Southern New Hampshire University

IT 340 Milestone One Guidelines and Rubric

Overview: The final project for this course is the creation of network recommendations for a potential new office of the Newton Ad Agency. To help you succeed in this project, you will complete two final project milestones that provide the opportunity to draft key sections of the project. Here in Milestone One, you will compose the first and second sections of the project, the Introduction and the section on local area network (LAN) topology. In this guide to Milestone One, you will review the final project scenario involving Newton Ad Agency, review the prompt, consider the critical elements that your work in Milestone One should include, and study the rubric that will be used to assess your work.

Final Project Scenario: The Newton Ad Agency is an advertising firm with offices in Austin, Texas; Minneapolis, Minnesota; and New York City, New York. The offices in Austin include a headquarters and a satellite office located two miles away in a rural area.

The Austin headquarters is home to the executive team and 750 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 all of the offices via site-to-site virtual private network (VPN) tunnels.

The Minneapolis and New York offices host about 200 employees each. Approximately 50% of these employees are mobile (i.e., travelling more than 80% of the time). The New York office focuses on producing and disseminating large advertising media content to clients. For this reason, the New York office hosts the corporate media and web servers. The rural satellite office in Austin focuses on billboard ad designs and is connected to the corporate WAN with a wireless point-to-point bridge to the Austin headquarters data center. The rural office is home to 100 employees.

To hire and retain the best talents, Newton Ad Agency 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, Newton has embarked on an initiative to hire and train new college graduates to support the company's Vision 2020 program. Vision 2020 focuses on global expansion. The initiative is to hire graduates into the marketing, finance, and IT departments.

You were hired as part of the Vision 2020 program and have been working at Newton 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. In order to determine if you are ready to take on more responsibility, you have been asked for your input in regard to the new office location setup project.

Newton is considering adding a new office and is exploring potential locations in Tacoma, Washington; Rochester, New York; or Fayetteville, North Carolina. Your task is to choose **one** of the possible locations and deliver a report to the team with key considerations and recommendations for the setup of the network infrastructure at the new office. This office will be home to 50 employees, including the new executive vice president of sales and marketing. All the possible sites have offices located on the third floor of 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, as well as reliably send print jobs to billboard printers located in the satellite office in Austin.

Prompt: How would you approach setting up the network at the location you have selected, and what considerations are key in informing the systems and resources necessary to meet the organization's needs and support the business goals and objectives?

Keep in mind that your work in Milestone One involves only Sections I and II of the final project. Therefore, for Milestone One, the modified prompt is as follows: Explain the key considerations, or "must haves," and constraints of the networking project at the location you have selected. Then, make a well-reasoned recommendation of LAN topology.

Specifically, the following **critical elements** must be addressed:

I. **Introduction**: Summarize the key considerations of the project, being sure to identify your chosen location. For example, what are the "must haves?" What are the constraints?
II. **LAN topology**
   A. Describe possible **LAN topologies** that could be used at the new location.
   B. Compare the identified LAN topology possibilities based on their relative **strengths and weaknesses** in regard to support practices.
   C. Based on your comparison, determine the appropriate LAN topology for this location to allow for **optimal support** practices. Be sure to explain your reasoning.

Rubric

Guidelines for Submission: Your work must be submitted as a 1- to 2-page Microsoft Word document with double spacing, 12-point Times New Roman font, one-inch margins, and APA formatting.

Critical Elements	Attempted With Minimal or No Functional Issue (100%)	Attempted With Significant Functional Issues (75%)	Not Evident in Submission (0%)	Value
Introduction	Summarizes the key considerations of the project and identifies a new location	Summarizes the key considerations of the project and identifies a new location, but summary is cursory or inappropriate	Does not summarize the key considerations of the project	20

LAN Topology: LAN Topologies	Describes possible LAN topologies that could be used at the new location	Describes possible LAN topologies that could be used at the new location, but description is cursory or contains inaccuracies	Does not describe possible LAN topologies	20
LAN Topology: Strengths and Weaknesses	Compares identified LAN topology possibilities based on relative strengths and weaknesses in regard to support practices	Compares identified LAN topology possibilities based on relative strengths and weaknesses, but comparison is illogical, lacking in detail, or contains inaccuracies	Does not compare identified LAN topology possibilities	20
LAN Topology: Optimal Support	Determines the appropriate LAN topology for the location to allow for optimal support practices, explaining reasoning	Determines LAN topology for the location, but topology is not appropriate or explanation contains gaps in logic or accuracy	Does not determine the LAN topology for the new location	20
Articulation of Response	Submission has no major errors related to grammar, citations, spelling, syntax, or organization	Submission has major errors related to grammar, citations, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to grammar, citations, spelling, syntax, or organization that prevent understanding of ideas	20
			Total	**100%**