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A very simple financial model might use cloud computing for a utility-style billing. This is where every detail is metered, giving you some exact numbers of your costs.

For example, an object storage service might cost ~\$0.10/GB, so you can figure up to \$0.20/user per month. For 10,000 users capping at 20,000 GB, so about \$4000/month (10,000 * 2GB each * \$0.10 GB). You can then make some assumptions in your financial model to denote 50% actual usage (~\$2000/mo), 80% usage (\$3200/mo), for budgeting and capacity planning. Depending on the site/function/etc, many users won't use all their allotment, so you can under provision and oversubscribe as part of your model if you plan for rapid capacity changes. You'll also receive discounts as your usage increases, so you achieve per unit cost savings as your usage increases.

Things differ a bit if you move to dedicated infrastructure (dedicated/managed hosting, colocation, etc) where you commit to specific configuration on a monthly basis. If you buy your servers and colocate them in a facility, you have monthly costs for the colocation and then probably a bandwidth pipe with a committed throughput rate (no matter how many bytes you transfer). If you go down this path, you'll need to identify how much your equipment will cost.

Assuming the 10,000 users above with 2GB per users = 20,000 GB or 20 TB, you may need 3x servers with 8x 2TB SATA disks each (2TB * 8 Disks * 3 servers) gives you 48TB raw capacity. Cut that in half for RAID-10 redundancy, and you have 24TB usable. If the cost of that server is \$3000, then you've got \$9000 in CapEx, depreciated over 36 months for a monthly cost of \$83/month. Add about \$500 for a cheap colocation provider (about a half rack to host the 6u of equipment, with the ability to add two more servers) and you're looking at a rough cost of \$583/month. Divide that by 10,000 users and you get \$0.05/user for the 2GB each (or about \$0.025/GB).

You can also lease servers like this with dedicated hosting, so that you don't have to spend \$9000 up front. Assuming a storage server of the same configuration above runs about \$700 month, and you'd need three servers, you're looking at \$2100/month in costs. Same math applies: \$2100/mo divided by 10,000 users is around \$0.21/user, (or \$0.10/GB).

Again, this is a highly simplistic model and doesn't cover the other costs of running your infrastructure (support, server management, etc). If you're building a financial model for a business plan, you can use this as a starting point when you build a proper financial model.

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100k users, lets assume 5k max active at the same time. And assume Amazon AWS

Still you would like 2 hot MySQL or PostGresql database servers, each at \$200 = \$400. This way you can distribute them across different AZs (availability zones)

1 offline database for statistics at \$200 = \$200
4 app servers at \$60 each = \$240
staging environment of 2 servers, 1 db server \$160

That is a \$1000/month. Don't forget SSL costs, bandwidth and storage. That really depends but lets add another \$100. And you need the knowledge and hours of system engineers to configure and manage all