

2023



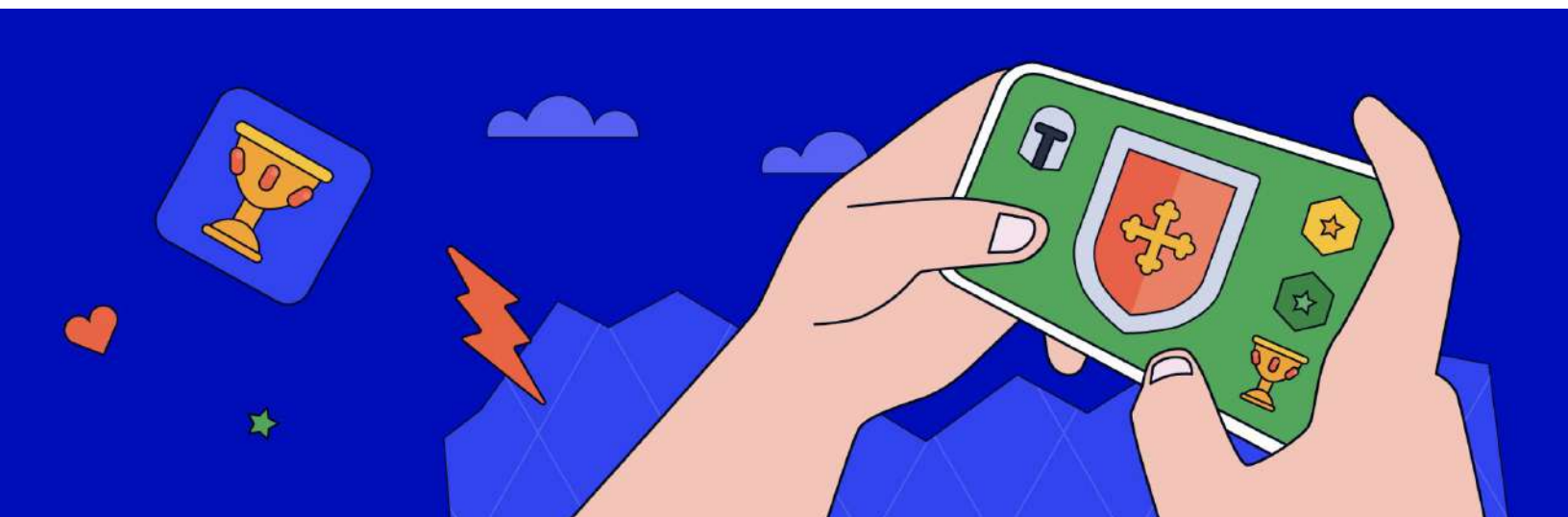
GameRefinery
A Liftoff Company

Midcore Gaming Apps Report



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Introduction

The future of gaming looks bright—thanks in no small part to mobile. According to Insider Intelligence, while the number of console and desktop gamers is expected to stagnate over the next five years, the number of mobile gamers is expected to grow to 172.5 million. As the audience for mobile gaming grows, the market is also evolving.

While casual games still dominate the field, easy growth is tapering, especially for hyper casual titles. Apple's IDFA changes introduced new user acquisition challenges for mobile apps. Post-pandemic, many hyper casual gamers have also peeled off, and engaged gamers are gravitating toward titles with more depth. Game developers are looking less to volume and more to the steady streams of revenue a dedicated following can bring.

It's no surprise, then, that midcore games represent a growing share of the mobile gaming market—they now make up 35% of total US mobile gaming revenue on iOS. Midcore titles have higher barriers of entry, but they also have a more engaged audience and are more likely to have multiple monetization streams. Last year, GameRefinery released a report that explores the increasing popularity of midcore games. As top gaming IPs become top mobile titles, AAA game studios are taking note and prioritizing mobile. We expect this trend to continue as the category gains more momentum.

As the midcore market grows more competitive, game developers need to reach the right audience and seize on monetization opportunities that make an impact. Liftoff's 2023 Midcore Gaming Apps Report makes it easier for midcore marketers and game developers to get the most from their apps. We break down the essential ad cost and ROI benchmarks, and our experts at GameRefinery provide an overview of the top games in the midcore category and the year's must-know gameplay and monetization trends.

Highlights & Methodology



CPI

Midcore games have higher barriers of entry for new players. So it's unsurprising that they also have, on average, higher user acquisition costs. Overall costs per install (CPI) for midcore games average around \$2.



ROI by Region

EMEA offers the best UA deal for midcore developers. It has a relatively high 4.4% D7 return on ad spend (ROAS) and the second-lowest CPI at \$0.80.



Day-7 ROAS by Genre

Shooter games have the highest average D7 ROAS at 6%, while strategy games are a close second at 5.4%.



Player Engagement

When it comes to acquiring and retaining high LTV users, LiveOps has become the number one success factor.



App Monetization

Mobile game publishers are turning to external web stores for selling certain in-game items, bypassing Google and Apple stores.

All data for the report comes from [GameRefinery](#) and [Accelerate](#), Liftoff's programmatic advertising solution.

CPI and ROI based
on data from

May 1, 2022 — May 1, 2023

30B

Impressions

1.1B

Clicks

5.5M

Installs

Benchmarks & Tips

→ [CPI Overall & by Platform](#)

→ [D7 ROAS Overall & by Platform](#)

→ [CPI by Month](#)

→ [D7 ROAS by Month](#)

→ [CPI by Region](#)

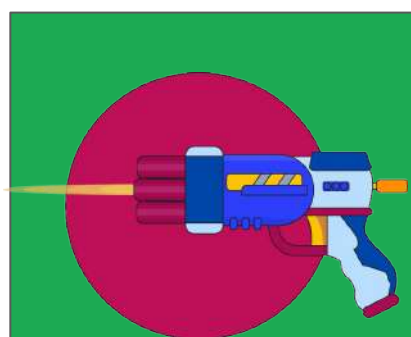
→ [D7 ROAS by Region](#)

→ [CPI by Genre](#)

→ [D7 ROAS by Genre](#)

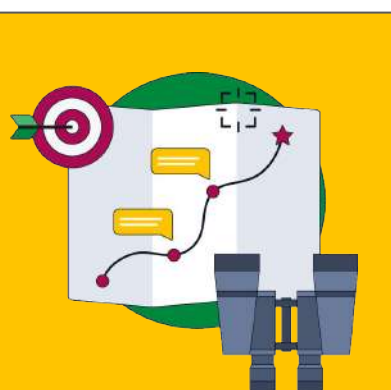
How Liftoff Defines Midcore Game Genres

Our cost and ROAS benchmarks cover three of the biggest midcore gaming genres. Here's how Liftoff defines them:



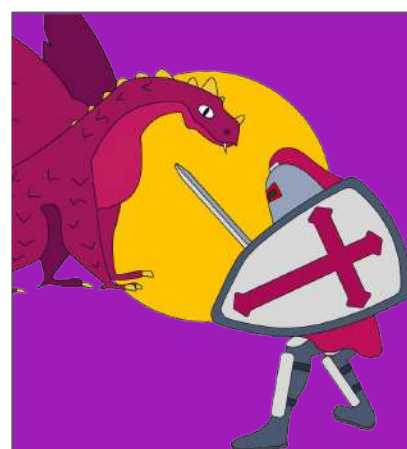
Shooter

Shooter games are a perennial genre in the midcore category. Their core mechanics involve shooting and combat that can take place in military or fantasy and sci-fi settings. Examples include Call of Duty: Mobile, PUBG Mobile and Free Fire.



