



# SURFboard® SBG8300 DOCSIS 3.1 Wi-Fi cable modem

User Guide, STANDARD Revision x.5

P/N 365-095-32542

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The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice.

# Safety and regulatory information

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Read all safety and regulatory information before installing your device and setting up your home network connection.

## Important safety instructions

Read this before you begin — When using your equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- Read all the instructions listed here and/or in the user manual before you operate this device. Give attention to all safety precautions. Retain the instructions for future reference.
- This device must be installed and used in strict accordance with manufacturer's instructions, as described in the user documentation that is included with the device.
- Comply with all warning and caution statements in the instructions. Observe all warning and caution symbols that are affixed to this device.
- To prevent fire or shock hazard, do not expose this device to rain or moisture. The device must not be exposed to dripping or splashing. Do not place objects filled with liquids, such as vases, on the device.
- This device was qualified under test conditions that included the use of the supplied cables between system components. To ensure regulatory and safety compliance, use only the provided power and interface cables and install them properly.
- Different types of cord sets may be used for connections to the main POWER supply circuit. Use only a main line cord that complies with all applicable device safety requirements of the country of use.
- Installation of this device must be in accordance with national wiring codes and conform to local regulations.
- Operate this device only from the type of power source indicated on the device's marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- Do not overload outlets or extension cords, as this can result in a risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard.
- Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them. Pay attention to cords where they are attached to plugs and convenience receptacles; and examine the point where they exit from the device.
- Place this device in a location that is close enough to an electrical outlet to accommodate the length of the power cord.
- Place the device to allow for easy access when disconnecting the power cord of the device from the AC wall outlet.

- Do not connect the plug into an extension cord, receptacle, or other outlet unless the plug can be fully inserted with no part of the blades exposed.
- Place this device on a stable surface.
- Avoid damaging the device with static by touching the coaxial cable when it is attached to the earth-grounded coaxial cable-TV wall outlet.
- Always first touch the coaxial cable connector on the device when disconnecting or reconnecting the Ethernet cable from the device or user's PC.
- Installation of an AC surge protector in the AC outlet to which this device is connected is recommended. This is to avoid damaging the device by local lightning strikes and other electrical surges.
- Postpone installation until there is no risk of thunderstorm or lightning activity in the area.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There is a remote risk of electric shock from lightning. For added protection, unplug the device from the wall outlet and disconnect the cables to avoid damage to this device from lightning and power surges.
- Do not use this product near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool, or in a wet basement.
- Do not use the telephone to report a gas leak located near the leak.
- Do not cover the device or block the airflow to the device with any other objects. Keep the device away from excessive heat and humidity and keep the device free from vibration and dust.
- Wipe the device with a clean, dry cloth. Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the device or use forced air to remove dust.
- For added protection, unplug the device from the wall outlet and disconnect the cables to avoid damage to this device during lightning activity or power surges.



**CAUTION:** To reduce the risk of fire, use only No. 26 AWG or larger (e.g., 24 AWG) UL Listed or CSA Certified Telecommunication Line Cord, or national equivalent.

- Upon completion of any service or repairs to this device, ask the service technician to perform safety checks to determine that the device is in safe operating condition.
- Do not open the device. Do not perform any servicing other than that contained in the installation and troubleshooting instructions. Refer all servicing to qualified service personnel.
- This device should not be used in an environment that exceeds 104° F (40° C).

## SAVE THESE INSTRUCTIONS



**Note: To CATV system installer** — This reminder is provided to call the CATV system installer's attention to Section 820.93 of the National electric code, which provides guidelines for proper grounding and, in particular, specifies that the coaxial cable shield must be connected to the grounding system of the building, as close to the point of cable entry as practical.

# FCC statements

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## FCC Interference statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the device and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.



**CAUTION:** Any changes or modifications not expressly approved by CommScope for compliance could void the user's authority to operate the equipment.

## FCC Declaration of Conformity

CommScope, Inc, 3871 Lakefield Drive, Suwanee, GA 30024, declares that the SURFboard device complies with 47 CFR Parts 2 and 15 of the FCC rules as a Class B digital device.

## FCC Radiation Exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. To comply with the FCC RF exposure compliance requirements, the separation distance between the antenna and any person's body (including hands, wrists, feet and ankles) must be at least 8 inches (20.3 centimeters).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter except those already approved in this filing.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destinations. The firmware setting is not accessible by the end user.

# Wireless LAN information

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**Note:** This applies to devices that provide Wi-Fi capability.

This device is a wireless network product that uses Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency-Division Multiple Access (OFDMA) radio technologies. The device is designed to be interoperable with any other wireless DSSS and OFDMA products that comply with:

- The IEEE 802.11 Standard on Wireless LANs (Revision AC, Revision B, Revision G, and Revision N), as defined and approved by the Institute of electrical electronics engineers.
- The wireless fidelity (Wi-Fi) certification as defined by the Wireless Ethernet Compatibility Alliance (WECA).



## Restrictions on the use of wireless devices

In some situations, or environments, the use of wireless devices may be restricted by the proprietor of the building or responsible representatives of the organization. For example, using wireless equipment in any environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the applicable policy for the use of wireless equipment in a specific organization or environment, you are encouraged to ask for authorization to use the device prior to turning on the equipment.

The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this product, or the substitution or attachment of connecting cables and equipment other than specified by the manufacturer. Correction of the interference caused by such unauthorized modification, substitution, or attachment is the responsibility of the user.

The manufacturer and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from failing to comply with these guidelines.



**Note:** The use of the 5150-5250 MHz frequency band is restricted to indoor use only.



**Warning:** This device allows you to create a wireless network. Wireless network connections may be accessible by unauthorized users. For more information on how to protect your network, refer to the relevant chapters in this document or visit our Consumer Support website at <http://www.commscope.com/support/consumers>.

# Caring for the environment by recycling your ARRIS equipment

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Please do not dispose of this product with your residential or commercial waste. Contact your local authorities for information about practices established for your region. If collection systems are not available, call ARRIS Technical Support at **1-877-466-8646** for assistance.

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# Getting started




Welcome to the next generation of ultra, high-speed ARRIS® DOCSIS 3.1® Wi-Fi cable modems. The SURFboard SBG8300 is a combination DOCSIS 3.1 cable modem and four-port Ethernet router with Wi-Fi. It uses DOCSIS 3.1 technology to provide ultra, high-speed Internet access in your home or small business network. Using the connection capabilities of the Wi-Fi cable modem, you can connect your computer and other network-enabled devices using the four Ethernet ports or the 2.4 GHz and 5 GHz wireless connections. The SBG8300 connects to the existing coaxial cable connection in your home.


This user guide provides instructions for installing and configuring your SBG8300, setting up secure Wi-Fi network connections for your network devices, and managing your Wi-Fi home network configuration.

## In the box

Before installing your SBG8300, check that the items listed in the table below are included in the SBG8300 product box. If any items are missing, please call ARRIS technical support at **1-877-466-8646** for assistance.

**Table 1: SBG8300 package contents**

Item		Description
SBG8300 Wi-Fi cable modem		High-speed DOCSIS 3.1 cable modem, wireless access point, and four-port Ethernet router
Wall power supply		Power supply for an electrical wall outlet connection
Software License & Warranty card		Contains safety and regulatory information, software license, and warranty for the SBG8300.

Item	Description
SURFboard Quick Start Guide	 Provides information for installing your Wi-Fi cable modem and setting up a secure Wi-Fi network connection in your home or small business network.

## Additional items needed (not included)

The following items are not included in the product box and must be purchased separately, if required:

- Coaxial (coax) cable - if one is not already connected to a cable wall outlet
- RF splitter - for additional coaxial cable connections, such as a set-top box or smart TV
- Ethernet cable - for each additional Ethernet-enabled device

## System requirements

- High-speed Internet access account
- Web browser access – Internet Explorer, Google Chrome, Firefox, or Safari
- Compatible operating systems:
  - Windows® 10
  - Windows 8
  - Windows 8.1
  - Windows 7 service pack 1 (SP1)



**Note:** Although older versions of Microsoft Windows operating systems are no longer specifically supported, they should still function with your SBG8300.

- Mac® 10.4 or higher
- UNIX®
- Linux®

## Contact information

For technical support and additional ARRIS product information:

- Visit the ARRIS Support website: [www.arris.com/selfhelp](http://www.arris.com/selfhelp)
- Call ARRIS Technical Support: **1-877-466-8646**


# Product overview


## Front panel

Figure 1: SBG8300 front view



Table 2: SBG8300 front panel LED icons

LED Icon	Description	Online LED status	LED status description
 <b>ONLINE</b>	Internet data transmission status	Blue (on)	Power is connected
		Blue (slow blink)	Acquiring downstream (receive) channel connection
		Blue (fast blink)	Acquiring upstream (send) channel connection
		Green (slow blink)	Acquiring IP addresses
		Green (fast blink)	
		Green (on)	

LED Icon	Description	Online LED status	LED status description
 <b>Wi-Fi</b>		Blue/Green (alternating)	Acquiring IP addresses IP Link/Online Firmware downloads in progress
		Green (slow blink)	No clients found (5 GHz or dual-band)
		Green (on)	Clients found, but no traffic (5 GHz or dual-band)
		Green (fast blink)	Clients with active traffic/WPS (5 GHz or dual-band)
		Blue (slow blink)	No clients found (2.4 GHz band only)
		Blue (on)	Clients found, but no traffic (2.4 GHz band only)
		Blue (fast blink)	Clients with active traffic/WPS (2.4 GHz band only)



**CAUTION:** If all LEDs are blinking blue (fast blink), a grounding defect was detected. Unplug the SBG8300 until the grounding defect can be addressed.

## Rear panel

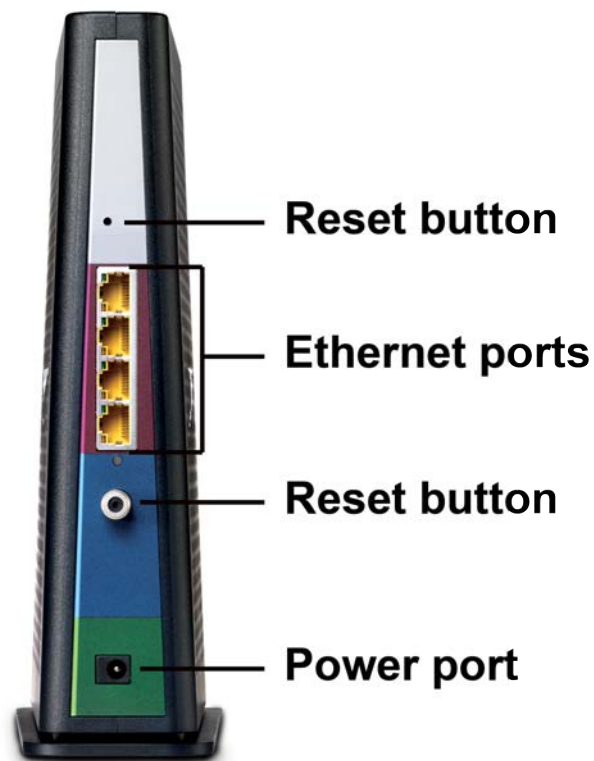




Figure 2: SBG8300 rear view

Table 3: SBG8300 rear panel ports & connectors

Port name	Description
Reset button	Reset button located on the rear panel of your SBG8300 can be used to either reboot your SBG8300 or reset the SBG8300 configuration settings. See <a href="#">Reboot the SBG8300</a> (page 60) and <a href="#">Restore the SBG8300 default configuration settings</a> (page 62) for more information.
 <b>ETHERNET</b> 10/100/1000	Four one-gigabit Ethernet ports for RJ-45 network cable connections: <ul style="list-style-type: none"> <li>■ Green: LED is ON - Indicates a data transfer rate of one gigabit per second</li> <li>■ Green: LED is Blinking - Indicates data traffic is in progress</li> <li>■ Amber: LED is ON - Indicates a data transfer rate of less than one gigabit per second</li> <li>■ Amber: LED is Blinking - Indicates data traffic is in progress</li> </ul>
 <b>CABLE</b>	Coaxial cable connector
Power port	100 - 240 VAC Power connector must reflect a 12 VDC @3.0A power adapter.  <b>Warning:</b> To avoid any damage to your SBG8300, only use the power supply included in the SBG8300 box.

## Wi-Fi cable modem label



Figure 3: Sample SBG8300 Wi-Fi cable modem labels

The Wi-Fi cable modem labels are located on the bottom of your SBG8300. The labels contain the information you will need to activate the SBG8300 for your home Internet service or technical support issues.

To activate your Internet service, contact your service provider for assistance. When contacting your service provider or [ARRIS Technical Support](#) (page 11) , you may have to provide the following information listed on the SBG8300 labels:

- Wi-Fi cable modem Model name (SBG8300)
- Wi-Fi cable modem Serial number (SN)
- Wi-Fi cable modem MAC address (HFC MAC)

# Installing the Wi-Fi cable modem

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**CAUTION:** This product is for indoor use only. Do not route the Ethernet cable(s) outside of the building. Exposure of the cables to lightning could create a safety hazard and damage the product.

## Connect the SBG8300 to your computer

Before installing your SBG8300:

- Check with your service provider (or local cable company) to ensure broadband cable service is available in your area.

To set up your Internet connection on your home network, you will need a high-speed Internet connection provided by an Internet service provider.



**Note:** When contacting your service provider, you may need the information listed on the SBG8300 label on the bottom of your (SBG8300). Make sure you have the Wi-Fi cable modem model name (SBG8300), HFC MAD ID, and the serial number (SN) (see [Wi-Fi cable modem label](#) (page 14)) for more information.

- Choose a location in your home where your computer and Wi-Fi cable modem are preferably near existing cable and electrical wall outlets.

