Lab 7.2.6 Configuring a Wireless Client

Objective

- Install and configure a driver for a wireless USB NIC for a wireless client computer.
- Determine the version of the driver installed and check the Internet for updates.

Background / Preparation

In this lab you will install a driver for a wireless USB NIC in a computer. The driver is a type of software that controls the wireless NIC. The driver comes on a CD with the NIC or can be downloaded from the Internet. Many manufacturers require that the driver is installed before the adapter is connected. The procedure described in this lab is for a Linksys USB 802.11g wireless NIC, but is similar to others. You should always follow the procedure recommended by the wireless NIC manufacturer.

The following resources are required:

- Windows XP-based computer with an available USB port
- Wireless USB NIC and associated driver
- Administrator rights to install the driver
- Linksys WRT300N with wireless access configured from previous lab

Step 1: Install the wireless NIC driver

a. Insert the CD that contains the wireless NIC driver into the CD/DVD drive and install the driver according to the manufacturer recommendations. Most USB devices require that the driver be installed before the device is physically attached. Note that you may do part of the installation process now and part of it after the wireless NIC is installed.

b. Who is the manufacturer of the wireless NIC? _____

c. Describe how you installed the wireless NIC driver. _____

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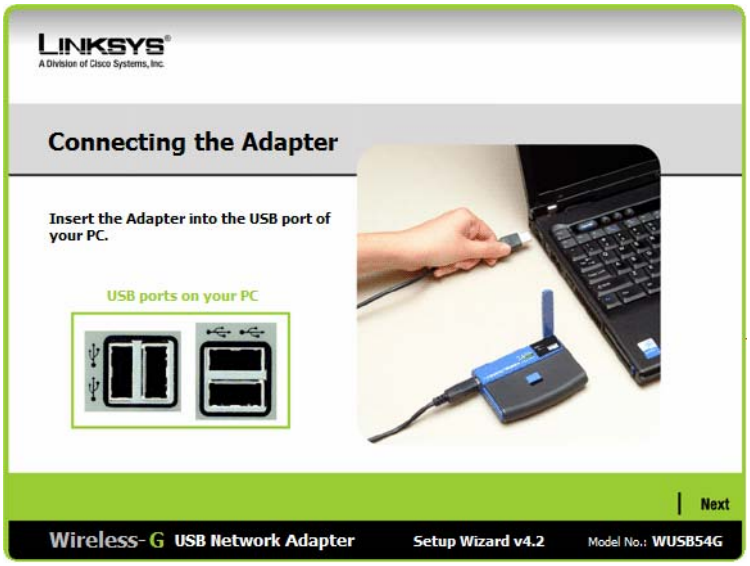
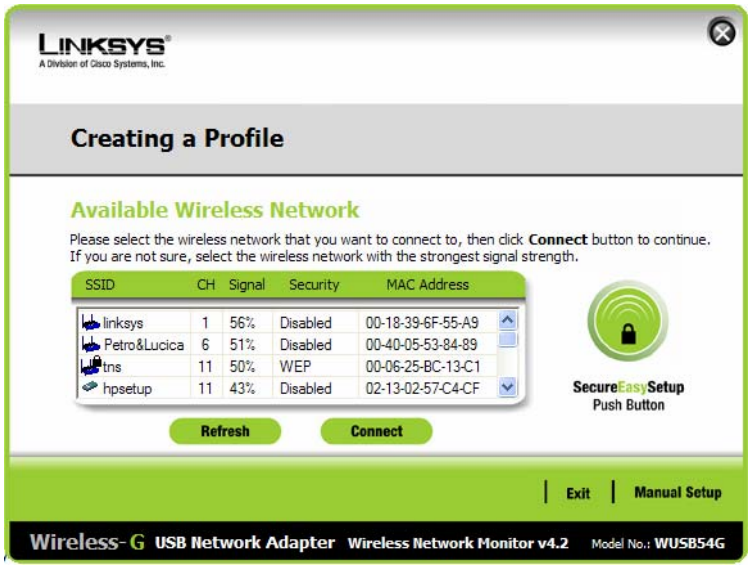
Step 2: Install the wireless NIC

a. When prompted, connect the USB NIC cable to an available USB port. Click **Next** to continue.