Strategy

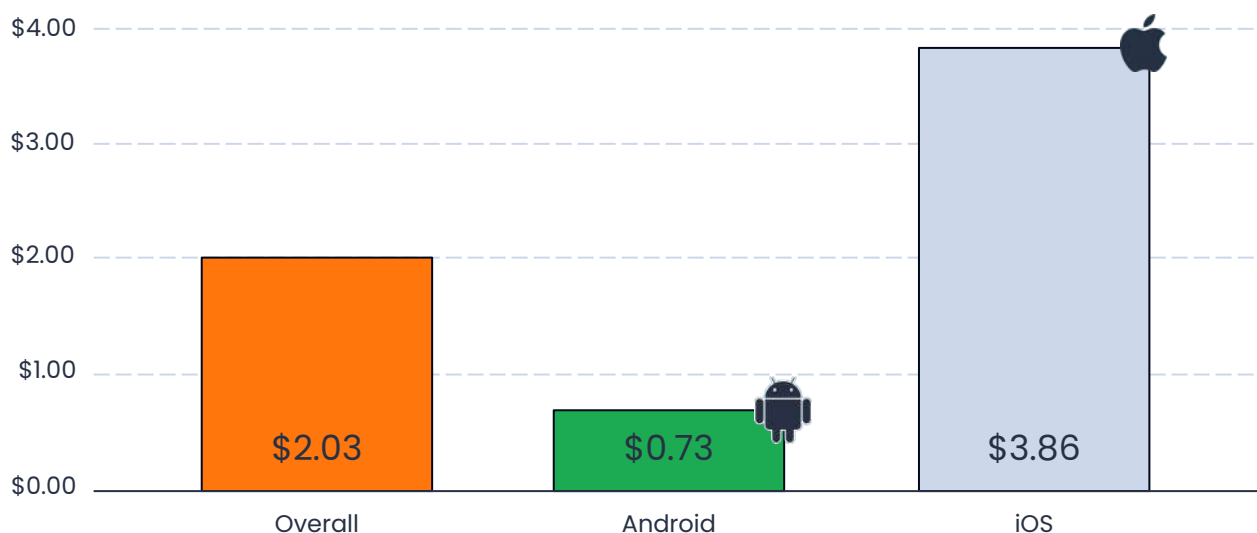
For gamers who enjoy victory through tactical acumen, strategy games involve the management of resources, buildings and troops. They usually play out war and battle scenarios in a strategic setting. Examples include Clash of Clans, Clash Royale and Forge of Empires.



RPG

A popular genre of midcore game, RPGs usually involve playing out a scenario by controlling a character. They are typically narrative-driven and involve progressing through a storyline. Examples include Genshin Impact, Diablo Immortal and Marvel Strike Force.

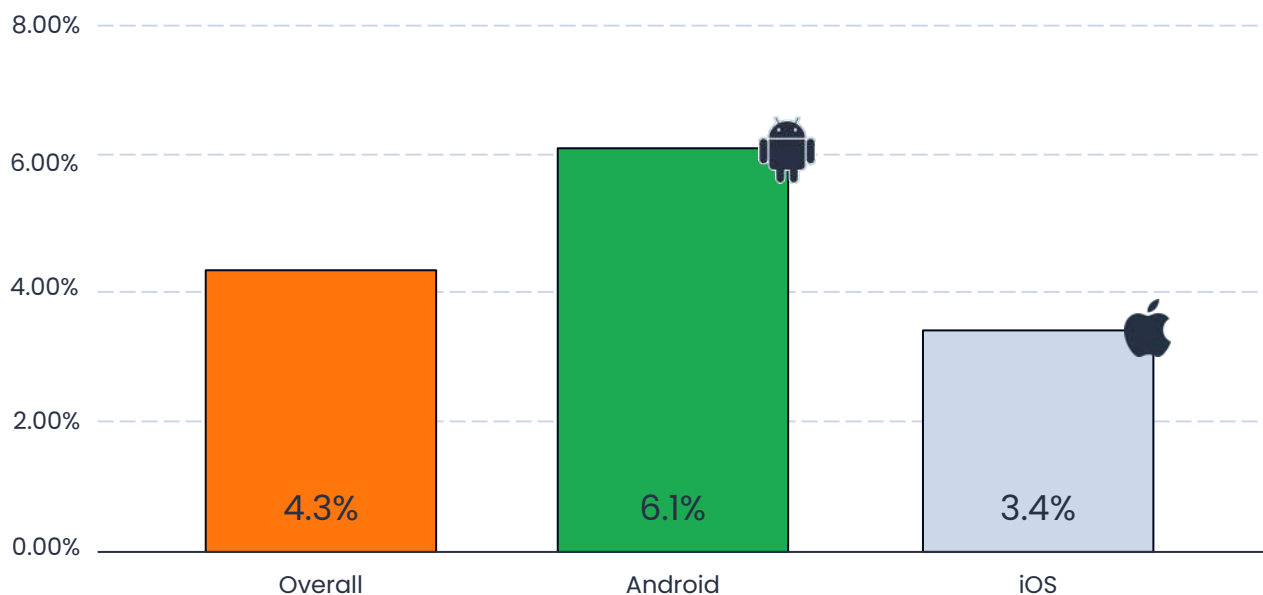
CPI Overall & by Platform



Midcore games have higher barriers of entry for new players. So it's unsurprising that they also have, on average, higher costs of user acquisition:

- ◆ Overall costs per install (CPI) for midcore games average around \$2. This is 2x as high as the overall CPI for casual games, which averages \$1.
- ◆ Android is the more cost-effective platform. At \$0.73 per install, Android users cost 5x less to acquire than iOS users, who average \$3.86 per install.

