Nighthawk DST

AC1900 DST Router and DST Adapter
Model R7300DST

User Manual

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San Jose, CA 95134
USA

NETGEAR ®

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.

For additional support, visit *www.geeksquad.com* to chat online or call 1-800-GeekSquad. The R7300DST (R7300 DST router and DST6501 DST adapter) comes with setup and support via phone and web from Geek Squad for one year from the date of purchase. If you bought an add-on DST6501 DST adapter, setup and support are included for one year from your R7300DST purchase date.

Your Geek Squad support coupon code is GS1337EXB.

Compliance

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

See the regulatory compliance document before connecting the power supply.

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Contents

Chapter 5   Specify Your Internet Settings

Chapter 6   Optimize Performance

Chapter 7   Control Access to the Internet

Chapter 8   Share USB Devices Attached to the Router

Chapter 9   Manage Dynamic DNS and Access Storage Devices Through the Internet

Chapter 10   Use the DST Router as a Media Server

Chapter 15   Manage the DST Adapter Network and Settings

Chapter 16   Use VPN to Access Your Network

Chapter 17   Manage Port Forwarding and Port Triggering

Chapter 18   DST Router Troubleshooting

Chapter 19   DST Adapter Troubleshooting

Appendix A   DST Router Supplemental Information

Appendix B   DST Adapter Supplemental Information

Hardware Setup

1

This chapter contains the following sections:

- *Unpack Your DST Router and DST Adapter*
- *DST Router Hardware Features*
- *DST Router Product Label*
- *DST Adapter Hardware Features*
- *Attach and Position the DST Router Antennas*
- *Position Your DST Router*
- *Cable Your DST Router*
- *Connect the DST Adapter to the DST Router*
- *Connect Add-On DST Adapters to the DST Router*

For more information about the topics covered in this manual, visit the support website at *support.netgear.com*.

Unpack Your DST Router and DST Adapter

Your package contains the following items.

R7300 DST router

Ethernet cables (2)

**DST6501
DST adapter**

Antennas (3)

**Power cord
(varies by region)**
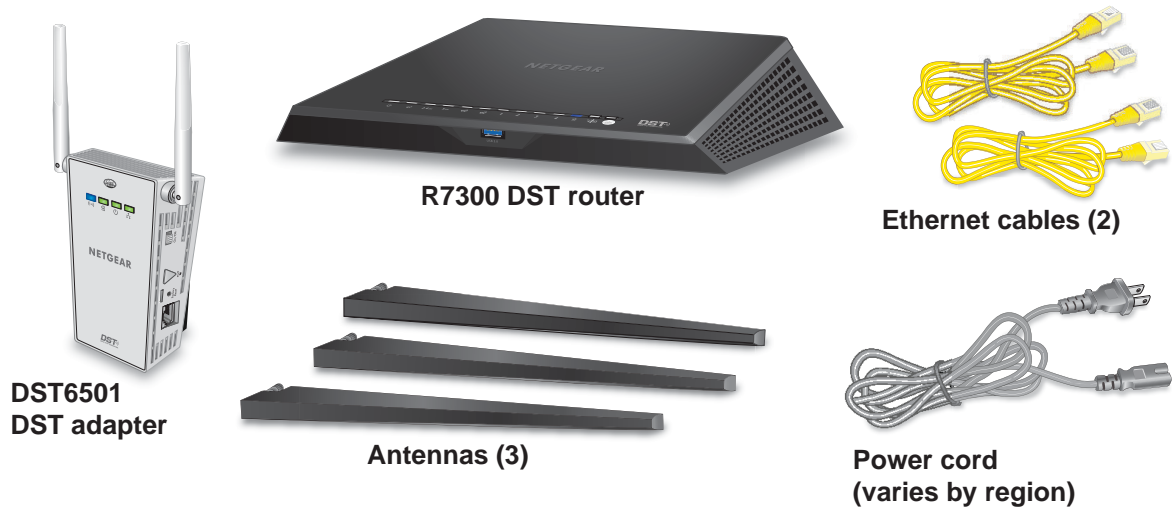
Figure 1. Package contents

DST Router Hardware Features

DST Router Front Panel

The status LEDs and buttons are located on top and a USB 3.0 port is located on the front of the DST router.

LEDs **USB 3.0 port** **WPS and DST Adapter Sync button with LED** **Geek Squad Setup and Support button with LED**
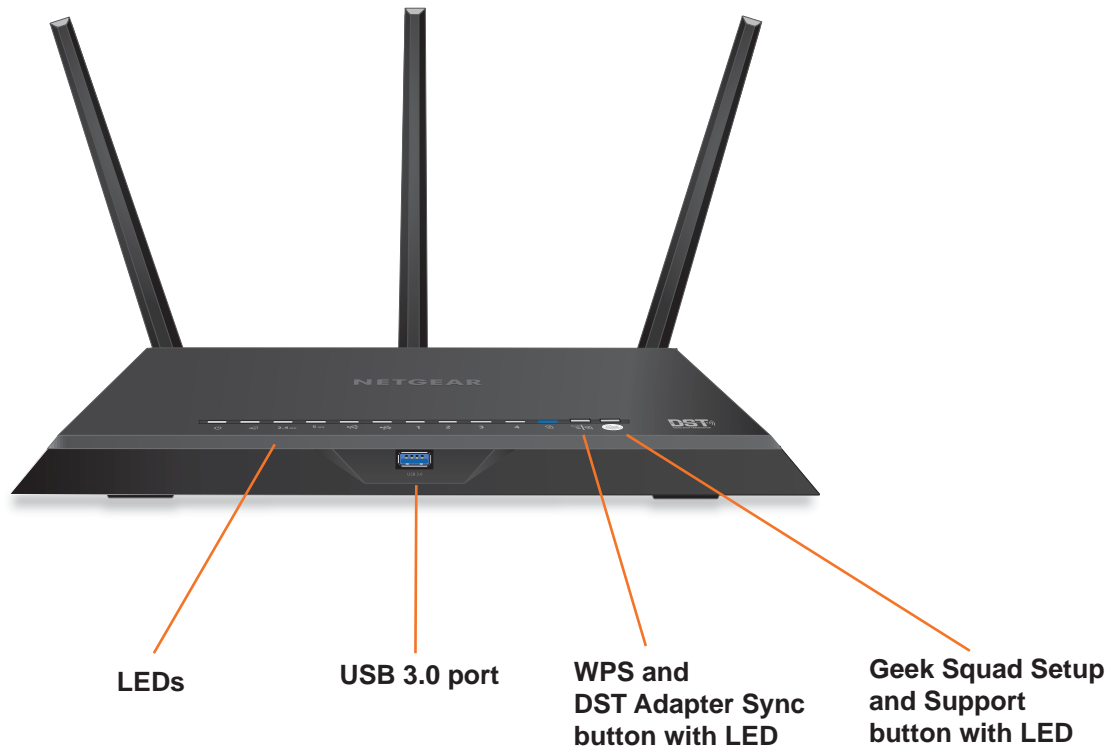
Figure 2. DST router top and front view

DST Router LEDs and Front Panel Buttons

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

Table 1. DST router LED and button descriptions

LED	Description
Power	• **Solid amber**. The DST router is starting. • **Solid white**. The DST router is ready. • **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 DST router.
Internet	• **Solid white**. The Internet connection is ready. • **Solid amber**. The DST router detected an Ethernet cable connection to the modem. • **Blinking white.** The port is sending or receiving traffic. • **Off**. No Ethernet cable is connected between the DST router and the modem.
2.4 GHz WiFi	• **Solid white**. The 2.4 GHz WiFi radio is operating. • **Blinking white**. The DST router is sending or receiving WiFi traffic. • **Off**. The 2.4 GHz WiFi radio is off.
5 GHz WiFi	• **Solid white**. The 5 GHz WiFi radio is operating. • **Blinking white**. The DST router is sending or receiving WiFi traffic. • **Off**. The 5 GHz WiFi radio is off.
USB (1 and 2)	The USB 1 LED is for the USB 3.0 USB port on the front panel. The USB 2 LED is for the USB 2.0 port on the rear panel. • **Solid white**. A USB device is connected and is ready. • **Blinking**. A USB device is plugged in and is trying to connect. • **Off**. No USB storage device is connected, or someone logged in to the router and clicked the **Safely Remove Hardware** button and it is now safe to remove the attached USB storage device.
Ethernet ports 1–4	The LED color indicates the speed: white for Gigabit Ethernet connections and amber for 100 Mbps or 10 Mbps Ethernet connections. • **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.
DST LED	• **Solid blue**. A DST adapter is connected to the DST router's network. • **Off**. The DST router did not find any other compatible DST adapter using the same encryption key.

Table 1. DST router LED and button descriptions (continued)

LED	Description
WPS and DST Adapter Sync button with LED	Pressing this button for two seconds turns on the WPS function and the DST adapter sync connection. After you press this button, press the **WPS** or **WPS and DST Router Sync** button on your device to connect your device to the DST router. • **Solid white**. A device is connected to the DST router. • **Blinking white**. The DST router is ready to sync with a device. • **Off**. The WPS and DST adapter sync connection is off.
Geek Squad Setup and Support button with LED	Geek Squad support is provided by phone and on the web. Geek Squad agents use remote access to assist with setup and support. The Geek Squad Setup and Support button paired with a Geek Squad support ID (on the bottom of the DST router) is used to authenticate the connection for remote access. The agent will provide direction regarding the use of the button and the code. Pressing the button any other time does not result in a connection with an agent. For more information about how to contact Geek Squad, see *Contact Geek Squad* on page 247. The state of the LED indicates the status of the connection with the Geek Squad agent: • **Solid white**. The DST router is connected to Geek Squad Support. • **Blinking white**. The connection is being established. • **Off**. Geek Squad Support is not connected.

You can disable LED blinking or turn off all LEDs except the Power LED. For information about how to do this, see *Disable DST Router LED Blinking or Turn Off LEDs* on page 184.

DST Router Rear Panel

The connections and buttons on the read panel are shown in the following figure.
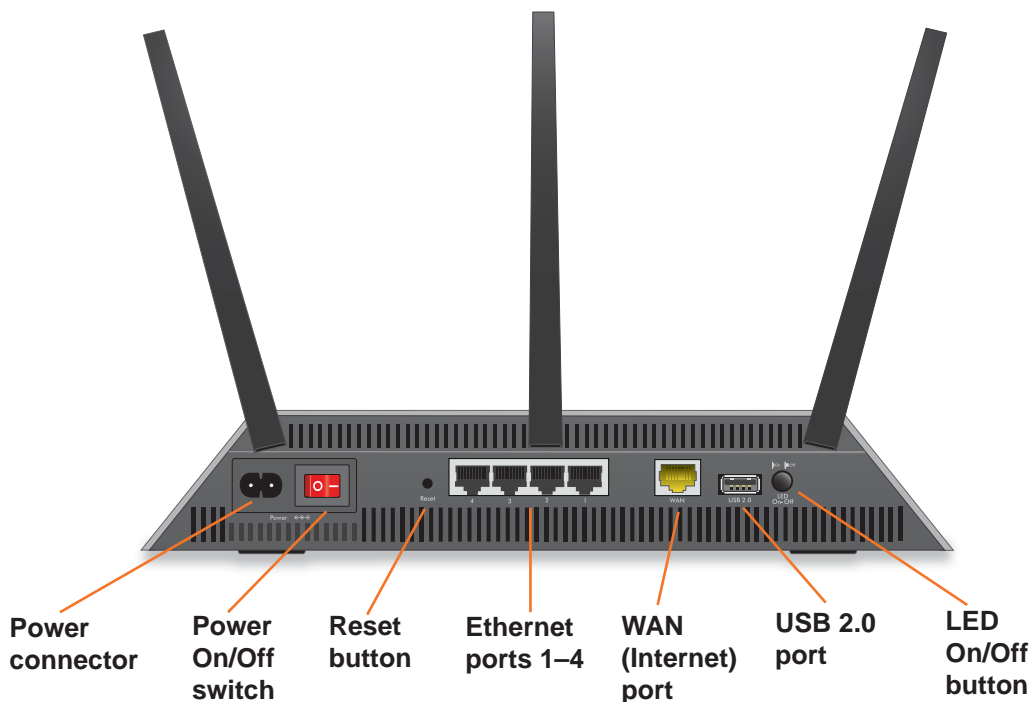
Figure 3. DST router rear panel

DST Router Rear Panel Hardware Features

In addition to the three threaded antenna posts, the back panel contains the following:

- **Power connector**. Connect the power cord that came in the product package to the power connector.

- **Power On/Off switch**. Slide the **Power On/Off** switch to the On position to provide power to the DST router.

- **Reset button**. Pressing the **Reset** button restores the factory settings. For more information about using the **Reset** button, see *Factory Settings* on page 261.

- **Ethernet ports**. Four Gigabit Ethernet RJ-45 LAN ports to connect the DST router to LAN devices.

- **WAN (Internet) port**. One Gigabit Ethernet RJ-45 WAN port to connect the DST router to a modem.

DST Router Product Label

The product label on the bottom panel of the DST router shows the login information, WiFi network name (SSID) and password (network key), Geek Squad Support ID, serial number, and MAC address of the DST router.

Figure 4. DST router product label

DST Adapter Hardware Features

The LEDs, buttons, and Ethernet port are shown in the following figure.

WiFi LED

DST LED

Power LED

Ethernet LED

Power On/Off switch

WPS and DST Router Sync button

Factory Reset button

Ethernet port
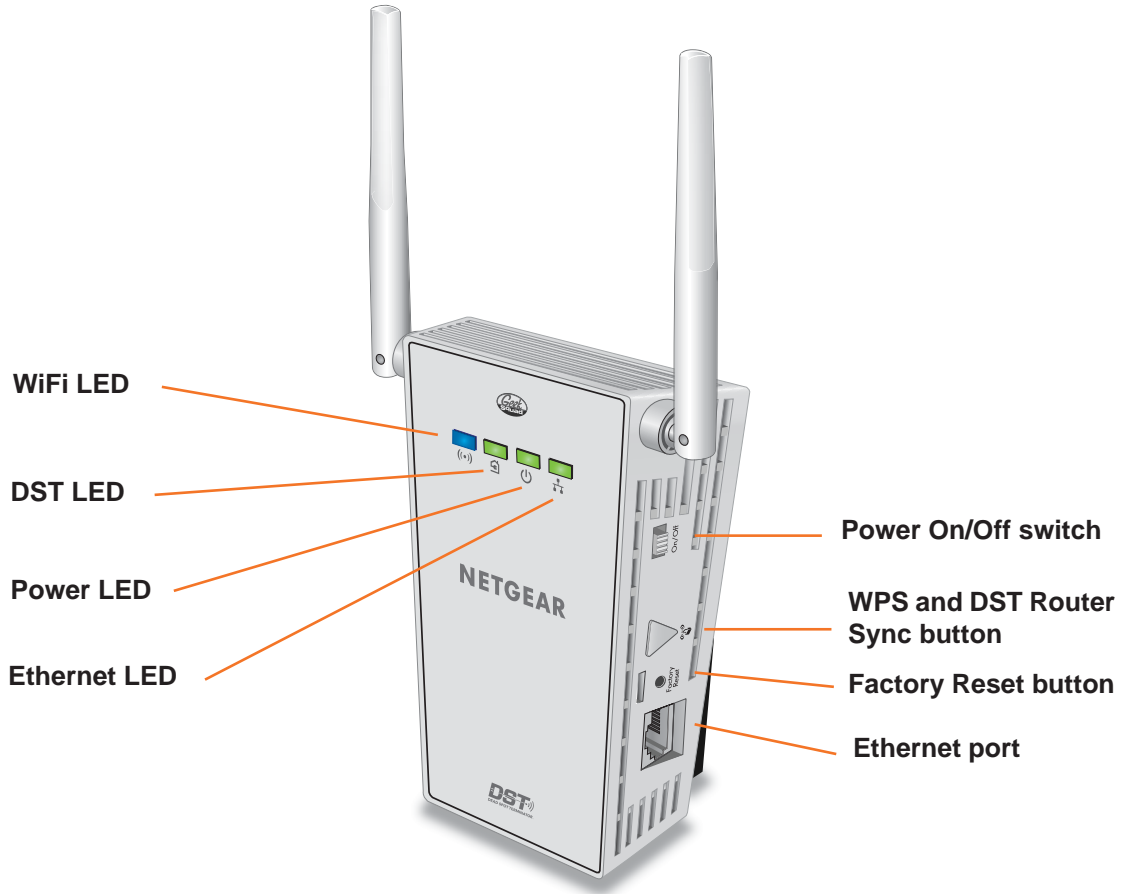
Figure 5. DST adapter hardware features

DST Adapter LEDs

The LEDs on the DST adapter light to indicate DST adapter activity:

Table 2. DST adapter LED descriptions

LED	Description
WiFi LED	• **Solid blue**. The DST adapter is securely paired with a WiFi device. • **Blinking blue**. The DST adapter is pairing with a WiFi device. • **Off**. WiFi is disabled.
DST LED	This LED indicates when the DST adapter is connected to the electrical outlet with the strongest link performance, indicated by the color displayed by the LED: • **Red**. Link rate < 50 Mbps (good). • **Amber**. Link rate > 50 and < 80 Mbps (better). • **Green**. Link rate > 80 Mbps (best). • **Off**. The DST adapter did not find any other compatible DST devices using the same encryption key.
Power LED	• **Solid green**. The DST adapter is powered on. • **Blinking green**. The DST adapter is pairing with another DST device. • **Off**. The DST adapter is powered off.
Ethernet LED	• **Solid green**. A powered-on device is connected to the Ethernet port. • **Off**. No device is connected to this Ethernet port.

DST Adapter Side Panel Hardware Features

The side panel of the DST adapter contains the following:

- **Power On/Off switch**. Slide the switch to the On position to provide power to the DST adapter.
- **WPS and DST Router Sync button**. Press this button to connect a computer or WiFi device to the DST adapter's network using WPS, or to or to connect to DST router.
- **Factory Reset button**. Pressing the **Factory Reset** button restores the factory default settings.
- **Ethernet port**. The DST adapter uses the Ethernet port to convert a standard electrical wall outlet into a high-speed wired network connection.You can use the wired network connection to bring Internet connectivity to any device with an Ethernet port, such as a computer, game console, Blu-ray player, smart TV, HD set-top box, or network DVR.

Attach and Position the DST Router Antennas

The DST router comes with three antennas.

➢ **To attach the antennas:**

1. Remove the antenna caps from the threaded antenna posts on the DST router.

2. Attach the antennas on the threaded antenna posts.
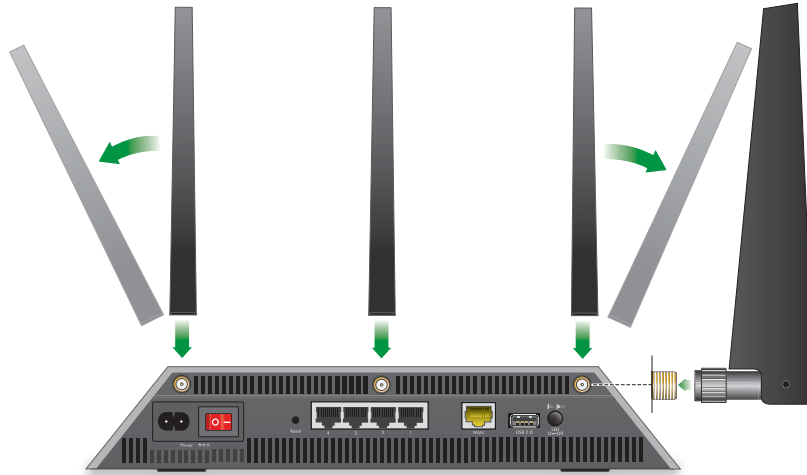
3. Position the antennas for the best WiFi performance.

   NETGEAR recommends that you position the center antenna vertically and that you position the others outward at 45-degree angles as shown

Position Your DST Router

The DST router let you access your network anywhere within the operating range of your WiFi network. However, the operating distance or range of your WiFi connection can vary significantly depending on the physical placement of your DST router. For example, the thickness and number of walls the WiFi signal passes through can limit the range.

Additionally, other WiFi access points in and around your home might affect your DST router's signal. WiFi access points are DST routers, repeaters, WiFi range extenders, and any other device that emits a WiFi signal for network access.

Position your DST router according to the following guidelines:

- Place your DST router near the center of the area where your computers and other devices operate, and within line of sight to your WiFi devices.

- Make sure that the DST router is within reach of an AC power outlet and near Ethernet cables for wired computers.

- Place the DST router in an elevated location, minimizing the number walls and ceilings between the DST router and your other devices.

- Place the DST router away from electrical devices such as these:
  - Ceiling fans
  - Home security systems
  - Microwaves
  - Computers
  - Base of a cordless phone
  - 2.4 GHz cordless phone
- Place the DST router away from large metal surfaces, large glass surfaces, insulated walls, and items such as these:
  - Solid metal door
  - Aluminum studs
  - Fish tanks
  - Mirrors
  - Brick
  - Concrete

If you are using adjacent access points, use different radio frequency channels to reduce interference.

Cable Your DST Router

The following image shows how to cable your DST router:
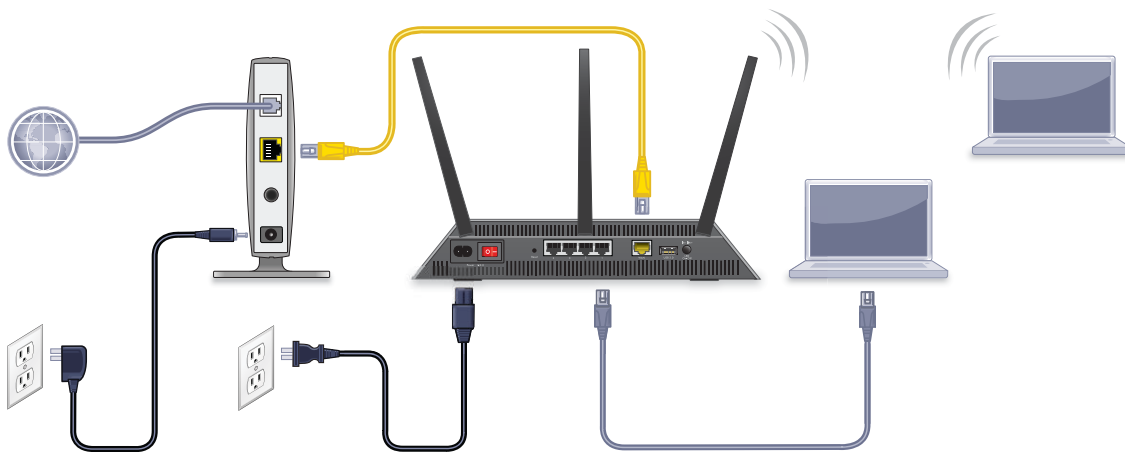
Figure 6. Router cabling

➢ **To cable your DST router:**

1. Unplug your modem's power, leaving the modem connected to the wall jack for your Internet service.

If your modem uses a battery backup, remove the battery.

2. Plug in and turn on your modem.

   If your modem uses a battery backup, replace the battery.

3. Connect your modem to the Internet port of your DST router with the yellow Ethernet cable that came with your DST router.

4. Connect the power cord to your DST router and plug the power cord into an outlet.

   Note: Do not plug the power cord into a surge protector.

5. Wait for the Power LED on the front panel to light amber and turn white.

6. If no LEDs are lit, slide the **Power On/Off** switch on the rear panel of the DST router to the On position.

7. If only the Power LED is lit and the other LEDs are not lit, press the **LED On/Off** button on the rear panel of the DST router to the On position.

   You are now ready to connect the DST router to the a DST adapter. For more information, see *Connect the DST Adapter to the DST Router* on page 22.

Connect the DST Adapter to the DST Router

You must cable your DST router before you can connect the DST adapter to the DST router.

For more information, see *Cable Your DST Router* on page 20.

➢ **To connect the DST adapter to the DST router:**

1. In the room where you want to improve WiFi coverage or add Ethernet, plug your DST adapter into an electrical outlet and wait for the Power LED to light solid green.

⚠ **WARNING:**

Do not plug the DST adapter into extension cords, power strips, or surge protectors.

Room 1   Room 2

DST router   DST adapter
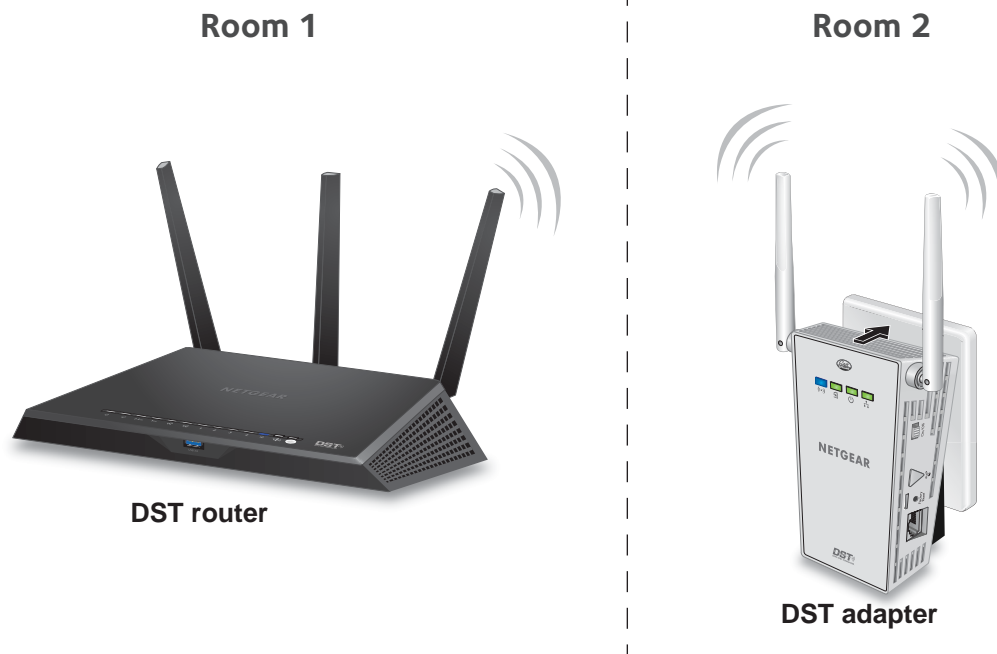
2. If the Power LED does not light, slide the **Power On/Off** switch to the On position.
3. Wait for the DST adapter to connect to the DST router.

   Once the connection is made, the following occurs:

   • The DST LED on the DST adapter lights solid green or amber.
   • The DST LED on the DST router lights solid blue.

   This process takes between 5 and 80 seconds.

   If the DST LED on the DST adapter is red, the link performance is weak. You might want to move the DST adapter to another electrical outlet with a faster connection.

4. Log in to the DST router to update the DST adapter's firmware, WiFi settings, and encryption key.

For more information, see *Automatic Internet and DST Network Setup* on page 28.

Connect Add-On DST Adapters to the DST Router

After you set up your DST network, you can add up to 8 DST adapters to extend your DST network to 8 more locations.

Room 1	Room 2	Room 3
DST router	DST adapter	DST adapter
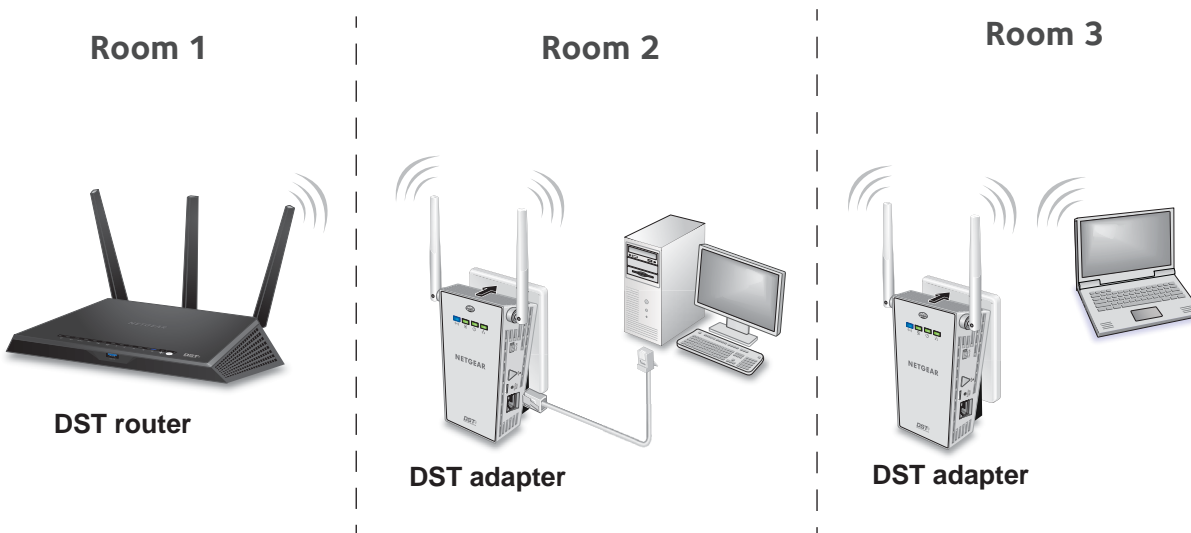
➢ **To connect additional DST adapters to the DST router:**

1. In the room where you want to improve WiFi coverage or add Ethernet, plug your DST adapter into an electrical outlet and wait for the Power LED to light solid green.

⚠ **WARNING:**

Do not plug the DST adapter into extension cords, power strips, or surge protectors.

2. If the Power LED does not light, slide the **Power On/Off** switch to the On position.

3. Wait for the DST adapter to connect to the DST router.

4. Update the encryption key to secure the connection between the DST adapter and the DST router:

a. Press the **WPS and DST Adapter Sync** button on the DST router.

b. Within two minutes, press the **WPS and DST Router Sync** button on the DST adapter for two seconds.

The Power LED on the DST adapter blinks and the DST LED on the DST router blinks.

Once the connection is made, the following LEDs light:

- The DST LED on the DST adapter lights solid green or amber.
- The DST LED on the DST router lights solid blue.

This process takes between 5 and 80 seconds.

If the DST LED on the DST adapter is red, the link performance is weak. You might want to move the DST adapter to another electrical outlet with a faster connection.

5. Log in to the DST router to update the DST adapter's firmware, WiFi settings, and encryption key.

For more information, see *Automatic Internet and DST Network Setup* on page 28.

Connect to the DST Router Network and Access the DST Router

2

You can connect to the DST router's network using a WiFi or wired Ethernet connection.

This chapter contains the following sections:

- *Connect to the DST Router*
- *Types of Logins*
- *Use a Web Browser to Access the DST Router*
- *Access the DST Router With NETGEAR genie Apps*

Connect to the DST Router

You can connect to the DST router's network through a wired or WiFi connection. If you set up your computer to use a static IP address, change the settings so that it uses Dynamic Host Configuration Protocol (DHCP).

Connect to the DST Router With an Ethernet Cable

You can connect your computer to the DST router using an Ethernet cable and join the DST router's local area network (LAN).

➢ **To connect your computer to the DST router with an Ethernet cable:**

1. Make sure that the DST router is receiving power (its Power LED is lit).

2. Connect an Ethernet cable to an Ethernet port on your computer.

3. Connect the other end of the Ethernet cable to one of the numbered Ethernet ports.

   Your computer connects to the local area network (LAN). A message might display on your computer screen to notify you that an Ethernet cable is connected.

Connect to the DST Router With a WiFi Connection

You can connect to the DST router's WiFi network manually buy finding and selecting the WiFi network or using Wi-Fi Protected Setup (WPS), or you can manually find and select the WiFi network.

Manual Method

➢ **To manually find and select the WiFi network:**

1. Make sure that the DST router is receiving power (its Power LED is lit).

2. On the WiFi device that you want to connect to your router, open the software application that manages your WiFi connections.

   This software scans for all WiFi networks in your area.

3. Look for the DST router's WiFi network name (SSID) and select it.

If you did not change the name of the network during the setup process, look for the default WiFi network name (SSID) and select it. The default SSID is on the product label.

4. Enter the DST router WiFi password.

The default WiFi password (also referred to as the network key or passphrase) is also on the product label.

Your WiFi device connects to the WiFi network.

WPS Method

Wi-Fi Protected Setup (WPS) is a standard for easily adding computers and other devices to a home network while maintaining security. To use WPS (Push 'N' Connect), make sure that all WiFi devices to be connected to the network are Wi-Fi certified and support WPS. During the connection process, the client gets the security settings from the DST router so that every device in the network supports the same security settings.

➢ **To use WPS to connect to the WiFi network:**

1. Make sure that the DST router is receiving power (its Power LED is lit).
2. Check the WPS instructions for your computer or WiFi device.
3. Press the **WPS** button on the DST router for 3–5 seconds.

   The WPS and DST Adapter Sync LED on the DST router blinks.

4. Within two minutes, on your computer or WiFi device, press its **WPS** button or follow its instructions for WPS connections.

   The WPS and DST Adapter Sync LED on the DST router lights solid white when the computer or WiFi device connects to your DST router.

   Your computer or WiFi device connects to the WiFi network.

Types of Logins

Separate types of logins serve different purposes. It is important that you understand the difference so that you know which login to use when.

Types of logins:

- **ISP login**. The login that your ISP gave you logs you in to your Internet service. Your service provider gave you this login information in a letter or some other way. If you cannot find this login information, contact your service provider.

- **WiFi network key or password**. Your DST router is preset with a unique WiFi network name (SSID) and password for WiFi access. This information is on the DST router label.

- **Router login**. This logs you in to the DST router interface from a web browser as admin.

Use a Web Browser to Access the DST Router

When you connect to the DST router's network (either with WiFi or with an Ethernet cable), you can use a web browser to access the DST router to view or change its settings. The first time you access the DST router, the DST router's installation assistant automatically checks to see if your DST router can connect to your Internet service and checks if there are any DST adapters on the network. If the DST router's installation assistant detects a DST adapter, it helps you set up your DST network.

If you are unable to log in to the DST router using a web browser, see for more information.

Automatic Internet and DST Network Setup

You can use the DST router's installation assistant to set up your Internet and DST network automatically, or you can log in to the DST router and use the DST router's setup pages to set up your Internet and DST network manually. Before you start the setup process, get your ISP information and make sure that the computers and devices in the network are using the settings described here.

When your Internet service starts, your Internet service provider (ISP) typically gives you all the information needed to connect to the Internet. For DSL service, you might need the following information to set up your DST router:

- The ISP configuration information for your DSL account

- ISP login name and password

- Fixed or static IP address settings (special deployment by the ISP; this setting is rare)

If you cannot locate this information, ask your ISP to provide it. When your Internet connection is working, you no longer need to launch the ISP login program on your computer to access the Internet. When you start an Internet application, your DST router automatically logs you in.

The DST router's installation assistant runs on any device with a web browser. Installation and basic setup takes about 15 minutes to complete.

