

# Create A Wireless Network

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Many households have a mix of desktop and laptop computers. They wish they had a home network. Some of these families need a home network to share high-speed Internet service. A home network also lets people share files and documents, printers, scanners and CD/DVD burners.

A wireless network is the easiest and lowest cost way to connect computers in your home. You need a cable (or DSL) modem and a wireless router. A new device by **2Wire** combines the modem and router into a single unit. Every computer on a wireless network must have a wireless network adapter --- install an internal PCI card or and **external USB adapter** with WPA security. Most laptop computers have a built-in wireless capability with WPA security.

**See some pictures of these devices at the end of this document.**

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This document provides guidance for computer users that have:

- Ø Windows XP SP2/SP3
- Ø Comcast Cable Internet Service with a cable modem
- Ø Linksys Wireless Router (without **Windows Connect Now** support, which includes USB connectors on the router)

For guidance about DSL Internet and other wireless routers, see an excellent article, Set up a wireless network, at <http://tinyurl.com/5HL4D4>.

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## PROCEDURE

To begin, shutdown the computer located near the cable modem.

Connect the wireless router to the modem.

- Is your computer is currently connected directly to a cable modem? Remove the network cable from the back of your computer. Plug it into the port labeled Internet, WAN, or WLAN on the back of your wireless router.
- If your computer is not connected to a cable modem, then plug one end of a network cable (included with your router) into your modem, and the other end of the network cable into the Internet, WAN, or WLAN port on your wireless router.

Connect power to your modem, then the router. After a minute or two, the Internet, WAN, or WLAN light on your router should light up, indicating that it has successfully connected to your modem.

Configure your Linksys wireless router.

Using a network cable, temporarily connect your computer to one of the wired network ports on your wireless router (any port that is not labeled Internet, WAN, or WLAN).

Turn on the computer located next to the cable modem.

It will automatically connect to your router. Open Internet Explorer.

Type the Linksys address <http://192.168.1.1> and click the GO button.

In the window "Connect to 192.168.1.1", only type the Linksys password:

Admin

Click OK. Internet Explorer will show the Linksys configuration page.

You should configure these four items:

1. Setup is the default display.

For Comcast Cable Internet, only type the Router Name (a single word, like Camelot, Puffy, Dazzle or two words, like Surfers Paradise). This is your SSID (Wireless Network Name). Update your Time Zone at the bottom of the page.

2. Click Wireless (on the menu).

Read guidance in the shaded area. Select your Wireless Network Mode: Mixed, B-only, G-only or N-only. If you're not sure, select Mixed.

Click Wireless Security (on the sub-menu) to prevent intruders from accessing your wireless network and your computer. This is essential!

Security Mode: Select WPA Personal.

**WPA Algorithms:** Select **AES**.

**WPA Shared Key:** this is your [encryption key](#)

Important – Copy and paste your [encryption key](#) to save it on your computer, preferably on a USB flash drive. You will need this key for every computer on your wireless network and a USB flash drive is a handy way to transfer it.

3. Click Administration (on the menu).

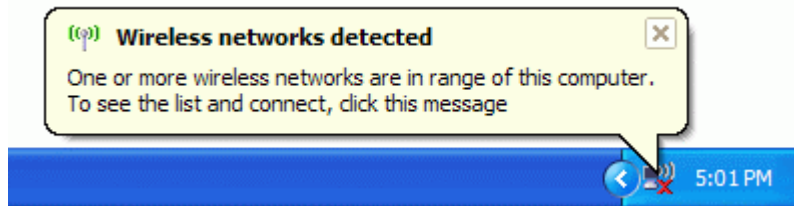
Make sure that nobody can access your router and change your router's settings. To protect your network, enter a Password for router access. Write down your chosen password and put it in a safe place.

4. Click the Save Settings button at the bottom of the window. Close Internet Explorer.

You can now remove the temporary network cable between your computer and the Linksys wireless router.

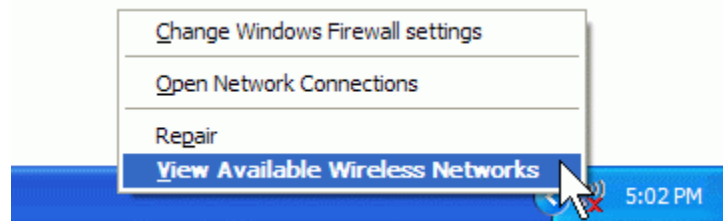
Connect each computer.

Windows XP will show an icon with a notification that says it has found wireless networks.



