



LIQUID&GRIT

CASINO REPORT

Competitive Research and Actionable Product Recommendations

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2020

PLATFORMS & REGULATIONS



SIGN IN WITH APPLE

Apps on iOS that require players to sign in using a third-party or social media login service must also offer Sign in with Apple by April 2020.

Sign in with Apple Details

- Users can sign in to third-party apps using their Apple IDs.
- Apple does not collect data beyond names and email addresses.
- Apple IDs come with built-in two-factor authentication.
- Users can also sign in using Face ID or Touch ID.
- Apple IDs work on all Apple operating systems for mobile devices, computers, and TVs.
- Apple automatically flags suspected fake accounts for developers to review.

App Store Guideline Details

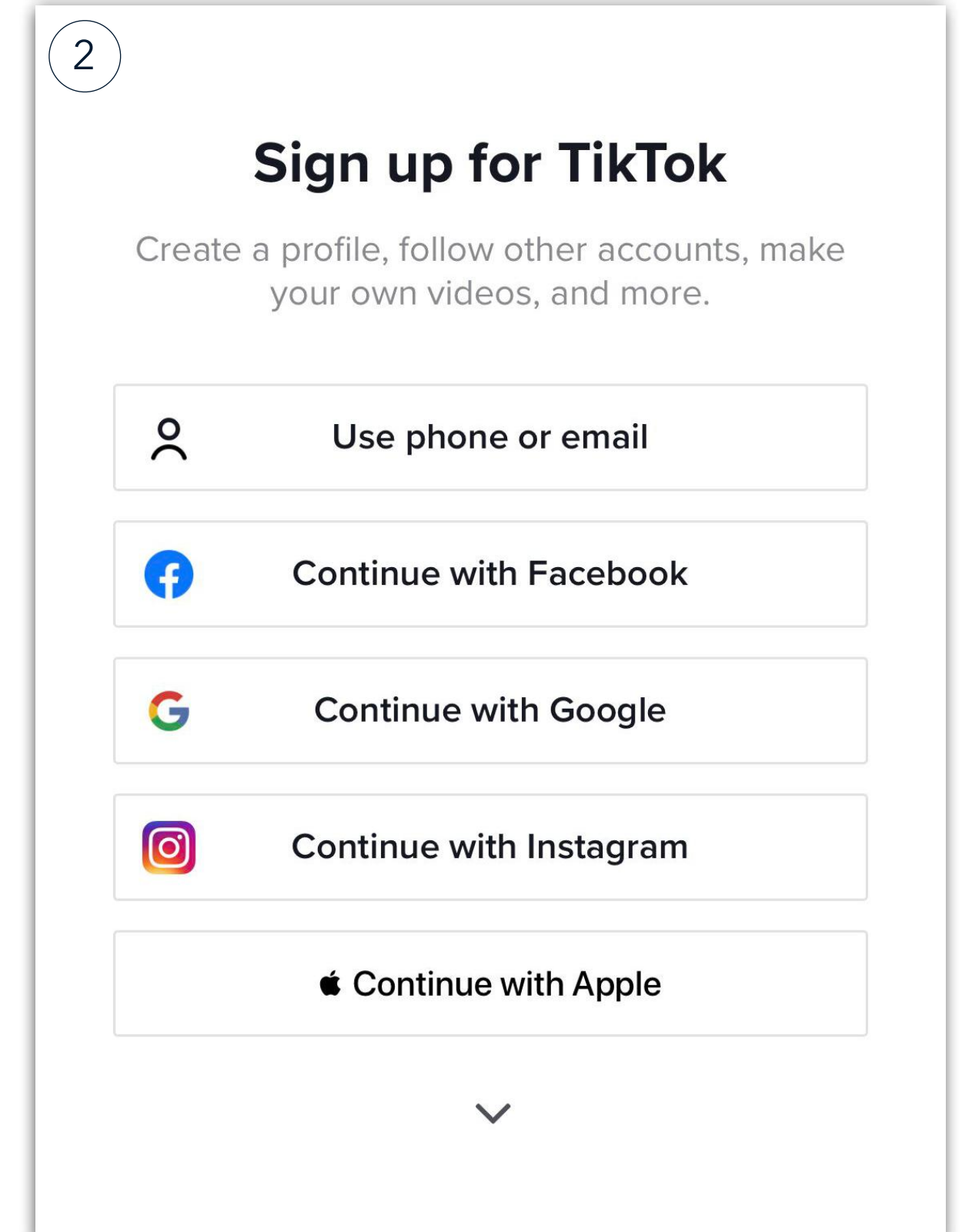
- Apps that exclusively use third-party login services (e.g., Facebook Login or Google Sign-In) must also offer Sign in with Apple.
- Apps with developer-based accounts and sign-in services do not need to add Sign in with Apple.
- Developers must implement Sign in with Apple by April 2020.

Sign-In Flow Examples

- *Homescapes* with [Sign in with Apple \(1\)](#)
- *TikTok* with Sign in with Apple ([2](#))
- *Hidden City* [G5 Games Account](#) without Sign in with Apple
- *Candy Crush Saga* [King Account](#) without Sign in with Apple
- *Caesars Slots* [Playtika Games Account](#) without Sign in with Apple

Additional Information

- [Sign in with Apple Information](#)
- [App Store Guidelines](#) (Section 4.8)



CCPA (CALIFORNIA CONSUMER PRIVACY ACT)

California's CCPA contains a few key differences from the EU's GDPR that companies must adopt by January 1, 2020 in order to comply with both regulations.

CCPA Key Details

- Businesses must enable and comply with users' requests to opt out of the sale of their personal information.
 - Websites must include a "Do Not Sell My Personal Information" link in a clear location.
 - After consumers opt out, businesses cannot request reauthorization for 12 months.
- Developers cannot sell personal information of users under age 16 without consent.
 - Users aged 13–16 can provide consent themselves.
 - Users under age 13 require parental consent.
- Companies have 30 days to cure violations to avoid statutory damages.
 - Consumers may seek actual damages (i.e., provable financial losses) without giving prior notice or allowing for a cure period.
 - If violations are not adequately cured within a 30-day period, consumers may seek the greater of actual damages or statutory damages ranging from \$100 to \$750 per individual.
 - California's attorney general may bring actions for civil penalties up to \$2,500 per unintentional violation and up to \$7,500 per intentional violation.

Actions

- Review and update privacy policies and data practices to address CCPA requirements.
- Provide opt-in and opt-out options where appropriate.

Implementation Examples

- Playtika
 - [Privacy Policy](#) (see Annex 1 at the bottom for CCPA specific notices)
 - [Privacy Request Portal](#)
 - [Network Advertising Initiative Consumer Opt-Out Page](#)
 - [Digital Advertising Alliance Opt-Out Page](#)
- Zynga's [CA Notice](#)
- Apple's [CCPA Disclosures](#)

Additional Information

- [California Consumer Privacy Act of 2018, Full Text](#)
- [What Interactive Digital Entertainment Companies Are Doing to Prepare for the California Consumer Privacy Act](#)
- Practical Law's [CCPA and GDPR Comparison Chart](#)
- Proxyclick's [GDPR and CCPA compliance: The 5 differences you should know](#)
- Truyo's [The CCPA Hidden Game Changer: "Do Not Sell My Personal Information"](#)

REVENUE DRIVERS



CASINO > EVENTS > MINI-GAMES

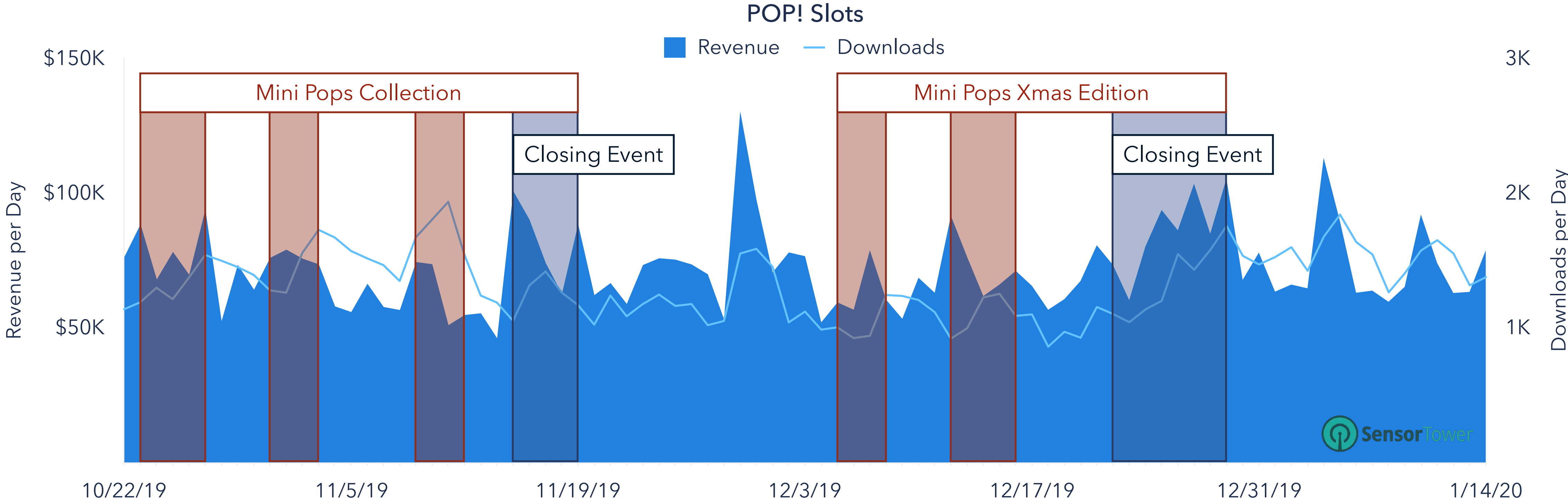
COIN MASTER-STYLE EVENTS

Mini Pops Collection in *POP! Slots*

REVENUE ANALYSIS

For the duration of each Mini Pops edition, revenue was +2% compared to the previous period. The closing events of both editions saw the largest revenue increases, +32% and +24% WoW.

