FBLA Network Design
Case Study

A small, independent, accounting and tax return office named "Count On Us" has decided to purchase computers and install an office network so they can begin filing tax returns electronically. Up to now, they have been completely computer-less, but they know times are changing and they need to use technology to remain competitive.

They are located in an office building on two different floors. The area on the 2nd floor has a conference room for staff meetings and presentations, and four offices used to meet with clients. The offices of the two owners are also located on the 2nd floor. The area on the 5th floor is a large, open work area with eight cubicles. It is where most drop-off returns are prepared, along with follow-up work on returns after meetings with clients. There are a total of 15 employees, plus the two owners.

Include the following requirements in your design:

- The security of their client's information is the highest priority.

- Employees do not have assigned desks, so they should be able to do their work from any cubicle or office.

- Information needs to be accessible from both floors.

- Modems are needed to dial into the IRS to file tax returns.

- The owners do not want anyone to have Internet access. They are there to work, not surf.

- They have a storage room on the 5th floor for all their files, and there is an open space that is 10' by 6' which may be used for computer equipment, such as servers and switches.

- The office cannot go paperless, so printers will be needed.

- Backups of their data are a must and should be stored offsite.

- Since this is an accounting firm, money should be spent wisely.

Pointers for Judges

The following elements should or could be included in the presentation.

- A computer should be placed in each office, cubicle, and the conference room.
- Consider using cheap PC terminals with a server as the terminal server.
- Roaming profiles should be discussed since employees will be using different PC's.
- A server should be purchased for the storage area to store all the data.
- An onsite backup server may also be considered.
- The server should include a backup system (tape, DVD, CD, etc.).
- Backups should be taken offsite for disaster recovery.
- Category 5 wiring should be run to each computer and connected to a switch on each floor. The switches between floors should have two connections for redundancy (either cat 5, fiber, or possibly wireless).
- Consider wireless for all computers on the 2nd floor.
- If wireless is considered, Wireless Encryption Protocol should be included in the discussion.
- Modems must be included in the configuration.