Soundit (Git Shwifty) Deployment Plan

Deploying our site into a fully featured web application would require several steps, ranging from additional development to arranging web hosting.

Integration of Additional Features

A small list of features still need to be included in order to deploy our product in a usable state. Firstly, our service needs to be integrated with other music hosting services, not just Youtube. Having the ability to tie in songs from other services, such as bandcamp and soundcloud, would make our site much more valuable to users, as well as reducing our dependence on any single web service.

Additionally, a number of monetization avenues would need to be explored, as it is critical that we have money to run the site and hire developers. Sidebar ads would be a crucial source of income, and will have to be added to the application. We have also considered adding a premium, paid version of our service, with additional features.

Optimization and Scaling

Another important step would be to optimize our existing code for a potentially much larger user base. While our existing codebase works sufficiently for a small volume of users, it has not been tested with a more realistically sized set of users. We will need to perform these tests, and make the necessary optimizations to allow the application to properly scale.

Exporting to Server

After the final application has been fully developed and tested, we can move to porting to the final server that will run the application. This process would work

differently depending on whether we decide on buying a server to host in-house or instead go with cloud hosting. In either case, this would be a relatively trivial task.

Costs of Website Hosting

We analyzed the cost of hosting a website from a number of different approaches. The first approach was to buy a physical server and operate the server in-house, doing all the maintenance and paying for power and electricity ourselves. The other approach we researched was purchasing web hosting with a cloud service such as Amazon AWS. Costs were estimated over a period of 5 years.

When estimating costs, we made the assumption that our service would be less intensive on storage needs. Since Soundit only stores links to music and videos, as opposed to hosting the actual music and video files, our storage needs should be much lower than many other types of web application. As a result, more of our budget is focused on bandwidth and processors, with the goal of providing faster request responses to more users.

For our in-house scenario we envisioned using the Dell PowerEdge T330 Tower Server. The model we selected features 4GB RAM, 500GB hard drive, and an Intel Celeron G3900 processor. From here we made several estimates of other costs, namely electricity, bandwidth, and workforce. Electricity was difficult to estimate, since it is nearly impossible to tell how much power a hypothetical machine would consume in practice over long periods of time. We used several online examples of electricity costs for single server units to inform our approximation. A similar process was used to calculate bandwidth expenditures. For workforce expenditures, about 3 hours of server

maintenance per month was anticipated, at the pay rate of $20 per hour. We also did not assume having a dedicated employee responsible for server maintenance, but rather diverting the time of a developer to perform server maintenance as needed.

With the cloud hosting estimate, we decided to go with Liquid Web, using a 259/month plan. While we tried to keep system specifications similar between our two approaches, the cloud hosting undoubtedly boasts better performance. It was especially difficult to compare the differences in bandwidth between the two approaches, though we expect the web approach will also have higher bandwidth.

Given these parameters, we found that using an in-house server solution would be significantly more affordable. In-house server hosting for 5 years came in at under $6000 total, whereas cloud hosting exceeded $15000. That being said, we estimated our in-house costs under the assumption that labor for server maintenance would only be $20/hour, and that servers would only need 3 hours of maintenance per month. If we had an office in a region with higher cost of living and therefore higher expected salaries, employees may be paid significantly more, increasing the cost of running in house servers. Likewise, if servers actually need more maintenance than merely 3 hours per month, costs of in house servers will also increase.

Additional Costs of Deployment

Purchasing the domain soundit.com is also a significant expenditure we anticipate. Since this is the name of our service, we are rather insistent on getting this domain, but soundit.com is already taken. GoDaddy offers a service to attempt to buy

