

Mobile Platform Rules on Blockchain Games Remain Unclear Despite Updates—But Popular Mobile Blockchain Games Provide Clarity

U.S. TECH LAW UPDATE¹

January 20, 2023

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Apple Inc. (“Apple”) and Google LLC (“Google”, and together with Apple, the “Mobile Platforms”) dominate the global mobile game market by offering the most used app stores in the world. However, apps published through their stores must pay fees to the Mobile Platforms for each user transaction in-app. To ensure they receive this fee, Apple and Google adopt a “closed ecosystem” approach, whereby user transactions are required to take place in-app.

Now “Web3” enters the scene, described by Ethereum co-founder Gavin Wood in 2014 as “a decentralized online ecosystem based on blockchain.”² Game developers show increased interest in Web3 with a steady migration from traditional gaming to blockchain-based models in the past few years.³ These developers seek to incorporate fungible tokens as in-app currency and/or in-app assets minted as non-fungible tokens (“NFTs”), and sometimes offer trading of such tokens and NFTs on off-app marketplaces (in this article, games that include these features are referred to as “blockchain games,” and both fungible tokens and NFTs are referred to as “digital assets”).

Blockchain games continue to rapidly expand, with the industry growing 2,000% from 2021 to 2022 and receiving \$2.5 billion in investment in the first quarter of 2022 (compared to the \$4 billion raised for the entire sector during all four quarters of 2021).⁴ Even following major setbacks in the cryptocurrency industry in 2022, blockchain games and other Web3 projects raised \$534 million in October and November 2022.⁵

Inherent to Web3 and blockchain games is a decentralized or “open ecosystem” approach, antithetical to the Mobile Platforms’ closed ecosystems. The Mobile Platforms’ developer rules ensure that apps published through Apple’s App Store and Google’s Play Store

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² Gilad Edelman, *The Father of Web3 Wants You to Trust Less*, WIRED (Nov. 29, 2021), <https://www.wired.com/story/web3-gavin-wood-interview/>.

³ Naavik, *CoinMarketCap and Naavik: 2022 Blockchain Gaming Report – New Frontiers and the Path Forward*, COINMARKETCAP (Jan. 13, 2023), <https://coinmarketcap.com/alexandria/article/coinmarketcap-and-naavik-2022-blockchain-gaming-report-new-frontiers-and-the-path-forward>.

⁴ Pedro Herrera, *DappRadar x BGA Games Report – Q1 2022*, DAPPRADAR (Apr. 20, 2022), <https://dappradar.com/blog/dappradar-x-bga-games-report-q1-2022>.

⁵ Sara Gherghelas, *Blockchain Games Are Resilient Despite FTX Collapse*, DAPPRADAR (Dec. 1, 2022), <https://dappradar.com/blog/bga-game-report-october-november-2022>.



(each, or both, the “App Store(s)”) remain within these closed ecosystems. Thus, their rules as applied to blockchain games are often unclear due to conflicts with the open ecosystem nature of blockchain games.

While developing for mobile is a natural choice for many blockchain game studios, publishing mobile games in Apple and/or Google’s App Stores is the unavoidable choice. In 2022, the global game market was predicted to generate over \$195 billion in revenue, with mobile games as the primary driver of growth, expecting to generate over \$103 billion in revenue, or 53% of the entire game market.⁶ The Google App Store is the official app store of the Android operating system, used on almost 72% of all smartphones in the world, and the Apple App Store is the official app store of the iOS operating system, used on nearly 27.5% of all smartphones in the world.⁷ Combined, Apple and Google’s App Stores are the official app stores used on over 99.5% of all smartphones globally.

Given Apple and Google’s dominance of mobile application distribution, the rules that they establish for access to their App Stores become de facto standards for the entire mobile app industry, including mobile games.⁸ Developers must ensure that their mobile game will comply not only with applicable law, but also with Apple’s App Store Review Guidelines (the “Apple Guidelines”) and Google’s Developer Program Policies (the “Google Policies”, and collectively with the Apple Guidelines, the “Mobile Platform Rules”) prior to investing significant resources into creating such mobile game. Compliance with the Mobile Platform Rules is especially relevant for developers of blockchain games, the creation of which bring about additional complexities and costs not typically seen in the development of traditional games.⁹

However, as discussed in greater detail below, it is not clear whether certain features of blockchain games violate the Mobile Platform Rules. These rules are not always well drafted, often include vague language, and ideologically diverge from blockchain games’ open ecosystem approaches. In addition, as private companies, Apple and Google are free to change the Mobile Platform Rules at any time, or to simply ignore their own rules and not enforce some requirements.