For the best Wi-Fi coverage, a central location in your home or building is recommended.



**Note:** The following installation procedure covers the wired Ethernet connection process so that you can confirm that your SBG8300 was properly installed and can connect to the Internet.





**Figure 4: SBG8300 connection diagram**



**Note:** The SBG8300 supports using an Ethernet port connection for your data input in place of an RF cable connection. You will be able to connect to an alternate Internet connection and use your SBG8300 as your router and Wi-Fi source. This is a useful feature if you choose to change your Internet service to a provider that is not a cable operator. You can still use the SBG8300 as your Wi-Fi router.

You can enable or disable this feature which is available for the LAN Ethernet port 4 as WAN over Ethernet. See [Set up an Ethernet port connection for your data input](#) (page 58) for more information.

1. Check that a coaxial cable is already connected to a cable wall outlet or RF splitter (not included) and then connect the other end of the coaxial cable to the **Cable** connector on the rear of your SBG8300.
  - Use your hand to tighten the connectors to avoid damaging them. Proceed with step 2.
  - Connect an Ethernet cable to the fourth **Ethernet** port on the rear of your SBG8300. Proceed with step 3.
2. Connect an Ethernet cable to any available **Ethernet** port on the rear of your SBG8300.
3. Connect the other end of the Ethernet cable to the **Ethernet** port on your computer.
 

**Optional:** Repeat steps 2 and 3 for an additional computer or other network device that you want to install as a wired connection on your home network.
4. Connect the power cord to the **Power** port on the rear of your SBG8300.
5. Plug the other end of the power cord into an electrical wall outlet that is not controlled by a wall switch.



**Note:** This automatically powers ON your SBG8300. There may be up to a 15 second delay for the **Online** LED on the SBG8300 front panel to light up after the power is connected.

Although your computer may already be configured to automatically access the Internet, you should still perform the following connectivity test to verify that the devices were connected properly.

6. Power ON the computer connected to your SBG8300 if it is turned off, and then log in.
7. Contact your service provider to activate (provision) the SBG8300. You may have to provide the **HFC MAC ID** listed on the Wi-Fi cable modem label.
8. Enter your service provider's web browser URL:
  - Comcast/Xfinity: <http://www.xfinity.com/activate>
  - Cox: <http://www.cox.com/activate>
  - Spectrum: <http://spectrum.net/selfinstall>
9. After the SBG8300 is provisioned (or activated), open a web browser (such as Internet Explorer, Google Chrome, Firefox, or Safari) on your computer.
10. Click [www.surfboard.com](http://www.surfboard.com) or type a valid URL in the address bar and then press **Enter**.  
The ARRIS SURFboard website or your URL of choice should open. If the website fails to open, please contact your service provider for assistance.
11. Check that the **Online** and **Wi-Fi** front panel LEDs on the SBG8300 light up in sequential order. See [Front panel](#) (page 12) for additional LED status information.
  - If both LEDs did not light up and you do not have an Internet connection, you may have to contact your service provider to reactivate the SBG8300 or check for signal issues.
  - If you still cannot connect to the Internet, please call ARRIS Technical Support at **1-877-466-8646** for assistance.

# Setting up a Wi-Fi network connection

ARRIS recommends that you first verify that your computer (or laptop) can access the Internet using a wired Ethernet connection before configuring your Wi-Fi home network.

For Internet connections in your home, you must have access to an Internet service before you can set up a Wi-Fi network connection. If you do not have an Internet service already set up in your home, contact a broadband service provider of your choice for assistance. Before proceeding with the mobile app download, check that the SBG8300 and your connected client device (e.g., laptop or personal computer) are connected to the Internet.

There are four network connection options available to set up your Wi-Fi network connection on your home network. Choose one of the following:

- [Set up a Wi-Fi network connection using your mobile device](#) (page 19)
- [Set up a Wi-Fi network connection using your client device](#) (page 21)
- [Quick connect using the Windows task bar](#) (page 22)
- [Connect using the Windows control panel](#) (page 24)

## Set up a Wi-Fi network connection using your mobile device

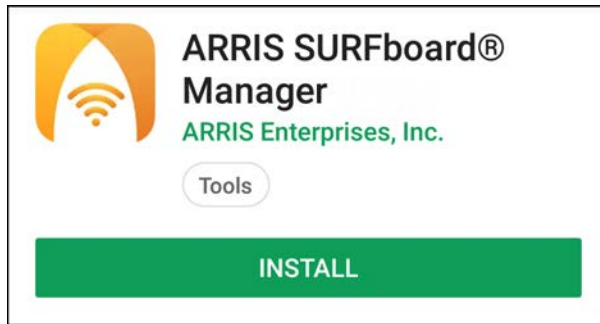
The ARRIS SURFboard Manager mobile app is a quick and easy-to-use option to set up your Wi-Fi home network connection(s) using your iOS or Android mobile device.

1. Check that your mobile device is connected to your Wi-Fi home network.
2. Scan the QR code to download the ARRIS SURFboard Manager mobile app from the Apple App Store or Google Play Store on your iOS or Android mobile device.



**Figure 5: ARRIS SURFboard Manager mobile app download QR code**

The following ARRIS SURFboard Manager mobile app screen displays.



**Figure 6: ARRIS SURFboard Manager mobile app download screen**

3. Tap **INSTALL** to download the SURFboard Manager mobile app on your mobile device.  
The ARRIS SURFboard® Manager will be installed on your device soon message displays.

4. Tap **OK**.

The following ARRIS SURFboard Manager window displays.



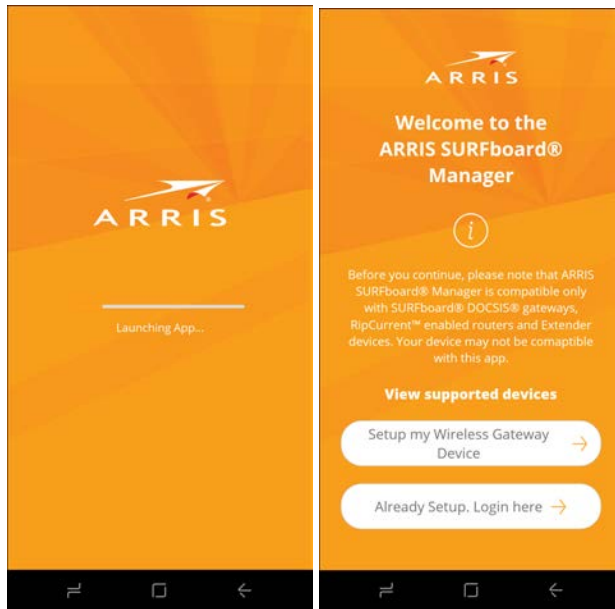
**Figure 7: ARRIS SURFboard Manager mobile app open screen**



**Note:** After the download is finished, the ARRIS SURFboard Manager mobile app shortcut will be added to your mobile device Home or Apps screen.

5. Tap **OPEN** to launch the SURFboard Manager mobile app.

The ARRIS SURFboard Manager mobile app opening screens display.



**Figure 8: ARRIS SURFboard Manager mobile app opening screens**

6. Continue to follow the mobile app prompts to configure your Wi-Fi home network connection.

For additional information or instructions for using the mobile app, see the *ARRIS SURFboard Manager Mobile App User Guide* available online at [ARRIS SURFboard Manager](#).

## Set up a Wi-Fi network connection using your client device



**Note:** You will need the **Wi-Fi Network Name (SSID)** and **Wi-Fi Security Key (Network Password)** to connect your client devices to your home network. The default network name and network password are listed on the SBG8300 [Wi-Fi cable modem label](#) (page 14).



Choose one of the options listed below for the client device you are using to set up a Wi-Fi network connection on your home network. Repeat for each additional device:

- **Personal Computer (PC)** – Select one of the following:
  - [Quick connect using the Windows task bar](#) (page 22)
  - [Connect using the Windows control panel](#) (page 24)

The steps for setting up your Wi-Fi network connection may differ slightly depending on the version of Microsoft Windows running on your client device. The steps used in this section apply to Windows 7.

### Android device

From any screen on your client device:

1. Select  to open the  Settings screen.


2. Select **Wi-Fi** to turn it ON.

Your device will automatically start searching and then display a list of available Wi-Fi networks.

3. Select your Wi-Fi network name (SSID) from the list.
4. If prompted, type your Wi-Fi Security Key (network password). Please note that your network password may be case-sensitive.
5. Select **Connect**. If your Wi-Fi network connection is successful, "Connected" will display under your network name.

### Apple computer

From any screen on your client device:

1. Click  (Wi-Fi icon) to display a list of available Wi-Fi networks.
2. Select the Wi-Fi network name (SSID) for your home network from the list.
3. If prompted, enter your network password in the Password field.



**Note:** Checkmark **Remember this network** if you want your Mac computer/client device to automatically connect to your home network when you log on. Your computer must be within range of your Wi-Fi network to connect to it.

4. Click **OK**.

### Apple mobile device

From the Home screen on your client device:

1. Select **Settings** to open the Wi-Fi screen.
2. Select **Wi-Fi** to turn it ON.

Your device will automatically start searching and then list the available Wi-Fi networks.

3. Select the Wi-Fi network name (SSID) for your home network from the list to connect.

If your Wi-Fi connection is successful, ✓ will display next to the Wi-Fi network name.



**Note:** For more information on setting up your Wi-Fi network connections, refer to the user documentation for your specific client device.

## Quick connect using the Windows task bar

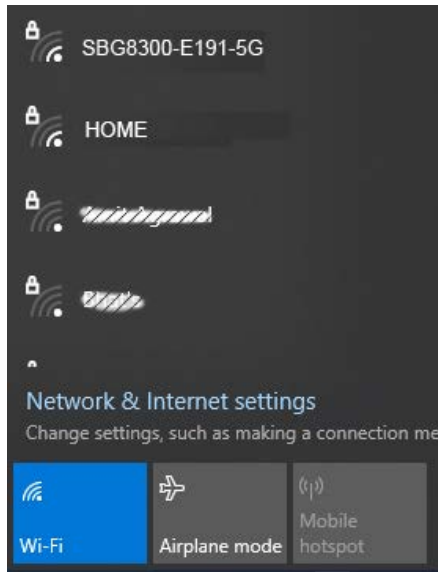
1. From the Windows taskbar on your computer, click the **Wi-Fi Link** icon to open the list of available Wi-Fi networks.



**Figure 9: Sample Microsoft Windows taskbar icons**



**Note:** If the **Wi-Fi Link** icon is not visible, left click on the **Show hidden icons** button on the Windows taskbar to open the list of additional icons.



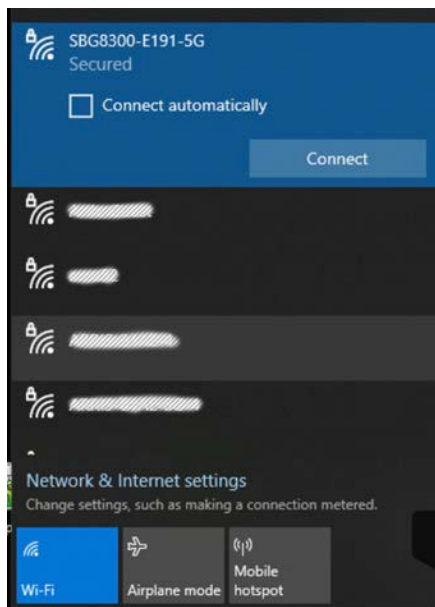
**Figure 10: Sample available Wi-Fi networks Microsoft Window**

2. Locate and left-click on the SBG8300 Wi-Fi network name or SSID (for example, SBG8300-####) for your SBG8300 from the list of available Wi-Fi networks.

The default SSID is located on the Wi-Fi cable modem on the bottom of your SBG8300.



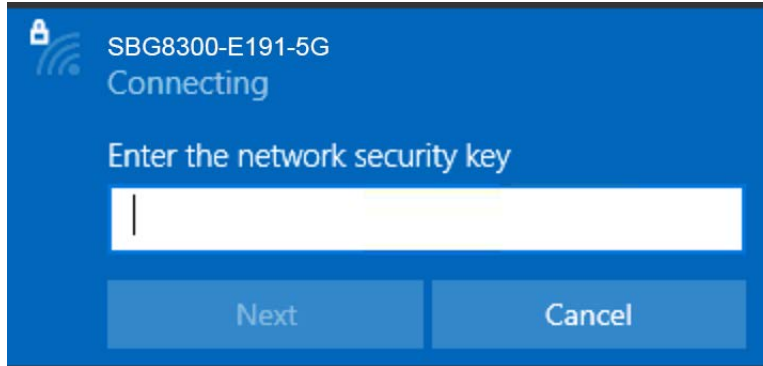
**Note:** You must use the default SSID listed on the Wi-Fi cable modem label when installing the Wi-Fi cable modem and setting up your first Wi-Fi network connection. You can change the SSID after your network connections are up and running. See [Change your Wi-Fi network name \(SSID\)](#) (page 41) for more information.



**Figure 11: Sample Wi-Fi network connection screen**

3. Select **Connect automatically** to set up your Wi-Fi devices to automatically connect to your Wi-Fi network without having to log on using a user password.

- Click **Connect** to open the Connect to a Network window and set up your new network password.



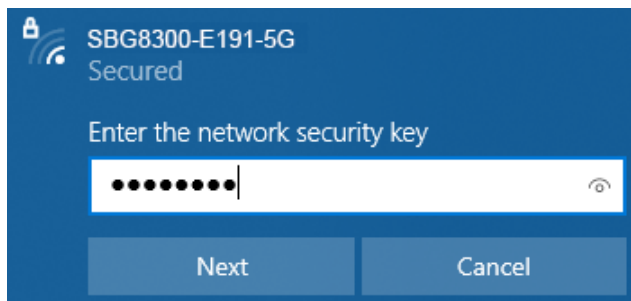
**Figure 12: Network security key window**

- Enter the **Network Security Key** (your Wi-Fi network password) in the **Security key** field.



