6.16 Lab: Troubleshoot IP Configuration 2

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

Score: 0%

Task Summary

Required Actions and Questions

✕ *Q1*: Mark all of the observations that are true after examining the results of the ipconfig /all command on Exec.

Your answer:

Correct answer: The IP information for the Ethernet adapter is supposed to come from a DHCP server., The IP address is an APIPA address, not a valid address for this network.

✕ *Q2*: Why can the Exec and ITAdmin computers ping each other while they cannot ping CorpServer or ISP?

Your answer:

Correct answer: Both are using an APIPA address.

✕ *Q3*: Based on the diagram and the results of the tracert command, which IP addresses is assigned to the CorpNet BldgA router?

Your answer:

Correct answer: 192.168.0.5

✕ *Q4*: Which of the following is the most likely reason the ping tests to the ISP failed from Exec and ITAdmin, but were successful from CorpServer?

Your answer:

Correct answer: The DHCP server is probably not assigning IP addresses correctly.

✕ Activate the DHCP scope for the local network

✕ Verify that the Exec and ITAdmin workstations can communicate with the internet   Show Details

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Explanation 🎧

Complete this lab as follows:

Troubleshoot

1. From the Exec computer, begin troubleshooting by verifying the scope of the connectivity problem.

    a. Right-click Exec 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 198.28.2.254** (The Internet Service Provider, or ISP)
  Notice that both pings are unsuccessful.
- **ping ITAdmin** (the name of the computer in the IT Administration office).
  Notice that the ping to ITAdmin is successful. However, it is responding using an APIPA IP address. This indicates that this computer is not getting its IP address from the DHCP as it should.

2. From Exec, use the **ipconfig /all** command to continue troubleshooting.
    a. From the Terminal prompt, type **ipconfig /all** and press **Enter**.
    b. From the top right, select **Questions**.
    c. Answer Question 1.
    d. Minimize the Lab Questions windows.
    e. From the top left, select **Network Modeler** to return to the network diagram.

3. From the ITAdmin computer, continue troubleshooting the problem by trying additional ping tests.
    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 198.28.2.254** (the ISP)
  Notice that the ping to the ISP fails.
- **ping exec** (the name of the computer in the Executive Office)
  Notice that the ping to the ITAdmin is successful. However, the Exec computer is responding with an APIPA IP address.

4. From ITAdmin, use the **ipconfig /all** command to continue troubleshooting.
    a. From the Terminal prompt, type **ipconfig /all** and press **Enter**.
    b. From the top right, select **Questions**.
    c. Answer Question 2.
    d. Minimize the Lab Questions windows.
    e. From the top left, select **Network Modeler** to return to the network diagram.

5. From the CorpServer computer, continue troubleshooting the problem by trying to access the ISP.
    a. Right-click CorpServer and select **Launch Windows**.
    b. Right-click **Start** and then select **Windows PowerShell (Admin)**.
    c. From the PowerShell prompt, type **ping 198.28.2.254** (the ISP).
       Notice that the ping to the ISP is successful.
    d. Type **tracert 198.28.2.254** and press **Enter**.
    e. From the top left, select **Network Modeler** to return to the network diagram.
    f. From the top right, select **Questions**.
    g. Answer Questions 3 and 4.
    h. Minimize the Lab Questions windows.

Fix the Issue

Since it appears that the DHCP server is not functioning correctly, check the current state of the DHCP services.

1. From CorpDHCP, confirm that the DHCP service is enabled and activated for the local network.
    a. Right-click CorpDHCP and select **Launch Windows**.
    b. From Server Manager, select **Tools** > **DHCP** to start the DHCP console.
    c. Maximize the window for better viewing.

      d. Expand **CorpDHCP.CorpNet.local** > **IPv4**.
         The down arrow for *Scope [192.168.0.1] Subnet1* indicates that the scope is not active.
      e. Right-click **Scope [192.168.0.1] Subnet1** and select **Activate**.
         The down arrow for the scope is gone, and the DHCP service for the local network is now active.
      f. From the top left, select **Network Modeler** to return to the network diagram.

2. Verify the fix by viewing the IP information for Exec and using the **ping** command.
      a. Right-click Exec and select **Launch Windows**.
      b. From the Terminal prompt, type **ipconfig /all** and press **Enter** to check the Ethernet configuration.
         Notice the lines for the default gateway, DNS server, and DHCP server are now configured, along with a new IP address within the DHCP scope for the local network.
      c. Type **ping 198.28.2.254** and press **Enter**.
         Notice that the ping to the ISP succeeds.
      d. Type **tracert 198.28.2.254** and press **Enter**.
      e. (Optional) Repeat step 2 for the ITAdmin computer.