



The Digital Home Setting Up

Setting up a home network

Before you start: To decide what type of network to set up or to find out what hardware and cables you need. See our “What you need to set up a home network” article.

Once you know what type of network you want and have the necessary hardware, there are four possible steps to take (two of these are not always required):

1. Install any necessary hardware.
2. Set up an Internet connection (optional).
3. Connect the computers.
4. Run the Set Up a Wireless Router or Access Point wizard (wireless only).

Each of these steps is described in detail later in this article.

Start by setting up one computer. Once you set up the network and you are sure that the first computer is working correctly, you can add additional computers or devices.



Note

This information is designed for people who have a broadband connection (usually DSL or cable) to the Internet rather than a dial-up connection.

Install the hardware

Install network adapters in any computers that need them. (Follow the installation instructions in the information that came with each adapter.)

Set up or verify an Internet connection (optional)

You don't need an Internet connection to set up a network, although most people want to use their network to share an Internet connection. To set up an Internet connection, you need a cable or DSL modem and an account with an Internet service provider (ISP). Then open the Connect to the Internet wizard and follow the instructions.

If you already have an Internet connection, you just need to verify that the connection is working. To do that, open your web browser and go to a website that you don't usually visit. (If you go to a website that you visit often, some of its web pages might be stored on your computer and will display correctly even if your connection is faulty.) If the website opens and you don't get any error messages, your connection is working.

To share an Internet connection

You can also share one Internet connection among two or more network computers. To do that, you can either use an intermediary device or set up Internet Connection Sharing (ICS). Your ISP might charge a fee for multiple Internet connections. Ask your ISP for information about this.

Use an intermediary device. You can use a router or a combined router and modem (also called an Internet gateway) to share an Internet connection. If you use a router, connect it to both the modem and the computer with the Internet connection, and then verify your Internet connection again. The information that came with the router should include connection instructions. If you use a combined router and modem, plug it into any computer. Check the information that came with the device for more detailed connection instructions.



Note

The router and modem must be turned on to use the Internet connection from any of the computers on your network.

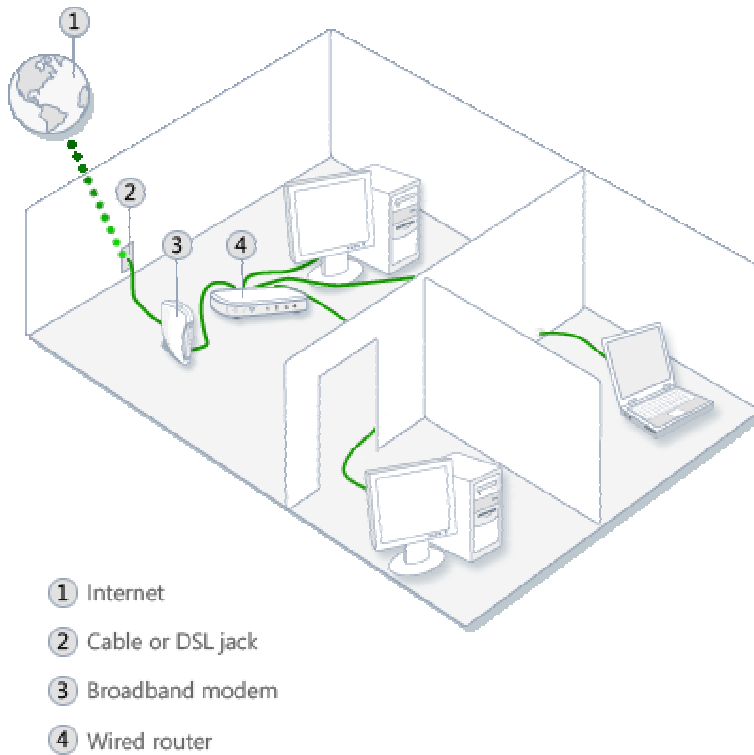
Set up ICS. If you want to share an Internet connection and you don't want to buy any more equipment, you can set up ICS on the computer that is connected to the modem. That computer will also need two network adapters: one to connect to the modem and one to connect to the other computer.

Connect the computers

There are several ways to connect computers—the configuration depends on the type of network adapters, modem, and Internet connection that you have. It also depends on whether or not you want to share an Internet connection among all the computers on the network. The following sections briefly describe some connection methods.