➢ **To automatically set up your Internet and DST network:**

1. Make sure the DST adapter is connected to the DST router by checking the following LEDs:

   • The DST LED on the DST adapter is solid green or amber.

   • The DST LED on the DST router is solid blue.

   If the DST LED on the DST adapter is red, the link performance is weak. You might want to move the DST adapter to another electrical outlet with a faster connection. For more information, see *Connect the DST Adapter to the DST Router* on page 22.

2. Connect a computer or WiFi device to the DST router.

   You can use a wired connection to connect a computer to the DST router, or you can use a WiFi connection to connect a computer or WiFi device to the DST router. For more information, see *Connect to the DST Router* on page 26.

3. Launch a web browser.

   The page that displays depends on whether you accessed the DST router before and whether the DST router is connected to a modem or another router or gateway:

   • The first time that you are setting up the Internet connection for your DST router, the browser goes to **http://www.routerlogin.net** and one of the following pages displays:

     - If the DST router's installation assistant detects that the DST router is connected to a modem, the following page displays:

Configuring the Internet Connection

You are not yet connected to the Internet.

Do you want NETGEAR Genie to help?

⦿ Yes
◯ No, I want to configure the Internet connection myself.
◯ I have saved the router settings in a file and I want to restore the router to those settings.

[Next]
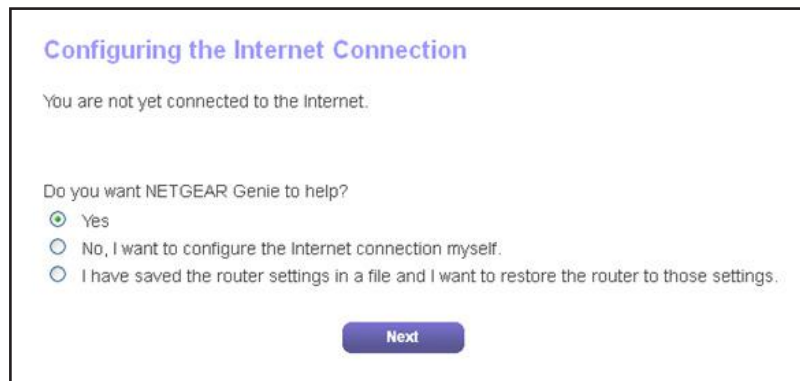
- If the DST router's installation assistant detects that the DST router is connected to another router or gateway, the following page displays and prompts you to set up the DST router in router mode or access point mode:

An existing router or gateway is detected in your network

It appears that you are installing the NETGEAR router behind your existing Internet provider WiFi router or gateway. You can choose to install your router in different operation modes.

◉ **Help Me Choose**
   genie walks you through a few questions and then suggests the operation mode that is best for you.

○ **Let Me Choose**(You can always change the mode by running the Setup Wizard again.)

Learn More   **Next**

- If you already set up the Internet connection, enter **http://www.routerlogin.net** in the address field of your web browser to view or manually change your DST network setting.

  For more information, see *Log In to the DST Router* on page 31.

4. If a modem is detected, select how you want to set up your Internet and click the **Next** button.

5. If an existing router or gateway is detected, select the **Help Me Choose** radio button or **Let Me Choose** radio button:

   - **Help Me Choose**. If you select the **Help Me Choose** radio button, NETGEAR genie asks you a few questions to determine if you should set the DST router in router mode or access point mode. We recommend that you select the **Help Me Choose** radio button.

   - **Let Me Choose**. If you select the **Let Me Choose** radio, you must select the **Router Mode** radio button or the **Access Point Mode** radio button. You can change the mode by running the Setup Wizard again. For more information, see *Use the Internet Setup Wizard* on page 45.

     For more information about how to set up your DST router with an existing router or gateway, see *Set Up the DST Router With an Existing Router or Gateway* on page 154.

6. Follow the onscreen instructions.

   The DST router connects to the Internet.

7. After the DST router detects your Internet connection, you are prompted to download the free genie app and free ReadySHARE Vault app.

8. Select the check box next to the apps that you want to download and click the **Next** button.

   The DST router's installation assistant checks the DST router's firmware version.

9. If the DST router's firmware needs to be updated, follow the onscreen instructions to update the firmware.

The DST router reboots after 1-2 minutes. After the DST router reboots, you can return to the web browser to continue following the DST router's installation assistant setup instructions.

10. Return to the DST router's installation assistant.

The DST router's installation assistant detects if any DST adapters are on the network.

11. Take one of the following actions:
   - If the DST router's installation assistant detects one DST adapter are on the DST network, click one of the following buttons:
     - **Update Now**. You must click this button if the DST router's installation assistant detects that the DST adapter's firmware, WiFi settings, and encryption key must be updated.
     - **Next**. You can click this button to proceed with the installation process if the DST router's installation assistant detects that the DST adapter's firmware, WiFi settings, and encryption key are up to date.
   - If the DST router's installation assistant detects more than one DST adapter on the DST network, click one of the following buttons:
     - **Update All**. You must click this button if the DST router's installation assistant detects that the DST adapters' firmware, WiFi settings, and encryption keys must be updated.
     - **Next**. You can click this button to proceed with the installation process if the DST router detects that the DST adapters' firmware, WiFi settings, and encryption keys are up to date.

The DST network setup is complete.

The following DST router and DST adapter settings are set:

- **Encryption key**. The DST router and DST adapter or DST adapters now use the same encryption key. The encryption key secures the connection between the DST router and DST adapters.
- **DST adapter WiFi network name**. The DST adapter's WiFi network name is based on the DST router's WiFi network name with _EXT added at the end of the name. If more than one DST adapter is connected to the DST router, for every additional DST adapter after the first, a number is added before _EXT. For more information, see *Connect to the DST Adapter Network With a WiFi Connection* on page 35.
- **DST adapter password**. The DST adapter's WiFi password is the same as the DST router's WiFi password.

Log In to the DST Router

When you first set up your DST router, the DST router's installation assistant automatically starts when you launch a web browser on a computer that is connected to the DST router. If you want to view or change settings for the DST router, you can log in to the DST router again.

➢ **To log in to the DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

> **Note:** You can also enter **http://www.routerlogin.com** or **http://192.168.1.1**. The procedures in this manual use **http://www.routerlogin.net**.

    A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

Change the DST Router Language

By default, the language is set as Auto.

➢ **To change the DST router language:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. In the upper right corner, select a language from the menu.

5. When prompted, click the **OK** button to confirm this change.

    The page refreshes with the language that you selected.

Access the DST Router With NETGEAR genie Apps

The genie app is the easy dashboard for managing, monitoring, and repairing your home network. The genie app can help you with the following:

• Automatically repair common WiFi network problems.

• Easily manage DST router features like Live Parental Controls, guest access, Internet traffic meter, speed test, and more.

➢ **To use the genie app to access the DST router:**

1. Visit the NETGEAR genie web page at *NETGEAR.com/genie*.
2. Follow the onscreen instructions to install the app on your smartphone, tablet, or computer.
3. Launch the genie app.

   The genie app dashboard displays.

Connect to the DST Adapter Network and Access the DST Adapter

3

You can connect to the router's network using a WiFi or wired Ethernet connection.

This chapter contains the following sections:

- *Connect Devices to the DST Adapter Network*
- *Log In to the DST Adapter After Initial Setup*

Connect Devices to the DST Adapter Network

You can connect your computer or WiFi devices to the DST adapter using a wired Ethernet connection, a WPS connection, or a WiFi connection. For the best WiFi performance, make sure that your computer or WiFi device is in the same room as the DST adapter.

Connect to the DST Adapter Network With an Ethernet Cable

You can connect your computer to the DST adapter using an Ethernet cable.

➢ **To connect your computer to the DST adapter with an Ethernet cable:**

1. Make sure that the DST adapter is receiving power (its Power LED is lit).
2. Connect an Ethernet cable to an Ethernet port on your computer.
3. Connect the other end of the Ethernet cable to the Ethernet port on the DST adapter.

   Your computer connects to the local area network (LAN). A message might display on your computer page to notify you that an Ethernet cable is connected.

Connect to the DST Adapter Network With a WiFi Connection

If you updated the DST adapter's WiFi settings using the DST router's installation assistant, the DST adapter's WiFi settings are based on the DST router's WiFi settings. If you did not update the DST adapter's WiFi settings yet, launch a web brower to display the DST router's and DST adapter's WiFi settings.

If you want to manually update the DST adapter's WiFi settings, log in to the DST router. For more information, see *Update the DST Adapter's WiFi Settings From the DST Router* on page 209.

The following table shows examples of what multiple DST adapters' SSIDs and passwords are, based on the DST router's SSID and password.

Table 3. DST adapter WiFi network name and password examples

Product	2.4 GHz WiFi Settings	5 GHz WiFi Settings
DST router	• **SSID**. NETGEAR4 • **Password**. Coconut234	• **SSID**. NETGEAR4-5G • **Password**. Coconut234
DST adapter 1	• **SSID**. NETGEAR4_EXT • **Password**. Coconut234	• **SSID**. NETGEAR4-5G_EXT • **Password**. Coconut234
DST adapter 2	• **SSID**. NETGEAR41_EXT • **Password**. Coconut234	• **SSID**. NETGEAR4-5G1_EXT • **Password**. Coconut234
DST adapter 3	• **SSID**. NETGEAR42_EXT • **Password**. Coconut234	• **SSID**. NETGEAR4-5G2_EXT • **Password**. Coconut234

➢ **To manually find and select the DST adapter WiFi network:**

1. Make sure that the DST adapter is receiving power (its Power LED is lit).

2. On the WiFi device that you want to connect to your DST adapter, open the software application that manages your WiFi connections.

   This software scans for all WiFi networks in your area.

3. Look for the DST adapter's WiFi network name (SSID) and select it.

   The DST adapter's WiFi network name is based on the DST router's SSID with _EXT added at the end of the name. If more than one DST adapter is connected to the DST router, for every additional DST adapter after the first, a number is added before _EXT.

4. Enter the DST adapter's WiFi password.

   The DST adapter's WiFi password is the same as the DST router's WiFi password.

   Your WiFi device connects to the WiFi network.

Connect to the DST Adapter Network With a WPS Connection

Wi-Fi Protected Setup (WPS) is a standard for easily adding computers and other devices to a home network while maintaining security. To use WPS (Push 'N' Connect), make sure that all WiFi devices to be connected to the network are Wi-Fi certified and support WPS. During the connection process, the client gets the security settings from the DST router so that every device in the network supports the same security settings.

➢ **To use WPS to connect to the DST adapter's WiFi network:**

1. Make sure that the DST router is receiving power (its Power LED is lit).

2. Check the WPS instructions for your computer or WiFi device.

3. Press and hold the **WPS and DST Router Sync** button on the DST adapter for two seconds.

   The WiFi LED on the DST adapter blinks.

4. Within two minutes, press the **WPS** button on your WiFi device (such as a computer, tablet, or smartphone).

   When the WiFi LED stops blinking, your computer or WiFi device is automatically connected to the DST adapter and you can access the Internet from your computer or WiFi device.

   Note: Make sure that your WiFi device is in the same room as the DST adapter that you are connecting to.

Log In to the DST Adapter After Initial Setup

After you connect the DST adapter to the DST router's network, you can log in to the DST adapter to view or change its settings.

➢ **To log in to the DST adapter after the initial setup:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

Set Up the Encryption Key

4

This chapter contains the following sections:

- *Manage DST Router's Encryption Key*
- *Manage DST Adapter's Encryption Key*

Manage DST Router's Encryption Key

The DST router's default encryption key is HomePlugAV. After you connect your DST adapters to the DST router's network, the DST adapters use the same default encryption key.

Note: The **No change to the encryption key** radio button is automatically selected when you visit the DST Settings page. This is the default option. If you select this option and click the **Apply** button, the encryption key does not change the DST network encryption key and the DST network is not disconnected.

Use the DST Router's Default Encryption Key

The DST router's default encryption key is HomePlugAV. If you change the encryption key, you can change the encryption key back to the default encryption key.

➢ **To change the DST router's encryption key back to the default encryption key:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > DST Settings**.

5. Select the **Use default encryption key** radio button.

6. Make sure that the **Apply same key** check box next to each DST adapter that your own is selected.

> **Note:** The DST router and DST adapters on your network must use the same encryption key. If the DST adapters on your network use a different encryption key than the DST router, they will no longer be connected to your network.

7. Click the **Apply** button.

Your settings are saved.

Create a New Encryption Key for the DST Router

➢ **To create a new encryption key for the DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the DST router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > DST Settings**.

5. Select the **Create new encryption key** radio button.

6. Enter a new encryption key in the field.

The encryption key must be a value of 8 to 63 ACSCII characters.

7. Make sure that the **Apply same key** check box next to each DST adapter that your own is selected.

> **Note:** The DST router and DST adapters on your network must use the same encryption key. If the DST adapters on your network use a different encryption key than the DST router, they will no longer be connected to your network.

8. Click the **Apply** button.

   Your settings are saved.

Manage DST Adapter's Encryption Key

The DST adapter's default encryption key is HomePlugAV. If you do not change the default encryption key, after you connect your DST adapters to the DST router's network, the DST adapters use the same default encryption key.

> **Note:** The **No change to the encryption key** radio button is automatically selected when you visit the DST Settings page. This is the default option. If you select this option and click the **Apply** button, the encryption key does not change the DST network encryption key and the DST network is not disconnected.

Use the DST Adapter's Default Encryption Key

The DST adapter's default encryption key is HomePlugAV. If you change the encryption key, you can change the encryption key back to the default encryption key.

➢ **To change the DST adapter's encryption key back to the default encryption key:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.
2. Launch a web browser from the computer.
3. Enter **http://www.mywifiext.net**.

   A login window displays.
4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **ADVANCED > DST Settings**.

6. Select the **Use default encryption key** radio button.

7. Make sure that the **Apply same key** check box next to your DST router and next to each DST adapter and that your own is selected.

Note: The DST router and DST adapters on your network must use the same encryption key. If the DST adapters on your network use a different encryption key than the DST router, they will no longer be connected to your network.

---

8. Click the **Apply** button.

    Your settings are saved.

Create a New Encryption Key for the DST Adapter

➢ **To create a new encryption key for the DST adapter:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

    A login window displays.

4. Enter the DST adapter user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The Status page displays.

5. Select **ADVANCED > DST Settings**.

6. Select the **Create new encryption key** radio button.

    The encryption key must be a value of 8 to 63 ACSCII characters.

7. Enter a new encryption key in the field.

8. Make sure that the **Apply same key** check box next to your DST router and next to each DST adapter and that your own is selected.

    Note: The DST router and DST adapters on your network must use the same encryption key. If the DST adapters on your network use a different encryption key than the DST router, they will no longer be connected to your network.

    ---

9. Click the **Apply** button.

    Your settings are saved.

Specify Your Internet Settings

5

Usually, the quickest way to set up the DST router to use your Internet connection is to allow the genie to detect the Internet connection when you first access the DST router with a web browser. You can also customize or specify your Internet settings.

This chapter contains the following sections:

- *Use the Internet Setup Wizard*
- *Manually Set Up the Internet Connection*
- *Specify IPv6 Internet Connections*
- *Change the MTU Size*
- *Enable the Bridge or Add a VLAN Tag Group*

Use the Internet Setup Wizard

You can use the Setup Wizard to detect your Internet settings and automatically set up your DST router. The Setup Wizard is not the same as the genie pages that display the first time you connect to your DST router to set it up.

➢ **To use the Setup Wizard:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup Wizard**.

5. Select the **Yes** radio button.

   If you select the **No** radio button, you are taken to the Internet Setup page (see *Manually Set Up the Internet Connection*).

6. Click the **Next** button.

The Setup Wizard searches your Internet connection for servers and protocols to determine your ISP configuration and checks your operation mode.
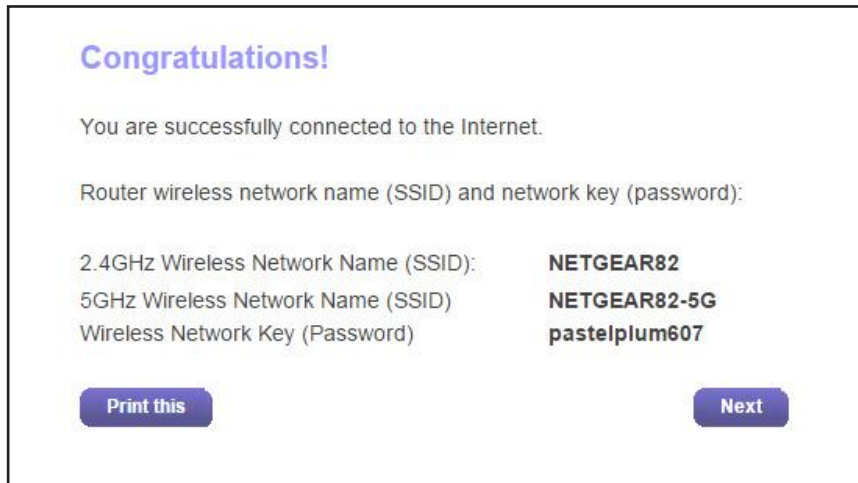
7. Click the **Next** button and follow the onscreen instructions to complete the setup.

Manually Set Up the Internet Connection

You can view or change the DST router's Internet connection settings.

Specify an Internet Connection Without a Login

➢ **To specify the Internet connection settings:**

1. Launch a web browser from a computer or wireless device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **Internet**.

Scroll to view more settings

5. For the **Does your Internet connection require a login** setting, leave the **No** radio button selected.

6. If your Internet connection requires an account name or host name, type it in the **Account Name (If Required)** field.

7. If your Internet connection requires a domain name, type it in the **Domain Name (If Required)** field.

   For the other sections on this page, the default settings usually work, but you can change them.

8. Select an Internet IP Address radio button:
   - **Get Dynamically from ISP**. Your ISP uses DHCP to assign your IP address. Your ISP automatically assigns these addresses.
   - **Use Static IP Address**. Enter the IP address, IP subnet mask, and the gateway IP address that your ISP assigned. The gateway is the ISP DST router to which your DST router connects.

9. Select a Domain Name Server (DNS) Address radio button:
   - **Get Automatically from ISP**. Your ISP uses DHCP to assign your DNS servers. Your ISP automatically assigns this address.
   - **Use These DNS Servers**. If you know that your ISP requires specific servers, select this option. Enter the IP address of your ISP's primary DNS server. If a secondary DNS server address is available, enter it also.

10. Select a Router MAC Address radio button:
    - **Use Default Address**. Use the default MAC address.
    - **Use Computer MAC Address**. The DST router captures and uses the MAC address of the computer that you are now using. You must use the one computer that the ISP allows.
    - **Use This MAC Address**. Enter the MAC address that you want to use.

11. Click the **Apply** button.

    Your settings are saved.

12. Click the **Test** button to test your Internet connection.

If the NETGEAR website does not display within one minute, see *Chapter 18, DST Router Troubleshooting*.

Specify an Internet Connection That Uses a Login

➢ **To view or change the basic Internet setup:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Internet**.

5. For the **Does your Internet connection require a login** setting, select the **Yes** radio button.

   The page adjusts.

6. In the **Internet Service Provider** menu, select the encapsulation method: **PPPoE**, **PPTP**, or **L2TP**.

7. In the **Login** field, enter the login name your ISP gave you.

   This login name is often an email address.

8. In the **Password** field, type the password that you use to log in to your Internet service.

9. If your ISP requires a service name, type it in the **Service Name (if Required)** field.

10. In the **Connection Mode** menu, select **Always On**, **Dial on Demand**, or **Manually Connect**.

11. To change the number of minutes until the Internet login times out, in the **Idle Timeout (In minutes)** field, type the number of minutes.

This is how long the DST router keeps the Internet connection active when no one on the network is using the Internet connection. A value of 0 (zero) means never log out.

12. Select an Internet IP Address radio button:
- **Get Dynamically from ISP**. Your ISP uses DHCP to assign your IP address. Your ISP automatically assigns these addresses.
- **Use Static IP Address**. Enter the IP address, IP subnet mask, and the gateway IP address that your ISP assigned. The gateway is the ISP DST router to which your DST router connects.

13. Select a Domain Name Server (DNS) Address radio button:
- **Get Automatically from ISP**. Your ISP uses DHCP to assign your DNS servers. Your ISP automatically assigns this address.
- **Use These DNS Servers**. If you know that your ISP requires specific servers, select this option. Enter the IP address of your ISP's primary DNS server. If a secondary DNS server address is available, enter it also.

14. Select a Router MAC Address radio button:
- **Use Default Address**. Use the default MAC address.
- **Use Computer MAC Address**. The DST router captures and uses the MAC address of the computer that you are now using. You must use the one computer that the ISP allows.
- **Use This MAC Address**. Enter the MAC address that you want to use.

15. Click the **Apply** button.

Your settings are saved.

16. Click the **Test** button to test your Internet connection.

If the NETGEAR website does not display within one minute, see *Chapter 18, DST Router Troubleshooting*.

Specify IPv6 Internet Connections

You can set up an IPv6 Internet connection if genie does not detect it automatically.

➢ **To set up an IPv6 Internet connection:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
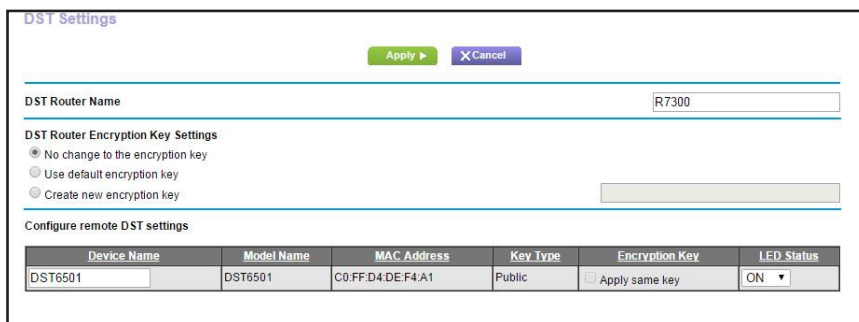2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the DST router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

The IPv6 page displays.

5. In the **Internet Connection Type** menu, select the IPv6 connection type:

- If your ISP did not provide details, select **IPv6 Tunnel**.

- If you are not sure, select **Auto Detect** so that the DST router detects the IPv6 type that is in use.

- If your Internet connection does not use PPPoE, DHCP or is not fixed, but is IPv6, select **Auto Config**.

Your Internet service provider (ISP) can provide this information. For more information about IPv6 Internet connection, see the following sections:

6. Click the **Apply** button.

Your settings are saved.

Requirements for Entering IPv6 Addresses

IPv6 addresses are denoted by eight groups of hexadecimal quartets that are separated by colons. You can reduce any four-digit group of zeros within an IPv6 address to a single zero or omit it. The following errors invalidate an IPv6 address:

- More than eight groups of hexadecimal quartets
- More than four hexadecimal characters in a quartet
- More than two colons in a row

Use Auto Detect for an IPv6 Internet Connection

➢ **To set up an IPv6 Internet connection through auto detection:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the DST router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

    The IPv6 page displays.

5. In the **Internet Connection Type** menu, select **Auto Detect**.

The DST router automatically detects the information in the following fields:

*   **Connection Type**. This field indicates the connection type that is detected.
*   **Router's IPv6 Address on WAN**. This field shows the IPv6 address that is acquired for the DST router's WAN (or Internet) interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.
*   **Router's IPv6 Address on LAN**. This field shows the IPv6 address that is acquired for the DST router's LAN interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

6. Select an IP Address Assignment radio button:
    *   **Use DHCP Server**. The DST router assigns IPv6 addresses to the devices on your home network (the LAN) through a DHCP server.This method passes more information to LAN devices, but some IPv6 systems might not support the DHCv6 client function.
    *   **Auto Config**. This is the default setting.

7. To specify the interface ID for the IPv6 address of the DST router's LAN interface, select the **Use This Interface ID** check box and enter the interface ID.

    If you do not specify an ID here, the DST router generates one automatically from its MAC address.

8. Click the **Apply** button.

    Your settings are saved.

Use Auto Config for an IPV6 Internet Connection

➢ **To set up an IPv6 Internet connection through auto configuration:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

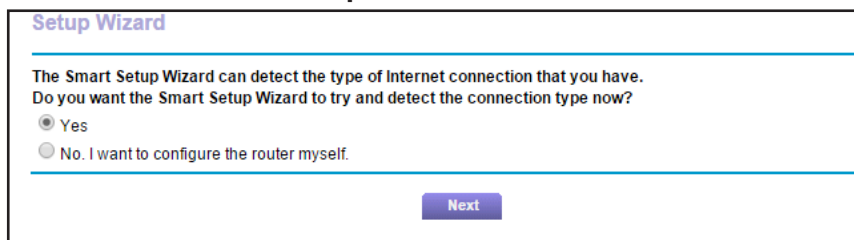2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

   The IPv6 page displays.

5. In the **Internet Connection Type** menu, select **Auto Config**.

   The DST router automatically detects the information in the following fields:

   - **Router's IPv6 Address on WAN**. This field shows the IPv6 address that is acquired for the DST router's WAN (or Internet) interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

   - **Router's IPv6 Address on LAN**. This field shows the IPv6 address that is acquired for the DST router's LAN interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

6. Select an IPv6 Domain Name Server (DNS) Address radio button:

- **Get Automatically from ISP**. Your ISP uses DHCP to assign your DNS servers. Your ISP automatically assigns this address.

- **Use These DNS Servers**. If you know that your ISP requires specific servers, select this option. Enter the IP address of your ISP's primary DNS server. If a secondary DNS server address is available, enter it also.

7. If your ISP gave you a specific user class, in the **DHCP User Class (If Required)** field, enter a host name.

   Most people can leave this field blank, but if your ISP gave you a specific host name, enter it here.

8. To specify a domain name, in the **DHCP Domain Name (If Required)** field, enter a domain name.

   You can enter the domain name of your IPv6 ISP. Do not enter the domain name for the IPv4 ISP here. For example, if your ISP's mail server is mail.xxx.yyy.zzz, enter xxx.yyy.zzz as the domain name. If your ISP provided a domain name, enter it in this field. For example, Earthlink Cable might require a host name of home, and Comcast sometimes supplies a domain name.

9. Select an IP Address Assignment radio button:

   - **Use DHCP Server**. The DST router assigns IPv6 addresses to the devices on your home network (the LAN) through a DHCP server. This method passes more information to LAN devices, but some IPv6 systems might not support the DHCv6 client function.

   - **Auto Config**. This is the default setting.

10. To specify the interface ID for the IPv6 address of the DST router's LAN interface, select the **Use This Interface ID** check box and enter the interface ID.

    If you do not specify an ID here, the DST router generates one automatically from its MAC address.

11. Click the **Apply** button.

    Your settings are saved.

Set Up an IPv6 6rd Tunnel Internet Connection

The 6rd protocol makes it possible to deploy IPv6 to sites using a service provider's IPv4 network. 6rd uses the service provider's own IPv6 address prefix. This limits the operational domain of 6rd to the service provider's network and is under direct control of the service provider. The IPv6 service provided is equivalent to native IPv6.

The 6rd mechanism relies upon an algorithmic mapping between the IPv6 and IPv4 addresses that are assigned for use within the service provider's network. This mapping allows for automatic determination of IPv4 tunnel endpoints from IPv6 prefixes, allowing stateless operation of 6rd.

➢ **To set up an IPv6 6rd Tunnel Internet Connection:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

   The IPv6 page displays.

5. In the **Internet Connection Type** menu, select **6rd Tunnel**.

   The DST router automatically detects the information in the following sections:

   - **6rd (IPv6 Rapid Development) Configuration.** The DST router detects the service provider's IPv4 network and attempts to establish an IPv6 6rd Tunnel connection. If the IPv4 network returns 6rd parameters to the DST router, the page adjusts to display the correct settings in this section.

   - **Router's IPv6 Address on LAN**. This field shows the IPv6 address that is acquired for the DST router's LAN interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

   - **MTU size (in bytes)**. The normal MTU (maximum transmit unit) value for most Ethernet networks is 1500 bytes, or 1492 bytes for PPPoE connections. Change the MTU only if you are sure that it is necessary for your ISP connection. See *Change the MTU Size* on page 62.

6. Select an IPv6 Domain Name Server (DNS) Address radio button:

- **Get Automatically from ISP**. Your ISP uses DHCP to assign your DNS servers. Your ISP automatically assigns this address.
- **Use These DNS Servers**. If you know that your ISP requires specific servers, select this option. Enter the IP address of your ISP's primary DNS server. If a secondary DNS server address is available, enter it also.

7. Select an IP Address Assignment radio button:
   - **Use DHCP Server**. The DST router assigns IPv6 addresses to the devices on your home network (the LAN) through a DHCP server.This method passes more information to LAN devices, but some IPv6 systems might not support the DHCv6 client function.
   - **Auto Config**. This is the default setting.

8. To specify the interface ID for the IPv6 address of the DST router's LAN interface, select the **Use This Interface ID** check box and enter the interface ID.

   If you do not specify an ID here, the DST router generates one automatically from its MAC address.

9. Click the **Apply** button.

   Your settings are saved.

Set Up an IPv6 6to4 Tunnel Internet Connection

The remote relay router is the router to which your DST router creates a 6to4 tunnel. Make sure that the IPv4 Internet connection is working before you apply the 6to4 tunnel settings for the IPv6 connection.

➢ **To set up an IPv6 Internet connection by using a 6to4 tunnel:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

   The IPv6 page displays.

5. In the **Internet Connection Type** menu, select **6to4 Tunnel**.

The DST router automatically detects the information in the **Router's IPv6 Address on LAN** field. This field shows the IPv6 address that is acquired for the DST router's LAN interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

6. Select a Remote 6to4 Relay DST Router radio button:
   - **Auto**. Your DST router uses any remote relay DST router that is available on the Internet. This is the default setting.
   - **Static IP Address**. Enter the static IPv4 address of the remote relay DST router. Your IPv6 ISP usually provides this address.

7. Select an IPv6 Domain Name Server (DNS) Address radio button:
   - **Get Automatically from ISP**. Your ISP uses DHCP to assign your DNS servers. Your ISP automatically assigns this address.
   - **Use These DNS Servers**. If you know that your ISP requires specific servers, select this option. Enter the IP address of your ISP's primary DNS server. If a secondary DNS server address is available, enter it also.

8. Select an IP Address Assignment radio button:
   - **Use DHCP Server**. The DST router assigns IPv6 addresses to the devices on your home network (the LAN) through a DHCP server.This method passes more information to LAN devices, but some IPv6 systems might not support the DHCv6 client function.
   - **Auto Config**. This is the default setting.

9. To specify the interface ID for the IPv6 address of the DST router's LAN interface, select the **Use This Interface ID** check box and enter the interface ID.

   If you do not specify an ID here, the DST router generates one automatically from its MAC address.

10. Click the **Apply** button.

Your settings are saved.

Set Up an IPv6 Pass Through Internet Connection

In pass-through mode, the DST router works as a Layer 2 Ethernet switch with two ports (LAN and WAN Ethernet ports) for IPv6 packets. The DST router does not process any IPv6 header packets.

➢ **To set up a pass-through IPv6 Internet connection:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the DST router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

The IPv6 page displays.

5. In the **Internet Connection Type** menu, select **Pass Through**.

The page adjusts, but no additional fields display.

6. Click the **Apply** button.

Your settings are saved.

Set Up an IPv6 Fixed Internet Connection

➢ **To set up a fixed IPv6 Internet connection:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the DST router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

The IPv6 page displays.

5. In the **Internet Connection Type** manu, select **Fixed**.

6. Configure the fixed IPv6 addresses for the WAN connection:

- **IPv6 Address/Prefix Length**. The IPv6 address and prefix length of the DST router WAN interface.

- **Default IPv6 Gateway**. The IPv6 address of the default IPv6 gateway for the DST router's WAN interface.

- **Primary DNS Server**. The primary DNS server that resolves IPv6 domain name records for the DST router.

- **Secondary DNS Server**. The secondary DNS server that resolves IPv6 domain name records for the DST router.

Note: If you do not specify the DNS servers, the DST router uses the DNS servers that are configured for the IPv4 Internet connection on the Internet Setup page. (See *Manually Set Up the Internet Connection* on page 46.)

7. Select an IP Address Assignment radio button:

- **Use DHCP Server**. The DST router assigns IPv6 addresses to the devices on your home network (the LAN) through a DHCP server.This method passes more information to LAN devices, but some IPv6 systems might not support the DHCv6 client function.

- **Auto Config**. This is the default setting.

8. In the **IPv6 Address/Prefix Length** fields, specify the static IPv6 address and prefix length of the DST router's LAN interface.

If you do not specify an ID here, the DST router generates one automatically from its MAC address.

9. Click the **Apply** button.

Your settings are saved.

Set Up an IPv6 DHCP Internet Connection

➢ **To set up an IPv6 Internet connection with a DHCP server:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

   The IPv6 page displays.

5. In the **Internet Connection Type** menu, select **DHCP**.

   The DST router automatically detects the information in the following fields:

   - **Router's IPv6 Address on WAN**. This field shows the IPv6 address that is acquired for the DST router's WAN (or Internet) interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

   - **Router's IPv6 Address on LAN**. This field shows the IPv6 address that is acquired for the DST router's LAN interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

6. Select an IPv6 Domain Name Server (DNS) Address radio button:

- **Get Automatically from ISP**. Your ISP uses DHCP to assign your DNS servers. Your ISP automatically assigns this address.

- **Use These DNS Servers**. If you know that your ISP requires specific servers, select this option. Enter the IP address of your ISP's primary DNS server. If a secondary DNS server address is available, enter it also.

7. (Optional) In the **User Class (If Required)** field, enter a host name.

   Most people can leave this field blank, but if your ISP gave you a specific host name, enter it here.

8. (Optional) In the **Domain Name (If Required)** field, enter a domain name.

   You can type the domain name of your IPv6 ISP. Do not enter the domain name for the IPv4 ISP here. For example, if your ISP's mail server is mail.xxx.yyy.zzz, type xxx.yyy.zzz as the domain name. If your ISP provided a domain name, type it in this field. For example, Earthlink Cable might require a host name of home, and Comcast sometimes supplies a domain name.

9. Select an IP Address Assignment radio button:
   - **Use DHCP Server**. The DST router assigns IPv6 addresses to the devices on your home network (the LAN) through a DHCP server.This method passes more information to LAN devices, but some IPv6 systems might not support the DHCv6 client function.
   - **Auto Config**. This is the default setting.

10. To specify the interface ID for the IPv6 address of the DST router's LAN interface, select the **Use This Interface ID** check box and enter the interface ID.

    If you do not specify an ID here, the DST router generates one automatically from its MAC address.

11. Click the **Apply** button.

    Your settings are saved.

Set Up an IPv6 PPPoE Internet Connection

➢ **To set up a PPPoE IPv6 Internet connection:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > IPv6**.

The IPv6 page displays.

