Milestone Three

Competency In this project, you will demonstrate your mastery of the following competencies:• Explain the functions between hardware and software in a network• Design a simple network• Design and implement a secure interconnected network in support of an organization Scenario Throughout this course, you have been writing various reports as parts of Milestones One and Two for an advertising firm that is opening a new office in Fayetteville, NC. This mid-size advertising firm already has offices in Albany, NY, and Springfield, MA. The Albany headquarters is home to the executive team and 150 employees. The headquarters also stores the corporate data and is the corporate internet backbone. It hosts the IT department that centrally manages all LAN services, including the wireless LAN. The IT department also manages the wide area network (WAN) that connects the two offices via site-to-site virtual private network (VPN) tunnels. The Springfield office hosts about 50 employees. Approximately 50% of these employees are mobile, defined as traveling more than 80% of the time. To hire and retain the best talent, the firm allows employees to work from home. This removes the constraint that employees have to live within commuting distance from the firm’s offices. Remote and mobile employees are provided access to the corporate network via a VPN client. The VPN client requires employees to have access to reliable internet services to allow for effective collaboration across teams and for access to media content. The company provides all employees with a laptop with full disk encryption, data loss prevention (DLP), and antivirus software. The IT department manages all corporate laptops and has the ability to log into all systems for support. This means that all laptops are centrally managed by the one IT department. Due to an increase in opportunities for expansion to new markets, the firm has embarked on an initiative to hire and train new college graduates for the company’s Future Vision program. Future Vision focuses on expansion beyond the regional northeast footprint. The initiative is to hire graduates into the marketing, finance, and IT departments. You were hired as part of the Future Vision program and have been working at this for some time now. You have spent a considerable portion of your time troubleshooting and analyzing the organization’s computer network to keep it running smoothly. Your direct supervisor and lead network administrator have been very impressed with your skills and fast learning abilities. To determine whether you are ready to take on more responsibility, you have been asked for your input regarding the new Fayetteville, NC, office setup project. Your task is to conduct research on this area and deliver a report to the team with key considerations and recommendations for the setup of the network infrastructure. The Fayetteville office will be home to 50 employees, including the new executive vice president of sales and marketing. All the possible sites have offices located in an office building with access to fiber, cable, and T1 internet service providers. In addition to the standard network, the site must support live video teleconferencing calls with employees based at the other sites. It must also reliably send print jobs to billboard printers located in the company headquarters in Albany.