hi-speed internet

Building A Home Network

What is a Home Network?

A home network is a collection of two or more home computers connected together through a wired or wireless connection.

Why should I network my computers together?

There are many advantages to building a home network. It allows you to share files between computers, and lets you share resources like printers, scanners or Internet connections.

Is it hard to network computers together?

Networking computers WAS difficult in the past, but today's home routers or gateways make it a snap. Often, it's as easy as connecting the computers to the router and restarting them.

What do I need to build a home network?

That depends on the kind of home network you want to build. This document will help you set up a wired network using a Internet Connection Sharing. You will need at least two computers, and a network hub, which you will need to purchase from a third-party retailer.

Building A Wired Home Network

There are three different ways that you can build a wired network to share your Rogers Yahoo! Hi-Speed Internet connection:

Using a Home Router

Using a home router or gateway is the fastest and easiest way to share your Internet connection. A home router acts as a DHCP server, meaning it receives an Internet address from your modem and then automatically assigns Internet addresses to all of the computers connected to it.

If you wish to set up your home network in this manner, please see the **Building a Home Network Using a Home Router/Gateway** document.

Using Windows XP or Windows Vista Internet Connection Sharing

Windows XP and Windows Vista both offer Internet Connection Sharing, which allows you to share your Internet connection among two or more computers in your home.

This is the configuration described in this document. If you wish to set up your home network using one of the other methods described, please see the appropriate document as noted.

Using a Hub and Multiple IP Addresses

A hub lets you physically connect many computers, but does not provide the logic required to assign each computer an IP address. Rogers Yahoo! offers additional IP addresses for a small monthly fee, and when combined with a hub, this is a viable home networking option if you do not wish to purchase a router (please note that this option is not available for Ultra-Lite customers).

If you wish to set up your home network in this manner, please see the **Building a Home Network Using Multiple IP Addresses** document.

Building A Wired Network Using Internet Connection Sharing

Introduction

With this type of network, one of your computers will act as a server. This computer will connect directly to your modem and share its Internet connection with your other computers.

Setup Time	A half-hour to two hours depending on the number of computers you are connecting and whether or not you need to install Ethernet cards
Advantages	Does not require a separate router which are generally more expensive than network hubs
Disadvantages	The Server computer must be running for the other computers to have Internet access. The server computer requires two Ethernet ports, and you will need a network hub which is not provided by Rogers Yahoo!

Additional Requirements

- The server computer must have two Ethernet ports. This may require the installation of a Network Interface Card (NIC) or a USB-Ethernet adapter.
- A network hub to share the signal from your modem with all of your other computers.

BEFORE YOU BEGIN:

- 1. Shut down all of your computers.
- 2. Unplug the modem power cable from the wall socket, and the Ethernet cable from both the modem and the computer.

Physical Connections

- 1. Connect the server computer to the modem using an Ethernet cable.
- 2. Connect the server computer to the network hub using an Ethernet cable.
- 3. Connect each of the other computers to the network hub using Ethernet cables.
- 4. Plug the modem power cable back into a wall socket and wait until it is online.
- 5. Once your modem is online, plug in and power on the network hub (if required), and then power on your computers.



Server Setup - Windows XP

- 1. Click Start, and then My Network Places the Network Connection window appears.
- 2. Under *Network Tasks*, click **Setup a home or small office network** *The Network Setup Wizard* appears.

Network Setup Wizard	
	Welcome to the Network Setup Wizard This wizard will help you set up this computer to run on your network. With a network you car: • Share an Internet connection • Set up Windows Firewall • Share files and folders • Share a printer
	<back cancel<="" th=""></back>

- 3. Click Next, and then Next again. The Select a connection method screen appears.
- 4. Select This computer connects directly to the Internet and other computers connect to this computer and click Next.

etwork Setup Wizard	
Select a connection method.	
Select the statement that best describes this computer:	
This computer connects directly to the Internet. The other computers on my network connect to the Internet through this computer.	k
C This computer connects to the Internet through a residential gateway or through an computer on my network. <u>View an example</u> .	other
C Other	
Learn more about nome or small onice network configurations.	
< <u>B</u> ack <u>N</u> ext >	Cancel

5. Enter a computer description and computer name. The computer description will be how your computer appears in *My Network Places* or *Network. Neighborhood* on other computers that are connected to the network. The computer name must be unique on the network.