5. In the **Internet Connection Type** menu, select **PPPoE**.

The router automatically detects the information in the following fields:

- **Router's IPv6 Address on WAN**. This field shows the IPv6 address that is acquired for the router's WAN (or Internet) interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

- **Router's IPv6 Address on LAN**. This field shows the IPv6 address that is acquired for the router's LAN interface. The number after the slash (/) is the length of the prefix, which is also indicated by the underline (_) under the IPv6 address. If no address is acquired, the field displays Not Available.

6. In the **Login** field, enter the login information for the ISP connection.

This is usually the name that you use in your email address. For example, if your main mail account is JerAB@ISP.com, you would enter JerAB in this field. Some ISPs (like Mindspring, Earthlink, and T-DSL) require that you use your full email address when you log in. If your ISP requires your full email address, enter it in this field.

7. In the **Password** field, enter the password for the ISP connection.

8. In the **Service Name** field, enter a service name.

If your ISP did not provide a service name, leave this field blank.

Note: The default setting of the **Connection Mode** menu is **Always On** to provide a steady IPv6 connection. The DST router never terminates the connection. If the connection is terminated, for example, when the modem is turned off, the DST router attempts to reestablish the connection immediately after the PPPoE connection becomes available again.

9. Select an IPv6 Domain Name Server (DNS) Address radio button:
   - **Get Automatically from ISP**. Your ISP uses DHCP to assign your DNS servers. Your ISP automatically assigns this address.
   - **Use These DNS Servers**. If you know that your ISP requires specific servers, select this option. Enter the IP address of your ISP's primary DNS server. If a secondary DNS server address is available, enter it also.

10. Select an IP Address Assignment radio button:
    - **Use DHCP Server**. The DST router assigns IPv6 addresses to the devices on your home network (the LAN) through a DHCP server.This method passes more information to LAN devices, but some IPv6 systems might not support the DHCv6 client function.
    - **Auto Config**. This is the default setting.

11. To specify the interface ID for the IPv6 address of the DST router's LAN interface, select the **Use This Interface ID** check box and enter the interface ID.

    If you do not specify an ID here, the DST router generates one automatically from its MAC address.

12. Click the **Apply** button.

    Your settings are saved.

Change the MTU Size

The maximum transmission unit (MTU) is the largest data packet a network device transmits. When one network device communicates across the Internet with another, the data packets travel through many devices along the way. If a device in the data path has a lower MTU setting than the other devices, the data packets must be split or "fragmented" to accommodate the device with the smallest MTU.

The best MTU setting for NETGEAR equipment is often the default value. In some situations, changing the value fixes one problem but causes another. Leave the MTU unchanged unless one of these situations occurs:

- You experience problems connecting to your ISP or other Internet service, and the technical support of either the ISP or NETGEAR recommends changing the MTU setting. These web-based applications might require an MTU change:
  - A secure website that does not open, or displays only part of a web page
  - Yahoo email

- MSN portal
- America Online's DSL service
- You use VPN and experience severe performance problems.
- You used a program to optimize MTU for performance reasons, and now you are experiencing connectivity or performance problems.

> **Note:** An incorrect MTU setting can cause Internet communication problems. For example, you might not be able to access certain websites, frames within websites, secure login pages, or FTP or POP servers.

➢ **To change the MTU size:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > WAN Setup**.

5. In the **MTU Size** field, enter a value from 64 to 1500.
6. Click the **Apply** button.

   Your settings are saved.

If you suspect an MTU problem, a common solution is to change the MTU to 1400. If you are willing to experiment, you can gradually reduce the MTU from the maximum value of 1500

until the problem goes away. The following table describes common MTU sizes and applications.

Table 4. Common MTU sizes

MTU	Application
1500	The largest Ethernet packet size. This setting is typical for connections that do not use PPPoE or VPN, and is the default value for NETGEAR DST routers, adapters, and switches.
1492	Used in PPPoE environments.
1472	Maximum size to use for pinging. (Larger packets are fragmented.)
1468	Used in some DHCP environments.
1460	Usable by AOL if you do not send or receive large email attachments, for example.
1436	Used in PPTP environments or with VPN.
1400	Maximum size for AOL DSL.
576	Typical value to connect to dial-up ISPs.

Enable the Bridge or Add a VLAN Tag Group

Some devices, such as an IPTV, cannot work behind a router's network address translation (NAT) or firewall. Based on what your Internet service provider (ISP) requires, for the device to connect to the ISP's network directly, you must enable the bridge between the device and the router's Internet port or add new VLAN tag groups to the bridge.

Enable the Bridge

If your device, such as an IPTV, is connected to the DST router's Ethernet port or WiFi network, you can enable the bridge so that the packets sent between the device and the DST router's Internet port are not processed through the DST router's network address translation (NAT).

➢ **To enable the bridge:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > VLAN/IPTV Setup**.

   The VLAN/IPTV Setup page displays:

5. Select the **Enable VLAN / Bridge group** check box.

6. Select the **By bridge group** radio button.

7. Select a Wired Ports check box or a Wireless check box:

   - If your device is connected to an Ethernet port on the DST router, select a Wired Ports check box that corresponds to the Ethernet port on the DST router to which the device is connected.

   - If your device is connected to your DST router's WiFi network, select a Wireless check box that corresponds to the DST router's WiFi network to which the device is connected.

   Note: You must select at least one Wired Ports or Wireless check box. You can select more than one check box.

   ---

8. Click the **Apply** button.

   Your settings are saved.

Add VLAN Tag Groups

You can add VLAN tag groups to the bridge and assign VLAN IDs and priority values to each VLAN tag group.

If you add a VLAN tag group to the bridge, packets sent between the device and the DST router's Internet port are not processed through the router's network address translation (NAT) or firewall.

➢ **To add a VLAN tag group:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > VLAN/IPTVSettings**.

   The VLAN/IPTV Setup page displays.

5. Select the **Enable VLAN / Bridge group** check box.

6. Select the **By VLAN tag group** radio button.
7. Click the **Add** button.

8. In the **Name** field, enter a name for the VLAN tag group.

   The name can be up to 10 characters.

9. In the **VLAN ID** field, enter a value from 1 to 4094.

   This value is provided by your Internet service provider.

10. In the **Priority** field, enter a value from 0 to 7.

    This value is provided by your Internet service provider.

11. Select a check box:

- If your device is connected to an Ethernet port on the router, select the **Port1**, **Port2**, **Port3**, or **Port4** check box that corresponds to the Ethernet port on the DST router to which the device is connected.

- If your device is connected to your router's WiFi network, select the **WiFi-2.4G** or **WiFi-5G** check box that corresponds to the DST router's WiFi network to which the device is connected.

Note: You must select at least one check box. You can select more than one check box.

12. Click the **Add** button.

The VLAN tag group is added.

13. Click the **Apply** button.

Your settings are saved.

Optimize Performance

6

You can set up the DST router to optimize performance for applications such as Internet gaming, high-definition video streaming, and VoIP communication. By default, the DST router uses Wi-Fi Multimedia Quality of Service (WMM QoS).

This chapter contains the following sections:

- *Use Dynamic QoS to Optimize Internet Traffic Management*
- *Improve Network Connections With Universal Plug and Play*
- *Wi-Fi Multimedia Quality of Service*

Use Dynamic QoS to Optimize Internet Traffic Management

Dynamic Quality of Service (QoS) helps improve your DST router's Internet traffic management capabilities through better application and device identification, bandwidth allocation, and traffic prioritization techniques. Dynamic QoS resolves traffic congestion when the Internet bandwidth is limited and different demands compete for bandwidth.

If your Internet download and upload speed is 250 Mbps or less and you like gaming and streaming video, 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.
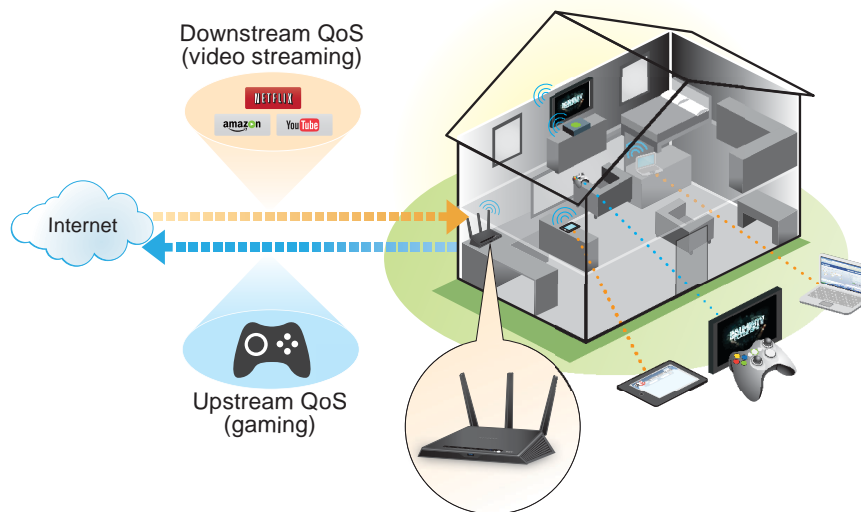
Figure 7. Dynamic QoS optimizes Internet traffic by prioritizing competing demands

Enable Dynamic QoS

Because not everyone uses Dynamic QoS, it is disabled by default.

➢ **To enable Dynamic QoS:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **Dynamic QoS**.

5. Select the **Enable Dynamic QoS** check box.

6. Specify your Internet bandwidth.

You must specify your Internet bandwidth so that Dynamic QoS can perform bandwidth allocation and traffic prioritization.

To allow Speedtest to detect your Internet bandwidth (recommended):

a. For more accurate Speedtest results, make sure that no other devices are accessing the Internet.

b. Click the **Speed Test** button.

Speedtest determines your Internet bandwidth.

7. Click the **Apply** button.

Your settings are saved.

A link to the Attached Devices page displays on the bottom. Click the link to view bandwidth utilization. For more information, see *View Devices Currently on the Network* on page 195.

Enable or Disable the Automatic QoS Database Update

The DST router uses a QoS database of the most popular applications and services to implement Dynamic QoS. By default, the DST router automatically updates this database. You can turn off this feature and manually update the database.

➢ **To enable or disable the automatic Dynamic QoS database update:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Dynamic QoS**.

   If you are using Dynamic QoS, the **Enable Dynamic QoS** check box is selected.

5. Select or clear the **Automatically update performance optimization database** check box.

6. Click the **Apply** button.

   Your settings are saved.

Manually Update the Dynamic QoS Database

The DST router uses a QoS database of the most popular applications and services to implement Dynamic QoS. By default, the DST router automatically updates this database when you enable Dynamic QoS, but if you turned off the automatic update feature, you can manually update the database.

➢ **To manually update the Dynamic QoS database:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **Dynamic QoS**.
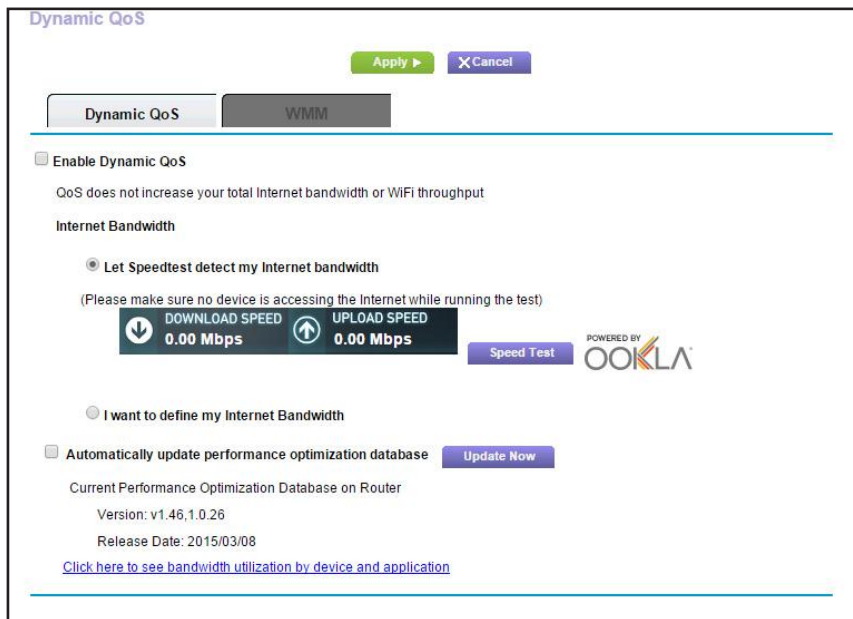
    If you are using Dynamic QoS, the **Enable Dynamic QoS** check box is selected.

5. Click the **Update Now** button.

    The DST router checks for the newest version of the database and downloads it.

6. Click the **Apply** button.

    Your settings are saved.

Improve Network Connections With Universal Plug and Play

Universal Plug and Play (UPnP) helps devices such as Internet appliances and computers access the network and connect to other devices as needed. UPnP devices can automatically discover the services from other registered UPnP devices on the network.

If you use applications such as multiplayer gaming, peer-to-peer connections, or real-time communications such as instant messaging or remote assistance (a feature in Windows XP), enable UPnP.

➢ **To enable Universal Plug and Play:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
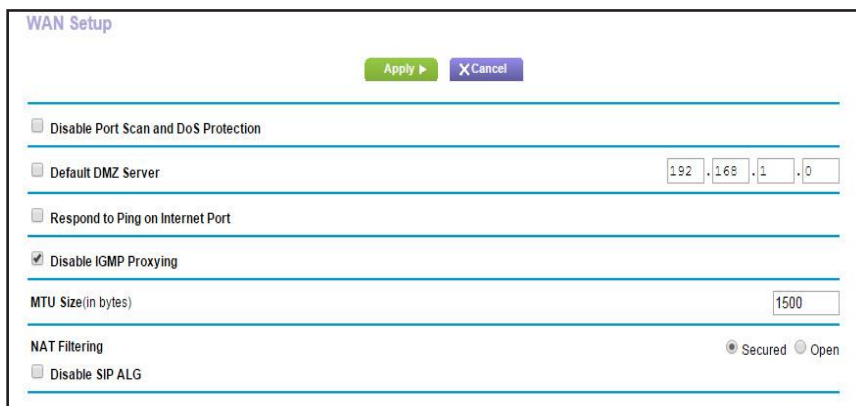
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > UPnP**.

   The UPnP page displays.

5. Select the **Turn UPnP On** check box.

   By default, this check box is selected. UPnP for automatic device configuration can be enabled or disabled. If the **Turn UPnP On** check box is cleared, the DST router does not allow any device to automatically control DST router resources, such as port forwarding.

6. Type the advertisement period in minutes.

   The advertisement period specifies how often the DST router broadcasts its UPnP information. This value can range from 1 to 1440 minutes. The default period is 30 minutes. Shorter durations ensure that control points receive current device status at the expense of more network traffic. Longer durations can compromise the freshness of the device status but can significantly reduce network traffic.

7. Type the advertisement time to live in hops.

   The time to live for the advertisement is measured in hops (steps) for each UPnP packet sent. Hops are the steps a packet takes between routers. The number of hops can range from 1 to 255. The default value for the advertisement time to live is 4 hops, which should be fine for most home networks. If you notice that some devices are not being updated or reached correctly, it might be necessary to increase this value.

8. Click the **Apply** button.

   The UPnP Portmap Table displays the IP address of each UPnP device that is accessing the DST router and which ports (internal and external) that device opened. The UPnP Portmap Table also displays what type of port is open and whether that port is still active for each IP address.

9. To refresh the information in the UPnP Portmap Table, click the **Refresh** button.

Wi-Fi Multimedia Quality of Service

Wi-Fi Multimedia Quality of Service (WMM QoS) prioritizes WiFi voice and video traffic over the WiFi link. WMM QoS is automatically enabled for the DST router.

WMM QoS prioritizes WiFi data packets from different applications based on four access categories: voice, video, best effort, and background. For an application to receive the benefits of WMM QoS, WMM must be enabled for both it and the client running that application. Legacy applications that do not support WMM and applications that do not require QoS are assigned to the best effort category, which receives a lower priority than voice and video.

➢ **To disable WMM QoS:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **ADVANCED > Setup > QoS Setup**.

    The QoS screen displays.

5. Click the **WMM** tab.
6. Clear the **Enable WMM (Wi-Fi multimedia) settings (2.4 GHz b/g/n)** check box.
7. Clear the **Enable WMM (Wi-Fi multimedia) settings (5 GHz b/g/n)** check box.
8. Click the **Apply** button.

    Your settings are saved.

Control Access to the Internet 7

The DST router comes with a built-in firewall that helps protect your home network from unwanted intrusions from the Internet.

This chapter includes the following sections:

- *Set Up Parental Controls*
- *Allow or Block Access to Your Network*
- *Use Keywords to Block Internet Sites*
- *Manage Simple Outbound Firewall Rules for Services and Applications*
- *Set Up a Schedule for Keyword Blocking and Outbound Firewall Rules*
- *Set Up Security Event Email Notifications*

Set Up Parental Controls

The first time that you select **Parental Controls** from the BASIC Home page, your browser goes to the *Parental Controls* website.You can learn more about Parental Controls or download the application.

After you set up and enabled Parental Controls, you can change the web filtering level for each device on the network through the network map page on the genie app.

➢ **To set up Parental Controls:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Parental Controls**.

   The *Parental Controls* website opens.

5. Click the button for the app or version that you want to download and use.
6. Follow the onscreen instructions to download and install the genie app.
7. Open the genie app and select **Parental Controls**.

   After installation, Live Parental Controls automatically starts.

8. Click the **Next** button, read the note, and click the **Next** button again to proceed.

Because Live Parental Controls uses free OpenDNS accounts, you are prompted to log in or create a free account.

Setting up Live Parental Controls

Welcome, this setup wizard will quickly configure NETGEAR Live Parental Controls Powered by OpenDNS on your NETGEAR router.

In order to use Live Parental Controls, you need a free OpenDNS account. Do you already have one?

⦿ Yes, use my existing OpenDNS account.

⦾ No, I need to create a free OpenDNS account.

9. Select the radio button that applies to you:
   - If you already own an OpenDNS account, leave the **Yes** radio button selected.
   - If you do not own an OpenDNS account, select the **No** radio button.

     If you are creating an account, the Create a free OpenDNS account page displays. Do the following:

     a. Complete the fields.
     b. Click the **Next** button.

   After you log on or create your account, the filtering level page displays.

10. Select a radio button for a filtering level and click the **Next** button.

    The Setup is complete.

11. Click the **Take me to the status page** button.

    The Status page displays. Parental Controls are now set up for the router.

12. To enable Parental Controls, click the **Enable Live Parental Controls** button to enable it.

Allow or Block Access to Your Network

You can use access control to block access to your network.

➢ **To set up access control:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Security > Access Control**.

   The Access Control page displays.

5. Select the **Turn on Access Control** check box.

You must select this check box before you can specify an access rule and use the **Allow** and **Block** buttons. When this check box is cleared, all devices are allowed to connect, even if a device is in the blocked list.

6. Select an access rule:

- **Allow all new devices to connect**. With this setting, if you buy a new device, it can access your network. You don't need to enter its MAC address on this page. We recommend that you leave this radio button selected.

- **Block all new devices from connecting**. With this setting, if you buy a new device, before it can access your network, you must enter its MAC address for an Ethernet connection and its MAC address for a WiFi connection in the allowed list.

The access rule does not affect previously blocked or allowed devices. It applies only to devices joining your network in the future after you apply these settings.

7. To allow the computer or device you're currently using to continue to access the network, select the check box next to your computer or device, and click the **Allow** button.

8. To view a list of allowed or blocked devices that are not connected, click one of the following links:

- **View list of allowed devices not currently connected to the network**
- **View list of blocked devices not currently connected to the network**

The list displays.

9. Click the **Apply** button.

Your settings are saved.

Use Keywords to Block Internet Sites

You can use keywords to block certain Internet sites from your network. You can use blocking all the time or based on a schedule.

Set Up Blocking

You can set up blocking of specific keywords and domains to occur continuously or according to a schedule.

➢ **To set keyword and domain blocking:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Security > Block Sites**.

5. Select one of the keyword blocking options:

 - **Per Schedule**. Use keyword blocking according to a schedule that you set. For more information, see *Set Up a Schedule for Keyword Blocking and Outbound Firewall Rules* on page 87.

 - **Always**. Use keyword blocking continuously.

6. In the **Type keyword or domain name here** field, enter a keyword or domain.

 Here are some sample examples:

 - Specify XXX to block http://www.badstuff.com/xxx.html.

 - Specify .com if you want to allow only sites with domain suffixes such as .edu or .gov.

 - Enter a period (**.**) to block all Internet browsing access.

7. Click the **Add Keyword** button.

 The keyword or domain is added to the **Block sites containing these keywords or domain names** field (which is also referred to as the blocked list).

8. To add more keywords or domains, repeat Step 6 and Step 7.

 The keyword list supports up to 32 entries.

9. Click the **Apply** button.

 Your settings are saved.

Remove a Keyword or Domain From the Blocked List

If you no longer need a keyword or domain on the blocked list, you can remove the keyword or domain.

➢ **To remove a keyword or domain from the blocked list:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Security > Block Sites**.

5. In the **Block sites containing these keywords or domain names** field, select the keyword or domain.

6. Click the **Delete Keyword** button.

   The keyword or domain is removed from the blocked list.

7. Click the **Apply** button.

   Your settings are saved.

Specify a Trusted Computer

You can exempt one trusted device from blocking and logging. The device that you exempt must be assigned a fixed (static) IP address.

➢ **To specify a trusted device:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Security > Block Sites**.

5. Scroll down and select the **Allow trusted IP address to visit blocked sites** check box.

6. In the **Trusted IP Address** field, enter the IP address of the trusted device.

   The first three octets of the IP address are automatically populated and depend on the IP address that is assigned to the DST router on the LAN Setup page.

7. Click the **Apply** button.

   Your settings are saved.

Manage Simple Outbound Firewall Rules for Services and Applications

A firewall protects one network (the trusted network, such as your LAN) from another (the untrusted network, such as the Internet), while allowing communication between the two.

The DST router provides one default outbound firewall rule: It allows all access to the Internet (that is, the WAN). You can add simple rules to prevent access to specific services and

applications on the Internet. In addition, you can specify if a rule applies to one user, a range of users, or all users on your LAN.

The DST router lists many default services and applications that you can use in outbound rules. You can also add an outbound firewall rule for a custom service or application.

For information about blocking specific keywords, URLs, or sites, see *Use Keywords to Block Internet Sites* on page 78. This type of blocking is another aspect of the outbound firewall. For information about inbound firewall rules, see *Chapter 17, Manage Port Forwarding and Port Triggering*.

Note: Service blocking means the same thing as applying outbound firewall rules.

Add an Outbound Firewall Rule

You can add an outbound firewall rule to prevent access to a specific service or application on the Internet.

➢ **To add an outbound firewall rule:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Security > Block Services**.

5. In the Services Blocking section, specify how the DST router applies outbound rules:

   • **Per Schedule**. Use keyword blocking according to a schedule that you set.

      For more information, see *Set Up a Schedule for Keyword Blocking and Outbound Firewall Rules* on page 87.

- **Always**. Use keyword blocking continuously.

6. Below the Service Table, click the **Add** button.

7. From the **Service Type** menu, select service or application to be covered by this rule.

   If the service or application does not display in the list, you can add it (see *Add an Outbound Firewall Rule for a Custom Service or Application* on page 83).

8. Specify which devices on your LAN (or LAN users) are affected by the rule, based on their IP addresses:

   - **Only This IP Address**. Enter the required address in the fields to apply the rule to a single device on your LAN.

   - **IP Address Range**. Enter the required addresses in the start and end fields to apply the rule to a range of devices.

   - **All IP Addresses**. All computers and devices on your LAN are covered by this rule.

     By default, the **All IP Addresses** radio button is selected.

9. Click the **Add** button.

   The new rule is added to the Service Table on the Block Services page.

Add an Outbound Firewall Rule for a Custom Service or Application

The DST router lists many default services and applications that you can use in outbound rules. If the service or application is not predefined, you can specify a custom service or application in an outbound rule.

➢ **To add an outbound firewall rule for a custom service or application:**

1. Find out which protocol and port number or range of numbers the service or application uses.

   You can usually find this information by contacting the publisher of the service or application or through online user or news groups.

2. Launch a web browser from a computer or WiFi device that is connected to the network.

3. Enter **http://www.routerlogin.net**.

A login window displays.

4. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

5. Select **ADVANCED > Security > Block Services**.

6. In the Services Blocking section, specify how the DST router applies outbound rules:

- **Per Schedule**. Use keyword blocking according to a schedule that you set.

  For more information, see *Set Up a Schedule for Keyword Blocking and Outbound Firewall Rules* on page 87.

- **Always**. Use keyword blocking continuously.

7. Below the Service Table, click the **Add** button.

8. From the **Service Type** menu, select **User Defined**.

9. Specify a new outbound rule as described in the following table.

Field	Description
Protocol	Select the protocol (**TCP** or **UDP**) that is associated with the service or application. If you are unsure, select **TCP/UDP**.
Starting Port	Enter the start port for the service or application.
Ending Port	If the service or application uses a range of ports, enter the end port for the range. If the service or application uses a single port, repeat the port number that you entered in the **Starting Port** field.
Service Type/User Defined	Enter the name of the custom service or application.

10. Specify which devices on your LAN (or LAN users) are affected by the rule, based on their IP addresses:

- **Only This IP Address**. Enter the required address in the fields to apply the rule to a single device on your LAN.
- **IP Address Range**. Enter the required addresses in the start and end fields to apply the rule to a range of devices.
- **All IP Addresses**. All computers and devices on your LAN are covered by this rule.

 By default, the **All IP Addresses** radio button is selected.

11. Click the **Add** button.

 The new rule is added to the Service Table on the Block Services page.

Change an Outbound Firewall Rule

You can change an existing outbound firewall rule.

➢ **To change an outbound firewall rule:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

 A login window displays.

3. Enter the router user name and password.

 The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

 The BASIC Home page displays.

4. Select **ADVANCED > Security > Block Services**.

The previous figure shows two rules in the Service Table.

5. In the Service Table, select the radio button for the rule.

6. Click the **Edit** button.

The Block Services Setup page displays.

7. Change the settings.

For more information about the settings, see *Add an Outbound Firewall Rule for a Custom Service or Application* on page 83.

8. Click the **Accept** button.

Your settings are saved. The changed rule displays in the Service Table on the Block Services page.

Remove an Outbound Firewall Rule

You can remove an outbound firewall rule that you no longer need.

➢ **To remove an outbound firewall rule:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Security > Block Services**.

The previous figure shows two rules in the Service Table.

5. In the Service Table, select the radio button for the rule.

6. Click the **Delete** button.

The rule is removed from the Service Table.

Set Up a Schedule for Keyword Blocking and Outbound Firewall Rules

You can set up a schedule that you can apply to keyword blocking (see *Use Keywords to Block Internet Sites* on page 78) and outbound firewall rules (see *Manage Simple Outbound Firewall Rules for Services and Applications* on page 81).

If applied, the schedule specifies the days and time that keyword blocking, outbound firewall rules, or both are active.

By default, no schedule is set and you can either enable or disable these features.

➢ **To set up a schedule for blocking:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Security > Schedule**.

5. Set up the schedule for blocking:
   - **Days to Block**. Select the check box for each day that you want to block access or specify that blocking occurs on every day by selecting the **Every Day** check box.

     By default, the **Every Day** check box is selected.

   - **Time of Day to Block**. Select a start and end time for blocking in 24-hour format or select the **All Day** check box for 24-hour blocking.

     By default, the **All Day** check box is selected.

6. From the **Time Zone** menu, select your time zone.

7. If you live in an area that observes daylight saving time, select the **Automatically adjust for daylight savings time** check box.

Note: If the DST router synchronized its internal clock with a time server on the Internet and you selected the correct time zone, the Current Time field displays the correct date and time.

---

8. Click the **Apply** button.

   Your settings are saved.

Set Up Security Event Email Notifications

The DST router can email you its logs of router activity. The log records router activity and security events such as attempts to access blocked sites or services.

➢ **To set up email notifications:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Security > E-mail**.

5. Select the **Turn Email Notification On** check box.

6. In the **Your Outgoing Mail Server** field, enter the name of your ISP outgoing (SMTP) mail server (such as mail.myISP.com).

   You might be able to find this information in the configuration window of your email program. If you leave this field blank, log and alert messages are not sent.

7. In the **Send to This E-mail Address** field, type the email address to which logs and alerts are to be sent.

   This email address is also used for the From address. If this field is blank, log and alert messages are not sent.

8. In the **Outgoing Mail Server Port Number** field, enter the port number that the mail server uses.

   If you do not know the port number, leave the default port number, which is 25.

9. If your outgoing email server requires authentication, select the **My Mail Server requires authentication** check box.

   a. In the **User Name** field, type the user name for the outgoing email server.

   b. In the **Password** field, type the password for the outgoing email server.

10. To send alerts immediately when someone attempts to visit a blocked site, select the **Send Alerts Immediately** check box.

11. To send logs based on a schedule, specify these settings:

   • From **Send logs according to this schedule** menu, select the schedule type.

   • From the **Day** menu, select the day.

   • From the **Time** menu, select the time, and select the **am** or **pm** radio button.

12. Click the **Apply** button.

   Your settings are saved.

   Logs are sent automatically according to the schedule that you set. If the log fills before the specified time, it is sent. After the log is sent, it is cleared from the DST router memory. If the DST router cannot email the log and the log buffer fills, the DST router overwrites the log.

Share USB Devices Attached to the Router

8

This chapter describes how to access and configure a USB storage device attached to your DST router. The USB port on the DST router can be used only to connect USB storage devices like flash drives or hard drives, or a printer. Do not connect computers, USB modems, CD drives, or DVD drives to the DST router USB port.

The chapter contains the following sections:

- *USB Device Requirements*
- *Access a USB Device on the Network*
- *Back Up Windows Computers With ReadySHARE Vault*
- *Back Up Mac Computers With Time Machine*
- *Manage Access to a USB Device*
- *Enable FTP Access Within Your Network*
- *View or Change Network Folders on a USB Device*
- *Add a Network Folder on a USB Device*
- *Change a Network Folder, Including Read and Write Access, on a USB Device*
- *Approve USB Devices*
- *Safely Remove a USB Device*

For more information about ReadySHARE features, visit *netgear.com/readyshare*.

USB Device Requirements

The DST router works with most USB-compliant external flash and hard drives. For the most up-to-date list of USB drives that the router supports, visit *kbserver.netgear.com/readyshare*.

Some USB external hard drives and flash drives require you to load the drivers onto the computer before the computer can access the USB storage device. Such USB storage devices do not work with the router.

The router supports the following file system types for full read/write access:

- FAT16
- FAT32
- NTFS
- NTFS with compression format enabled
- Ext2
- Ext3
- Ext4
- XFS
- HFS
- HFS+

Access a USB Device on the Network

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

Figure 8. The blue USB 3.0 port on the front of the DST router provides the fastest access

Connect a USB Device to the DST Router

➢ **To connect a USB storage device to the DST router:**

1. Insert your USB storage device into a USB port on the DST router.

   The blue, USB 3.0 port on the front of the router performs faster than the USB 2.0 port on the rear panel of the DST router.

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 DST router.

   When you connect the USB storage device to the DST 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).

Access a USB Device From a Windows Computer

➢ **To access the USB storage device from a Windows computer:**

1. Connect your USB storage device to the USB port on the DST router.

   The blue, USB 3.0 port on the front of the DST router performs faster than the USB 2.0 port on the rear panel of the router.

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 DST router.

   When you connect the USB storage device to the DST 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**.

4. Enter **\\readyshare** in the dialog box.

5. Click the **OK** button.

   A window displays the files and folders on the device.

Access the USB Device From a Mac

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

1. Connect your USB storage device to the USB port on the DST router.

   The blue, USB 3.0 port on the front of the DST router performs faster than the USB 2.0 port on the rear panel of the router.

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 DST 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.

5. Click the **Connect** button.

6. When prompted, select the **Guest** radio button.

7. If you set up access control on the DST 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 *Allow or Block Access to Your Network* on page 77.

8. Click the **Connect** button.

   A window displays the files and folders on the device.

Map the USB Storage Device to a Windows Network Drive

➢ **To map the USB device to a Windows network drive:**

1. Connect your USB storage device to the USB port on the DST router.

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 DST router.

   When you connect the USB storage device to the DST 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**.

4. Enter **\\readyshare** in the dialog box.

5. Click the **OK** button.

   A window displays the USB storage device.

6. Right-click the USB storage device and select **Map network drive**.
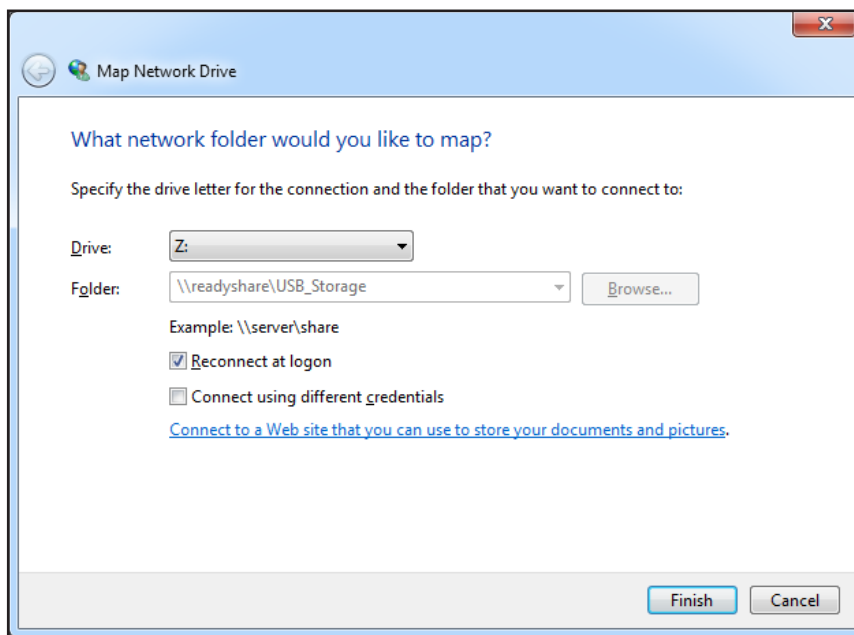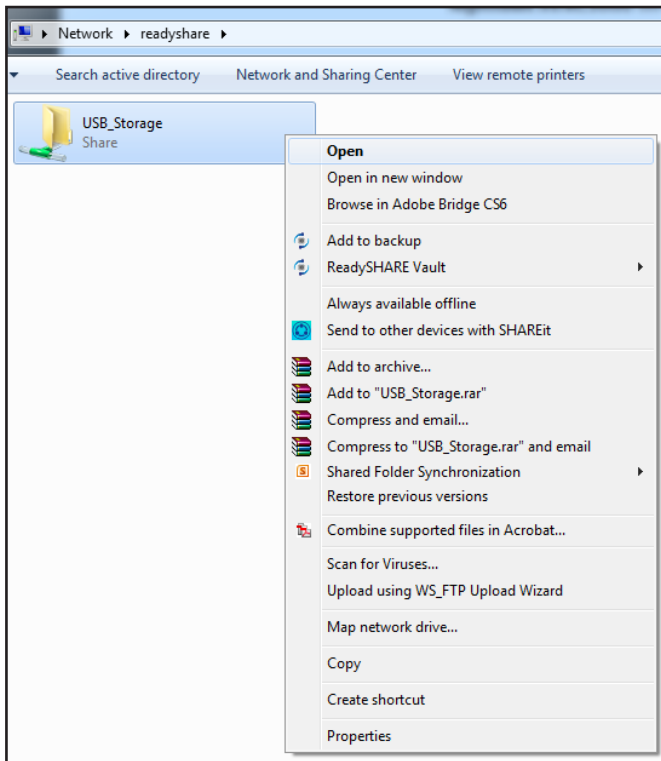
7. Select the drive letter to map to the network folder.