Releases
12/21–12/27: Win Zone Xmas Tree Challenge challenge event
12/22–12/29: Mini Pops Xmas Edition mini-game event
• 12/5–12/8: Initial event
• 12/12–12/16: Second event
• 12/22–12/29: Closing event
12/23: \$1.99 Coin Deal IAP moved +1 to #3
12/24–12/26: Get Away Club rewards event
12/24–12/27: Mini Pops Christmas Party purchase event (FB)
12/27: Mega Win Challenge rewards event
12/27–12/29: Clearance Sale purchase event



Graph data is iOS U.S. only.
WoW = This week over last week.

FEATURE TEARDOWN

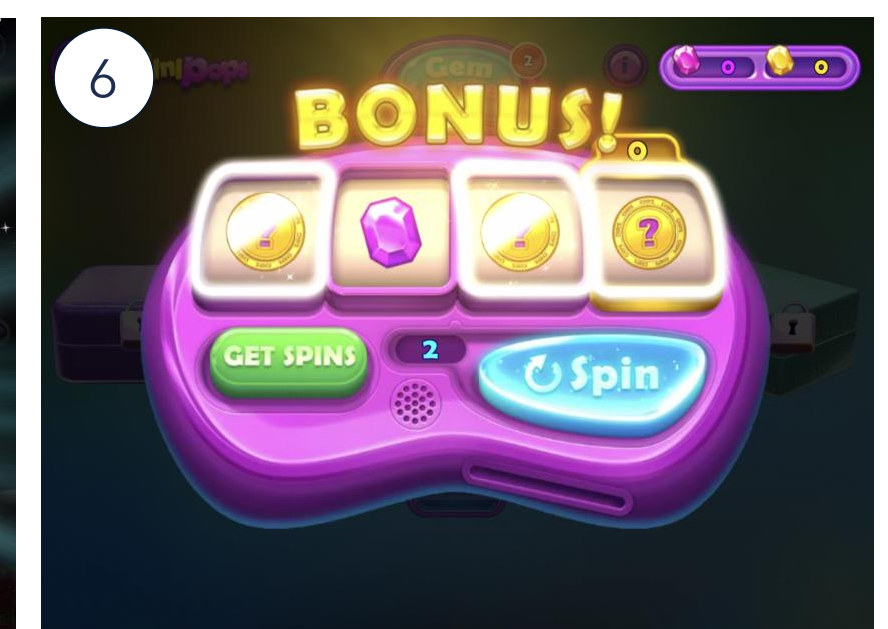
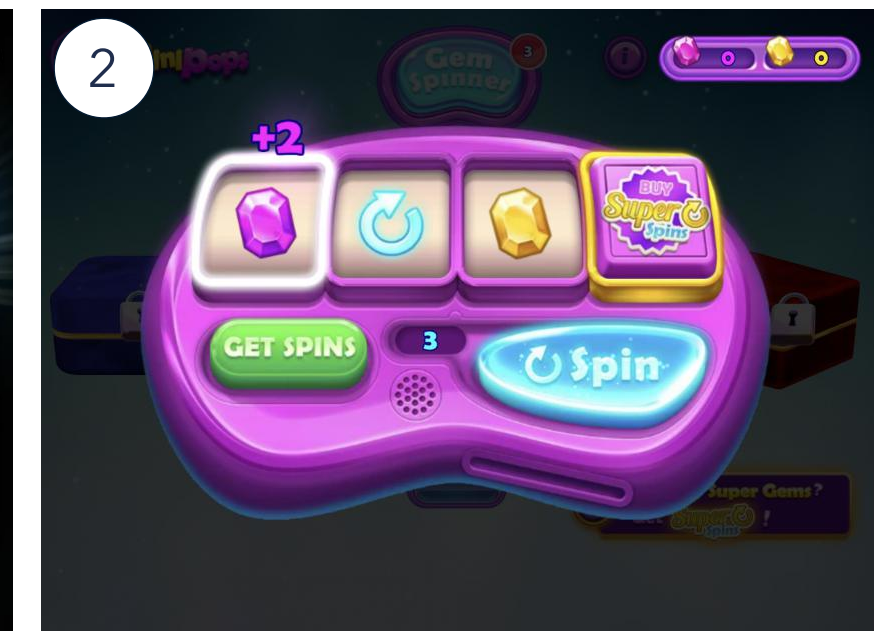
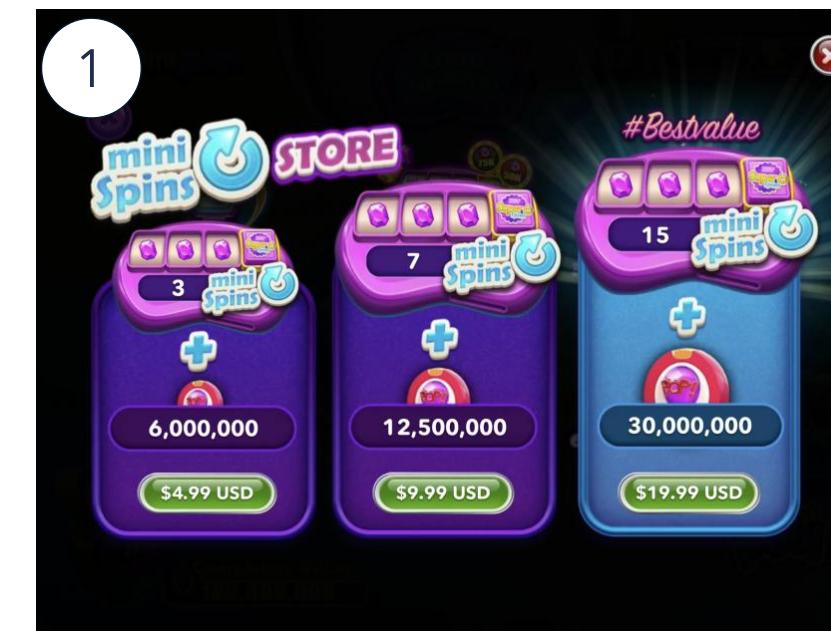
Players spin on machines or make purchases to collect spins for a mini-stepper that awards gems. Gems are used to unlock and upgrade a collection of mini-areas. Players' progress persists across multiple events within each edition.

Details

- Players spin machines or make purchases to collect mini-stepper spins (1).
- Mini-stepper spins award gems (2).
- Players spend gems to unlock and upgrade mini-areas (3 and 4).
- Fully upgrading all areas awards a completion prize and enters players in a raffle for a \$100 Amazon gift card (5).
- Landing three tokens on the mini-stepper awards a pick'em bonus for a chip prize (6 and 7).
- Players can purchase Super Spins for better rewards (8).
- Each edition of Mini Pops occurs in a series of releases.
 - Players maintain their progress across releases within each edition.

Additional Information

- See the [Mini Pops Collection](#) and [Mini Pops Xmas Edition](#) Libraries.



PRODUCT INSIGHTS

Keep players motivated by offering multiple paths at the start of a progression and a single path at the end. Maintain player progression across events—a trending mechanic in casino apps—to increase retention.

Engagement

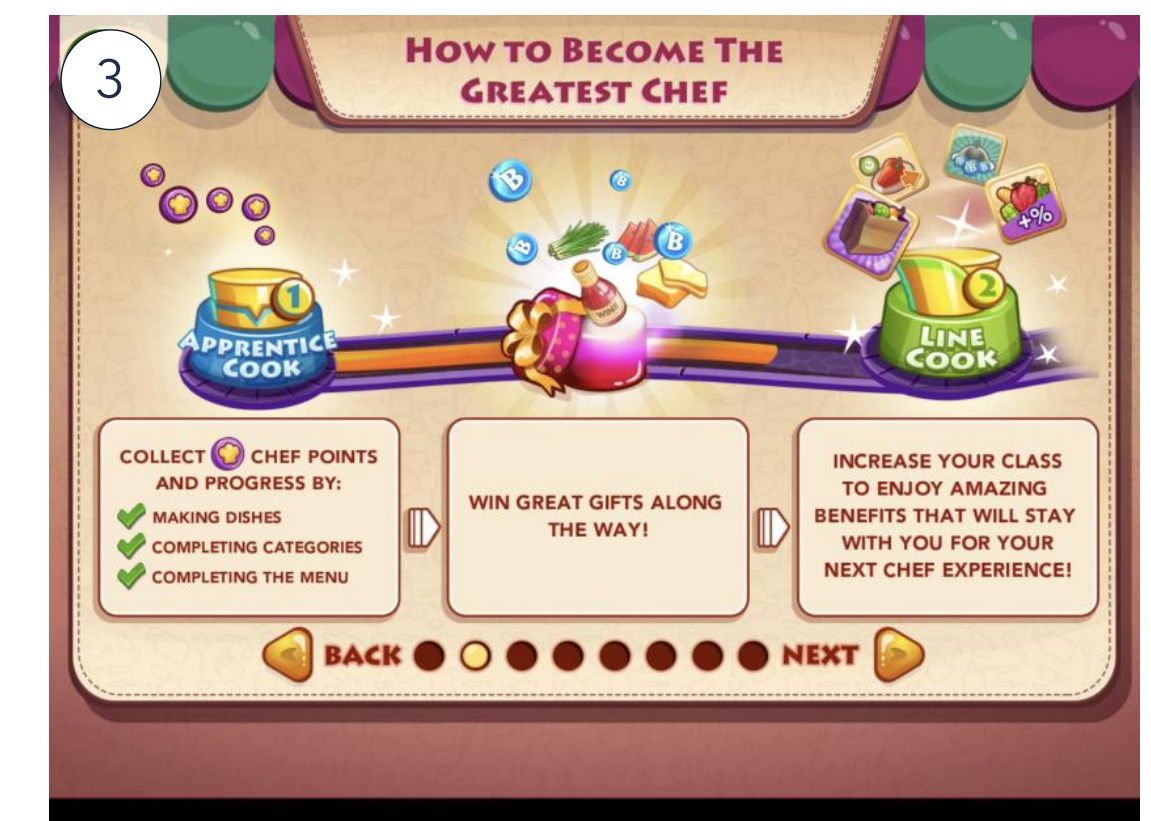
- **In progression systems, give players multiple options at the beginning ... and only one toward the end.** The Mini Pops events allow players to unlock mini-areas in any order and switch between goals. As players complete mini-areas, the number of ways to progress reduces. People are most motivated when given multiple options for progression at the beginning of a goal and a single option as they get closer to completion.¹
- **Add mastery or competition mechanics to engage high-value players.** In longer events, mastery mechanics or gated competitions create unlimited replay potential. For mastery mechanics, reference the [Rewind](#) feature in *Two Dots*' [Daily Quests](#), which increased revenue by 11% 4Wo4W (1). For gated competitions, review *Star Trek Fleet Command*'s [Mirror](#), [Mirror](#), which increased revenue by 11% 17Do17D.

