IT Essentials 5.0

6.3.2.9 Lab - Configure a NIC to Use DHCP in Windows XP

Introduction

Print and complete this lab.

In this lab, you will configure an Ethernet NIC to use DHCP to obtain an IP address and test connectivity between 2 computers.

Recommended Equipment

- Linksys E2500 router
- Two computers running Window XP Professional
- Ethernet patch cables

Step 1

For Host A, plug one end of the Ethernet patch cable into “Port 1” on the back of the router.

For Host A, plug the other end of the Ethernet patch cable into the network port on the NIC in your computer.

For Host B, plug one end of the Ethernet patch cable into “Port 2” on the back of the router.

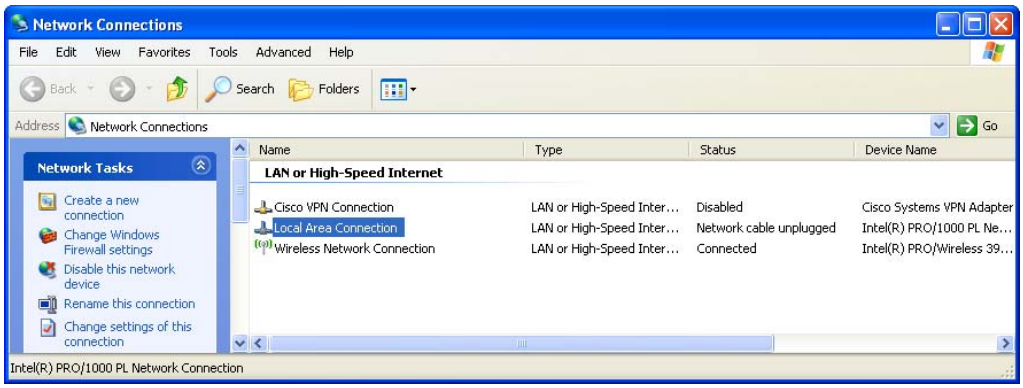
For Host B, plug the other end of the Ethernet patch cable into the network port on the NIC in your computer.

Plug in the power cable of the router if it is not already plugged in.

Turn on both computers and log on to Windows in Host A as an administrator.

Click **Start > Control Panel > Network Connections**.

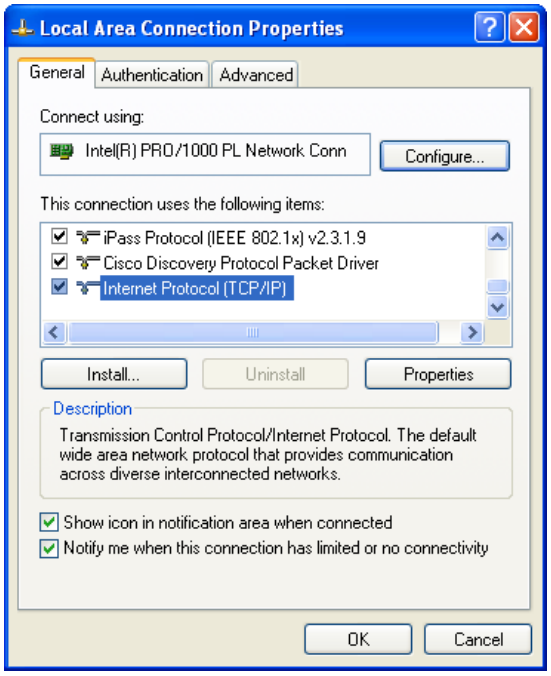
The “Network Connections” window opens.



Step 2

Right-click **Local Area Connection**, and then choose **Properties**.

The “Local Area Connection Properties” window opens.



What is the name and model number of the NIC in the “Connect using:” field?

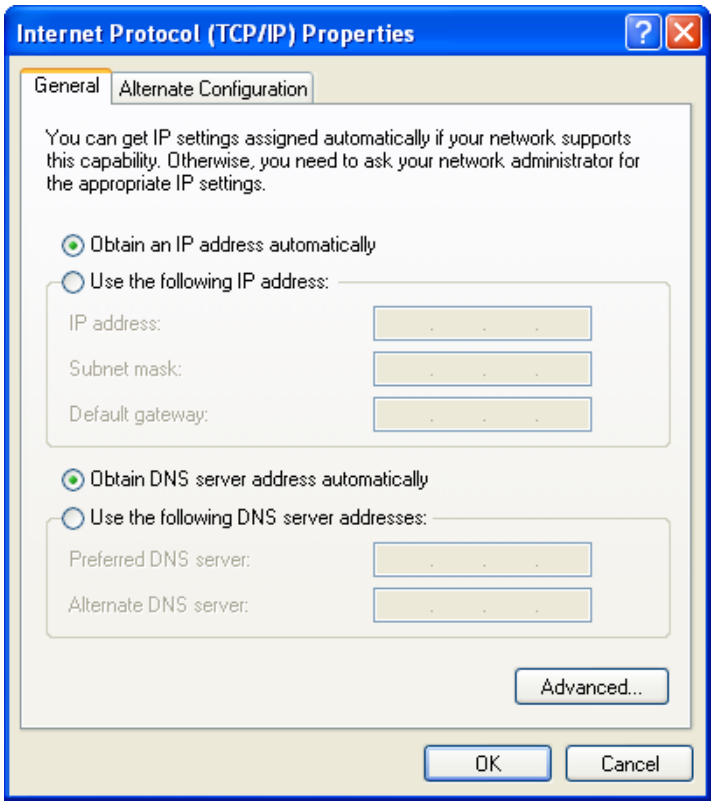
What are the items listed in the “This connection uses the following items:” field?