8. Click the **Finish** button.

   The USB device is mapped to the drive letter that you specified.

9. To connect to the USB storage device as a different user, select the **Connect using different credentials** check box, click the **Finish** button, and do the following:

a. Type the user name and password.

b. Click the **OK** button.

The USB storage device is mapped to the drive letter that you specified.

Back Up Windows Computers With ReadySHARE Vault

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

The following operating systems support ReadySHARE Vault:

- Windows XP SP3
- Windows 7
- Windows 8
- Windows 8.1
- Windows 10

➢ **To back up your Windows computer:**

1. Connect a USB HDD to a USB port on the DST router.

The blue, USB 3.0 port on the front of the DST router performs faster than the USB 2.0 port on the rear panel of the DST router.

2. Download ReadySHARE Vault from *netgear.com/readyshare* 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.

Back Up Mac Computers With Time Machine

You can use Time Machine to back up your Mac computers onto a USB hard disk drive (HDD) that is connected to one of the DST router's USB ports. You can access the connected USB hard drive from your Mac with a wired or WiFi connection to your DST router.

Set Up a USB Hard Drive on a Mac

We recommend that you use a new USB HDD or format your old USB HDD to do the Time Machine backup for the first time. Use a blank partition to prevent some issues during backup using Time Machine. The DST router supports GUID or MBR partitions.

➢ **To format your USB hard disk drive and specify partitions:**

1. Physically connect the USB hard drive to your Mac.

2. On your Mac, go to **Spotlight** (or the magnifying glass) at the top right of the page and search for **Disk Utility**.

3. Open the Disk Utility, click the **Erase** tab, and click the **Erase** button.

4. Click the **Partition** tab.

5. In the **Partition Layout** menu, set the number of partitions that you want to use.

   The **Options** button displays at the bottom of the page.

6. Click the **Options** button.

   The Partition options display.

7. Select the **GUID Partition Table** or **Master Boot Record** radio button and click the **OK** button.

8. In the **Format** menu, select **Mac OS Extended (Journaled)**.

9. Click the **Apply** button.

   Your settings are saved.

Prepare to Back Up a Large Amount of Data

Before you back up a large amount of data with Time Machine, we recommend that you follow this procedure.

➢ **To prepare to back up a large amount of data:**

1. Upgrade the operating system of the Mac computer.

2. Verify and repair the backup disk and the local disk.

3. Verify and repair the permissions on the local disk.

4. Set Energy Saver.

   a. From the **Apple** menu, select **System Preferences**.

      The System Preference window displays.

   b. Select **Energy Saver**.

      The Energy Saver page displays.

   c. Click the **Power Adapter** tab.

   d. Select the **Wake for Wi-Fi network access** check box.

   e. Click the **Back arrow** to save the changes and exit the page.

5. Modify your security settings.

   a. From the **System Preferences** window, select **Security & Privacy**.

      The Security & Privacy page displays.

   b. Click the **Advanced** button at the bottom of the page.

If the **Advanced** button is grayed out, click the lock icon so that you can change the settings.

c. Clear the **Log out after minutes of inactivity** check box.

d. Click the **OK** button.

Your settings are saved.

Use Time Machine to Back Up onto a USB Hard Drive

You can use Time Machine to back up your Mac computers onto a USB HDD that is connected to one of the router's USB ports.

➢ **To back up your Mac onto a USB hard drive:**

1. If you are already using Time Machine with a USB HDD, skip Steps 2 and 3 and go to Step 4.

2. Prepare your USB HDD with a compatible format and partitions

For more information, see *Set Up a USB Hard Drive on a Mac* on page 96.

3. Prepare your Mac if you plan to back up a large amount of data.

For more information, see *Prepare to Back Up a Large Amount of Data* on page 97.

4. Connect your USB HDD to a USB port on the DST router.

Note: If your USB HDD uses a power supply, you must use it when you connect the USB HDD to the router.

If your USB HDD uses a power supply, you must use it when you connect the USB HDD to the DST router.

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

5. Connect your Mac computer to the router's network using a WiFi connection or a wired Ethernet connection.

6. On your Mac computer, launch Finder and select **Go > Connect to Server**.

The Connect to Server window displays.

7. In the **Server Address** field, type **smb://routerlogin.net** and click the **Connect** button.

8. When prompted, select the **Registered User radio** button.

9. Enter **admin** for the name and **password** for the password and click the **Connect** button.

A list of USB devices connected to your router displays.

10. From the **Apple** menu, select **System Preferences**.

The System Preferences window displays.

11. Select **Time Machine**.

The Time Machine window displays.

12. Click the **Select Backup Disk** button and select your USB device from the list.

13. Click the **Use Disk** button.

> **Note:** If you do not see the USB partition that you want in the Time Machine disk list, go to Mac finder and click that USB partition. It displays in the Time Machine list.

14. When prompted, select the **Registered User** radio button.

15. Enter **admin** for the name and **password** for the password and click the **Connect** button.

The setup is complete and your Mac automatically schedules a full back up. You can back up immediately if you want.

Manage Access to a USB Device

You can specify the device name, workgroups, and network folders for a storage device connected to the USB port on the DST router.

➢ **To specify the storage device access settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

5. Specify access to the USB storage device:

- **Network Device Name**. This is the name used to access the USB device connected to the DST router. The default is readyshare.

- **Workgroup**. If you are using a Windows workgroup rather than a domain, the workgroup name is displayed here. The name works only in an operating system that supports NetBIOS, such as Microsoft Windows.

- **Access Method**. Select the check boxes for the access methods that you want:

  - **Network Connection**. Enabled by default.

  - **HTTP**. Enabled by default. You can type **http://readyshare.routerlogin.net/shares** to access the USB drive.

  - **HTTPS (via Internet)**. Disabled by default. If you enable this feature, remote users can type **http://***<public IP address>***/shares** (for example, http://1.1.10.102/shares) or a URL domain name to access the USB drive over the Internet. This feature supports file uploading only.

  - **FTP**. Disabled by default.

  - **FTP (via Internet)**. Disabled by default. If you select this check box, remote users can access the USB drive through FTP over the Internet. This feature supports both downloading and uploading of files.

6. If you changed the settings, click the **Apply** button.

Your settings are saved.

Enable FTP Access Within Your Network

File Transfer Protocol (FTP) lets you send and receive large files faster.

➢ **To enable FTP access within your network:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

5. Select the **FTP** check box.

6. Click the **Apply** button.

    Your settings are saved.

View or Change Network Folders on a USB Device

You can view or change the network folders on the USB storage device.

➢ **To view or change network folders:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

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2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

5. Scroll down to the Available Networks Folder section, and adjust the following settings:

    *   **Share Name**. If only one device is connected, the default share name is USB_Storage. (Some router models include more than one USB port.)

        You can click the name, or you can type it in the address field of your web browser. If Not Shared is shown, the default share was deleted, and no other share for the root folder exists. Click the link to change this setting.

    *   **Read Access and Write Access**. Show the permissions and access controls on the network folder. All–no password (the default) allows all users to access the network folder. The password for admin is the same one that you use to log in to the DST router.

    *   **Folder Name**. Full path of the network folder.

    *   **Volume Name**. Volume name from the storage device (either USB drive or HDD).

    *   **Total Space and Free Space**. Show the current utilization of the storage device.

Add a Network Folder on a USB Device

You can add network folders on the USB storage device.

➢ **To add a network folder:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

5. Click the **Create Network Folder** button.

Create Network Folder	
USB Device	U: (Untitled 1) ▾
Folder	[ ] Browse
Share Name	[ ]
Read Access	All - no password ▾
Write Access	All - no password ▾

Apply

Close Window

If this window does not display, your web browser might be blocking pop-ups. If it is, change the browser settings to allow pop-ups.

6. In the **USB Device** menu, select the USB drive.

7. Click the **Browse** button and navigate to and select the folder.

8. In the **Share Name** field, type the name of the share.

9. In the **Read Access** menu and the **Write Access** menu, select the settings that you want.

   The user name (account name) for All–no password is guest. The password for admin is the same one that is used to log in to the DST router. By default, it is password.

10. Click the **Apply** button.

   The folder is added on the USB device.

Change a Network Folder, Including Read and Write Access, on a USB Device

You can change network folders on a storage device that is connected to the USB port on the DST router.

➢ **To change a network folder:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

5. In the Available Network Folders table, select a device.

If a single device is attached to the USB port, the radio button is selected automatically.

6. Click the **Edit** button.

7. Change the settings in the fields as needed.

For more information about the settings, see *Add a Network Folder on a USB Device* on page 103.

8. Click the **Apply** button.

Your settings are saved.

Approve USB Devices

For more security, you can set up the DST router to share only USB devices that you approve.

➢ **To allow only approved USB devices to connect to the DST router and specify which USB devices are approved:**

1. Make sure that the USB device that you want to approve is attached to the DST router.

2. Launch a web browser from a computer or WiFi device that is connected to the network.

3. Enter **http://www.routerlogin.net**.

   A login window displays.

4. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

5. Select **ADVANCED > Advanced Setup > USB Settings**.

   The USB Settings page displays.

6. Select the **No** radio button.

   By default the **Yes** radio button is selected. This setting lets you connect and access all your USB storage devices.

7. Click the **Apply** button.

   Your settings are saved.

8. Click the **Approved Devices** button.

9. In the Available USB Devices table, select the USB device that you want to approve.

   If a single device is attached to the USB port, the radio button is selected automatically.

10. Click the **Add** button.

The USB device is added to the Approved USB Devices table.

11. Select the **Allow only approved devices** check box.

12. Click the **Apply** button.

Your settings are saved.

Safely Remove a USB Device

Before you physically disconnect a USB storage device from the DST router USB port, log in to the DST router and take the device offline.

➢ **To remove a USB disk drive safely:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

5. In the Available Network Folders table, select the device.

If a single device is attached to the USB port, the radio button is selected automatically.

6. Click the **Safely Remove USB Device** button.

The device goes offline and a pop-up window opens.

7. Click the **OK** button.
8. Physically disconnect the USB drive.

Manage Dynamic DNS and Access Storage Devices Through the Internet 9

With Dynamic DNS, you can use the Internet and a personal domain name to access a USB storage device that is attached to a USB port on the DST router when you are not home. If you know the IP address of the DST router (and the IP address did not change), you can also access the USB storage device by using the IP address.

This chapter includes the following sections:

- *Set Up and Manage Dynamic DNS*
- *Access Storage Devices Through the Internet*
- *Remotely Access a USB Device Using ReadyCLOUD*

For information about how to connect the USB drive and to specify its settings, see *Chapter 8, Share USB Devices Attached to the Router*.

Set Up and Manage Dynamic DNS

Internet service providers (ISPs) assign numbers called IP addresses to identify each Internet account. Most ISPs use dynamically assigned IP addresses. This means that the IP address can change at any time. You can use the IP address to access your network remotely, but most people don't know what their IP addresses are or when these numbers change.

To make it easier to connect, you can get a free account with a Dynamic DNS service that lets you use a domain name to access your home network. To use this account, you must set up the DST router to use Dynamic DNS. Then the DST router notifies the Dynamic DNS service provider whenever its IP address changes. When you access your Dynamic DNS account, the service finds the current IP address of your home network and automatically connects you.

If your ISP assigns a private WAN IP address (such as 192.168.x.x or 10.x.x.x), the Dynamic DNS service does not work because private addresses are not routed on the Internet.

Your Personal FTP Server

With your customized free URL, you can use FTP to access your network when you aren't home through Dynamic DNS. To set up your FTP server, you must register for a free NETGEAR Dynamic DNS (DDNS) service account and specify the account settings on the DST router's Dynamic DNS page.
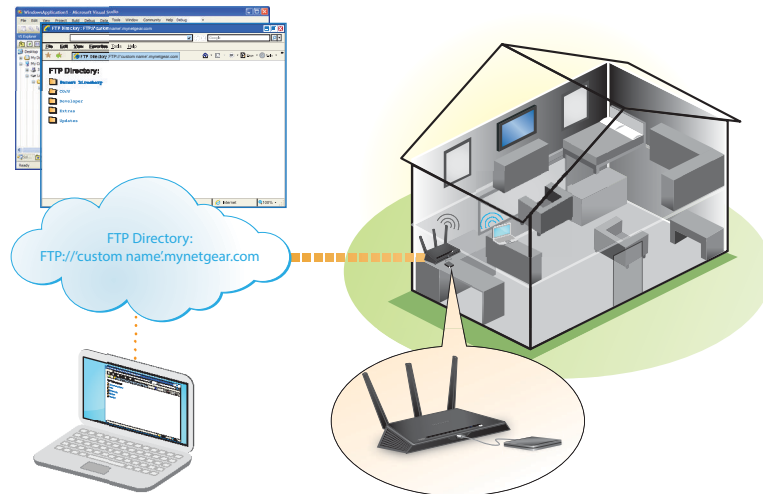
Figure 9. You can access your network through the Internet when you;re not home

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Note: The DST router supports only basic DDNS, and the login and password might not be secure. You can use DDNS with a VPN tunnel for a secure connection.

Set Up Your Personal FTP Server

➢ **To set up your personal account and use FTP:**

1. Get your free NETGEAR Dynamic DNS domain name.

   For more information, see *Set Up a New Dynamic DNS Account* on page 111.

2. Make sure that your Internet connection is working.

   Your DST router must use a direct Internet connection. It cannot connect to a different router to access the Internet.

3. Connect a USB storage device to a USB port on the DST router.

4. 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 DST router.

   When you connect the USB storage device to the DST 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).

5. Set up FTP access in the router.

   For more information, see *Set Up FTP Access Through the Internet* on page 114.

6. On a remote computer with Internet access, you can use FTP to access your router using ftp://*yourname*.mynetgear.com, in which *yourname* is your specific domain name.

   For more information, see *Use FTP to Access Storage Devices Through the Internet* on page 116.

Set Up a New Dynamic DNS Account

➢ **To set up Dynamic DNS and register for a free NETGEAR account:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Dynamic DNS**.

5. Select the **Use a Dynamic DNS Service** check box.

6. In the **Service Provider** menu, select **NETGEAR**.

7. Select the **No** radio button.

8. In the **Host Name** field, type the name that you want to use for your URL.

   The host name is sometimes called the domain name. Your free URL includes the host name that you specify, and ends with mynetgear.com. For example, specify *MyName*.mynetgear.com.

9. In the **Email** field, type the email address that you want to use for your account.

10. In the **Password (6-32 characters)** field, type the password for your account.

11. Click the **Register** button.

12. Follow the onscreen instructions to register for your NETGEAR Dynamic DNS service.

13. To check that Dynamic DNS is enabled in the DST router, click the **Show Status** button.

   A message displays the Dynamic DNS status.

Specify a DNS Account That You Already Created

If you already own a Dynamic DNS account with NETGEAR no-IP, No-IP, or Dyn, you can set up the router to use your account.

➢ **To set up Dynamic DNS if you already created an account:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Settings > Dynamic DNS**.

5. Select the **Use a Dynamic DNS Service** check box.

6. In the **Service Provider** menu, select one of the following:

   - NETGEAR
   - www.no-ip.com
   - www.DynDNS.org

7. Select the **Yes** radio button.

   The page adjusts and displays the **Show Status**, **Cancel**, and **Apply** buttons.

8. In the **Host Name** field, type the host name (sometimes called the domain name) for your account.

9. For a No-IP or Dyn account, in the **User Name** field, enter the user name for your account.

10. For a NETGEAR account, in the **Email** field, type the email address for your account.

11. In the **Password (6-32 characters)** field, type the password for your DDNS account.

12. Click the **Apply** button.

    Your settings are saved.

13. To verify that your Dynamic DNS service is enabled in the router, click the **Show Status** button.

    A message displays the Dynamic DNS status.

Change the Dynamic DNS Settings

➢ **To change your settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Settings > Dynamic DNS**.

5. Change your DDNS account settings as necessary.

6. Click the **Apply** button.

   Your changes are saved.

Access Storage Devices Through the Internet

You can access the USB storage device through the Internet when you're not home.

➢ **To access the USB storage device from a remote computer:**

1. Launch a web browser on a computer that is not on your home network.

2. Connect to your home router:

   • To connect with Dynamic DNS, type the DNS name.

     To use a Dynamic DNS account, you must enter the account information on the Dynamic DNS page. See *Set Up and Manage Dynamic DNS* on page 110.

   • To connect without Dynamic DNS, type the DST router's Internet port IP address.

   You can view the DST router's Internet IP address on the BASIC Home page.

You can use FTP to share files on a USB drive connected to the router.

Set Up FTP Access Through the Internet

➢ **To set up FTP access:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

5. Select the **FTP (via Internet)** check box.

6. Click the **Apply** button.

   Your settings are saved.

7. To limit access to the admin user, click the **Edit** button.

8. In the **Read Access** menu, select **admin**.

9. In the **Write Access** menu, select **admin**.

10. Click the **Apply** button.

    Your settings are saved.

Use FTP to Access Storage Devices Through the Internet

If you attached a USB storage device to the DST router, before you can access the storage device through the Internet with FTP, you must first set it up. For more information, see *Set Up FTP Access Through the Internet* on page 114.

➢ **To access the USB storage device with FTP from a remote computer:**

1. Take one of the following actions:
   - To download a file from a USB storage device connected to the DST router, launch a web browser.
   - To upload a file to a USB storage device connected to the DST router, use an FTP client such as filezilla.

2. Enter **ftp://** and the Internet port IP address in the address field of the browser.

   For example, enter **ftp://10.1.65.4**.

   If you are using Dynamic DNS, type the DNS name.

   For example, enter **ftp://*MyName*.mynetgear.com**.

3. When prompted, log in:
   - To log in as admin, in the user name field, enter **admin** and in the password field, enter the same password that you use to log in to the router.
   - To log in as guest, in the user name field, enter **guest**.

     The guest user name does not need a password. To restrict access to the USB drive, you can specify that only the admin user can access it. See *Manage Access to a USB Device* on page 99.

   The files and folders of the USB drive that your account can access display. For example, you might see `share/partition1/directory1`.

4. Navigate to a location on the USB storage device.

5. Download or upload the file.

Remotely Access a USB Device Using ReadyCLOUD

NETGEAR ReadyCLOUD for DST routers lets you remotely access files stored on a USB storage device that is connected to the DST router. Before you can use ReadyCLOUD, you must create a ReadyCLOUD account and register your DST router.

A ReadyCLOUD app is also available for Windows computers, Android mobile devices, and iOS mobile devices. For more information about setting up ReadyCLOUD, see the ReadyCLOUD for routers user manual, which is available online at *http://downloadcenter.netgear.com*.

Create a ReadyCLOUD Account

➢ **To create a ReadyCLOUD account:**

6. Launch a web browser from a computer or WiFi device.

7. Visit *http://readycloud.netgear.com*.
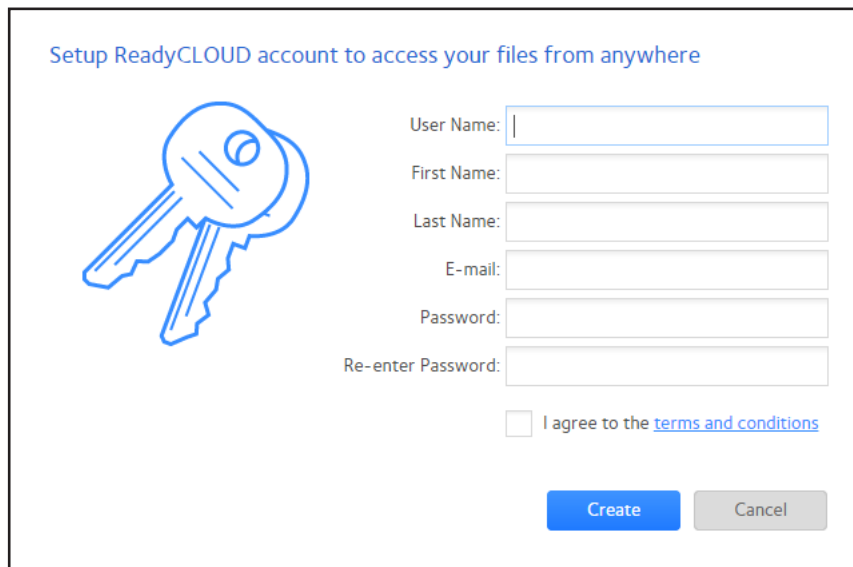
   The ReadyCLOUD Welcome page displays.

8. Click the **Sign In** link.

   The Sign In page displays.

9. Click the **Create Account** link.

   Setup ReadyCLOUD account to access your files from anywhere

   User Name:

   First Name:

   Last Name:

   E-mail:

   Password:

   Re-enter Password:

   ☐ I agree to the terms and conditions

   Create   Cancel

10. Complete the fields to set up your account, and click the **Create** button.

    You are now ready to register your DST router with your ReadyCLOUD account.

Register Your DST Router With ReadyCLOUD

After you create a ReadyCLOUD account, you must register your DST router with your ReadyCLOUD account.

➢ **To register your router with your ReadyCLOUD account:**

1. Visit *http://kb.netgear.com/app/answers/detail/a_id/27323/* and check to see if you DST router supports ReadyCLOUD.

2. Connect a USB storage device to a USB port on the DST router.

3. 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 DST router.

When you connect the USB storage device to the DST 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).

4. Launch a web browser from a computer or WiFi device that is connected to the network.

5. Enter **http://www.routerlogin.net**.

   A login window opens.

6. Enter the router user name and password.
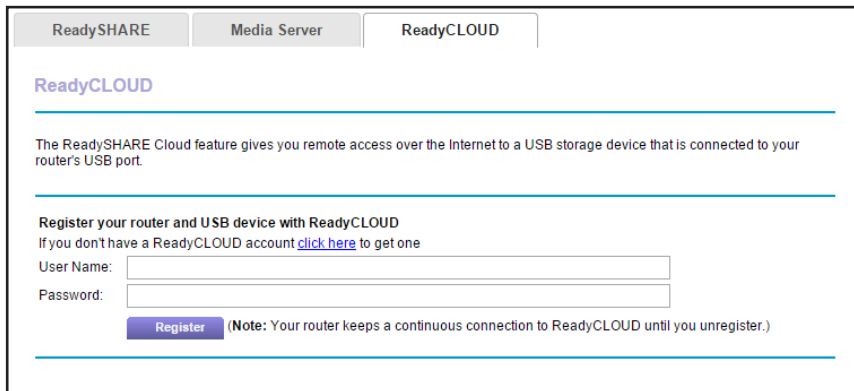
   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

7. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

   The USB Storage (Advanced Settings) page displays.

8. Click the **ReadyCLOUD** tab.

9. Enter your ReadyCLOUD user name and password and click the **Register** button.

   If you did not create a ReadyCLOUD account, see *Create a ReadyCLOUD Account* on page 117.

   The DST router is registered with ReadyCLOUD.

   Note: If the DST router's Internet connection mode is set to Dial on Demand, the DST router automatically changes the connection mode to Always On. This change is required for ReadyCLOUD to remotely access the USB storage device.

   ---

10. After registration, visit *readycloud.netgear.com*.

11. Click the **Sign In** link, enter your ReadyCLOUD user name and password, and click the **Sign In** button.

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

10. Use the DST Router as a Media Server

This chapter contains the following sections:

- *Specify ReadyDLNA Media Server Settings*
- *Play Music From a USB Storage Device With iTunes Server*
- *Set Up the DST Router to Work With TiVo*
- *Play Media From a USB Device on TiVo*

Specify ReadyDLNA Media Server Settings

By default, the router acts as a ReadyDLNA media server, which lets you view movies and photos on DLNA/UPnP AV-compliant media players, such as Xbox360, Playstation, and NETGEAR media players.

➢ **To specify media server settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

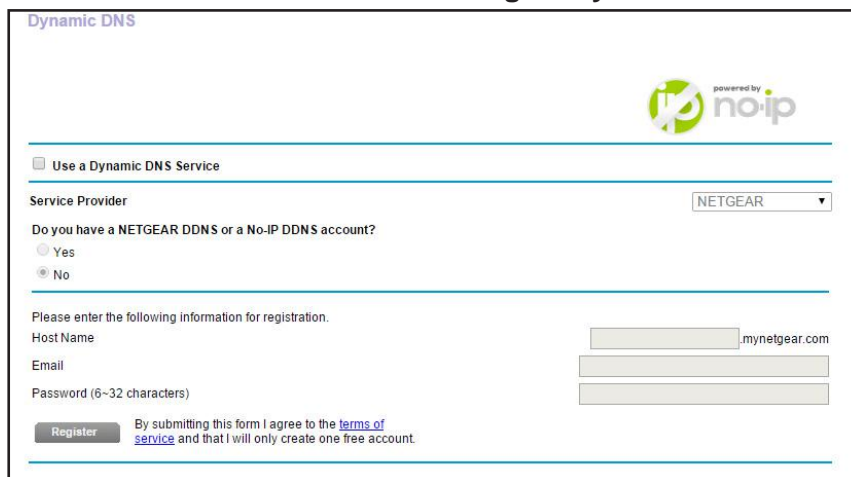   A login window displays.
3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.
4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

   The USB Storage (Advanced Settings) page displays.
5. Click the **Media Server** tab.

   The Media Server (Settings) page displays.
6. Specify the settings:
   - **Enable Media Server**. Select this check box to enable this device to act as a media server.
   - **Enable TiVo support**. Select this check box if you want to play ReadyNAS media on your TiVo device. See the *Play Media From a USB Device on TiVo* on page 127.
   - **Media Server Device Name**. Specify the name of the media server.
7. Click the **Apply** button.

   Your settings are saved.

Play Music From a USB Storage Device With iTunes Server

iTunes server lets you play music with iTunes on your Windows or Mac computer or with the Apple Remote app on your iPhone or iPad from a USB device that is connected to a USB

port on your DST router. You can also use the Apple Remote app from an iPhone or iPad to play music on any AirPlay devices, such as Apple TV or AirPlay-supported receivers.

Figure 10. Play music on a USB drive with iTunes

Supported music file formats are MP3, AAC, and FLAC. The maximum number of music files supported is 10,000.

Set Up the DST Router's iTunes Server With iTunes

You can use Home Sharing to play music with iTunes on your Windows or Mac computer from a USB storage device that is connected to your DST router. To set up Home Sharing, you need an Apple account and the latest version of iTunes installed on your computer.

➢ **To set up the DST router's iTunes server to play music on iTunes:**

1. Connect a USB storage device to a USB port on your DST router.

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 DST router.

    When you connect the USB storage device to the DST 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. Launch a web browser from a computer or WiFi device that is connected to your DST router's network.

4. Enter **http://www.routerlogin.net**.

    A login window displays.

5. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

6. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

   The USB Storage (Advanced Settings) page displays.

7. Click the **Media Server** tab.
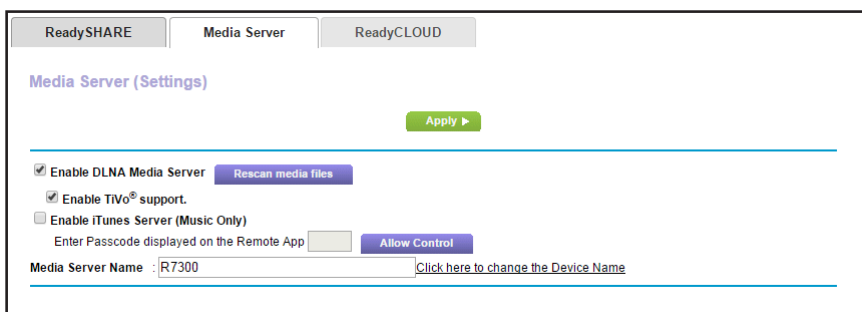
8. Select the **Enable iTunes Media Server (Music Only)** check box and click the **Apply** button.

   Your settings are saved.

9. On your Windows or Mac computer, launch iTunes.

10. Select **File > Home Sharing > Turn On Home Sharing**.

    The Home Sharing page displays.

11. Enter your Apple ID email address and password and click the **Turn On Home Sharing** button.

    When Home Sharing is enabled, a **Home Sharing** icon displays in iTunes [icon].

12. Click the **Home Sharing** icon [icon] and from the menu, select the DST router.

    The music that is on the USB device that is connected to the DST router displays in iTunes.

Set Up the DST Router's iTunes Server With the Remote App

You can use the Apple Remote app to play music on your iPhone or iPad from a USB storage device that is connected to your DST router.

➢ **To set up the DST router's iTunes server to play music on your iPhone or iPad:**

1. Connect a USB storage device to a USB port on your DST router.

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 DST 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. Connect your iPhone or iPad to your router's WiFi network.

4. Download the Remote app from the Apple App Store.

5. Launch the Remote app ▶ from your iPhone or iPad.
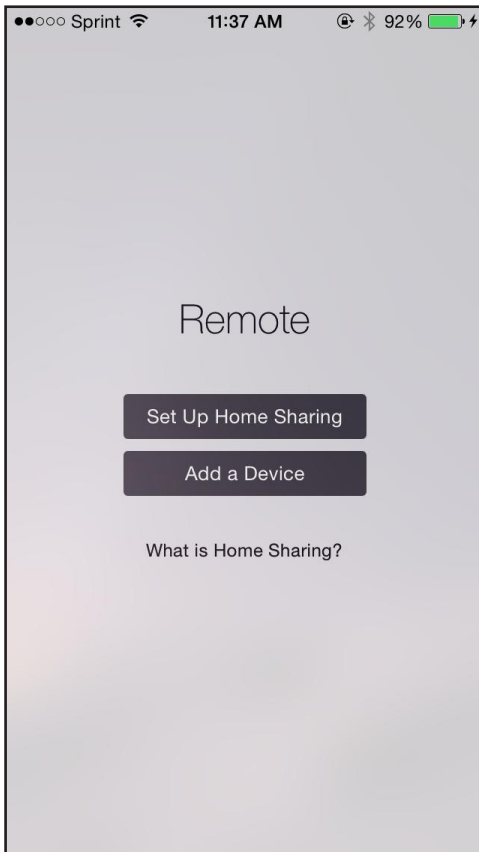
6. Click the **Add a Device** button.
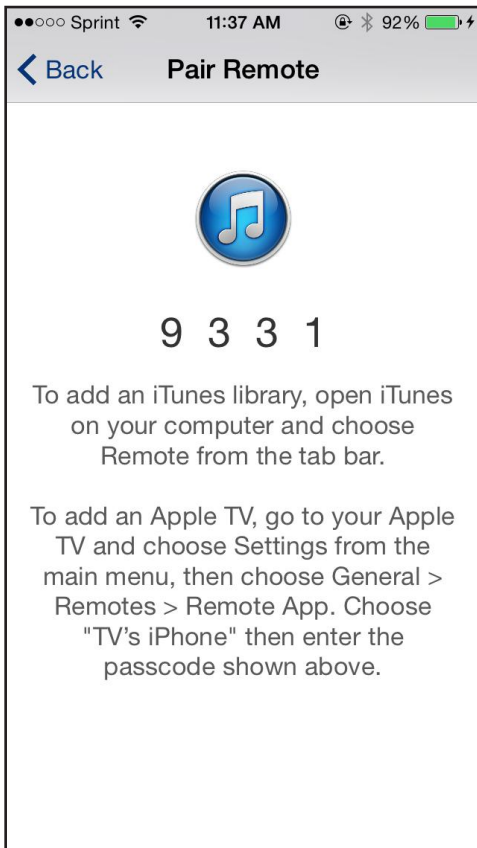
7. Specify the passcode in the DST router to set up your iTunes server:

   a. Launch a web browser from a computer or WiFi device that is connected to your network.

   b. Enter **http://www.routerlogin.net**.

      A login window displays.

   c. Enter the router user name and password.

      The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

      The BASIC Home page displays.

   d. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

      The USB Storage (Advanced Settings) page displays.

e. Click the **Media Server** tab.

f. Select the **Enable iTunes Media Server (Music Only)** check box and click the **Apply** button.

g. Enter the passcode and click the **Allow Control** button.

Your settings are saved.

Your iPhone or iPad pairs with the DST router and the iTunes server is ready. The router displays in the Remote app.

8. In the Remote app, tap the router your iPhone or iPad is connected to.

The music that is on the USB storage device that is connected to the DST router displays in the app.

Set Up the DST Router to Work With TiVo

You can set up your TiVo to access media files stored on a USB device that is connected to your DST router. The TiVo must be on the same network as the DST router. This feature supports the following file formats:

- **Video**. See and play MPEG1, and MPEG2 files.
- **Music**. See and play MP3 files.
- **Pictures**. View images in jpg format.

You can use the TiVo (Series 2 and up) Home Media Option to play photos and music on your Windows or Mac computer in your TiVo user interface.

➢ **To set up the DST router to work with TiVo:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > USB Functions > ReadySHARE Storage**.

   The USB Storage (Advanced Settings) page displays.

5. Select the **Media Server** tab.
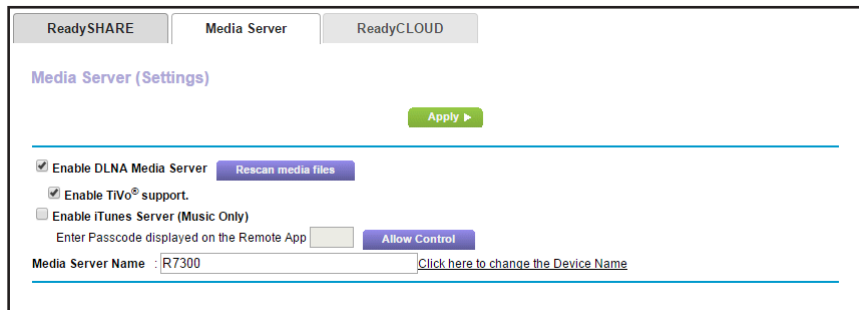
6. Make sure that the **Enable TiVo support** check box is selected.

Play Media From a USB Device on TiVo

Make sure that you set up the DST router to work with TiVo. For more information, see *Set Up the DST Router to Work With TiVo* on page 126.