Revenue

- **Use different price points to simplify purchase decisions.** Mini Pop's [Clearance Sale](#) offers two different IAP bundles at the same price. This can make purchases more difficult and increase drop-off rates. One study found that pricing two items differently by just a few cents increased purchase completion rates by 67% compared to using the same price for both items.² For example, *Bingo Blitz* used a dialogue with three strategically-priced packages during the [Pick-A-Diamond](#) mini-game event, which helped increase revenue by 26% WoW (2).

Retention

- **Use persistent progressions throughout events to reward repeat play.** Each edition of Mini Pops allows players to save their progress from one event to the next. This is similar to *Bingo Blitz*'s [Euro Bites](#) collection event (+23% revenue WoW), in which players earn ranks for better rewards and faster progression that carry over to other events in the series (3).



¹ [Hidden Brain, Ep. 2 - Near Wins, And Not Quites: How Almost Winning Can Be Motivating](#)

² [Adding Small Differences Can Increase Similarity and Choice](#), p. 227–228

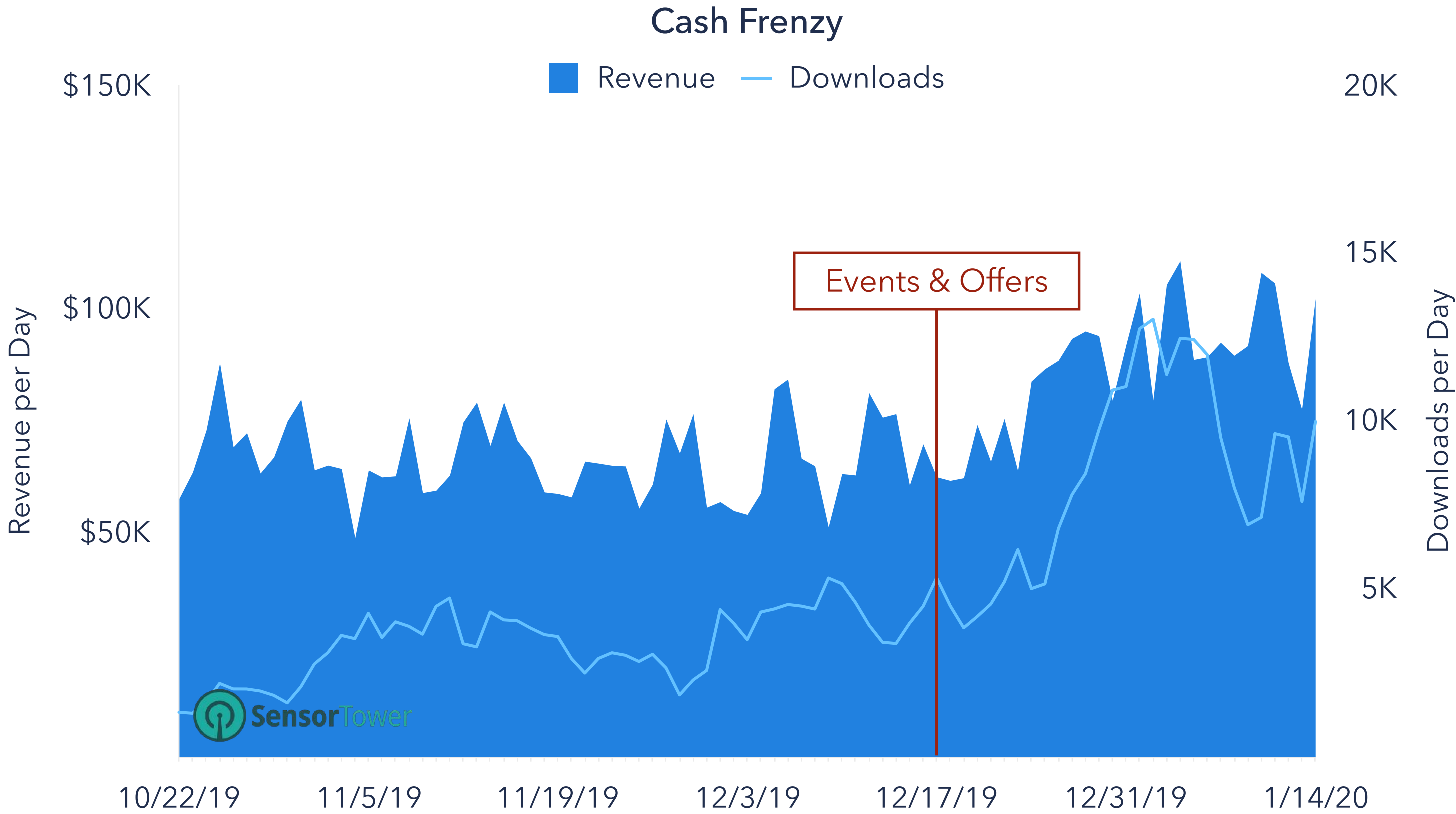
CASINO > FEATURES > NOTICES

EVENTS AND SALES ANNOUNCEMENT FEATURE

Events & Offers in *Cash Frenzy*

REVENUE ANALYSIS

Revenue was +14% and downloads were +46% 2Wo2W after *Cash Frenzy* launched the Events & Offers feature.



Graph data is iOS U.S. only.

Releases
12/17: Events & Offers notice feature
12/17–12/24: Archer Hero mini-game event
12/19–12/26: Where is the Santa Claus content release (FB)
12/20–12/26: Mission Pass Xmas Challenge mission event
12/24: Christmas Special Daily Mission Challenge reward event (FB)
12/24–1/6: Quest Frenzy Season 16 Jingle Jingle quest event
12/25:
• \$4.99 Extra Sale Pack IAP moved +1 to #1
• \$5.99 Primary Coins Pack IAP moved +1 to #7
12/25–12/30: Cash Journey mini-game event
12/26: Treasure Jungle content release
12/26: Boxing Day Sale purchase event (FB)
12/27: Mission Pass Season 2 mission feature
12/27: VIP Power Up accelerator event
12/27: This Special Offer \$6.99 purchase event
12/27:
• \$1.99 Super Value Pack IAP moved +1 to #1
• \$99.88 All-In Pack IAP moved +1 to #7
12/30: \$5.99 Primary Coins Pack IAP moved +1 to #7