Most recently, on October 24, 2022, Apple updated the Apple Guidelines to directly address the sale and usage of NFTs.¹⁰ The updated rules clarify that the in-app purchase rules apply to NFTs, and thus apps cannot include links or other calls to action that direct customers to any method to purchase NFTs other than in-app purchase, subjecting sales of NFTs to the relevant platform fees.¹¹ Although NFT sales are now clearly permitted under the new rules,

⁶ *The Global Games Market*, NEWZOO (accessed Dec. 5, 2022), <https://newzoo.com/products/reports/global-games-market-report>.

⁷ James Anthony, *Number of Apps in Leading App Stores in 2022/2023: Demographics, Facts, and Predictions*, FINANCESONLINE (Jan. 9, 2023), <https://financesonline.com/number-of-apps-in-leading-app-stores/>.

⁸ Answer Haider, *Apple grows gaming market share as App Store dominates mobile space*, SPGLOBAL (Jun. 24, 2022), <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/apple-grows-gaming-market-share-as-app-store-dominates-mobile-space-70922440>.

⁹ Metaverse Town, *Blockchain Game Development Cost Estimation*, MEDIUM (Jul. 25, 2022), <https://medium.datadriveninvestor.com/blockchain-game-development-cost-estimation-34f1ffdca7d3>.

¹⁰ *App Store Review Guideline Updates now available*, APPLE INC. (Oct. 24, 2022), <https://developer.apple.com/news/?id=xk8d7p8c>.

¹¹ Danny Nelson, *Apple Refuses to Exempt NFTs from App Store’s 30% Fee*, COINDESK (Oct. 24, 2022), <https://www.coindesk.com/business/2022/10/24/apple-refuses-to-exempt-nfts-from-app-stores-30-fee/>. See also Maria Garcia Santillana Linares, *Apple Allows In-App NFTs in App Store, But Slaps Its 30% Levy On Transactions*, FORBES (Oct. 25, 2022),



NFTs may not be used to unlock features or functionality in-app, which may limit NFTs to cosmetic items or other collectibles without other utility.¹²

Helpfully, currently popular blockchain games can offer some clarity on how the Mobile Platforms might apply their rules to blockchain games. Of the top ten blockchain games with the highest player count in November 2022, six are available in either or both of the Mobile Platforms’ App Stores. To gain a better understanding of the Mobile Platform Rules as applied to blockchain games, we reviewed these games, each of which are listed in the table below (the “Sample Blockchain Games”).¹³ Where the Mobile Platform Rules are ambiguous regarding certain features of blockchain games, the Sample Blockchain Games offer valuable insights on what features might (and might not) be permitted in the App Stores.

Sample Blockchain Games¹⁴

Game Title	Developer	Digital Assets	
		Token	NFT
Benji Bananas	Animoca Brands	PRIMATE	Membership Pass
Splinterlands	Splinterlands	DEC, SPS	Cards
Solitaire Blitz	Joyride	RLY	N/A
Upland	Uplandme, Inc	UPX	Property
WAM.app	DIGITAP WORLD S.R.L.	WAM	N/A
Arc8	Gamee Mobile	GMEE	G-bots

Mobile Platforms Embrace “Closed Ecosystem” But May Be Forced to Open Up

Blockchain games are inherently open ecosystems. Players may take their digital assets out of the game and trade those digital assets on external marketplaces separate from the game itself. The Mobile Platforms are closed ecosystems, which is a design choice that ensures Apple and Google receive their platform fee on each transaction that takes place within a mobile app that was distributed on their App Store.

The open ecosystem of blockchain games directly conflicts with the closed ecosystem of the Mobile Platforms. Digital asset transactions that occur on external marketplaces that are both separate from the blockchain game itself and outside of the Mobile Platforms, threaten to undermine Apple and Google’s ability to receive their platform fees. If digital assets acquired through off-app external marketplaces can be used in-app, this might challenge the closed

<https://www.forbes.com/sites/mariagraciasantillanalinares/2022/10/25/apple-allows-nft-in-app-store-apps-but-slaps-its-30-levy-on-transactions/?sh=25ae8cd15fe6>.

¹² Ivan Mehta, [Apple cracks down on NFT functionality, social post boosts with App Store rules](https://techcrunch.com/2022/10/25/apple-cracks-down-on-nft-functionality-social-post-boosts-with-app-store-rules/), TECHCRUNCH (Oct. 25, 2022), <https://techcrunch.com/2022/10/25/apple-cracks-down-on-nft-functionality-social-post-boosts-with-app-store-rules/>.

