Deployment Plan

Wizards

Deployment Plan

Routes to Take

During the development of Wizards, two platforms were tested to see how they ran. GNU/Linux, and Windows. There is no saying that it could not necessarily work on OSX, but none of the developers had any way to test this. Most companies like Sony, Microsoft, and Nintendo have their development kit information locked under account registration, and applications. It would more likely be the case however, that python would not be supported by these companies in the use of their development kits. The software is also not currently web ready to allow for use by web browsers to just outright play the game, so it would seem to be the case that the only route for Wizards to be played would be through users downloading the software on their computers, and playing it like that. Within this subset of deployment methods, there are many different routes to take.Some of the ones going to be focused on are:

- Steam
- Self-Hosting
- Allowing Someone Else to Host

First, we will look at self-hosting. Before this though, we should look at some statistics of the application:

- The application is only ~7MB in size, meaning the requirements for bandwidth will be very minimal.
- The platform will require being able to host python applications. This shouldn't be a problem for methods like self-hosting, but using a company to host the application may present some problems depending on the flexibility of the platform.
- No installer program currently exists in the codebase to allow for easy installation. While not necessarily a problem for self-hosting, should we choose to have someone else host the application, they may require install scripts to allow for easy user access, especially for platforms like Steam.

Now, to move on to the self hosting.

Self Hosting

Hardware:

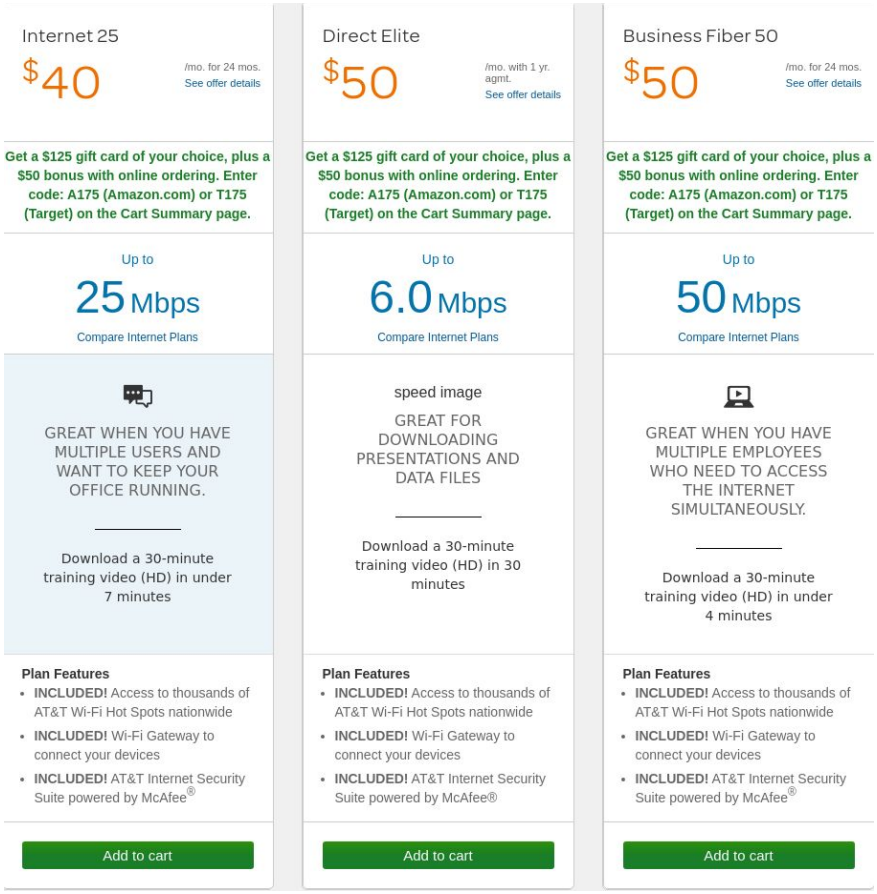
Of all the components of a computer, the storage would be the most important component here. Something with high read speeds for easy access to the software. As such, SSDs put in a RAID array of some sort would be most ideal for serving customers. For safety reasons, it would probably need to be put on a RAID 1 array, and while writing to the drives initially would be slow, the fault tolerance on this would be the best. With such a small program to be hosting, it could probably get by with using a consumer grade CPU to host the application. if the user base is small. If this were to get the same attention as a AAA game, things would need to be much different, and self hosting at this point would look less appealing.