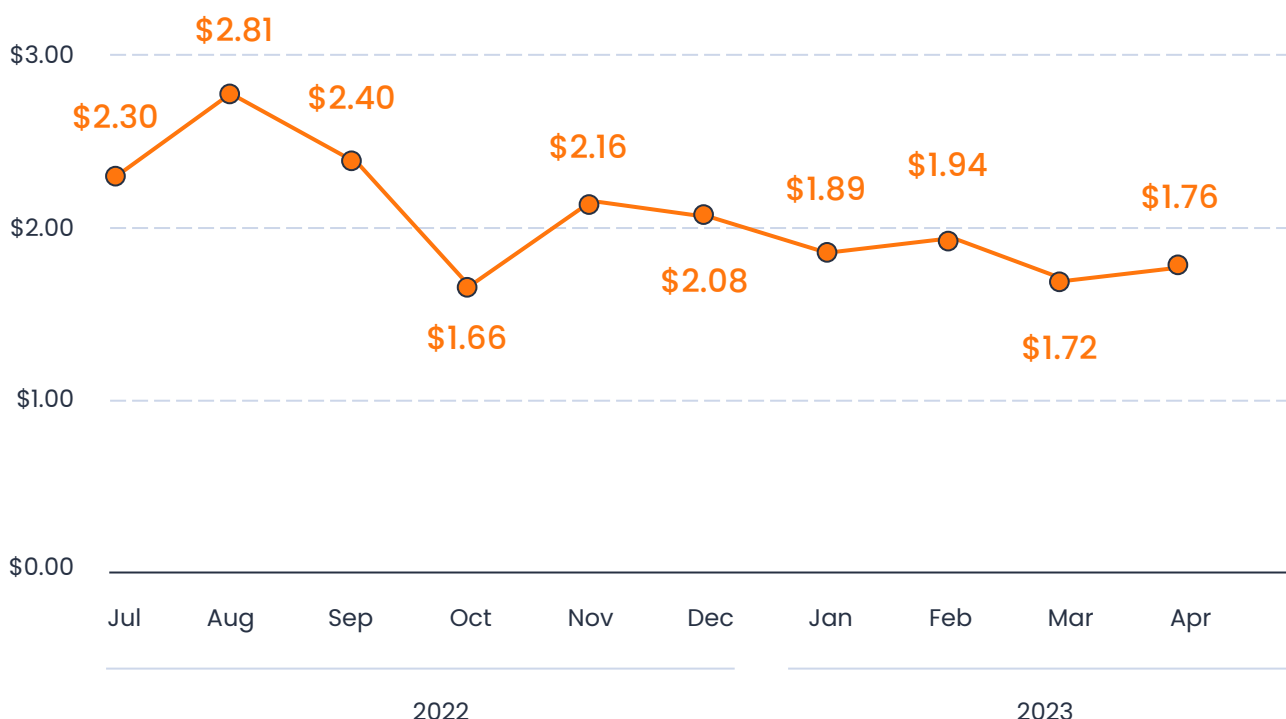
D7 ROAS Overall & by Platform



Midcore games can be lucrative, but they also have longer ROI breakeven points than their casual game counterparts. Day-7 return on ad spend (ROAS) is a helpful indicator for midcore games to gauge the ROI trajectory of new users, but it's not the only metric they should consider.

- ◆ The average D7 ROAS on Android is 6.1%, nearly 2x as much as the D7 ROAS on iOS.
- ◆ While D7 ROAS for casual games averages around 7% across platforms, midcore game D7 ROAS is comparatively lower at 4.3%.
- ◆ New users are indispensable, but midcore games rely on engaged audiences for revenue. Marketers should also consider lifetime value (LTV) metrics to evaluate their success.

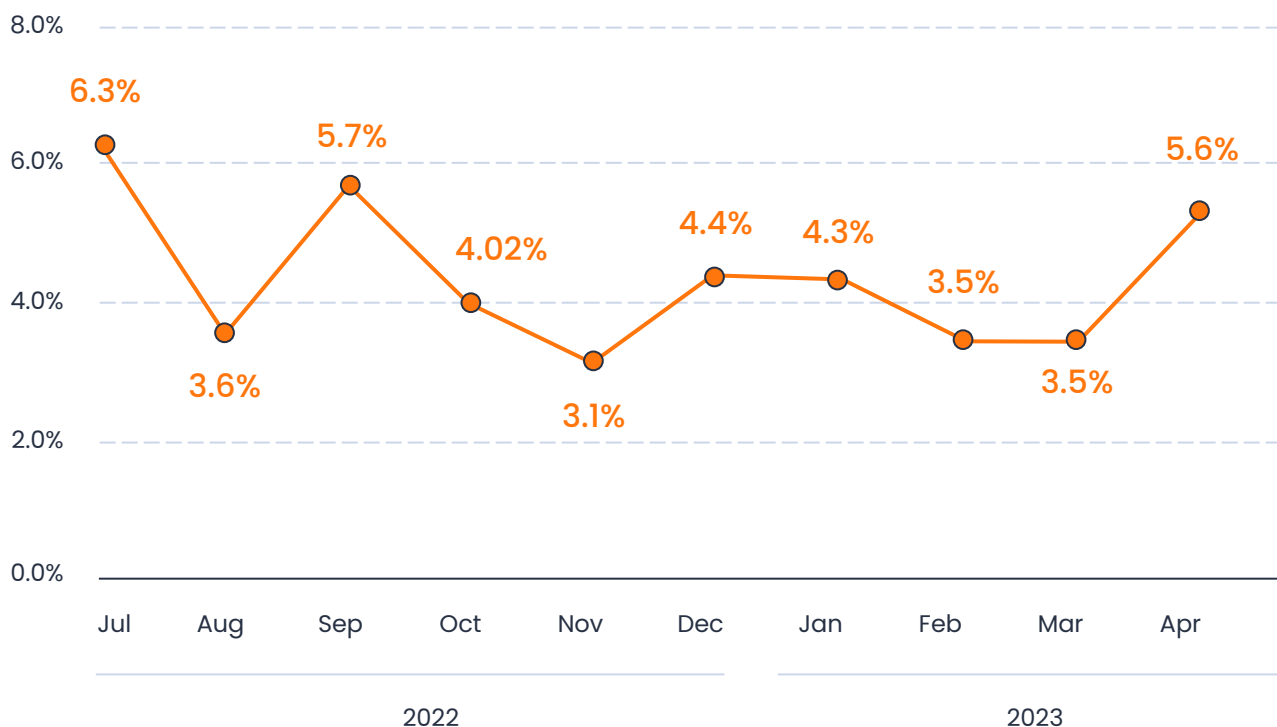
CPI by Month



Acquisition costs for midcore games can fluctuate markedly depending on the time of year. Looking at CPI for the past nine months:

- ◆ Costs were comparatively higher in the summer, peaking in August at \$2.81.
- ◆ Costs hit nine-month lows in October and remained below \$2 in early 2023.
- ◆ Overall, midcore acquisition costs hovered between \$1.50 and \$3. This is \$1 higher than the average range for casual games.

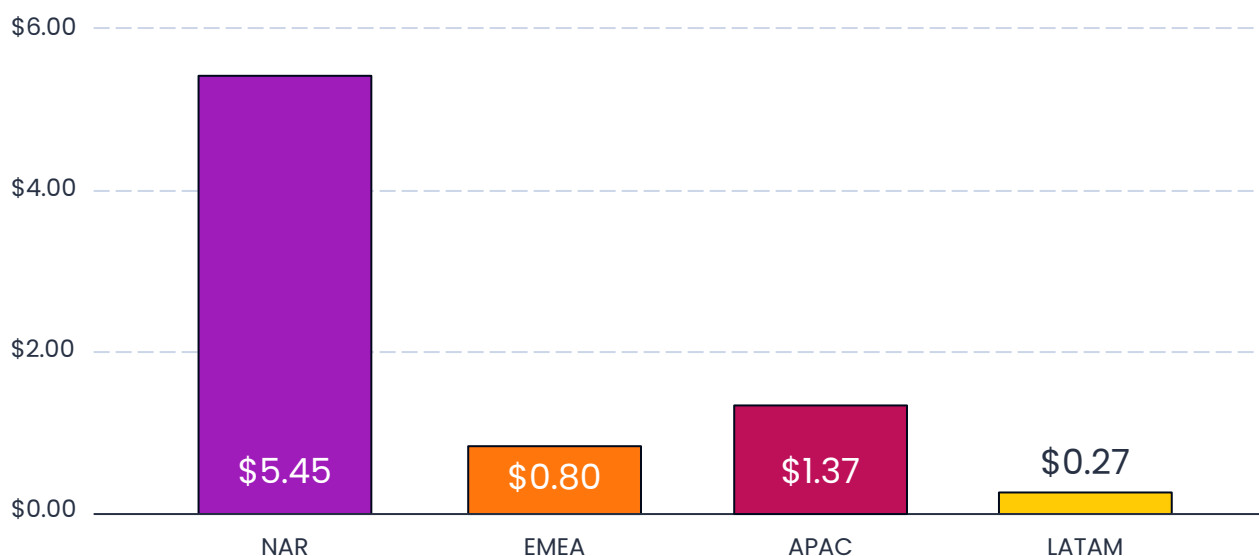
D7 ROAS by Month



D7 ROAS for midcore games fluctuated dramatically in the past nine months.

