**Assignment 2**

**Directions:** Read the following case description and then complete the case problems at the end.

Our friends from the Akami Corporation are on the grow again! If you will recall from assignment 1 we provided the connectivity from the existing building A to the new facility across the street (building B) under a very strict time frame, and an almost non-existent budget. Now that everyone is moved into the new facility the need for fast data speeds to the desktop, servers for printing, file sharing and e-mail are needed without having to connect to the servers and devices across the street. It has also been decided that Akami will bring their web development for their web site in house (just the development, it will still be hosted elsewhere for now) and begin managing it on their own.

The people in the new building have also been complaining that when the “graphics and arts department guys do stuff on the network it gets SO slow!” so this issue will have to be remedied as well. As usual, you have been given this assignment with little to no time to act, and your budget is less than $5,000 for the entire project. The good news is that you have just received the new Layer 2 switch that you ordered four months ago to upgrade the building B network, so that does not have to come out of your budget. You also have a few (3-4) leftover servers from when the company was purchased. What you do not have is the money for expensive licensing agreements and hardware upgrades!

The Akami employees in the new department are grouped as follows:

* The Graphics group occupies offices 309, 310, 312, 313 and 314 (this is the group that everyone complains is hogging the bandwidth).
* Accounting is in 317, 318, 319, 321 and 322 and doesn’t want anyone to be able to see their data on the network.
* Management is in offices 325 and 326, and are clueless about data on the network.
* The legal department is in 304, 306 and 307, and are SO paranoid about anyone seeing their data they make the accounting department look normal.
* The remaining offices are support staff and could care less about the network as long as they get to download music and share their files with Napster.

Your deliverables for this exercise are as follows:

1. Suggest a segregation scheme for the office traffic on your new Layer 2 switch so that none of the groups can see each other’s traffic, and data broadcasts are kept to a minimum.
2. Identify a file server solution, including the Operating System, keeping in mind that the only hardware you have is hand-me-down servers that have 512Mb of RAM and 250GB hard drives driven by a Pentium 3 500Mhz processor.
3. Create a plan for hosting the company web site, including the Operating System you would use and how you would keep the traffic from everyone in the office from interfering with it.
4. Develop an e-mail solution for 40 people. Research this one carefully because there are options out there that are quite reasonably priced and made to run on a VERY reasonably priced OS!
5. Recommend a print server that is both cheap (oops, meant to say “cost effective”) and can run on a minimal hardware configuration.

Compile this information and present your findings to Mr. Akai in a memo format explaining to him what research you did, your findings in each of the above bullet points and your suggested solution for each. Be sure to make your communication to Mr. Akami both professional in nature and appearance. Be detailed about your solutions and if there appears to be an obvious solution (why didn’t we just use Microsoft Exchange?) lead off the discussion by including the reasons why you ruled out the more obvious option.

