

Support

Thank you for purchasing this NETGEAR product. You can visit www.netgear.com/support to register your product, get help, access the latest downloads and user manuals, and join our community. We recommend that you use only official NETGEAR support resources.

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Compliance

For the current EU Declaration of Conformity, visit http://support.netgear.com/app/answers/detail/a_id/11621/.

For regulatory compliance information, visit <http://www.netgear.com/about/regulatory/>.

See the regulatory compliance document before connecting the power supply.

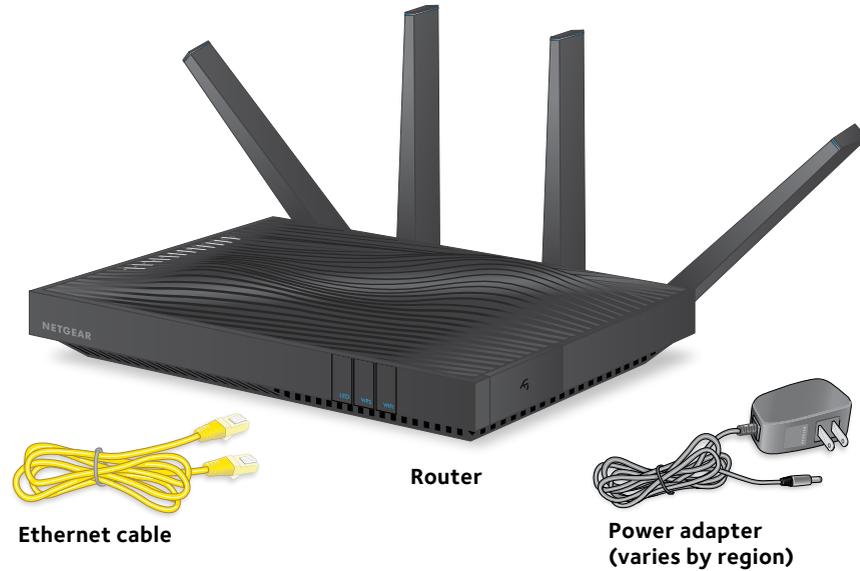
Quick Start

Nighthawk X8 AC5300 Tri-Band WiFi Router Model R8500



Package Contents

The package contains the following items.



Ethernet cable

Router

Power adapter
(varies by region)

In some regions, a resource CD is included in the package.

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NETGEAR®

You can use this diagram to connect your router or follow the detailed instructions in this booklet.

1. Position the antennas.

For the best WiFi performance, position the antennas as shown.

2. Prepare your modem.

Unplug your modem's power. If it uses a battery backup, remove the battery.

3. Connect your modem.

Plug in your modem. Put the battery back in. Then connect the modem to the yellow Internet port on the router.

4. Power on the router.

The Power LED lights amber and then turns white when the router is ready.

If no LEDs are lit, press the **Power On/Off** button on the rear panel of the router.

5. Check the LEDs.

If the Power LED lights solid white and the other LEDs are off, press the **LED** button on the front panel of the router.

6. Connect a device.

You can use an Ethernet cable or use WiFi to connect a device to the router.

To connect with WiFi, use the WiFi network name and password on the product label.



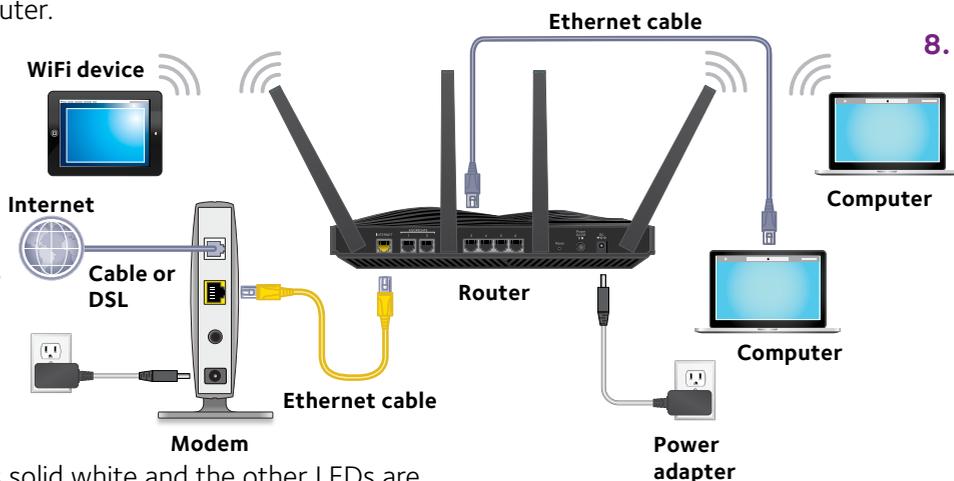
7. Log in to the router.

