

## Week 8 Discussion #2

Using the scenarios from Discussion #1, suggest appropriate RAID levels and estimate their cost. Does the choice of RAID or RAID level affect the backup strategy and schedule?

Both the large and mid-sized companies will want to have mirroring or data striping with their RAID solution; therefore level 0 is out of the question. The large company will need a high-performance solution to handle its workload; therefore data block striping is a necessity. The mid-sized company could get away with data byte striping; however, in the interest of prescience, the company should plan for growth and go with the block striping offered in RAID levels 4 and 5. Although the multiple disks required for Level 5 come at an additional cost, the mid-sized company would do well to either go with Level 5 or purchase a RAID system that can be expanded to Level 5 at a later date.

The small academic department could do fine with RAID level 0 and relying on some other means of backing up data. While RAID Level 1 provides mirroring, this redundancy comes at a high cost, as each drive in the array has the same data written to it, wasting space (Redhat, 2009). Since the academic department's data is not in a state of perpetual transactions, for instance, most updates would occur during normal business hours, and the amount of transactions are minimal, the data could be safely backed up each night to another storage device and data not backed up has a fair chance of being recovered from the data on the other drives.

Redhad, *RAID Levels and Linear Support*, Red Hat Enterprise Linux, 2009. Retrieved from redhat.com Mar 8, 2009 at: <http://www.redhat.com/docs/manuals/enterprise/RHEL-4-Manual/sysadmin-guide/s1-raid-levels.html>