

Lab Report

Your Performance

Your Score: 0 of 3 (0%)

Elapsed Time: 1 minute 51 seconds

Pass Status: Not Passed

Required Score: 100%

Task Summary

Actions you were required to perform:

- ✗ Reconfigure the DHCP server with 192.168.0.5 as the default gateway
- ✗ Verify that the Support workstation can communicate with the Internet
- ✗ Verify that the Office2 workstation can communicate with the Internet

Explanation

In this lab, your task is to complete the following:

- Use the following troubleshooting tools to diagnose the problem in the network:
 - The ping, ipconfig, or tracert command utility
 - The Network and Sharing Center in the Windows 10 or Windows Server 2016 operating system
 - The DHCP server console in the Windows Server 2016 operating system
- Fix the problem at the workstation, the DHCP server, or both as necessary.
- Use the troubleshooting tools to confirm the resolution of the problem.

Complete this lab as follows:

1. In the Support Office, begin troubleshooting the problem by verifying the scope of the connectivity problem. From the workstation, ping the computer in the Networking Closet and ping the internet service provider (ISP) (pinging the computer in the Networking Closet succeeds, but the ping to the ISP fails).
2. In Office 2, verify the connectivity problem between the workstation and all other workstations in the network (the ping to all other workstations in the network succeeds, but the ping to the ISP fails). Both steps 1 and 2 confirm that there is not a physical connectivity problem in the local network. The problem is most likely related to the IP configuration for the network.
3. In the Support Office, open the command prompt and enter ipconfig /all to check the Local Area Connection configuration. You should notice the following problems:
 - a. The default gateway address is incorrectly configured with 192.168.0.4. This is why the workstation in this scenario can only communicate with hosts on the local network, but not on the internet.
 - b. The DHCP Enabled line is Yes, meaning that the workstation is configured to use a DHCP server.
 - c. The DHCP server address listed is 192.168.0.10. This is the correct DHCP server address. The workstation received addressing and default gateway information from the correct DHCP server. Therefore, the DHCP server has been configured to give out the wrong default gateway address.
4. In the Networking Closet computer on CorpServer, open the CorpDHCP guest server and launch the DHCP console to reconfigure the settings for the DHCP scope as follows:
 - a. In Hyper-V Manager, select CORPSEVER. Expand the window to view all virtual machines.
 - b. Right-click CorpDHCP and select Connect.
 - c. In Server Manager, select Tools > DHCP to start the DHCP console.
 - d. Expand CorpDHCP.

- e. Expand IPv4.
 - f. Expand Scope [192.168.0.1] Subnet1.
 - g. Select Scope Options.
 - h. Right-click 003 Router.
 - i. Select Properties.
 - j. In the default gateway address field, enter 192.168.0.5 and remove 192.168.0.4.
 - k. Click OK to apply the change.
5. In the Support Office, open the command prompt and enter `ipconfig /renew`. This will request the new IP address information from the DHCP server and reconfigure the settings for the Ethernet connection.
 6. Enter `ipconfig /all` to check the Ethernet configuration. You should notice the line for the default gateway is now correctly configured as 192.168.0.5.
 7. Confirm the resolution of the problem by pinging the ISP. The ping to the ISP succeeds.
 8. In Office 2, repeat steps 5-7 to fix the problem for the second workstation.