

## The Gaming Industry

According to a TIME article published in 2019, gaming developers work under tight deadlines where they experience unsurmountable levels of pressure from the Upper Management, something that is “pretty commonly seen” in the Gaming Industry. With a continuous focus on keeping players hooked to the game, there are last-minute requests for changes based on feedback from beta testing or previews<sup>1</sup>. Where many virtual game development studios allow work from home, some major game studios wouldn't prefer working from home due to confidentiality, the collaborative procedures and the sharp lead time. This is where opportunity sets in for cloud base platforms such as Cloudflare and Workers.

I know when I play games on my PC or Xbox, there are many things that are going on simultaneously, offering the correct gameplay level, seeing the correct jersey, my profile being synced, my actions being accounted for, no latency in the online gaming, and especially in arcade and action games, login up or signup amongst many others. Game developers, who design, program, and test games aim to keep the user engaged by providing an attractive storyline while providing a seamless gaming experience, and this is where Workers for Gaming can leverage its features for the win.

### Worker's 3 Value Propositions to Developers



#### Speed:

With online gaming on a steady rise and need for frictionless gaming experiences more than ever, Cloudflare Worker's serverless computing, edge locations with data centers in 200 cities worldwide, and quality of running on Chrome V8 directly rather than Node.js, allows them to provide exactly what the gamers and game developers need.



#### Integration:

Where node or Java might not be the most used languages in game development, Cloudflare's support for compiled languages like C, C++ and Rust through WebAssembly for Workers makes the developer's experience much better than ever, making it much for convenient for them to adopt this serverless platform.



#### Convenience:

Especially due to COVID-19, many practices which were preferred to be more face to face like game development will be allowed to be work from home. This is where Cloudflare and workers can set itself apart. By ensuring the security features it is known for, it can address enabling work from home for developers.

### The MVP Feature Set

- **Templates:** Much like some of the default codes available online or on your Twitter to help build standard procedures, you should add default codes that are common in gaming: maybe such as connecting to one's steam account or even helping automate purchases so sensitive information can be protected.
- **Ensuring Speed to Market:** Just like Unity3D allowed faster and easier game development, Workers' incomparable speed and simplified backend code can enable developers get users on the platform early and get their feedback often. With more distributed feedback, there will be lesser pressure on developers and games can be improved easily.
- **Ensuring Low Cost:** With most cloud-based servers, Cloudflare can be available at a low cost to the gaming studios as you end up paying for the duration of execution, and not by the server unit, in addition to no upfront payments.
- **Improved Security:** Developers need to use code constructs that are within the serverless context, so their codes must follow all such protocols. In addition to the security features

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<sup>1</sup> Semuels, Alana. "Video Game Creators Are Burned Out and Desperate for Change." Time, Time, 11 June 2019, [time.com/5603329/e3-video-game-creators-union/](https://time.com/5603329/e3-video-game-creators-union/).

Cloudflare offers, a simple page/ community blog that could talk about some standards on security would be helpful to push the adoption of Workers.

## KPIs, Continuous Improvement & Customer Feedback

With the minimum viable product available to customers, there must be a check to continuously improve the Worker's platform. With Cloudflare's history on understanding the community on concerns such as low HTML support or speed concerns, being agile and moving quickly to gain back the trust and advantage, continuous improvement would be easy to adopt within the Cloudflare's Workers for Gaming platform.

Additionally, it should leverage its partnership with Discord, a platform popular with gamers to communicate. By using common tools such as surveys, and performance reports, it can assess how Worker's, when used in the backend, affects user experience. Additionally, with your "Cloudflare for Gaming" partners, you could conduct one-on-one interviews with their developers and management to understand what features to add that will increase their likeliness of adopting Workers too.

Assuming metrics for success would be like Amazon's Lambda<sup>2</sup>, some of the Key Performance Indicators to measure the success of Cloudflare Worker's for Gaming would include:



### Function Utilization and Performance

Duration, billed duration, errors, memory used



### Invocations

Synchronously, asynchronously, source mapping



### Concurrency

Executions, unreserved executions, throttles

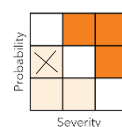
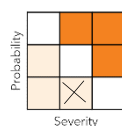
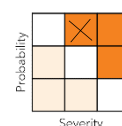


### Provisioned Concurrency Usage

Spill over invocations, invocations, utilization

## Risks

- **Competition:** With many cloud platforms today, Workers for Gaming will have to act quickly and incorporate feedback to stand out and gain customers from platforms like AWS Lambda and Azure Functions, as these companies have a loyal base of customers with long term contracts.
- **Product:** As with many serverless platforms, APIs offered help determine the usage of the platform. To continuously grow, Workers must facilitate those conversations on community blogs to create upgrades and also stay ahead. Additionally, it must leverage its relationship with Discord to understand the needs and feedback from Gamers and Developers.
- **Costs:** With cloud platforms, there are often switching costs involved that make customers want to stay with their current brand. As worker's run on Cloudflare's servers, it should either made to be used independent of Cloudflare, or possibly offered at attractive costs in order to convince the smaller/ medium game studios to switch.



In conclusion, as long as Cloudflare holds the agile mentality and quickly accounts for consumer feedback, it will disrupt the field of gaming through Cloudflare Worker's for Gaming.

<sup>2</sup> Mooney, Mallory. Key Metrics for Monitoring AWS Lambda. Datadog, 5 Feb. 2020, [www.datadoghq.com/blog/key-metrics-for-monitoring-aws-lambda/](https://www.datadoghq.com/blog/key-metrics-for-monitoring-aws-lambda/).