Computer description:	Desktop	
	Examples: Family Room Computer or Monica's Computer	
Computer name:	DRC\$8550391	-
	Examples: FAMILY or MONICA	
The current computer na	me is DRCS8550391.	

6. Enter a workgroup name. The workgroup name is the name of the network, and you will use it to connect other computers to the network.

twork Setup Wizard	
Name your network	
Name your network by should have the same of	specifying a workgroup name below. All computers on your network workgroup name.
Workgroup name:	MSHOME
	Examples: HOME or OFFICE
	<back next=""> Cancel</back>

7. Click **Next** to review the settings you chose, and **Next** again when you are satisfied - The wizard will configure the computer's network settings.

- 8. The wizard will now ask if you want to make a Network Setup Disk. Click **Yes** if you have Windows 98 or ME computers that you want to connect to the network, otherwise, select **Just finish the Wizard** and click **Next**.
- 9. If you chose to make a Network Setup Disk, follow the onscreen instructions to format a floppy disk and copy over the required files Click **Next** when the process is complete.
- 10. The wizard's completion screen appears click Finish to exit the wizard.
- 11. Click **Yes** to restart your computer if prompted, otherwise, restart your computer as you normally would.

Server Setup - Windows Vista

Note: Throughout these instructions, if you are prompted to give permission to continue, always choose to continue.

- 1. Click Start and then Control Panel The Control Panel appears.
- In the top left corner, click Classic View and then double-click Network and Sharing Center

 The Network and Sharing Center appears.
- 3. If your computer is properly configured, you should see a network connection listed under *Network (Private Network)*.

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-41	Network and Sharing C	enter		
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	Connection	Local Area Connection	View stratus	
	🐓 Unidentified network 🖗	ablic metricole)	Custorrige	
	Access	Linited Connectivity		
	Connection.	Local Area Connection 3	View status	
	3 Sharing and Discovery			
	Network discovery	+ Off	۲	
	File sharing	9 CH	۲	
	Public folder sharing	+ C#	۲	
Constant States	Printer shering	@ Off (no printers installed)	۲	
	Fissional protected sharing	0 C#	۲	
Section Section	Media sharing	e Dif	۲	
and the second second	Show me all the files and folde	estain sharing		
	Show me all the shared return	A folders on this computer		
and the second				
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4. If you don't see a network connection, follow the instructions under *Computer Setup*, below, before following these instructions.

5. Click **View Status** beside the network connection you want to use - The *Local Area Connection Status* window appears.

Network and Sha	ring Center		
			View full map
(This c	computer)	Multiple networks	Internet
Network (Private	network)		Customize
Access	Local a	nd Internet	
Connection	Local A	rea Connection	View status

6. Click the **Properties** button - The Local Area Connection Properties window appears.

Connection —		NE DOV 10
IPv4 Connect	ivity:	Internet
IPv6 Connect	ivity:	Local
Media State:		Enabled
Duration:		05:39:27
Speed:		100.0 Mbps
Activity ———		
Activity ———	Sent — 🚺	Received
Activity ——— Packets:	Sent —	— Received

7. Click the **Sharing** tab (Note: this tab will be available only if you have installed a second Ethernet port on your computer).

8. Check the box beside Allow other network users to connect through this computer's Internet connection and then click OK. Your computer is now ready to share Internet access with other computers.

etworking	Sharing		
Internet C	Connection Sharing	2	
Allow Comp	other <u>n</u> etwork use uter's Internet con	rs to connect thro nection	ugh this
All <u>o</u> w share	other network use d Internet connect	ers to control or dis ion	able the
Using IC	S (Internet Connec	ction Sharing)	Settings

Computer Setup - Windows XP and Vista

When you have finished connecting everything, and your server computer has been properly set up, your computers should automatically connect to the network and the Internet. Open Internet Explorer and try to visit some websites. If you connect, that's great! You're all finished!