- ◆ Costs were high in July 2022, but high costs also corresponded with high returns. Midcore games hit an average D7 ROAS of 6.3% that month.
- ◆ Fall and spring saw comparatively lower install costs but also a lower average D7 ROAS—between 3.1% and 5.7%.
- ◆ On average, D7 ROAS for midcore games is over 2% lower than that of casual games.

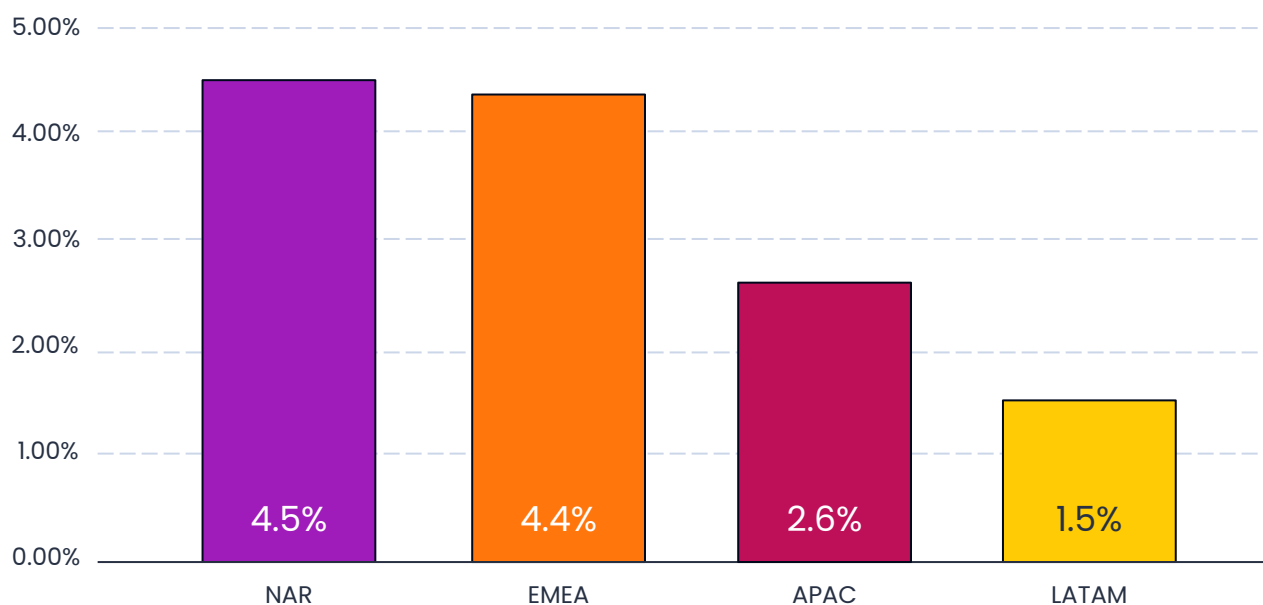
CPI by Region



The gaming market and the habits of midcore gamers vary significantly across different regions. Here's a snapshot of how this impacts cost:

- ◆ Acquisition costs in LATAM tend to be lower across verticals, and the CPI for midcore games reflects this trend at \$0.27 per install.
- ◆ EMEA has the second-lowest CPI at \$0.80.
- ◆ North America has the highest CPI at \$5.45 per install. This is more than 4x APAC, the next highest region.

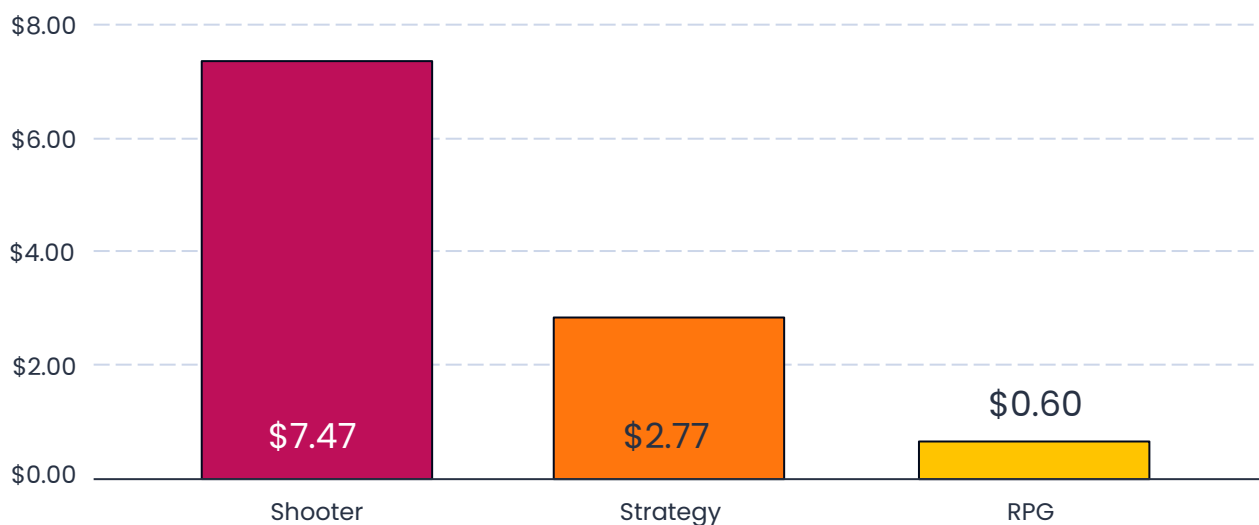
D7 ROAS by Region



Regional differences also translate into different ROIs. Here's what D7 ROAS looks like across the globe:

- ◆ While acquisition costs in North America are comparatively high, this market also yields the best D7 ROAS at 4.5%.
- ◆ EMEA offers the best UA deal for midcore games. It has a relatively high D7 ROAS at 4.4% and the second-lowest CPI at \$0.80.
- ◆ While LATAM has low acquisition costs, it offers lower D7 returns at 1.5%.

CPI by Genre



We looked at three genres of midcore games—shooter, strategy, and RPG. Each is a midcore gaming genre staple, but they attract different audiences with varied motivations.

- ◆ Shooter games have the highest CPI at \$7.47. Their players cost over twice as much as strategy players to acquire.
- ◆ RPG is the most cost-effective genre at \$0.60.