**Note:** You can use the default Wi-Fi Security Key code listed on the SBG8300 Wi-Fi cable modem label or enter your own personal Wi-Fi network password. See [Change the login password](#) (page 46) for more information on creating login passwords.

If you have already changed your Wi-Fi network password using the SBG8300 Web Manager, enter that password in the **Enter the network security key** field and then click **Next**.



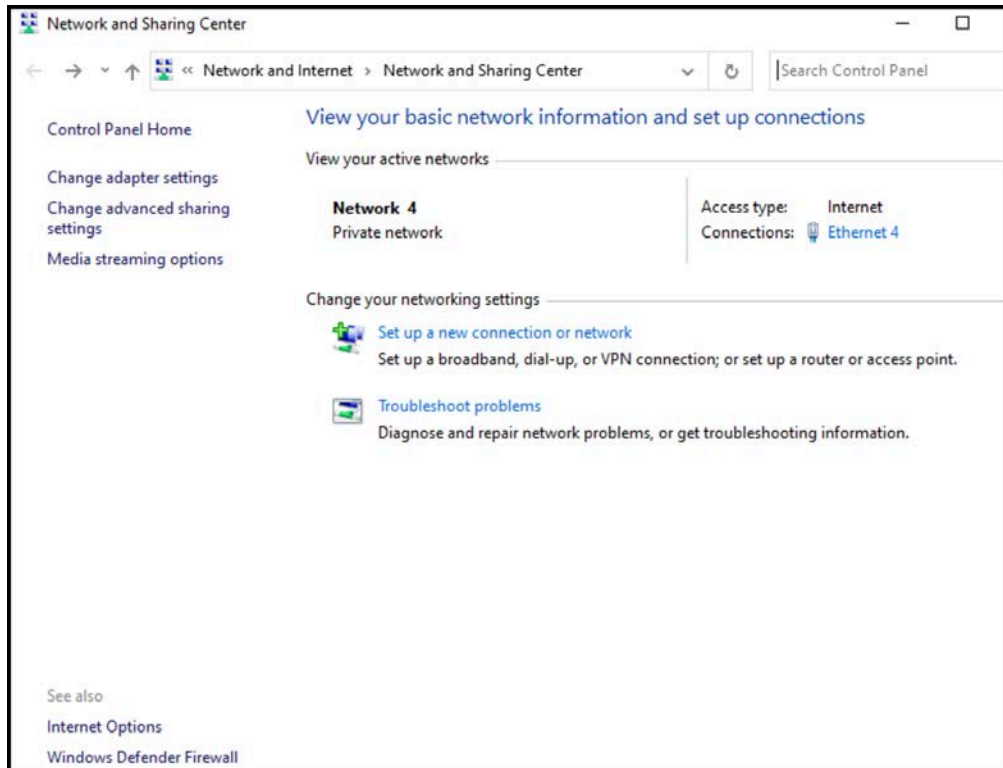
**Figure 13: Network connection-create network password window**

## Connect using the Windows control panel

- From the Windows taskbar on your computer, click **Start** button and then click **Control Panel**.
- Click **Network and Sharing Center** to open the Network and Sharing Center window.

**Figure 14: Control panel-network and sharing center window**





3. Click **Set up a new connection or network** under Change your networking settings panel.

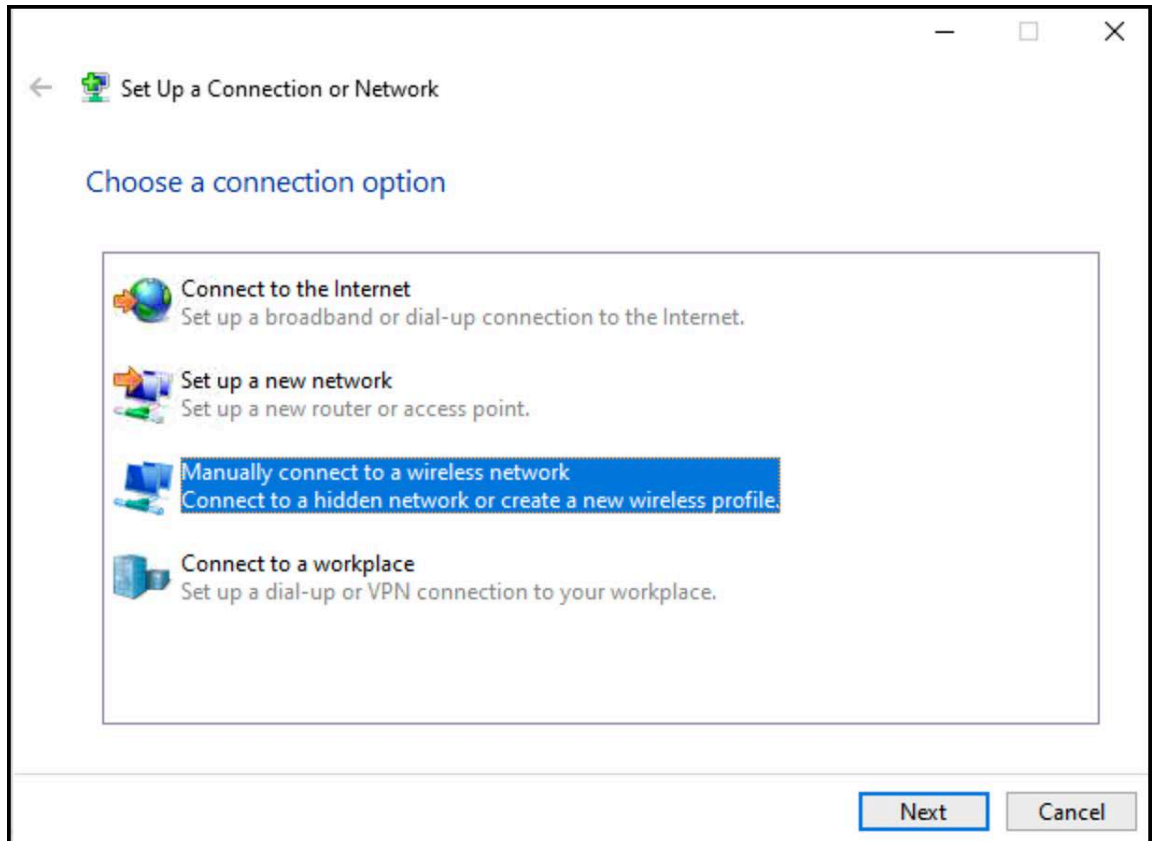


Figure 15: Set up a connection or network window

4. Click **Manually connect to a wireless network** and then click **Next**.

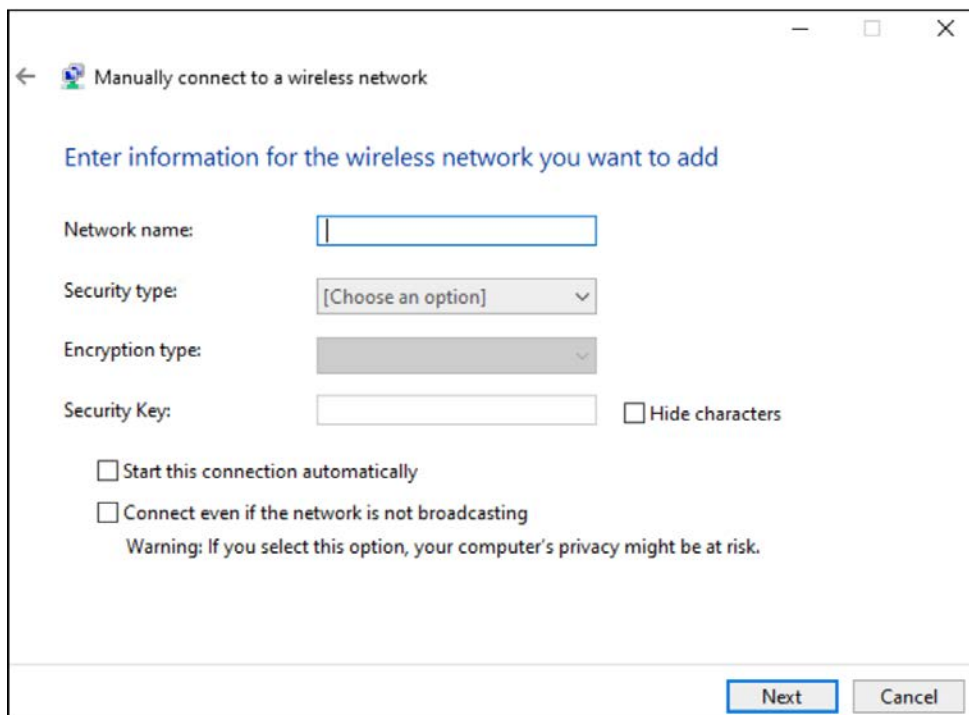


Figure 16: Manually connect to a wireless window

5. Enter the SBG8300 Wi-Fi network name or SSID (SBG8300-####) for your SBG8300 in the **Network name** field.

The default SSID is listed on the Wi-Fi cable modem label on the bottom of your SBG8300.



**Note:** You have the option to change your Wi-Fi network name or SSID after setting up your Wi-Fi network connection. However, you must use the default SSID listed on the Wi-Fi cable modem label after installing your Wi-Fi cable modem. See [Change your Wi-Fi network name \(SSID\)](#) (page 41) for more information.

6. Select the wireless Security level for your Wi-Fi network from the **Security type** drop-down list.



**Note:** **WPA2-Personal** is the recommended wireless security level for your Wi-Fi home network. It is the default security level for the SBG8300 and the highest security level available.

7. Select the password encryption type from the **Encryption type** drop-down list.

This is used for securing your Wi-Fi network.

- TKIP – Temporal Key Integrity Protocol
- AES – Advanced Encryption Standard (recommended). AES is the default encryption type for the SBG8300.

8. Enter a security code (passphrase) for your Wi-Fi network password in the **Security Key** field.

You can use the default **WI-FI SECURITY KEY** listed on the SBG8300 Wi-Fi cable modem label or create your own personal network password.



**Note:** Remember to use a unique combination of letters, numbers, and special characters to create a more secure password. See [Change the login password](#) (page 46) for more information.

9. Select **Hide characters** checkbox to prevent your Security Key (network password) from displaying in the field.
10. Select **Start this connection automatically** so that your Wi-Fi devices will automatically connect to your Wi-Fi network when they are powered on.
11. Click **Next** to complete the Wi-Fi network setup.

The Successfully added <Network name> message for your new Wi-Fi network should appear.

12. Click **Close** to exit.

## Test your Wi-Fi network connection

Perform the following connectivity test to check that Wi-Fi connections were established for the SBG8300 and the other Wi-Fi devices on your home network:

1. Check if your Wi-Fi devices successfully connected to your Wi-Fi network, then disconnect the Ethernet cable, if connected, from your computer and the SBG8300.

2. Check that the **Wi-Fi** LED on the SBG8300 front panel is lit SOLID green.
3. Open a web browser on your computer, such as Internet Explorer, Google Chrome, Firefox, or Safari.
4. Type a valid URL (such as [www.surfboard.com](http://www.surfboard.com)) in the address bar and then press **Enter**.  
If the website failed to open, please contact your service provider or call ARRIS Technical Support at **1-877-466-8646** for assistance.

# Using the Wi-Fi Cable Modem Web Manager

Use the SBG8300 Web Manager to view and monitor the network configuration settings and operational status of your SBG8300. You can also configure your network connections and Wi-Fi security settings, see [Protecting & monitoring your Wi-Fi network](#) (page 46) for more information.

To ensure that your Wi-Fi home network is secure, ARRIS recommends that you follow these best practices for creating your login password:

- Always create a secure password or pass phrase that is not easily guessed.
- Use phrases instead of names so that it may be easier for you to remember.
- Use a combination of upper and lowercase letters, numbers, and symbols.

## Start the SBG8300 Web Manager (first-time login)



**Note:** Your network security is very important to ARRIS. The first time you log on to the SBG8300, the Gateway Home Network Wizard opens for you to set up your login password. The wizard steps you through setting up your SBG8300 Web Manager login password, Wi-Fi home network security information, and time zone.

1. Open a web browser (such as Internet Explorer, Google Chrome, Firefox, or Safari) on your client device (for example, a computer or a laptop) that is connected to your SBG8300.
2. Type the default LAN IP address, **192.168.0.1**, in the Address bar and then press Enter to log onto the SBG8300.

The SBG8300 Home Network Wizard screen displays (see figure 17).

3. Enter your password in the **New Password** field.



**Note:**

The password is case-sensitive and must include each of the following:

- Minimum of eight characters
- At least one uppercase alphabetic character: A through Z
- At least one number: 0 to 9
- One of the following special characters:  
~ ! @ # \$ % ^ \* ( ) - \_ = + [ ] { } | ; : , . / ?



ARRIS SURFboard

Gateway > Home Network Wizard - Step 2

You may want to edit information about your Wi-Fi network for both 2.4 GHz and 5 GHz Wi-Fi bands. [more](#)

Step 2 of 3

We need to configure your wireless network. Note that your network can be accessed by both 2.4 GHz (Wi-Fi B, G, N) and 5 GHz (Wi-Fi A, N) compatible devices.

Wi-Fi Network Name (2.4GHz) SBG8300-E2B5

Encryption Method (2.4GHz) WPA2-PSK (AES)

Network Password (2.4GHz) 608734845962

Wi-Fi Network Name (5 GHz) SBG8300-E2B5-5G

Encryption Method (5 GHz) WPA2-PSK (AES)

Network Password (5 GHz) 608734845962

NEXT STEP

**Figure 18: SBG8300 Home Network Wizard-Step 2 screen**

8. Keep or change the current default Wi-Fi network name in the **Wi-Fi Network Name (2.4 GHz)** field.

To change the Wi-Fi network name, enter a new name of your choice. The network name can consist of any combination of up to 32 alphanumeric characters.