If you can't connect to any websites, try the following three steps:

Step 1 - Check your network

- Ensure the computers are properly connected to the hub.
- Ensure the server computer is properly connected to both the hub and the modem.
- Ensure the modem and hub (if required) are turned on, and that your modem is connected to the Internet.

Step 2 - Refresh your network connection/Restart your computer

- If you are familiar with the command window and IPCONFIG, release and renew your IP address manually.
- If you are not, restart your computer. This will automatically refresh your network settings.
- Once you have renewed your IP, or your computer has restarted, try to connect to a website. If you can, that's great! You're all finished! If you can't, continue below:

Step 3 - Check your network settings with SHS

Run the Rogers Self Healing Software (SHS) to check that your network connection is properly set up. If SHS isn't installed, you can install it from the Rogers Yahoo! CD.

To learn how to manually check your network connection settings, please continue below.

Checking Your Wired Network Connections

Windows XP

1. Click Start and then My Network Places - the My Network Places window appears.



2. Now click View Network Connections - the Network Connections window appears.



If there are no network connections listed:

1. Click Create a new connection - the New Connection Wizard appears.



2. Click Next - the Network Connection Type window appears.

New Connection Wizard	
Ś	Welcome to the New Connection Wizard
	This wizard helps you:
	Connect to the Internet.
	 Connect to a private network, such as your workplace network.
KA	 Set up a home or small office network.
	To continue, click Next.
	< Back Next>

3. Select **Set up a home or small office network** and click **Next**, and then **Finish** - The *Network Setup Wizard* appears.



4. Click Next, and Next again - the Network Setup Wizard will search for your network.

5. Select This computer connects to the Internet through a residential gateway or through a computer on my network and click Next.

Network Setup Wizard
Select a connection method.
Select the statement that best describes this computer:
C This computer connects directly to the Internet. The other computers on my network connect to the Internet through this computer. <u>View an example</u> .
This computer connects to the Internet through a residential gateway or through another computer on my network. <u>View an example</u> .
C Other
Learn more about home or small office network configurations.
< <u>B</u> ack <u>N</u> ext > Cancel

6. Enter a computer description and computer name, then click **Next**.

Network Setup Wizard	
Give this computer a	description and name.
Computer description:	Desktop
Computer name:	DRCS8550391
The current computer na	me is DRCS8550391.
Learn more about <u>compu</u>	ter names and descriptions.
	< <u>B</u> ack <u>N</u> ext > Cancel

7. If you have already entered a network name using another computer, enter the same name here. If not, enter a unique, personalized name for your network.

Network Setup Wizard	
Name your network.	
Name your network by sp should have the same w	pecifying a workgroup name below. All computers on your network orkgroup name.
Workgroup name:	MSHOME
	Examples: HOME or OFFICE
	< Back Next > Cancel

8. Choose if you want to activate file and printer sharing. If you intend to share files or printers among your computers, this must be on. If you do not intend to share files and printers, this should be turned off.

Network Setup Wizard
File and printer sharing
Turning on file and printer sharing makes the Shared Documents folder available to everyone on your network. It also gives everyone access to a shared printer if one is available.
What do you want to do?
(* Lurn on hie and printer sharing Windows Firewall will be configured to allow file and printer sharing on your network.
C Lurn off file and printer sharing Windows Firewall will block file and printer sharing on your network. If you currently have shared files or printers, they will no longer be shared
< <u>B</u> ack <u>N</u> ext > Cancel

- 9. Click **Next** to apply the network settings, and then **Finish**. Your network is now configured.
- 10. Click **Yes** to restart your computer if prompted, or restart your computer manually.

If there are network connections listed:

1. Click on the icon of the network connection you wish to check, and then click **Change** settings of this connection - the *Local Area Connection Properties* window appears.