Launch a web browser.

NETGEAR genie displays.

If you do not see genie, enter **www.routerlogin.net** in the address field of the web browser. When prompted, enter **admin** for the user name and **password** for the password.

Follow the genie steps to connect to the Internet.



8. Get free apps.

During the installation process, genie prompts you to download two free apps:

- **genie app.** A personal dashboard that lets you monitor, control, and repair your home network.
- **ReadySHARE Vault app.** Enables automatic continuous backup of a Windows computer to a USB device that's connected to your router.

9. Get the user manual.

You can get the user manual online at downloadcenter.netgear.com or through a link in the product's user interface.

Remotely Access Your Router Using the genie App

You can use the genie app to remotely access your router and change its key settings. Remote access with the genie app is supported for Windows computers, iOS mobile devices, and Android mobile devices. For more information about this feature, see the genie app user manual, which is available online at downloadcenter.netgear.com.

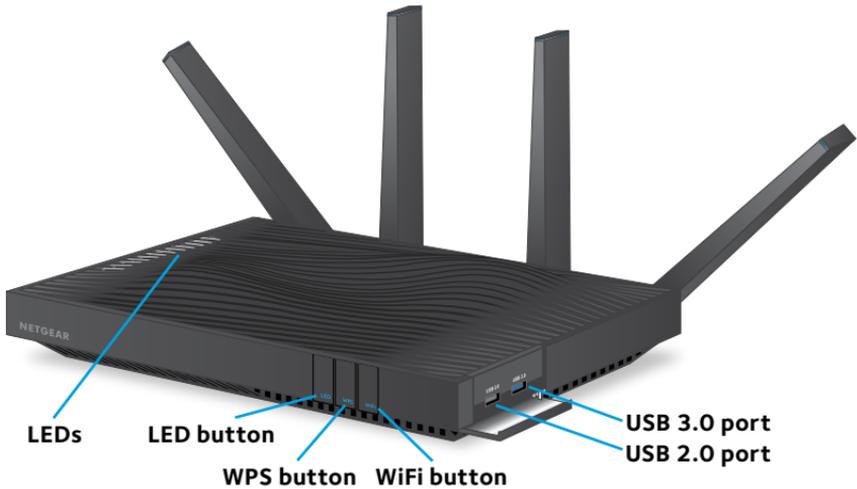
➤ To set up remote access using the genie app for Windows computers:

1. Visit www.NETGEAR.com/genie and download the latest version of the genie app for Windows.
2. Create a remote access genie account:
 - a. Connect your computer to the router's WiFi network with a WiFi or a wired Ethernet connection.
 - b. Launch the genie app.
 - c. Select **Router Settings**.
The Router Login page displays.
 - d. From the **Login as** menu, select **Remote Access**.
 - e. Click the **Sign up** link.
 - f. Complete the fields to create an account.
3. Log in to your remote access genie account.
The genie app determines if the router is registered with your genie account. If the router is not registered, follow the onscreen instructions.
After the router registers with your genie account, a cloud icon displays on the page. You can now remotely access your router from the genie app that is installed on your computer.

Hardware Features

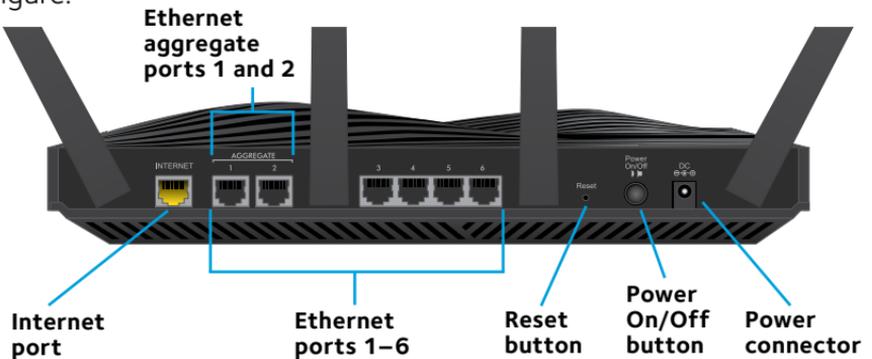
Front Panel

The LEDs, buttons, and USB ports are shown in the following figure. For more information about the LEDs and buttons, see [LEDs](#) on page 2 and [Front Panel Buttons](#) on page 3.



