COMMSCOPE°



SURFboard[®] G34/G36 DOCSIS[®] 3.1 Wi-Fi[®] Cable Modem User Guide, STANDARD Revision x.3 P/N 365-095-36134

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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

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

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



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 <u>http://www.arris.com/selfhelp</u>.

Caring for the environment by recycling your ARRIS equipment



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 G34/G36 is a combination of DOCSIS 3.1 cable modem and multiport 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 G34/G36 connects to the existing coaxial cable connection in your home.

This user guide provides instructions for installing and configuring your G34/G36, 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 G34/G36, check that the items listed in the table below are included in the G34/G36 product box. If any items are missing, please call ARRIS technical support at **1-877-466-8646** for assistance.

Table 1: G34/G36 package contents



Item

SURFboard Quick Start Guide

Description

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)

ARRIS

wiriCable Mer

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 G34/G36.

- 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
- Call ARRIS Technical Support: 1-877-466-8646

Chapter 2

Product overview

Front panel

Figure 1: G34/G36 front view



Table 2: G34/G36 front panel LED description

LED status	LED status description
Amber (Solid)	Power is connected
Green (Blinking)	Acquiring downstream/ upstream connection
Green (Solid)	Online status in DOCSIS 3.0 mode
Blue (Solid)	Online status in DOCSIS 3.1

LED status	LED status description
	mode
Light Blue (Solid)	WAN over Ethernet mode
Amber (Blinking)	Firmware download

Rear panel

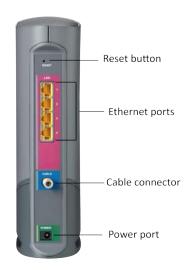


Figure 2a: G34 rear view

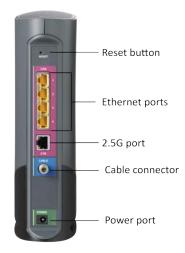


Figure 2b: G36 rear view

Port name	Description
Reset button	Reset button located on the rear panel of your G34/G36 can be used to either reboot your G34/G36 or reset the G34/G36 configuration settings. See <i>Reboot the G34/G36 using the Reset button</i> (page 68)and <i>Restore the G34/G36 default configuration settings</i> (page 60) for more information.
С. ЕТНЕRNET 10/100/1000	 Four one-gigabit Ethernet ports for RJ-45 network cable connections: Green: LED is ON - Indicates the Online status is in DOCSIS 3.0 mode Blue: LED is ON - Indicates the Online status is in DOCSIS 3.1 mode Green: LED is Blinking - Indicates downstream/upstream channel search Amber: LED is ON - Indicates the unit is powered on/off Amber: LED is Blinking - Indicates the firmware download is in progress Blue/Green: LED is Blinking - Indicates the wAN is selected over the Ethernet mode
	Coaxial cable connector
Power port	 100 - 240 VAC Power connector must reflect a 12 VDC @2.5A power adapter. Warning: To avoid any damage to your G34/G36, only use the power supply included in the G34/G36 box.
2.5G	This is available in only G36 Wi-Fi cable modem to connect to the 2.5G Ethernet port.

Table 3: G34/G36 rear panel ports & connectors

Wi-Fi cable modem label



Figure 3: Sample G34/G36 Wi-Fi cable modem label

The Wi-Fi cable modem labels are located on the bottom of your G34/G36. The labels contain the information you will need to activate the G34/G36 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 12), you may have to provide the following information listed on the G34/G36 labels:

- Wi-Fi cable modem Model name (G34/G36)
- Wi-Fi cable modem Serial number (SN)
- Wi-Fi cable modem MAC address (HFC MAC)

Installing the Wi-Fi cable modem



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 G34/G36 to your computer

Before installing your G34/G36:

 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 G34/G36 label on the bottom of your (G34/G36). Make sure you have the Wi-Fi cable modem model name (G34/G36), HFC MAD ID, and the serial number (SN) (see *Wi-Fi cable modem label* (page 16)) 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 G34/G36 was properly installed and can connect to the Internet.