Step 3: Attach to the wireless network

a. Most wireless NIC adapters have client software to control the NIC. The software shows any wireless networks that are discovered. Select the SSID of the wireless network that you configured on the AP in a previous lab.



b. Which SSID are you using? _____

c. If the wireless NIC did not connect to the wireless network, perform the appropriate troubleshooting.

d. What is the signal strength for the wireless NIC? _____

e. Did the wireless NIC see any other wireless networks in the area? _____ Why or why not?

_____

f. Show your active wireless connection to a fellow student or the lab assistant.

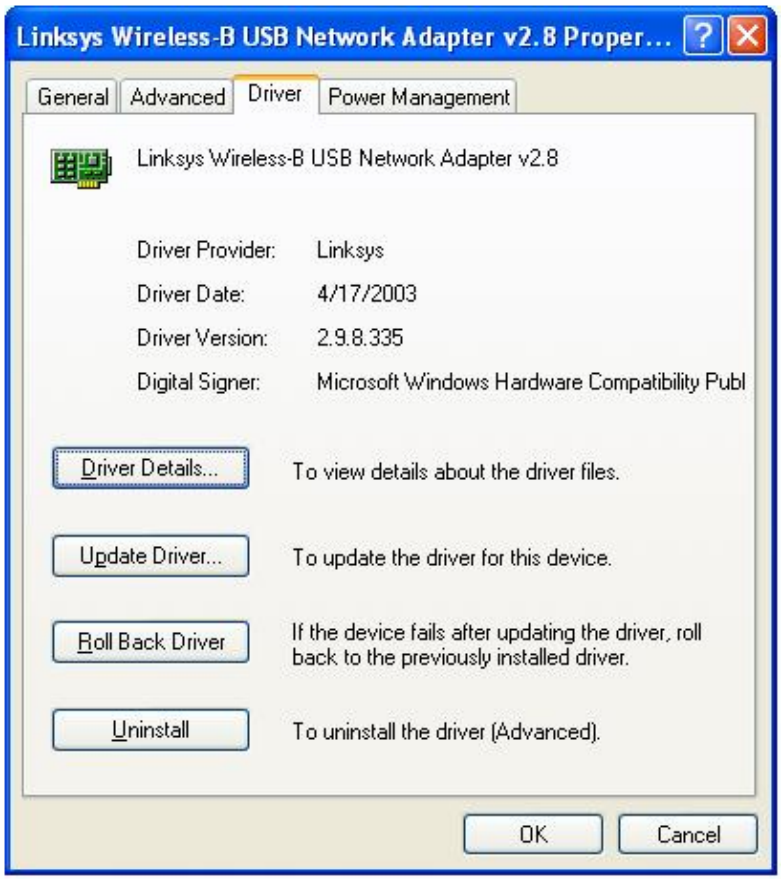
g. What is another name for a wireless host? _____

h. Is it better to use the client software from the wireless NIC manufacturer or let Windows XP control the wireless NIC? _____

Step 4: Determine the NIC driver version

a. Hardware manufacturers continually update drivers. The driver that ships with a NIC or other piece of hardware is frequently not the most current.

b. To check the driver version for the NIC you installed, click **Start,** select **Control Panel** and then **Network Connections**. Right-click on the wireless connection and select **Properties**. Click the **Configure** button for the NIC and then the **Driver** tab. What is the name and version of the driver you installed? _____



Step 5: Determine if the NIC driver is the most current

a. Search the NIC manufacturer web site for drivers that support the wireless NIC you installed. Are there more current ones available? _____

b. What is the most current one listed? _____

c. If there is a more current driver, how would you apply it? _____

_____

Step 6: Verify connectivity

a. Once you have installed the NIC, it is time to verify connectivity with the Linksys WRT300N.

b. Open a web browser such as Windows Internet Explorer or Mozilla Firefox.

c. In the address line type http://192.168.1.1, which is the default setting on the AP.

d. In the Connect to 192.168.1.1 dialog box, leave the username text box empty, and type **admin** in the password text box. Leave the Remember my password checkbox unchecked. Click **OK**.

e. If you receive the Linksys Setup screen, you have established connectivity with the AP. If you do not establish connectivity, you will have to troubleshoot the connection by checking to ensure the devices are turned on and the IP addresses on all devices are correct. Which IP address should be configured on the wireless NIC?

_____

Step 7: Reflection

a. Do you think the process of setting up a wireless network at a food store or book store is any different from what you just did? _____ Why or why not?

_____

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b. Do you think the AP model that you are using would be sufficient for the food store in your neighborhood? Why or why not? _____

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