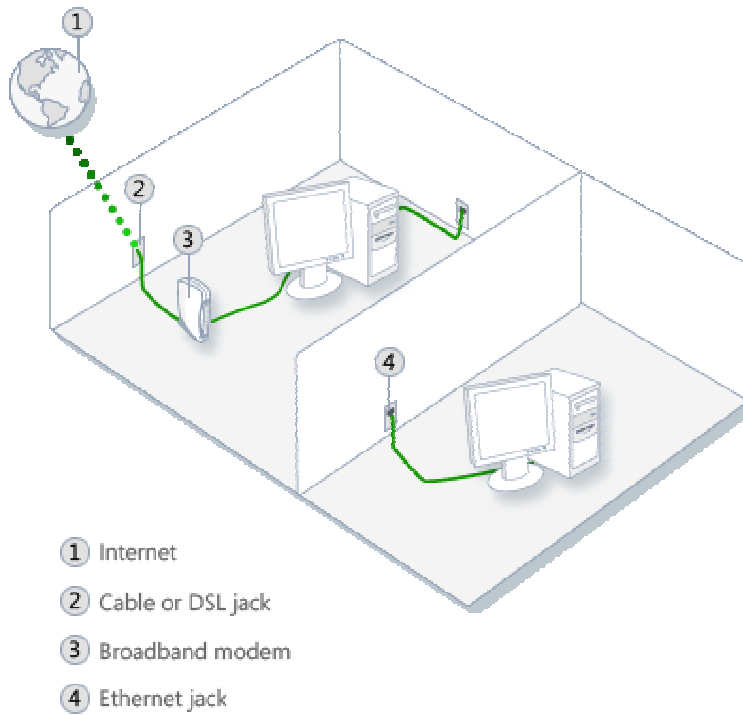
Ethernet networks

You need a hub, switch, or router to connect computers using Ethernet. To share an Internet connection, you need to use a router. Connect the router to the computer that is connected to the modem (if you haven't already done this).



Ethernet network with wired router and a shared Internet connection

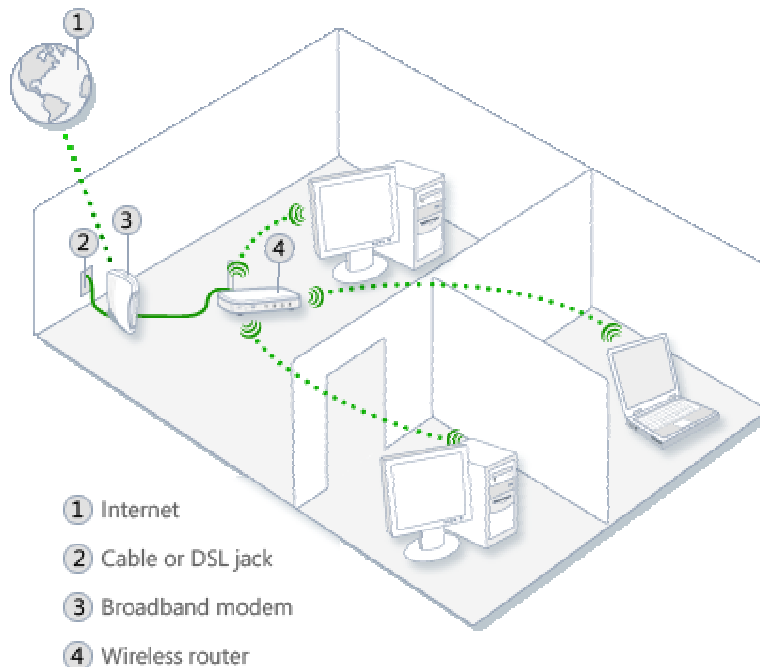
If your home or office is wired for Ethernet, set up the computers in rooms that have Ethernet jacks, and then plug them directly into the Ethernet jacks.



Ethernet network using built-in Ethernet

Wireless networks

For wireless networks, run the Set Up a Wireless Router or Access Point wizard on the computer attached to the router. The wizard will walk you through the process of adding other computers and devices to the network.



Wireless network with a shared Internet connection


HPNA networks

For HPNA networks, you need an HPNA network adapter in each computer and a phone jack in each room where there is a computer. Plug the computers into the phone jacks. The computers will be automatically connected.

Turn on all computers or devices, such as printers, that you want to be part of your network. If your network is wired Ethernet or HPNA, it should be set up and ready to use. You should test your network (see below) to make sure that all computers and devices are connected correctly.

Run the Set Up a Wireless Router or Access Point wizard

If your network is wireless, run the Set up a Wireless Router or Access Point wizard on the computer attached to the router.

- Open Set Up a Wireless Router or Access Point by clicking the Start button , clicking Control Panel, clicking Network and Internet, and then clicking Network and


Sharing Centre. In the left pane, click Set up a connection or network, and then click Set up a wireless router or access point.