- 2. Ensure the following items are there and checked, as shown in the image below:
 - a. Client for Microsoft Networks
 - b. File and Printer Sharing for Microsoft Networks
 - c. QoS Packet Scheduler
 - d. Internet Protocol (TCP/IP)

🚣 Local Area Connection Properties	? ×
General Authentication Advanced	
Connect using:	
Broadcom NetXtreme Gigabit Etherne	
This connection uses the following items:	
 Elient for Microsoft Networks File and Printer Sharing for Microsoft Networks Quest Packet Scheduler Thernet Protocol (TCP/IP) 	
I <u>n</u> stall <u>U</u> ninstall P <u>r</u> operties	
Description Allows your computer to access resources on a Microsoft network.	
 Show icon in notification area when connected Notify me when this connection has limited or no connectivity 	y
OK Can	cel

- 3. Select Internet Protocol (TCP/IP) and then click Properties the Internet Protocol (TCP/IP) *Properties* window appears.4. Ensure that *Obtain an IP address automatically* and *Obtain DNS server automatically* are
- both selected, as shown in the image below:

	erues 📑
neral Alternate Configuration	
'ou can get IP settings assigned his capability. Otherwise, you nee he appropriate IP settings.	automatically if your network supports ad to ask your network administrator for
Obtain an IP address autom	atically
O Use the following IP address	s:
[P address:	· · · ·
S <u>u</u> bnet mask:	· · · · · ·
Default gateway:	
	,
Obtain DNS server address	automaticallu
Obtain DNS server address Obtain following DNS server	automatically er addresses:
Obtain DNS server address O Use the following DNS serv Preferred DNS server:	automatically er addresses:
© O <u>b</u> tain DNS server address © Usg the following DNS serv <u>Preferred DNS server</u> <u>Alternate DNS server</u>	automatically er addresses:
Obtain DNS server address O Use the following DNS serv Preferred DNS server: Alternate DNS server:	automatically er addresses:
Obtain DNS server address O Use the following DNS serv Breferred DNS server: Alternate DNS server:	automatically er addresses:

5. Click **OK** and then **OK** again. Your network is properly configured.

Windows Vista

- 1. Click **Start**, and then **Control Panel**.
- 2. From the options on the left, click on **Classic View**.
- 3. Double-click Network and Sharing Center, the Network and Sharing Center appears.
- 4. Your network connection will appear as a *Local Area Connection* under *Network (Private Network)*.

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ew computers and devices	interior and a starting of		View full map	
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	Setwork (Private network	0	Customize	
	Access	Local and Internet		
	Connection	Local Area Connection	View status	
	🐓 Unidentified network 🖗	vblic meticole)	Custoriae	
	Access	United Connectivity		
	Connection.	Local Area Connection 3	View status	
	3. Sharing and Discovery			
	Network discovery	+ Off	۲	
	Fite charing	+ C#	۲	
	Public folder sharing	+ 0#	۲	
	Printer sharing	 Off (no printers installed) 	۲	
	Francerd protected sharing	+ C#	۲	
	Media sharing	e Dif	۲	
12000	Show me all the files and folde	est ampharing		
	Show me all the shared return	ill folders on this computer		

- 5. If there is no Local Area Connection, it means that Windows Vista did not detect a network adapter in your computer (to provide you with an Ethernet port).
- 6. If there *is* a network adapter in your computer, you will need to find out why Windows is not detecting it, which is beyond the scope of these instructions. Please consult Windows Help for further assistance with troubleshooting your network adapter.
- 7. If there is no network adapter in your computer, you will need to install one to proceed. If you're not comfortable doing this, most major electronics stores like Best Buy or Future Shop can take care of the installation for a small fee. You can also use a USB-to-Ethernet adapter, or connect your modem using a USB connection (if your modem has a USB port).

IPCONFIG instructions

IPCONFIG is a utility in Windows XP and Windows Vista which you can use to refresh your network settings (release/renew your IP address) without restarting your computer.

To refresh your network settings using IPCONFIG:

- 1. Click **Start**, then **Run** The *Run* window appears.
- 2. In the *Open* field, type **cmd**.
- 3. Click **OK** the Command Window appears.
- 4. In the Command Window, type **ipconfig /release** and press **Enter** your network connection will be released.
- 5. In the Command Window, type **ipconfig /renew** and press **Enter** your network connection will be refreshed.