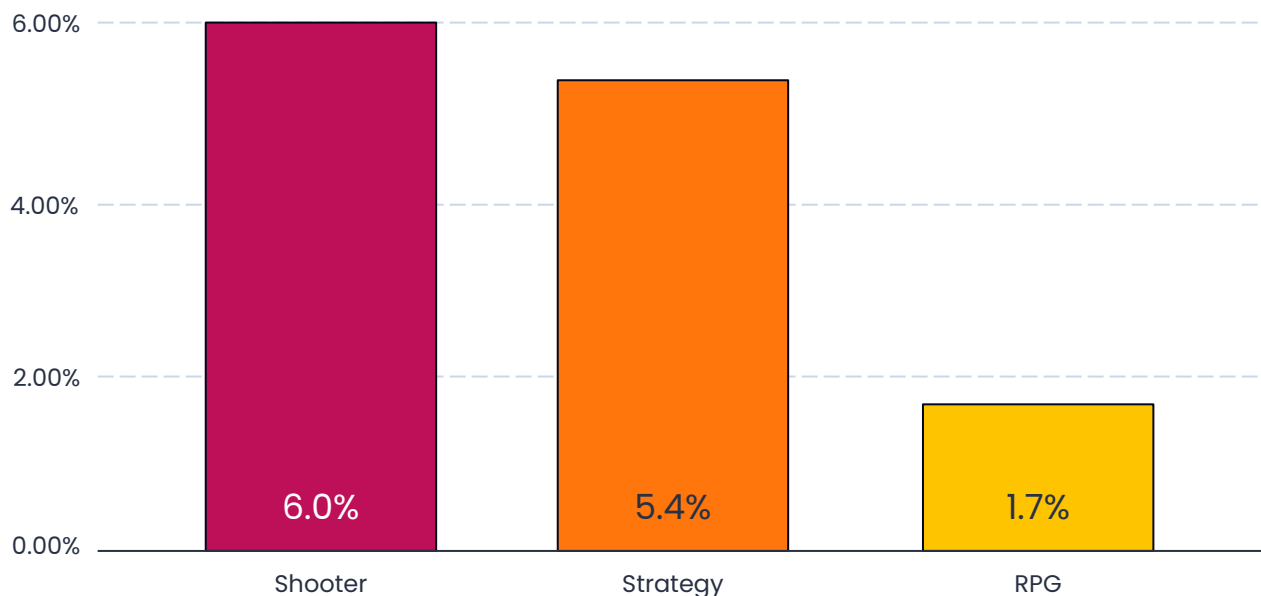
"In today's data-driven landscape, creatives play a crucial role in audience targeting despite the challenges of dealing with highly aggregated data. By gaining insights into what motivates your players and incorporating those elements into your creatives, you can effectively target an audience even when direct access to user-level data is unavailable. This approach allows creatives to do the hard work to reach the right audience. This is especially true for midcore games where the right audience fit is critical to high-performing marketing campaigns."

ALEXEY GUSEV
Head of Growth, Kwalee

MOBILE HEROES
by Liftoff



D7 ROAS by Genre



D7 ROAS can vary depending on how engaged an audience is and how much time users spend in the game. Looking at the three midcore game genres, we found:

- ◆ Shooter games have the highest average D7 ROAS at 6%, while strategy games are a close second at 5.4%.
- ◆ Although RPG games have lower CPIs, they also post substantially lower D7 returns at around 1.7%.
- ◆ Compared to casual gaming genres, midcore genres have a lower average D7 ROAS.

State of the Midcore Gaming Apps Market

→ [How Does GameRefinery Categorize Mobile Games?](#)

→ [Midcore Games in the US: A Market Overview](#)

→ [Midcore Games: Winners and Challengers](#)

→ [Analyst Overview: Honkai Star Rail](#)

→ [Analyst Overview: Call of Dragons](#)

→ [Analyst Overview: Marvel Snap](#)

How Does GameRefinery Categorize Mobile Games?

Midcore	Casual		Sports & Driving	Casino
RPG Action RPG Tower Defense RPG Turn-based RPG Fighting MMORPG Puzzle RPG Idle RPG Survival Sovereign Games Strategy 4X Strategy Asymmetric Survival Build & Battle MOBA Tactic Battler Shooter Battle Royale Classic FPS/TPS Snipers Tactical Shooter Card Games Card Battler	Puzzle Action Puzzle Board Games Bubble Shooter Match 3 Puzzle Merge Games Other Puzzle Word Games Trivia Games Hidden Objects Solitaire/Mahjong Lifestyle Customization Interactive Story Music/Band AR/Location Based AR /Location Based	Arcade Platformer Shoot/Beat' em Up Other Arcade Tower Defense Hyper Casual HC - Puzzle HC - Top HC - Steer HC - Swipe/Drag HC - .io HC - Other Simulation Adventures Breeding Tycoon/Crafting Sandbox Time Management Idler	Sports Arcade Sports Realistic Sports Driving Arcade Driving Realistic Driving	Casino Bingo Casual Casino Other Casino Poker/Cards Slots

GameRefinery divides gaming apps into four categories, genres and subgenres. The second biggest category after casual games, midcore games fall into four genres: RPG, strategy, shooter, and card games.

Drawing on this taxonomy, we looked at top-performing games and new developments in the category.

Midcore Games in the US: A Market Overview

Mid-core

2023 Q1

2023 Q1

☒ Show category share?

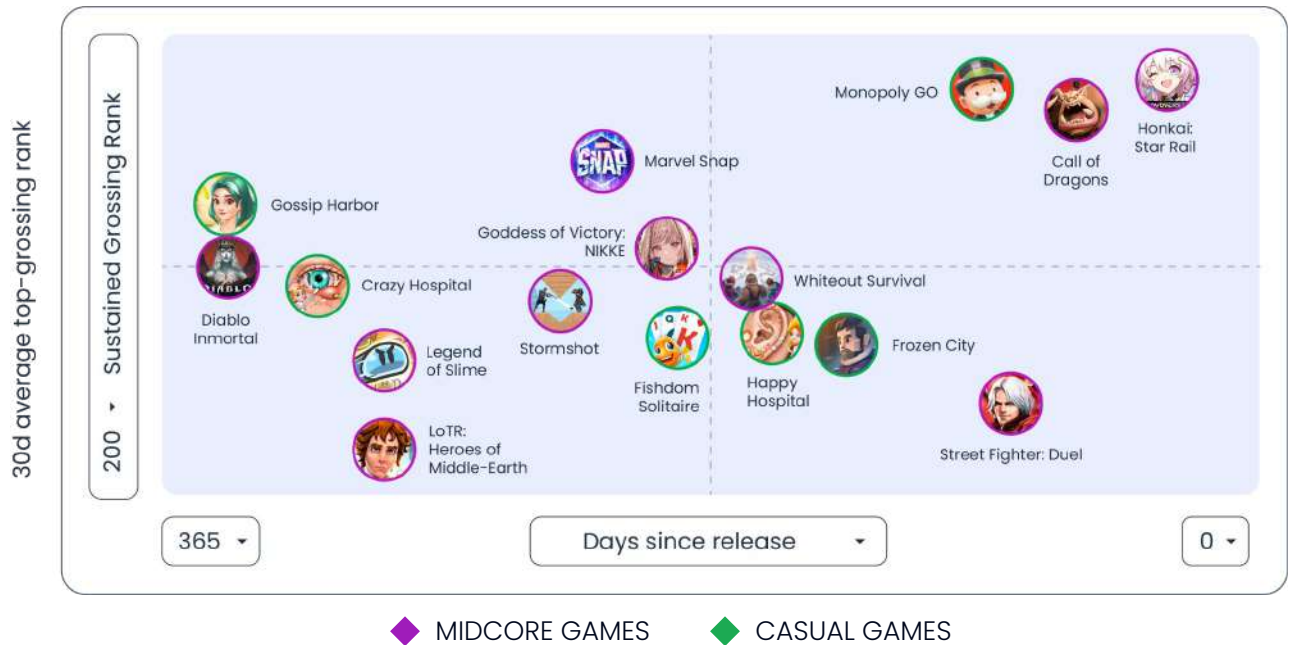
	Rev		Rev
1. Clash of Clans Supercell Build & Battle	4.72%	6. Genshin Impact Cognosphere PTE. Ltd Action RPG	3.48%
2. Call of Duty®: Mobile Activision Publishing Inc. Classic FPS/TPS	4.27%	7. Rise of Kingdoms Lilith Games 4X Strategy	3.36%
3. Evony Top Games Inc. 4X Strategy	4.12%	8. State of Survival: Zombie War FunPlus International AG 4X Strategy	3.28%
4. Puzzles & Survival Building-Blocks Network Technology Co. Ltd 4X Strategy	3.7%	9. Top War: Battle Game Topwar Studio 4X Strategy	2.86%
5. Age of Origins: Tower Defense Hong Kong Ke Mo Software Co. Ltd 4X Strategy	3.6%	10. PUBG Mobile Tencent Mobile International Ltd Battle Royale	2.74%

Midcore mobile games are a growing business. **Currently, the midcore category's market share accounts for around 35% of mobile gaming revenue on iOS in the US.** Above are the top 10 midcore games on iOS from Q1 of 2023 according to GameRefinery data.