Granted Allowances:

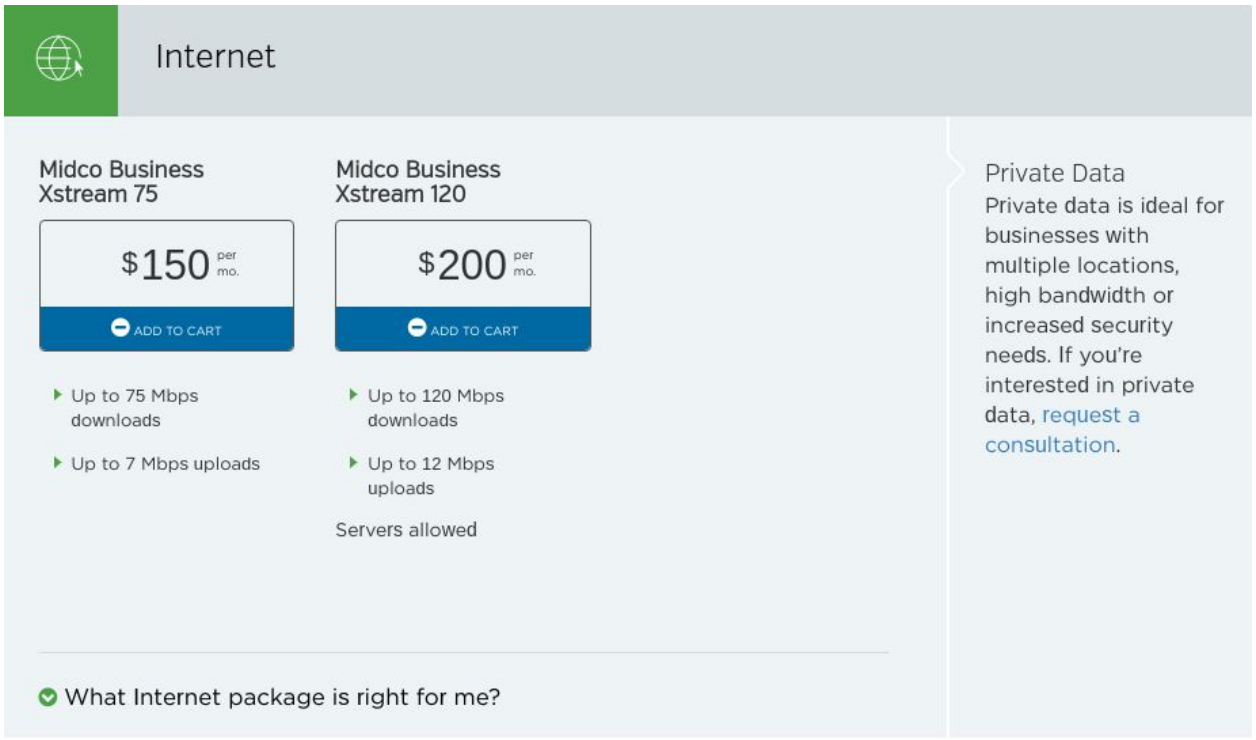
As mentioned previously, the fact that the program does not currently have an install script is okay for self hosting, so long as we treat the hosting solution more like a FTP server, rather than some professionally presented company. This will be the case regardless of the server that is built for this purpose, as we have 100% control over this system. It could still be the case that we choose to be able to present this as an application that can be used by someone with near zero computer knowledge, in which case of course we would need to get an install script.

