

Cloud Storage for PC Gaming Proposal

Bernard Ayuyao

Old Dominion University

CYSE 595 Entrepreneurship in Cyber Security

## Cloud Storage for PC Gaming Proposal

Have you ever lost available storage from your hard drive and it prevented you from doing your task? Have you ever lost your data from your hard drive that was precious because your hard drive or any other hardware broke and failed? These type of issues may arise in PC gaming as well as many other vulnerabilities out there in the cyber world. Cyber security deals with protecting your assets whether it is your hardware, software, and data. What makes this protection unique to data is that one person values data differently from someone else. Today, gamers want to continue playing personal computer games as well as having all the latest games that are released but are limited to how much space they have on their hard drive. The joy and gaming experience is what makes that data unique. Although a cloud-based platform is our solution to solving these problems, there are a few barriers that we confront; like having the limited resources to reach our goal of solving these problems. Once the problem is solved, we want to make sure that we are successful by doing an assessment through validation using a tool like funneling and crowdsourcing.

The first problem that our innovation can solve is storage space for PC gamers. Games may require taking up a lot of space on the hard drive, ranging from fifty to one hundred gigabytes. A possible solution for this problem is to buy more hard drives. That solution can be a temporary fix but it also brings up another issue because your personal computer can only take a limited amount of hardware and physical space inside the tower. With the pandemic forcing people to stay home, a lot has turned to online gaming for entertainment, which promotes and encourages social distancing themselves while interacting with other people online. This resulted in a sharp increase in the sales of video games and gamers playing video games online. With more games being bought, more storage is required to keep and play your games. This is still a problem because I have experienced storage issues with friends who also love to play video games. I asked my friends to play the latest games online but they are not able to because they do not have enough space to store their game. Even if they have space for the game, a patch or update for the game would require a huge file which will not allow them to play online with the latest update due to limited space on their hard drive.

Another problem is having your hardware fail or break over time. For example, another personal experience I had was that my hardware unfortunately broke while playing my video game. All the games that I stored on my hard drive and having them updated to the latest patch were now all gone. To fix that problem, I had to get new hardware and download every single game and update the game to the latest patch to play online. This took hours. Time is important for everyone and being able to start a game within seconds is personal time that could be saved or time to continue playing video games rather than waiting for a download or an update to your game. When my friends would ask me to play and there would happen to be a patch update, I would usually tell them to wait for an hour for me to finish my update. If you play video games with a group of six people and everyone is required to update the latest patch, assuming that everyone is updating their games at different times, then that is six hours of time wasted by waiting for everyone to download their update. Both storage and hardware issues cause the feeling of frustration and the torturing pain of waiting to play. What is worse is having your hardware break and having to download every single game and update again.

Now, the solution to our storage problems for PC gaming is by having a cloud-based platform where you can store every single game you own that is playable on your personal computer. With just downloading our software or application, you can see all your games that

are stored in the cloud. Depending on the demand of your storage requirements, you can continue upgrading the amount of space you need to meet all your storage needs for gaming. I have not seen anyone come up with this solution for PC gaming storage but there is a platform out there where a cloud can be used for games only downloadable from that platform. Our solution is to have any game you own, regardless of whether you bought a hard copy of the game for or downloaded it virtually. Both these options can be stored into our cloud-based platform. This solution also prevents you from losing any data because there is no hard drive that can fail. Also, if any of your hardware breaks, you can just load our platform, and start your game. There will be no need to download every single game and updating to the latest patch. This is also helpful because you can play anywhere with a PC meeting the game's requirements. For example, if you have a gaming PC and decide to fly and travel to friend's house, you don't have to bring your bulky PC with you. All you need to do is have our platform installed on a friend's PC and you can have access to all your games that you have stored.

There are a few barriers that we will confront when starting up this platform and they are having a team to work on this business and the limited resources that will make it difficult for me. First, I can't run this business on my own. There will be a lot of security and servers to maintain to keep the platform running smoothly. Next, starting a business will be tough, especially with limited resources. I don't have the amount of money to start a business and I don't have a building or warehouse to hold all my hardware for my servers. There also must be employees who are knowledgeable of maintaining the servers and making sure our assets are not vulnerable to any threats.

To overcome these barriers, we can connect with investors to share our ideas. In order to connect with investors, we can attend tech conventions and gamer conventions to advertise our innovation. We can also create partnerships with big companies like Amazon Web Services or Google who has created cloud computing services. They already have the facilities, equipment, and personnel to run cloud-based services which reduces our cost of training, finding new employees, and maintaining the equipment and server.

Before and during the business, we want to make sure we are successful and therefore we would make a few assessments by validation. For example, we can analyze by funneling and crowdsourcing, or testing with some technical data and human factors. This testing is done by giving a free trial of our cloud-based platform for ten days where PC gamers can store one terabyte of games into our platform. After the ten day trial, we will have a survey of what they think of the platform which will show their thoughts and opinions from the crowd we aim to produce our innovation for. If they would like to continue using our platform, a monthly subscription would be offered, and this would funnel or narrow down our data as well.

All in all, cloud-based services is the solution and is very helpful for PC gamers because it keeps their games securely stored without the hassle of needing more storage physically and virtually. This is a problem in today's gaming because new video games are releasing and there are not a lot of storage space to keep up with the new releases. There will be no more issues of lost downloadable games and the need to download them again because of hardware failure or the need to worry about space for all your games. There will always be barriers when starting a business but having investors or forming partnerships will get us to the right direction. In order to assess that we are successful, we will gather data by funneling and crowdsourcing, that way our business is always improving. Not only does a cloud-based platform provide more storage, it keeps your games safe because cyber security is about protecting your valued assets like your

hardware, software, and data. Data is what makes this issue unique because gamers value their data, which are their games.