Rear Panel

The rear panel connections and buttons are shown in the following figure.



LEDs

The LEDs on the top of the router light to indicate router activity:

LED	Description
Power LED 	<ul style="list-style-type: none">• Solid white. The router is ready.• Solid amber. The router is starting.• Blinking amber. The firmware is upgrading, or the Reset button was pressed.• Blinking white. The firmware is corrupted.• Off. Power is not supplied to the router.
Internet LED 	<ul style="list-style-type: none">• Solid white. The Internet connection is ready.• Solid amber. The router detected an Ethernet cable connection to the modem.• Blinking white. Internet traffic is passing through the Internet port.• Off. No Ethernet cable is connected between the router and the modem.
2.4 GHz WiFi LED 	<ul style="list-style-type: none">• Solid white. The 2.4 GHz WiFi radio is operating.• Blinking. The router is sending or receiving WiFi traffic.• Off. The 2.4 GHz WiFi radio is off.
5 GHz 1 WiFi LED 	<ul style="list-style-type: none">• Solid white. The 5 GHz 1 WiFi radio is operating.• Blinking. The router is sending or receiving WiFi traffic.• Off. The 5 GHz 1 WiFi radio is off.
5 GHz 2 WiFi LED 	<ul style="list-style-type: none">• Solid white. The 5 GHz 2 WiFi radio is operating.• Blinking. The router is sending or receiving WiFi traffic.• Off. The 5 GHz 2 WiFi radio is off.

LED	Description
USB 1 LED  USB 2 LED 	<p>The USB 1 LED is for the blue USB 3.0 USB port. The USB 2 LED is for the USB 2.0 port.</p> <ul style="list-style-type: none"> • Solid white. A USB storage device is connected and is ready. • Blinking. A USB storage device is plugged in and is trying to connect. • Off. No USB storage device is connected, or someone clicked the Safely Remove Hardware button and it is now safe to remove the attached USB storage device.
Ethernet ports 1–6 LEDs      	<p>The LED color indicates the speed: white for Gigabit Ethernet connections and amber for 100 Mbps or 10 Mbps Ethernet connections.</p> <ul style="list-style-type: none"> • Solid. A powered-on device is connected to the Ethernet port. • Blinking. The port is sending or receiving traffic. • Off. No device is connected to this Ethernet port.

Front Panel Buttons

Button	Description
LED button	<p>Pressing this button changes the LED mode.</p> <ul style="list-style-type: none"> • Mode one. All LEDs stay on and blink. • Mode two. All LEDs stay on but don't blink. • Mode three. Only the Power LED stays on and the other LEDs are off.
WPS button	<p>Pressing this button lets you use WPS to join the WiFi network without typing the WiFi password. For more information, see Join the WiFi Network on page 9.</p>
WiFi button	<p>Pressing this button for two seconds turns the 2.4 GHz, 5 GHz 1, and 5 GHz 2 WiFi radios on and off.</p>

Install Your Router

Make sure that your Internet service is active before you install your router.

➤ To install your router:

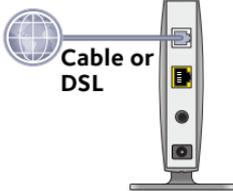
1. Position the antennas.



For the best WiFi performance, We recommend that you position the antennas as shown in the figure.