¹³ Popularity of the Sample Blockchain Games was ascertained by looking at games with the highest player count as of November 29, 2022 (see [NFT games with the highest player count as of November 29, 2022](https://www.statista.com/statistics/1266486/blockchain-games-user-number/), STATISTA (Nov. 29, 2022), <https://www.statista.com/statistics/1266486/blockchain-games-user-number/>).

¹⁴ Pillar Legal tested the Sample Blockchain Games as downloaded from Google’s App Store. We presume the versions in Apple’s App Store are the same. Note that Solitaire Blitz is not available for download in the United States, and therefore we reviewed playthroughs uploaded by players instead of testing the game directly.



ecosystem of the Mobile Platforms and the business model that closed ecosystem is designed to facilitate.

The Mobile Platforms may, however, be forced to open their closed ecosystems due to recent lawsuits and other legal developments.

In 2020, Epic Games, Inc. (“Epic”) brought lawsuits against Apple and Google challenging their prohibition on purchase methods outside of Apple and Google’s in-app billing systems.¹⁵ Epic’s case against Google has a trial date set for early 2023.¹⁶ Epic’s case against Apple has, however, proceeded more rapidly. In its September 2021 order, the U.S. District Court for the Northern District of California stated that Apple violates state antitrust laws when it blocks developers from linking app users to other storefronts from within apps to complete purchases or from collecting information within an app, such as an email, to notify users of these storefronts that evade the 30% commission payment typically collected by Apple.¹⁷ Accordingly, the U.S. District Court ordered Apple to allow apps to link to other purchasing mechanisms in-app.¹⁸ In October 2021, Apple appealed the decision, and the Ninth Circuit Court of Appeals issued a temporary stay on the injunction. On November 14, 2022, the parties made oral arguments on the appeal and are currently awaiting a decision.¹⁹

The appeals court docket includes numerous amicus briefs disputing the U.S. District Court’s ruling that except for prohibiting in-app links to off-app marketplaces, Apple does not violate antitrust laws by requiring use of its in-app purchase system, payment of its fees, and restricting other app stores on its hardware. Many of Apple’s critics are companies that oppose the closed ecosystem rules, including Tile, Match, and Basecamp, Roblox, and Microsoft. Other critics include lobbying and consumer advocacy groups such as the Coalition for App Fairness and the Electronic Frontier Foundation Consumer Federation of America, as well as thirty-five U.S. state attorneys-general.²⁰

Similarly, in May 2022, Match Group, Inc. (“Match Group”) filed a lawsuit in the U.S. District Court for the Northern District of California against Google over its requirement that apps use its in-app billing system.²¹ Match Group’s case against Google is similar to Epic’s lawsuit against Apple and is filed in the same court that originally ruled against Apple for the same practices. It is possible that court further limits Google’s ability to require developers exclusively utilize its in-app purchase system.

Various regions have also implemented (or made attempts to implement) laws and regulations which require the Mobile Platforms to allow the use of other in-app purchase

¹⁵ Jack Nicas, Kellen Browning, and Erin Griffith, [Fortnite Creator Sues Apple and Google After Ban From App Stores](https://www.nytimes.com/2020/08/13/technology/apple-fortnite-ban.html), THE NEW YORK TIMES (Aug. 13, 2020), <https://www.nytimes.com/2020/08/13/technology/apple-fortnite-ban.html>.

¹⁶ Jon Swarts, [Google, Epic Games agree to trial in early 2023](https://www.marketwatch.com/story/google-epic-games-agree-to-trial-in-early-2023-2022-01-21), MARKETWATCH (Jan. 21, 2022), <https://www.marketwatch.com/story/google-epic-games-agree-to-trial-in-early-2023-2022-01-21>.

¹⁷ Read the U.S. District Court for the Northern District of California’s order [here](#).

¹⁸ Ian Sherr and Daniel Van Boom, [Apple scores legal win over Epic in Fortnite lawsuit: What you need to know](https://www.cnet.com/tech/gaming/apple-scores-legal-win-over-epic-in-fortnite-lawsuit-what-you-need-to-know/), CNET (Sept. 13, 2021), <https://www.cnet.com/tech/gaming/apple-scores-legal-win-over-epic-in-fortnite-lawsuit-what-you-need-to-know/>.

¹⁹ Sarah Perez, [The Epic Games-Apple antitrust battle resumes today in appeals court](https://techcrunch.com/2022/11/14/the-epic-games-apple-antitrust-battle-resumes-today-in-appeals-court/), TECHCRUNCH (Nov. 14, 2022), <https://techcrunch.com/2022/11/14/the-epic-games-apple-antitrust-battle-resumes-today-in-appeals-court/>

²⁰ *Id.* See also, [Epic backed by 35 US states in Apple legal rematch](https://www.bbc.com/news/technology-60156679), BBC NEWS (Jan. 31, 2022), <https://www.bbc.com/news/technology-60156679>.

