Cloudflare Internship Application: Product Management [Link to Repository]

After talking to Game Developers around me, on the internet and specifically discussing, What It is to like manage a Multiplayer FPS Game? I have achieved some conclusions which will help Team Cloudflare build the Cloudflare Worker for Gaming. Auditing the existing Cloudflare for Gaming, We are already offering Secure Network (free of bots, DDoS Protection), Accelerating Resources(Match Making) & Serverless Deployment. But how we are aiming fit Cloudflare worker is about a whole new perspective.

Product Plan:

If We want to win Gaming Market we should start from where It all begins, Game Development Engines like Unreal Engine & Unity 3D being the popular one. Two Popular Battle Royale Games Fortnite & PUBG both are built on Unreal Engine. The team should study how we can give an environment from where they can easily build and deploy right from the platform. It means supporting Unreal Engine natively.

Now, Game is Up Live & Running. Cloudflare wide network range is handling traffic and content delivery on ease. What might affect gamers experience now?

+ A New Game Version or Patch Update.
+ Hacking & Cheating.
+ Too much cosmetic variation.

Pushing New Game Version across all servers might seem to be good. We should offer flexible policies for pushing new versions, more of like on a rolling basis (when the user base is lowest according to time zone, avoiding weekends and holidays). We should be able to share our cached resource and CDNs between different versions of games. New Versions will definitely attract more user. The Peak traffic, latency & Jitter graphs of the user will be a reference of the CDN & scaling for immediate future.

Popular Multiplayer Game Developers have a shared and biggest worry of hacking & cheating. With some changes to Cloudflare, We will be able to deliver the same. Common Hacking Techniques are ESP(Extrasensory perception), Aim Bots, Unlimited Resources and much more.

+ ESP basically shares details of each and every user to user using ESP. It is induced with tweaking client-side code. Having details of opponent gives you the upper hand in the game. At Cloudflare Workers, before delivering information to Client we can have securities in place that will make ESP of no use.
+ Aim Bots are generally helping the user to aim perfectly. At Cloudflare Worker, We can have an accuracy of maxima of all the user present on the server to consider moves validity.

In Games, Cosmetics are all the customizable stuff, skins and design a player own. On a Server, Players have different cosmetics. During a game delivering detail of cosmetics to all players with all amount of different resources available for a game are a static object and a separate CDN focusing on these kinds of stuff will significantly decrease the latency and jitter.

After all, this How we thrive to achieve this on Cloudflare Workers?

We take Agile as our base model to develop the Cloudfare Worker for Gaming. We can't use Agile as it is but the important perspective of moving along with stakeholder(A Game Developers) rather than following old goals is definitely helpful in the dynamic gaming community. Priorities can change and We need to shift according to that. Before Releasing

any feature we can have some game developers in the beta community to deliver what is required?

Timeline:

+ Survey & Information Collection Period (4 - 6 Weeks)
+ Prototype Development & Validation (36 - 40 Weeks)
+ Alpha & Closed Beta Testing (4 Weeks)
+ Reconfiguring on basis of Feedback from Testing (24 Weeks)
+ Open Beta Testing, Community Involvement (10 Weeks) (Keep Record of failure acting on them in real-time)
+ Product Launch, *Game Begins*

We should think of collaborations with different brands to bring this upfront. Google Stadia has teamed up with the guys at the Unity 3D. We may seek Epic Games, a popular game development company & the developer of Unreal Engine. We should also stress on point How we are different from stadia? How we are different from GeForce? Stadia is not our competitor. Stadia is all about frontend, playing online but a game running on stadia can have Cloudflare workers at the backend. We can use existing policies with google to share the bandwidth making things ultrafast.

Quality is totally dependent on A/B testing and adopting the result. Words by Developers are foremost. Either Its an established company or Indie Game Development company everybody looks over new talent with a new skill set which keeps them head to head with time. For this, We can tie with communities like Major League Hacking. MLH is one of biggest and reputed Student Hackathon community available in the US, EU & in APAC as well. We can offer our initial set of product in the open beta program to budding developers to spread the word about us and for in-depth testing. Later moving best developers to the closed beta program.

Success Measurement:

Cloudflare Workers Gaming will be successful

+ If Our User base has diversity. So, We can still remain in-game after one interest group leaves.
+ Moving from Indie Game Developers to Established Game Developers for AAA Titles.
+ Success is all about User Retention.

Risk Analysis:

+ Developers may dislike Serverless Architecture intended to take full control and customization of what they are serving. Maybe, FaaS is not what they will be looking for Games exactly.
+ Multiple Game on the same servers with other deployments can issues to each other in terms of performance.
+ Microsoft Azure Gaming can prove a potential threat to Cloudflare Workers Gaming. There Serverless Asynchronous Multiplayer is evolving day by day and It has some good results. Azure Custom Scaling in spite of Serverless may lure more Indie Game Developers who looking for limiting expenses at starting.