2. Prepare your modem:

Internet

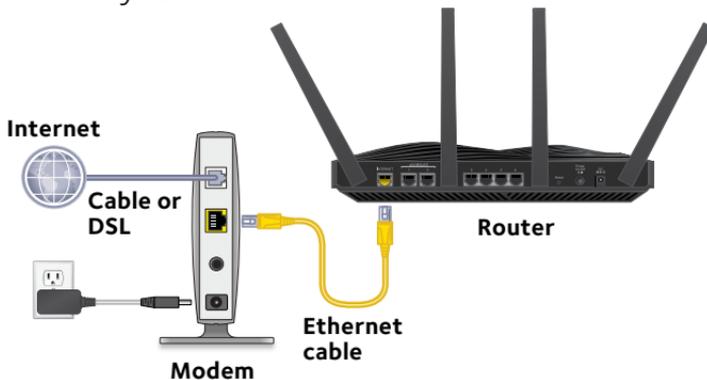


Modem

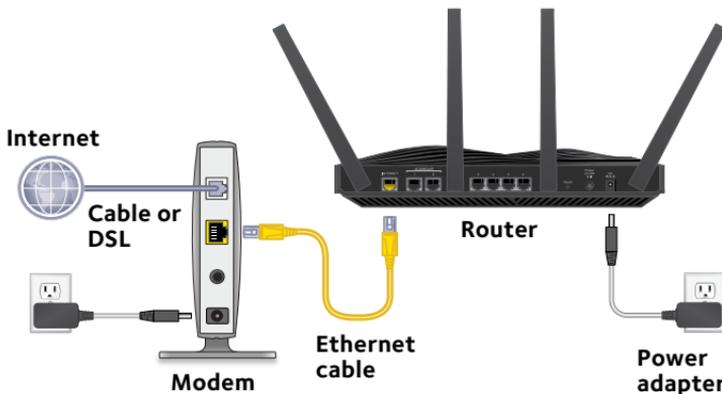
- a. Unplug your modem's power.
- b. If the modem uses a battery backup, remove its batteries.
- c. If your modem is already connected to another router, disconnect the cable between your modem and that router.

Make sure that your modem is turned off and is cabled only to the wall jack for your Internet service.

3. Connect your modem:



- Plug in, then turn on your modem.
 - If you removed the batteries, replace them.
 - With the Ethernet cable that came with the router, connect your modem to the yellow Internet port on your router.
4. Add power to the router:



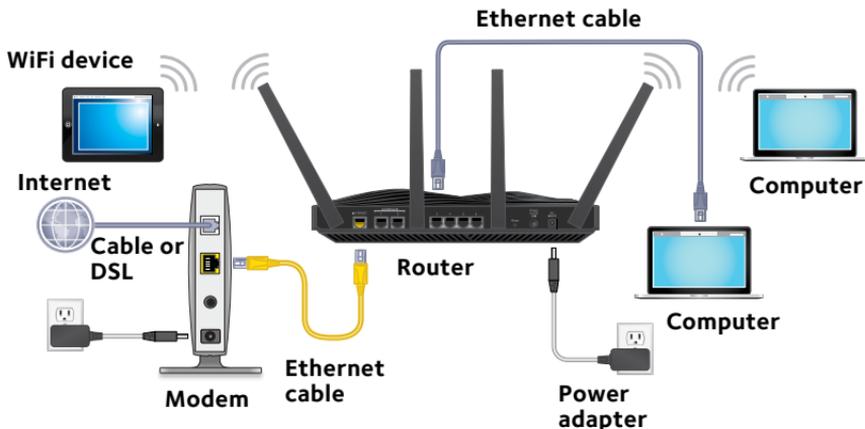
- Connect the power adapter to the router and plug the power adapter into an outlet.
- Wait for the Power LED on the front panel to light amber and then turn white.

If no LEDs are lit, press the **Power On/Off** button on the rear panel of the router.

5. Check the LEDs.

If the Power LED lights solid white and the other LEDs are off, press the **LED** button on the front panel of the router to turn on the other LEDs.

6. Connect a device.



You can use a wired connection to connect a computer to the router, or you can use a WiFi connection to connect a computer or WiFi device to the router:

- To connect using a wired connection, use an Ethernet cable (not included) to connect an Ethernet port on your computer to an Ethernet port on the router.

Note: We recommend that you connect a computer to Ethernet ports 3–6 and use Ethernet ports 1 and 2 to set up Ethernet port aggregation. For more information, see [Set Up Ethernet Port Aggregation](#) on page 16.

- To connect using a WiFi connection, use the WiFi network name and password on the product label.

7. Launch a web browser.

The first time that you connect to the router, the genie page displays. Follow the genie steps to connect to the Internet.

If the genie page does not display, try the following:

- Close and reopen the browser.
- Make sure that your computer is connected to one of the Ethernet ports on the router, or that you are connected to your router's WiFi network.
- Make sure that the router is receiving power, and that its Power LED is lit.
- If your computer is set to a static or fixed IP address (this is uncommon), change it to obtain an IP address automatically from the router.

If you still do not see the genie page, log in to the router so that genie can detect your Internet connection.