²¹ Read Match Group’s complaint against Google [here](#).



mechanisms. In 2021, South Korea banned major app store operators from requiring developers to only use their payment systems to process the sale of digital products and services.²² South Korea is already explicitly excluded from Google’s in-app billing rule, but the Apple Guidelines do not yet include an explicit exclusion for South Korea.

On July 18, 2022, the European Union (“EU”) Council adopted the Digital Markets Act,²³ which will prohibit Apple and Google from restricting the promotion of offers and conclusion of contracts with end users in the E.U. outside of Apple and Google’s in-app billing systems.²⁴ The Digital Markets Act came into effect in November 2022, and large tech firms such as Apple and Google will be required to comply with the new rules by the end of 2023 to early 2024. Under the Digital Markets Act’s anti-steering provision, Apple and Google will be required to allow developers distributing apps on their app stores to transact with users outside of an in-app billing system, and direct users to off-app transaction options in-app.²⁵ In response to the Digital Markets Act, Apple announced it would allow alternative app stores on its hardware and sideloading.²⁶

The U.S. is also exploring legislation that would force changes to the in-app purchase rules. In February 2022, the Senate Judiciary Committee advanced the Open App Markets Act (“OAM Act”), which would prohibit a covered company (including Apple and Google) from requiring developers to use in-app payment systems owned or controlled by the company as a condition of distribution or accessibility of the developer’s mobile app.²⁷ It is unclear, however, whether the OAM Act will become law.

Ultimately, legal and regulatory changes may force the Mobile Platforms to open their closed ecosystems. Such a result would benefit mobile blockchain games, since the uncertainty over whether certain blockchain games features violate the Mobile Platform Rules emerges from the conflict between the closed ecosystems of the Mobile Platforms and the open ecosystems of blockchain games.

Mobile Platform Rules on Blockchain Game Features Still Uncertain, But Sample Blockchain Games Provide Insights

While the features of blockchain games vary from game-to-game, certain features are standard across many of the most popular blockchain games. It is often not clear, however, whether certain features violate the Mobile Platform Rules. Areas of particular concern are listed below.

²² [South Korea forces Google and Apple to allow third-party in-app payments](https://www.nytimes.com/2021/08/31/business/south-korea-google-apple.html), THE NEW YORK TIMES (Aug. 31, 2021), <https://www.nytimes.com/2021/08/31/business/south-korea-google-apple.html>.

²³ Council of the EU, *DMA: Council gives final approval to new rules for fair competition online*, COUNCIL OF THE EUROPEAN UNION (Jul. 18, 2022), <https://www.consilium.europa.eu/en/press/press-releases/2022/07/18/dma-council-gives-final-approval-to-new-rules-for-fair-competition-online/>.

²⁴ See a briefing on the Digital Markets Act [here](#).

²⁵ [Digital Markets Act](#) Article 5(4).

²⁶ Mark Gurman, *Apple to Allow Outside App Stores in Overhaul Spurred by EU Laws*, Bloomberg (Dec. 13, 2022), <https://www.bloomberg.com/news/articles/2022-12-13/will-apple-allow-users-to-install-third-party-app-stores-sideload-in-europe?leadSource=uverify%20wall>.

²⁷ See a summary of the Open App Markets Act [here](#).



1. In-app linking to off-app marketplaces
2. Trading in-app acquired digital assets on off-app marketplaces
3. Using off-app acquired digital assets in-app

The remainder of this article discusses each of these areas, the relevant Mobile Platform Rules and the actual practice in applicable Sample Blockchain Games that are currently available in the App Stores. Although the Mobile Platform Rules are not always clear, because the Mobile Platforms conduct rigorous reviews of apps prior to allowing such apps in their App Stores, the availability of the Sample Blockchain Games provides some insight into how the Mobile Platforms apply their rules.

The reference table below lists each area noted above, the relevant Mobile Platform Rule for each of Apple and Google, our view on whether the relevant activity is permitted by the Mobile Platform Rules and Sample Blockchain Games that include the relevant feature. You may click any of the links below to navigate to the relevant Mobile Platform Rule or to a discussion of that rule and the relevant Sample Blockchain Games.

