CLOUDFLARE

>>> Intro

Video games have captured the imagination of millions since they were first released in the 1940s. They have changed from a form of entertainment that was only for hobbyists who had the means to buy the console and the games to a form of entertainment that anyone with an Internet connection can enjoy. This expansion of the video game market means there is a new focus in game development on networking and the cloud as the means to produce video games which makes them an essential market for Cloudflare Workers.

>>> Video Game Market and Its Needs

As of 2018 video games were a $131 billion dollar industry that is projected to become a $300 billion industry by 2025. Over the course of the past decade, the video game market has exploded because of the rise of mobile gaming [1]. From 2007 (the year that the iPhone was released) to 2018 the video game industry revenue grew by 58% [1].

The Internet has changed how games are developed. Game developers rely on game engines (IDE'S for game developers) to develop games. These game engines typically have built-in code for essential video game functions such as audio, physics, and memory management and these functions are so powerful that a developer can design an award-winning game without writing an additional line of code [2]. The rise of mobile gaming means that game engines need to have a built-in distributed systems component.
Great sources to learn about the video game industry:
https://www.gamesindustry.biz/
https://www.theverge.com/games
https://www.vox.com/games

>>> Thesis--Cloudflare Workers for Gaming

Cloudflare Workers for Gaming is a customizable game engine expansion package that automatically puts Cloudflare's distributed systems in the video game development pipeline.

>>> The Product

Cloudflare Workers are in a league of their own when it comes to deploying serverless code. In order for Cloudflare Workers to enter the video game market, there must be a simple way to get it into the hands of video game developers at every level and in every game engine.

Cloudflare Workers for Gaming can be downloaded with a Cloudflare account. The game developer would then select their ideal package depending on how they intend to use the service (free, pro, business, and enterprise). Once downloaded, each package will automatically deploy a basic built-in program in the game engine that will automatically deploy the required serverless code for a generic video game--like how game engines deploy generic built-in code

[1] variety.com/2019/gaming/news/video-games-300-billion-industry-2025-report-1203202672/
[2] https://www.metacritic.com/game/switch/to-the-moon

for audio, graphics, and physics. The developer can modify this code to meet their needs while using the functionalities and securities of Cloudflare Workers. To implement this, the existing Cloudfare Workers infrastructure does not need to be modified, but we would need to ensure that any download would be compatible with any OS and any game engine.

Since the needs of game developers are frequently changing, it is essential that new features can be added at the request of the developer community and that they can be monetized. This would enable Cloudflare to generate more revenue, collect the data that shapes the future of gaming, and create features that our developers need while giving them specific customizable experience. One way to do this would be to have Cloudflare Gaming store--like the Apple App Store of the Google Play Store--where game developers can download for free or purchase new tools that they want and give us feedback about what they need.

>>> Improve Quality Before Release

There must be extensive A/B and stress testing before the product is released, but the most important thing we can do is test it by working with game developers at every step. There needs to be a process to create a close relationship with them by interacting with and listening to them on social media, actively seeking their feedback about Cloudflare services, and interacting with them at conferences such as CDC and E3. There is no product if the game developers don't use it so we must seek and value their feedback before it is launched.

>>> Goals to Measure the Success of What We Build

Downloads
Frequency of downloads and at what level (free, pro, business, and enterprise)
Extensions
Frequency at which developers purchase extensions
Upgrades
Developers see the product as valuable enough to upgrade and spend more money on it
Number developers upgrading software when available--level of interest and engagement
Referrals
Number of new downloads from people with the same corporate domain email
Increase new and/or paying developers from a referral code

>>> Risks

Failure to get developers on board
If there is not sufficient outreach to engage the game developer community then this product will not succeed. We must clearly communicate the value of this product.
Failure to get Game Engines on board
Game engines must have a supportive stance about our software and they must see it as a win-win-win for the developer, the game engine, and Cloudflare.
Association with failed gaming services
There have been failed game engines like Frostbite and Snowdrop. We have to have rigorous pre-launch testing so this product is a success and not associated with failed game engines.

[1] variety.com/2019/gaming/news/video-games-300-billion-industry-2025-report-1203202672/
[2] https://www.metacritic.com/game/switch/to-the-moon