Play Videos on TiVo

➢ **To play videos:**

1. On the TiVo, select **TiVo Central > My Shows**.
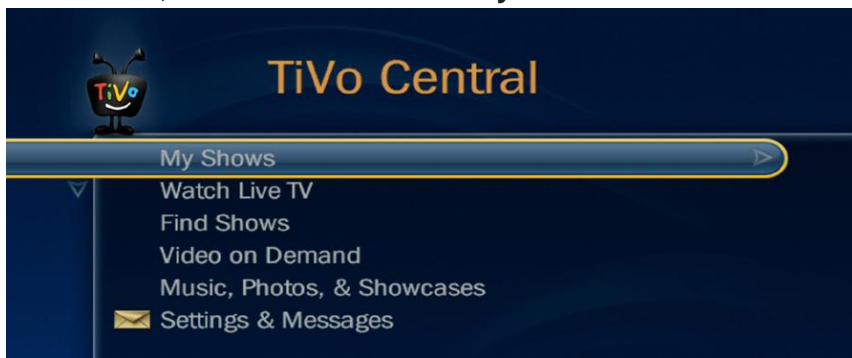
2. Go to the bottom of the list and select the DST router.

Play Music or View Photos on TiVo

➢ **To play music or view photos:**

1. On the TiVo, select **TiVo Central > Music, Photos, & Showcases**.
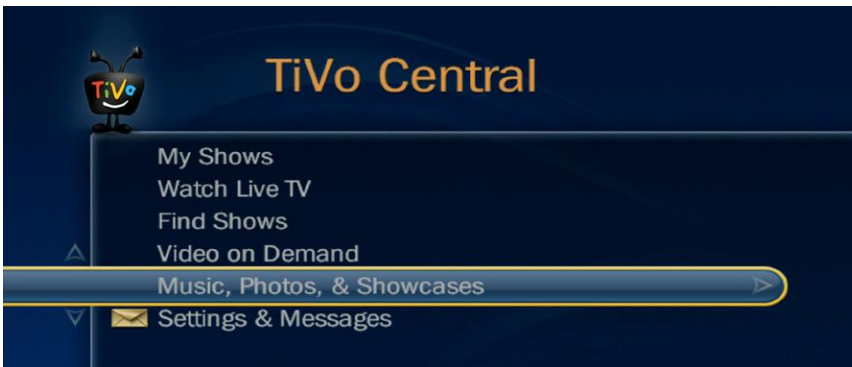
2. Select an item to play or watch.
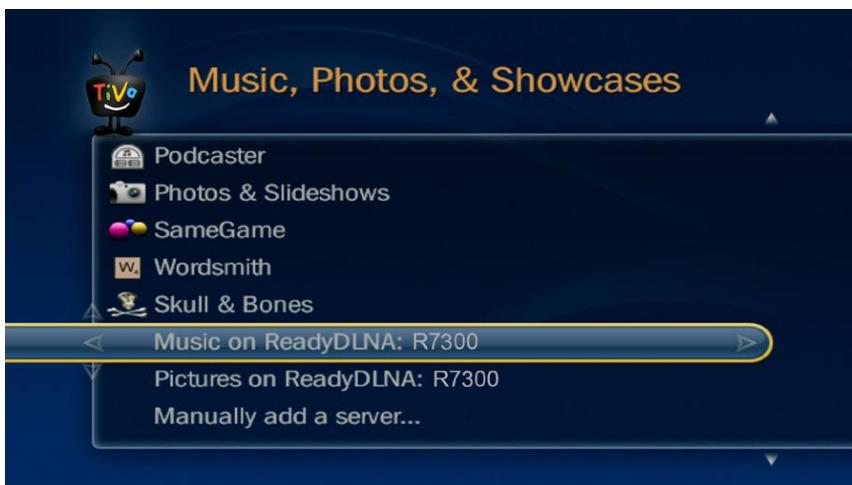
Share a USB Printer

11

The ReadySHARE Printer utility lets you share a USB printer that is connected to the USB port on your DST router. You can share this USB printer among the Windows and Mac computers on your network.

For more information about the features available in the NETGEAR USB Control Center, see the ReadySHARE printer user manual, which is available *http://downloadcenter.netgear.com*.

This chapter contains the following sections:

- *Install the Printer Driver and Cable the Printer*
- *Download the ReadySHARE Printer Utility*
- *Install the ReadySHARE Printer Utility*
- *Print Using the NETGEAR USB Control Center*
- *View or Change the Status of a Printer*
- *Use the Scan Feature of a Multifunction USB Printer*
- *Change NETGEAR USB Control Center Settings*

Install the Printer Driver and Cable the Printer

Some USB printer manufacturers (for example, HP and Lexmark printers) request that you do not connect the USB cable until the installation software prompts you to do so.

➢ **To install the driver and cable the printer:**

1. On each computer on your network that shares the USB printer, install the driver software for the USB printer.

    If the printer driver is not installed, contact the printer manufacturer.

2. Use a USB printer cable to connect the USB printer to the DST router USB port.

USB port
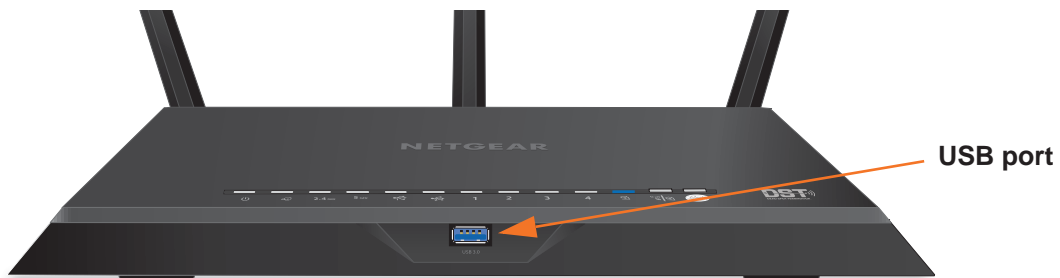
Download the ReadySHARE Printer Utility

The utility works on Windows and Mac computers.

➢ **To download the utility:**

1. Visit *netgear.com/readyshare*.
2. Click the **PRINT - Learn how you can print wirelessly from many devices** link.
3. Click one of the following links to download the ReadySHARE Printer utility setup file:
    - **Download PC installer and get started**. Download the utility for Windows computers.
    - **Download Mac installer and get started**. Download the utility for MAC computers.
    - **Download the genie App and get started**. Download the genie app to set up AirPrint with your iOS device.
4. Follow the onscreen instructions to install the ReadySHARE Printer utility.

Install the ReadySHARE Printer Utility

You must install the ReadySHARE Printer utility on each computer that will share the printer. After you install it, the utility displays as NETGEAR USB Control Center on your computer.

➢ **To install the utility:**

1. If necessary, unzip the ReadySHARE Printer utility setup file.

2. Double-click the ReadySHARE Printer utility setup file that you downloaded.
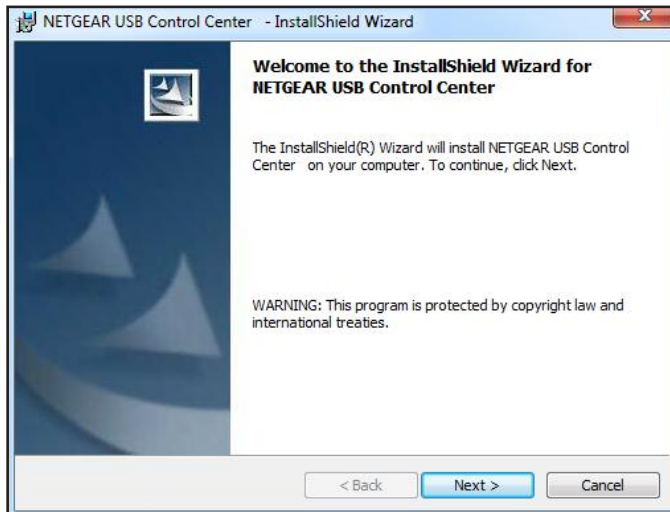
3. Follow the wizard instructions to install NETGEAR USB Control Center.

   After the InstallShield Wizard completes the installation, the NETGEAR USB Control Center prompts you to select a language:

4. Select a language from the menu and click the **OK** button.

   The NETGEAR USB Control Center window displays.

   The USB printer connected to the DST router displays in the NETGEAR USB Control Center window.

> **Note:** Some firewall software, such as Comodo or Norton, blocks NETGEAR USB Control Center from accessing the USB printer. If you do not see the USB printer displayed in the utility, you can disable the firewall temporarily to allow the utility to work.

Print Using the NETGEAR USB Control Center

For each computer, after you click the **Connect** and **Disconnect** buttons once, the utility automatically manages the printing queue and handling. By default, the utility starts automatically whenever you log on to Windows and runs in the background.

➢ **To print a document using the NETGEAR USB Control Center:**

1. Click the **NETGEAR USB Control Center** icon 🔳 .

   The NETGEAR USB Control Center window displays.

2. Select a printer and click the **Connect** button.

   The printer status changes to Manually connected by *Mycomputer*. Now only the computer you are using can use this printer.

3. Use the print feature in your application to print your document.

   The NETGEAR USB Control Center automatically connects your computer to the USB printer and prints the document. If another computer is already connected to the printer, your print job goes into a queue to wait to be printed.

4. If your document does not print, use the NETGEAR USB Control Center to check the printer status.

   For more information, see *View or Change the Status of a Printer* on page 133.

5. To release the printer so that all computers on the network can use it, click the **Disconnect** button.

   The status changes to Available. Now any computers on the network can use the printer.

6. To exit the utility, select **System > Exit**.

View or Change the Status of a Printer

➢ **To view or change the status:**

1. Click the **NETGEAR USB Control Center** icon .

    The NETGEAR USB Control Center window displays.

    The Status column shows the status for each device:

    *   **Available**. No print jobs are in progress. You can use the USB printer from any computer in the network.
    *   **Connected**. Your computer is connected to the printer and will be released when your print job is done.
    *   **Manually Connected by**. Only the connected computer can use the printer.
    *   **Waiting to Connect**. Your computer is not connected to the shared printer yet.

2. To print from your computer when the printer status shows Manually connected by *another computer*, do the following:

    a. Click the **Connect** button on your computer.

    On the other user's computer, a message displays that another user wants to connect to the printer.

    b. On the other user's computer, click the **Accept** button.

    The printer is released from the connection and the printer status on your computer changes to Available.

3. To print from your computer when the status shows Waiting to Connect, do the following:

    a. Click the **Connect** button.

    The printer status changes to Manually connected by *Mycomputer*. Now only your computer can use the printer.

    b. To allow the printer to be shared, click the **Disconnect** button.

    The printer is released from the connection and the status changes to Available.

Use the Scan Feature of a Multifunction USB Printer

If your USB printer supports scanning, you can also use the USB printer for scanning.

➢ **To use the scan feature of a multifunction USB printer:**

1. Click the **NETGEAR USB Control Center** icon .

    The NETGEAR USB Control Center window displays.

2. Make sure that the printer status shows as Available.

3. Click the **Network Scanner** button.

4. If a Select a Device window displays, select the scanner and click the **OK** button.

The scanner widow displays so that you can use the USB printer for scanning.

Change NETGEAR USB Control Center Settings

You can stop the NETGEAR USB Control Center from starting automatically when you log in to Windows. You can also change the language and specify the time-out to release the printer connection.

Turn Off Automatic Startup for the NETGEAR USB Control Center

You can stop the NETGEAR USB Control Center from starting automatically when you log in to Windows.

➢ **To turn off automatic NETGEAR USB Control Center startup:**

1. Click the **NETGEAR USB Control Center** icon .

The NETGEAR USB Control Center window displays.

2. Select **Tools > Configuration**.

The Control Center - Configuration window displays.

3. Clear the **Automatically execute when logging on Windows** check box.

4. Click the **OK** button.

Your settings are saved.

Change the Language in the NETGEAR USB Control Center

➢ **To change the language:**

1. Click the **NETGEAR USB Control Center** icon .

The NETGEAR USB Control Center window displays.

2. Select **Tools > Configuration**.

The Control Center - Configuration window displays.

3. In the **Language** menu, select a language.

4. Click the **OK** button.

The next time NETGEAR USB Control Center starts, the language changes.

Specify the Time-Out for the NETGEAR USB Control Center

Specify the time-out to release the printer connection.

➢ **To specify the time-out:**

1. Click the **NETGEAR USB Control Center** icon .

   The NETGEAR USB Control Center window displays.

2. Select **Tools > Configuration**.

   The Control Center - Configuration window displays.

3. In the **Timeout** field, type the number of minutes.

   The time-out is the number of minutes that a computer holds its connection to the printer when the connection isn't being used.

4. Click the **OK** button.

   Your settings are saved.

Specify Network Settings for the DST Router

12

This chapter includes the following sections:

- *View or Change WAN Settings*
- *Set Up a Default DMZ Server*
- *Change the DST Router's Device Name*
- *Change the LAN TCP/IP Settings*
- *Specify the IP Addresses That the DST Router Assigns*
- *Disable the DHCP Server Feature in the DST Router*
- *Reserve LAN IP Addresses*
- *Specify Basic WiFi Settings*
- *Change the WiFi Password or Security Level*
- *Set Up a Guest Network*
- *How the DST Router Manages WiFi Clients*
- *Enable or Disable the WiFi Radios*
- *Set Up a WiFi Schedule*
- *Specify WPS Settings*
- *Set Up the DST Router With an Existing Router or Gateway*
- *Use the DST Router as a WiFi Access Point*

View or Change WAN Settings

You can view or configure wide area network (WAN) settings for the Internet port. You can set up a DMZ (demilitarized zone) server, change the maximum transmit unit (MTU) size, and enable the DST router to respond to a ping to its WAN (Internet) port.

➢ **To view or change the WAN settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > WAN Setup.**

5. View or change the following settings:

   - **Disable Port Scan and DoS Protection**. DoS protection protects your LAN against denial of service attacks such as Syn flood, Smurf Attack, Ping of Death, and many others. Select this check box only in special circumstances.

   - **Default DMZ Server**. This feature is sometimes helpful when you are playing online games or videoconferencing, but it makes the firewall security less effective. See *Set Up a Default DMZ Server* on page 138.

   - **Respond to Ping on Internet Port**. This feature allows your DST router to be discovered. Use this feature only as a diagnostic tool or if a specific reason exists.

   - **Disable IGMP Proxying**. IGMP proxying allows a computer on the local area network (LAN) to receive the multicast traffic it is interested in from the Internet. If you do not need this feature, you can select this check box to disable it.

   - **MTU Size (in bytes)**. The normal MTU (maximum transmit unit) value for most Ethernet networks is 1500 bytes, or 1492 bytes for PPPoE connections. Change the MTU only if you are sure that it is necessary for your ISP connection. See *Change the MTU Size* on page 62.

- **NAT Filtering**. Network Address Translation (NAT) determines how the DST router processes inbound traffic. Secured NAT protects computers on the LAN from attacks from the Internet, but might prevent some Internet games, point-to-point applications, or multimedia applications from working. Open NAT provides a much less secured firewall, but allows almost all Internet applications to work.

6. Click the **Apply** button.

   Your settings are saved.

Set Up a Default DMZ Server

The default DMZ server feature is helpful when you are using some online games and videoconferencing applications that are incompatible with Network Address Translation (NAT). The DST router is programmed to recognize some of these applications and to work correctly with them, but other applications might not function well. In some cases, one local computer can run the application correctly if the IP address for that computer is entered as the default DMZ server.

> ⚠️ **WARNING:**
>
> **DMZ servers pose a security risk. A computer designated as the default DMZ server loses much of the protection of the firewall and is exposed to exploits from the Internet. If compromised, the DMZ server computer can be used to attack other computers on your network.**

The DST router usually detects and discards incoming traffic from the Internet that is not a response to one of your local computers or a service that you configured on the Port Forwarding/Port Triggering page. Instead of discarding this traffic, you can direct the DST router to forward the traffic to one computer on your network. This computer is called the default DMZ server.

➢ **To set up a default DMZ server:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > WAN Setup**.

   The WAN Setup page displays.

5. Select the **Default DMZ Server** check box.

6. Type the IP address.

7. Click the **Apply** button.

   Your settings are saved.

Change the DST Router's Device Name

The DST router's device name is R7300. This device name displays in file manager when you browse your network.

➢ **To change the DST router's device name:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > LAN Setup**.

5. In the **Device Name** field, type a new name.

6. Click the **Apply** button.

   Your settings are saved.

Change the LAN TCP/IP Settings

The DST router is preconfigured to use private IP addresses on the LAN side and to act as a DHCP server. The DST router's default LAN IP configuration is as follows:

- **LAN IP address**. 192.168.1.1
- **Subnet mask**. 255.255.255.0

These addresses are part of the designated private address range for use in private networks and are suitable for most applications. If your network requires a different IP addressing scheme, you can change these settings

You might want to change these settings if you need a specific IP subnet that one or more devices on the network uses, or if competing subnets use the same IP scheme.

➢ **To change the LAN TCP/IP settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > LAN Setup**.

5. In the **IP Address** field, type the IP address.

6. In the **IP Subnet Mask**, type the subnet mask of the DST router.

   The IP address and subnet mask identifies which addresses are local to a specific device and which must be reached through a gateway or DST router.

7. Change the RIP settings.

Router Information Protocol (RIP) allows a router to exchange routing information with other routers.

a. In the **RIP Direction** menu, select one of the following:

- **Both**. The DST router broadcasts its routing table periodically and incorporates information that it receives.

- **Out Only**. The DST router broadcasts its routing table periodically.

- **In Only**. The DST router incorporates the RIP information that it receives.

b. In the **RIP Version** menu, select one of the following:

- **Disabled**. This is the default setting.

- **RIP-1**. This format is universally supported. It is adequate for most networks, unless your network setup is unusual.

- **RIP-2**. This format carries more information. Both RIP-2B and RIP-2M send the routing data in RIP-2 format. RIP-2B uses subnet broadcasting. RIP-2M uses multicasting.

8. Click the **Apply** button.

   Your settings are saved.

   If you changed the LAN IP address of the DST router, you are disconnected when this change takes effect.

9. To reconnect, close your browser, relaunch it, and log in to the DST router

Specify the IP Addresses That the DST Router Assigns

By default, the DST router acts as a Dynamic Host Configuration Protocol (DHCP) server. The DST router assigns IP, DNS server, and default gateway addresses to all computers connected to the LAN. The assigned default gateway address is the LAN address of the DST router.

These addresses must be part of the same IP address subnet as the DST router's LAN IP address. Using the default addressing scheme, define a range between 192.168.1.2 and 192.168.1.254, although you can save part of the range for devices with fixed addresses.

➢ **To specify the pool of IP addresses that the DST router assigns:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > LAN Setup**.

5. Make sure that the **Use Router as DHCP Server** check box is selected.

6. Specify the range of IP addresses that the DST router assigns:

    a. In the **Starting IP Address** field, type the lowest number in the range.

        This IP address must be in the same subnet as the DST router.

    b. In the **Ending IP Address** field, type the number at the end of the range of IP addresses.

        This IP address must be in the same subnet as the DST router.

7. Click the **Apply** button.

    Your settings are saved.

The DST router delivers the following parameters to any LAN device that requests DHCP:

- An IP address from the range that you define
- Subnet mask
- Gateway IP address (the DST router's LAN IP address)
- DNS server IP address (the DST router's LAN IP address)

Disable the DHCP Server Feature in the DST Router

By default, the DST router acts as a DHCP server. The DST router assigns IP, DNS server, and default gateway addresses to all computers connected to the LAN. The assigned default gateway address is the LAN address of the DST router.

You can use another device on your network as the DHCP server, or specify the network settings of all your computers.

➢ **To disable the DHCP server feature in the DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > LAN Setup.**

5. Clear the **Use Router as DHCP Server** check box.

6. Click the **Apply** button.

   Your settings are saved.

7. (Optional) If this service is disabled and no other DHCP server is on your network, set your computer IP addresses manually so that they can access the DST router.

Reserve LAN IP Addresses

When you specify a reserved IP address for a computer on the LAN, that computer always receives the same IP address each time it accesses the DST router's DHCP server. Assign reserved IP addresses to computers or servers that require permanent IP settings.

➢ **To reserve an IP address:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > LAN Setup**.

5. In the Address Reservation section, click the **Add** button.

6. In the **IP Address** field, type the IP address to assign to the computer or server.

    Choose an IP address from the DST router's LAN subnet, such as 192.168.1.x.

7. Type the MAC address of the computer or server.

    Tip: If the computer is already on your network, you can copy its MAC address from the Attached Devices page and paste it here.

8. Click the **Apply** button**.**

    The reserved address is entered into the table.

The reserved address is not assigned until the next time the computer contacts the DST router's DHCP server. Reboot the computer, or access its IP configuration and force a DHCP release and renew.

Change a Reserved IP Address

You can change a reserved IP address entry.

➢ **To change a reserved IP address entry:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **ADVANCED > Setup > LAN Setup**.

5. In the Address Reservation section, select the radio button next to the reserved address.

6. Click the **Edit** button.

   The Edit page displays.

7. Change the settings.

8. Click the **Apply** button.

   Your settings are saved.

Remove a Reserved IP Address Entry

You can remove a reserved IP address entry.

➢ **To remove a reserved IP address entry:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Setup > LAN Setup**.

5. In the Address Reservation section, select the radio button next to the reserved address.

6. Click the **Delete** button.

The address entry is removed.

Specify Basic WiFi Settings

The DST router comes with preset security. This means that the WiFi network name (SSID), network key (password), and security option (encryption protocol) are preset in the factory. You can find the preset SSID and password on the DST router label.

Note: The preset SSID and password are uniquely generated for every device to protect and maximize your WiFi security.

We recommend that you do not change your preset security settings. If you change your preset security settings, make a note of the new settings and store it in a safe place where you can easily find it.

If you use a WiFi computer to change the WiFi network name (SSID) or other WiFi security settings, you are disconnected when you click the **Apply** button. To avoid this problem, use a computer with a wired connection to access the DST router.

➢ **To specify basic WiFi settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **Wireless**.

5. In the **Region** list, select your region.

In some locations, you cannot change this setting.

6. To control the SSID broadcast, select or clear the **Enable SSID Broadcast** check box.

When this check box is selected, the DST router broadcasts its network name (SSID) so that it displays when you scan for local WiFi networks on your computer or WiFi device.

7. To change the network name (SSID), type a new name in the **Name (SSID)** field.

The name can be up to 32 characters long and it is case-sensitive. The default SSID is randomly generated and is on the DST router's label. If you change the name, make sure to write down the new name and keep it in a safe place.

8. To change the WiFi channel, select a number in the **Channel** menu.

In some regions, not all channels are available. Do not change the channel unless you experience interference (shown by lost connections or slow data transfers). If this happens, experiment with different channels to see which is the best.

When you use multiple access points, it is better if adjacent access points use different channels to reduce interference. The recommended channel spacing between adjacent access points is four channels (for example, use Channels 1 and 5, or 6 and 10).

9. To change the mode, select it from the **Mode** menu.

For 2.4 GHz, **Up to 600 Mbps** is the default setting. The other settings are **Up to 289 Mbps** and **Up to 54 Mbps**.

For 5 GHz, **Up to 1300 Mbps** is the default setting, which allows 802.11ac and 802.11a WiFi devices to join the network. The other settings are **Up to 600 Mbps** and **Up to 289 Mbps**.

10. Click the **Apply** button.

Your settings are saved.

If you connected wirelessly to the network and you changed the SSID, you are disconnected from the network.

11. Make sure that you can connect wirelessly to the network with its new settings.

If you cannot connect wirelessly, check the following:

- Is your computer or WiFi device connected to another WiFi network in your area? Some WiFi devices automatically connect to the first open network without WiFi security that they discover.
- Is your computer or WiFi device trying to connect to your network with its old settings (before you changed the settings)? If so, update the WiFi network selection in your computer or WiFi device to match the current settings for your network.

Change the WiFi Password or Security Level

Your DST router comes with preset WPA2 or WPA security. The password that you enter to connect to your network is unique to your router and is on the DST router label. We recommend that you use the preset security, but you can change the settings. Do not disable security.

➢ **To change the WPA settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **Wireless**.

The Wireless Setup page displays.

5. Under **Security Options**, select a WPA options.

The WPA2 options use the newest standard for the strongest security, but some older computers and WiFi devices cannot use WPA2. By default, the **WPA2-PSK [AES]** radio button is selected.

The **Passphrase** field displays.

6. In the **Passphrase** field, enter the network key (password) that you want to use.

   It is a text string from 8 to 63 characters.

7. Write down the new password and keep it in a secure place for future reference.

8. Click the **Apply** button.

   Your settings are saved.

Set Up a Guest Network

A guest network allows visitors at your home to use the Internet without using your WiFi security key. You can add a guest network to each WiFi network: 2.4 GHz b/g/n and 5.0 GHz a/n.

➢ **To set up a guest network:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Guest Network**.

5. Select any of the following WiFi settings:

- **Enable Guest Network**. When this check box is selected, the guest network is enabled, and guests can connect to your network using the SSID of this profile.

- **Enable SSID Broadcast**. If this check box is selected, the WiFi access point broadcasts its name (SSID) to all WiFi stations. Stations with no SSID can adopt the correct SSID for connections to this access point.

- **Allow guest to see each other and access my local network**. If this check box is selected, anyone who connects to this SSID can access your local network, not just the Internet.

6. Give the guest network a name.

   The guest network name is case-sensitive and can be up to 32 characters. You then manually configure the WiFi devices in your network to use the guest network name in addition to the main SSID.

7. Select a radio button for a security option.

   The WPA2 options use the newest standard for the strongest security, but some older computers and WiFi devices cannot use it. We recommend that you select the **WPA-PSK [TKIP] + WPA2-PSK [AES]** radio button. This setting protects your WiFi network and lets computers and WiFi devices can connect to the WiFi network by using either WPA2 or WPA security.

8. Click the **Apply** button.

   Your settings are saved.

How the DST Router Manages WiFi Clients

A WiFi client is any computer or WiFi device that connects to the DST router's WiFi network. The DST router uses airtime fairness and implicit beamforming to manage its wireless clients. These features are enabled by default, but you can disable them.

Airtime Fairness

Airtime fairness ensures that all clients receive equal time on the network. Network resources are divided by time, so if your five clients, they each get one-fifth of the network time. The advantage of this feature is that your slowest clients don't control network responsiveness. This feature is enabled by default, but you can disable it.

➢ **To disable airtime fairness:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Wireless Settings**.

   The Wireless Settings page displays.

5. Scroll down below the WPS Settings section and clear the **Enable AIRTIME FAIRNESS** check box.

6. Click the **Apply** button.

   Your settings are saved.

Implicit Beamforming

Implicit beamforming contrasts with explicit beamforming, which means that your DST router actively tracks clients and directs power to the DST router antenna closest to the client. This works whether or not the client supports beamforming. Implicit beamforming means that the router can use information from client devices that support beamforming to improve the WiFi signal. This feature is enabled by default, but you can disable it.

➢ **To disable implicit beamforming:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Wireless Settings**.

   The Wireless Settings page displays.

5. Scroll down below the WPS Settings section and clear the **Enable Implicit BEAMFORMING** check box.

6. Click the **Apply** button.

   Your settings are saved.

Enable or Disable the WiFi Radios

➢ **To enable or disable the WiFi radios:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Wireless Settings**.

5. Select or clear the **Enable Wireless Radio** check boxes in the 2.4 GHz and 5 GHz sections.

Clearing these check boxes turns off the WiFi feature of the DST router.

6. Click the **Apply** button.

   If you turned off both WiFi radios, the WiFi On/Off LED and the WPS LED turn off. If you turned on the WiFi radios, the WiFi On/Off LED and the WPS LED light.

Set Up a WiFi Schedule

You can use this feature to turn off the WiFi signal from your DST router at times when you do not need a WiFi connection. For example, you might turn it off for the weekend if you leave town.

➢ **To set up the WiFi schedule:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Wireless Settings**.

   The Advanced Wireless Settings page displays.

5. Click the **Add a new period** button.

6. Use the menus, radio buttons, and check boxes to set up a period during which you want to turn off the WiFi signal.
7. Click the **Apply** button.

   The Advanced Wireless Settings page displays.

8. Select the **Turn off wireless signal by schedule** check box to activate the schedule.
9. Click the **Apply** button.

Your settings are saved.

Specify WPS Settings

Wi-Fi Protected Setup (WPS) lets you join the WiFi network without typing the WiFi password.

➢ **To specify WPS settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

   A login window displays.
3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.
4. Select **ADVANCED > Advanced Setup > Wireless Settings**.

   The Router's PIN field displays the PIN that you use on a registrar (for example, from the Network Explorer on a Vista Windows computer) to configure the DST router's WiFi settings through WPS.
5. (Optional) Select or clear the **Disable Router's PIN** check box.

   The PIN function might temporarily be disabled when the DST router detects suspicious attempts to break into the DST router's WiFi settings by using the DST router's PIN through WPS. You can manually enable the PIN function by clearing the **Disable Router's PIN** check box.
6. (Optional) Select or clear the **Keep Existing Wireless Settings** check box.

   By default, the **Keep Existing Wireless Settings** check box is selected. We recommend that you leave this check box selected.

   If you clear this check box, the next time a new WiFi client uses WPS to connect to the DST router, the DST router WiFi settings change to an automatically generated random SSID and security key.
7. Click the **Apply** button.

   Your settings are saved.

Set Up the DST Router With an Existing Router or Gateway

If you own an existing router or gateway, you can connect your new DST router to your existing router or gateway and set up the router in one of the following modes: router mode or access point (AP) mode.

To use router mode, you configure your new NETGEAR DST router as a normal WiFi router behind your gateway and create a separate WiFi network behind your gateway. To take full advantage of this DST router's advanced functions, we recommend that you use router mode. In router mode, the only device that can be connected to your existing gateway is your new NETGEAR DST router. You must connect all of your devices to the new NETGEAR DST router. If your existing gateway has a WiFi function, disable it.

If you want to use the new DST router to get better WiFi performance beyond what you have with your existing gateway provides, access point mode is the easiest way to do that. We recommend that you disable the WiFi function on your existing gateway if it provides WiFi functionality. With this mode, you can connect wired devices to the gateway and connect wired and WiFi devices to your new NETGEAR DST router.

If you already set up the Internet connection for your DST router and you are sure that you want to set up the DST router as an access point, see *Use the DST Router as a WiFi Access Point* on page 156.

➢ **To set up the DST router with your existing router or gateway:**

1. Use an Ethernet cable to connect the Internet port of this DST router to an Ethernet port on your existing router or gateway.
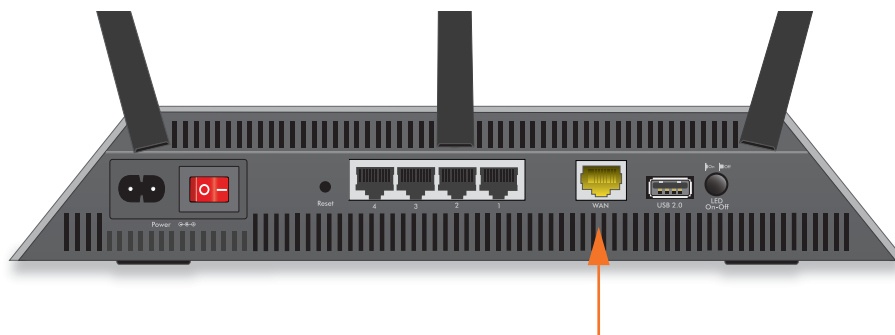
**Cable this port to a Ethernet port
on another router.**

2. Launch a web browser from a computer or WiFi device that is connected to the network.

   The first time that you are setting up the Internet connection for your DST router, the browser goes to **http://www.routerlogin.net**, and the NETGEAR genie page displays:
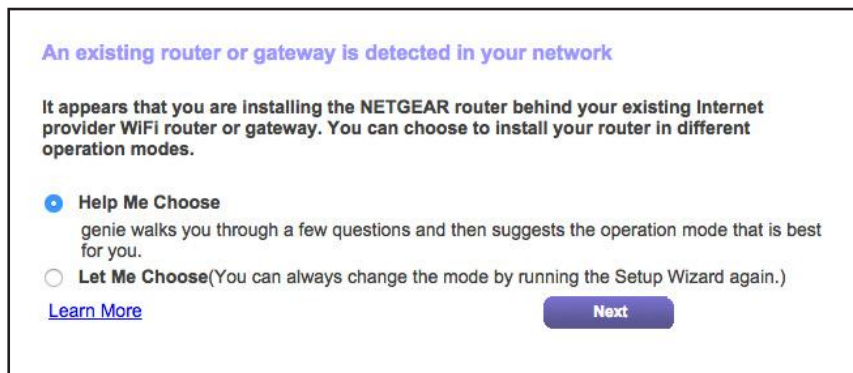
If you do not see the NETGEAR genie page, enter **http://www.routerlogin.net**. When prompted, enter **admin** for the user name and **password** for the password.

If this is not the first time that you are setting up the Internet connection for your router, run the Setup Wizard again. For more information, see *Use the Internet Setup Wizard* on page 45.

3. Select the **Help Me Choose** radio button or **Let Me Choose** radio button:

   • **Help Me Choose**. If you select the **Help Me Choose** radio button, NETGEAR genie asks you a few questions to determine whether to set the DST router in router mode or access point mode. We recommend that you select the **Help Me Choose** radio button.

   • **Let Me Choose**. If you select the **Let Me Choose** radio button, you must select the **Router Mode** radio button or the **Access Point Mode** radio button. You can change the mode by running the Setup Wizard again. For more information, see *Use the Internet Setup Wizard* on page 45.

4. Follow the onscreen instructions to set up your router in router mode or access point mode.

Use the DST Router as a WiFi Access Point

You can set up the router to run as an access point (AP) on the same local network as another router or gateway.

➢ **To set up the DST router as an AP after you specify your Internet settings:**

1. Use an Ethernet cable to connect the Internet port of this DST router to an Ethernet port on your existing router or gateway.

**Cable this port to a Ethernet port
on another router.**

2. Launch a web browser from a computer or WiFi device that is connected to the network.

3. Enter **http://www.routerlogin.net**.

   A login window displays.

4. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

5. Select **ADVANCED > Advanced Setup > Wireless AP**.
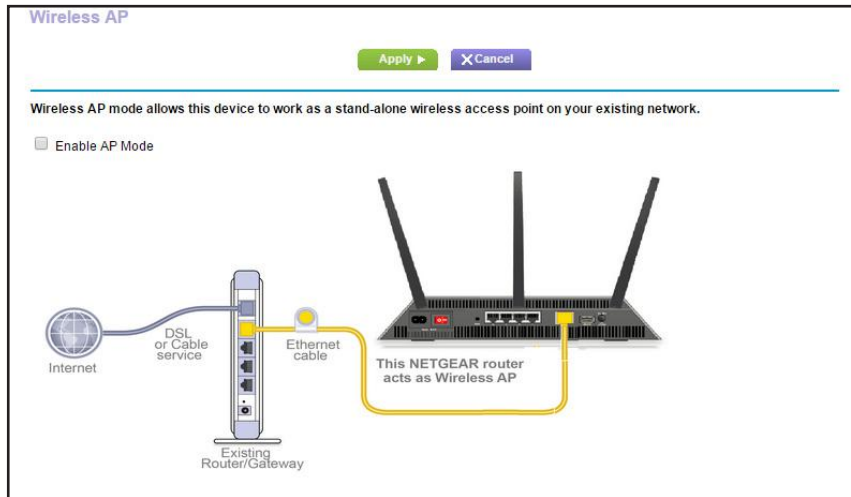
6. Select the **Enable AP Mode** check box.