➤ **To log in to the router:**

1. Launch a web browser and enter **www.routerlogin.net** in the address field of the browser.

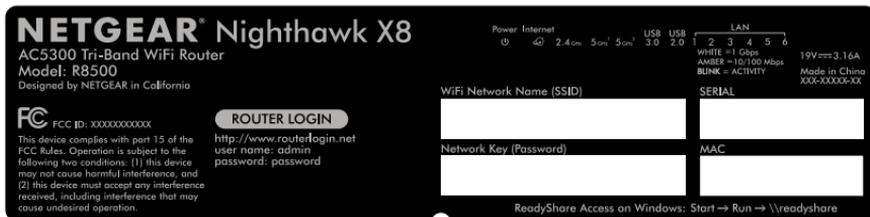
A login window displays.

2. Enter **admin** for the user name and **password** for the password.

The BASIC Home page displays. If your Internet connection is not set up yet, genie automatically detects your Internet connection.

WiFi Network Name and Password

The preset WiFi network name (SSID) and password (network key) are unique to your router, like a serial number. Because the router automatically uses WiFi security, you don't need to set it up. The WiFi settings are on the product label.



We recommend that you use the preset WiFi settings because you can check the product label if you forget them. NETGEAR genie lets you change these settings. If you do so, write down the new WiFi settings and store them in a safe place.

You can write the WiFi settings from your product label in this space for easy reference.

WiFi network name (SSID): _____

Network key (password): _____

If you change the WiFi settings, write the new settings here for easy reference and store this booklet in a safe place.

WiFi network name (SSID): _____

Network key (password): _____

Join the WiFi Network

To join the router WiFi network, you can either use the router's Wi-Fi Protected Setup (WPS) function or select its WiFi network and type its password. For help with the **WPS** button on your computer or WiFi device, check the instructions or online help that came with that computer or device. Some older equipment cannot use WPS.

➤ To join the network using WPS:

1. Press the **WPS** button on the router for 3–5 seconds.
The WPS LED on the button blinks.
2. Within two minutes, on your computer or WiFi device, press its **WPS** button or click its onscreen **WPS** button.
The WPS LED lights solid blue when the computer or WiFi device connects to your router.
3. Repeat this process to add other computers or WiFi devices.

➤ To select your network and enter its password:

1. Open the software utility that manages your WiFi connections on the computer or WiFi device that you want to connect to your router.
This utility scans for WiFi networks in your area.
2. Find and select your router's WiFi network name (SSID).
The SSID is on the product label.
3. Enter the router's password (or your custom password if you changed it) and click the **Connect** button.
The password is on the product label.
4. Repeat Step 1 through Step 3 to add other computers or WiFi devices.

View or Change the Router Settings

After you use genie to set up the router, you can log in to the router to view or change its settings.

Log In to the Router

➤ To log in to the router:

1. Connect a computer or WiFi device to the router.

You can connect using a wired connection or a WiFi connection:

- To connect using a wired connection, use an Ethernet cable (not included) to connect an Ethernet port on your computer to an Ethernet port on the router.
- To connect using a WiFi connection, use the WiFi network name and password on the product label.

2. Launch a web browser.
3. Enter **www.routerlogin.net** in the address field of the browser.

A login window displays.

4. Enter **admin** for the user name and **password** for the password.

The BASIC Home page displays.

Change the admin Password

➤ To change the admin password:

1. Launch a web browser and enter **www.routerlogin.net** in the address field of the browser.

A login window displays.

2. Enter **admin** for the user name and **password** for the password.
The BASIC Home page displays.
3. Select **ADVANCED > Administration > Set Password**.
The Set Password page displays.
4. Type your old password and type the new password twice.
5. To be able to recover the password, select the **Enable Password Recovery** check box.
We recommend that you enable password recovery.
6. Select two security questions and provide answers to them.
7. Click the **Apply** button.
Your settings are saved.

Recover a Forgotten admin Password

The default password for the admin user name is password. If you changed the password and enabled the password recovery feature, you can retrieve this password.

➤ To retrieve a forgotten admin password:

1. Launch a web browser and enter **www.routerlogin.net** in the address field of the browser.
A login window displays.
2. Click the **Cancel** button.
If password recovery is enabled, you are prompted to enter the serial number of the router. The serial number is on the product label.
3. Enter the serial number of the router.

4. Click the **Continue** button.
A page displays requesting the answers to your security questions.
5. Enter the saved answers to your security questions.
6. Click the **Continue** button.
A page displays your recovered password.
7. Click the **Login again** button.
A login window displays.
8. With your recovered password, log in to the router.