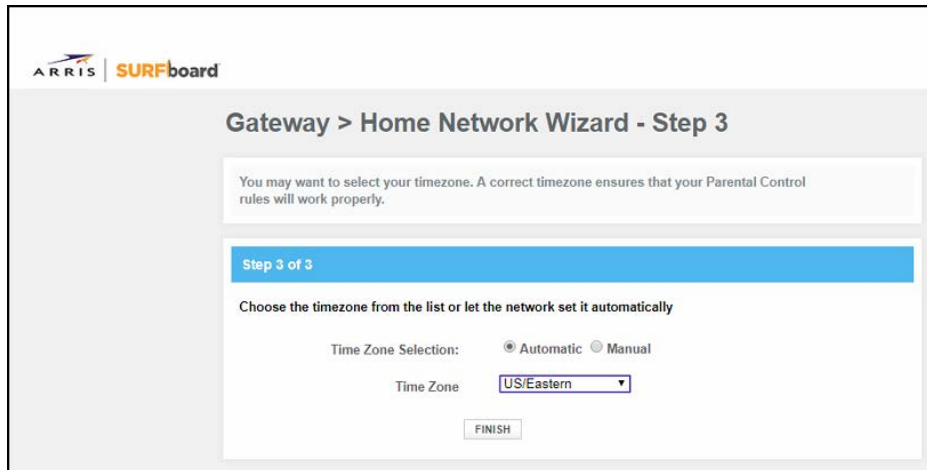
9. Select one of the following Wi-Fi network security options for your SBG8300 Wi-Fi home network from the **Encryption Method (2.4 GHz)** drop-down list:

- **Open (risky):** Network security is not set and your Wi-Fi network is not secure. This network security option allows unauthorized access to your Wi-Fi network without a Wi-Fi Security Key (network password).
- **WPA2-PSK (AES):** Wi-Fi Protected Access version 2 with Pre-Shared Key
- **WPAWPA2-PSK (TKIP/AES) (Recommended):** Wi-Fi Protected Access version 2 with Pre-Shared Key (most compatible)

10. Keep or change the current default Wi-Fi network password in the **Network Password (2.4 GHz)** field.

To change the Wi-Fi network password, enter a string of either ASCII characters or hexadecimal numbers (**0** thru **9**, **A** thru **F**) in the **Network Password** field.

11. Repeat steps 8 thru 10 for your 5 GHz Wi-Fi network settings.
12. Click **NEXT STEP** to continue.



**Figure 19: SBG8300 Home Network Wizard-Step 3 screen**

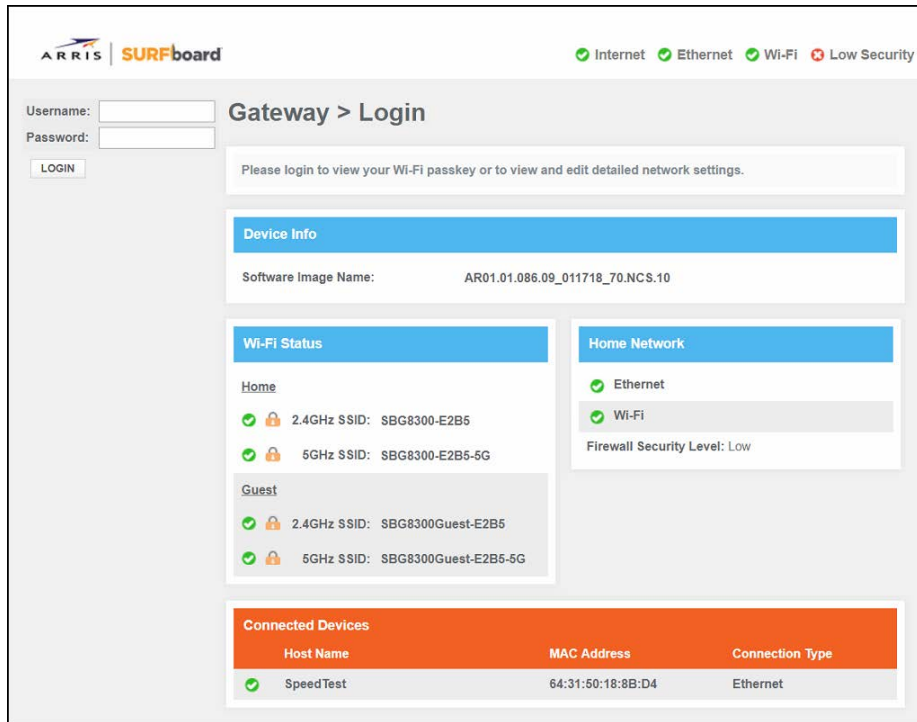
13. Select **Automatic** or **Manual** to set up your time zone.
  - Select **Automatic** to allow the network to automatically set your time zone.
  - Select **Manual** to choose your time zone from the **Time Zone** drop-down list.
14. Click **FINISH**.

## Start the SBG8300 Web Manager

To open the SBG8300 Web Manager:

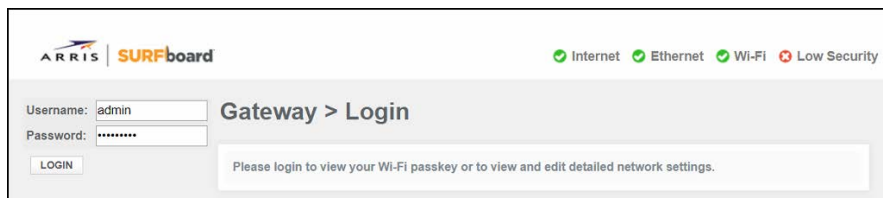
1. Open a web browser (such as Internet Explorer, Google Chrome, Firefox, or Safari) on the computer or laptop connected to your SBG8300.
2. Type the default LAN IP address, **192.168.0.1**, in the Address bar and then press **Enter** to log onto the SBG8300 and open the SBG8300 Web Manager Login screen.





**Figure 20: SBG8300 Web Manager Login screen**

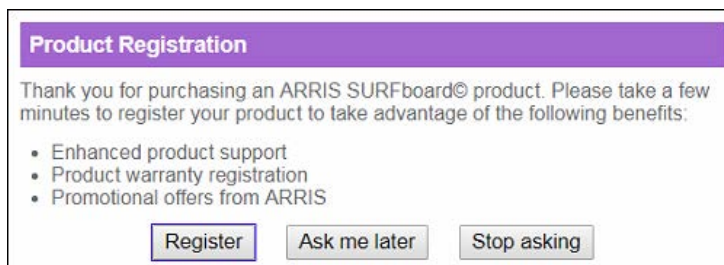
3. Type **admin** for the default login user name (case-sensitive) in the Username field.
4. Type **password** (default login password; case-sensitive) or your new password in the Password field.



**Figure 21: SBG8300 Web Manager Login screen**

5. Click **LOGIN** to open the SBG8300 Web Manager.

The Product Registration window opens.



**Figure 22: SBG8300 Product Registration screen**

6. Click **Register**, **Ask me later**, or **Stop asking** to proceed.

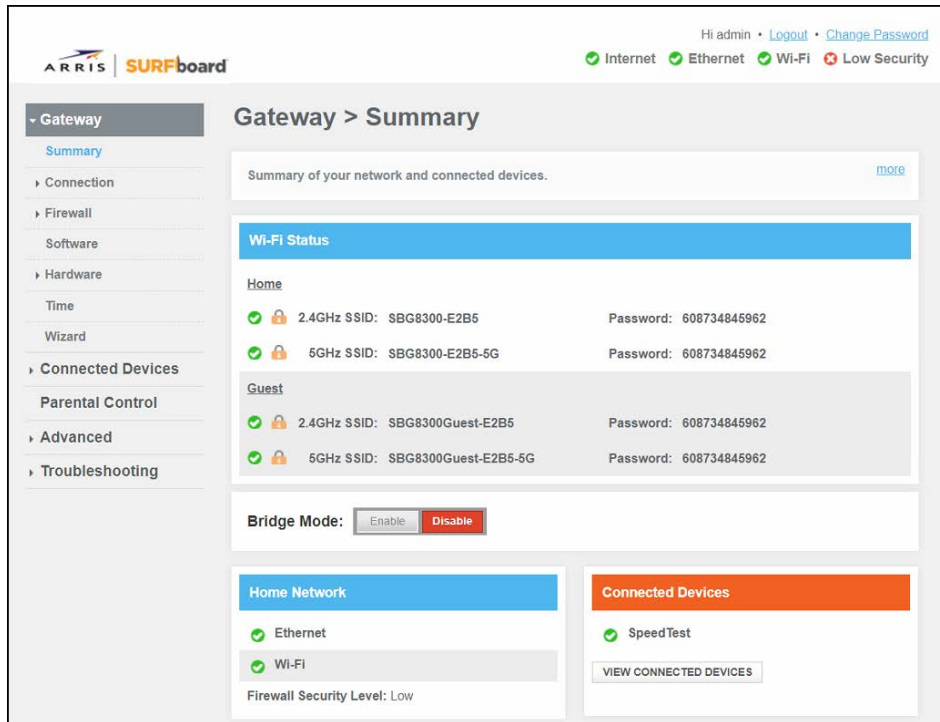


Figure 23: SBG8300 Summary screen



**Note:** See *Set up your Wi-Fi network* (page 37) to configure your home network for Wi-Fi.

## SBG8300 Web Manager menu links

The SBG8300 main menu links and related submenu option links are displayed along the left side of the SBG8300 Web Manager screen. Click on the main menu link to expand the list of submenu options.

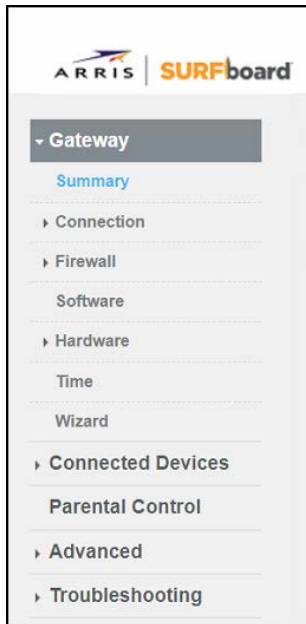


Figure 24: SBG8300 Web Manager menu links

Table 4: SBG8300 Web Manager menu links

Menu link	Function
Gateway	Displays a summary of your network connections and a list of the connected devices on your home network.
Summary	Displays the Wi-Fi status for your home network and network-connected devices.
Connection	Displays the network connection and status information for the SBG8300 network, Local IP network, and your private Wi-Fi network.
Firewall	Configures the SBG8300 firewall settings to protect your home network from possible attacks from hackers or viruses.
Software	Displays information related to the SBG8300 software version.
Hardware	Displays status information for the SBG8300 hardware, such as the battery status, Ethernet connection(s), and Wi-Fi connections.
Time	Allows you to set the time on your SBG8300 based on your selected time zone.
Wizard	Allows you to configure the default network settings on your SBG8300 to set up a secure home network.
Connected Devices	Provides general information for the connected devices on your home network.
Advanced	Allows you to set up Port Forwarding, Port Triggering, Remote Management for troubleshooting or maintenance purposes, the DMZ Host, and manage the UPnP network on your home network.

Menu link	Function
Troubleshooting	Provides several options to help you resolve certain problems that may occur with your SBG8300.

## Exit the SBG8300 Web Manager

To log out and close the SBG8300 Web Manager:

- Click **Logout** link located in the upper right corner of the SBG8300 Web Manager screen.



Figure 25: SBG8300 Web Manager logout link

# Configuring your Wi-Fi network

You have the option to either use the default network settings which are unique to your SBG8300 for security purposes or you can configure different network settings. The SBG8300 supports a secure method for setting up multiple Wi-Fi networks on your SBG8300.

## Set up your Wi-Fi network

1. If you are not logged on to the Internet, open a web browser and log on to the SBG8300 to open the SBG8300 Web Manager.  
See *Start the SBG8300 Web Manager (first-time login)* (page 29) for more information, if necessary.
2. Click the **Gateway** menu link and then click the **Connection** submenu options link.
3. Click **Wi-Fi** to open the Gateway Connection Wi-Fi screen.

The screenshot displays the SBG8300 Web Manager interface for configuring Wi-Fi. The left sidebar shows a navigation menu with 'Gateway' selected, and 'Wi-Fi' highlighted under the 'Connection' submenu. The main content area is titled 'Gateway > Connection > Wi-Fi' and contains the following elements:

- A header: 'Manage your Wi-Fi connection settings.' with a [more](#) link.
- Two radio status controls:
  - Wi-Fi Radio(2.4 GHz) :  Enable  Disable
  - Wi-Fi Radio(5 GHz) :  Enable  Disable
- A section for 'Home Wi-Fi Network' with a table:
 

Name	Frequency Band	MAC Address	Security Mode	
<input checked="" type="checkbox"/> SBG8300-E2B5	2.4GHz	F4:0E:83:AC:15:4D	WPAWPA2-PSK (TKIP/AES)	<input type="button" value="EDIT"/>
<input checked="" type="checkbox"/> SBG8300-E2B5-5G	5GHz	F4:0E:83:AC:15:4E	WPA2-PSK (AES)	<input type="button" value="EDIT"/>
- An 'ADD WI-FI PROTECTED SETUP (WPS) CLIENT' button.
- Network Priority:  (dropdown)
- Band Steering:  Disable  Enable
- 
- A section for 'Guest Wi-Fi Network' with a table:
 

Name	Frequency Band	MAC Address	Security Mode	
<input checked="" type="checkbox"/> SBG8300Guest-E2B5	2.4GHz	F6:0E:83:AC:15:2D	WPA2-PSK (AES)	<input type="button" value="EDIT"/>
<input checked="" type="checkbox"/> SBG8300Guest-E2B5-5G	5GHz	F6:0E:83:AC:15:2E	WPA2-PSK (AES)	<input type="button" value="EDIT"/>
- Network Priority:  (dropdown)
- Band Steering:  Disable  Enable
- 

Figure 26: SBG8300 Wi-Fi connection screen

4. Click the **Wi-Fi Radio (2.4 GHz) Enable** or **Disable** button to turn ON or OFF the 2.4 GHz Wi-Fi frequency range that you are setting up for your Wi-Fi home network.
5. Click the **Wi-Fi Radio (5 GHz) Enable** or **Disable** button to turn ON or OFF the 5 GHz Wi-Fi frequency range that you are setting up for your Wi-Fi home network.
6. Click the Home Wi-Fi Network **2.4 GHz EDIT** button to set up the Network Security mode for your Wi-Fi home network.
7. Click the Home Wi-Fi Network **5 GHz EDIT** button to set up the Network Security mode for your Wi-Fi home network.