Mobile Platform Rules on Certain Blockchain Game Features

	Game Feature	Apple Guidelines		Google Policies		In Sample Blockchain Games
	In-App Linking to Off-App Marketplaces	Allowed	No	Allowed	No	<ul style="list-style-type: none"> • Arc8
		Rule(s)	§ 3.1.1	Rule(s)	Payments Policy § 4	
	Trading In-App Acquired Digital Assets on Off-App Marketplaces	Allowed	Yes	Allowed	Unclear	<ul style="list-style-type: none"> • Benji Bananas • Splinterlands • Solitaire Blitz • WAM.app • Arc8
		Rule(s)	§ 3.1.3(b)	Rule(s)	Payments Policy § 5	
	Using Off-App Acquired Digital Assets In-App	Allowed	Unclear	Allowed	Unclear	<ul style="list-style-type: none"> • Benji Bananas • Splinterlands • Solitaire Blitz • Arc8
		Rule(s)	§ 3.1.1 § 3.1.3(b)	Rule(s)	§ Payments Policy § 2	

1. In-App Linking to Off-App Marketplaces

The Mobile Platform Rules do not permit apps to direct customers, through an in-app link or other calls to action, to an off-app marketplace in which to trade or purchase digital assets. § 3.1.1 (In-App Purchases) of the Apple Guidelines states that apps may not include buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than the in-app purchase system. Thus, including any calls to action to utilize a different purchasing



mechanism (e.g., an off-app marketplace) instead of an in-app purchase system will violate the Apple Guidelines.

Apple Guideline § 3.1.1 (In-App Purchase)

Apps and their metadata may not include buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than in-app purchase. . .

Similar to the Apple Guidelines, Google’s Payments Policy § 4 explicitly prohibits linking to an off-app marketplace in-app. As with the Apple Guidelines, use of any calls to action to utilize purchasing mechanisms other than Google’s in-app billing system will violate the Google Policies.

Google Payments Policy § 4 (Other Payment Methods)

...Apps may not lead users to a payment method other than Google Play’s billing system. This prohibition includes, but is not limited to, leading users to other payment methods via:

- An app’s listing in Google Play;
- In-app promotions related to purchasable content;
- In-app web views, buttons, links, messaging, advertisements or other calls to action; and
- In-app user interface, including account creation or sign-up flows, that lead users from an app to a payment method other than Google Play’s billing system as part of those flows.

While many of the Sample Blockchain Games available in the Mobile Platforms’ App Stores do facilitate off-app trading of digital assets acquired in-app, whether via a “proprietary” (i.e., offered by the developer) or “secondary” (i.e., offered by a third party) marketplace, most of the Sample Blockchain Games do not include in-app calls to action that direct users to an off-app marketplace.

Instead, the relevant Sample Blockchain Games refer to off-app marketplaces on proprietary game blogs or webpages. For example, Animoca (the creators of Benji Bananas) states on the company’s Medium page that the Benji Bananas Membership Pass NFT must be purchased on OpenSea, LooksRare or Rarible,²⁸ and Splinterlands hosts its own marketplace on the company’s website and also links to secondary marketplaces on the same webpage.²⁹

While most of the Sample Blockchain Games do not include in-app calls to action that direct users to an off-app marketplace, Arc8 appears to circumvent the Mobile Platform Rules by indirectly linking to off-app purchasing mechanisms for NFTs through the “Events” page in-app.³⁰ As the Mobile Platform Rules are explicit on in-app links to off-app marketplaces, we

²⁸ Animoca Brands, *PRIMATE Token Launch – Enabling P2E for Benji Bananas*, MEDIUM (Apr. 26, 2022), <https://medium.com/benji-bananas/prime-token-launch-enabling-p2e-for-benji-bananas-7ebfd3f5606e>.

²⁹ See Splinterlands Market, SPLINTERLANDS (accessed Dec. 20, 2022), <https://splinterlands.com/?p=market&tab=cards>.

³⁰ Last reviewed on January 12, 2023. By navigating in-app to the “Events” page and scrolling to Arc8’s list of “Partners,” users can access different NFT collections, some of which unlock in-app functionality. “G-bots”, “Cool Cats”, and “Cool Pets” NFTs all provide owners access to exclusive games and tournaments in the Arc8 app. When navigating to the G-bots NFT collection page in-app, users are shown a link titled “Get on Marketplace”. The link navigates to a webpage for the NFT collection, which in turn links to OpenSea where players can trade NFTs. When navigating to the Cool Cats and Cool Pets NFT collection pages in-app, users are shown a link titled “Get exclusives,” which navigates to another



presume that the indirect inclusion of in-app links to off-app marketplaces in Arc8 is not sanctioned by the Mobile Platforms. However, it is not entirely clear why the Mobile Platforms approved Arc8 for publishing in their App Stores in light of the aforementioned links.

