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As video gaming continues to evolve, the need for safer and faster game development platforms is on the rise. Video game developers are constantly searching for new ways they can improve the graphics, functionality, and control of video games. Although progress has been made in the industry, [VentureBeat](#) still describes the video gaming industry as ‘a weak link’ for network security. The need for a platform that prioritizes developers’ network security all while providing maximum speed for code deployment is greatly needed. Cloudflare workers for Gaming is a platform that will do just that.

To fully determine what the market needs, research will be conducted to understand the industry and what resources are needed to improve the production of quality games. Using StackOverflow and other internet resources, I have gathered some understanding of the needs in the industry. To keep up with these needs, a research team aimed at collecting information on the latest challenges and developments in the industry will be appointed. Our product aims to satisfy those needs by providing a platform for game programmers to develop games using software that provides a highly secure network and speed that runs code [50X faster](#) than other platforms. The product will focus on object-oriented and 3D-programing which is highly used by game developers.

Object-oriented languages like C++ will be incorporated into Cloudflare workers because they provide a super-fast code running time and allow developers to have greater control over 3D game graphics which is critical in video game development. Unlike javascript which is currently the main language used for Cloudflare workers, C++ will allow developers to create 3D game characters and provide efficiency.

Using the Agile methodology which is a form of Software Development Life Cycle (SDLC), the quality of the product can be maximized at the lowest cost within the shortest possible time by clearly defining a set of processes that results in the final product. This method eliminates possible pitfalls by anticipating costly mistakes before they occur. After the plan is laid out, team members are assigned specific tasks for design, developing, coding, testing, and marketing. Because Agile methodology is a repetitive process, emphasis will be placed on testing which will, in turn, save time and money. The agile model which delivers the product quickly by producing a succession of releases that can be tested is most efficient for game development because of the feedback gained in each release. The feedback gained from each test is incorporated in the next release. Working in short, repetitive cycles will allow us to gain frequent feedback from both customers and stakeholders which can help improve product quality. Utilizing the agile model, the team is also able to work quickly towards developing a Minimum Viable Product which does not only validate our propositions but also minimizes the risk before the first product release to the market.

A potential challenge that could be faced is the inability to estimate the project as feedback is received due to the agile nature of the project. To avoid this, a specific time frame will be allocated to the entire project and tests will be made within the time frame. This can be achieved by adequate planning and management that can measure the benefits against the cost of each test to avoid carrying out tests that are not important. Hiring new employees that can build the game development platform which is different from Cloudflare workers’ conventional platform will inevitably pose a challenge. To mitigate

this risk, every potential hire should be evaluated to ensure that he/she shares Cloudflare's values of collaboration, diversity, and growth. This will ensure that hiring a new set of employees with different skill sets would not negatively affect the culture of the company.

The success of the product will be measured by four factors: quality of game produced using the product, the number of security breaches from using the product, the number of game developers attracted to the product, and the speed at which the product is used. After production, Cloudflare workers for gaming should be shared for beta testing by groups of 10-20 developers to get product and marketing feedback. The feedback would be used to polish the product, and marketing would help set up a launch day and we will utilize social media for advertisement.