nakamoto Games and will ensure that the wider team has the resources necessary to build a cutting-edge play-to-earn gaming ecosystem. Chawalit is no stranger to the blockchain industry and has operated Sublime Solidity Inc since 2019, providing whitelabel development services to disruptive projects in the Ethereum ecosystem. At Sublime Solidity, Chawalit led a team of over 20 highly skilled developers and professionals at Sublime Solidity and worked with some of the biggest decentralized gaming projects. Before Sublime Solidity, Chawalit logged almost a decade of experience providing versatile web development services.



Phiriyaphong Phumphoang – COO



Phiriyaphong will lead operations at Nakamoto Games. In recent years, Phiriyaphong has worked as a project manager for several high-end real estate and IT infrastructure projects. He is deeply familiar with leading large-scale teams and ensuring that projects are on track for success. He is the perfect operational lead for Nakamoto Games.





Rumchawun Keeratipitayaporn – CMO



Rumchawun has led digital marketing efforts at one of Thailand's most prestigious online media agencies for the past four years. Rumchawun is deeply skilled at developing and implementing impactful sales and marketing strategies that are tailored to specific audiences. Rumchawun will be responsible for developing Nakamoto Games marketing strategy and will ensure that both the Western and Eastern markets are aware of the next-generation ecosystem.



Thanig Punyakhomsiri – Lead Developer



Specializing in layer-1 development at Sublime Solidity, Thanig is highly proficient with smart contract development and onchain logic. Thanig will be a lead developer at Nakamoto Games and will ensure that the ecosystem is securely and optimally developed. Before focusing fully on blockchain development, Thanig was an exemplary web developer for three years and provided services to one of Thailand's most respected consulting agencies. Before focusing on development, Thanig worked in digital marketing for seven years. Thanig has been a longtime advocate of cryptocurrency technology and is familiar with both marketing strategies and tech in the industry.



Sayrung is a specialist in blockchain-based gaming and will be one of the key developers at Nakamoto Games. Sayrung spent several years managing the gaming-focused clients at Sublime Solidity and developed a deep knowledge of how to develop secure and sublime decentralized gaming applications. Sayrung's educational background is in programming and she is proficient in several highly-demanded programming languages.





Park Padungpattanadis – Blockchain Developer



Park is a longtime blockchain enthusiast and deeply skilled web developer. For over six years, Park has focused exclusively on providing exemplary web development services to one of Thailand's leading real estate agencies. Park recently transitioned into the blockchain industry full-time after several years experimenting with building decentralized apps and coding smart contracts.



Tinnapob will act as the lead researcher at Nakamoto Games. Tinnapob has successfully completed doctoral PHD research on several highly technical topics such as renewables infrastructure, AI development, and robotics. His academic accolades have been cited in scores of esteemed journals. Tinnapob will lead all research activities at Nakamoto Games and will design the tokenomics for the NAKA token.





Tomek will act as a strategic advisor to Nakamoto Games, providing key assistance in the areas of marketing and business strategy. Tomek founded and scaled a top-ten app development agency in Thailand and works with some of Thailand's biggest enterprises to help them optimize their desktop and mobile applications. Through his agency, Tomek has worked with several game design and development companies. This knowledge will be highly applicable to Nakamoto Games and allow Tomek to give strategic input into Nakamoto Game's inhouse development.



KVESTOR is the founder and CEO of one of Asia's most respected cryptocurrency venture capital companies. VYSYN Ventures has provided early-stage funding and incubation services to some of the most successful projects in the cryptocurrency industry. KVESTOR has deep knowledge of what it takes for an emerging cryptocurrency project to become a leader in its niche. KVESTOR will help Nakamoto Games maximize their resources and scale to become a leader in the play-to-earn gaming niche.



CONCLUSION

The play-to-earn crypto gaming ecosystem is ready for disruption. As it stands, there is no single platform where blockchain gamers can go to access multiple play-to-earn gaming options. Even popular play-to-earn gaming options are only appealing to a limited audience. Nakamoto Games is positioning itself to be the equivalent of the Google Play Store or App Store in the play-to-earn sphere. It will give unprecedented play-to-earn optionality to blockchain gamers and will also provide the necessary tools for developers to launch their games to an already established user base. Both blockchain gaming and play-to-earn games are experiencing exponential growth. With their cutting-edge infrastructure, Nakamoto Games anticipates that it will capture a significant share of this rapidly growing market.