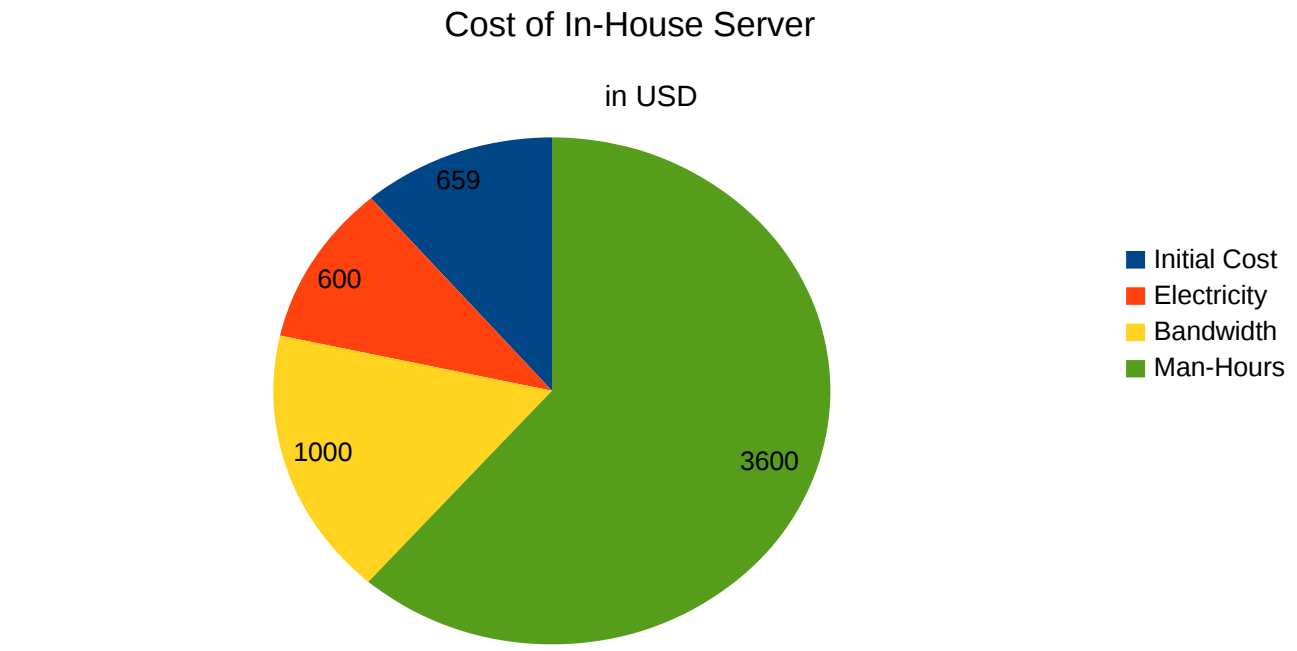
domains for $70. This would be a good starting point, although we would potentially need to make a higher offer to buy out the domain if the owner is insistent on keeping it.

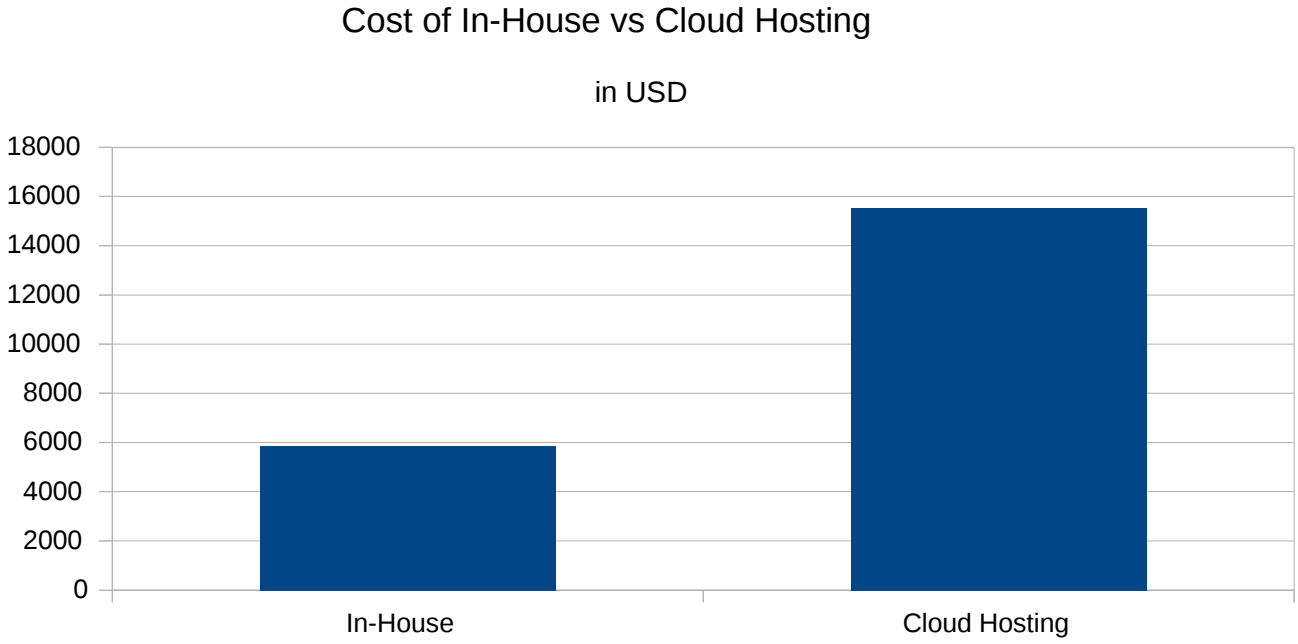
Cost of Website Hosting for 5 Years

In-House Server Rack

Initial Cost	Product	Cost	Quantity	Total
	Dell PowerEdge 330 Tower Server	659	1	659
Operating Costs	Source	Cost/Year	Period (Years)	
	Electricity	120	5	600
	Bandwidth (100 mbps)	200	5	1000
	Man-Hours (@ $20/hour) (3 hours/month)	720	5	3600
				5859

Cloud Hosting	Service	Cost/Year	Period (Years)	Total
	Liquid Web Cloud Hosting	3108	5	15540


Cost of In-House Server
in USD
659
600
1000
3600
Initial Cost
Electricity
Bandwidth
Man-Hours


Cost of In-House vs Cloud Hosting
in USD
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
In-House
Cloud Hosting