FEATURE TEARDOWN

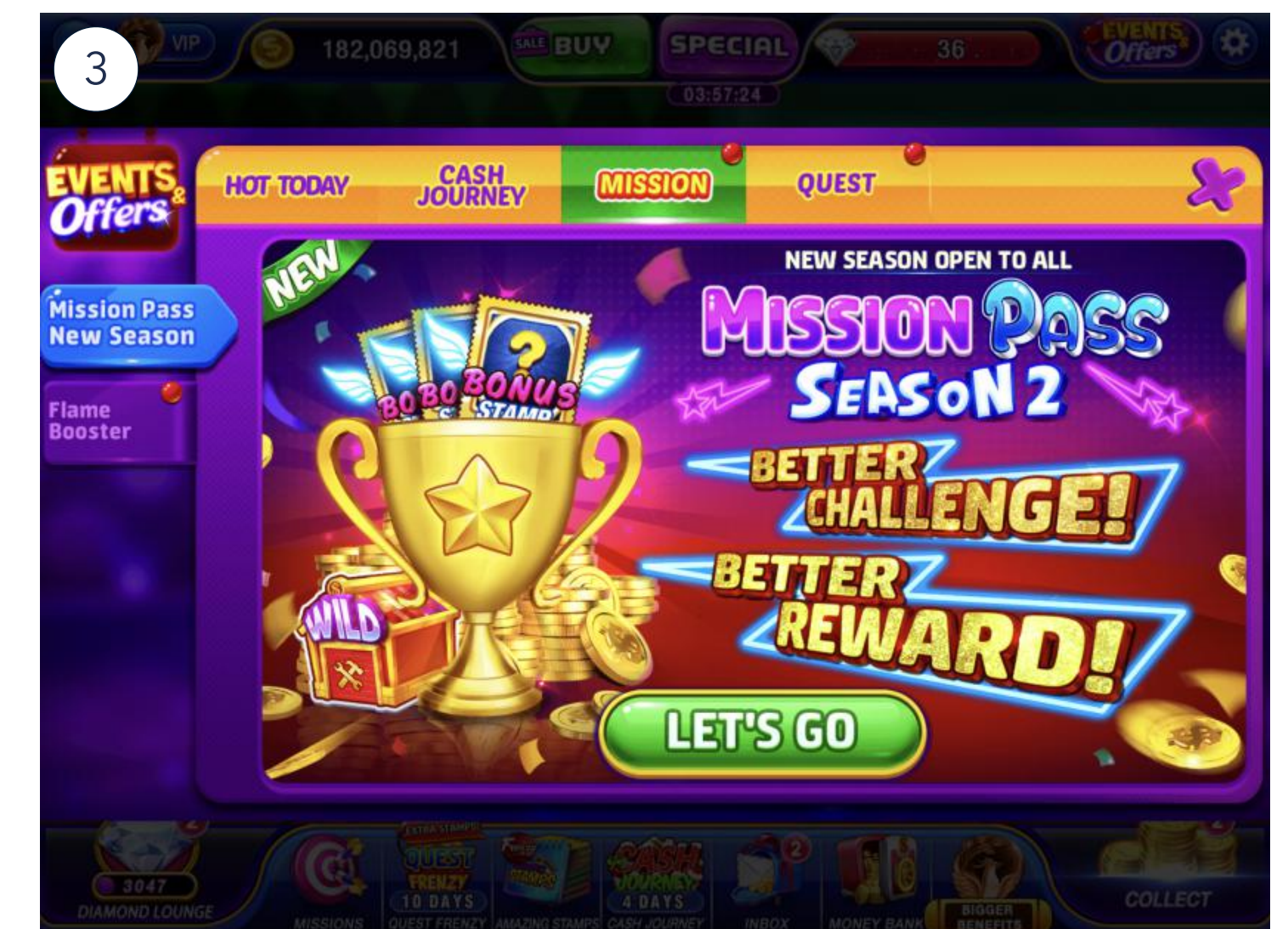
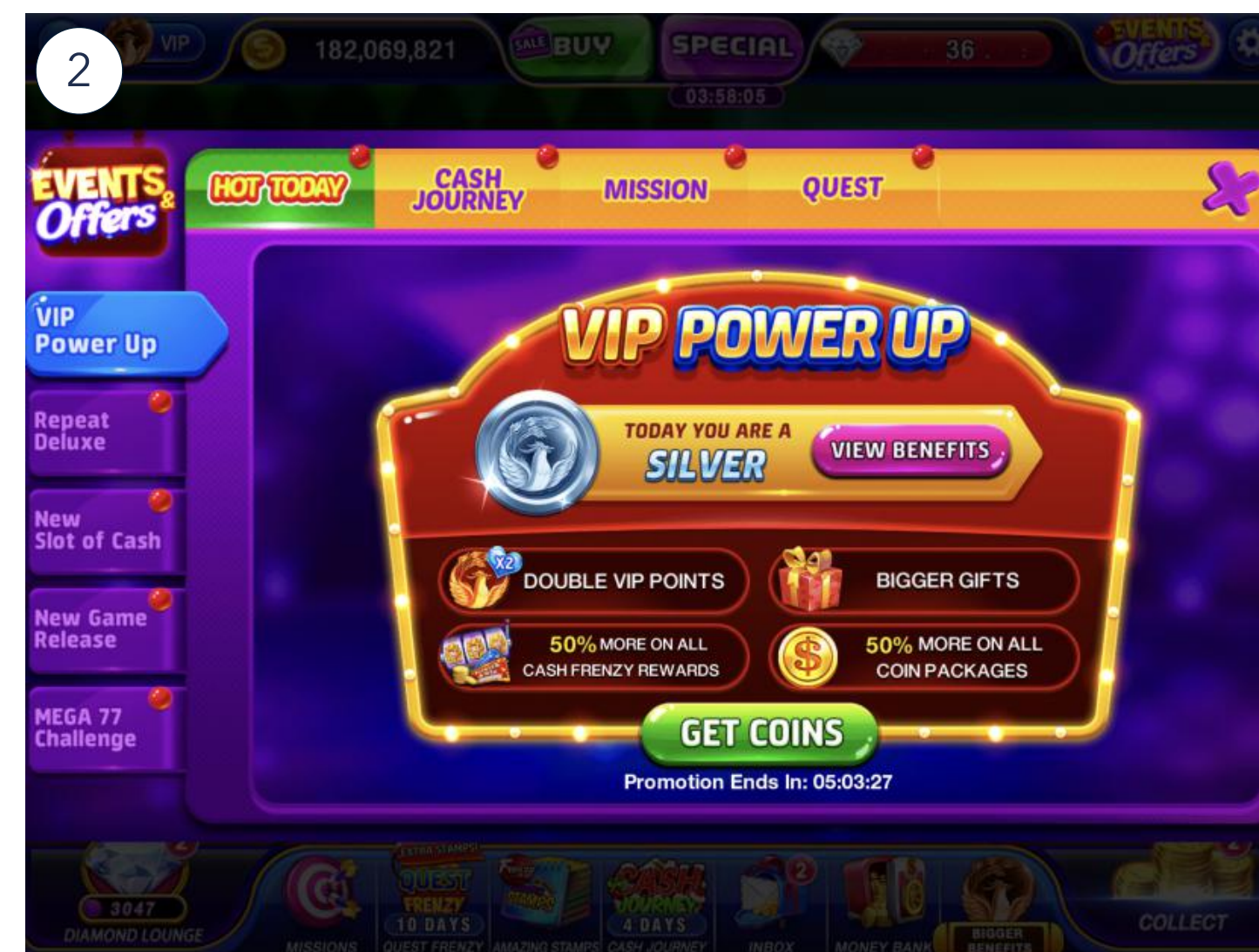
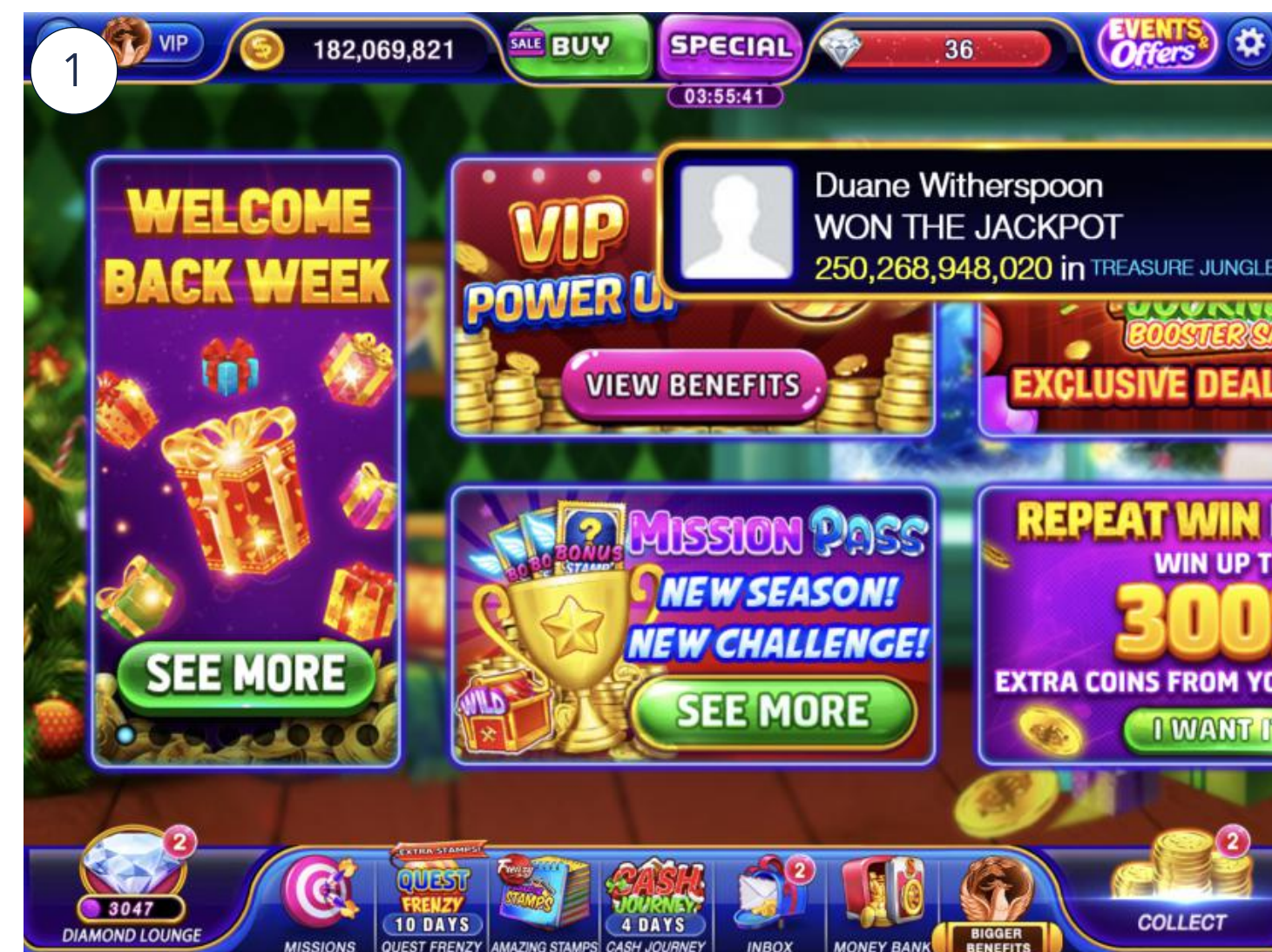
This new UI feature allows players to view all events, new releases, and purchase offers in one place.

Details

- Players open Events & Offers with a button in the upper-right corner of the lobby (1).
- In Events & Offers, four parent tabs navigate between “Hot Today”, seasonal events, missions, and quests (video).
 - A sidebar of child tabs switches between items within the parent tabs.
 - “Hot Today” includes new machine releases and trending offers (2).
 - Other tabs include new event announcements and event-related sales of boosts and currency.
- Unviewed tabs are marked with a red dot that disappears upon viewing (3).

