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Cloudflare Workers for Gaming

The deployment of Cloudflare Workers streamlined the developer experience by introducing a serverless execution environment that eliminated server maintenance and enabled automatic scaling, among other benefits. This technology is uniquely positioned to improve video game development, an industry whose software development alone is valued at \$178.8 million, and is growing at a compound annual rate of 4.25%. When breaking into this industry through our new initiative, Cloudflare Workers for Gaming, we aim to provide developers the same powerful platform currently available, with the addition of increased game analytics and the incorporation of “game platform services”.

Ideally, the final product will incorporate “game platform services”, any in-game feature a player could want, displayed on the front-end such as real-time leaderboards, chat functionality, and multiplayer compatibility (all of which require well-designed databases). Additionally, the backend requires detailed analytics to help developers improve game flow, grow retention rates, target specific markets, and release effective updates. This is particularly important as the industry and user tastes are rapidly evolving, so developers need the ability to be dynamic with their products to keep up with the market. To solve other common video game developer challenges like the speed of responsiveness of backend servers and scaling abilities, we can leverage our distributed computing network and original Workers platform.

With an emphasis on our product being “simple yet powerful”, it is crucial to understand the landscape we are operating within including market size, competitors, potential revenue streams, and differentiating factors. A thorough understanding of this information will help our team pinpoint successes and pain points of current products, which will be taken into account while building out our final platform. Additionally, after the initial release of our platform, we can collect primary data through administering surveys as well as conducting A/B testing to ensure the optimization and multi-faceted nature of our platform.

The tentative timeline of Cloudflare Workers for Gaming has three important releases:

1. **Minimum Viable Product (MVP) Release:** After identifying the most encountered pain points and brainstorming valuable additional features, we will build an MVP that addresses these market needs. This will be initially tested by game developers within Cloudflare, as well as close friends to work out initial bugs. This release will come with survey feedback as well as testing on our end to track user interaction with features.

2. **Beta Release:** After iterating on the ideas presented in the MVP and fleshing out the product, we will release the beta version of Cloudflare Workers for Gaming. At this stage, we will present our product free of charge to private or individual game developers. We can incentivize them by paying them a fee to use our product to develop a game, and then have them report back to us. Again, we will conduct our own testing and administer surveys to these individuals. This data will be aggregated to make any final design and feature changes.
3. **Public Release:** At this stage, Cloudflare Workers for Gaming will be released to the public for everyone to use from small-scale developers to public gaming companies. However, it is particularly important for us to capture the small and medium-size companies because of the stiff competition for larger companies.

Three important performance indicators to measure the platform's success are:

1. Number of individual game developers who switch per month
 - a. After the beta release and providing initial incentives, what percentage of these developers are continuing to use our platform?
2. Latency per deploy (ms)
 - a. What is the time it takes for a user's request to be processed through Cloudflare's network of data centers running V8 isolates?
3. Money saved per month (\$)
 - a. By having a serverless platform, how much money do these game developers save? (Cloudflare Workers is significantly cheaper than any server platform, and most other serverless platforms)

The primary risk of pivoting into this market is stiff market competition. Over 90% of games developed by public gaming companies are hosted by AWS Game Tech. Additionally, Google Cloud just recently released their gaming platform. Competing with these large companies is potentially dangerous because of their significantly greater access to funding. We can combat this by strategically targeting mid-size companies who are getting crushed by the larger game developers, and provide our service at a discounted rate to incentivise switching over. The goal of these partnerships should be mutually symbiotic. If we are able to help these midsize companies grow and push out popular games to effectively compete with their competitors, not only would they use our product more, but it would also serve as great marketing. Ideally, even the larger companies would consider switching to our platform after noticing the success of our midsize partners. However, if we are not able to partner with these smaller companies to push out successful games, then larger companies will have no incentive to make the switch of changing their entire development hosting to use Cloudflare's services.