7. Scroll down and select the radio button for the IP address setting that you want to use:

   - **Get dynamically from existing router**. The other router on the network assigns an IP address to this DST router while this DST router is in AP mode.

   - **Enable fixed IP settings on this device (not recommended)**. Use this setting if you want to manually assign a specific IP address to this DST router while it is in AP mode. Using this option effectively requires advanced network experience.

   Note: To avoid interference with other routers or gateways in your network, We recommend that you use different WiFi settings on each router. You can also turn off the WiFi radio on the other router or gateway and use the DST router only for WiFi client access.

8. Click the **Apply** button.

   The IP address of the DST router changes, and you are disconnected.

9. To reconnect, close and restart your browser and enter **http://wwwrouterlogin.net**.

Specify Network Settings for the DST Adapter

13

This chapter includes the following sections:

- *Specify Basic WiFi Settings for the DST Adapter*
- *Change the DST Adapter WiFi Password or Security Level*

Specify Basic WiFi Settings for the DST Adapter

➢ **To specify basic WiFi settings for the DST adapter:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Setup > Wireless Settings**.

6. To change the network name (SSID), type a new name in the **Name (SSID)** field.

7. The name can be up to 32 characters long and it is case-sensitive.If you change the name, make sure to write down the new name and keep it in a safe place.

8. To change the WiFi channel, select a number in the **Channel** menu.

   In some regions, not all channels are available. Do not change the channel unless you experience interference (shown by lost connections or slow data transfers). If this happens, experiment with different channels to see which is the best.

   When you use multiple access points, it is better if adjacent access points use different channels to reduce interference. The recommended channel spacing between adjacent access points is four channels (for example, use Channels 1 and 5, or 6 and 10).

9. To change the mode, select it from the **Mode** menu.

   For 2.4 GHz, **Up to 200 Mbps** is the default setting. The other settings are **Up to 65 Mbps** and **Up to 54 Mbps**.

For 5 GHz, **Up to 433 Mbps** is the default setting, which allows 802.11ac and 802.11a WiFi devices to join the network. The other settings are **Up to 200 Mbps**, **Up to 87 Mbps**, and **Up to 54 Mbps**.

10. Click the **Apply** button.

Your settings are saved.

If you connected wirelessly to the network and you changed the SSID, you are disconnected from the network.

11. Make sure that you can connect wirelessly to the network with its new settings.

If you cannot connect wirelessly, check the following:

- Is your computer or WiFi device connected to another WiFi network in your area? Some WiFi devices automatically connect to the first open network without WiFi security that they discover.

- Is your computer or WiFi device trying to connect to your network with its old settings (before you changed the settings)? If so, update the WiFi network selection in your computer or WiFi device to match the current settings for your network.

Change the DST Adapter WiFi Password or Security Level

➢ **To change the WPA settings:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

A login window displays.

4. Enter the DST adapter user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The Status page displays.

5. Select **Setup > Wireless Settings**.

6. Under **Security Options**, select a WPA options.

The WPA2 options use the newest standard for the strongest security, but some older computers and WiFi devices cannot use WPA2. By default, the **WPA2-PSK [AES]** radio button is selected.

The **Password** field displays.

7. In the **Password** field, enter the network key (password) that you want to use.

It is a text string from 8 to 63 characters.

8. Write down the new password and keep it in a secure place for future reference.

9. Click the **Apply** button.

Your settings are saved.

Manage Your DST Router Network 14

This chapter describes the DST router settings for administering and maintaining your DST router and home network.

The chapter includes the following sections:

- *Update the DST Router Firmware*
- *Change the DST Router's Device Name*
- *Change the DST Router admin Password*
- *Set Up the DST Router admin Password Recovery*
- *Recover the DST Router admin Password*
- *Disable DST Router LED Blinking or Turn Off LEDs*
- *Use WPS to Add a Device to the DST Router's WiFi Network*
- *View Router Status*
- *Manage the Activity Log and Syslog*
- *Monitor Internet Traffic*
- *Set Up and Manage Static Routes*
- *View Devices Currently on the Network*
- *Manage the DST Router Configuration File*
- *Remote Management*
- *Remotely Access Your DST Router Using the genie App*

Update the DST Router Firmware

The DST router firmware (routing software) is stored in flash memory. You might see a message at the top of the genie pages when new firmware is available. You can respond to that message to update the firmware, or you can check to see if new firmware is available and update your product.

Check for New Firmware and Update the DST Router

For you to check for new firmware, the DST router must be connected to the Internet.

➢ **To check for new firmware and update your DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Administration > Router Update**.

   The Router Update page displays.

5. Click the **Check** button.

   The DST router finds new firmware information if any is available and displays a message asking if you want to download and install it.

6. Click the **Yes** button.

   The DST router locates and downloads the firmware and begins the update.

> ⚠ **WARNING:**
>
> **To avoid the risk of corrupting the firmware, do not interrupt the update. For example, do not close the browser, click a link, or load a new page. Do not turn off the DST router.**

A progress bar shows the progress of the firmware upload process. The firmware upload process takes several minutes. When the upload is complete, your DST router restarts. Read the new firmware release notes to find out if you must reconfigure the DST router after updating.

Manually Upload New Firmware and Update the DST Router

Downloading firmware and updating the DST router are two separate tasks that are combined in the following procedure.

➢ **To download new firmware manually and update your DST router:**

1. Visit *support.netgear.com*, locate the support page for your product, and download the new firmware.

2. Read the new firmware release notes to determine whether you must reconfigure the DST router after updating.

3. Launch a web browser from a computer or WiFi device that is connected to the network.

4. Enter **http://www.routerlogin.net**.

   A login window displays.

5. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

6. Select **ADVANCED > Administration > Router Update**.

   The Router Update page displays.

7. Locate and select the firmware file on your computer:

   a. Click the **Browse** button.

   b. Navigate to the firmware file.

      The file ends in `.chk`. An example of a firmware file name is `R7300-V1.0.0.26_1.0.6.chk`.

   c. Select the firmware file.

   d. Click the **Upload** button.

> ⚠️ **WARNING:**
>
> **To avoid the risk of corrupting the firmware, do not interrupt the update. For example, do not close the browser, click a link, or load a new page. Do not turn off the update.**

A progress bar shows the progress of the firmware upload process. The firmware upload process takes several minutes. When the upload is complete, your DST router restarts.

Change the DST Router's Device Name

You can change the DST router's device name that displays in the DST router's and DST adapter's DST Settings pages by logging in to the DST router or DST adapter.

Change the DST Router's Device Name From the DST Router

➢ **To change the DST router's device name by logging in to the DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > DST Settings**.

5. In the **DST Router Name** field, enter a new device name for the DST router.

6. Click the **Apply** button.

   Your settings are saved.

Change the DST Router's Device Name from the DST Adapter

You can change the DST router's device name if you are logged in to the DST adapter.

➢ **To change the DST router's device name by logging in to the DST adapter:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

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

   The Status page displays.

5. Select **Advanced > DST Settings**.

6. In the table, find your DST router and enter a new device name in the **Device Name** field.
7. Click the **Apply** button.

    Your settings are saved.

Change the DST Router admin Password

You can change the default password that is used to log in to the DST router with the user name admin. This password is not the one that you use for WiFi access. The label on your DST router shows your unique WiFi network name (SSID) and password for WiFi access.

Note: Be sure to change the password for the user name admin to a secure password. The ideal password contains no dictionary words from any language and contains uppercase and lowercase letters, numbers, and symbols. It can be up to 30 characters.

➢ **To set the password for the user name admin:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **ADVANCED > Administration > Set Password**.

5. Type the old password, and type the new password twice.

6. To be able to recover the password, select the **Enable Password Recovery** check box.

    We recommend that you enable password recovery.

7. Click the **Apply** button.

    Your settings are saved.

Set Up the DST Router admin Password Recovery

We recommend that you enable password recovery if you change the password for the DST router user name admin. Then you can recover the password if it is forgotten. This recovery process is supported in Internet Explorer, Firefox, and Chrome browsers, but not in the Safari browser.

➢ **To set up password recovery:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the DST router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **ADVANCED > Administration > Set Password**.

    The Set Password page displays.

5. Select the **Enable Password Recovery** check box.

6. Select two security questions and provide answers to them.

7. Click the **Apply** button.

   Your settings are saved.

Recover the DST Router admin Password

➢ **To recover your admin password:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Click the **Cancel** button.

   If password recovery is enabled, you are prompted to answer two security questions.

4. Enter the saved answers to the security questions.

5. Enter the serial number of your DST router.

   The serial number is on the DST router's label.

6. Click the **Continue** button.

   A window opens requesting the answers to your security questions.

7. Enter the saved answers to your security questions.

8. Click the **Continue** button.

   A window opens and displays your recovered password.

9. Click the **Login again** button.

   A login window opens.

10. With your recovered password, log in to the DST router.

Disable DST Router LED Blinking or Turn Off LEDs

The DST router LEDs on the top panel indicate router activities and behavior. You can disable LED blinking for network communications, or turn off all LEDs except the Power LED.

➢ **To disable DST router LED blinking or turn off the LEDs:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > LED Control Settings**.
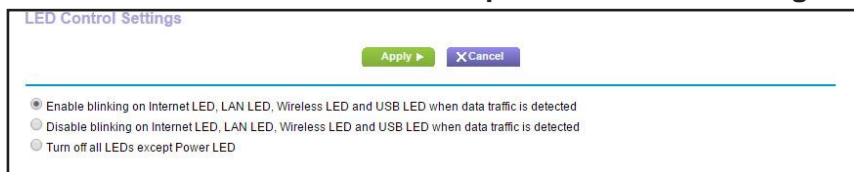
   By default, the **Enable blinking on Internet LED, LAN LED, Wireless LED, and USB LED when data traffic is detected** radio button is selected, which allows standard LED behavior. For information about standard LED behavior, see *Table 1, DST router LED and button descriptions* on page 13.

5. To disable blinking, select the **Disable blinking on Internet LED, LAN LED, Wireless LED, and USB LED when data traffic is detected** radio button.

6. To turn off the LEDs, select the **Turn off all LEDs except Power LED** radio button.

7. Click the **Apply** button.

   Your settings are saved.

Use WPS to Add a Device to the DST Router's WiFi Network

WPS (Wi-Fi Protected Setup) lets you connect a computer or WiFi device to the DST router's network without entering the WiFi network passphrase or key. Instead, you use a **WPS** button or enter a PIN to connect.

If you use the push button method, the WiFi device that you are trying to connect must provide either a physical button or a software button. If you use the PIN method, you must know the PIN of the WiFi device that you are trying to connect.

WPS supports WPA and WPA2 WiFi security. If your DST router network is open (no WiFi security is set, which is not the default setting for the DST router), connecting with WPS automatically sets WPA + WPA2 WiFi security on the DST router network and generates a random passphrase. You can view this passphrase (see *Specify Basic WiFi Settings* on page 146).

You can use the physical button and software button to let a WiFi device join only the main WiFi network, not the guest WiFi network.

➢ **To use WPS with the push button method to join the DST router's main WiFi network:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > WPS Wizard**.

   The page displays a description of the WPS method.

5. Click the **Next** button.
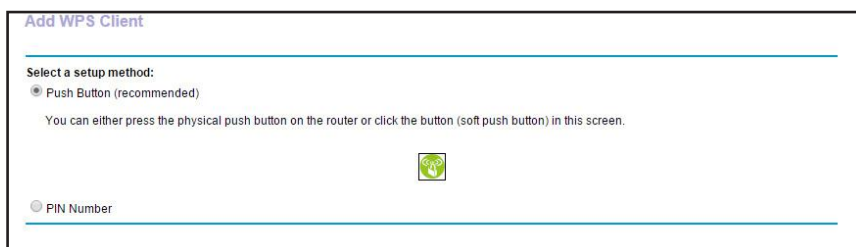
   By default, the **Push Button (recommended)** radio button is selected.

6. Either click the [icon] button onscreen or press the **WPS** button on the right side panel of the DST router.

   For two minutes, the DST router attempts to find the WiFi device (that is, the client) that you want to join the DST router's main WiFi network.

7. Within two minutes, go to the WiFi device and use its **WPS** button to connect to the DST router's main WiFi network.

   The WPS process automatically sets up your WiFi device with the network password when it connects. The DST router WPS page displays a confirmation message.

Use WPS With the PIN Method

To use the PIN method to connect a WiFi device to the DST router's WiFi network, you must know the PIN of the WiFi device that you are trying to connect.

➢ **To using WPS with the PIN method to join the DST router's WiFi network:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > WPS Wizard**.

   The page displays a description of the WPS method.

5. Click the **Next** button.

   By default, the **Push Button (recommended)** radio button is selected.

6. Select the **PIN Number** radio button.

7. In the **Enter Clients' PIN** field, enter the PIN number of the WiFi device.

8. Click the **Next** button.

   The DST router attempts to find the WiFi device (that is, the client) that you want to join the DST router's main WiFi network.

9. Within two minutes, go to the WiFi device and use its WPS software to join the network without entering a password.

   The WPS process automatically sets up your WiFi computer with the network password when it connects. The DST router WPS page displays a confirmation message.

View Router Status

➢ **To view DST router status and usage information:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Click the **ADVANCED** tab.

Display Internet Port Statistics

➢ **To display Internet port statistics:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

4. The BASIC Home page displays

5. Click the **ADVANCED** tab.

6. In the Internet Port pane, click the **Show Statistics** button.

Show Statistics

System Up Time 00:29:02

Port	Status	TxPkts	RxPkts	Collisions	Tx B/s	Rx B/s	Up Time
WAN	1000M/Full	2821	4528	0	532	1693	00:15:38
LAN1	Link Down						
LAN2	Link Down	--	--	--	--	--	--
LAN3	Link Down						--
LAN4	Link Down						--
2.4G WLAN b/g/n	600M	20567	17191	0	11884	2023	00:15:50
5G WLAN a/n/ac	1300M	0	0	0	0	0	00:15:50

Poll Interval: 5 (5~86400 Seconds) [Set Interval] [Stop]

The following information displays:

- **System Up Time**. The time elapsed since the DST router was last restarted.
- **Port**. The statistics for the WAN (Internet) and LAN (Ethernet) ports. For each port, the page displays the following information:
  - **Status**. The link status of the port.
  - **TxPkts**. The number of packets transmitted on this port since reset or manual clear.
  - **RxPkts**. The number of packets received on this port since reset or manual clear.
  - **Collisions**. The number of collisions on this port since reset or manual clear.
  - **Tx B/s**. The current transmission (outbound) bandwidth used on the WAN and LAN ports.
  - **Rx B/s**. The current reception (inbound) bandwidth used on the WAN and LAN ports.
  - **Up Time**. The time elapsed since this port acquired the link.
  - **Poll Interval**. The interval at which the statistics are updated in this page.

7. To change the polling frequency, enter a time in seconds in the **Poll Interval** field and click the **Set Interval** button.

8. To stop the polling entirely, click the **Stop** button.

Check the Internet Connection Status

➢ **To check the Internet connection status:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Click the **ADVANCED** tab.

5. In the Internet Port pane, click the **Connection Status** button.

Connection Status	
IP Address	10.1.10.17
Subnet Mask	255.255.255.0
Default Gateway	10.1.10.1
DHCP Server	10.1.10.1
DNS Server	75.75.75.75 75.75.76.76
Lease Obtained	7 days,0 Hours,0 Minutes
Lease Expires	6 days,23 Hours,44 Minutes

Release   Renew

Close Window

The following information displays:

- **IP Address**. The IP address that is assigned to the DST router.
- **Subnet Mask**. The subnet mask that is assigned to the DST router.
- **Default Gateway**. The IP address for the default gateway that the DST router communicates with.
- **DHCP Server**. The IP address for the Dynamic Host Configuration Protocol server that provides the TCP/IP configuration for all the computers that are connected to the DST router.
- **DNS Server**. The IP address of the Domain Name Service server that provides translation of network names to IP addresses.
- **Lease Obtained**. The date and time when the lease was obtained.
- **Lease Expires**. The date and time that the lease expires.

6. To return the status of all items to 0, click the **Release** button.

7. To refresh the page, click the **Renew** button.

8. To exit the page, click the **Close Window** button.

Manage the Activity Log and Syslog

The log is a detailed record of the websites users on your network accessed or attempted to access and many other DST router actions. Up to 256 entries are stored in the log.You can manage which activities are logged.

View Logs of Router Activity

In addition to viewing the logs, you can email them and clear them.

➢ **To view, clear, or email logs:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

    A login window displays.

3. Enter the router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

4. Select **ADVANCED > Administration > Logs**.

Scroll to view more settings
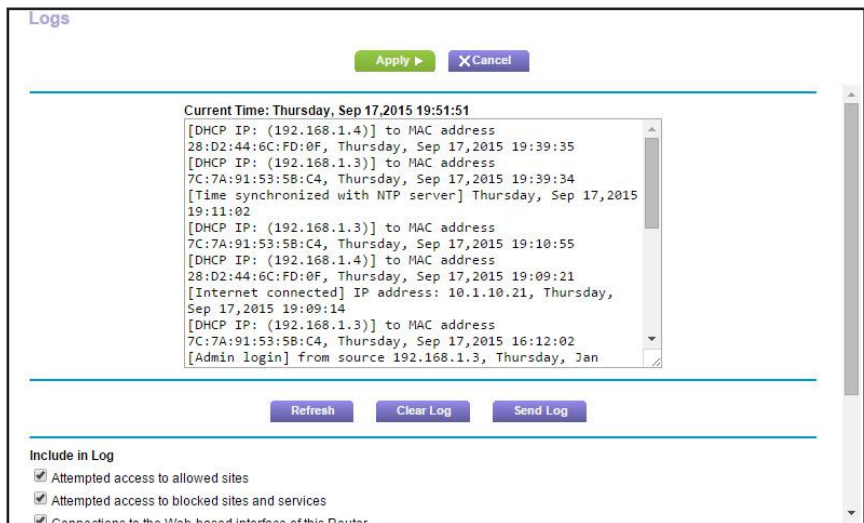
The Logs page shows the following information:

*   **Date and time**. The date and time the log entry was recorded.
*   **Source IP**. The IP address of the initiating device for this log entry.
*   **Target address**. The name or IP address of the website or news group visited or to which access was attempted.
*   **Action**. The action that occurred, such as whether Internet access was blocked or allowed.

5. To refresh the log page, click the **Refresh** button.
6. To clear the log entries, click the **Clear Log** button.
7. To email the log immediately, click the **Send Log** button.

Specify Which Activities Are Logged

You can specify which activities are logged. These activities display in the log and are forwarded to the syslog server if you enabled the syslog server function.

➢ **To manage which activities are logged:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Administration > Logs**.

Scroll to view more settings

5. Select the check boxes that correspond to the activities that you want to be logged.

   By default, all check boxes are selected.

6. Clear the check boxes that correspond to the activities that you do not want to be logged.

7. Click the **Apply** button.

   Your settings are saved.

Monitor Internet Traffic

Traffic metering allows you to monitor the volume of Internet traffic that passes through the DST router Internet port. You can set limits for traffic volume.

➢ **To monitor Internet traffic:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Traffic Meter**.

Scroll to view more settings

5. Select the **Enable Traffic Meter** check box.

6. To control the volume of Internet traffic, use either the traffic volume control feature or the connection time control feature:

   • Select the **Traffic volume control by** radio button and then select one of the following options:

      - **No Limit**. No restriction is applied when the traffic limit is reached.

      - **Download only**. The restriction is applied to incoming traffic only.

      - **Both Directions**. The restriction is applied to both incoming and outgoing traffic.

   • Select the **Connection time control** radio button and enter the allowed hours in the **Monthly limit** field.

7. If your ISP charges for extra data volume when you make a new connection, enter the extra data volume in MB in the **Round up data volume for each connection by** field.

8. In the Traffic Counter section, set the traffic counter to begin at a specific time and date.

   To start the traffic counter immediately, click the **Restart Counter Now** button.

9. In the Traffic Control section, specify whether the DST router will issue a warning message before the monthly limit of Mbytes or hours is reached.

By default, the value is 0 and no warning message is issued. You can select one of the following to occur when the limit is attained:

- The Internet LED blinks white or amber.
- The Internet connection is disconnected and disabled.

10. Click the **Apply** button.

Your settings are saved. The Internet Traffic Statistics section helps you to monitor the data traffic.

11. To update the Traffic Statistics section, click the **Refresh** button.

12. To display more information about the data traffic on your DST router and to change the poll interval, click the **Traffic Status** button.

Set Up and Manage Static Routes

Static routes provide more routing information to your DST router. Typically, you do not need to add static routes unless your network includes multiple DST routers or multiple IP subnets.

As an example of when a static route is needed, consider the following case:

- Your main Internet access is through a cable modem to an ISP.
- Your home network includes an ISDN DST router for connecting to the company where you are employed. This DST router's address on your LAN is 192.168.1.100.
- Your company's network address is 134.177.0.0.

When you set up your DST router, two implicit static routes were created. A default route was created with your ISP as the gateway, and a second static route was created to your local network for all 192.168.1.x addresses. With this configuration, if you try to access a device on the 134.177.0.0 network, your DST router forwards your request to the ISP. The ISP forwards your request to the company where you are employed, and the company firewall is likely to deny the request.

In this case you must define a static route, telling your DST router to access 134.177.0.0 through the ISDN DST router at 192.168.1.100. Here is an example:

- The **Destination IP Address** and **IP Subnet Mask** fields specify that this static route applies to all 134.177.x.x addresses.
- The **Gateway IP Address** field specifies that all traffic for these addresses should be forwarded to the ISDN DST router at 192.168.1.100.
- A metric value of 1 works because the ISDN DST router is on the LAN.
- The **Private** check box is selected only as a precautionary security measure in case RIP is activated.

Set Up a Static Route

> **To set up a static route:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Static Routes**.

   The Static Routes page displays.

5. Click the **Add** button.

6. In the **Route Name** field, type a name for this static route (for identification purposes only.)

7. Select the **Private** check box if you want to limit access to the LAN only.

   If the **Private** check box is selected, the static route is not reported in RIP.

8. Select the **Active** check box to make this route effective.

9. Type the IP address of the final destination.

10. Type the IP subnet mask for this destination.

    If the destination is a single host, type **255.255.255.255**.

11. Type the gateway IP address.

    This IP address must be on the same LAN segment as the DST router.

12. Type a number from 1 through 15 as the metric value.

    This value represents the number of routers between your network and the destination. Usually, a setting of 2 or 3 works, but if this is a direct connection, set it to 1.

13. Click the **Apply** button.

    The static route is added.

Edit a Static Route

➢ **To edit a static route:**

1. In the table, select the radio button for the route.

2. Click the **Edit** button.

   The Static Routes page adjusts.

3. Edit the route information.

4. Click the **Apply** button.

   Your changes are saved.

Delete a Static Route

➢ **To delete a static route:**

1. In the table, select the radio button for the route.

2. Click the **Delete** button.

   The route is removed from the table.

View Devices Currently on the Network

You can view all computers or devices that are currently connected to your network.

➢ **To view devices on the network:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Attached Devices**.

The page lists devices that are connected to the DST router. The following information is displayed:

- **Connection Type**. Shows how the device is connected to the DST router.
- **Device Name**. If the device name is known, it is shown here.
- **IP Address**. The IP address that the DST router assigned to this device when it joined the network. This number can change if a device is disconnected and rejoins the network.
- **MAC Address**. The unique MAC address for each device does not change. The MAC address is typically shown on the product label.

5. To update this page, click the **Refresh** button.

Manage the DST Router Configuration File

The configuration settings of the DST router are stored within the DST router in a configuration file. You can back up (save) this file to your computer, restore it, or reset it to the factory default settings.

Back Up Settings

➢ **To back up the DST router's configuration settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.
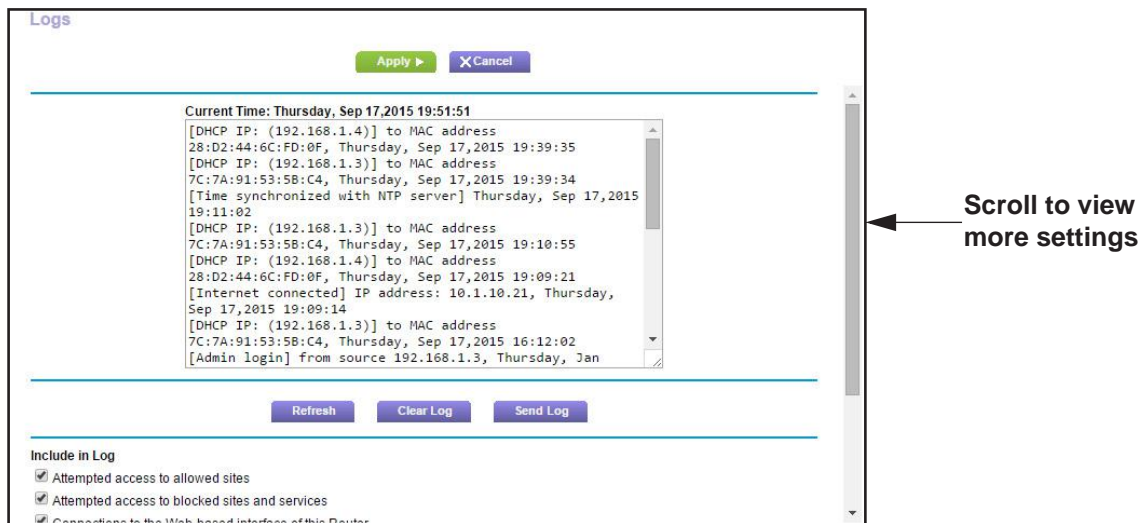2. Enter **http://www.routerlogin.net**.

    A login window displays.
3. Enter the router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.
4. Select **ADVANCED > Administration > Backup Settings**.

5. Click the **Back Up** button.
6. If your web browser is not set up to save downloaded files automatically, locate where you want to save the file.

The configuration settings file downloads to your computer.

The name of the file is `NETGEAR_R7300.cfg`.

Restore Configuration Settings

➢ **To restore configuration settings that you backed up:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Administration > Backup Settings**.

5. Click the **Browse** button and navigate to and select the saved configuration file.

   The name of the backup file from which you can restore the configuration is `NETGEAR_R7300.cfg`.

6. Click the **Restore** button.

   The configuration is uploaded to the DST router. When the restoration is complete, the DST router reboots.

   This process takes about two minutes.

⚠ **WARNING:**

Do not interrupt the reboot process.

Erase the Current Configuration Settings

You can erase the current configuration and restore the factory default settings. You might want to do this if you move the DST router to a different network. For more information, see *Factory Settings* on page 261.

➢ **To erase the configuration settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Administration > Backup Settings**.

5. Click the **Erase** button.

   The factory default settings are restored. The user name is admin, the password is password, and the LAN IP address is 192.168.1.1. DHCP is enabled.

Remote Management

The remote management feature lets you access your DST router over the Internet to view or change its settings. You must know the DST router's WAN IP address to use this feature. For information about remote access using Dynamic DNS, see *Chapter 9, Manage Dynamic DNS and Access Storage Devices Through the Internet*.

Note: Be sure to change the password for the user name admin to a secure password. The ideal password contains no dictionary words from any language and contains uppercase and lowercase letters, numbers, and symbols. It can be up to 30 characters. See *Change the DST Router admin Password* on page 181.

Set Up Remote Management

➢ **To set up remote management:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Remote Management**.

5. Select the **Turn Remote Management On** check box.

6. In the Allow Remote Access By section, specify the external IP addresses to be allowed to access the DST router's remote management:

Note: For enhanced security, restrict access to as few external IP addresses as practical

Select one of the following:

- To allow access from a single IP address on the Internet, select the **Only This Computer** radio button. Enter the IP address to be allowed access.
- To allow access from a range of IP addresses on the Internet, select the **IP Address Range** radio button. Enter a beginning and ending IP address to define the allowed range.
- To allow access from any IP address on the Internet, select the **Everyone** radio button.

7. Specify the port number for accessing the DST router's web management interface.

Normal web browser access uses the standard HTTP service port 80. For greater security, enter a custom port number for the remote web management interface. Choose a number from 1024 to 65535, but do not use the number of any common service port. The default is 8080, which is a common alternate for HTTP.

8. Click the **Apply** button.

Your settings are saved.

How to Use Remote Access

➢ **To use remote access:**

1. Launch an Internet browser on a computer that is not on your home network.

2. Type your DST router's WAN IP address into your browser's address or location field followed by a colon (:) and the custom port number.

   For example, if your external address is 134.177.0.123 and you use port number 8080, enter **http://134.177.0.123:8080** in your browser.

Remotely Access Your DST Router Using the genie App

The genie app allows you to remotely access your DST router and change its key settings using the genie app that is installed on a computer or mobile device. Before you can use the remote genie feature, you must update your DST router's firmware to the latest firmware and download the latest genie app for your computers or mobile device. To download the latest genie app for your computer or mobile device, visit *www.NETGEAR.com/genie*.

For more information about how to set up remote access using the genie app, visit *kb.netgear.com/app/answers/detail/a_id/26253/*.

Manage the DST Adapter Network and Settings 15

This chapter covers the following topics:

- *Update the DST Adapter's Firmware*
- *Return the DST Adapter to Its Factory Settings*
- *View the DST Adapter Status*
- *View the DST Adapter 's Statistics*
- *Back Up the DST Adapter Configuration*
- *Restore Saved Configuration Settings for the DST Adapter*
- *Update the DST Adapter's WiFi Settings From the DST Router*
- *View the DST Adapter's WiFi Settings From the DST Router*
- *Change the DST Adapter's Device Name*
- *Change the DST Adapter's admin Password*
- *Turn the LEDs on the DST Adapter On or Off*
- *Use WPS to Add a Device to the DST Adapter's WiFi Network*
- *View or Change the DST Adapter's WPS Settings*
- *View or Change DST Adapter Advanced WiFi Settings*
- *Set Up a WiFi Access List for the DST Adapter*
- *View Wired and WiFi Network Devices Connected to the DST Adapter*
- *Set Up the DST Adapter to Use a Static IP Address*

Update the DST Adapter's Firmware

You can update the DST adapter's firmware by from the DST router or the DST adapter.

Update the DST Adapter's Firmware From the DST Router

➢ **To update the DST adapter's firmware by logging in to the DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

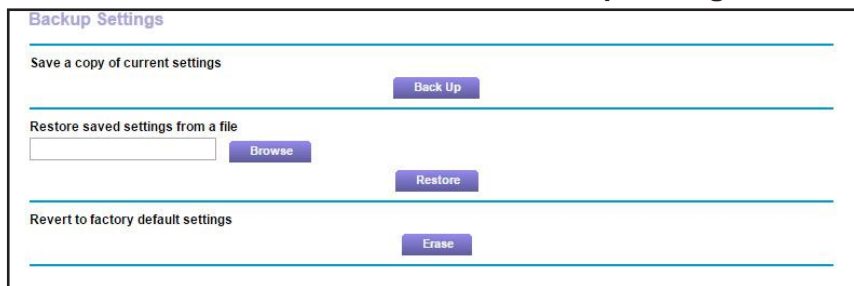2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Remote DST Management**.

Remote DST Management					
Device Name	Update DST Adapter Firmware	Update DST Adapter WiFi Setting ❷	IP Address	Model Name	MAC Address
DST6501_Test	Not available	Already Updated	192.168.1.2	DST6501	C0:FF:D4:DE:F4:A1
	Update All	Update All			

5. In the Update DST Adapter Firmware column, click the **Update All** button.

   You can click the **Update All** button only if new firmware is available.

   The firmware is updated.

   ⚠️ **WARNING:**

   To avoid the risk of corrupting the firmware, do not interrupt the upgrade. For example, do not close the browser, click a link, or load a new page. Do not turn off the DST adapter and the DST router.

Update the DST Adapter's Firmware From the DST Adapter

Unless you changed the settings on the Firmware Update page previously, the DST adapter is set up to check for new firmware automatically when you log in. You can also check for new firmware.

➢ **To log in to the DST adapter and check to see if new firmware is available and update the DST adapter's firmware:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Maintenance > Firmware Update**.

6. Click the **Check** button.

   The DST adapter finds new firmware information if any is available and displays a message asking if you want to download and install it.

7. Click the **Yes** button.

   The DST adapter locates and downloads the firmware and begins the update.

8. Click the **Browse** button.

9. Locate and select the new firmware file.

⚠️ **WARNING:**

To avoid the risk of corrupting the firmware, do not interrupt the upgrade. For example, do not close the browser, click a link, or load a new page. Do not turn off the DST adapter.

Return the DST Adapter to Its Factory Settings

To reset the DST adapter to its factory settings, you can use the **Factory Reset** button or the Erase feature.

Use the Factory Reset Button to Restore Factory Settings

⚠️ **CAUTION:**

This process erases any settings that you have configured in the DST adapter.

➢ **To restore factory settings:**

1. Insert a paper clip into the **Factory Reset** hole and hold it for two seconds, and then release the button.

   The Power LED blinks green.

   All the LEDs turn off after 3 seconds, and then Power LED lights solid green for about 30 seconds.

Factory Reset hole and button

2. Check the DST adapter status.

   The other LEDs show the DST adapter's status:

   - **WiFi LED**. The WiFi LED lights sold blue if WiFi is enabled.
   - **DST LED**. The DST LED lights if a compatible DST device is connected to the DST adapter.
   - **Ethernet LED**. The Ethernet LED lights if a powered-on device is connected to the DST adapter's Ethernet port.

Erase the DST Adapter Settings

You can erase the current configuration and restore the factory default settings.

⚠️ **CAUTION:**

This process erases any settings that you configured in the DST adapter.
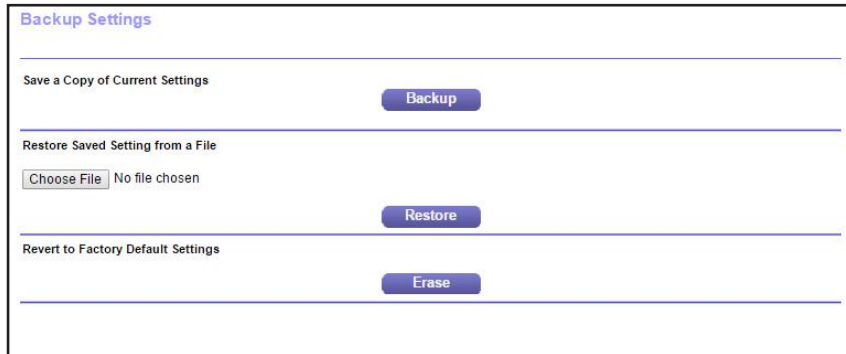
➢ **To erase the DST adapter's current settings:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.
2. Launch a web browser from the computer.
3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The Status page displays.