Additional Information

- See the [Events & Offers](#) Library for more images and videos.



CASINO > EVENTS > REWARDS

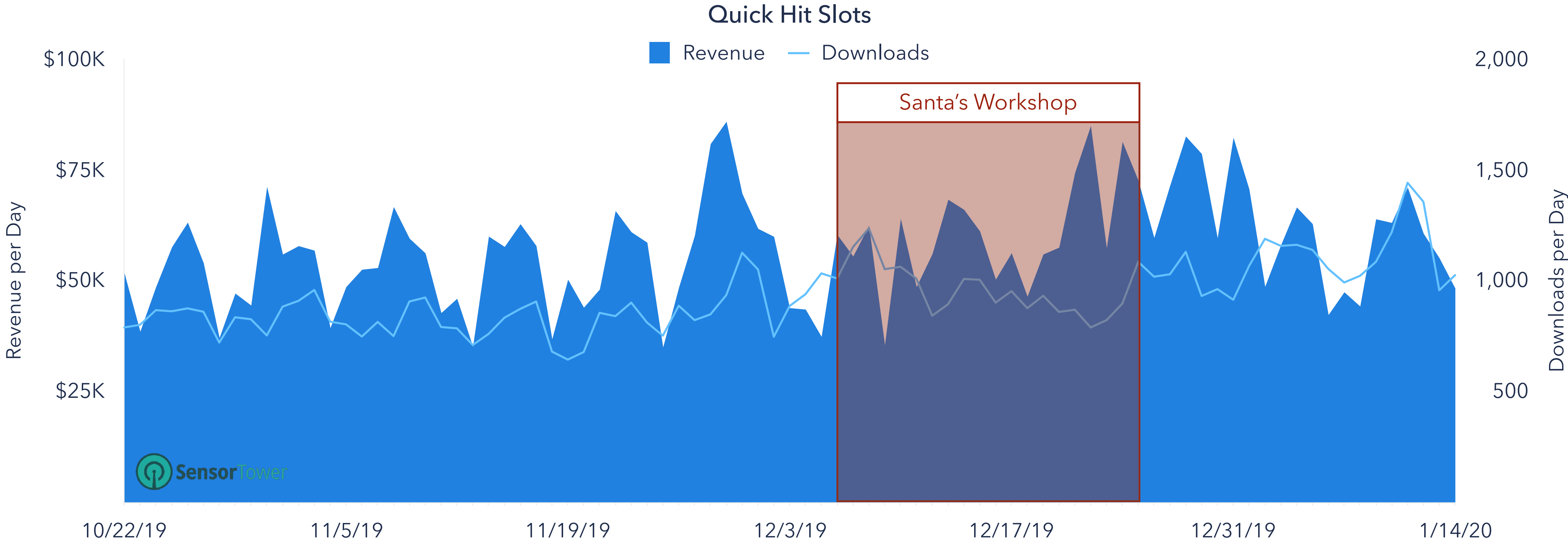
COLLECTION MISSIONS WITH EVENT STORE

Santa's Workshop in *Quick Hit Slots*

REVENUE ANALYSIS

Quick Hit Slots' revenue was +7% with downloads +13% 20Do20D (beginning on the same DoW) for the duration of the Santa's Workshop rewards event.

Releases
12/6–12/25: Santa's Workshop rewards event
• 3/17–3/30: Vegas Venture original release
12/15–12/21: Winter Wonderland Challenge competition event
12/8–1/1: Quick Hit & Toys For Tots Christmas Special challenge event
12/16: Special Offer purchase event
12/16: ThunderBall content release
12/19: Lucky 7 Challenge challenge event (FB)
No IAP changes during this date range.



Graph data is iOS U.S. only.

FEATURE TEARDOWN

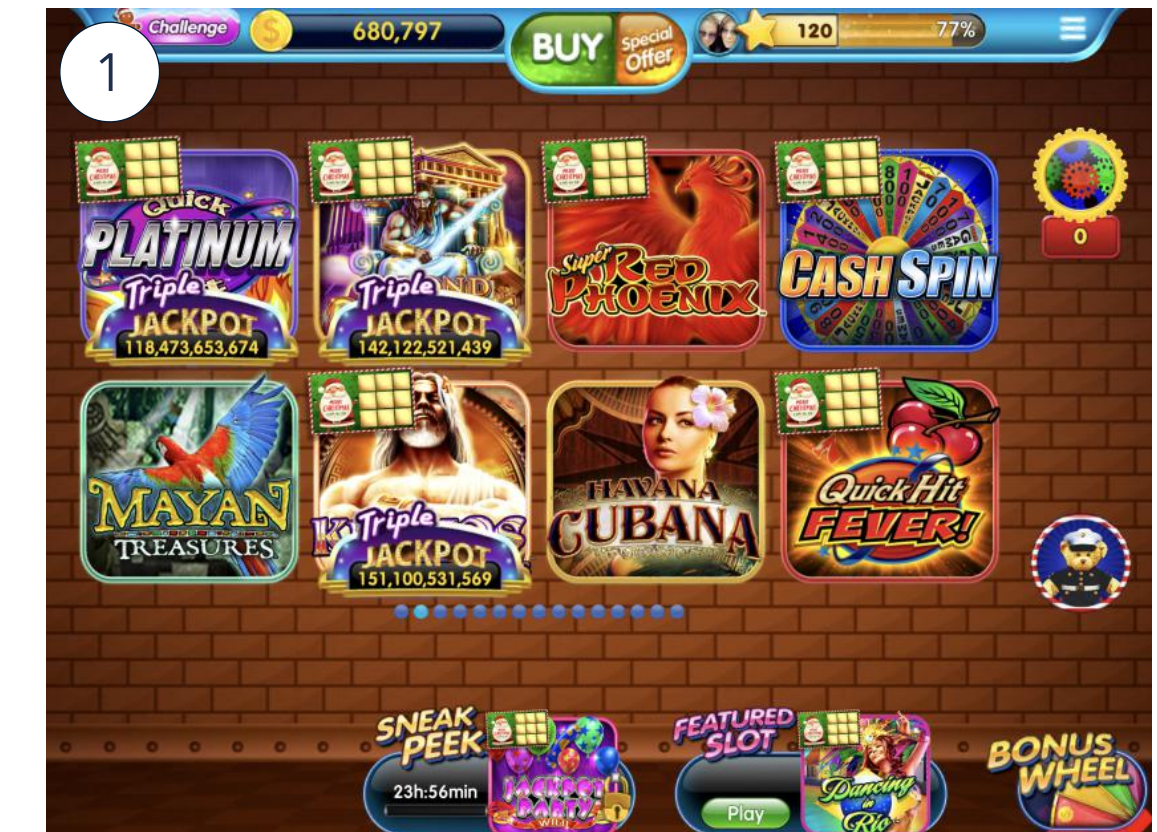
Players collect gears from scratch cards to complete a series of three missions. A secondary event collection allows players to make purchases from an event store.

Details

- Players spin on machines labeled with scratch card icons to find scratch cards (1 and 2).
- Scratch cards award coins, boosts, gingerbread men, and three colors of gears (3).
 - Players use gingerbread men to unlock content and purchase boosts from an event store.
 - Event store offers can be refreshed by spending two gingerbread men.
- Players must collect gears to fix Santa's workshop (4 and [video](#)).
 - Fixing Santa's workshop awards a raffle ticket for an in-app reward worth \$500.
 - The first 50 players to fix Santa's workshop earn an in-app reward worth \$100.

Additional Information

- See the [Santa's Workshop](#) Library for more images and videos.



MARKET TRENDS

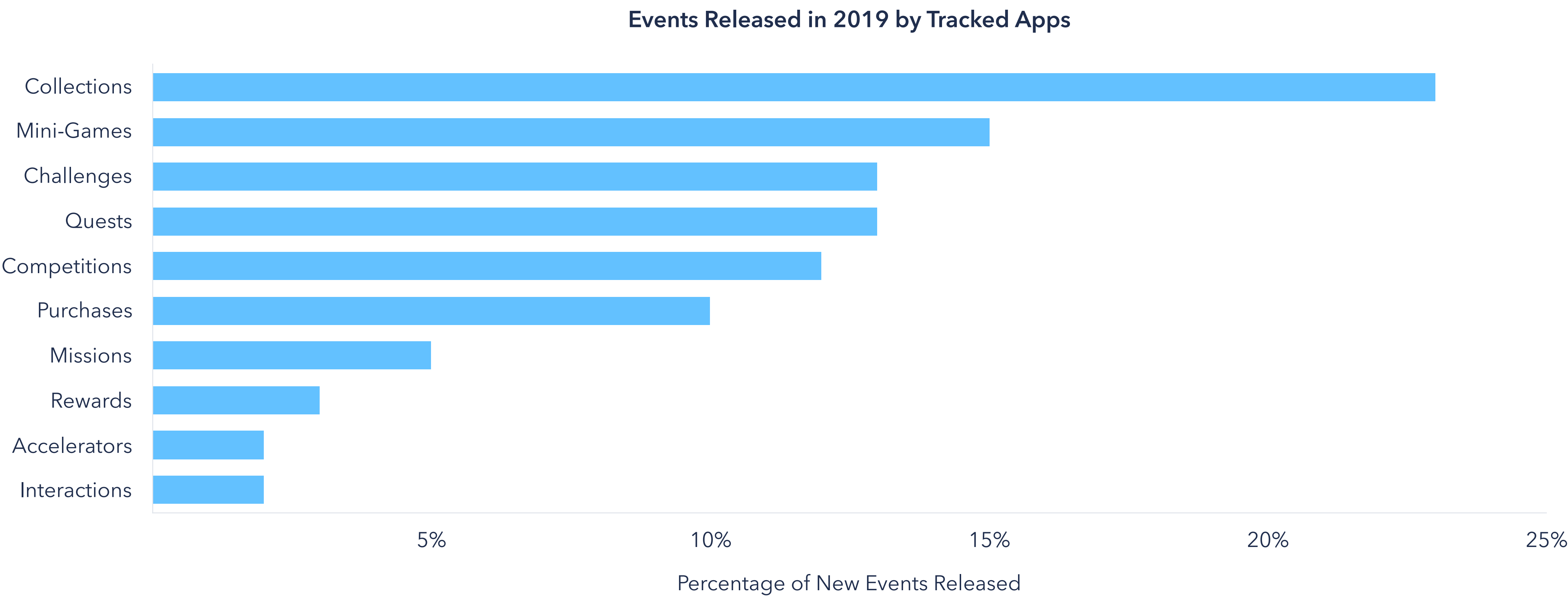


Tracked apps:

