Final Project Overview

There are many factors that must be considered when designing a network, including the number of users, the location(s), and information security. If the network is being designed as a hotspot for a local coffee shop, the security concerns are not as great as a network created for a bank. Imagine that a business wants to expand from strictly brick and mortar to add the ability for online customers to place orders. How does the business keep its customer information secure and how does it prevent unauthorized access to its network? As a computing professional, you need to balance network performance with network security and ensure that you stay within a budget. Once you have your network designed, you also have to review your design with your peers and with project stakeholders.

Starting this week and continuing for the next five weeks, you will design a network for a small business. There are four businesses to choose from:

A. Media Magic is a media design firm located in Kansas City, Missouri. Fifteen employees work in this firm to create advertising graphics, to develop web page branding, and to create fliers and other advertising materials. In addition to artists/designer, there are also web developers and a customer relations team. The company is moving to a new office space. You have been asked to design a network for the firm's new office.

B. Fixin Folks is a chiropractic, physical therapy, and wellness facility located in Spokane, Washington. The team consists of three doctors, two physical therapists, four massage therapists, and four office administrators. Currently, they have three computers all in the front office area. One computer stores patient contact information and supports appointment scheduling. The other two, for general use, are commonly used for insurance filing, financial records, e-mail communications, and word processing. Patient medical records are maintained in paper form. Fixin Folks have asked you to help design a network that will allow them to move to paperless records with information entered on tablets when interacting with patients. They also want the network to allow them to do scheduling, insurance filing, and other tasks from any computer.

C. Kids Korner is a preschool in Provo, Utah. The owner wants to provide computer accessibility and training to every child age 2 and older. She has purchased two computers for every classroom as well as a set of 20 tablets, which can be carried between classrooms. In addition, there are two computers in the front office with a student records database and basic office software. The owner has asked you to design a network that will allow the children to be connected through computers. However, she has shared concerns about protecting the private records and controlling the children's Internet access for safety.

D. Star Smoothie in Summerville, South Carolina specializes in smoothies but also sells light breakfast and lunch items as well as coffee, tea, and soda. The owner noticed that many customers bring their computers to do work while enjoying a

smoothie. He wants to support these customers by offering them wireless Internet access. A recent customer survey also indicated that many customers loved the smoothies but were frustrated by the time to wait in line and to wait for the smoothie to be made. One of the employees suggests that an order-ahead application would allow customers to choose and pay for a smoothie from their phones and then just stop in at the specified time to pick them up. The owner wants to integrate support for making and fulfilling such orders. Currently the only forms of communication the shop owners have are a telephone and a credit card machine for payments. The owner has asked you to design a network that will allow customer Internet access, will support the order-ahead idea, and will allow customers to move inventory, finances, and other records to electronic systems.

Whether you choose to design a network for Media Magic, Fixin Folks, Kids Korner, or Star Smoothie, your process is the same. During Week 4 and Week 5, you will conduct a needs analysis to generate a set of design requirements. During Week 5 and Week 6, you will design the network and create a diagram of it. During Week 7 and Week 8, you will create a short presentation to explain the design to the business stakeholders. Throughout, you will be sharing your work with colleagues in class and will be providing one another feedback and additional ideas.

Each project deliverable is described in the appropriate weekly area. Project deliverable deadlines are:

- Week 4, Day 3: Post a needs analysis description to the Discussion forum.
- Week 4, Day 5: Provide your colleagues feedback on their needs analysis.
- Week 5, Day 7: Submit a design requirements list.
- Week 6, Day 2: Post the first draft of your network diagram to the Discussion forum.
- Week 6, Day 5: Provide your colleagues feedback on their network diagram.
- Week 6, Day 6: Submit the final draft of your network diagram.
- Week 8, Day 5: Submit your presentation.

There are no deliverables in Week 7; however, you should be working during this week to develop your needs analysis, network diagram, and presentation.