The screenshot shows the 'Home (2.4 GHz)' configuration page. At the top, there's a blue header. Below it, the 'Wireless Network' section has 'Enable' and 'Disable' buttons. The 'Network Name (SSID)' field contains 'SBG8300-E2B5'. The 'Mode' dropdown is set to '802.11 b/g/n'. The 'Security Mode' dropdown is set to 'WPA2-PSK (AES)'. Below this, a note states: 'Please note 802.11 n mode only compatible with AES and None encryption!'. The 'Network Password' field is masked with dots, with a note: 'WPA2 requires a 8-63 ASCII character password.' There's a 'Show Network Password' checkbox which is unchecked. The 'Broadcast Network Name (SSID)' checkbox is checked and labeled 'Enabled'. The 'Enable WMM' checkbox is checked and labeled 'Enabled'. The 'AP Isolation' checkbox is unchecked and labeled 'Enabled'. A CAPTCHA box is present with the code '4602' and a 'Type CAPTCHA Here' input field. At the bottom, there is a 'SAVE SETTINGS' button.

**Figure 27: Wi-Fi network setup screen**



8. Click the Wireless Network **Enable** or **Disable** button field to turn ON or OFF Wi-Fi on your home network.
9. Choose to either keep the default network name SSID (Service Set Identifier) for your Wi-Fi home network in the Network Name (SSID) field or enter a new network name of your choice.



**Note:** The Wi-Fi network name cannot be the same name as any other SSID on your home network. You can use any combination of lowercase and uppercase letters, numbers, and/or special characters (symbols) up to a maximum of 32 characters.

10. Select the wireless networking standard mode for your Wi-Fi home network from the Mode drop-down list:
  - **2.4 GHz**
    - 802.11 g/n

- 802.11 b/g/n
  - **5 GHz**
    - 802.11 ac
    - 802.11 n/ac
    - 802.11 a/n/ac
    - 802.11 n
11. Select one of the following Wi-Fi network security options for your SBG8300 from the **Security Mode** drop-down list:
- **WPA2-PSK (TKIP/AES) (Recommended)::** Wi-Fi Protected Access version 2 with Pre-Shared Key (most compatible).

This is the default network security option for your SBG8300. It provides the highest security and performance for your Wi-Fi network.
  - **WPA2-PSK (AES):** Wi-Fi Protected Access version 2 with Pre-Shared Key.
  - **Open (risky) ;** not secure; not recommended: This network security option does not provide any level of network security for your Wi-Fi network. It allows outside users to connect to your Wi-Fi network without having to use a Wi-Fi Security Key (network password).
12. Enter your Wi-Fi network password in the Network Password field.
-  **Note:** Keep in mind that network passwords are case-sensitive. You can use any combination of uppercase and lowercase letters, and numbers. Special characters and spaces are not acceptable.
13. Select the **Show Network Password** checkbox to view and confirm your network password.
14. Perform one of the following:
- Select the **Broadcast Network Name (SSID) Enabled** checkbox to display your SSID as an available Wi-Fi network to outside users.
  - Deselect the **Broadcast Network Name (SSID) Enabled** checkbox to disable displaying your SSID as an available Wi-Fi network to outside users.
-  **Note:** When **Broadcast Network Name (SSID)** is enabled, your SSID is visible and available to unauthorized Wi-Fi clients that are within range of your Wi-Fi network to connect to your home network.
15. Select or the **Enabled** checkbox in the **Enable WMM** field to turn ON Wi-Fi Multi-media functionality.
- Enabling WMM can help control latency and jitter when transmitting multi-media content over a Wi-Fi connection. This quality of service mechanism uses four access categories:
- Voice
  - Video
  - Best effort
  - Background

WMM ensures that applications with low tolerance for latency and jitter are treated with higher priority than less sensitive data applications. WMM sets different wait times for the above four categories to provide priority network access for applications that are less tolerant of packet delays.

16. Perform one of the following:

- Select the **AP Isolation** checkbox to enable separate virtual networks for your Wi-Fi clients.
- Deselect the **AP Isolation** checkbox to disable separate virtual networks for your Wi-Fi clients.



**Note:** When **AP Isolation** is enabled, each of your Wi-Fi clients will be in its own virtual network and will not be able to communicate with the other Wi-Fi clients. This may be useful if several guests are using your Wi-Fi network.

17. Enter the four-digit CAPTCHA code displayed in the Type CAPTCHA Here entry box.

18. Click **SAVE SETTINGS** to update your Wi-Fi network settings.

The screenshot displays the 'Gateway > Connection > Wi-Fi' configuration page. On the left is a navigation menu with options like Gateway, Connection, Firewall, and Advanced. The main content area is divided into two sections: 'Home Wi-Fi Network' and 'Guest Wi-Fi Network'. Each section has a table of network profiles with columns for Name, Frequency Band, MAC Address, and Security Mode. Below each table are options for Network Priority and Band Steering, and a 'SAVE NETWORK SETTINGS' button.

Home Wi-Fi Network			
Name	Frequency Band	MAC Address	Security Mode
✓ SBG8300-E2B5	2.4GHz	F4:0E:83:AC:15:4D	WPAWPA2-PSK (TKIP/AES)
✓ SBG8300-E2B5-5G	5GHz	F4:0E:83:AC:15:4E	WPA2-PSK (AES)

Guest Wi-Fi Network			
Name	Frequency Band	MAC Address	Security Mode
✓ SBG8300Guest-E2B5	2.4GHz	F6:0E:83:AC:15:2D	WPA2-PSK (AES)
✓ SBG8300Guest-E2B5-5G	5GHz	F6:0E:83:AC:15:2E	WPA2-PSK (AES)

Figure 28: SBG8300 Wi-Fi connection screen (1 of 2)



**2.4GHz Wireless Advanced Settings**

Tx Power: 100% ▼

Channel Selection:  Manual  Automatic

Channel: 11 ▼

Channel Bandwidth:  20  20/40

SAVE ADVANCED SETTINGS

---

**5GHz Wireless Advanced Settings**

Tx Power: 100% ▼

Channel Selection:  Manual  Automatic

Channel: 36 ▼

Channel Bandwidth:  20  20/40  20/40/80

SAVE ADVANCED SETTINGS

---

**MAC Filter Setting**

You can control the Wi-Fi access to the USG using the below Mac-Filter settings.

SSID: SBG8300-E2B5 ▼

MAC Filtering Mode: Allow-All ▼

Wi-Fi Control List(up to 16 items)

#	Device Name	MAC Address
Auto-Learned Wi-Fi Devices		
Device Name	MAC Address	
Manually-Added Wi-Fi Devices		
Device Name	MAC Address	
<input type="text"/>	<input type="text"/>	<input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/> - <input type="text"/>
		<input type="button" value="ADD"/>

SAVE FILTER SETTING

Figure 29: SBG8300 Wi-Fi connection screen (2 of 2)

## Change your Wi-Fi network name (SSID)

The SSID (Service Set Identification) is the Wi-Fi network name assigned to your SBG8300 Wi-Fi network. The default SSID (listed on the Wi-Fi cable modem label) is automatically populated in the network configuration screens. A list of available Wi-Fi networks (SSIDs) near your home (for example, neighbors or local businesses) will display when you or someone else in your home attempts to establish a Wi-Fi network connection. For security

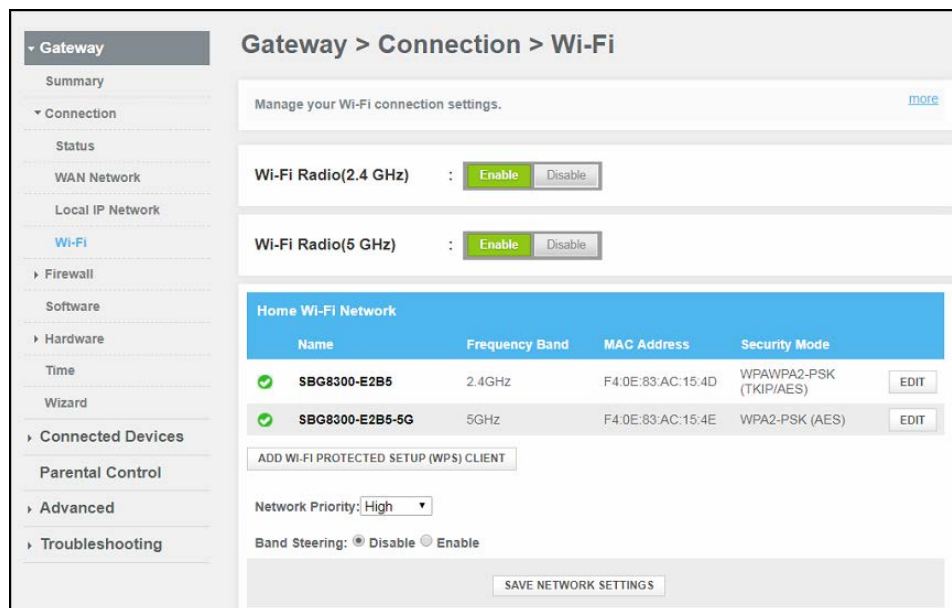
purposes and quick recognition of your Wi-Fi network, ARRIS recommends that you change the default SSID.



**Note:** When you change the SSID, any Wi-Fi devices that are connected to your Wi-Fi network will be disconnected. The Wi-Fi devices must be reconnected to your Wi-Fi network using the new SSID.

Do the following to change your Wi-Fi network name (SSID):

1. Open a web browser and log on to the SBG8300 to open the SBG8300 Web Manager. See [Start the SBG8300 Web Manager](#) (page 32) for more information, if necessary.
2. From any SBG8300 Web Manager screen, click the **Gateway** menu link and then click the **Connection** submenu options link.
3. Click **Wi-Fi** under the **Connection** submenu options to open the Gateway Connection Wi-Fi screen.



**Figure 30: SBG8300 change Wi-Fi network name (SSID) screen**

4. Click the **2.4 GHz EDIT** or **5 GHz EDIT** button in the Home Wi-Fi Network section to select the current Wi-Fi frequency range for your Wi-Fi home network.

**Figure 31: Sample SBG8300 Wi-Fi network setup screen**

5. Ensure to select **Enable** in the **Wireless Network** field.
6. Enter a new network name in the **Network Name (SSID)** field.

The Wi-Fi network name cannot be the same name as any other SSID on your home network. You can use any combination of lowercase and uppercase letters, numbers, and/or special characters (symbols) up to a maximum of 32 characters.

7. Enter a new network password in the **Network Password** field if you want to change it.



**Note:** Remember that network passwords are case-sensitive and that you can use any combination of uppercase and lowercase letters, and numbers. Special characters and spaces are not acceptable.

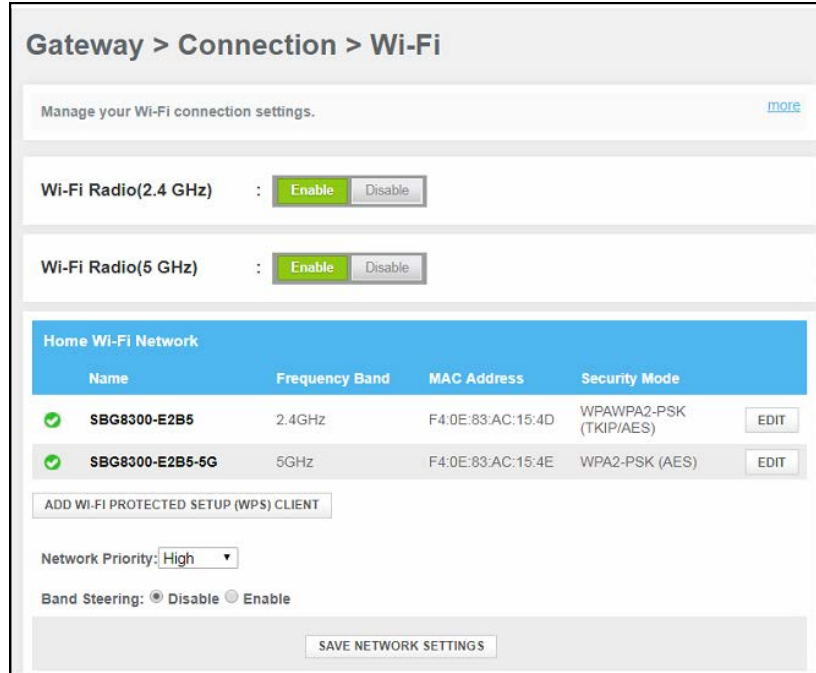
8. Select the **Show Network Password** checkbox to view your network password.
9. Enter the four-digit CAPTCHA code located in the **Type CAPTCHA Here** entry box.
10. Click **SAVE SETTINGS** to update your new SSID.