Here are a few takeaways from the top games:

- ◆ Strategy (4X strategy, build & battle) make up the lion's share of the top midcore games. Seven out of 10 of the top games belong to the strategy genre.
- ◆ Genshin Impact is the only RPG title among the top ten grossers, and Call of Duty: Mobile and PUBG Mobile round out the shooter genre.

Midcore Games: Winners and Challengers



Above are the midcore and casual games released in the past 365 days on iOS in the US that have held their position in the top-grossing 200. Notably, we only see five casual games compared to ten midcore games, signifying longer staying power for midcore winners.

In the next few pages, we'll look at what the new top challengers in the midcore category look like—and why they've proved so successful.

"To get a sneak peak into the midcore trends of tomorrow, look at Gen Alpha's gaming habits. Roblox and Minecraft dominate their playtime, but each game is not a monolith. Developers and publishing teams can observe what specific Roblox experiences and Minecraft mods are trending today to extrapolate what genres and IP-styles might be popular in the next 2-5 years as Gen Alpha ages up."

OLIVER WANG
Head of Growth, Mushroom.gg

MOBILE HEROES
by Liftoff



Analyst Overview: Honkai: Star Rail



HONKAI: STAR RAIL

Genre & Style

Honkai: Star Rail is a turn-based RPG with exploration from the makers of Genshin Impact. The game is set in a colorful sci-fi world and features cel-shaded anime characters from the Honkai mobile game series.

Features & Progressions

Core:

- ◆ A turn-based character collector RPG. The main core gameplay of all the game modes consists players building a team of 1-4 characters to battle in turn-based combat.
- ◆ Exploring maps with enemies that can be attacked to initiate a battle scene
- ◆ Turn-based battles:
 - Break enemies by attacking them with their weak element
 - Shared skill points for the whole team, which can be changed by regular attacks

→ For a detailed breakdown of Honkai: Star Rail, try [GameRefinery](#) today.



Teemu Palomäki
Chief Game Analyst
GameRefinery,
A Liftoff Company

Analyst notes:

- Honkai: Star Rail stands out from the crowd with its high-quality visuals, exploration elements, and meta elements first proven to work with Genshin Impact.
- The game features many high-quality cutscenes that help give the game a AAA console/PC game feel.
- Honkai: Star Rail is a crossplay title and can be played outside mobile.

Analyst Overview: Call of Dragons



CALL OF DRAGONS

Genre & Style

Call of Dragons is a 4X strategy game where players choose different factions to build their armies. It is the spiritual successor to Rise of Kingdoms. The game comes from the same team and has a lot of similarities. This time, the theme is more fantasy-based. One crucial change is that the whole game is season-based, and the combat is more hands-on (see below).

The game has incredibly high production values. The cartoon-like art resembles a Pixar movie.

Features & Progressions

Combat:

Combat is one factor that makes Call of Dragons stand out in the 4X strategy market:

- ◆ You're moving legions freely on the world map, just as in Rise of Kingdoms.

→ For a detailed breakdown of Call of Dragons, try [GameRefinery](#) today.



Erno Kiiski
Chief Game Analyst
GameRefinery,
A Liftoff Company

Analyst notes:

Call of Dragons is a unique title in the 4X strategy market for a few reasons:

- It has a season-based gameplay loop.
- Real-time RTS combat familiar from Rise of Kingdoms is taken to the next level with active skills.
- Highly polished audiovisuals & voice-acted narrative level up this 4X strategy game.

Analyst Overview: Marvel Snap



MARVEL SNAP

Genre & Style

Marvel Snap is a turn-based collectible card game where you play real-time matches against other players using a deck you've compiled containing cards from your collection.

The art style pays homage to the Marvel IP, with electric blue, black and pink dominating the dark-hued color palette. The quality of graphics, animation, and sounds is very high, with unique character animations giving the final touch to the polished audiovisual experience.

Features & Progressions

Core game:

- ◆ Matches are very short (a couple of minutes), making Marvel Snap very approachable and easy to play in quick stints. This differs significantly from the average mobile CCG, where matches usually last much longer.

→ For a detailed breakdown of Marvel Snap, try [GameRefinery](#) today.



Joel Julkunen

Vice President of Games
GameRefinery,
A Liftoff Company

Analyst notes:

- Marvel Snap took the CCG genre by storm with an innovative card collection system (no card packs!), easy-to-learn gameplay, and quick matches that were always a bit different, thanks to area mechanics.
- With a constant, steady flow of new content and features, Marvel Snap has sustained its stellar performance on the charts with no decline in sight.

Top Trends in Midcore Gaming

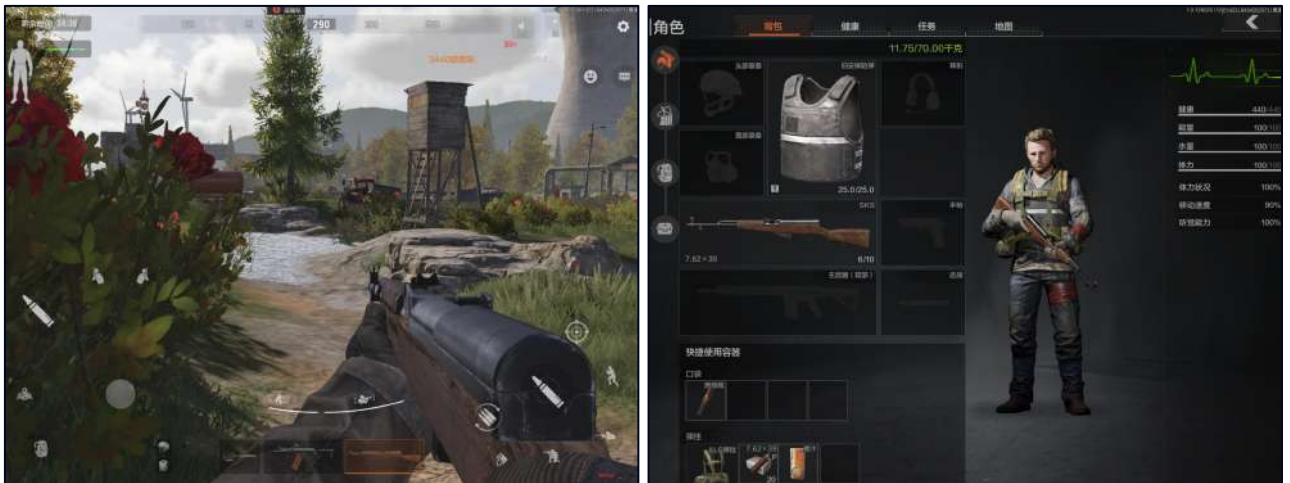
- New in Shooter Games: Innovative Subgenres
- Monetizing Battle Passes: Event Passes
- Monetizing Battle Passes: Battle Pass Stores
- Season-Based Systems to Boost Engagement
- Shortcuts to External Web Stores
- LiveOps—the #1 Strategy for Upping Engagement

New in Shooter Games: Innovative Subgenres

The shooter market has been dominated heavily by battle royale titles for a while, but new subgenres are finally starting to gain traction.