Big Fish Casino, Bingo Bash, Bingo Blitz, Bingo Party, Bingo Pop, Bingo Showdown, Caesars Slots, Cash Frenzy, Cashman Casino, DoubleDown Casino, DoubleU Casino, Game of Thrones Slots Casino, Gold Fish Casino Slots, Governor of Poker 3, Heart of Vegas, Hit it Rich!, House of Fun, Huuuge Casino, Jackpot Magic Slots, Jackpot Party, Lightning Link Casino, Lotsa Slots, Mega Hit Poker, my KONAMI, myVEGAS, Poker Heat, Pokerist, POP! Slots, Quick Hit Slots, Scatter Slots, Slotomania, Texas Holdem Poker, Wizard of Oz Slots, WSOP, Zynga Poker - Texas Holdem

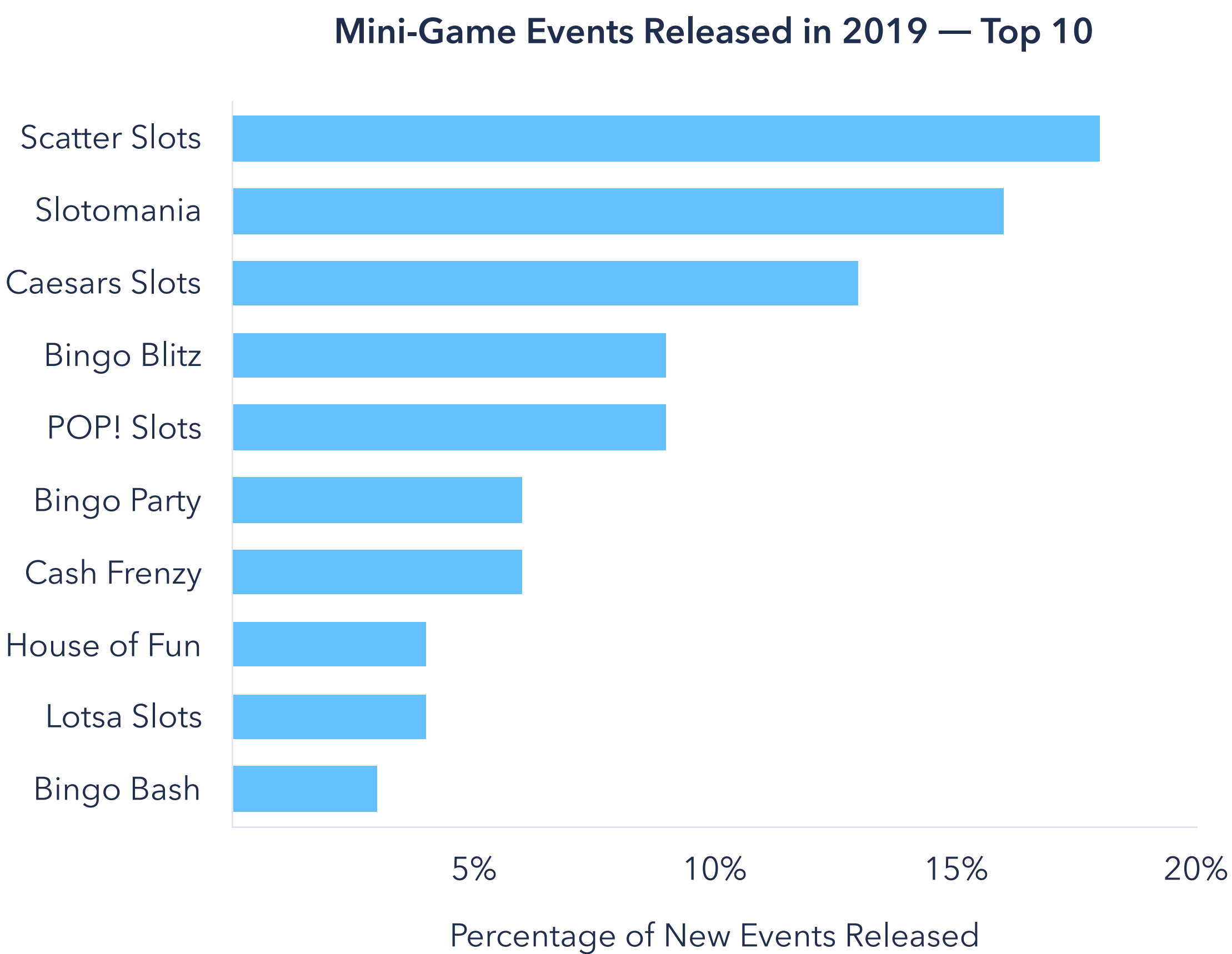
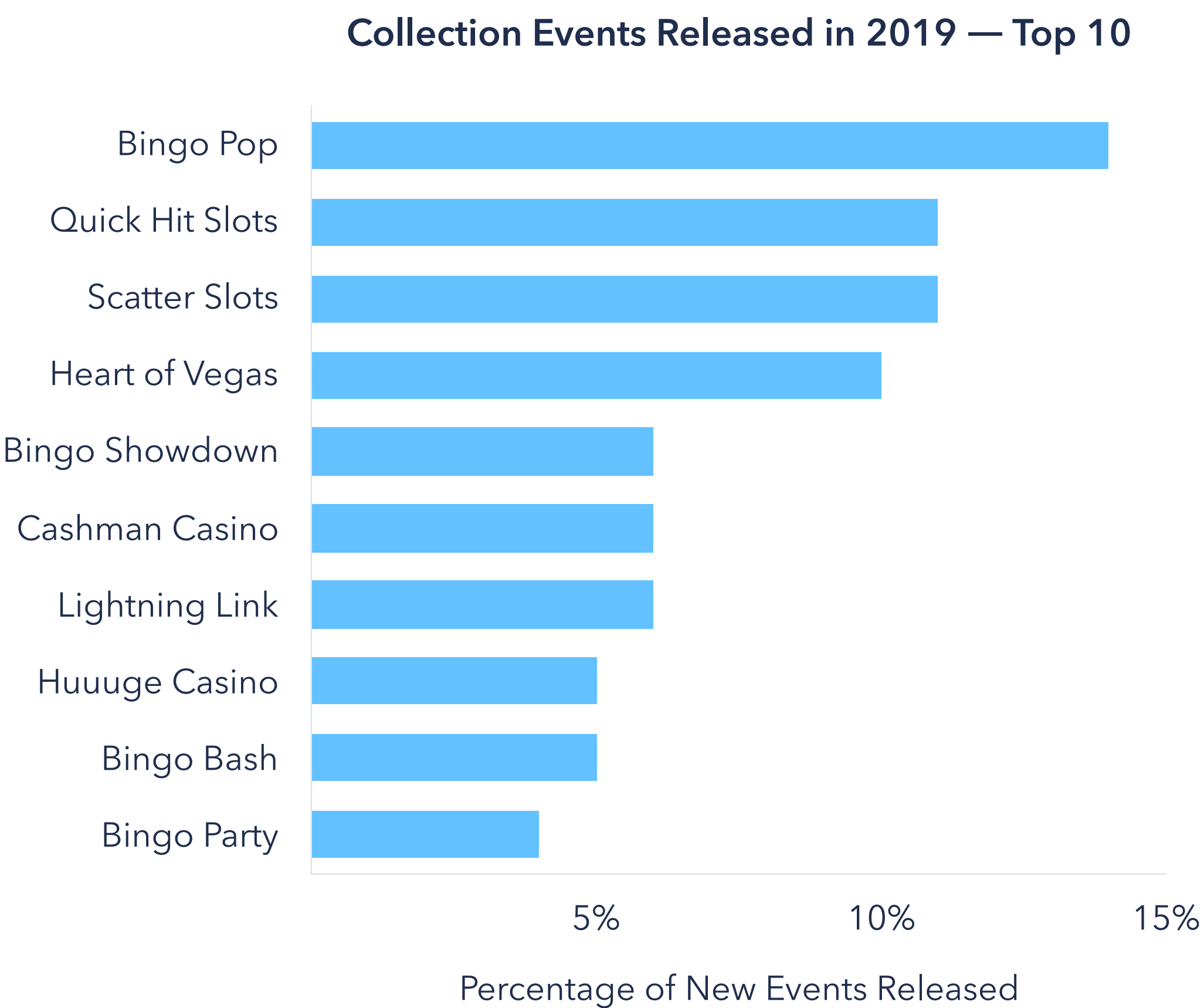
EVENTS IN 2019

Collections and mini-games became the most popular event types in 2019, displacing challenges and purchases from 2018. Collections made up 23% of new events, compared to 14% in 2018, and mini-game events jumped to 15%—nearly double the amount from 2018. Purchases fell to the sixth most popular event type.



COLLECTION & MINI-GAME EVENTS BY APP

Bingo Pop released 14% of all new collection events in 2019, the most of any app. *Scatter Slots* and several Playtika apps (*Slotomania*, *Caesars Slots*, and *Bingo Blitz*) released the most mini-game events.

