



# COOKIE JAM

## UNLOCKING THE RECIPE FOR A SUCCESSFUL MIGRATION

How Jam City and Unity's Accelerate Solutions partnered on a live migration to future-proof their mobile franchise *Cookie Jam*

# JAMCITY

## → THE CHALLENGE

Rebuilding *Cookie Jam* in Unity while not impacting the live player experience on the existing engine

## → PLATFORMS

Google Play, Apple Store, Amazon Store, Facebook

## → PROJECT STAFF

12 (engineers, technical artists)

## → LOCATION

San Diego and San Francisco, CA

# JAM CITY: A UNITY CASE STUDY

In 2014, Jam City launched its global franchise *Cookie Jam*. Since then, this mobile sensation has grossed over \$850 million in revenue, earning a place in the top 100 highest-grossing mobile puzzle games ever. With a growing number of players looking for tasty treats to crumble, how was this bustling game studio going to deal with the end of Adobe Flash?

The team realized that in order to continue improving their game and keep it fully supported, they had to migrate to a game engine with the tech stack they needed while continuing to run their live game.

They turned to Unity's Accelerate Solutions team to partner with their team on this most ambitious task.



## A HISTORY OF SWEET SUCCESS

Jam City was founded in 2010 with a mission to provide unique and deeply engaging games that appeal to a broad global audience. With 10 offices around the world and over 1,200 employees, Jam City has built studio teams committed to shared success.

"At Jam City, we know if one team wins, we all win. We're always trying to help each other and I think that's what makes us successful," explains Shane Nakamura, VP of Creative Development for Jam City.

That vision seems to be paying off: Their games reach tens of millions of dedicated players, with over 1.3 billion cumulative game installs across the Jam City portfolio. Jam City is the creative powerhouse behind some of the highest-grossing and most enduring mobile games, including *Harry Potter: Hogwarts Mystery*, *Cookie Jam*, and *Panda Pop*.

# EVOLVING THE GAME

When Jam City started hearing rumors that Flash would no longer be supported, they knew they had to take steps to protect *Cookie Jam*. They moved quickly to find a foundation to improve their technical capabilities and ensure ongoing success.

While the team looked at several options for their new engine, they ultimately chose Unity. With a line of sight into improved workflows, animations, rendering, and tools, Unity seemed to be the tool that would enable their success across platforms.



# THE RESULTS

- Transitioned from Flash to Unity without disrupting the player experience, while continuing ongoing updates to the game
- Improved tech stack to focus on modernization and future development, with greater emphasis on 3D and rendering
- Reduced game load times from 35 to 10 seconds after migration to Unity
- Shared engineering resources, components, and tools by using one universal code base



# REBUILDING IN MID-FLIGHT

The migration effort to rebuild *Cookie Jam* during live operations and ongoing updates was ambitious, to say the least, and there was a lot of concern around potential disruptions to players.

"We have a saying here, it is like rebuilding the plane while in mid-flight," says Nakamura. "We need to continue releasing updates in the game and adding features and doing everything to keep the game running, while at the same time kind of building it from the ground up in Unity." The team sought a partner to help with the migration effort so Jam City could stay focused on these ongoing live updates.



# CHOOSING THE PERFECT MATCH

Jam City considered a few options before deciding to partner with [Accelerate Solutions](#), Unity's professional services team of game development experts. "We wanted to make sure we were doing our due diligence," explains Nakamura. "We felt like we'd have a lot of confidence in working with the team, because the team is Unity. If there were going to be any troubles, we knew Unity would help us solve them."

**"UNITY HAS DONE THIS BEFORE – WORKING WITH LARGE GAMES – DOING THE EXACT SAME THING AND HAD SUCCESS."**

— Shane Nakamura, VP of Creative Development, Jam City

The decision to work with Unity provided a unique advantage, including access to source code and internal teams at Unity who helped prioritize and expedite any issues throughout the migration. "We had a very tight deadline, having Unity support us directly was a must," says Eric Felgines, Jam City's senior director of technology.



# REBUILDING FOR THE FUTURE

While the short-term goal of the project was to rebuild *Cookie Jam* in Unity, the Jam City leadership team had their sights set on the future. The migration allowed the team to re-architect the game for easier future development. This included improvements to animations, particle effects, rendering, and including more 3D content within the game, among many other things.

While working to rebuild the game, the Unity team had to replicate existing systems, such as the theming system used to replace components and assets across the game for themes such as holidays and seasons.

They used this opportunity to not only replicate but expand upon these systems' capabilities to unlock future improvements like easier theming. As a bonus, migrating the game to Unity let the team **reduce the load time for *Cookie Jam* from 35 to just 10 seconds**.

"We worked with Jam City to identify key improvements over their existing implementations," explains Paul Purcell, a lead software engineer at Unity. "It wasn't enough to just replicate the product, we wanted to make sure we were building an improved foundation."



# COMMITTING TO ONGOING SUCCESS

Throughout the migration effort, the Unity and Jam City teams worked in lockstep. "Unity was entirely an extension of our team, they contributed directly in our Github repository, like Jam City employees basically," Felgine observes. The Unity team would join daily scrums, were assigned to features and worked side by side with Jam City on complex features – a Unity senior engineer paired with a Jam City engineer, to coach and mentor all along the way. To boost these efforts, additional joint on-site sessions occurred at the Jam City office, for even more collaboration and training.

Jam City also partners with Unity as an [Integrated Success](#) customer. In this capacity, Unity provides ongoing premium technical support and guidance to help ensure the studio's long-term success. A dedicated advisor works with Jam City for bug triage and to push priorities within Unity directly.

The Jam City team underwent a thorough Project Review with Unity. Over the two-week project audit, the Accelerate Solutions team analyzed and identified potential issues across the game to provide a detailed report highlighting bottlenecks and recommendations on how to address them.

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— Eric Felgines, Senior Director of Technology, Jam City



# LOOKING AHEAD

Jam City's collaboration with Unity on the *Cookie Jam* migration has already been pretty sweet – and this collaboration is just getting started. There's more puzzle-solving, match-3 excitement in store, so stay tuned for more fun.