## Set up WPS on your Wi-Fi network

You can set up the Wi-Fi Protected Setup (WPS) PIN option on your SBG8300 to connect WPS-enabled devices on your Wi-Fi home network.

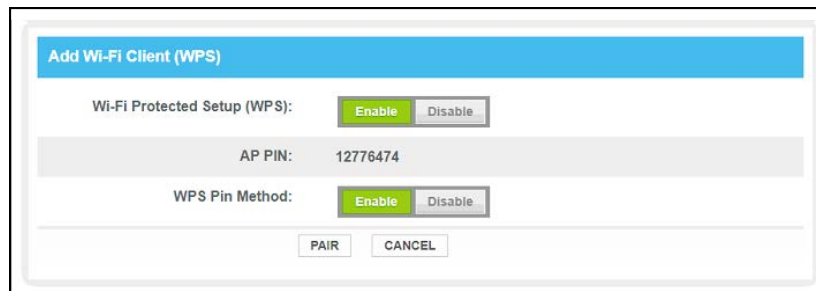
1. Open a web browser and log on to the SBG8300 to open the SBG8300 Web Manager.  
See [Start the SBG8300 Web Manager](#) (page 32) for more information, if necessary.
2. Click the **Gateway** menu link and then click the **Connection** submenu options link.

- Click **Wi-Fi** under the **Connection** submenu options to open the Gateway Connection Wi-Fi screen.



**Figure 32: SBG8300 WPS device connection screen**

- Click **ADD WI-FI PROTECTED SETUP (WPS) CLIENT** button to open the Add Wi-Fi Client (WPS) screen.



**Figure 33: SBG8300Add Wi-Fi Client (WPS) screen**

- Do one of the following:
  - Click the Wi-Fi Protected Setup (WPS) **Enable** button to turn ON WPS Wi-Fi networking on your home network using the provided AP PIN number.
  - Click the Wi-Fi Protected Setup (WPS) **Disable** button to turn OFF WPS Wi-Fi networking on your home network.
- Do one of the following:
  - Click the WPS Pin Method **Enable** button to turn ON WPS Wi-Fi networking.
  - Click the WPS Pin Method **Disable** button to turn OFF WPS Pin connections.
- Enter the WPS Pin number listed in the **AP PIN** field when you are prompted on your WPS device screen.
- Click the **PAIR** button on the SBG8300 to connect your WPS-enabled device.

9. Repeat steps 6 through 8 for each additional WPS-enabled device that you want to connect to your Wi-Fi home network.

# Protecting & monitoring your Wi-Fi network

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After you have successfully connected the SBG8300 and your Wi-Fi devices, you should configure the SBG8300 to protect your Wi-Fi network from unwanted and unauthorized access by any Wi-Fi devices that are within range of your Wi-Fi network. Although network security for the SBG8300 is already configured, you can use the SBG8300 Web Manager to set the level of security and network access that you want to allow on your Wi-Fi network.

## Change the login password

When logging in to the SBG8300 Web Manager, you will be prompted to change the default login password (**password**). You will have the option to either keep the default password or change it (recommended). Please note that if you do not change the default login password, the same message will display every time you log in to the SBG8300 Web Manager.



**Note:** If you are already logged in to the Web manager, start with step 6 to change your login password.

1. Open a web browser on the computer or laptop connected to your SBG8300.
2. Type the default LAN IP address, **192.168.0.1**, in the Address bar and then press Enter to log on to your SBG8300.

The SBG8300 Login screen displays.



- Numbers: **0** to **9**
  - Special characters: **! @ # \$ % & \***
9. Enter your new admin password in the **Re-enter New Password** field.
  10. Select the **Show Typed Password** checkbox to view the new passwords and confirm that both passwords match.
  11. Enter the four-digit CAPTCHA code located in the **Type CAPTCHA Here** entry box.
  12. Click **SAVE** to update your admin password.
  13. Find a secure place to write down and keep your new password for future reference.

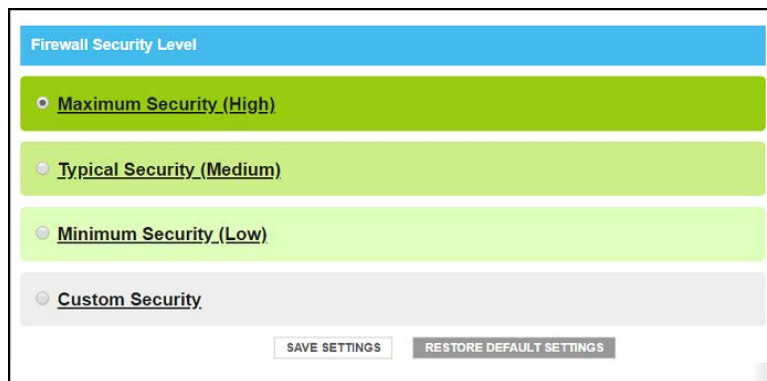
## Set up firewall protection

You can set up firewall filters and firewall alert notifications to protect your computer(s) and other connected network devices on your Wi-Fi home network. You can also block Java Applets, Cookies, ActiveX controls, popup windows, Proxies, and website access to protect the network devices on your home network from hackers, viruses, and other attacks from the Internet.

To set the firewall protection level on your SBG8300:

1. From any SBG8300 Web Manager screen, click the **Gateway** menu link on the SBG8300 Web Manager screen.
2. Click the **Firewall** submenu link and then click [IPv4 security](#) (page 48) or [IPv6 security](#) (page 50) to display the Gateway Firewall Security Level screens.
3. Select the security level that you want to set for your SBG8300 firewall.
4. When done, click **SAVE SETTINGS**.

## IPv4 security



**Figure 36: Firewall IPv4 available security levels screen**

- **High:** Safest configuration, maximum security level





Figure 37: Firewall IPv4 high security level screen

- **Medium:** Safer configuration, medium security level



Figure 38: Firewall IPv4 medium security level screen

- **Low:** Common security, low security level, higher risk

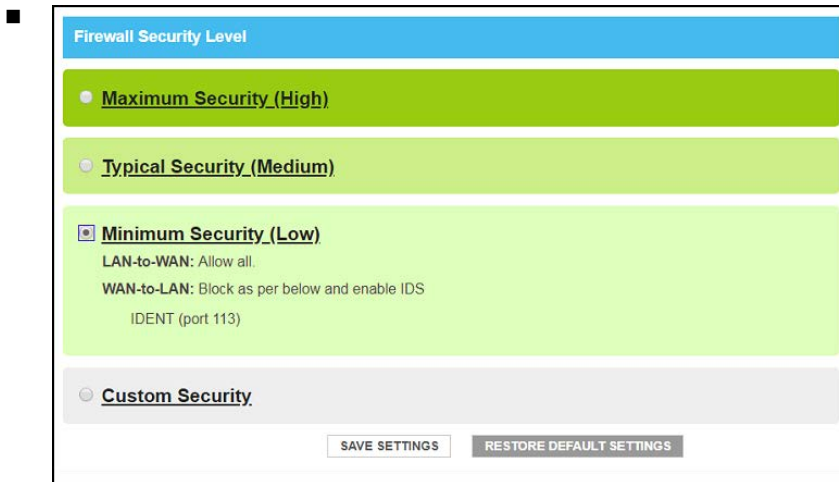


Figure 39: Firewall IPv4 low security level screen

## IPv6 security



Figure 40: Firewall IPv6 available security levels screen

## Set up Parental Control

You can set up the following parental controls to manage and limit the usage and activity for specific users and client devices on your home network:

- Allow or block access to specific Internet sites.
- Allow or block access to specific MAC addresses.
- Allow or block access based on specific keywords.
- Set time limitations for computer usage or Internet access.



**Note:** Any Parental Control filters that do not include assigned ports, will apply to all ports. This also applies to MAC addresses.

You can also link each user or client device on your home network to specific rules for login, time-access, and content filtering.

### ► **To set up Parental Control on your home network:**

1. From any SBG8300 Web Manager screen, click the **Parental Control** menu link on the SBG8300 Web Manager screen.
2. Click **Managed Sites** from the Parental Control submenu options list to display the Parental Control Managed Sites screen.

- Click the Managed Sites **Enable** button to turn ON website and keyword blocking.

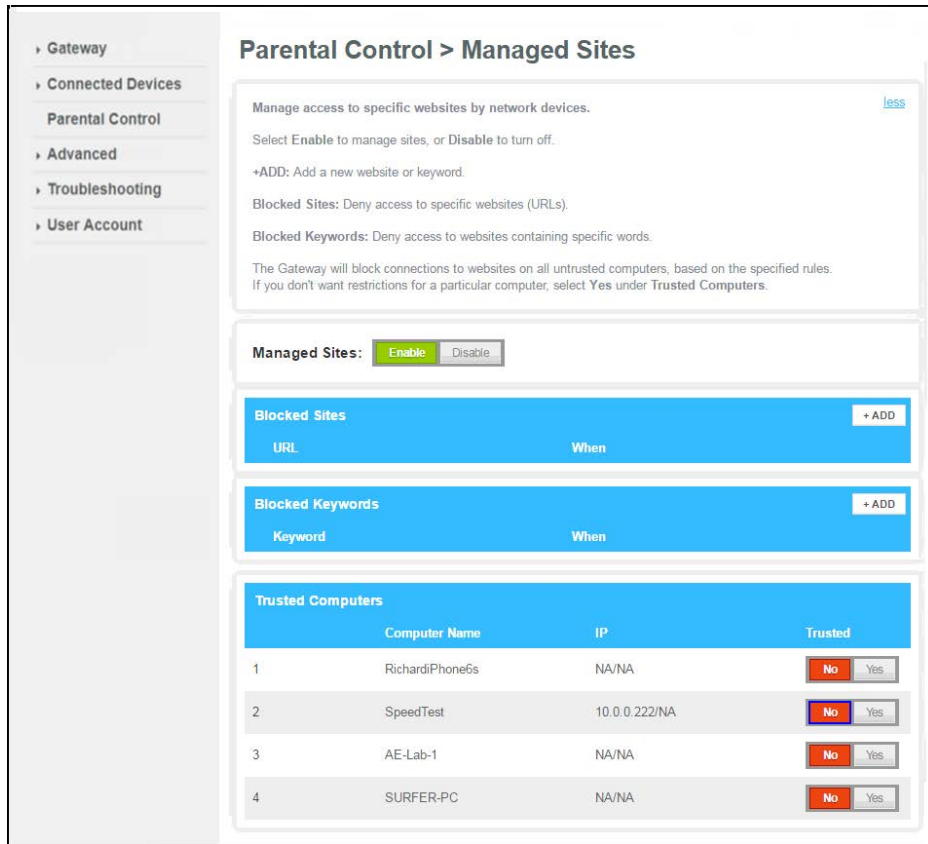


Figure 41: Parental Control Managed Sites screen

- Click **+ADD** button in the Blocked Sites section to open the Add Site to be Blocked screen.

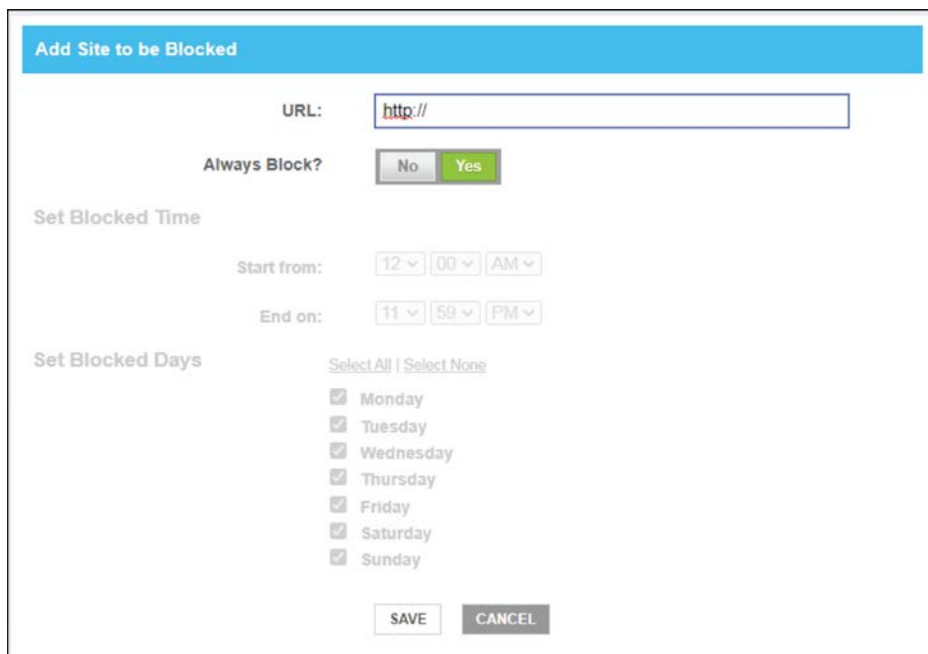


Figure 42: Add Site to be Blocked screen

5. To fully block a website, enter the website address in the URL field and then click the **Yes Always Block?** button.
6. Click **SAVE**.
7. Repeat steps 5 and 6 for each website that you want to block.
8. To block a website for specific days and times, enter the website address in the URL field and then click the **No Always Block?** button.
9. Select the **Start from** and **End on** times of the day in the Set Block Time section.
10. Select the days of the week in the Set Blocked Days section.
11. Click **SAVE**.

## Set up Port Forwarding

Your SBG8300 firewall may be set up to block all device or application connections from the Internet to the devices on your Wi-Fi home network. Port Forwarding allows you to open specific ports or IP addresses on the Internet behind the firewall on your home or small business network. It also allows for remote access to your wireless computer or other client devices. The inbound traffic from the Internet, such as specific websites or online gaming applications, is forwarded to the designated open ports that you set up.



