Lab - Remote Technician - Fix a Network Problem (Instructor Version)

**Instructor Note**: Red font color or gray highlights indicate text that appears in the instructor copy only.

# Introduction

In this lab, you will gather data from the customer and then instruct the customer to fix a computer that does not connect to the network.

In the work order below, document the customer’s problem and any resources you used to resolve the issue. Using professionalism, how would you communicate with the client? Create a sample script describing how you are troubleshooting the problem in client-friendly terms.

# Lab Setup

**Instructor Note**: In this lab, the goal is to demonstrate the special skills needed to help a customer fix a computer remotely.

* On the wireless router, set the “Maximum Number of Users” setting for DHCP to one less than the number of computers connected to the wireless router with Ethernet patch cables.

Example: If you connect 4 student computers to each wireless router with Ethernet patch cables, set the “Maximum Number of DHCP Users” to 3. This setting is found under **Setup** > **Basic Setup** on the wireless router.

* Clear the DHCP table on the wireless router so that each computer or mobile device needs to renew the IP address assigned by DHCP.
* Renew the IP addresses of all the computers connected to the wireless router except for the computer that will be broken. Validate that the IP addresses fall in the DHCP range of the wireless router.

Renew the IP address of the “broken” computer. It will receive a 169.254.x.x address because the DHCP server has no more addresses to assign.

# Work Order

| Student Technician Sheet | |
| --- | --- |
| **Company Name:** | JH Paint Supply |
| **Contact:** | Jill Henderson |
| **Company Address:** | 114 W. Main Street |
| **Company Phone:** | 1-888-555-2143 |

| *Generating a New Ticket* | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Category:** | Network | **Closure Code:** | N/A | **Status:** | Open |
| **Type:** | N/A | **Escalated:** | Yes | **Pending:** | N/A |
| **Item:** | N/A | **Pending Until Date:** | | | N/A |
| **Business Impacting? (Yes / No)** | | Yes |  | | |
| **Summary** | One computer cannot connect to the internet, network shares, or network printers. | | | | |
| **Case ID#:** | 50 | | **Connection Type:** | Wireless | |
| **Priority:** | 2 | | **Environment:** | N/A | |
| **User Platform:** | Windows 10 | |  | | |
| Blank row .No information. | | | | | |
| Blank row. No information. | | | | | |

# Problem Description:

Type your answers here.

All computers boot up properly. Computer does not connect to shares or the internet. Computer has not been moved. Cables are securely connected. Link lights are blinking.

# Problem Solution:

Type your answers here.

Verified IP addresses on all computers. Renewed IP address on problem computer. Computer receives a 169.254.x.x IP address. Restarted computer. Restarted wireless router. Verified wireless router settings. Wireless router did not have enough IP addresses allocated to the wireless network in the DHCP scope to accommodate all clients. Changed the DHCP setting on the router back to the default of 50 IP addresses. Computer was shut down and rebooted. Confirmed IP address was in range. Verified connection to shares and internet.

# Your Reponse to the Customer

Type your answers here.

Dear Jill Henderson,

Thank you for contacting the support team.

You stated that all the computers on the network are working correctly, except for one computer.

Please verify that the computer is receiving a valid IP address for the DHCP server or configured with an IP address in the correct subnet range. If the IP addresses are assigned via the DHCP server, please verify that the DHCP scope can accommodate all the clients on the network.

After the computer has been assigned a valid IP address, verify connections to shares and internet.

Hopefully the information helped you resolve the issue. If the issue continues, please contact the support team.

# Any Technical Resources Used

Type your answers here.

Answers will vary.

# Student Customer Sheet

Use the contact information and problem description below to report the following information to a level-two technician:

**Contact Information**

Company Name: JH Paint Supply

Contact: Jill Henderson

Company Address: 114 W. Main Street

Company Phone: 1-888-555-2143

**Problem Description**

Well, the problem does not always seem to be there. Typically, not all computers on the network are used all the time, so everything seems to be fine. On some busy days, every computer is being used, and there is always one computer that cannot connect. I cannot figure out what the problem is because it is not usually on the same computer. When a computer cannot make connectivity, I check to make sure all cables and connections are fine.

**Note**: After you have given the level-two tech the problem description, use the Additional Information to answer any follow-up questions the technician may ask.

**Additional Information**

* Windows 10
* The computer has no new hardware
* The computer has not been moved recently
* An extra computer was added to the network recently
* The computer looks the same as it did yesterday

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