Trevor Bullis

CIS 140 Assignment A1

First on location I wanted to go with a room that is not in a patient area as having one away from that can make working in it much easier. I will be taking the room in the administrative offices. The room in the far north/east corner of the administrative offices area in the Medical Office Building 1.

This room looks to be about the standard office size which I am guessing is a 12’ x 10’ room and that has 120 square feet. The room will need 2400 BTU cooling by itself.

For our server chassis we will be going with 2 [Dell FX2](https://www.dell.com/en-us/work/shop/productdetailstxn/poweredge-fx-chassis) 2U rack chassis at around $849 2400w each

For our servers themselves we will go with 5 [Dell PowerEdge FC640](https://www.dell.com/en-us/work/shop/productdetailstxn/poweredge-fx) $3,759. Our current chassis will hold 4 of these servers each. 2 servers for each chassis and one backup FC640 in case of a failure.

For our storage solution I will be going with a [Dell PowerVault MD1400](https://www.dell.com/en-us/work/shop/servers-storage-and-networking/powervault-md1400/spd/storage-md1420/pv_md1400_1350?view=configurations) $6,518.43 and with my configuration will have 24.6TB of storage. 700w/2047 BTU/hr

For our Tape Drive we will be going with a [Dell Powerfault 114X](https://www.dell.com/en-us/work/shop/dell-emc-storage/powervault-114x-lto5-lto6-lto7-lto8/spd/powervault-114x/bvcwsk2) with LT08 tapes $4942.72 and each tape will be able to hold 30TB 85w

Virtualization will come from Vmware Vsphere7

System will support VOIP

Will require around 22,400 of cooling including room size. We will purchase two [LG 24k BTU Cooling LS240HEV2](https://www.ecomfort.com/LG-LS240HEV2/p99295.html) units. Running both at around half capacity. Units will be responsible for keeping the room at the proper humidity between 40%-60%.

Generator will be a [Cummins Home Standby Generator](https://www.norwall.com/products/20Cummins-Quiet-Connect-20kW-Air-Cooled-Home-Standby-RS20A/) with an automated switch over built in. 18 – 20 Kw. Dual Fuel. RS20A

[Two APC Smart-UPS 3000VA UPS](https://www.amazon.com/APC-Smart-UPS-SmartConnect-Uninterruptible-SMT3000RM2UC/dp/B0785NCFMY)

Will need around 4000 watts of power from the power company.