Step 3

Select **Internet Protocol (TCP/IP)**.

Click **Properties**.

The “Internet Protocol (TCP/IP) Properties” window opens.



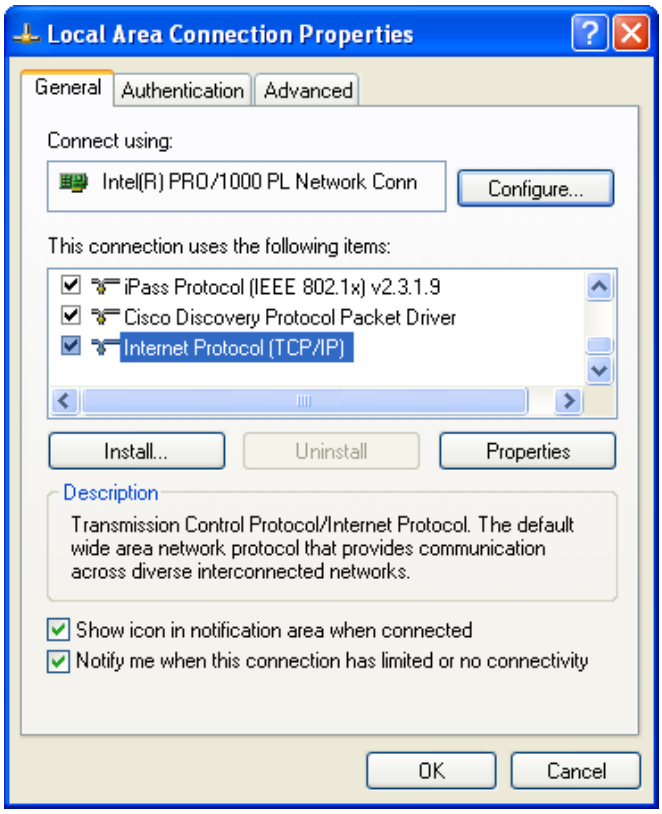
What is the IP address, Subnet mask, and Default gateway listed in the fields of the “Use the following IP address:” area?

Select the **Obtain an IP address automatically** radio button, if it is not already selected.

Select the **Obtain DNS server address automatically** radio button, if it is not already selected.

Click **OK**.

The “Internet Protocol (TCP/IP) Properties” window closes.



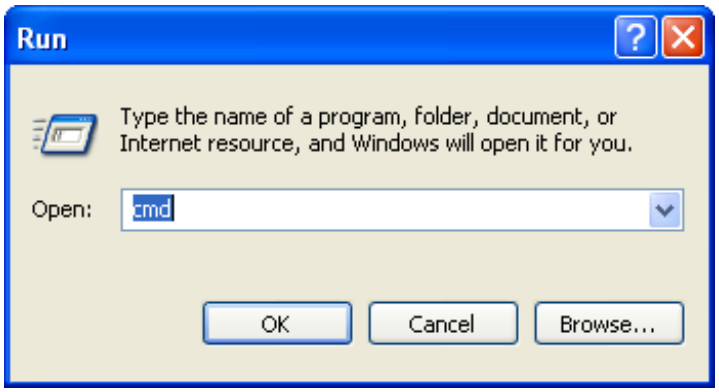
Click **OK**.

Step 4

Check the lights on the back of the NIC. These lights will blink when there is network activity.

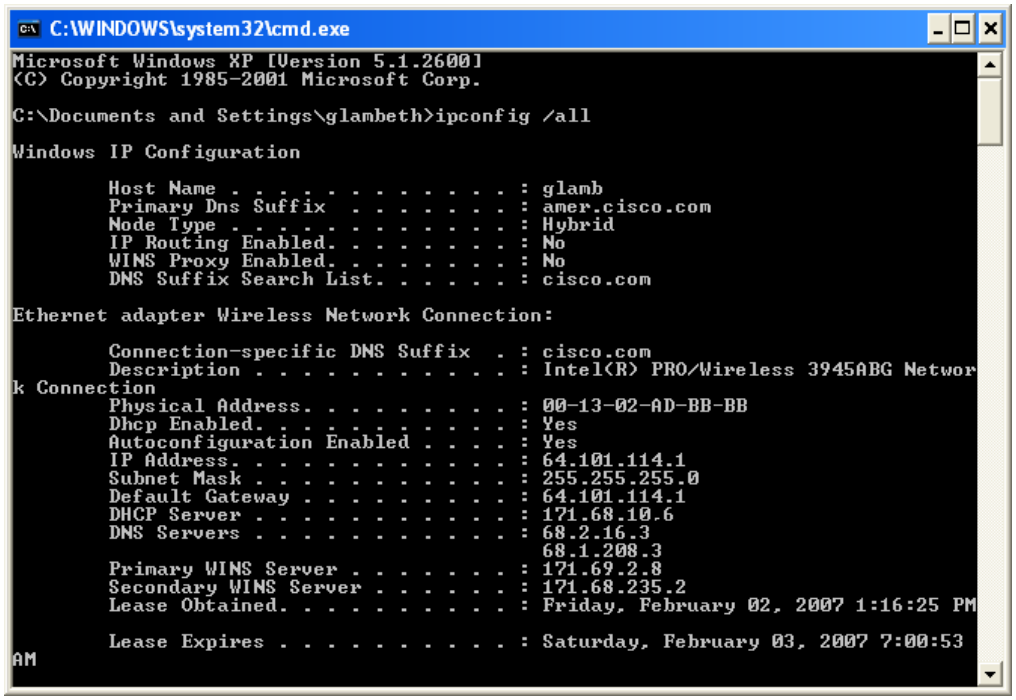
Choose **Start > Run...**.