Sample Blockchain Games: In-App Links to Off-App Marketplaces

Game Title	Digital Assets Tradeable in Off-App Marketplace	In-App Link to Off-App Marketplace
Benji Bananas	Yes	No
Splinterlands	Yes	No
Solitaire Blitz	Yes	No
Upland	No	N/A
WAM.app	Yes	No
Arc8	Yes	Yes

2. Trading In-App Acquired Digital Assets on Off-App Marketplaces

It is not clear whether the Mobile Platform Rules permit the trading of in-app acquired digital assets on off-app marketplaces, but several Sample Blockchain Games that are currently available in the App Stores do include this feature.

The Apple Guidelines imply that in-app acquired digital assets can be traded on off-app marketplaces. § 3.1.3(b) (Multiplatform Services) permits apps that operate across multiple platforms to allow users that acquire content, subscriptions, or features in-app to access or use that content, subscription or feature off-app, including “consumable items in multi-platform games.”

The only condition is that such content, subscriptions, or features are also available through Apple’s in-app purchase system. This condition that the digital asset must be offered in-app appears redundant since the rule itself applies only to in-app acquired digital assets, but the general point of allowing access to such in-app acquired digital assets off-app is nonetheless clear. It thus appears that if Apple receives its platform fee in connection with the in-app purchase of the digital asset, then Apple doesn’t care whether a user can access that same digital asset off-app.

<u>Apple Guideline § 3.1.3(b) (Multiplatform Services)</u>
Apps that operate across multiple platforms may allow users to access content, subscriptions, or features they have acquired in your app on other platforms or your web site, including consumable items in multi-platform games, provided those items are also available as in-app purchases within the app.

Google’s rules are ambiguous. Google Payments Policy § 5 (In-App Virtual Currencies) indicates that in-app virtual currencies can only be used within the app or game title for which they are purchased. A fungible token used as an in-app currency would certainly be subject to

in-app page displaying a link titled, “Get.” That link then navigates to a webpage for the NFT collections, which in turn links to OpenSea whereby the NFTs may be exchanged.



this rule, and thus presumably could not be traded on an off-app marketplace. But it is not clear whether this rule would apply to an in-app acquired NFT.

<u>Google Payments Policy § 5 (In-App Virtual Currencies)</u>
In-app virtual currencies must only be used within the app or game title for which they purchased.

Several Sample Blockchain Games available in the App Stores do facilitate trading in-app acquired digital assets on off-app marketplaces. However, users in the United States are unable to trade many in-app acquired digital assets on centralized exchanges directly due to United States securities laws.³¹ Instead, users must swap in-app digital assets on decentralized exchanges for legally compliant digital assets such as Bitcoin or Ethereum.

Ultimately, the availability of these Sample Blockchain Games in the App Stores suggests that enabling trading of in-app acquired digital assets on off-app marketplaces might not violate the Mobile Platform Rules.

Sample Blockchain Games: Trading In-App Acquired Digital Assets on Off-App Marketplaces

Game Title	In-App Acquired Digital Asset	Proprietary Off-App Marketplace	Secondary Off-App Marketplace(s)
Benji Bananas	Players can exchange PRIMATE for other fungible tokens in the Animoca Brands ecosystem	N/A	<ul style="list-style-type: none"> • SushiSwap • UniSwap • PancakeSwap • ApeSwap
Splinterlands	Players can exchange some Splinterlands cards for ERC-721 tokens and trade them on NFT marketplaces while SPS and DEC can be swapped on decentralized exchanges	Splinterlands.com	<ul style="list-style-type: none"> • PeakMonsters.com • MonsterMarket.io • Splex.gg • OpenSea • Uniswap
Solitaire Blitz	RLY can be exchanged for other cryptocurrencies or fiat currency through various off-app marketplaces	N/A	<ul style="list-style-type: none"> • MEXC • Bitget • Kucoin • Huobi Global • Phemex
WAM.app	WAM can be swapped on decentralized exchanges	N/A	<ul style="list-style-type: none"> • PancakeSwap • Gate.io • LATOKEN • Maiar Exchange • Bilaxy
Arc8	Players can exchange GMEE tokens on Polygon marketplaces	N/A	<ul style="list-style-type: none"> • QuickSwap • Uniswap

³¹ For more information, please refer to our U.S. Tech Law Update “[SEC Deems 9 Tokens Securities](#)” from August 26, 2022.



