

IT 340 Module Four Troubleshooting Assignment Guidelines and Rubric

Overview: “We’ve run into a bit of trouble with the Network.” As a junior network administrator, you have been asked by your managers to perform a series of tasks to support the functionality of the network at Newton Ad Agency. Now you have been given responsibility of managing and troubleshooting some networking issues between Austin and Minneapolis. Recently, there have been reports of intermittent network connectivity between Minneapolis and Austin that have resulted in several router restarts with no resolutions to the problem. Jim and Jenna have task you with identifying the root cause of the issue.

In this assignment, you will write a paper that explains in a clear, convincing manner the steps you would take to identify the causes of this problem and what you would do to correct it.

Scenario: Network professionals often find that issues with a network reflect particular conditions specific to a business case. Therefore, a great way to approach this troubleshooting assignment is to reflect on what you have learned about Newton Ad Agency and its networking conditions. Again, here is the Newton Scenario that informs your work throughout the course:

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.

As you review this scenario, check to see how the reported trouble with the network may arise from what you know about Newton and use these observations to inform your answer.

As you compose your work on this assignment, be sure to clearly identify and list troubleshooting steps and proposed solutions. You also need to explain your reasoning in a clear manner that others can easily recognize. This needs to be your best writing—clear, concise, well-reasoned, and well-supported. While academic sources are not required for this assignment, be sure to cite them correctly APA style if you use them.

Study the rubric below as it shows the critical elements that your instructor will expect to see in your work.

Rubric

Guidelines for Submission: Your troubleshooting assignment must be submitted as a 1- to 2-page Microsoft Word document with double spacing, 12-point Times New Roman font, and one-inch margins. If you use citations, cite them in APA style.

Did you know you can access basic information on APA style, and other style systems, at the [Online Writing Lab at Purdue University](https://www.purdue.edu/online-writing-lab/)?

Critical Elements	Attempted With Minimal or No Functional Issue (100%)	Attempted With Significant Functional Issues (75%)	Was Not Evident in Submission (0%)	Value
Identification of Troubleshooting Steps	Accurately identifies troubleshooting steps that respond appropriately to the business case	Lists troubleshooting steps but these steps may be incomplete or may not fit the business case	Does not identify troubleshooting steps	25
Explanation of Troubleshooting Steps	Explains and supports troubleshooting steps with clear, coherent reasoning	Explains troubleshooting steps, but the explanation may be incomplete or may lack persuasive reasoning	Does not explain or support troubleshooting steps	20
Identification of Proposed Solution	Accurately identifies proposed solutions that respond to potential root causes	Lists proposed solutions, but these may be incomplete or may not respond to the root causes or the business case	Does not identify proposed solutions	25
Explanation of Proposed Solution	Explains and supports proposed solutions with clear, coherent reasoning	Explains proposed solutions, but the explanation may be incomplete or may lack persuasive reasoning	Does not explain or support proposed solutions	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	10
Total				100%