The “Run” window opens.



Type **cmd** and click **OK**.

The “cmd.exe” window opens.



Type **ipconfig /all**, and then press the **Enter** key.

What is the IP address of the computer?

What is the subnet mask of the computer?

What is the default gateway of the computer?

What are the DNS servers for the computer?

What is the MAC address of the comptuer?

Is DHCP Enabled?

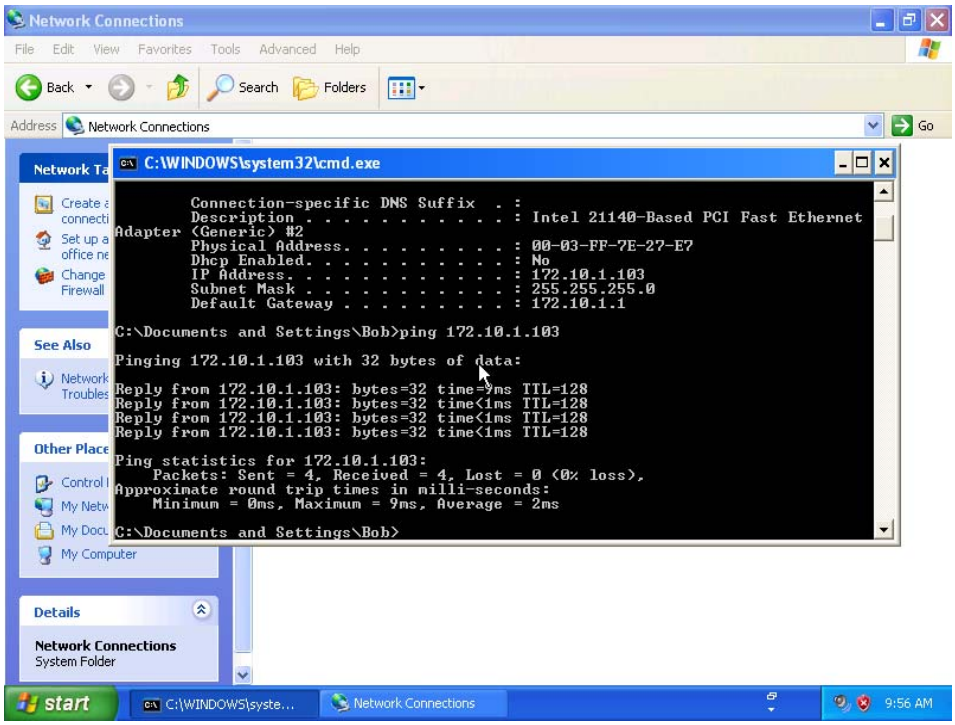
What is the IP address of the DHCP server?

On what date was the Lease Obtained?

On what date does the Lease Expire?

Step 5

Type **ping** *your IP address*. For example, **ping 192.168.1.103**



Write one of the replies of your ping command.

If the ping was not successful, ask the instructor for assistance.

Step 6

Login to Host B as an administrator and make sure the **Obtain an IP address automatically** and the **Obtain DNS server address automatically** radio buttons are selected.

Click **OK > OK**.

Open a command window.

Type **ipconfig /all**.

What is the IP address of the computer?

What is the subnet mask of the computer?

What is the default gateway of the computer?

What are the DNS servers for the computer?

What is the IP address of the DHCP server?

Step 7

Return to “Internet Protocol (TCP/IP) Properties” window.

Select the radio buttons **Use the following IP address** and **Use the following DNS server address**.

Enter in the IP address information for the NIC from the previous step.

Click **OK > OK**.

Open the command window.

Type **ping** *IP address for Host B.*

If the ping was not successful, ask the instructor for assistance.

Step 8

From Host B type **ping** *IP address for Host A.*

Was the ping successful?

From Host A type **ping** *IP address for Host B.*

Was the ping successful?

Step 9

Return configurations to the settings at the start of the lab, unless stated otherwise by the instructor.

Select the radio buttons **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

Click **OK > OK**.