One of these emerging subgenres is extraction shooters, where you enter a map to loot, kill, survive, and then get extracted back to safety. Extraction shooters feature more tactical, realistic, and slower-paced gameplay than battle royale games. While the Western mobile game market is still waiting for a hit extraction shooter, PC already has a handful of popular titles, such as *Escape From Tarkov*.

In the Chinese mobile game market, however, the best-performing new mobile shooter and the 3rd highest-grossing shooter overall is an extraction shooter 暗区突围 (Arena Breakout). We are waiting for a global launch for the game. PUBG Mobile also introduced an extraction game mode titled Metro Royale—now a recurring event mode.

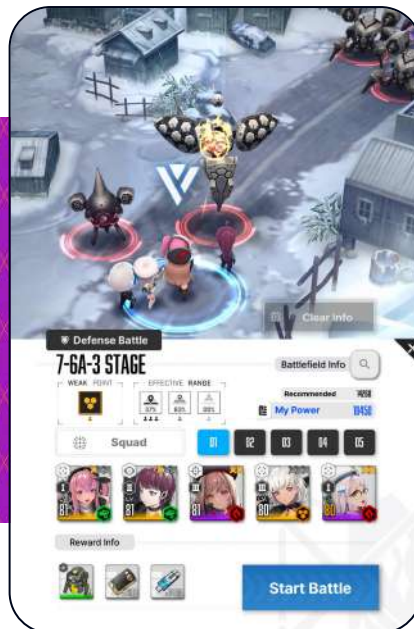


EXTRACTION SHOOTER 暗区突围 (ARENA BREAKOUT)

A handful of other PC shooter subgenres—RPG shooters with established titles like Tom Clancy’s *The Division* and *Destiny*, for example—are coming to mobile. One of the best-performing new RPGs on mobile, *Goddess of Victory: Nikke*, also features shooter-core gameplay.

One of the key success factors for new mobile games is the ability to differentiate their gameplay in a saturated field with new features and mechanics. It’s great to see the shooter market evolving and innovating.

ACTION RPG SHOOTER GODDESS OF VICTORY: NIKKE



Monetizing Battle Passes: Event Passes

Battle Pass is a proven monetization and engagement feature. It can be a standalone recurring event or a game-wide progression system. Due to the vast potential of battle passes, more and more midcore games have been adding it to their events for additional monetization layers and progression layers.



LEAGUE OF LEGENDS: WILD RIFT –
LUNAR FEAST

On top of the game's regular battle passes, some of their events are monetized through an Event Pass with both free and premium reward layers included. This can be interpreted as a more player-friendly way to monetize the event rewards compared to, for example, gachas.

Some implementations of event passes are League of Legends: Wild Rift in their Lunar Feast event, Goddess of Victory: Nikke in chainsaw Man collaboration event, and Clash Royale in each of their Tournament events.



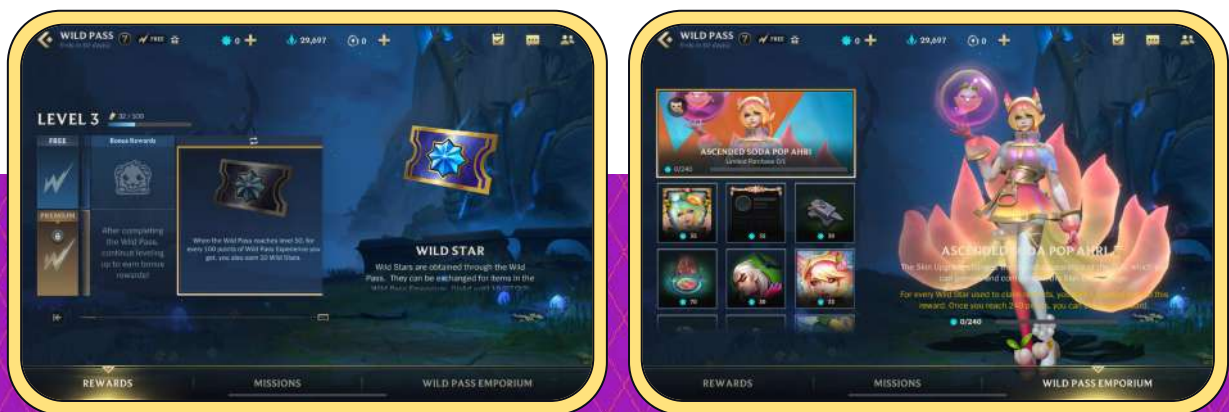
CLASH ROYALE – TOURNAMENT EVENTS

Monetizing Battle Passes: Battle Pass Stores

Another trending battle-pass implementation in the highest performing midcore games are in-Battle Pass stores. There's usually a special currency gained from the Battle Pass reward tracks, often as a bonus reward once the main track is completed.

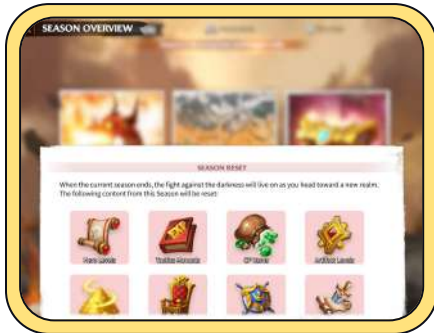
This special currency is used in a limited time shop found inside the Battle Pass menu to get additional exclusive prizes. As a feature, the battle pass store adds a new interesting layer to the Battle Pass, further incentivizing players to purchase and progress in the premium layer.

For example, Diablo Immortal uses a battle archive shop that features past seasons' rewards. These rewards are available for purchase with battle archive coins, which you can get only with the more expensive version of the premium battle pass layer. League of Legends: Wild Rift, on the other hand, has a Wild Pass Emporium shop that features exclusive skin upgrades. This is in addition to the main reward, Wild Pass. Players can also purchase other related cosmetics directly, or with Wild Stars gained from the battle pass.

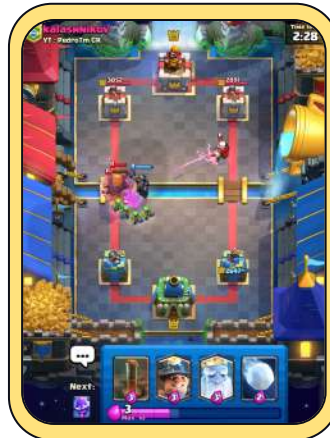


LEAGUE OF LEGENDS: WILD RIFT – WILD PASS EMPORIUM SHOP

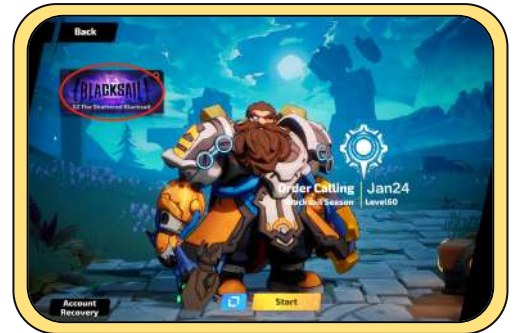
Season-Based Systems to Boost Engagement



CALL OF DRAGONS



CLASH ROYALE



TORCHLIGHT: INFINITE

Another trend we're seeing is the increased use of season-based systems. Changing the game season to season offers a chance to introduce new content, boosting engagement.

The hit strategy game Call of Dragons stands out from the market precisely this way. A lot of the progression vectors reset season to season. Even when not everything is reset, the change still brings a "fresh cyclical feel" to the game and tackles the problem of the game becoming very stale.