Find a Forgotten WiFi Security Password

The preset WiFi password is on the product label. If you changed your WiFi password and forgot what it is, log in to the router to view its current WiFi password.

➤ **To connect to the router and view its WiFi password:**

1. Launch a web browser and enter **www.routerlogin.net** in the address field.
A login window displays.
2. Enter the router user name and password.
The default user name is **admin** and the default password is **password**. Use the default credentials if you did not change them.
The BASIC Home page displays.
3. Select **Wireless**.
The Wireless Setup page displays.
The Security Options section of the page displays your WiFi password.

Access a USB Device on the Network

ReadySHARE lets you access and share a USB storage device connected to the router's USB ports. (If your USB device uses special drivers, it is not compatible.)



➤ To access the USB storage device from a Windows computer:

1. Connect your USB storage device to a USB port on the router. We recommend that you use the blue USB 3.0 port on the router to get the best USB device access speed.
2. If your USB storage device uses a power supply, connect it. You must use the power supply when you connect the USB storage device to the router.

When you connect the USB storage device to the router's USB port, it might take up to two minutes before it is ready for sharing. By default, the USB storage device is available to all computers on your local area network (LAN).

3. On a Windows computer that is connected to the network, select **Start > Run**, enter **\\readyshare** in the dialog box, and click the **OK** button.

A window displays the files and folders on the device.

➤ **To access the USB storage device from a Mac:**

1. Connect your USB storage device to a USB port on the router.
We recommend that you use the blue USB 3.0 port on the router to get the best USB device access speed.
2. If your USB storage device uses a power supply, connect it.
You must use the power supply when you connect the USB storage device to the router.

When you connect the USB storage device to the router's USB port, it might take up to two minutes before it is ready for sharing. By default, the USB storage device is available to all computers on your local area network (LAN).

3. On a Mac that is connected to the network, launch Finder and select **Go > Connect to Server**.
The Connect to server window displays.
4. Enter the **smb://readyshare** in the **Server Address** field and click the **Connect** button.
5. When prompted, select the **Guest** radio button.
6. If you set up access control on the router and you allowed your Mac to access the network, select the **Registered User** radio button and enter **admin** for the name and **password** for the password.

For more information about access control, see the user manual, which is available online at downloadcenter.netgear.com or through a link in the router's user interface.

7. Click the **Connect** button.
A window displays the files and folders on the device.

Back Up With ReadySHARE Vault

Your router comes with a free backup software for all the Windows computers in your home. Connect a USB hard disk drive (HDD) to the USB port on your router for centralized, continuous, and automatic backup.

Note: The following operating systems support ReadySHARE Vault: Windows XP SP3, Windows 7, Windows 8, Windows 8.1, and Windows 10.

➤ To back up your Windows computer:

1. Connect a USB HDD to a USB port on the router.
2. Download ReadySHARE Vault from www.netgear.com/readysware and install it on each Windows computer.
3. Launch ReadySHARE Vault.
The dashboard displays.
4. Use the dashboard or the **Backup** tab to set up and run your backup jobs.

Enable Smart Connect

Smart Connect selects the fastest WiFi band for your device. For Smart Connect to work, both 5 GHz radio bands must use the same WiFi network name (SSID) and network key (password).

➤ To enable Smart Connect:

1. Launch a web browser and enter **www.routerlogin.net** in the address field of the browser.
A login window displays.
2. Enter the router user name and password.

The user name is **admin** and the default password is **password**. Use the default credentials if you did not change them.

The BASIC Home page displays.

3. Select **Wireless**.

The Wireless Setup page displays.

4. Select the **Smart Connect** check box.
5. Click the **Apply** button.

Your settings are saved.

Set Up Ethernet Port Aggregation

Ethernet aggregation lets you combine two Gigabit Ethernet ports to improve the aggregated file transfer speed. If a device supports Ethernet aggregation, you can use the Ethernet aggregate ports 1 and 2 to cable the device that supports Ethernet port aggregation to the router.

Note: Ethernet port aggregation is also referred to as link aggregation, teaming port, and port trunking.

➤ To set up Ethernet port aggregation:

1. If you are connecting a switch, make sure that the switch supports 802.3ad LACP.

You must configure the switch before you connect the Ethernet cables to the router.

Warning: To avoid causing broadcast looping, which can shut down your network, do not connect an unmanaged switch to Ethernet aggregate port 1 and port 2 on the router.