Costs:

In terms of costs, we would of course incur the cost of building the server, with the only longstanding costs being the power draw from the server, and the internet plan we choose to opt for. For a single server, the wattage cost is near negligible. This is assuming that the software will not be receiving consistent attention or demand. For the internet plan, the bandwidth upward is much more important than the bandwidth downward. For many plans with such a focus on consumer needs, a business oriented plan would need to be purchased. Here are some plans to take a look at:



(Above is AT&T's Business Plans for around this area, and below is Midco's price)



For our current team's scenario, these speeds and prices do not bode well compared to opportunities presented in other parts of the country. Should we decide to go with these speeds regardless, this would be easily the greatest long term cost presented to the operation. The AT&T option also proves to be a little misleading, with probable cause to believe that only the download speed is presented, as this is what many people are familiar with when referring internet speed. This, and the fact that if they were also presenting an upload speed at the same time, for that price, there would be no reasonable way that Midco could compete in this market.

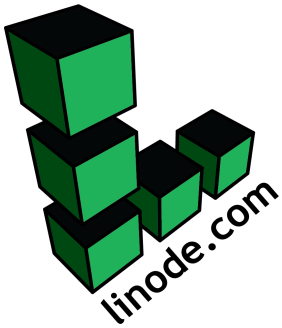
Final Notes on Self Hosting:

Multiple times throughout the explanation, it is clarified that and assumed that the traction for the site is not great. If it were to be a very popular application, there is no way that any level of professionalism or quality could be achieved by hosting it in someone's house, or in some more or less free building. Multiple servers, a datacenter, enterprise level plans that would require direct contact with a company, possible content delivery networks, physical firewalls, specially licensed or configured operating systems, and things of that nature would need to be purchased, for prices that would be known only after meeting which each of the respective products' owners.

Allowing Someone Else to Host

Should we decide to forego all of the necessities of self hosting, we could look at allowing someone else to host the software. This in itself can take multiple forms, from using shared hosting through the use of virtual private servers, to having multiple physical servers rented for us that can offload traffic onto each as traffic increases. A couple that we are familiar with are presented below.

List of Server Providers:



(source: https://www.linode.com/media/images/logos/diagonal/light/linode-logo_diagonal_light_large.png DoA: December 6th, 2017)

Linode:

- Much cheaper backups as price scales upward
- RAM is cheaper
- ROM is cheaper
- Bandwidth is cheaper
- Support for more distributions

(source: https://upload.wikimedia.org/wikipedia/en/thumb/f/ff/DigitalOcean_logo.svg/525px-DigitalOcean_logo.svg.png DoA: December 6th, 2017)

Digital Ocean:

- Add additional space as needed
- Support for BSD

(https://www.purrdesign.com/wp-content/uploads/2015/08/namecheap.jpg DoA: December 6th, 2017)

Namecheap:

- Offers more than just Virtual Private Hosting (Domain Selling, Whois Guard, SSL certs)

Steam

Steam is a digital distribution platform where users can upload games for others to download. Steam has a whole list dedicated to how a game developer can get their game onto their platform here: https://partner.steamgames.com/steamdirect. Not only that, but they have a list of interactions that you can integrate into programs for use with the Steam platform. The APIs are not officially supported for Python, but they do have unofficial bindings for python here: https://github.com/Gramps/SteamworksForPython. While this process requires additional development costs to account for the Steam environment, the benefits are quite extraordinary. The initial cost to publish a game is $100, and it is an additional $100 for each game that you publish on your developer account. However, after this cost, there is no mention of any additional costs for just maintaining the account with them. Valve does get a portion of your profits, but there is no cost to the developer if no game is sold. Marketing is also managed and handled by Steam. Steam users are already looking to buy games, and Steam currently is the most popular platform to purchase PC games. Steam takes care of game presentation, and in itself, is a form of advertisement. Users browsing Steam's library will have the opportunity to view our game on a well-respected and esteemed distribution platform.

This relieves us from having to develop a plan for people to see and gain interest in our product.