3. *Using Off-App Acquired Digital Assets In-App*

Apple and Google both require in-app features or functionality to be purchased through their in-app purchase system, thus ensuring that they will collect the platform fee on the purchase. These in-app purchase rules suggest that off-app acquired digital assets cannot be used in-app. Apple does, however, explicitly permit the use of NFTs in-app, presumably while recognizing that NFTs can be acquired off-app. But Apple also prohibits the use of NFTs to unlock in-app functions or features, limiting NFTs to just cosmetic items and collectibles. Nonetheless, various Sample Blockchain Games do allow the use of off-app acquired digital assets in-app, and include NFTs that unlock features and functionality in-app.

Apple Guideline § 3.1.1 (In-App Purchase) states that in-app features and functionality must only be unlocked using the in-app purchase system.³²

Apple Guideline § 3.1.1 (In-App Purchase)

If you want to unlock features or functionality within your app, (by way of example: subscriptions, in-game currencies, game levels, access to premium content, or unlocking a full version), you must use in-app purchase. Apps may not use their own mechanisms to unlock content or functionality, such as license keys, augmented reality markers, QR codes, cryptocurrencies and cryptocurrency wallets, etc.

The recent updates to Apple Guideline § 3.1.1 (In-App Purchase) also prohibit apps from using NFT ownership as a means to unlock features or functionality within the app. Although allowing an in-app purchased NFT to unlock features or functionality would still enable Apple to collect its platform fee on the purchase of the NFT, this new rule likely reflects the fact that NFTs (like cryptocurrencies) are inherently tradeable off-app. As a result, Apple’s new rules allow the sale and use of NFTs in-app, and presumably the use of off-app acquired NFTs in-app but prohibit attaching any functional utility to NFTs. Thus, Apple allows NFTs, but only as cosmetic items or other collectibles.

Apple Guideline § 3.1.1 (In-App Purchase)

Apps may use in-app purchase to sell and sell services related to non-fungible tokens (“NFTs”), such as minting, listing, and transferring. Apps may allow users to view their own NFTs, provided that NFT ownership does not unlock features or functionality within the app. Apps may allow users to browse NFT collections owned by others, provided that the apps may not include buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than in-app purchase.

As noted above, Apple Guideline § 3.1.3(b) (Multiplatform Services) does permit apps that operate across multiple platforms (e.g., mobile, console, personal computer) to allow users to access content, subscriptions, or features acquired in-app on other platforms. This rule is, however, drafted to allow digital asset movement in only one direction, from in-app to off-app. The rule is silent on whether off-app purchased items may be used in-app.

³² Note that the Apple Guidelines have several exceptions to its in-app purchase requirement (including for “reader apps” and goods and services), but these are not applicable to blockchain games.



Apple Guideline § 3.1.3(b) (Multiplatform Services)

Apps that operate across multiple platforms may allow users to access content, subscriptions, or features they have acquired in your app on other platforms or your web site, including consumable items in multi-platform games, provided those items are also available as in-app purchases within the app.

Google Policies § 2 (In-App Purchases) indicates that apps requiring or accepting payment for access to in-app features (including functionality, digital content, or goods) must use Google’s in-app billing system. Certain types of transactions are exempt from Google’s in-app purchase rule, including the purchase or rental of physical goods or services, payment of bills, peer-to-peer payments, online auctions, tax-exempt donations, or gambling (Payments Policy § 3) and when play-distributed mobile apps accept payment from users in South Korea (Payments Policy §8). Other than the South Korea rule, these exemptions do not apply to mobile blockchain games. As a result, the Google Policies appear to prohibit using off-app acquired digital assets in-app since to do so would circumvent Google’s billing system.

Unlike the Apple Guidelines, the Google Policies do not contain a prohibition on NFT ownership unlocking features or functionality in-app. Thus, it appears that if a player purchases an NFT through Google’s in-app purchase system, that same NFT may unlock features or functionality in a blockchain game.

Google Payments Policy § 2 (In-App Purchases)

Play-distributed apps requiring or accepting payment for access to in-app features or services, including any app functionality, digital content or goods (collectively “in-app purchases”), must use Google Play’s billing system for those transactions unless Section 3 or Section 8 applies. Examples of app features or services requiring use of Google Play’s billing system include, but are not limited to, in-app purchases of:

- Items (such as virtual currencies, extra lives, additional playtime, add-on items, characters and avatars);
- Subscription services (such as fitness, game, dating, education, music, video, service upgrades and other content subscription services);
- App functionality or content (such as an ad-free version of an app or new features not available in the free version); and
- Cloud software and services (such as data storage services, business productivity software, and financial management software).