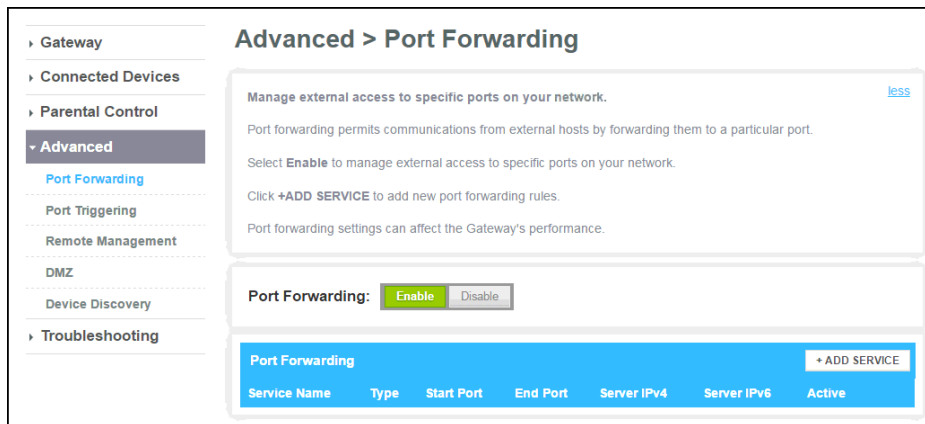
**Note:**

ARRIS recommends that you manually configure the TCP/IP settings listed below on the client device you are setting up for remote access. Otherwise, remote access to your client device will not be available on the Internet.

- IP address
- Subnet mask
- Default gateway
- DNS address (at least one)

To set up Port Forwarding:

1. From any SBG8300 Web Manager screen, click the **Advanced** menu link on the SBG8300 Web Manager screen.
2. Click **Port Forwarding** from the Advanced submenu options list to display the Port Forwarding Configuration screen.



**Figure 43: SBG8300 Advanced Port Forwarding screen**

3. Click the Port Forwarding **Enable** button.
4. Click the **+ADD SERVICE** button to open the Add Port Forward screen.

**Figure 44: Add Port Forward screen**

5. Select **FTP**, **AIM**, **HTTP**, **PPTP**, **HTTPs**, **Telnet**, **SSH**, or **Other** for the Internet data transfer protocol from the **Common Service** drop-down list.



**Note:** When **Other** is selected, the **Service Name** field will display. Enter a name for the service type you will be using.

6. Select **TCP/UDP**, **TCP**, or **UDP** for the Internet data transmission protocol from the **Service Type** drop-down list.
7. Do one of the following:
  - Enter the IP address of your local computer that you are setting up for port forwarding in the **Server IPv4 Address** field.
  - Enter the IP address for your local computer that you are setting up for port forwarding in the **Server IPv6 Address** field.
8. Enter the starting port number of the website or online application in the **Start Port** field.
9. Enter the ending port number of the website or online application in the **End Port** field.

- Click **CONNECTED DEVICE** button to display the list of connected devices on your Wi-Fi home network.



**Figure 45: SBG8300 Connected Devices screen**

- Select the **Add** selection box for the device or website you want to connect to.
- Click **Add** to exit.
- Click **SAVE**.

## Set up Port Triggers

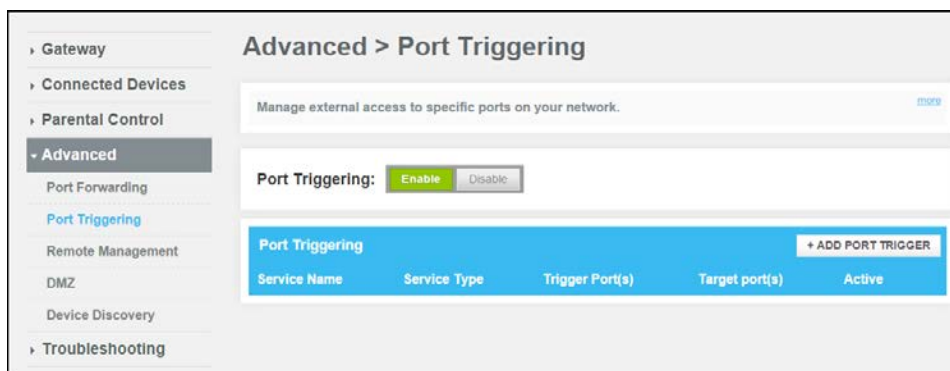
You can use Port Triggers to set up your SBG8300 to monitor outgoing traffic on specific ports on your home network. Port Triggering can be useful for some applications such as video conferencing, online chatting, and online gaming that may require specific port numbers with bi-directional traffic to function properly.



**Note:** If the SBG8300 firewall is enabled and custom port triggers are set up, then you must configure the firewall to allow traffic through those custom ports. See [Set up firewall protection](#) (page 48) for more information.

To configure Port Triggers:

- From any SBG8300 Web Manager screen, click the **Advanced** menu link on the SBG8300 Web Manager screen.
- Click **Port Triggering** from the Advanced submenu options list to display the Port Triggering Configuration screen.



**Figure 46: Advanced Port Triggering screen**

- Click the Port Triggering **Enable** button.

Advanced > Port Triggering > Add Port Trigger

Add a rule for port triggering services by user. [more](#)

**Add Port Trigger**

Service Name:

Service Type:

Trigger Port From:

Trigger Port To:

Target Port From:

Target Port To:

**Figure 47: Advanced Add Port Trigger screen**

4. Click the **+ADD PORT TRIGGER** button to open the Add Port Trigger screen.
5. Enter a name or description for the Port Trigger in the **Service Name** field.
6. Select **TCP/UDP**, **TCP**, or **UDP** from the **Service Type** drop-down list.
7. Enter the starting port number in the **Trigger Port From** field.
8. Enter the ending port number in the **Trigger Port To** field.
9. Enter the starting port number in the **Target Port From** field.
10. Enter the ending port number in the **Target Port To** field.
11. Click **ADD** to create the port trigger.
12. Repeat steps 4 through 11 to create additional port triggers.

Advanced > Port Triggering > Add Port Trigger

Add a rule for port triggering services by user. [more](#)

**Add Port Trigger**

Service Name:

Service Type:

Trigger Port From:

Trigger Port To:

Target Port From:

Target Port To:

**Figure 48: Advanced Add Port Trigger screen**

## Set up the DMZ host



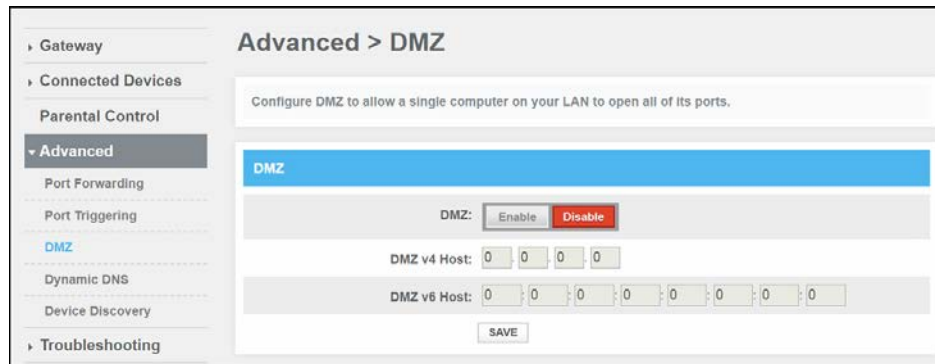
**Warning:** The gaming DMZ host is not protected by the SBG8300 firewall. It is exposed to the Internet which makes it vulnerable to attacks or hacking from any

client device (e.g., computer or laptop) on the Internet. Consider carefully before configuring a device to be in the DMZ.

You can configure one client device on your home network to be the DMZ Host. That client device will operate outside of the SBG8300 firewall and allow remote access from the Internet to your client device, gaming device, or other IP-enabled device. The DMZ Host feature will only allow outside users to have direct access to the designated DMZ Host device and not your home network.

To create the DMZ host:

1. From any SBG8300 Web Manager screen, click the **Advanced** menu link.
2. Click **DMZ** to display the Advanced DMZ screen.



**Figure 49: Advanced DMZ host screen**

3. Click the **DMZ Enable** button to set up the DMZ Host on your home network.
4. Enter the last one to three digits (from 2 to 254) of the IP address of the computer or gaming device that you are setting up as the DMZ host
5. Click **SAVE**, when you are finished.



**Note:** To disable the DMZ Host, click the **DMZ Disable** button and then click **SAVE**.



**Note:** Remember to reset the IP address back to **0** (zero) to close all the ports when you are finished with the needed application. If you do not reset the IP address, that computer will be exposed to the public Internet.



# Managing your Wi-Fi cable modem and connected networks

You can also use the SBG8300 Web Manager to view and monitor the network configuration settings and operational status of your SBG8300.

## View the SBG8300 system hardware information

The Gateway Hardware screen displays system hardware information for your SBG8300. This information may be helpful if you contact ARRIS, Comcast, or Cox for technical assistance.

To open the SBG8300 Hardware screen:

1. From any SBG8300 Web Manager screen, click the **Gateway** menu link.
2. Click **Hardware** from the Gateway submenu links and then click **System Hardware** from the Hardware submenu options to display the Gateway System Hardware screen.

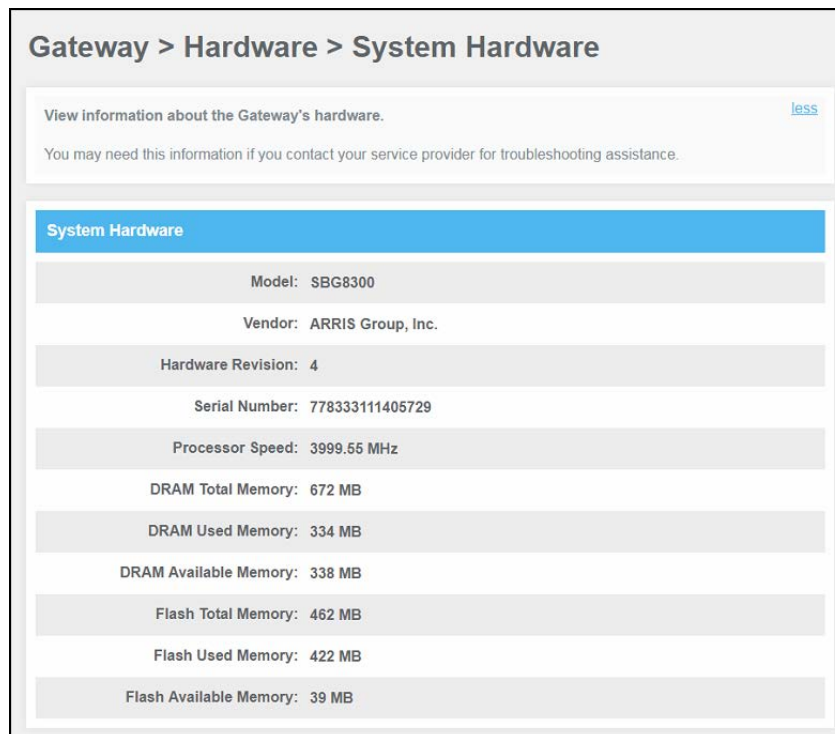


Figure 50: SBG8300 System Hardware screen

## View the SBG8300 software version

The Gateway Software Version screen displays device software related information for your SBG8300. This information may be helpful if you have to contact ARRIS or Comcast for technical support.

To open the SBG8300 Software screen:

1. From any SBG8300 Web Manager screen, click the **Gateway** menu link.
2. Click **Software** from the Gateway submenu links to display the Gateway Software screen.

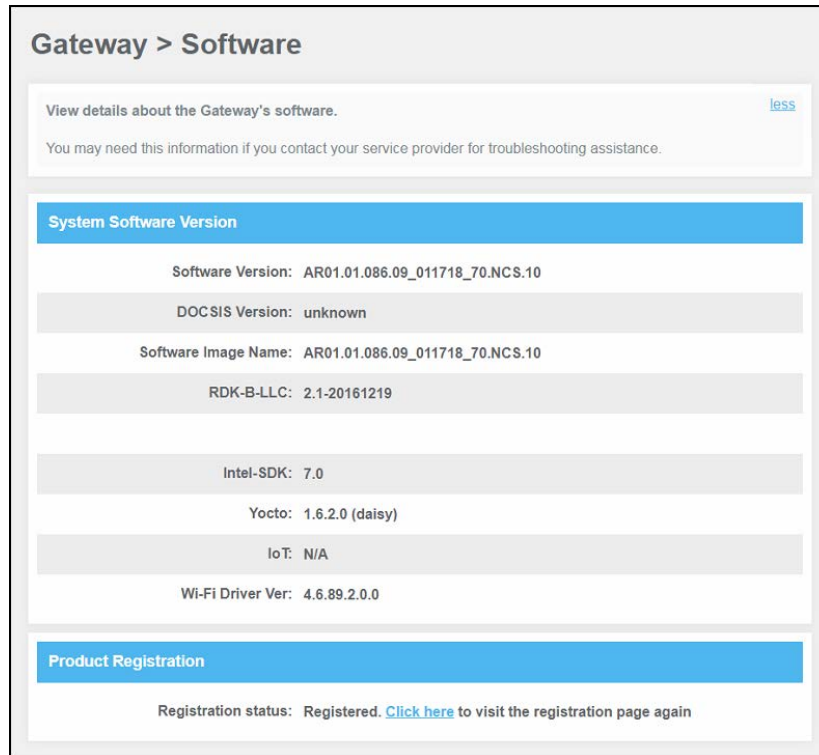


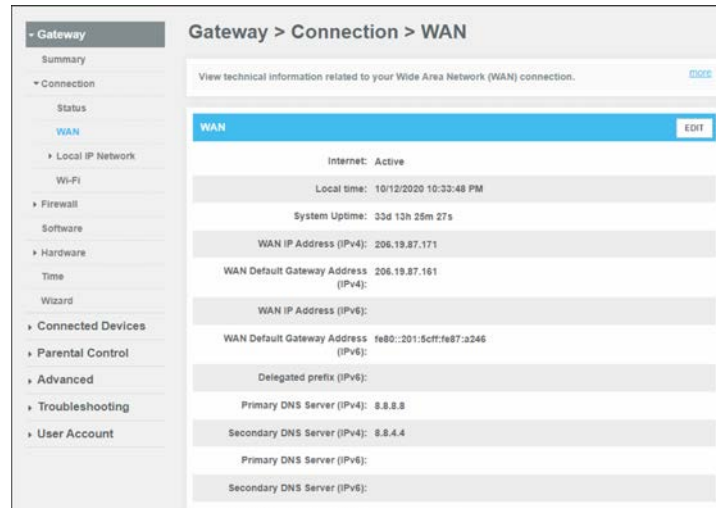
Figure 51: SBG8300 hardware information screen

## Set up an Ethernet port connection for your data input

If you have installed your SBG8300 using an Ethernet port for your data input, perform the following to activate the Ethernet port.