2. Use Ethernet cables to connect a device that supports Ethernet port aggregation, such as a NAS or network switch, to Ethernet port 1 and port 2 on the router.

3. Set up Ethernet port aggregation on the device that is connected to Ethernet port 1 and port 2 on the router.
For information about how to set up Ethernet port aggregation on your device, see the documentation that came with your device.

For information about viewing the status of the Ethernet port aggregation, see the user manual, which is available online at downloadcenter.netgear.com or through a link in the router's user interface.

Enable Dynamic Quality of Service

Dynamic Quality of Service (QoS) resolves Internet traffic congestion when Internet bandwidth is limited by using better application and device identification, bandwidth allocation, and traffic prioritization techniques. If you like gaming and streaming videos, then you can benefit from enabling Dynamic QoS.

Note: If you use a gigabit Internet connection, or your Internet download and upload speed is 300 Mbps or faster, then you don't need to use Dynamic QoS.

➤ To enable Dynamic QoS:

1. Launch a web browser and enter **www.routerlogin.net** in the address field of the browser.
A login window displays.
2. Enter the router user name and password.
The user name is **admin** and the default password is **password**.
Use the default credentials if you did not change them.
The BASIC Home page displays.
3. Select **Dynamic QoS**.
The Dynamic QoS page displays.

4. Select the **Enable Dynamic QoS** check box.
5. Specify your Internet bandwidth.

You can use Speedtest to detect your Internet bandwidth or you can enter your Internet bandwidth manually. We recommend that you use Speedtest.

To use Speedtest to detect your Internet bandwidth:

- a. For more accurate Speedtest results, make sure that no other devices are accessing the Internet.
- b. Click the **Speedtest** button.
Speedtest determines your Internet bandwidth.

6. Click the **Apply** button.
Your settings are saved.

7. To view bandwidth utilization by device and application, click the **Click here to see bandwidth utilization by device and application** link at the bottom of the page.

For more information, see the user manual, which is available online at downloadcenter.netgear.com or through a link in the router's user interface.

Set Up VPN Service

VPN service allows remote access to your home network with a secure connection. After you set up VPN service, you can use VPN to access the router's USB device and media and to access your Internet service at home.

For more information about how to set up VPN service, see the user manual, which is available online at downloadcenter.netgear.com or through a link in the router's user interface.

Remotely Access Your Router With ReadyCLOUD

ReadyCLOUD allows you to remotely access files on a USB storage device connected to the router. Before you can remotely access your router using ReadyCLOUD, you must create a ReadyCLOUD account and register your router. For more information about using ReadyCLOUD, see the ReadyCLOUD user manual for routers, which is available online at downloadcenter.netgear.com.

➤ To set up your ReadyCLOUD account and register your router:

1. Create a ReadyCLOUD account:
 - a. Visit readycloud.netgear.com and click the **Sign In** link.
The Sign In page displays.
 - b. Click the **Create Account** link, complete the fields to set up your account, and click the **Create** button.
2. Set up and register your router:
 - a. Connect a USB storage device to a USB port on your router.
 - b. Log in to your router at **www.routerlogin.net**.
The BASIC Home page displays.
 - c. Select **ReadySHARE**.
The USB Storage (Basic Settings) page displays.
 - d. Select the **ReadyCLOUD** radio button.
The ReadyCLOUD page displays.
 - e. Enter your ReadyCLOUD user name and password and click the **Register** button.
The router is now registered with your ReadyCLOUD account.

3. After registration, visit readycloud.netgear.com and use your ReadyCLOUD user name and password to sign in to your account.

The ReadyCLOUD page displays the router that you registered and the contents of the USB storage device that is connected to the router.

Download the NETGEAR genie App

The free NETGEAR genie app lets you easily monitor, connect, and control your home network from a Windows or Mac computer, tablet, or smartphone. You can share and stream music or videos, diagnose and repair network issues, set up parental controls, and more:

- Access your router and change its settings or diagnose and repair network issues.
- Make a printer AirPrint compatible so that you can print from an iPad or iPhone.
- Use MyMedia to find and play media files in your network.
- Use Turbo Transfer to quickly send files from your computer or smartphone to another device on the network.
- Set up parental controls.
- Connect your smartphones and tablets to your home WiFi by scanning the WiFi QR code from genie.

Download the free genie app from NETGEAR.com/genie.