This has also expanded outside of the strategy market. For example, RPG games like Torchlight: Infinite rely on a similar seasonal approach to refresh their gameplay loop.

Clash Royale is another game that recently overhauled its event systems to create an interconnected season with a seasonal currency and shop.

"One interesting development in multiple games in the midcore market is the popularity of season-based systems. This means tighter seasonal cycles in the gameplay loops."

ERNO KIISKI

Chief Game Analyst, GameRefinery, a Liftoff Company

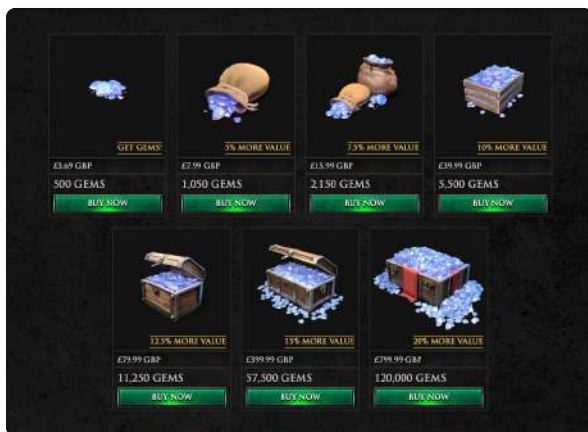


Shortcuts to External Web Stores

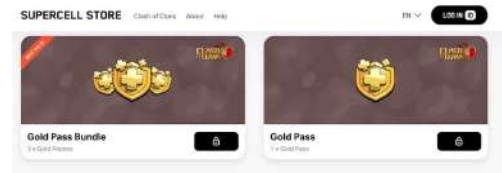
One interesting trend we're currently seeing, especially among Midcore games, is that mobile game publishers are pushing users to external web stores. Instead of selling in-game items in Google and Apple stores, games are choosing to bypass them entirely.

In the [Apple v Epic lawsuit](#), Apple prevailed on most claims, but Epic won on one crucial count—Apple must allow links to apps to sell in-app purchases outside of the Apple App Store. Apple has already appealed against this decision, so the trend may be short-lived. However, many games are already turning to external alternatives, and more are likely to follow if the decision holds.

Notable games such as Game of Thrones: Conquest, Clash of Clans, Star Wars: Galaxy of Heroes, and Star Trek Fleet Command are already actively utilizing external web stores to give their players better deals and enticing offers.



GAME OF THRONES:
CONQUEST WEB STORE



SUPERCELL STORE FOR CLASH OF CLANS



STAR TREK FLEET COMMAND WEB STORE

LiveOps: The #1 Strategy for Upping Engagement

In today's mobile game market, attaining new, high-LTV players is harder than ever, and retaining your user base is crucial. In addition to having great core gameplay and appealing meta elements, an active LiveOps framework is now a key way for top games to expand the experience and keep their players engaged.

This is especially true with midcore games, where all top-performing titles have huge LiveOps content cadences. They not only introduce new features, game modes, and items or characters, but they also boast rich event frameworks.



CALL OF DUTY: MOBILE – RANKED SEASON

The event frameworks usually consist of recurring looping events (e.g. battle passes, competitive seasons) and more unique non-recurring events with new twists. These can be e.g. limited-time game modes or large-themed events. Additionally, a constant flow of IAP bundles and limited-time gachas are a “must-have” if you want to boost your monetization and attain top-tier status.

"I'm seeing more midcore games creating consistent live events for their communities. This is a great reengagement strategy that drives users back to the game with fresh content. It's also a fun way to introduce more competition among players. Some games even encourage users to post their results on social media to increase community engagement. When midcore games can tap into building their brands, they have a powerful community more motivated to monetize."

GABBY PIGOTT

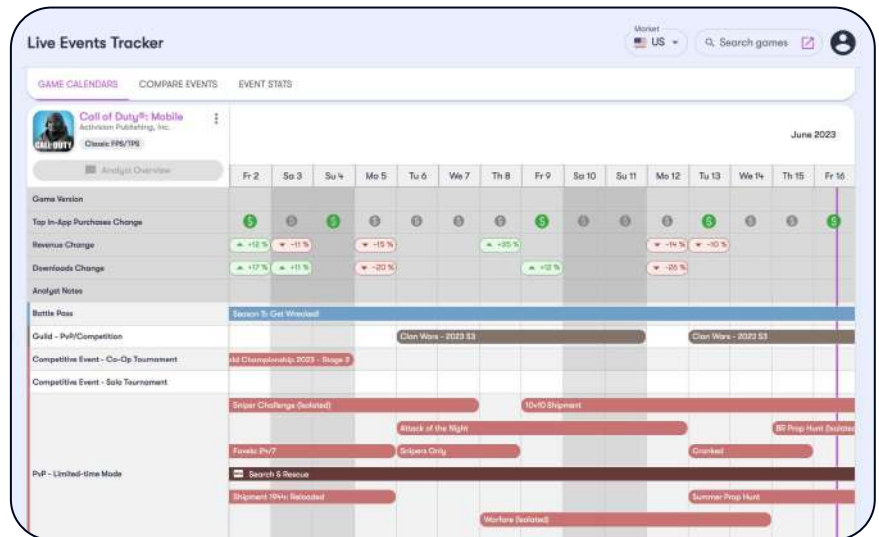
VP Partnerships, Candywriter

MOBILE HEROES
by Liftoff




candywriter

Having a variety of events can reenergize an audience and boost revenue. If we look at Call of Duty: Mobile as an example, we can see how installs and revenues correspond with season cycles, promotions, and events.



→ For a closer look at live events for midcore and casual games, try GameRefinery's [Live Events Tracker](#).

Did you know?

Insights from the GameRefinery Live Events Tracker



- ◆ Event cadence among the top midcore games is remarkably high. The average number of unique events active simultaneously is 15, even when excluding IAP offers & gachas.
- ◆ Midcore games are heavy in PvP/competition, with 88% of top games running permanently looping PvP seasons and 56% running guild-related competitions.
- ◆ Most successful RPGs offer a wide variety of player versus environment (PvE) modes for players, with an average of seven unique recurring or limited-time PvE modes available at the same time.
- ◆ Top-grossing shooter titles are all heavily monetized through gacha, with a whopping 15 limited-time gachas available simultaneously, having average durations of 23 days.

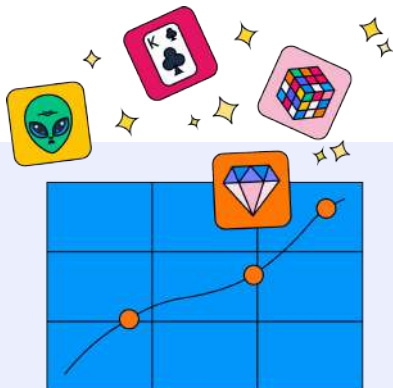
Who is *GameRefinery*?

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Intelligence to Build Better Games

GameRefinery speaks to game and product teams throughout the development process, from pre-production to LiveOps, to help them build better games. Leverage industry-leading market research, competitor intelligence, and player insights.



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Who is liftoff?

Liftoff is the leading growth acceleration platform for the mobile industry, helping advertisers, publishers, game developers and DSPs scale revenue growth with solutions to market and monetize mobile apps. Liftoff's solutions, including Accelerate, Direct, Influence, Monetize, Intelligence, and Vungle Exchange, support over 6,600 mobile businesses across 74 countries in sectors such as gaming, social, finance, ecommerce, and entertainment. Founded in 2012 and headquartered in Redwood City, CA, Liftoff has a diverse, global presence.

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