5. Select **Maintenance > Backup Settings**.

> ⚠️ **CAUTION:**
>
> After you click the **Erase** button, do not try to go online, turn off the DST adapter, shut down the computer, or do anything else to the DST adapter until it finishes restarting.

6. Click the **Erase** button.

   A confirmation pop-up window displays.

7. Confirm your decision.

   The DST adapter restarts. This process takes about one minute.

View the DST Adapter Status

➢ **To view the status of the DST adapter:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

Status	
Hardware Version	DST6501
Firmware Version	V1.0.0.34
GUI Language Version	V1.0.5
Extender IP Info	
MAC Address	C0:FF:D4:DE:F4:A0
IP Address	192.168.1.2
DHCP Client	ON
IP Subnet Mask	255.255.255.0
Gateway IP Address	192.168.1.1
Domain Name Server	192.168.1.1
Wireless Settings(2.4GHz)	
Name (SSID)	NETGEAR87_EXT
Region	North America
Channel	Auto(11)
Wireless mode	Up to 200 Mbps
Wireless AP	ON
Broadcast Name	ON
Wi-Fi Protected Setup	Configured
Wireless Settings(5GHz)	
Name (SSID)	NETGEAR87-5G_EXT
Region	North America
Channel	149+153(P)+157+161
Wireless mode	Up to 433 Mbps
Wireless AP	ON
Broadcast Name	ON
Wi-Fi Protected Setup	Configured

Refresh   Reboot   Show Statistics

View the DST Adapter 's Statistics

➢ **To view the DST adapter's statistics:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

5. Click the **Show Statistics** button.

6. To change the polling frequency, enter a time in seconds in the **Poll Interval** field and click the **Set Interval** button.

To stop the polling entirely, click the **Stop** button.

Back Up the DST Adapter Configuration

When the DST adapter works correctly after initial setup, we recommend that you back up the DST adapter configuration settings. After you back up the settings, if you change the DST adapter settings but are not content with the new settings, you can restore the backed-up DST adapter configuration settings.

➢ **To back up the DST adapter configuration settings:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

    A login window displays.

4. Enter the DST adapter user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The Status page displays.

5. Select **Maintenance > Backup Settings**.

    ![Backup Settings page showing Backup, Restore, and Erase buttons]

6. Click the **Backup** button.

7. If your web browser is not set up to save downloaded files automatically, locate where you want to save the file.

    The configuration settings file downloads to your computer.

    The name of the file is `NETGEAR_DST6501.cfg`.

Restore Saved Configuration Settings for the DST Adapter

You can restore the configuration settings file of the DST adapter to a previously saved configuration settings file.

➢ **To restore the DST adapter configuration settings:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

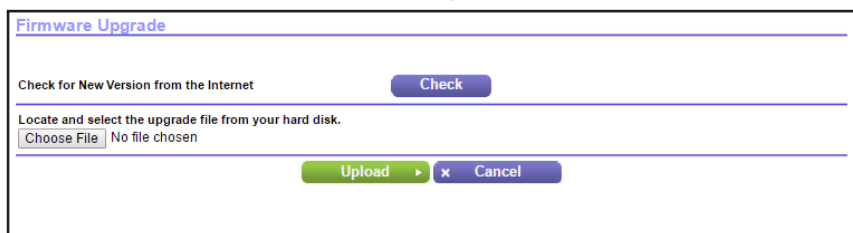3. Enter **http://www.mywifiext.net**.

    A login window displays.

4. Enter the DST adapter user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The Status page displays.

5. Select **Maintenance > Backup Settings**.
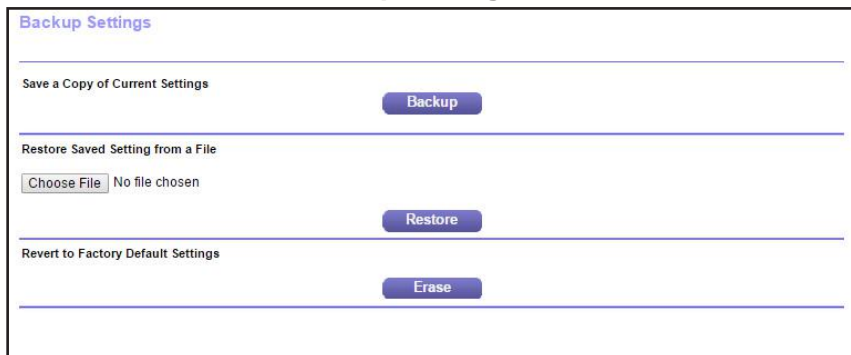
6. Click the **Choose File** button.

7. Locate and select the previously saved configuration settings file.

The name of the file is NETGEAR_DST6501.cfg.

⚠️ **CAUTION:**

After you click the **Restore** button, do not try to go online, turn off the DST adapter, shut down the computer, or do anything else to the DST adapter until it finishes restarting.

8. Click the **Restore** button.

A confirmation pop-up window displays.

9. Confirm your decision.

The DST adapter restarts. This process takes about one minute.

Update the DST Adapter's WiFi Settings From the DST Router

The DST adapter's WiFi settings are based on the DST router's WiFi settings. If you changed the DST router's WiFi settings, log in to the DST router to update the DST adapter's WiFi settings.

When you update the DST adapter's WiFi settings, the DST adapter's SSID is set to the DST router's SSID with _EXT added at the end. The DST adapter's WiFi password is the same as the DST router's WiFi password. If you change the DST router's WiFi settings, you must update the DST adapter's WiFi settings again.

➢ **To update the DST adapter's WiFi settings by logging in to the DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Remote DST Management**.

5. In the Update DST Adapter WiFi Settings column, click the **Update All** button.

   You can click on the **Update All** button only if the WiFi settings must be updated.

   The DST adapter's WiFi settings are updated.

View the DST Adapter's WiFi Settings From the DST Router

You can view the IP address, model name, and MAC address for each DST adapter in your network.

➢ **To view the DST adapter settings:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **Remote DST Management**.

Device Name	Update DST Adapter Firmware	Update DST Adapter WiFi Setting ❷	IP Address	Model Name	MAC Address
DST6501_Test	Not available	Already Updated	192.168.1.2	DST6501	C0:FF:D4:DE:F4:A1
	Update All	Update All			

The following information about your DST adapters display:

- **Device name**.The DST adapter's name. You can change the DST adapter's name on the DST settings page. For more information, see *Change the DST Adapter's Device Name* **on page 211**.

- **IP address**. The IP address of the DST adapter.

- **Model name**. The model number of the DST adapter.

- **MAC address**. The MAC address for the DST adapter. This is also on the product label, which might not be visible when the device is plugged in.

Change the DST Adapter's Device Name

You can change the DST adapter's device name that displays on the DST router's and DST adapter's DST Settings pages by logging in to the DST adapter or DST router.

Change the DST Adapter's Device Name From the DST Adapter

➢ **To change the DST adapter's device name by logging into the DST adapter:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Advanced > DST Settings**.

6. In the **DST Adapter Name** field, enter a new device name for the DST adapter.

7. Click the **Apply** button.

   Your settings are saved.

Change the DST Adapter's Device Name From the DST Router

You can change the DST adapter's device name if you are logged in to the DST router.

➢ **To change the DST adapter's device name by logging in to the DST router:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the DST router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > DST Settings**.

5. In the table, find your DST adapter and enter a new device name in the **Device Name** field.

6. Click the **Apply** button.

   Your settings are saved.

Change the DST Adapter's admin Password

The user name to access the DST adapter is admin, and its default password is password. We strongly recommend that you set a more secure password.

➢ **To change the password for the DST adapter:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.
2. Launch a web browser from the computer.
3. Enter **http://www.mywifiext.net**.

   A login window displays.
4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.
5. Select **Maintenance > Set Password**.

6. Type the old password.
7. Type the new password twice.
8. Click the **Apply** button.

   Your changes are saved.

Note: If you forget your new admin password, use the **Factory Reset** button to factory reset the DST adapter. The password resets to the default password, which is **password**. The user name remains as **admin**. The user name and password are case-sensitive. For more information about how to factory reset your DST adapter, see *Use the Factory Reset Button to Restore Factory Settings* on page 204.

Turn the LEDs on the DST Adapter On or Off

You can turn the WiFi LED, DST LED, and Ethernet LED on or off. The default value is ON. Note that the Power LED remains on if you turn the LEDs off.

➢ **To turn the LEDs on the DST adapter on or off:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

    A login window displays.

4. Enter the DST adapter user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The Status page displays.

5. Select **Advanced > DST Settings**.

6. From the **LED Status** menu, select an option:
    • **ON**. Turns on the WiFi LED, DST LED, and Ethernet LED.
    • **OFF**. Turns off the WiFi LED, DST LED, and Ethernet LED.

7. Click the **Apply** button.

    Your settings are saved.

Use WPS to Add a Device to the DST Adapter's WiFi Network

WPS (Wi-Fi Protected Setup) lets you connect a computer or WiFi device to the DST adapter's network without entering the WiFi network passphrase or key. Instead, you use a **WPS** button or enter a PIN to connect.

> **Note:** For instructions about how to use the physical **WPS** button on the DST adapter, see *Connect to the DST Adapter Network With a WPS Connection* on page 36.

Use WPS With the Push Button Method

For you to use the push button method to connect a WiFi device to the DST adapter's WiFi network, the WiFi device that you are trying to connect must provide either a physical button or a software button. You can use the physical button and software button to let a WiFi device join only the main WiFi network, not the guest WiFi network.

➢ **To use WPS with the push button method to join the DST adapter's main WiFi network:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Add WPS Client**.

   The Add WPS Client page displays.

6. Click the **Next** button.

   By default, the **Push Button (recommended)** radio button is selected.

7. Either click the [icon] button onscreen or press the **WPS** button on the DST adapter.

   For two minutes, the DST adapter attempts to find the WiFi device (that is, the client) that you want to join the DST adapter's main WiFi network.

8. Within two minutes, go to the WiFi device and use its **WPS** button to connect to the DST adapter's WiFi network.

The WPS process automatically sets up your WiFi device with the network password when it connects. The DST adapter WPS page displays a confirmation message.

Use WPS With the PIN Method

To use the PIN method to connect a WiFi device to the DST adapter's WiFi network, you must know the PIN of the WiFi device that you are trying to connect.

➢ **To using WPS with the PIN method to join the DST adapter's WiFi network:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

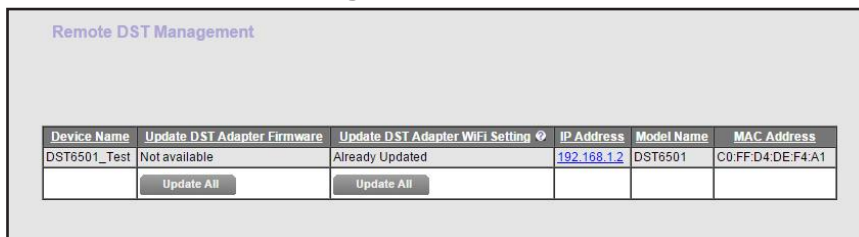3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Add WPS Client**.

   The Add WPS Client page displays.

6. Click the **Next** button.

   By default, the **Push Button (recommended)** radio button is selected.

7. Select the **PIN Number** radio button.

8. In the **Enter Clients' PIN** field, enter the PIN number of the WiFi device.

9. Click the **Continue** button.

The DST adapter attempts to find the WiFi device (that is, the client) that you want to join the DST adapter's WiFi network.

10. Within two minutes, go to the WiFi device and use its WPS software to join the network without entering a password

The WPS process automatically sets up your WiFi device with the network password when it connects. The DST adapter WPS page displays a confirmation message.

View or Change the DST Adapter's WPS Settings

➢ **To view or change the DST adapter's WPS settings:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Advanced > Wireless Settings**.

In the WPS Settings section displays the DST adapter's PIN. You cannot change this number.

6. In the WPS Settings section, change the settings as needed:

   • **Enable Device's PIN**. By default, this check box is selected so that it is possible to use the WPS PIN method to connect to the DST adapter's network.

- **To prevent PIN compromise...** By default, this check box is selected. This feature lets you specify the maximum number of times someone can try to enter the DST adapter's PIN to connect with WPS before the DST adapter disables its PIN.

- **Keep Existing Wireless Settings (2.4 GHz b/g/n)**. By default, this check box is selected so that the SSID and passphrase stay the same when you use WPS to connect to the 2.4 GHz band. We recommend that you leave this check box selected.

- **Keep Existing Wireless Settings (5 GHz a/n/ac)**. By default, this check box is selected so that the SSID and passphrase stay the same when you use WPS to connect to the 5 GHz band. We recommend that you leave this check box selected.

7. Click the **Apply** button.

    Your settings are saved.

View or Change DST Adapter Advanced WiFi Settings

Use care when changing the WiFi settings. Incorrect settings might disable the DST adapter's WiFi networks unexpectedly.

➢ **To view or change the advanced WiFi settings:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

    A login window displays.

4. Enter the DST adapter user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The Status page displays.

5. Select **Advanced > Wireless Settings**.

All the check boxes are selected by default.

6. Select or clear the check boxes:

-   **Enable Wireless Access Point (2.4 GHz)**. When this check box is selected, the DST adapter allows WiFi connections in the 2.4 GHz band. Clearing this check box prevents WiFi devices from connecting to the DST adapter in the 2.4 GHz band. LAN devices can still connect to the DST adapter over an Ethernet cable.

-   **Enable SSID Broadcast (2.4 GHz)**. When this check box is selected, the DST adapter broadcasts its WiFi network name (SSID) for the 2.4 GHz band. Clearing this check box hides the DST adapter's 2.4 GHz network name. In such a situation, this network name does not display in a WiFi network manager. A user who wants to join this hidden network must know its network name.

-   **Enable 20/40 MHz Coexistence (2.4 GHz)**. The DST adapter 2.4 GHz WiFi network can run in either 40 MHz mode or 20 MHz mode. When this check box is selected, the DST adapter uses 40 MHz mode unless a nearby WiFi network is using 20 MHz mode. If that happens, the DST adapter uses 20 MHz mode to coexist with that network.

-   **Enable Wireless Access Point (5 GHz)**. When this check box is selected, the DST adapter allows WiFi connections in the 5 GHz band. Clearing this check box prevents WiFi devices from connecting to the DST adapter in the 5 GHz band. LAN devices can still connect to the DST adapter over an Ethernet cable.

-   **Enable SSID Broadcast (5 GHz)**. When this check box is selected, the DST adapter broadcasts its WiFi network name (SSID) for the 5 GHz band. Clearing this check box hides the DST adapter's 5 GHz network name. In such a situation, this network name does not display in a WiFi network manager. A user who wants to join this hidden network must know its network name.

7. Click the **Apply** button.

Your changes are saved.

Set Up a WiFi Access List for the DST Adapter

By default, any WiFi device that is configured with the correct network name (SSID) can access the DST adapter's WiFi networks. For increased security, you can restrict access to the DST adapter's WiFi networks so that only WiFi devices with the MAC addresses that you add to an access list can connect.

Each network device owns a MAC address, which is a unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only, separated by colons (for example, 00:09:AB:CD:EF:01). Typically, the MAC address is on the label of the WiFi device. If you cannot access the label, you can display the MAC address using the network configuration utilities of the computer. You might also find the MAC addresses on the Attached Devices page (see *View Wired and WiFi Network Devices Connected to the DST Adapter* on page 221).

⚠ **CAUTION:**

If you use a WiFi device to set up the access list, add your WiFi device to the access list. Otherwise, you are disconnected when you click the **Apply** button. To avoid this situation, use a computer with a wired connection to access the DST adapter.

Before you enable the access list, you must add the MAC addresses of the WiFi devices that you want to grant access to the WiFi network of the DST adapter.

➢ **To set up and enable the DST adapter's access list:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Advanced > Wireless Settings**.

   The Advanced Wireless Settings page displays.

6. Click the **Setup Access List** button.

7. Click the **Add** button.

8. In the **Device Name** field, type a name for the WiFi device.

9. In the **MAC Address** field, type the MAC address of the WiFi device.

10. Click the **Apply** button.

11. Above the Wireless Card Access list, select the **Turn Access Control On** check box.

12. Click the **Apply** button.

Now only computers and devices in the list can join the DST adapters WiFi networks.

View Wired and WiFi Network Devices Connected to the DST Adapter

You can view the active wired and WiFi devices that are connected to the DST adapter's network. If you do not recognize a WiFi device, it might be an intruder.

➢ **To view devices on the DST adapter network:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

A login window displays.

4. Enter the DST adapter user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The Status page displays.

5. Select **Maintenance > Attached Devices**.

For each wired and WiFi device, the IP address, MAC address, and device name display.

6. (Optional) Click the **Refresh** button.

The information on the page is updated.

Set Up the DST Adapter to Use a Static IP Address

The DST adapter comes set up to use a dynamic IP address, which is the correct setting for most home networks.

➢ **To set up the DST adapter's IP address:**

1. With an Ethernet cable, temporarily connect your computer to the Ethernet port on the DST adapter.

2. Launch a web browser from the computer.

3. Enter **http://www.mywifiext.net**.

   A login window displays.

4. Enter the DST adapter user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The Status page displays.

5. Select **Setup > IP Address Setup**.

6. By default, the **Get an IP address dynamically from the router** radio button is selected.

7. Select the **Use Static IP Address** radio button.

8. Complete the fields to specify the IP network IP addresses.

9. Click the **Apply** button.

   Your settings are saved.

Use VPN to Access Your Network 16

This chapter includes the following sections:

- *Set Up a VPN Connection*
- *Specify VPN Service in the DST Router*
- *Install OpenVPN Software*
- *Use a VPN Tunnel on Your Windows Computer*
- *Use VPN to Access the DST Router's USB Drive and Media From Windows*
- *Use VPN to Access Your Internet Service at Home*

Set Up a VPN Connection

A virtual private network (VPN) lets you use the Internet to securely access your network when you aren't home.
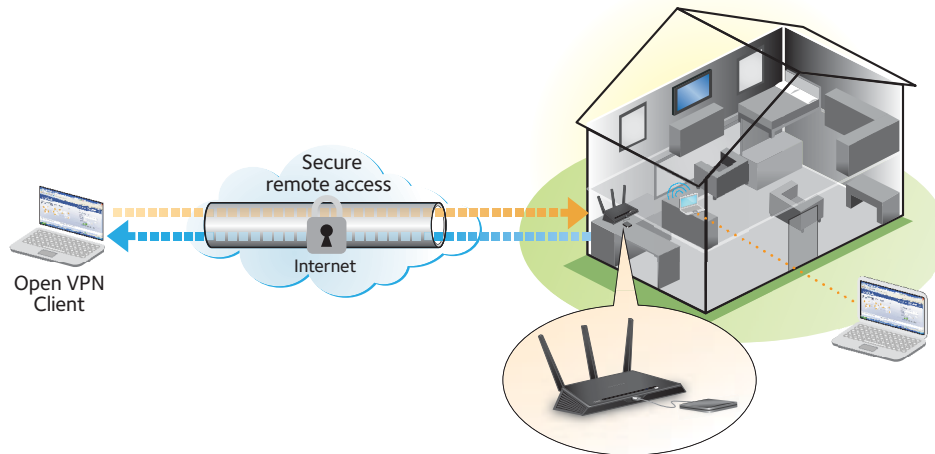
Figure 11. VPN provides a secure tunnel between your home network and a remote computer

This type of VPN access is called a client-to-gateway tunnel. The computer is the client, and the DST router is the gateway. To use the VPN feature, you must log in to the DST router and enable VPN, and you must install and run VPN client software on the computer.

VPN uses DDNS or a static IP address to connect with your DST router.

To use a DDNS service, register for an account with a host name (sometimes called a domain name). You use the host name to access your network. The DST router supports these accounts: NETGEAR No-IP, No-IP, and Dyn.

If your Internet service provider (ISP) assigned a static WAN IP address (such as 50.196.x.x or 10.x.x.x) that never changes to your Internet account, the VPN can use that IP address to connect to your home network.

Note: The maximum number of client devices that can access the DST router concurrently using a VPN connection is 4.

Specify VPN Service in the DST Router

You must specify the VPN service settings in the DST router before you can use a VPN connection.

➢ **To specify the VPN service:**

1. Launch a web browser from a computer that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > VPN Service**.

   The VPN Service page displays.

5. Select the **Enable VPN Service** check box.

   By default, the VPN uses the UDP service type and uses port 12974. If you want to customize the service type and port, we recommend that you change these settings before you install the OpenVPN software.

6. To change the service type, scroll down and select the **TCP** radio button.

7. To change the port, scroll down to the **Service Port** field, and type the port number that you want to use.

8. Click the **Apply** button.

   Your settings are saved. VPN is enabled in the DST router, but you must install and set up OpenVPN software on your computer before you can use a VPN connection.

Install OpenVPN Software

You must install this software on each Windows computer, Mac computer, iOS device, or Android device that you plan to use for VPN connections to your router.

Install OpenVPN Software on Your Windows Computer

➢ **To install VPN client software on your Windows computer:**

1. Launch a web browser from a computer that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > VPN Service**.

   The VPN Service page displays.

5. Make sure that the **Enable VPN Service** check box is selected.

6. Specify any VPN service settings on the page.

   For more information, see *Specify VPN Service in the DST Router* on page 224.

7. Click the **For Windows** button to download the OpenVPN configuration files.

8. Visit *openvpn.net/index.php/download/community-downloads.html* to download the OpenVPN client utility.

9. In the Windows Installer section of the page, double-click the `openVPN-install-xxx.exe` link.

10. Download and install the `openVPN-install-xxx.exe` file.

11. Click the **Next** button.

12. Read the License Agreement and click the **I Agree** button.

13. Leave the check boxes selected as shown, and click the **Next** button.

14. To specify the destination folder, click the **Browse** button and navigate to and select a destination folder.

15. Click the **Install** button.

The page displays the progress of the installation, and then displays the final installation page displays.

16. Click the **Finish** button.

17. Unzip the configuration files that you downloaded and copy them to the folder where the VPN client is installed on your computer.

For a client device with Windows 64-bit system, the VPN client is installed at `C:\Program files\OpenVPN\config\` by default.

18. For a client device with Windows, modify the VPN interface name to **NETGEAR-VPN**:

a. In Windows, select **Control Panel > Network and Internet > Network Connections**.

b. In the local area connection list, find the local area connection with the device name **TAP-Windows Adapter**.

c. Select the local area connection and change its name (not its device name) to **NETGEAR-VPN**.

If you do not change the VPN interface name, the VPN tunnel connection will fail.

For more information about using OpenVPN on your Windows computer, visit *https://openvpn.net/index.php/open-source/documentation/howto.html#quick*.

Install OpenVPN Software on Your Mac Computer

➢ **To install VPN client software on your Mac computer:**

1. Launch a web browser from a computer that is connected to the network.
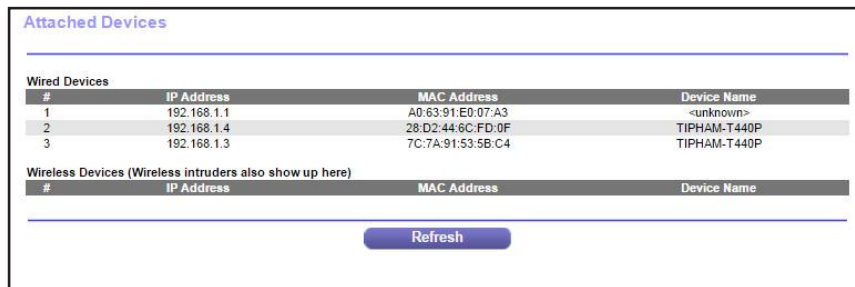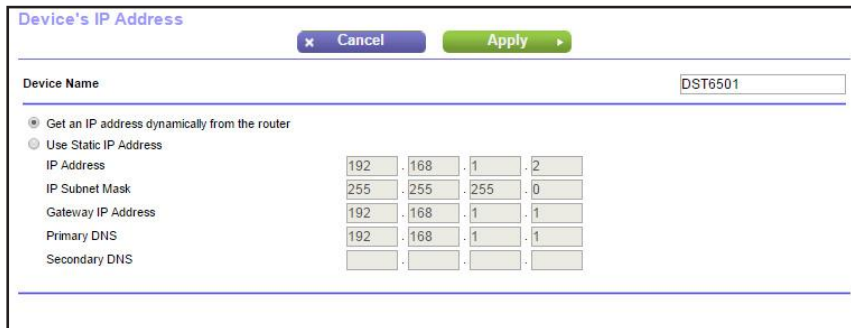
2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > VPN Service**.

   The VPN Service page displays.

5. Make sure that the **Enable VPN Service** check box is selected.

6. Specify any VPN service settings on the page.

   For more information, see *Specify VPN Service in the DST Router* on page 224.

7. Click the **For non-Windows** button to download the OpenVPN configuration files.

8. Visit *https://code.google.com/p/tunnelblick/* to download the OpenVPN client utility for Mac OS X.

9. Download and install the file.

10. Unzip the configuration files that you downloaded and copy them to the folder where the VPN client is installed on your computer.

    The client utility must be installed by a user with administrator privileges.

    For more information about using OpenVPN on your Mac computer, visit *https://openvpn.net/index.php/access-server/docs/admin-guides/183-how-to-connect-to-access-server-from-a-mac.html*.

Use a VPN Tunnel on Your Windows Computer

After you set up the DST router to use VPN and install the OpenVPN application on your Windows computer, you can open a VPN tunnel from your computer to your DST router over the Internet.

For the VPN tunnel to work, the local LAN IP address of the remote DST router must use a different LAN IP scheme than the local LAN where your VPN client computer is connected. If both networks use the same LAN IP scheme, when the VPN tunnel is established, you cannot access your home DST router or your home network with the OpenVPN software.

The default LAN IP address scheme for the DST router is 192.x.x.x. The most common IP schemes are 192.x.x.x, 172.x.x.x, and 10.x.x.x. If you experience a conflict, change the IP scheme either for your home network or for the network with the client VPN computer. For

information about changing these settings, see *Change the LAN TCP/IP Settings* on page 140.

➢ **To open a VPN tunnel on your WIndows computer:**

1. Launch the OpenVPN application with administrator privileges.

The **OpenVPN** icon displays in the Windows taskbar.

> **Tip:** You can create a shortcut to the VPN program, then use the shortcut to access the settings and select the **run as administrator** check box. Then every time your launch this shortcut, OpenVPN automatically runs with administrator privileges.

2. Right-click the **OpenVPN** icon.
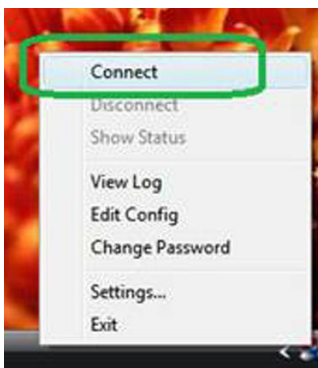
3. Select **Connect**.

The VPN connection is established. You can do the following:

• Launch an Internet browser and log in to your DST router.

• Use Windows file manager to access the router's USB drive and download files.

Use VPN to Access the DST Router's USB Drive and Media From Windows

➢ **To access the router's USB drive and download files from your Windows computer:**

1. In Windows file manager, select the **Network** folder.
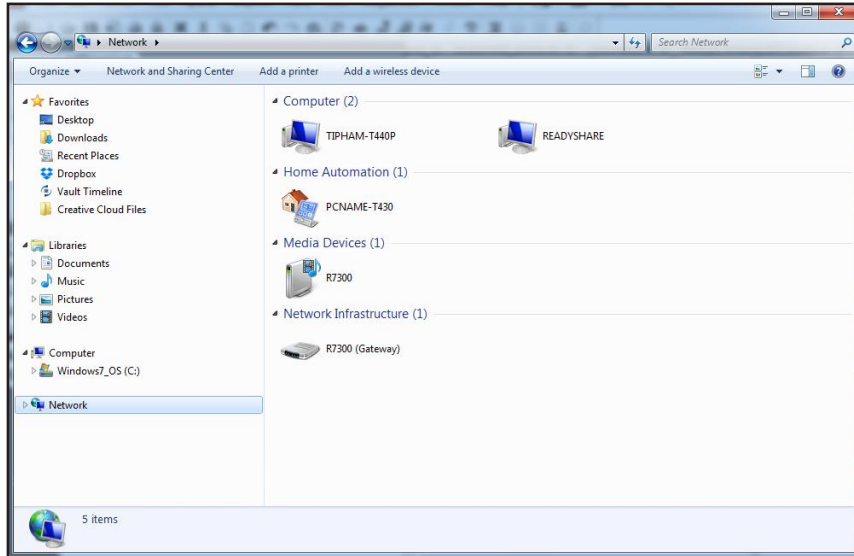
The network resources display. The **ReadySHARE** icon is in the Computer section and the remote **R7300** icon is in the Media Devices section (if DLNA is enabled in the DST router).

2. If the icons do not display, click the **Refresh** button to update the page.

   If the local LAN and the remote LAN are using the same IP scheme, the remote **R7300** icon does not display in the Media Devices and Network Infrastructure sections.

3. To access the DST router's USB drive, click the **ReadySHARE** icon.

4. To access media on the DST router's network, click the **R7300** icon in the Media Devices section.

Use VPN to Access Your Internet Service at Home

When you're away from home and you access the Internet, you usually use a local Internet service provider. For example, at a coffee shop you might be given a code that lets you use the coffee shop's Internet service account to surf the web.

Nighthawk lets you use a VPN connection to access your own Internet service when you're away from home. You might want to do this if you travel to a geographic location that doesn't support all the Internet services that you use at home. For example, your Netflix account might work at home, but not in a different country.

Set Up VPN Client Internet Access in the DST Router

By default, the DST router is set up to allow VPN connections only to your home network, but you can change the setting to allow Internet access. Accessing the Internet remotely through a VPN might be slower than accessing the Internet directly.

➢ **To allow VPN clients to use your home Internet service:**

1. Launch a web browser from a computer that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > VPN Service**.

   The VPN Service page displays.

5. Select the **Enable VPN Service** check box.

6. Scroll down to the Clients will use this VPN connection to access section, and select the **All sites on the Internet & Home Network** radio button.

   When you access the Internet with the VPN connection, instead of using a local Internet service, you use the Internet service from your home network.

7. Click the **Apply** button.

   Your settings are saved.

8. Click **For Windows** or **For Non Windows** button and download the configuration files for your VPN clients.

9. Unzip the configuration files and copy them to the folder where the VPN client is installed on your device.

   For a client device with Windows 64-bit system, the VPN client is installed at `C:\Program files\OpenVPN\config\` by default.

Block VPN Client Internet Access in the DST Router

By default, the DST router is set up this way to allow VPN connections only to your home network, not to the Internet service for your home network. If you changed this setting to allow Internet access, you can change it back.

➢ **To allow VPN clients to access only your home network:**

1. Launch a web browser from a computer that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

 The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

 The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > VPN Service**.

 The VPN Service page displays.

5. Select the **Enable VPN Service** check box.

6. Scroll down to the Clients will use this VPN connection to access section, and select the **Home Network only** radio button.

 This is the default setting. The VPN connection is only to your home network, not to the Internet service for your home network.

7. Click the **Apply** button.

 Your settings are saved.

8. Click **For Windows** or **For Non Windows** button and download the configuration files for your VPN clients.

9. Unzip the configuration files and copy them to the folder where the VPN client is installed on your device.

 For a client device with Windows 64-bit system, the VPN client is installed at `C:\Program files\OpenVPN\config\` by default.

Use a VPN Tunnel to Access Your Internet Service at Home

➢ **To access your Internet service:**

1. Set up the DST router to allow VPN access to your Internet service.

 See *Set Up VPN Client Internet Access in the DST Router* on page 231

2. On your computer, launch the OpenVPN application.

 The **OpenVPN** icon displays in the Windows taskbar.

3. Right-click the icon, and select **Connect**.

4. When the VPN connection is established, launch your Internet browser.

Manage Port Forwarding and Port Triggering

17

You can use port forwarding and port triggering to set up rules for Internet traffic. You need networking knowledge to set up these features.

This chapter includes the following sections:

- *Manage Port Forwarding to a Local Server for Services and Applications*
- *Manage Port Triggering for Services and Applications*

Manage Port Forwarding to a Local Server for Services and Applications

If your home network includes a server, you can allow certain types of incoming traffic to reach the server. For example, you might want to make a local web server, FTP server, or game server visible and available to the Internet.

The DST router can forward incoming traffic with specific protocols to computers on your local network. You can specify the servers for applications and you can also specify a default DMZ server to which the DST router forwards all other incoming protocols.

Forward Incoming Traffic for a Default Service or Application

You can forward traffic for a default service or application to a computer on your network.

➢ **To forward incoming traffic for a default service or application:**

1. Decide which type of service, application, or game you want to provide.
2. Find the local IP address of the computer on your network that will provide the service.

    The server computer must always use the same IP address. To specify this setting, use the reserved IP address feature. See *Reserve LAN IP Addresses* on page 143.

3. Launch a web browser from a computer or WiFi device that is connected to the network.
4. Enter **http://www.routerlogin.net**.

    A login window displays.

5. Enter the router user name and password.

    The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

    The BASIC Home page displays.

6. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

7. Leave the **Port Forwarding** radio button selected as the service type.
8. In the **Service Name** menu, select the service or application.

If the service or application that you want to add is not in the list, create a custom service. See *Add a Port Forwarding Rule With a Custom Service or Application* on page 235.

9. In the **Server IP Address** field, enter the IP address of the computer that will provide the service.

10. Click the **Add** button.

Your settings are saved and the rule is added to the table.

Add a Port Forwarding Rule With a Custom Service or Application

The DST router lists default services and applications that you can use in port forwarding rules. If the service or application is not predefined, you can add a port forwarding rule with a custom service or application.

➢ **To add a port forwarding rule with a custom service or application:**

1. Find out which port number or range of numbers the application uses.

You can usually find this information by contacting the publisher of the application or user groups or news groups.

2. Launch a web browser from a computer or WiFi device that is connected to the network.

3. Enter **http://www.routerlogin.net**.

A login window displays.

4. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

5. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

6. Make sure that the **Port Forwarding** radio button is selected.

7. Click the **Add Custom Service** button.

8. In the **Service Name** field, enter a descriptive name.

9. In the **Service Type** menu, select the protocol (**TCP** or **UDP**) that is associated with the service or application.

   If you are unsure, select **TCP/UDP**.

10. In the **External Starting Port** field, enter the beginning port number.

   If the service or application uses a single port, enter the same port number in the **Ending Port** field.

   If the service or application uses a range of ports, enter the ending port number of the range in the **External Ending Port** field.

