6.17 Lab: Troubleshoot IP Configuration 3

Candidate: COMPTIA COMPTIA ()
Time Spent: 00:16

Score: 0%

Task Summary

Required Actions and Questions

✕ On the Office1 computer, configure the network connection to request the IP address information from the DHCP server

✕ *Q1*: What is the subnet mask for ITAdmin?

Your answer:

Correct answer: 255.255.255.0

✕ *Q2*: What is the IP address for the first DNS server on ITAdmin?

Your answer:

Correct answer: 192.168.0.11

✕ *Q3*: How is ITAdmin obtaining its IP information?

Your answer:

Correct answer: Through DHCP

✕ *Q4*: What is the subnet mask on Office1?

Your answer:

Correct answer: 255.255.255.240

✕ *Q5*: What is the IP address for the first DNS server on Office1?

Your answer:

Correct answer: 163.128.78.108

✕ *Q6*: How is Office1 obtaining its IP information?

Your answer:

Correct answer: Manually assigned

✕ *Q7*: What is most likely causing the networking issues on Office1?

Your answer:

Correct answer: There are misconfigured IP addresses.

Explanation 🎧

Complete this lab as follows:

Troubleshooting

1. From the Office1 computer, use the **ping** command to begin troubleshooting the problem by verifying the scope of the connectivity issues.
   a. Right-click **Office1**, and select **Launch Windows**.
   b. Right-click **Start** and then select **Terminal (Admin)**.
   c. From the Terminal prompt, run the following ping commands (press **Enter** after each command):
      - **ping 192.168.0.10** (CorpServer)
      - **ping 192.168.0.31** (ITAdmin)
      - **ping 198.28.2.254** (the internet service provider)
        Notice that all pings were unsuccessful.
   d. From the top left, select **Network Modeler** to return to the network diagram.

2. From the ITAdmin computer, use the **ping** and **ipconfig /all** commands to continue determining the scope of the connectivity issues.
   a. Right-click **ITAdmin**, and select **Launch Windows**.
   b. Right-click **Start** and then select **Terminal (Admin)**.
   c. From the Terminal prompt, run the following ping commands (press **Enter** after each command):
      - **ping 192.168.0.10** (CorpServer)
      - **ping 192.168.0.33** (Office2)
      - **ping 192.168.0.30** (Exec)
      - **ping 198.28.2.254** (the internet service provider)
        Notice that all the pings were successful.
   d. Type **ipconfig /all** and press **Enter**.
   e. From the top right, select **Questions**.
   f. Answer Questions 1-3.
   g. From the top left, select **Network Modeler** to return to the network diagram.

3. From Office1, use the **ipconfig /all** command to analyze the differences between Office1 and ITAdmin IP information.
   a. Right-click **Office1**, and select **Launch Windows**.
   b. From the Terminal prompt, type **ipconfig /all** and then press **Enter**.
   c. Answer Questions 4-7.
   d. Minimize the Lab Questions dialog.

Fixing the Issue

From your troubleshooting steps, you found that Office1 was the only computer having connectivity issues. As you examined and compared Office1's IP settings, you found that it was using the wrong subnet mask and DNS server. Since DHCP was not being used (DHCP Enabled was set to NO), the IP information must have been manually entered using bad or outdated information.

You will now rectify the issue by configuring the Office1 computer to obtain its IP information from the DHCP server.

1. From Office1, configure the network connection to request the IP address information from the DHCP server:
   a. Right-click **Start** and then select **Settings**.
   b. Select **Network & internet**.
   c. Select **Ethernet**.
   d. Under IP assignment, select **Edit**.
   e. Under Edit IP settings, select **Automatic (DHCP)**.
   f. Select **Save**.
   g. Close Settings.

2. Verify that Office1 is now able to connect to the internet.

    a. From the Terminal prompt, type **ipconfig /all**. Verify the following settings:

- DHCP Enable: **Yes**
- Subnet mask: **255.255.255.0**
- DNS Servers:
  - 1**92.168.0.11**
  - 1**92.168.10.11**

    b. From the Terminal prompt, run the following ping commands (press **Enter** after each command):

- **ping 192.168.0.10** (CorpServer)
- **ping 192.168.0.31** (ITAdmin)
- **ping 198.28.2.254** (the internet service provider)
  Notice that all pings are successful.