The wizard will walk you through the process of adding other computers and devices to the network. For more information, see [Add a device or computer to a network](#).

Enable sharing on your network

If you want to share files and printers on your network, make sure your network location type is set to Private and that network discovery, file sharing, and printer sharing are turned on. For more information, see [choosing a network location](#) and [Enable or disable network discovery](#).

Test your network

It's a good idea to test your network to make sure that all of the computers and devices are connected and working properly. To test your network, do the following on each network computer: Click the Start button , and then click Network. You should be able to see icons for the computer you are on and all of the other computers and devices that you have added to the network. If the computer you are checking has a printer attached, the printer icon might not be visible on other computers until you enable printer sharing. (Printer sharing is not available on Windows Vista Starter.)





Note

It might take several minutes for computers running previous versions of Windows to appear in the Network folder.

Change TCP/IP settings

TCP/IP defines the language that your computer uses to communicate with other computers. We recommend using automated Dynamic Host Configuration Protocol (DHCP) to automatically assign Internet Protocol (IP) addresses to the computers on your network, if your network supports it. If you use DHCP, then you don't have to change your settings if you move your computer to another location, and DHCP doesn't require you to manually configure settings such as Domain Name System (DNS) and Windows Internet Name Service (WINS).

1. Open Network Connections by clicking the Start button , clicking Control Panel, clicking Network and Internet, clicking Network and Sharing Centre, and then clicking Manage network connections.
2. Right-click the connection that you want to change, and then click Properties.  If you are prompted for an administrator password or confirmation, type the password or provide confirmation.
3. Click the Networking tab. Under This connection uses the following items, click either Internet Protocol Version 4 (TCP/IPv4) or Internet Protocol Version 6 (TCP/IPv6), and then click Properties.
4. To specify IPv4 IP address settings, do one of the following:
 - To obtain IP settings automatically, click Obtain an IP address automatically, and then click OK.
 - To specify an IP address, click Use the following IP address, and then, in the IP address, Subnet mask, and Default gateway boxes, type the IP address settings.
5. To specify IPv6 IP address settings, do one of the following:
 - To obtain IP settings automatically, click Obtain an IPv6 address automatically, and then click OK.
 - To specify an IP address, click Use the following IPv6 address, and then, in the IPv6 address, Subnet prefix length, and Default gateway boxes, type the IP address settings.
6. To specify DNS server address settings, do one of the following:
 - To obtain a DNS server address automatically, click Obtain DNS server address automatically, and then click OK.
 - To specify a DNS server address, click Use the following DNS server addresses, and then, in the Preferred DNS server and Alternate DNS server boxes, type the addresses of the primary and secondary DNS servers.
7. To change DNS, WINS, and IP settings, click Advanced.

Connecting your mobile PC from work to your home network

To connect the mobile PC that you use at work to the Internet or to your work network from your home network, you must have a network connection set up at home. For information about using your mobile PC on your home network, see [Switching between your home and workplace networks](#) below.

Switching between your home and workplace networks

If you want to bring a mobile PC home from work and connect it to your home network, you might have to change some computer settings.

Accessing the Internet


If you only want to use the Internet from home, connect your mobile PC from work to the home network.

To connect to an Ethernet home network

- Plug one end of an Ethernet cable into the mobile PC and the other end into the hub, switch, or router. You should have immediate Internet access.

To connect to a wireless home network

Your mobile PC must have a wireless network adapter.

1. Turn on the mobile PC.
2. Open Connect to a Network by clicking the Start button , and then clicking Connect to.
3. Select your home wireless network in the list, and then type the network security key, if required.

You should be connected to the wireless network and have Internet access.



Note

If your home network is wireless, we recommend using a network security key. Not doing so could put your mobile PC at risk of unauthorized access by hackers or malicious software.

For more information, see [why should I secure my wireless network?](#)

If you have problems connecting to the network and accessing the Internet, see [Troubleshoot network connection problems](#) and [Troubleshoot Internet connection problems](#).

Enabling file and printer sharing

To access shared files and printers on your network, you first need to enable file and printer sharing.

To enable file and printer sharing

If your computer running Windows Vista is joined to a domain, you might not be able to change the network location to Private. In that case, under Sharing and Discovery, make sure the following options are turned on:

- Network discovery (see Enable or disable network discovery)
- File sharing
- Public folder sharing (if you want to share files using the Public folder)
- Printer sharing




Note

To use password-protected sharing, you must have exactly the same user accounts and passwords on both computers. This is usually not the case if you are using a work laptop and a home computer, so it's best to turn off password-protected sharing. (The password-protected sharing option is only available in workgroups.)