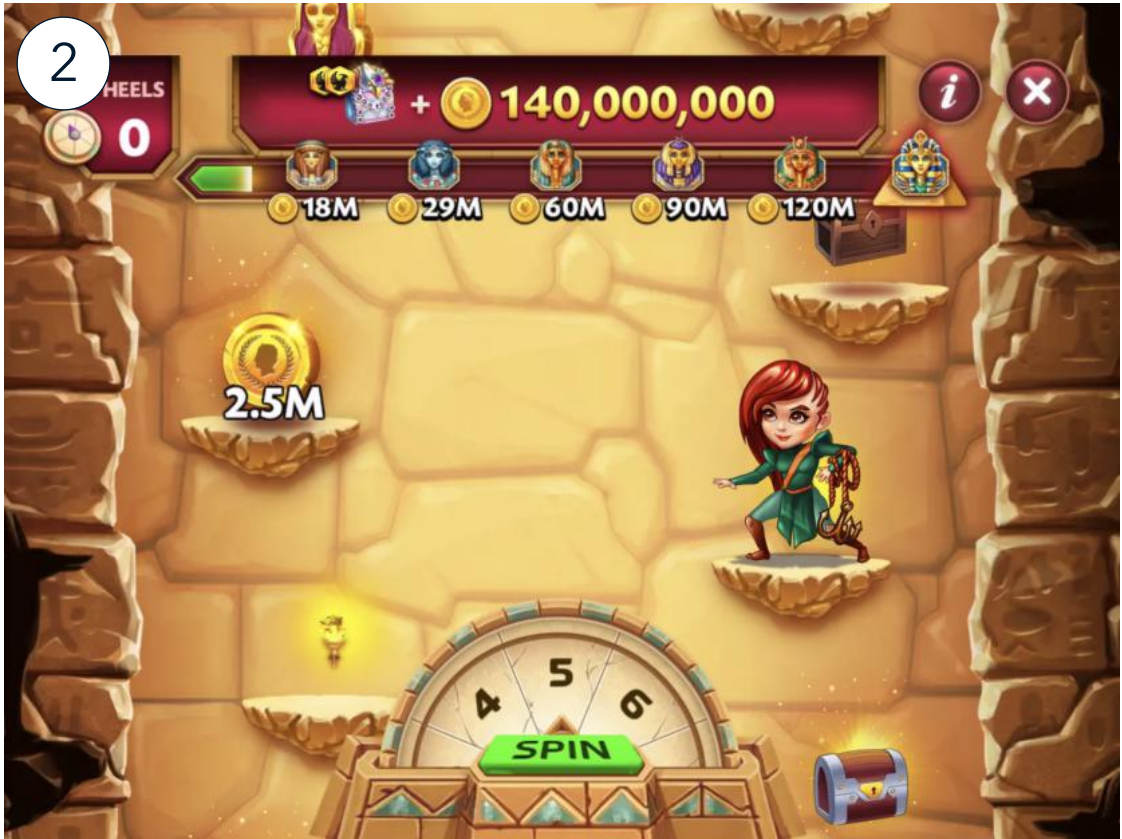


MARKET WATCH



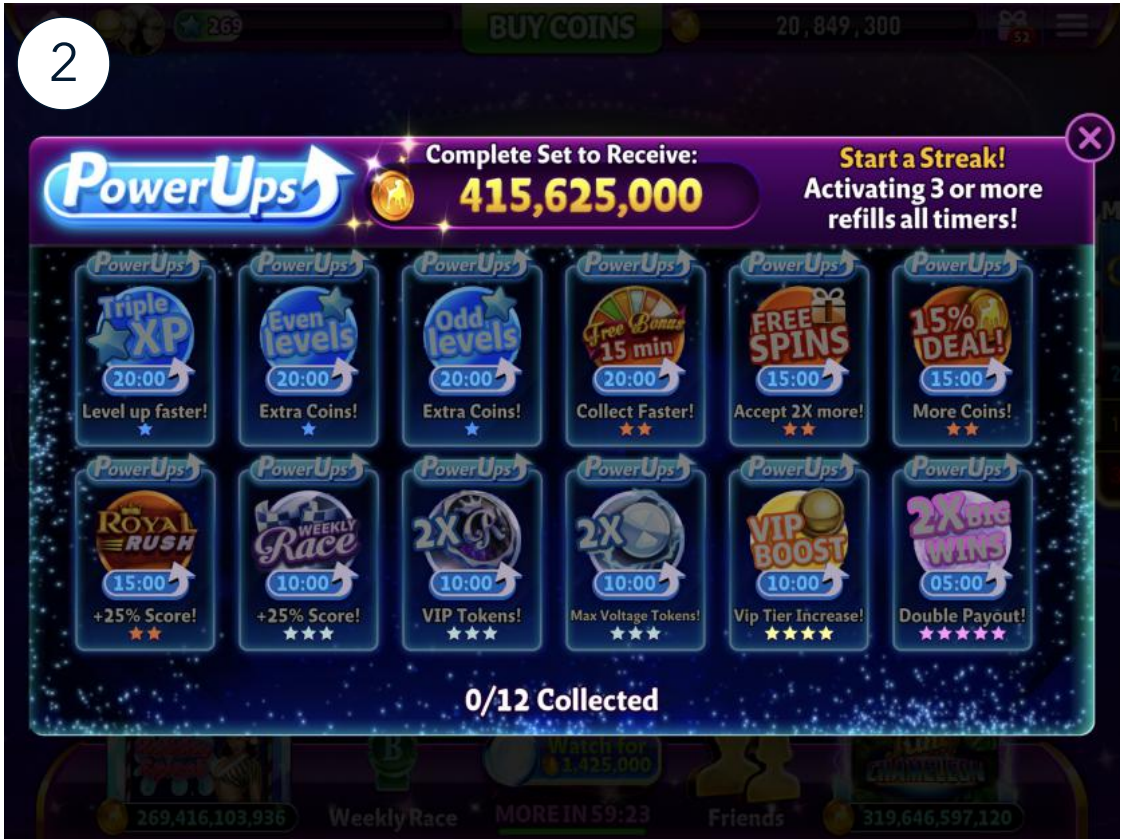
NOTABLE RELEASES I

App	Library	Description
Big Fish Casino	Treasure Rush Frost & Furious collection event	<ul style="list-style-type: none">• Players earn or purchase chests to collect event currency (1).• Bigger bets award bigger chests.• Collecting currency fills a reward meter.• Filling the meter triggers a reward and advances players to the next level.
	Aria's Treasure Hunt mini-game event	<ul style="list-style-type: none">• Players spin a wheel to climb a platformer-style prize board (2 and video).• Prizes include coins, chests, and increased values for grand prizes.• After reaching the top of each level, players spin a wheel to break open a sarcophagus.• Wheel spins determine the amount of damage done to the sarcophagus.• Depleting the sarcophagus' health bar reveals a mummy, awards a prize, and advances players to the next level (video).• Completing all six levels awards the grand prize.
Caesars Slots	Santa's Mail Match mini-game event	<ul style="list-style-type: none">• Players spin or make purchases to collect letters.• Letters are used to trigger a pick'em mini-game.• Players pick two gifts to unwrap and reveal prizes.• Matching identical prizes awards that prize.• Each pick fills a meter with prizes at milestones.• Unwrapping two star symbols fills the meter to the next milestone prize.• Players can spend more letters to make additional picks (3).



NOTABLE RELEASES II

App	Library	Description
DoubleU Casino	Santa's Toy Workshop collection event	<ul style="list-style-type: none">• Players receive a letter requesting a toy (1).• Players spin to fill a toy meter.• Bigger bets fill the meter faster.• Filling the meter builds the toy.• Collecting the toy awards coins.
Hit it Rich!	Rich! Collections Powered Up! collection feature	<ul style="list-style-type: none">• Players spin, complete levels, or participate in events to collect cards.• Higher bets award more cards and rarer cards.• Power-up cards activate timed boosts (2).• Activating three or more power-up cards at once resets all boost timers.• Completing a set of cards awards a coin prize.• Completing all sets awards the grand prize.
myVEGAS	Wild Night On the Strip mission event	<ul style="list-style-type: none">• Players spin on a daily machine to meet total bet goals.• Meeting a bet goal awards that day's chip prize and advances players on a game board.• Players who move an unspecified distance on the game board by the end of the event earn a mystery prize (3).



NOTABLE RELEASES III

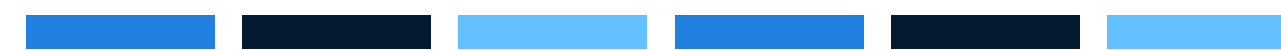
App	Library	Description
POP! Slots	Rising Stars Challenge collection event	<ul style="list-style-type: none">• Players earn entry tickets for finishing matches in the top five or making purchases.• Entry tickets give players a chance to win a rare event outfit.• Only 3,000 players will win the rare outfit.• Players earn stars for completing a series of three challenges (1).• Each challenge awards a mystery gift.• Completing all three challenges awards enough stars to unlock an exclusive outfit.
Slotomania	Daily Dash Plus mission event	<ul style="list-style-type: none">• This purchasable pass adds a second tier of rewards to the Daily Dash mission feature (2 and video).• Purchasing Daily Dash Plus as part of a limited-time offer awards a starter kit for a new SlotoCards album.
Scatter Slots	New Year's Rush mission event	<ul style="list-style-type: none">• Players win Scatter Contests to fill a meter.• Filling the meter awards prizes at milestones.• Players can purchase a premium pack for \$2.99 that adds a second tier of rewards to the meter (3).
WSOP	Candy Cane Chase competition event	<ul style="list-style-type: none">• Players collect candy canes from golden cards, tournaments, missions, daily gifts, and chips packages.• Candy canes can be traded for a series of three rings.• Claiming all three rings awards an exclusive bracelet (4).

Quickly review all features and machines

- Filter the [Library Tool](#) by month and year to see all new releases.