11. Specify the internal ports by one of these methods:
   - Leave the **Use the same port range for Internal port** check box selected.
   - Type the port numbers in the **Internal Starting Port** and **Internal Ending Port** fields.

12. Type the IP address in the **Internal IP address** field or select the radio button for an attached device listed in the table.

13. Click the **Apply** button.

   Your settings are saved. The rule is added to the table on the Port Forwarding / Port Triggering page.

Change a Port Forwarding Rule

You can change an existing port forwarding rule.

➢ **To change a port forwarding rule:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

   The Port Forwarding / Port Triggering page displays.

5. Make sure that the **Port Forwarding** radio button is selected.

6. In the table, select the radio button next to the service name.

7. Click the **Edit Service** button.

   The Ports - Custom Services page displays.

8. Specify changes to any of the following settings:
   - **Service Name**. Type the service name.
   - **Service Type**. If you are unsure, select **TCP/UDP**.
   - **External Starting Port**: If the application uses a single port, enter the same port number in the **External Ending Port** field. If the application uses a range of ports, enter the ending port number of the range in the **External Ending Port** field.
   - For the internal ports, leave the **Use the same port range for Internal port** check box selected.
   - **Internal IP address**. Type the IP address in the Internal IP address field, or select the radio button for an attached device listed in the table.

9. Click the **Apply** button.

   Your settings are saved.

Remove a Port Forwarding Entry

You can remove a port forwarding rule that you no longer need.

➢ **To delete a port forwarding entry:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

   The Port Forwarding / Port Triggering page displays.

5. Make sure that the **Port Forwarding** radio button is selected.

6. In the table, select the radio button next to the service name.

7. Click the **Delete Service** button.

The rule is removed from the table.

Application Example: Make a Local Web Server Public

If you host a web server on your local network, you can use port forwarding to allow web requests from anyone on the Internet to reach your web server.

➢ **To make a local web server public:**

1. Assign your web server either a fixed IP address or a dynamic IP address using DHCP address reservation.

   In this example, your DST router always gives your web server an IP address of 192.168.1.33.

2. On the Port Forwarding / Port Triggering page, configure the DST router to forward the HTTP service to the local address of your web server at **192.168.1.33**.

   HTTP (port 80) is the standard protocol for web servers.

3. (Optional) Register a host name with a Dynamic DNS service, and specify that name in the Dynamic DNS page of the DST router.

   Dynamic DNS makes it much easier to access a server from the Internet because you can type the name in the Internet browser. Otherwise, you must know the IP address that the ISP assigned, which typically changes.

How the DST Router Implements the Port Forwarding Rule

The following sequence shows the effects of a port forwarding rule:

1. When you type the URL www.example.com in your browser, the browser sends a web page request message with the following destination information:
   - **Destination address**. The IP address of www.example.com, which is the address of your DST router.
   - **Destination port number**. 80, which is the standard port number for a web server process.

2. Your DST router receives the message and finds your port forwarding rule for incoming port 80 traffic.

3. The DST router changes the destination in the message to IP address 192.168.1.123 and sends the message to that computer.

4. Your web server at IP address 192.168.1.123 receives the request and sends a reply message to your DST router.

5. Your DST router performs Network Address Translation (NAT) on the source IP address, and sends the reply through the Internet to the computer or WiFi device that sent the web page request.

Manage Port Triggering for Services and Applications

Port triggering is a dynamic extension of port forwarding that is useful in these cases:

- An application must use port forwarding to more than one local computer (but not simultaneously).
- An application must open incoming ports that are different from the outgoing port.

With port triggering, the DST router monitors traffic to the Internet from an outbound "trigger" port that you specify. For outbound traffic from that port, the DST router saves the IP address of the computer that sent the traffic. The DST router temporarily opens the incoming port or ports that you specify in your rule, and forwards that incoming traffic to that destination.

Port forwarding creates a static mapping of a port number or range of ports to a single local computer. Port triggering can dynamically open ports to any computer when needed and close the ports when they are no longer needed.

Note: If you use applications such as multiplayer gaming, peer-to-peer connections, real-time communications such as instant messaging, or remote assistance (a feature in Windows XP), enable Universal Plug and Play (UPnP). See *Improve Network Connections With Universal Plug and Play* on page 72.

Add a Port Triggering Service

➢ **To add a port triggering service:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering.**

   The Port Forwarding / Port Triggering page displays.

5. Select the **Port Triggering** radio button.

6. Click the **Add Service** button.

7. In the **Service Name** field, enter the name of the custom service or application.

8. In the **Service User** menu, select **Any,** or select **Single address** and enter the IP address of one computer:

    *   **Any**. The is the default settings and allows any computer on the Internet to use this service.

    *   **Single address**. Restricts the service to a particular computer. Enter the IP address in the field that becomes available with this selection from the menu.

9. Select the service type, either **TCP** or **UDP** or **TCP/UDP** (both).

    If you are not sure, select **TCP/UDP**.

10. In the **Triggering Port** field, enter the number of the outbound traffic port that will open the inbound ports.

11. Enter the inbound connection port information in the **Connection Type**, **Starting Port**, and **Ending Port** fields.

12. Click the **Apply** button.

    The service is now in the Portmap table. You must enable port triggering before the DST router used port triggering for the service that you added. See *Enable Port Triggering* on page 241.

Enable Port Triggering

➢ **To enable port triggering:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

   The Port Forwarding / Port Triggering page displays.

5. Select the **Port Triggering** radio button.

6. Clear the **Disable Port Triggering** check box.

   If this check box is selected, the DST router does not use port triggering even if you have specified port triggering settings.

7. In the **Port Triggering Timeout** field, enter a value up to 9999 minutes.

   This value controls how long the inbound ports stay open when the DST router detects no activity. This value is required because the DST router cannot detect when the application terminates.

Change a Port Triggering Rule

You can change an existing port triggering rule.

➢ **To change a port triggering rule:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

The Port Forwarding / Port Triggering page displays.

5. Select the **Port Triggering** radio button.

The port triggering settings display.

6. In the Port Triggering Portmap Table, select the radio button next to the service or application name.

7. Click the **Edit Service** button.

The Ports - Custom Services page displays.

8. Specify changes to any of the following settings:
   - **Service Name**. Type the service name.
   - **Service User**. Select **Any** or select **Single address** and enter the IP address of one computer.
   - **Service Type**. If you are unsure, select **TCP/UDP**.
   - **Triggering Port**. Enter the number of the outbound traffic port that will open the inbound ports.
   - **Connection Type**. Enter the inbound connection port information.
   - **Starting Port**. Enter the inbound connection port information.
   - **Ending Port**. Enter the inbound connection port information.

9. Click the **Apply** button.

Your settings are saved.

Remove a Port Triggering Entry

You can remove a port triggering rule that you no longer need.

➢ **To delete a port triggering entry:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

A login window displays.

3. Enter the router user name and password.

The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

   The Port Forwarding / Port Triggering page displays.

5. Select the **Port Triggering** radio button.

   The port triggering settings display.

6. In the Port Triggering Portmap Table, select the radio button next to the service or application name.

7. Click the **Delete Service** button.

   The rule is removed from the Port Triggering Portmap Table.

Specify the Time-Out for Port Triggering

The time-out period for port triggering controls how long the inbound ports stay open when the DST router detects no activity. A time-out period is required because the DST router cannot detect when the service or application terminates.

➢ **To specify the time-out for port triggering:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

   The Port Forwarding / Port Triggering page displays.

5. Select the **Port Triggering** radio button.

   The port triggering settings display.

6. In the **Port Triggering Time-out** field, enter a value up to 9999 minutes.

   The default setting is 20 minutes.

7. Click the **Apply** button.

   Your settings are saved.

Disable Port Triggering

By default, port triggering is enabled. You can disable port triggering temporarily without removing any port triggering rules.

➢ **To disable port triggering:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Select **ADVANCED > Advanced Setup > Port Forwarding/Port Triggering**.

   The Port Forwarding / Port Triggering page displays.

5. Select the **Port Triggering** radio button.

   The port triggering settings display.

6. Select the **Disable Port Triggering** check box.

   If this check box is selected, the DST router does not apply port triggering rules even if you specified them.

7. Click the **Apply** button.

   Your settings are saved.

Application Example: Port Triggering for Internet Relay Chat

Some application servers, such as FTP and IRC servers, send replies to multiple port numbers. Using port triggering, you can tell the DST router to open more incoming ports when a particular outgoing port starts a session.

An example is Internet Relay Chat (IRC). Your computer connects to an IRC server at destination port 6667. The IRC server not only responds to your originating source port, but also sends an "identify" message to your computer on port 113. Using port triggering, you can tell the DST router, "When you initiate a session with destination port 6667, you must also allow incoming traffic on port 113 to reach the originating computer." The following sequence shows the effects of this port triggering rule:

1. You open an IRC client program to start a chat session on your computer.

2. Your IRC client composes a request message to an IRC server using a destination port number of 6667, the standard port number for an IRC server process. Your computer then sends this request message to your DST router.

3. Your DST router creates an entry in its internal session table describing this communication session between your computer and the IRC server. Your DST router stores the original information, performs Network Address Translation (NAT) on the source address and port, and sends this request message through the Internet to the IRC server.

4. Noting your port triggering rule and observing the destination port number of 6667, your DST router creates another session entry to send any incoming port 113 traffic to your computer.

5. The IRC server sends a return message to your DST router using the NAT-assigned source port (for example, port 33333) as the destination port. The IRC server also sends an "identify" message to your DST router with destination port 113.

6. When your DST router receives the incoming message to destination port 33333, it checks its session table to see if a session is active for port number 33333. Finding an active session, the DST router restores the original address information replaced by NAT and sends this reply message to your computer.

7. When your DST router receives the incoming message to destination port 113, it checks its session table and finds an active session for port 113 associated with your computer. The DST router replaces the message's destination IP address with your computer's IP address and forwards the message to your computer.

8. When you finish your chat session, your DST router eventually senses a period of inactivity in the communications. The DST router then removes the session information from its session table, and incoming traffic is no longer accepted on port numbers 33333 or 113.

DST Router Troubleshooting 18

This chapter provides information to help you diagnose and solve problems you might experience with your DST router. If you do not find the solution here, check the NETGEAR support site at *support.netgear.com* for product and contact information.

The chapter contains the following sections:

- *Contact Geek Squad*
- *Quick Tips*
- *Troubleshoot With the LEDs*
- *Cannot Log In to the DST Router*
- *Cannot Access the Internet*
- *Changes Not Saved*
- *WiFi Connectivity*
- *Troubleshoot Your Network Using the Ping Utility*

Contact Geek Squad

The R7300DST package, which includes the Nighthawk R7300 DST router and DST6501 DST adapter, comes with setup and support via phone and web from Geek Squad for one year from the date of purchase. If you bought an add-on DST6501 DST adapter, setup and support are included for one year from your R7300DST package purchase date.

Geek Squad Agents use remote access to assist with setup and support. The **Geek Squad Setup and Support** button on the DST router paired with the DST router's Geek Squad support ID, which is on the product label on the bottom of the DST router, is used to authenticate the connection for remote access.

The Agent will provide direction regarding the use of the **Geek Squad Setup and Support** button. Be sure to reference your coupon code, which is GS1337EXB, when you are on the phone or chatting with an Agent.

➢ **To contact Geek Squad:**

1. Contact Geek Squad using online chat or phone:
   - To contact Geek Squad using the online chat:

     a. Visit *geeksquad.com*.

     b. Click the **CHAT WITH AN AGENT** link.

        The CHAT WITH AN AGENT page displays.

     c. Click the **START CHAT NOW** button.

        A sign-in window displays.

        If you do not see a sign-in window, disable your pop-up blocker.

     d. Enter your email address and click the **CHAT NOW** button to begin the chat.
   - To contact Geek Squad using the phone, call 1-800-GeekSquad.

2. Reference your coupon code, which is GS1337EXB, when you are on the phone or chatting with an Agent.

3. When prompted by the agent, do the following:

   a. Give the Agent your Geek Squad Support ID, which is on the product label.

      The product label is on the bottom of the DST router.

b. Press the **Geek Squad Setup and Support** button ⬭ on the DST router to allow the Agent temporary access to your DST router.

The state of the Geek Squad Setup and Support LED indicates the status of the connection with the Geek Squad Agent:

- **Solid white**. The DST router is connected to Geek Squad Support.
- **Blinking white**. The connection is being established.
- **Off**. Geek Squad Support is not connected.

Quick Tips

This section describes tips for troubleshooting some common problems.

Sequence to Restart Your Network

When you must restart your network, follow this sequence:

1. Turn off *and* unplug the modem.
2. Turn off the DST router.
3. Plug in the modem and turn it on. Wait two minutes.
4. Turn on the DST router and wait two minutes.

Check Ethernet Cable Connections

If your device does not power on, make sure that the Ethernet cables are securely plugged in.

The Internet LED on the DST router is lit if the Ethernet cable connecting the DST router and the modem is plugged in securely and the modem and DST router are turned on.

If one or more powered-on computers are connected to the DST router by an Ethernet cable, the corresponding numbered DST router Ethernet port LED lights.

WiFi Settings

Make sure that the WiFi settings in the computer or WiFi device and DST router match exactly. The WiFi network name (SSID) and WiFi security settings of the DST router and computer or WiFi device must match exactly.

If you set up an access list on the Advanced Wireless Settings page, you must add each computer or WiFi device's MAC address to the DST router's access list.

Network Settings

Make sure that the network settings of the computer are correct. Wired and wirelessly connected computers must use network (IP) addresses on the same network as the DST router. The simplest way to do this is to configure each computer to obtain an IP address automatically using DHCP.

Some cable modem service providers require you to use the MAC address of the computer initially registered on the account. You can view the MAC address in the Attached Devices page.

Troubleshoot With the LEDs

By default, the DST router is set with standard LED settings. If you disabled blinking for the LEDs or turned off all LEDs except the Power LED, you must return the LEDs to their standard settings for troubleshooting. For information about controlling the LED settings, see *Disable DST Router LED Blinking or Turn Off LEDs* on page 184.

Standard LED Behavior When the Router Is Powered On

After you turn on power to the DST router, verify that the following sequence of events occurs:

1. When power is first applied, verify that the Power LED is lit.

2. After approximately 30 seconds, verify the following:
   - The Power LED is solid white.
   - The Internet LED is lit.
   - The WiFi LED is lit unless you turned off the wireless radios.

You can use the LEDs on the front panel of the DST router for troubleshooting.

Power LED Is Off or Blinking

- Make sure that the power adapter is securely connected to your DST router and securely connected to a working power outlet.
- Check that you are using the power adapter that NETGEAR supplied for this product.
- If the Power LED blinks slowly and continuously, the DST router firmware is corrupted. This can happen if a firmware upgrade is interrupted, or if the DST router detects a problem with the firmware. If the error persists, you have a hardware problem. For recovery instructions, or help with a hardware problem, contact technical support at *netgear.com/support.*

Power LED Stays Amber

When the DST router is turned on, the Power LED turns amber for about 20 seconds and then turns white. If the LED does not turn white, this indicates a problem with the DST router.

If the Power LED is still amber one minute after you turn on power to the DST router, do the following:

1. Turn off the power and then turn it back on to see if the DST router recovers.

2. Press and hold the **Reset** button to return the DST router to its factory settings.

   See *Troubleshoot Your Network Using the Ping Utility* on page 254.

If the error persists, a hardware problem might be the cause. Contact technical support at *www.netgear.com/support.*

LEDs Never Turn Off

When the DST router is turned on, the LEDs light for about 10 seconds and then turn off. If all the LEDs stay on, this indicates a fault within the DST router.

If all LEDs are still lit one minute after power-up, do the following:

• Cycle the power to see if the DST router recovers.

• Press and hold the **Reset** button to return the DST router to its factory settings. For more information, see *Troubleshoot Your Network Using the Ping Utility* on page 254.

If the error persists, you might have a hardware problem. Contact technical support at *www.netgear.com/support*.

Internet or Ethernet Port LEDs Are Off

If either the Ethernet port LEDs or the Internet LED does not light when the Ethernet connection is made, check the following:

• Make sure that the Ethernet cable connections are secure at the DST router and at the modem or computer.

• Make sure that power is turned on to the connected modem or computer.

• Be sure that you are using the correct cable.

   When connecting the DST router's Internet port to a cable or DSL modem, use the cable that was supplied with the cable or DSL modem. This cable can be a standard straight-through Ethernet cable or an Ethernet crossover cable.

Cannot Log In to the DST Router

If you are unable to log in to the DST router from a computer on your local network, check the following:

- If you are using an Ethernet-connected computer, check the Ethernet connection between the computer and the DST router.

- If the computer is set to a static or fixed IP address (this setting is uncommon), change it to obtain an IP address automatically from the DST router.

- Make sure that the IP address of your computer is on the same subnet as the DST router. If you are using the recommended addressing scheme, your computer's address is in the range of 192.168.1.2 to 192.168.1.254.

- If your computer's IP address is shown as 169.254.x.x, recent versions of Windows and Mac OS generate and assign an IP address if the computer cannot reach a DHCP server. These autogenerated addresses are in the range of 169.254.x.x. If your IP address is in this range, check the connection from the computer to the DST router, and reboot your computer.

- If your DST router's IP address was changed and you do not know the current IP address, clear the DST router's configuration to factory defaults. This sets the DST router's IP address to 192.168.1.1. For more information, see *Factory Settings* on page 261.

- Make sure that Java, JavaScript, or ActiveX is enabled in our browser. If you are using Internet Explorer, click the **Refresh** button to be sure that the Java applet is loaded.

- Close and reopen the browser or clear the browser cache.

- Make sure that you are using the correct login information. The user name is **admin**, and the default password is **password**. Make sure that Caps Lock is off when you enter this information.

- If you are attempting to set up your NETGEAR DST router behind an existing router in your network, use bridge mode or set up the router as an access point.

- If you are attempting to set up your NETGEAR DST router as a replacement for an ADSL gateway in your network, the DST router cannot perform many gateway services. For example, the DST router cannot convert ADSL or cable data into Ethernet networking information. We do not support such a configuration.

Cannot Access the Internet

If you can access your DST router but not the Internet, check to see if the DST router can obtain an IP address from your Internet service provider (ISP). Unless your ISP provides a fixed IP address, your DST router requests an IP address from the ISP. You can determine whether the request was successful using the ADVANCED Home page.

➢ **To check the WAN IP address:**

1. Start your browser, and select an external site such as *www.netgear.com*.
2. Access the DST router interface at **www.routerlogin.net.**
3. Click the **ADVANCED** tab.
4. Check to see that an IP address is shown for the Internet port. If 0.0.0.0 is shown, your DST router did not obtain an IP address from your ISP.

If your DST router cannot obtain an IP address from the ISP, you might need to force your cable or DSL modem to recognize your new DST router by restarting your network. For more information, see *Sequence to Restart Your Network* on page 248.

If your DST router is still unable to obtain an IP address from the ISP, the problem might be one of the following:

- If your Internet service provider (ISP) might require a login program.
  Ask your ISP whether they require PPP over Ethernet (PPPoE) or some other type of login.

- If your ISP requires a login, the login name and password might be set incorrectly.

- Your ISP might check for your computer's host name.
  Assign the computer host name of your ISP account as the account name on the Internet Setup page.

- Your ISP allows only one Ethernet MAC address to connect to Internet and might check for your computer's MAC address, do one of the following:

  - Inform your ISP that you bought a new network device, and ask them to use the DST router's MAC address.

  - Configure your DST router to clone your computer's MAC address.

If your DST router obtained an IP address, but your computer is does not load any web pages from the Internet, it might be for one of the following reasons:

- Your computer might not recognize any DNS server addresses.

  A DNS server is a host on the Internet that translates Internet names (such as www addresses) to numeric IP addresses. Typically, your ISP provides the addresses of one or two DNS servers for your use. If you entered a DNS address during the DST router's configuration, reboot your computer and verify the DNS address. You can configure your computer manually with DNS addresses, as explained in your operating system documentation.

- The DST router might not be configured as the TCP/IP gateway on your computer.

  If your computer obtains its information from the DST router by DHCP, reboot the computer, and verify the gateway address.

- You might be running login software that is no longer needed.

  If your ISP provided a program to log you in to the Internet (such as WinPoET), you no longer need to run that software after installing your DST router. You might need to go to Internet Explorer and select **Tools > Internet Options**, click the **Connections** tab, and select **Never dial a connection**. Other browsers provide similar options.

Troubleshoot PPPoE

If you are using PPPoE, try troubleshooting your Internet connection.

➢ **To troubleshoot a PPPoE connection:**

1. Launch a web browser from a computer or WiFi device that is connected to the network.

2. Enter **http://www.routerlogin.net**.

   A login window displays.

3. Enter the router user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.

   The BASIC Home page displays.

4. Click the **ADVANCED** tab.

5. Click the **Connection Status** button.

6. Check the Connection Status display to see if your PPPoE connection is up and working.

7. If the DST router is not connected, you can attempt to reconnect by clicking the **Connect** button. The DST router continues to attempt to connect indefinitely.

8. If you cannot connect after several minutes, you might be using an incorrect service name, user name, or password. Or your ISP might be experiencing a provisioning problem.

Unless you connect manually, the DST router does not authenticate using PPPoE until data is transmitted to the network.

Troubleshoot Internet Browsing

If your DST router can obtain an IP address but your computer is unable to load any web pages from the Internet, check the following:

- Your computer might not recognize any DNS server addresses. A DNS server is a host on the Internet that translates Internet names (such as www addresses) to numeric IP addresses.

  Typically, your ISP provides the addresses of one or two DNS servers for your use. If you entered a DNS address during the DST router's configuration, restart your computer.

  Alternatively, you can configure your computer manually with a DNS address, as explained in the documentation for your computer.

- The DST router might not be configured as the default gateway.

  Reboot the computer and verify that the DST router address (www.routerlogin.net) is listed by your computer as the default gateway address.

- You might be running login software that is no longer needed. If your ISP provided a program to log you in to the Internet (such as WinPoET), you no longer need to run that software after installing your DST router. You might need to go to Internet Explorer and select **Tools > Internet Options**, click the **Connections** tab, and select the **Never dial a connection**. Other browsers provide similar options.

Changes Not Saved

If the DST router does not save the changes you make in the DST router interface, check the following:

- When entering configuration settings, always click the **Apply** button before moving to another page or tab, or your changes are lost.
- Click the **Refresh** or **Reload** button in the web browser. The changes might have occurred, but the old settings might be in the web browser's cache.

WiFi Connectivity

If you are experiencing trouble connecting wirelessly to the DST router, try to isolate the problem:

- Does the WiFi device or computer that you are using find your WiFi network?

  If you disabled the DST router's WiFi radios, then your WiFi network is hidden and does not display in your WiFi client's scanning list. (By default, SSID broadcast is enabled.)

  You can log in to the DST router to enable the DST router's WiFi radio. For more information, see *Enable or Disable the WiFi Radios* on page 152.

- Does your WiFi device support the security that you are using for your WiFi network (WPA or WPA2)?

- If you want to view the WiFi settings for the DST router, use an Ethernet cable to connect a computer to a LAN port on the DST router. Then log in to the DST router, and select **BASIC > Wireless**.

  Note: Be sure to click the **Apply** button if you change settings.

If your WiFi device finds your network, but the signal strength is weak, check these conditions:

- Is your DST router too far from your computer, or too close? Place your computer near the DST router, but at least 6 feet (1.8 meters) away, and see whether the signal strength improves.

- Are objects between the DST router and your computer blocking the WiFi signal?

Troubleshoot Your Network Using the Ping Utility

Most network devices and routers contain a ping utility that sends an echo request packet to the designated device. The device then responds with an echo reply. You can easily troubleshoot a network using the ping utility in your computer or workstation.

Test the LAN Path to Your DST Router

You can ping the DST router from your computer to verify that the LAN path to your DST router is set up correctly.

➢ **To ping the DST router from a Windows computer:**

1. From the Windows toolbar, click **Start** and select **Run**.

2. In the field provided, type `ping` followed by the IP address of the DST router, as in this example:

   `ping www.routerlogin.net`

3. Click the **OK** button.

   You should see a message like this one:

   `Pinging <IP address > with 32 bytes of data`

   If the path is working, you see this message:

   `Reply from < IP address >: bytes=32 time=NN ms TTL=xxx`

   If the path is not working, you see this message:

   `Request timed out`

If the path is not functioning correctly, you might have one of the following problems:

- Wrong physical connections

  For a wired connection, make sure that the numbered LAN port LED is lit for the port to which you are connected.

  Check to see that the appropriate LEDs are on for your network devices. If your DST router and computer are connected to a separate Ethernet switch, make sure that the link LEDs are lit for the switch ports that are connected to your computer and DST router.

- Wrong network configuration

  Verify that the Ethernet card driver software and TCP/IP software are both installed and configured on your computer.

  Verify that the IP address for your DST router and your computer are correct and that the addresses are on the same subnet.

Test the Path From Your Computer to a Remote Device

After verifying that the LAN path works correctly, test the path from your computer to a remote device.

1. From the Windows toolbar, click the **Start** button and select **Run**.

2. In the Windows Run window, type:

   `ping -n 10 `<IP address>

where <IP address> is the IP address of a remote device such as your ISP DNS server.

If the path is functioning correctly, messages like those shown in *Test the LAN Path to Your DST Router* on page 255 display.

If you do not receive replies, check the following:

- Make sure that the IP address of your DST router is listed as the default gateway on your computer. If DHCP assigns the IP configuration of your computers, this information is not visible in your computer Network Control Panel. Verify that the IP address of the DST router is listed as the default gateway.

- Make sure that the network address of your computer (the portion of the IP address specified by the subnet mask) is different from the network address of the remote device.

- Make sure that your cable or DSL modem is connected and functioning.

- If your ISP assigned a host name to your computer, enter that host name as the account name on the Internet Setup page.

- Your ISP might be rejecting the Ethernet MAC addresses of all but one of your computers.

  Many broadband ISPs restrict access by allowing traffic only from the MAC address of your broadband modem. Some ISPs additionally restrict access to the MAC address of a single computer connected to that modem. If so, configure your DST router to "clone" or "spoof" the MAC address from the authorized computer.

DST Adapter Troubleshooting 19

You can take various steps to diagnose and solve problems that you might encounter.

The first step in troubleshooting your DST adapter is to check the LEDs. After you plug in the DST adapter, the following sequence of events occurs:

1. The Power LED lights.
2. After approximately 10 seconds, verify the following:
    - The Power LED is solid green. The device is powered on.
    - If the device is connected to a Powerline network, the Pick A Plug LED is lit.
    - If the Powerline device is connected through the Ethernet port to a powered-on Ethernet device, the Ethernet LED is lit.

If no LEDs are lit, see *LEDs Are Off When the DST Adapter Is Plugged In* .

If the Power LED is not lit, see *Power LED Is Off* .

If the Pick A Plug LED is not lit, see *DST LED Is Off, Amber, or Red* .

If the Ethernet LED is not lit, see *Ethernet LED Is Off* .

If you do not find the solution here, visit the NETGEAR support site at *support.netgear.com* for product and contact information.

LEDs Are Off When the DST Adapter Is Plugged In

A common reason the LEDs are off is that power is not being provided to the DST adapter.

Make sure that power is supplied to the electrical outlet, and that the DST adapter is not plugged into an extension cord, power strip, or surge protector.

Power LED Is Off

If the Power LED is off, the adapter is not receiving electrical power. You can try various troubleshooting tips:

- Make sure that power is supplied to the electrical outlet.
- Press the **Factory Rese**t button on the DST adapter for two seconds to return the device to its factory default settings.

DST LED Is Off, Amber, or Red

If the DST LED is off, you can try various troubleshooting tips.

If the DST LED is off, the DST adapters cannot find the DST router or other DST adapters. Try these troubleshooting tips:

- Make sure that the DST adapters and DST router are plugged into wall outlets with power and that they use the same network encryption key.
- Move a DST adapter to an outlet that is closer to the computer or other devices.
- If you set a private encryption key, make sure that all DST adapters and the DST router are using the same encryption key.
- If the problem occurred after you set the encryption key, reset each device to its factory default settings.

  Then try setting the encryption key again.

- If the LED is amber or red, move the DST adapter to another electrical outlet with a faster connection.

Ethernet LED Is Off

If the Ethernet LED is off, the Ethernet port on the DST adapter is not linked. You can try various troubleshooting tips.

If your DST adapter is connected to a computer, game console, Blu-ray player, or other peripheral device, check the following:

- The peripheral device is turned on.
- The DST adapter is securely connected to the peripheral device using an Ethernet cable.

Press the **Factory Reset** button on each DST adapter for two seconds to return the device to its factory default settings.

A. DST Router Supplemental Information

A

This appendix covers the following topics:

- *Factory Settings*
- *Technical Specifications*

Factory Settings

You can return the DST router to its factory settings. Use the end of a paper clip or a similar object to press and hold the **Reset** button on the back of the DST router for at least seven seconds. The DST router resets, and returns to the factory configuration settings shown in the following table.

Table 5. Factory default settings

Feature		Default Setting
Router login	User login URL	www.routerlogin.com or www.routerlogin.net
	User name (case-sensitive)	admin
	Login password (case-sensitive)	password
Internet connection	WAN MAC address	Use default hardware address
	WAN MTU size	1500
	Port speed	AutoSensing
Local network (LAN)	LAN IP	192.168.1.1
	Subnet mask	255.255.255.0
	DHCP server	Enabled
	DHCP range	192.168.1.2 to 192.168.1.254
	Time zone	Pacific Time GMT-8 for NA
	DHCP starting IP address	192.168.1.2
	DHCP ending IP address	192.168.1.254
	DMZ	Disabled
	Time adjusted for daylight savings time	Disabled
	SNMP	Disabled
Firewall	Inbound (communications coming in from the Internet)	Disabled (except traffic on port 80, the HTTP port)
	Outbound (communications going out to the Internet)	Enabled (all)
	Source MAC filtering	Disabled

Table 5. Factory default settings (continued)

Feature		Default Setting
Wireless	WiFi communication	Enabled
	SSID name	See DST router label
	Security	WPA2-PSK (AES)
	Broadcast SSID	Enabled
	Transmission speed	Auto[1]
	Country/region	United States in the US; otherwise, varies by region
	RF channel	Auto for 2.4 GHz. Use fixed channel for 5 GHz.
	Operating mode	Up to 600 Mbps at 2.4 GHz, 1300 Mbps at 5 GHz

1. *Maximum wireless signal rate derived from IEEE Standard 802.11 specifications. Actual throughput can vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.*

Technical Specifications

Table 6. R7300 DST router specifications

Feature	Description
Data and routing protocols	TCP/IP, RIP-1, RIP-2, DHCP, PPPoE, PPTP, Bigpond, Dynamic DNS, UPnP, and SMB
Power consumption	100–240V, 50/60 Hz, 1.3A
Dimensions	306 mm x 219 mm x 57 mm (11.93 in. x 8.54 in. x 2.22 in.)
Weight	Weight: 1073 g (2.37 lbs)
Operating temperature	0° to 40° C (32º to 104º F)
Operating humidity	90% maximum relative humidity, noncondensing
Electromagnetic emissions	FCC Part 15 Class B
LAN	10BASE-T or 100BASE-TX or 1000BASE-T, RJ-45
WAN	10BASE-T or 100BASE-TX or 1000BASE-T, RJ-45
Wireless	Maximum wireless signal rate complies with the IEEE 802.11 standard. See the footnote for *Table 5, Factory default settings*.
Radio data rates	Auto Rate Sensing
Data encoding standards	IEEE 802.11ac 2.0 IEEE 802.11n version 2.0 IEEE 802.11n 256QAM IEEE 802.11g, IEEE 802.11b 2.4 GHz IEEE 802.11n, IEEE 802.11a 5.0 GHz
Maximum computers per wireless network	Limited by the amount of WiFi network traffic generated by each node (typically 50–70 nodes).

Operating frequency range	2.4 GHz
	      2.412–2.462 GHz (US)
	5 GHz
	      5.18–5.24 + 5.745–5.825 GHz (US)

802.11 security	WPA-PSK, WPA2-PSK, and WPA/WPA2

DST Adapter Supplemental Information

B

This appendix provides technical specifications and safety information for the DST adapter.

The appendix includes the following sections:

- *Technical Specifications*
- *Safety Information*

Technical Specifications

Table 7. DST6501 DST adapter specifications

Feature	Specification
Data and routing protocols	IEEE 802.3 (10BASE-T), IEEE 802.3u (100BASE-Tx)
AC input	100–240V, 0.3A (max.)
Power consumption	Normal: 9.3W
Dimensions	127 x 107 x 57 mm (5.0 x 4.42 x 2.26 in.)
Weight	0.241 kg (0.45 lb)
Operating temperature	0° to 40°C (32º to 104ºF)
Operating humidity	10–90% maximum relative humidity, noncondensing
Storage humidity	5–95% maximum relative humidity, noncondensing
Security encryption type	128-bit AES
MAC addresses	64: number of nodes that can be added to a single network
Bandwidth	1000 Mbps
Compatibility	Not HomePlug v1.0 or HomePlug v1.0 Turbo compatible
Data transfer rate	Up to 1000 Mbps with real throughput greater than 80 Mbps
Frequency band	2–30 Mbps
Modulation type	OFDM symbol modulation
Electromagnetic emissions	FCC Part 15 Class B; 3-home FCC Certificate
Safety agency approvals	UL Listed (UL60950-01) / cULIEC-60950-1;LCIE CB
Wireless communication	Enabled
Transmission speed	Auto[1]
Country/Region	United States (varies by region)
Operating mode	IEEE 802.11 b/g/n 2.4GHz 256QAM Support IEEE 802.11 a/n/ac 5GHz
Data rate	200 Mbps @ 2.4GHz -256QAM 433 Mbps @ 5GHz

1. Maximum wireless signal rate (IEEE Standard 802.11). Actual throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.

Safety Information

Follow these safety guidelines to ensure your own personal safety and to help protect your system from potential damage.

- AC input: 100–240V, 0.3A (max.)
- Operating temperature: 0C–40 degrees C.
- Maximum wireless signal rate derived from IEEE Standard 802.11 specifications.
- Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.
- Do not service any product except as explained in your system documentation.
- Opening or removing covers that are marked with the triangular symbol with a lightning bolt can expose you to electrical shock. Only a trained service technician should service components inside these compartments.
- Use the product only with approved equipment.
- Allow the product to cool before removing covers or touching internal components.
- To help avoid damaging your system, be sure that the voltage selection switch (if provided) on the power supply is set to match the power available at your location:
  - 110 volts (V), 60 hertz (Hz) in most of North and South America and some Far Eastern countries such as South Korea and Taiwan.
  - 100V, 50 Hz in eastern Japan and 100V, 60 Hz in western Japan.
  - 230V, 50 Hz in most of Europe, the Middle East, and the Far East.
- Do not plug the DST adapter into extension cords, power strips, or surge protectors.
- To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).