i341 – Networks & Distributed Applications

Media Selection Consultation
(Based on Handout on Cabling/Media Selection)

Rev 2016

Scenario #1

You are responsible for the network media infrastructure at your new company location (6 story office bldg.). The wiring is old and with some category 3 (1 pair UTP cable) installed. They would like your recommendations on a building architecture.

This is an interim company location – likely to move in the next 6-8 months.

Company would like to have company data center in new location, this includes over 100 physical servers. Company CTO raised concerns per net performance – want to provide good performance for end users.

When asked about wireless, CTO (who is two levels above your manager) said that would probably be fine for system admins, and most "normal" company employees.

Office/General Use (laptops) 60 devices   **Executive 12 devices**
Office/General Use (laptops) 60 devices
Office/General Use (laptops) 60 devices
Office/General Use (laptops) 60 devices
Office/General Use (laptops) 60 devices
Data Center (100 servers) Sys Admin (10 devices)   Help Desk & Monitoring (20 devices)

Figure 1: Scenario 1 – Generic Bldg Architecture

Deliverable – student will write their high level recommendations on media approach. I am expecting students to note what they would use for the floors, buildings, any special circumstances or considerations. There are many possible correct answers – please don't think of this as right/wrong, this is to apply your concept knowledge to a problem.

Scenario 2 - Architecture for Large High school

Where do you recommend location of Wire closets - if locked or open, external links, connectivity to other buildings (on same campus) - easements are not a problem, specify number of racks (how used), type of wiring, type and number of jacks, number and location of distribution frames.
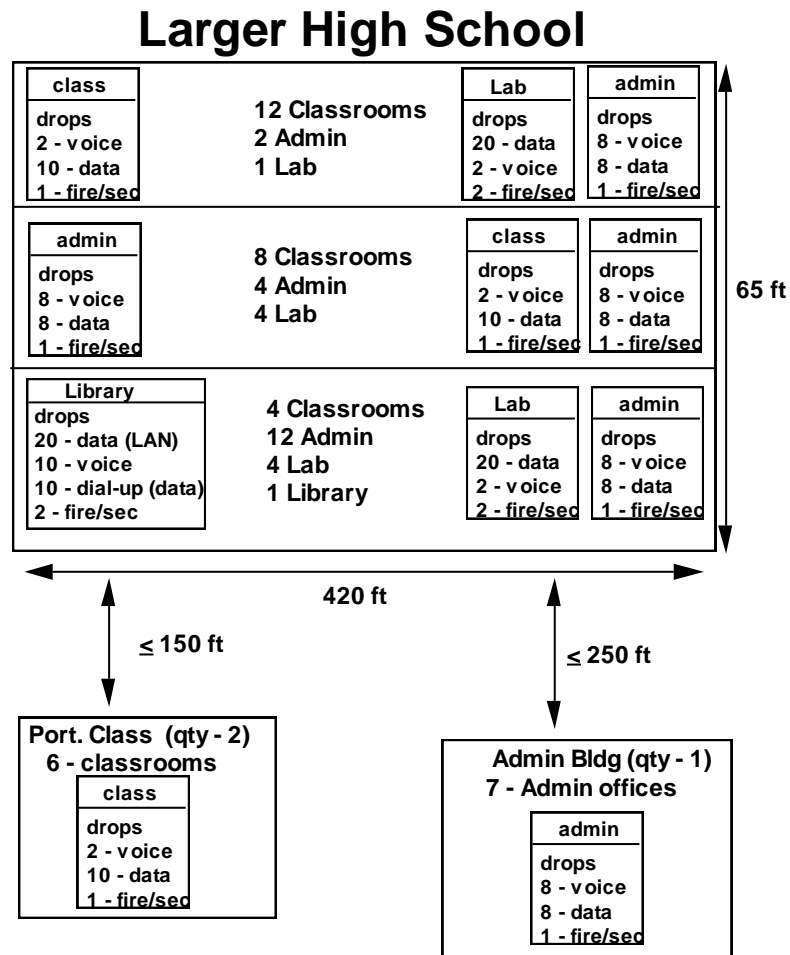
Larger High School

class				Lab	admin
drops				drops	drops
2 - voice	**12 Classrooms**			20 - data	8 - voice
10 - data	**2 Admin**			2 - voice	8 - data
1 - fire/sec	**1 Lab**			2 - fire/sec	1 - fire/sec

Fig 2 Architecture for Large High School

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