Accessing a printer

To use a printer that is connected to a home computer from your mobile PC, first turn on network discovery (if the printer is attached to a computer running Windows Vista), and then make sure that the printer is shared.

To check if a printer is shared or to set up printer sharing

1. Log on to a computer that is part of your home network and is connected to the printer.
2. Open Printers by clicking the Start button , clicking Control Panel, clicking Hardware and Sound, and then clicking Printers.
3. Right-click the printer you want to share, and then click Sharing.

If the printer is shared, Share this printer will be selected. If it is not selected, click Share this printer, and then click OK.




Note

The ability to share printers is not included in Windows Vista Starter.

To use a shared printer, you need to add the printer to your mobile PC.

To add a printer

1. Open the Add Printer wizard by clicking the Start button , clicking Control Panel, clicking Hardware and Sound, clicking Printers, and then clicking Add a printer.
2. Select Add a network, wireless or Bluetooth printer, and then follow the steps in the wizard.

Accessing shared files and folders

You can share files and folders in two ways: through simple file sharing—putting the files or folders into a common shared folder, or in-place file sharing—marking individual files or folders to be shared without moving them from their current location. (In Windows XP, only folders can be shared this way.)



Note

The ability to share files and folders is not included in Windows Vista Starter.

To set up sharing on computers running Windows XP

If any of your home computers are running a version of Windows XP earlier than Windows XP with Service Pack 2 (SP2), you must upgrade them before you can set up sharing.

1. Run the Network Setup wizard on each home computer, if you haven't already done so.
2. When prompted, choose to enable file sharing. This creates a Shared Documents folder on each computer. Files in this folder are accessible to anyone on your network.






Notes

- To open the Shared Documents folder, click Start, click My Documents, and then click Shared Documents.
- In Windows XP, you cannot share individual files, you have to share the entire folder. To share folders and their contents without moving them into the Shared Documents folder, go to the location containing the folder that you want to share, right-click the folder, and then click Sharing and Security. Click the Sharing tab, click Share this folder, and then click Apply.

To set up sharing on computers running Windows Vista


The Shared Documents folder has been replaced with the Public folder in Windows Vista.

1. Open Network and Sharing Center by clicking the Start button , clicking Control Panel, clicking Network and Internet, and then clicking Network and Sharing Center.
2. Click the arrow button  next to Public folder sharing, and then click one of the following options:
 - Turn on sharing so anyone with network access can open files
 - Turn on sharing so anyone with network access can open, change, and create files
3. Click Apply.  If you are prompted for an administrator password or confirmation, type the password or provide confirmation.

Files in the Public folder are now accessible to anyone on your network.




Notes

- To open the Public folder, follow these steps:
 1. Open Documents by clicking the Start button , and then clicking Documents.
 2. Click the arrow next to Folders at the bottom of the Navigation pane, and then click Public.
- To share files or folders without moving them into this folder, go to the location containing the file or folder that you want to share, click the file or folder, click Share, and then follow the steps in the wizard.

Accessing network computers


Before you can access another network computer, you need to know its name.

To find a computer name

1. Open System by clicking the Start button , clicking Control Panel, clicking System and Maintenance, and then clicking System.
2. The name appears under Computer Name, Domain, and Workgroup Settings.

To access a home computer from your mobile PC

To access files on a home computer, you can either log on as a guest (this means you will only have access to files in the Public folder), or, if you have a user account on that computer, you can log on using your account. For more information about user accounts, see [User accounts: frequently asked questions](#). To access another computer, follow these steps:

1. Open Network by clicking the Start button , and then clicking Network.
2. Double-click a computer's icon to see the files and folders that you have access to.




Notes

- If your user name and password for the computer you are currently logged on to are different from those for the computer that you are trying to access, you might be prompted to enter your logon information.
- If the other computer is set up to allow access to anyone on the network, you will be automatically connected to it but you will only have guest access. This means that you will only have access to files in the Public folder. You can automatically connect to another computer on the network using your logon information by storing your passwords. For more information, see [Store passwords for automatic logon](#).

A folder containing the shared folders and resources on the home computer will open.

To access your mobile PC from a home computer

1. Open Network by clicking the Start button , and then clicking Network.
2. When you are prompted to log on, in the User name box, type your work domain and user name, separated by a backward slash (for example: domain\username). In the Password box, type the password you use to log on at work.

A folder containing the shared files and folders on the mobile PC will open.