Notwithstanding the in-app purchase rules that appear to prohibit using off-app acquired digital assets in-app, several Sample Blockchain Games do allow the use of off-app acquired digital assets in-app. In addition, several Sample Blockchain Games available in the Apple App Store use NFTs that unlock features or functionality in-app.



Sample Blockchain Games: Using Off-App Acquired Digital Assets In-App

Game Title	In-App Token Utility	In-App NFT Utility	Digital Asset Acquirable Off-App
Benji Bananas	PRIMATE does not have in-app utility	Ownership of the Benji Bananas Membership Pass NFT enables users to unlock the ability to earn PRIMATE tokens through gameplay	Yes
Splinterlands	DEC is used to buy quest potions and cards to improve a player's battle deck	Splinterlands card NFTs can be used by players during in-game tournaments	Yes
Arc8	GMEE must be wagered against other players prior to playing a game	G-bot NFTs allow users to play specific mini games, and to compete directly against other G-bot NFTs in tournaments or 1-v-1 battles.	Yes

The question of using off-app acquired items in-app is not new to blockchain games. Notwithstanding the in-app purchase rules described above, many non-blockchain mobile games that are playable across multiple platforms do allow the use of off-app acquired items in-app.

For example, the popular cross-platform game Genshin Impact is available on the Mobile Platforms, personal computers (“PC”) and PlayStation.³³ In Genshin Impact, players may buy “genesis crystals,” which are a premium currency only obtainable through in-game purchases. While players may access their account, previous gameplay and genesis crystals from any available platforms, purchases of genesis crystals must be made from the same platform on which the player first register their account.³⁴ In other words, accounts registered via a Mobile Platform must use that Mobile Platform’s in-app purchase systems to acquire genesis crystals. However, if a player first registers their account and purchases genesis crystals the PC platform, the player may access the genesis crystals while playing on a Mobile Platform.³⁵

Hearthstone, another popular cross-platform game, is playable on PC and the Mobile Platforms. In Hearthstone, players may purchase cards and in-game currency called “runestones” on any platform and then access those same cards and runestones while playing on any other platform.³⁶

Thus, notwithstanding the plain-language reading of the Mobile Platform Rules that require use of in-app billing systems to unlock features or functionality, the Mobile Platforms have approved cross-platform games and blockchain games that allow players to use off-app acquired items and digital assets in-app.

³³ Last tested on Dec. 16, 2022.

³⁴ [Genesis Crystal](https://genshin-impact.fandom.com/wiki/Genesis_Crystal), GENSHIN IMPACT WIKI (accessed Dec. 21, 2022), https://genshin-impact.fandom.com/wiki/Genesis_Crystal.

³⁵ Note, however, that due to Sony’s rules, if a player registers an account via PlayStation and purchases genesis crystals via PlayStation, the genesis crystals will not be accessible on either PC or mobile platforms.

³⁶ Last tested on Dec. 21, 2022.

Key Questions for Apple and Google

As discussed above, in many cases, the Mobile Platform Rules leave blockchain game developers wondering whether the features included in their blockchain game—the creation of which requires significant efforts and investment—will preclude the blockchain game from publishing on the world’s largest mobile game platforms. Certainly, mobile blockchain game developers would benefit from clarity from Apple and Google on a variety of questions. We contacted Apple and Google for comment on the open questions noted below but were unable to identify a company representative that was able to respond to these questions.

For Apple:

- Does § 3.1.3(b) (Multiplatform Services) apply to blockchain games such that off-app acquired digital assets can be used in-app provided that those same digital assets are also available for purchase in-app?
- Does the updated § 3.1.1 (In-App Purchase) prohibit the use of NFTs purchased through Apple’s in-app purchase system from unlocking features or functionality in-app?

For Google:

- Does Google’s Payments Policy § 5 prohibit trading in-app acquired digital assets on off-app marketplaces?
- Does Google’s Payment Policy § 5 prohibit using off-app acquired digital assets in-app?

Without clarification from the Mobile Platforms, blockchain game developers run the risk of their games being excluded from Apple and Google’s app stores following significant investments into developing their games. Although lawsuits and new legislation may eventually force the Mobile Platforms to change their in-app purchases rules in a way that makes it easier for blockchain games to comply, developers creating blockchain games would greatly benefit if the Mobile Platforms clarified their rules affecting blockchain games.

Helpfully, the Sample Blockchain Games provide some clarity on how the Mobile Platforms enforce their rules. It is unclear, however, whether the Sample Blockchain Games comply with the Mobile Platform Rules or whether the Mobile Platforms simply choose to overlook or have yet to discover the Sample Blockchain Games. However, even without clarification from the Mobile Platforms, the blockchain game industry segment continues to grow.