The last decade has seen an uproarious change in the video game industry with an increased trend of production and release of a variety of games from independent developers and large organizations. Business processes have shifted in the way these games are developed, marketed, and sold to users all around the world. Another interesting fact that is worth noting is the increase in the installed base of multiple gaming services in the past few weeks in lieu of unprecedented circumstances. The industry recently experienced video-game streaming surges with skyrocketing utilization of up to 75%, leading major players to seek alternate avenues and platforms to cater to the increased traffic while providing a seamless gaming environment to developers and users.

Cloudflare Workers for Gaming: Product Vision

We envision Cloudflare Workers for Gaming to be an intensive, easy-to-deploy computing platform that allows Gaming studios as well as independent game developers to seamlessly host and stream proprietary gaming software hosted in the cloud, powered by robust and reliable computing processors. Gaming on Demand faces a serious challenge today in terms of friction between game streaming and hardware incompatibilities.

Game developers are forced to tune their ideas, technology and refocus their experience to build and release games taking into account factors like customers' hardware environment, performance and visual capabilities. With Cloudflare Workers for Gaming, developers have the freedom to focus all their efforts on developing gaming software with the most advanced technologies while offloading critical tasks such as rendering and streaming for their customers to us.

Cloudflare's large network and multiple data centers located around the world can be leveraged by the gaming application in speeding up their loading time and improving the site performance.

The Gaming on Demand Market

In a highly competitive Gaming industry where success metrics are often blurred, few stalwarts such as NVIDIA and AMD have carved a niche for themselves. While the incumbent technology is heavily focused on GPU-accelerated consoles for an indulging gaming experience, it comes with a higher total cost of ownership (TCO) for the end consumers. This is one of the reasons for the growing popularity of Gaming on Demand.

Handling pricing for services could make or break the investment into the cloud gaming arena. Price-sensitive customers often sign up for trials and cancel them before being billed, affecting potential revenues for the company. Some prominent reasons are abnormally high costs of service, unavailability of preferred game titles and complexity in usage. No existing cloud gaming service in North America do not offer unlimited gaming time for their consumers. Cloudflare has a potential opportunity here to capture the elite North American gaming market by offering unlimited gaming infrastructure with a fixed-billing plan.

Game developers often find it hard to maintain security standards in their games due to the complexity of game development itself. Cloudflare's advanced application security services including a DDoS mitigation strategy can allow game developers to set aside fears of their applications being hacked.

Additionally, Cloudflare will hugely benefit from employing Design Thinking experts to have fruitful conversations with gaming studios and independent developers to identify their unresolved pain-points with their existing infrastructure, clear expectations from an infrastructure provider so that product development will be geared towards innovating solutions that will fit their needs and foster an uninterrupted gaming environment for their customers.

Novel product additions

With Cloudflare Workers, game developers have the flexibility to deploy code effortlessly and scale their applications on the cloud infrastructure in which the games have been hosted. With the availability of a truly global network that is configured to scale automatically, game developers will have less to worry

about the platform and instead focus on deploying their imagination for a highly immersive gaming environment.

Innovation directly impacts customer adoption. In this sense, I believe Cloudflare Workers for Gaming could introduce an Instant Game Download feature that lets gamers leverage their high internet connectivity to download a small size file for any game and instantly start playing it. High global availability of servers coupled with incredibly less latency times could boost the significance of this feature for end-customers who have access to a feature-rich gaming experience even though they do not possess the necessary high-end hardware to run them on their own.

Product Release Strategy

Cloudflare for Gaming team recognizes that improving a product of technology is a continuous process. Grappling with looming release cycles, Cloudflare must act only on validated assumptions from the customers. It should be ensured that User stories are built based on overarching needs of game developers, delivering on their simple configuration, deployment and upgrades.

A beta version of the product should be hosted internally while inviting over interested game developers to deploy their games on the platform. Handpicked focus groups from the Gaming community are invited for a chance to play these games hosted on the server while technical metrics surrounding compute performance are tracked. Through in-person & rating surveys from these beta testers, feedback relevant to overall gaming experience such as graphics quality, controller responsivity, etc. are gathered and analyzed. An analysis can be done on geographical areas that have high density of gamers and an initial launch could be targeted for these locations. Through a continuous integration/continuous deployment paradigm, the technical glitches and bugs are fixed in the next iterative release. We must take a plunge into this concept of the product with an entrepreneurial mindset. There could be two possible outcomes of investing into this product; we benefit by hitting early a business opportunity as first movers in the business or we learn from the failures and optimize our future releases.

What success looks like

Any customer-centric product's success should be measured upon its performance based on established metrics. According to us, the critical metrics that indicate our success revolves around adoption rates: number of game developers onboarded, number of games hosted on the platform and average latency time experienced.

In order to gauge the success factors surrounding customer experience, we recommend the introduction of a customer feedback loop system, where the gamers are incentivized to provide actionable insights frequently on their real-time experience playing games running in the cloud through in-game surveys that acts as a substitute for micro-transactions providing game points.

Product Risk Estimation & Management

Gaming is a typical example of a market where niche players are actually the dominant ones. Owing to the fact that the industry is completely new to Cloudflare, there could exist many unknowns that need to be addressed on the go. A useful way of predicting some risks would be to analyze mistakes made by competitors already providing similar services in the market and curating our solutions accordingly.

There is also the risk of facing a high level of competition from companies that have already set foot into this business. The risk of being overtaken by other companies due to a delay in our launch could lead to missed market opportunities. On a different note, game developers might be apprehensive to try our product, and this could strain our efforts in the beginning.

Apart from these calculated risks, there are risks due to external factors. Some games may be blocked in certain countries by the government and this could be something that is not under our control. This kind of a situation will hurt our sales objectives. A new market always faces a number of unknown challenges, but the best way to overcome these challenges is to face them.