NEW L&G CAPABILITIES



FEATURE DATABASE TOOL: NOTIFICATIONS

Stay on top of the latest apps, features, events, and more using our new email notifications tool in the Feature Database. Log in to your Liquid and Grit account to get started.

How to Use Notifications

1. Go to the [Feature Database](#) and create a search.
2. Click on the “Add Filter Notification” button.
3. Create a name for your notification.
4. Choose when and how often you want to receive notification emails.
5. Click “Save”.
6. Click “My Notifications” to view, edit, or delete notifications.

Suggested Notifications

- [All casino features](#)
- [All casino events](#)
- Features from [Playtika apps](#) Slotomania, House of Fun, and Caesars Slots
- Features from [Big Fish Games apps](#) Big Fish Casino and Jackpot Magic Slots
- Features from [Playstudios apps](#) POP! Slots, myVEGAS, and my KONAMI

Note: If you have access to Liquid and Grit through a company-wide subscription, email support@liquidandgrit.com to set up an account.



SLACK SHARED CHANNELS

Get answers fast with a shared Liquid and Grit Slack channel. Ask us questions directly, download resources, start a discussion, and receive our monthly reports—all from your company's existing Slack accounts.

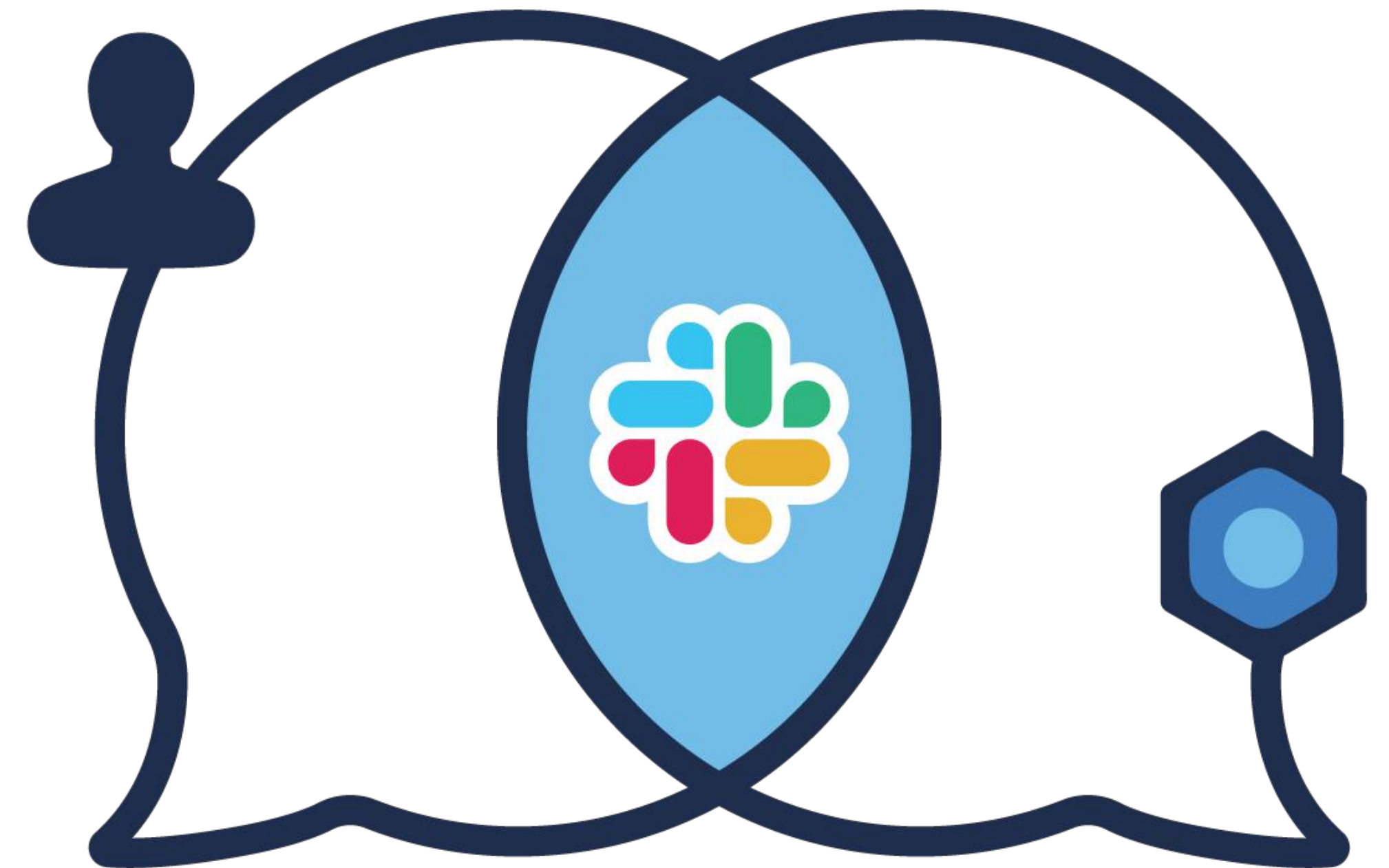
How to Set Up a Channel (Estimated Time: 15 Minutes)

1. Discuss the [shared channel](#) with a Slack admin.
2. [Email us](#) to receive a shared channel link.
3. Have the Slack admin accept the invitation.
4. Add members to the channel.

Potential Applications

- Request RTP spreadsheets.
- Get advice on Feature Database searches.
- Add users to your account.
- Discuss recent reports.
- Receive hilarious GIFs.

Note: If you have access to Liquid and Grit through a company-wide subscription, email support@liquidandgrit.com to set up an account.



APPENDIX



LIQUID AND GRIT SLOTS PERSONAS

Participants from the U.K. and U.S. (N=1,299) were surveyed about their mobile gaming use. The data produced five personas with distinct patterns of slots preferences and playing habits.

	Demographics				
	Fame Frank	Money Mike	Daydreamer Denise	Gambler Gail	Sensation Serena
Size	21%	22%	27%	19%	11%
Women	50%	51%	66%	60%	55%
Age	32 mean / 30 median	34 mean / 32 median	35 mean / 34 median	35 mean / 33 median	35 mean / 32 median
Education	3.5	3.3	3.5	3.2	3.3
Money Spent	4.2	4.9	3.5	5.4	5.8
Play Time	5.0	4.5	5.0	4.9	6.5



* The education, money spent, and play time numbers represent the relative value of each category compared to other player personas.

PREMIUM PARTNERSHIPS

Liquid and Grit partners with these premier market research and analytics companies to infuse our reports with the most relevant and detailed gaming personas, data, and statistics available.

Sensor Tower	Kinrate Analytics	Quadrant Strategies
<p>Mobile App Store Intelligence</p> <p>Sensor Tower website</p> <p>Sensor Tower is relied upon by financial analysts, VCs, and publishers who need to leverage data to identify the fastest-growing apps, emerging markets, and more.</p> <p>Clients harness Sensor Tower’s suite of app intelligence tools to:</p> <ul style="list-style-type: none">▸ Evaluate app economies and app vitality.▸ Drive organic growth with the leading App Store Optimization platform.▸ Get the best global download and revenue estimates for the App Store and Google Play.▸ Discover top creatives and better shape user acquisition strategy.	<p>Player Personas</p> <p>Kinrate Analytics website</p> <p>Kinrate Analytics offers game developers, consultants, publishers, and cloud gaming operators the best cross-platform game recommendation engine for targeted marketing, as well as a novel profiling-as-a-service solution for intelligent market segmentation and social networking.</p> <p>Other services include advanced market prediction analyses for identifying emergent gaming trends and access to unique AI-enhanced data of 140 thousand game titles and 48 million game players.</p> <p>The products of Kinrate Analytics have been developed in university-led research projects in collaboration with economists, psychologists, game scholars, and data scientists.</p>	<p>Market Research</p> <p>Quadrant Strategies website</p> <p>Quadrant Strategies is a market research consultancy that uses research to help the world’s most prominent technology, gaming, and entertainment companies develop strategies for building their user base, increasing user engagement and spend, and strengthening their marketing and brand plans.</p> <p>We do that using a range of quantitative and qualitative methodologies, including gamer segmentation and persona development, feature testing, message creation, and loyalty and engagement modeling. The work of our senior leadership goes back many years, and includes long-term engagements for console and gaming-PC hardware-makers, individual games in a range of genres, and across consoles, PCs, and mobile, and for some of the top game franchises.</p>



CASINO MECHANICS TAXONOMY

Family	Definitions
Accelerators	Increases the power, impact, or efficiency of play
Banks	Saves a % of spend that can be unlocked later
Bonuses	Free bonuses given to players, often with time intervals
Challenges	Goal-oriented tasks for players to complete
Clubs	A group of players accomplishing goals or competing with other groups
Collections	A set of items players collect, often for a completion prize
Competitions	Players competing against other players
Cosmetics	Improvements or updates to the game or a feature
Currencies	Changes to currencies, economies, stores, and items
Expansions	Additional rooms, worlds, play modes, VIP lounges, etc.
Flows	Specific flows, like the new user flow, ratings, and surveys

Family	Definitions
Interactions	Any social feature with direct or indirect interaction
Leaderboards	Stand-alone leaderboards
Levels	Anything to do with leveling
Mini-Games	Smaller, shorter games within the app (e.g., scratch cards)
Missions	A linear set of tasks that players must accomplish
Notices	Feature or product announcements
Other	Miscellaneous features and outliers
Profiles	A player's setup, profile, settings, and controls
Purchases	Anything to do with spending money on items in the app
Quests	Completing tasks to progress along a map or map-like mechanic
Rewards	Any reward players receive for engagement or spend (other than those in the bonuses family)

“Power should be reserved for weightlifting and boats, and leadership really involves responsibility.”

– Herb Kelleher, Southwest Airlines Founder

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