To open the Gateway hardware Ethernet screen:

1. From any SBG8300 Web manager screen, click the **Connection** menu link to display the **Status** and **WAN** submenu links.
2. Click the **WAN** submenu link to open the Gateway Connection WAN screen.

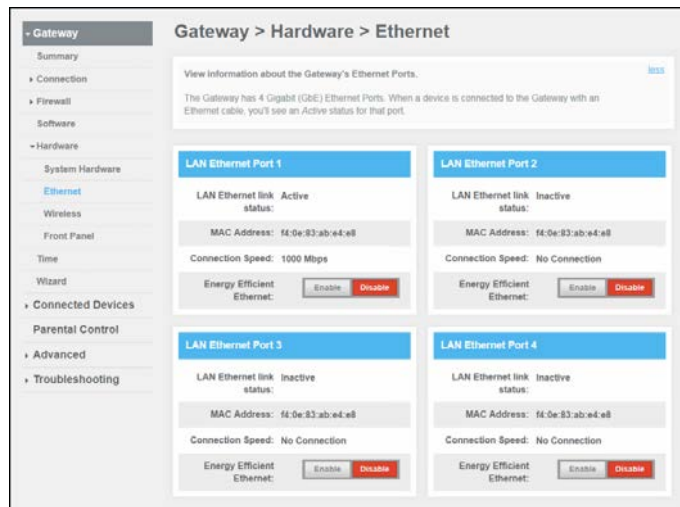


**Figure 52: SBG8300 Connection WAN screen**

3. Click **EDIT** on the WAN screen.
4. Click **Interface CHANGE** to select either **DOCSIS** (for a regular cable connection) or Ethernet (for an input signal from a different modem device) with an Ethernet connection from the modem device to the SBG8300 Ethernet port 4.

From any SBG8300 Web manager screen, click the **Gateway** menu link.

1. Click **Software** from the Gateway submenu links to display the Gateway Software screen.
2. Click **Ethernet** from the Hardware submenu links.



**Figure 53: SBG8300 Gateway Hardware Ethernet screen**

3. Click the **Enable** button in the **LAN Ethernet Port 4** box.

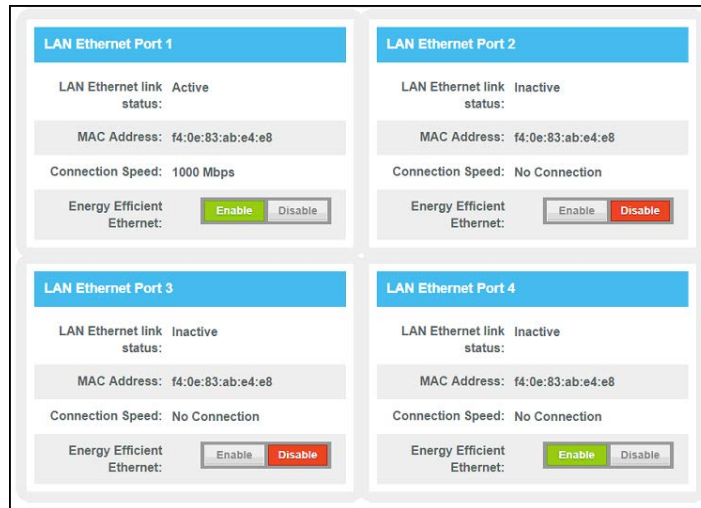


Figure 54: SBG8300LAN Ethernet Port screen

## Reboot the SBG8300

Choose one of the following options to reboot (or restart) your SBG8300:

- [Reboot the SBG8300 using the Reset button](#) (page 60)

OR

- [Reboot the SBG8300 using the Web Manager](#) (page 61)

## Reboot the SBG8300 using the Reset button

To reboot (or restart) your SBG8300 using the **Reset** button:

1. Insert the end of a paper clip (or other small object with a narrow tip) into the indented **Reset** button opening on the rear of your SBG8300.



Figure 55: SBG8300 Reset button

2. Press and hold the small object in place for three to four seconds.



**Warning:** Do not press the **Reset** button for more than five seconds. If you do, your SBG8300 will automatically reset and your custom gateway configuration settings (e.g., admin password, network name (SSID) and password) will be deleted and replaced with the factory default configuration.

3. Remove the paper clip or small object from the **Reset** opening.

## Reboot the SBG8300 using the Web Manager

To reboot (or restart) your SBG8300 using the SBG8300 Web Manager:

1. From any SBG8300 Web Manager screen, click the **Troubleshooting** menu link.
2. Click **Reset/Restore Gateway** from the Troubleshooting submenu links.

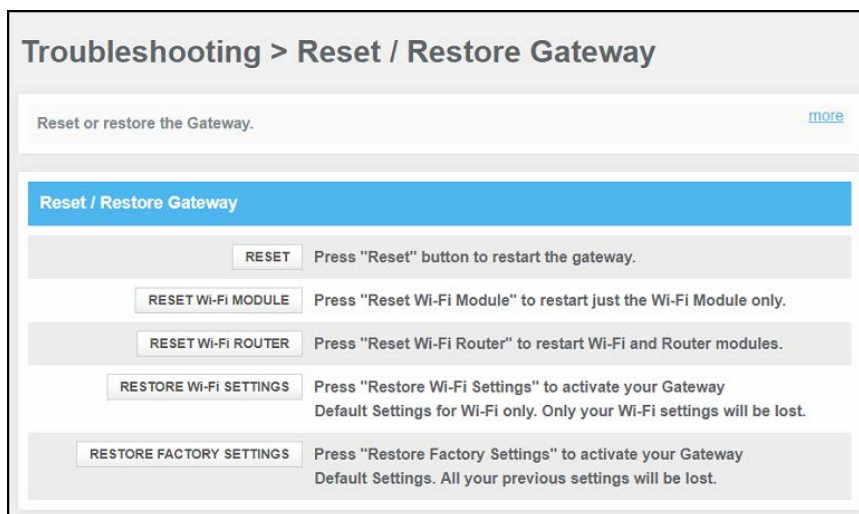


Figure 56: SBG8300 Reset/Restore settings screen

3. Click **RESET** located in the Reset / Restore Gateway table.

The following message will display:

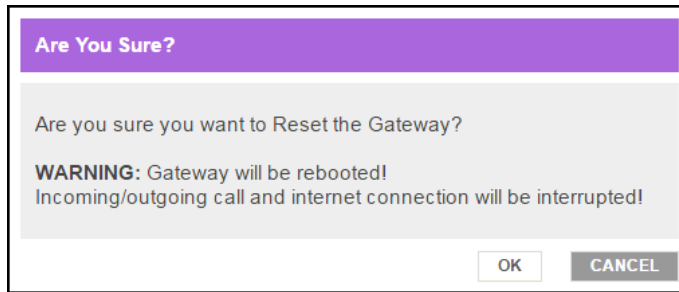


Figure 57: Reboot the Gateway message box

4. Click **OK** to reboot the SBG8300 and then log back in.

## Restore the SBG8300 default configuration settings



**Warning:** This action will delete your current SBG8300 configuration settings and allow you to restore the default (original) SBG8300 configuration.



**Note:** After the configuration settings are restored, the SBG8300 will automatically reboot and you will have to log in using the default user name (**admin**) and password (**password**).

To open the Reset/Restore Gateway screen:

1. From any SBG8300 Web Manager screen, click the **Troubleshooting** menu link.
2. Click **Reset / Restore Gateway** from the Troubleshooting submenu links to display the Troubleshooting **Reset / Restore Gateway** screen.

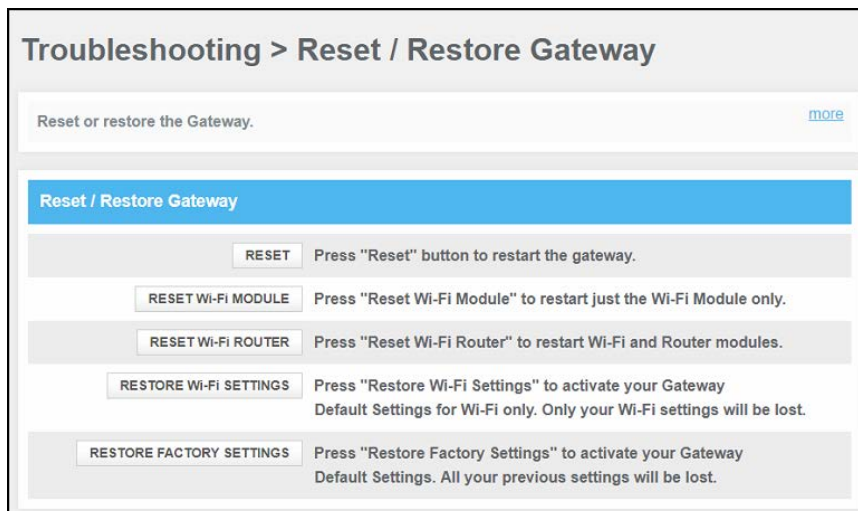
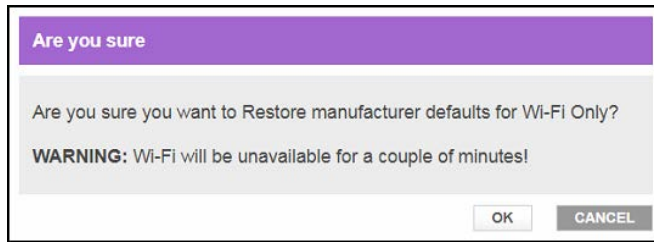


Figure 58: SBG8300 restore settings screen

3. Click **RESTORE Wi-Fi SETTINGS** to reset your SBG8300 Wi-Fi settings.



**Figure 59: SBG8300 restore settings screen**

4. Click **OK** to restore the Wi-Fi factory defaults.

The Operation in Progress for restarting the Wi-Fi radios message displays.

## Exit the SBG8300 Web Manager

To log out and close the SBG8300 Web Manager:

- Click the **Logout** link located in the upper right corner of the SBG8300 Web Manager screen.



**Figure 60: SBG8300 Web Manager logout link**

## Troubleshooting tips

If the solutions listed in the Troubleshooting Solutions table below do not solve your problem, please contact your service provider for assistance. Your service provider may ask for the status of the SBG8300 front panel LEDs, see [Front panel LED icons and error conditions](#) (page 65) for more information.

You may have to reset the SBG8300 Wi-Fi cable modem configuration to its original factory settings if the SBG8300 is not functioning properly. See [Restore the SBG8300 default configuration settings](#) (page 62) for more information.

## Solutions



Wi-Fi cable modem problem	Possible solution
<b>Cannot Send or Receive Data</b>	<p>Check each end of the coaxial cable connection on the Wi-Fi cable modem and cable wall outlet. Use your hand to tighten each connector, if necessary.</p> <p>Check the Ethernet cable (if connected) to make sure it is properly connected to your Wi-Fi cable modem and computer.</p> <p>If you have cable television service, check your television to ensure your cable service is operating properly.</p> <p>If none of the above solutions resolves the problem, contact your service provider or call ARRIS Technical Support at <b>1-877-466-8646</b> for assistance.</p>
<b>Cannot Access the Internet</b>	<p>Check that all cable and power connections on your Wi-Fi cable modem and computer are properly connected.</p> <p>Check that the <b>Online</b> and <b>Wi-Fi</b> LED icons on the front panel are lit up solid.</p> <p>Contact your service provider for assistance.</p>
<b>Wi-Fi Devices Cannot Send or Receive Data</b>	<p>If the problem continues after checking the coaxial cable and Ethernet connections and your IP address, check the Wi-Fi <b>Security Mode</b> setting on the Gateway Wi-Fi Connection screen.</p> <p>If you enabled Wi-Fi security and configured a passphrase on the Wi-Fi cable modem, be sure each affected Wi-Fi client has the identical passphrase. If this does not solve the problem, check if the Wi-Fi client supports the selected Wi-Fi security method.</p>



## Front panel LED icons and error conditions

The SBG8300 front panel LED icons provide status information for the following error conditions:

**Table 6: Front panel LED icons and error conditions**

Led Icon	Status	If, During Startup	If, During Normal Operation
 <b>ONLINE</b>	OFF BLINKING	Wi-Fi cable modem is not properly plugged into the electrical wall outlet. IP registration is unsuccessful.	Wi-Fi cable modem is unplugged. IP registration is lost.
 <b>Wi-Fi</b>	OFF SLOW BLINK	LED is disabled (not working). Green: No clients found (5 GHz or dual-band). Blue: No clients found (2.4 GHz band only).	LED is disabled (not working).

# Warranty Information

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