To connect your computer to the wireless network:

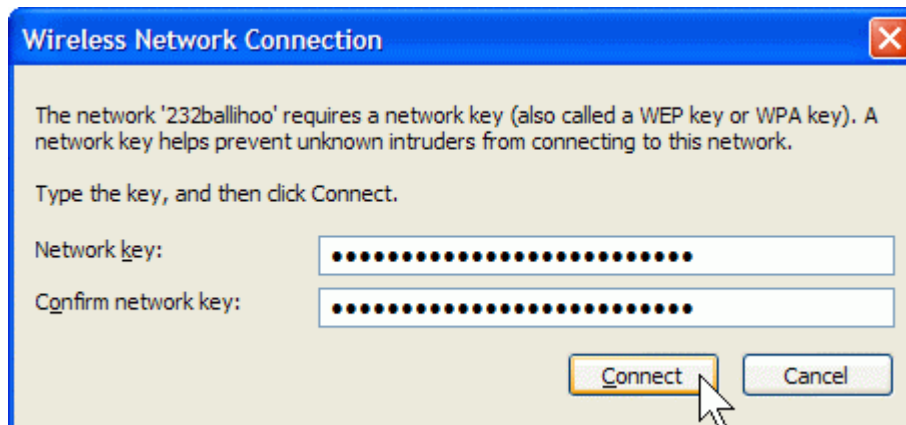
Right-click the wireless network icon in the lower right corner of your screen, and then click View Available Wireless Networks.



The "Wireless Network Connection" window appears and displays your wireless network listed with the SSID you chose. If you don't see your network, click Refresh network list in the upper left corner.

Click to highlight your network. Then click Connect in the lower right corner.

Windows XP prompts you to enter a key. Copy and paste the encryption key that you saved earlier into both the Network key and Confirm network key boxes. Then click Connect.



Windows XP will show its progress as it connects to your network. After you are connected, you can close the Wireless Network Connection window. You are now ready to browse the Web wirelessly.

Repeat instructions on this page to add another computer to your network.

Share computers and devices [[OPTIONAL](#)].

You can also create a wireless network in your home that connects your computers, printers, cameras and other accessories for easy access and enjoyment.

1. Turn on [all](#) computers and printers you want to share.

[On each computer:](#)

- a. Open Control Panel. In Category View, open "Network and Internet Connections". Then open "Network Setup Wizard".
- b. When asked, Do you want to use the shared connection, select the YES line and click NEXT.
- c. Enter a single word on the first line (like Bob or Sue). On the second line, type a single word, like Desktop or Laptop. Click NEXT.
- d. Do not change the Workgroup name. Use MSHOME on every computer. Click NEXT.
- e. In the "File and printer sharing" window, select "Turn on file and printer sharing". Click NEXT. Review your selections and click NEXT to finish and exit the wizard.
- f. If the computer has a printer connected, click the Back button in Control Panel. Open "Printers and Other Hardware". Then open "View installed printers or fax printers". In the window, [Printers and Faxes](#), select (highlight) a printer to share on the network. Under "Printer Tasks", click Share this printer. Select any other listed device and share it if you wish. When done, close all open windows.

When [ALL](#) computers have been shared, you may turn them all off.

Any computer (that does not have a printer connected to it) can have a shared printer set as the default printer (in [Printers and Faxes](#)). Then you can print documents from any application.

However, the computer with a connected printer must be turned on and the shared printer must be turned on to print.

2. Sharing other devices.

Any device shown in My Computer can be shared. Right-click a device and click "Sharing and Security". In the window that opens, click the warning sentence to proceed. Under "Network sharing and security" update the first two items. Do not check the box for "Allow network users to change my files".

### 3. File sharing.

Perform this step anytime, on any computer that has "File and printer sharing" enabled. To share files, you have to share the folder that contains the files.

- a. Open My Computer. Open a drive (Local Disk).
- b. Select (highlight) a folder you want to share – don't open it. Under "File and Folder Tasks" click "Share this folder". Click the Sharing tab. Under "Network sharing and security" click to add a checkmark in the box. Change the Share name if you wish. Click the OK button.
- c. Repeat for every folder you wish to share.

### My Network Places.

Open My Computer. Under "Other Places", open "My Network Places".

Every shared folder on the computer is listed, including any devices you shared. When other computers on the network are turned on, their shared folders are added to this list. When the list is not updated automatically, right-click the window background and click Refresh.

Open a shared folder to use the listed documents on another computer.

### Wireless Device Pictures.

[2Wire 2700HG-B DSL Modem Router Wireless Access Point](#)



[Linksys Compact Wireless-G USB Adapter WUSB54GC](#)