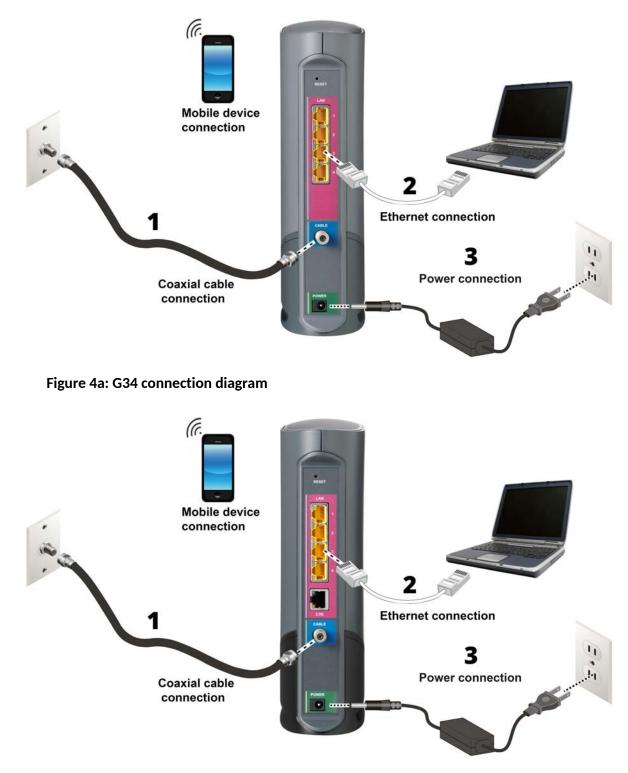


Figure 4b: G36 connection diagram

~

Note: The G34/G36 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 G34/G36 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 G34/G36 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 66) 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 G34/G36.
 - 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 G34/G36.
 Proceed with step 3.
- 2. Connect an Ethernet cable to any available **Ethernet** port on the rear of your G34/G36.
- 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 G34/G36.
- 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 G34/G36. There may be up to a 15 second delay for the LED on the G34/G36 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 G34/G36 if it is turned off, and then log in.
- 7. Contact your service provider to activate (provision) the G34/G36. 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 G34/G36 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 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 front panel LED on the G34/G36 lights up in sequential order. See *Front panel* (page 13) for additional LED status information.
 - If the LED did not light up and you do not have an Internet connection, you may have to contact your service provider to reactivate the G34/G36 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 G34/G36 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 20)
- Set up a Wi-Fi network connection using your client device (page 22)
- Quick connect using the Windows task bar (page 23)
- Connect using the Windows control panel (page 25)

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

The ARRIS SURFboard Central 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 Central mobile app from the Apple App Store or Google Play Store on your iOS or Android mobile device.



Figure 5: ARRIS SURFboard Central mobile app download QR code

The SURFboard Central mobile app screen displays.



Figure 6: SURFboard Central mobile app download screen

- 3. Download the SURFboard Central mobile app on your mobile device.
- 4. Tap **OK**.

The following SURFboard Central window displays.

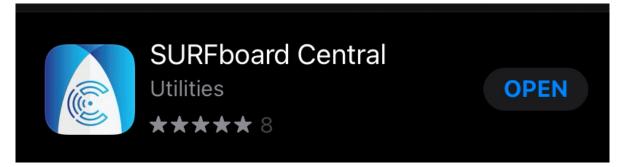


Figure 7: SURFboard Central mobile app open screen



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

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

The SURFboard Central mobile app opening screens display.



Figure 8: SURFboard Central 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 *SURFboard Central Mobile App User Guide* available online at *SURFboard Central*.

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 G34/G36 *Wi-Fi cable modem label* (page 16).

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 23)
 - Connect using the Windows control panel (page 25)

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, \checkmark 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 G34/G36 Wi-Fi network name or SSID (for example, G34/G36-####) for your G34/G36 from the list of available Wi-Fi networks.

The default SSID is located on the Wi-Fi cable modem on the bottom of your G34/G36.



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 42) for more information.

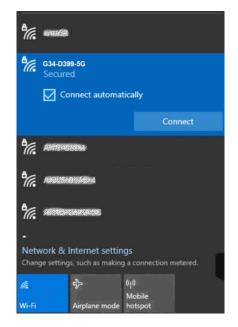


Figure 11: Sample Wi-Fi network connection screen

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

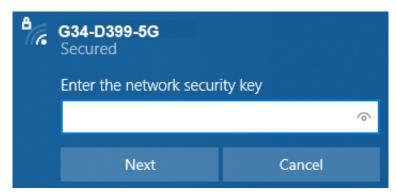


Figure 12: Network security key window

- 5. Enter the Network Security Key (your Wi-Fi network password) in the Security key field.
 - 2

Note: You can use the default Wi-Fi Security Key code listed on the G34/G36 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 G34/G36 Web Manager, enter that password in the **Enter the network security key** field and then click **Next**.

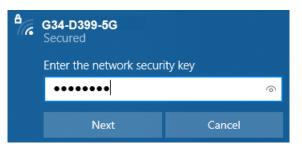


Figure 13: Network security key window

Connect using the Windows control panel

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

Figure 14: Control panel-network and sharing center window

→ ~ ↑ 🔽 « Network	and Internet > Network and Sharing Center	~	ට Search Control Panel	
Control Panel Home	View your basic network inform	nation and set	up connections	
Change adapter settings	View your active networks			
Change advanced sharing settings	Network 4 Private network	Access type: Internet Connections: Q Ethernet 4		
Media streaming options				
	Change your networking settings			
	Set up a new connection or net	work		
	Set up a broadband, dial-up, or	VPN connection;	or set up a router or access point.	
	Troubleshoot problems			
	Diagnose and repair network pr	roblems, or get tro	publeshooting information.	
See also				
Internet Options				
Windows Defender Firewall				

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

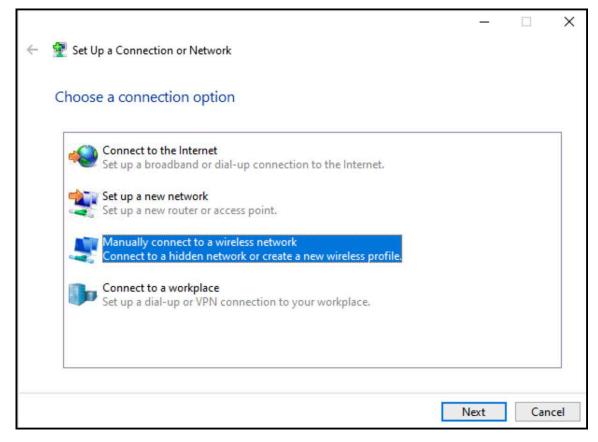


Figure 15: Set up a connection or network window

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

Enter info	rmation for	the wireless networ	k you want	to add		
Network na	ne:					
Security typ	2	[Choose an option]	~			
Encryption	ype:		~			
Security Key				Hide character	5	
Start	this connection	automatically				
Conr	ect even if the	network is not broadcasting	9			
War	ing: If you sele	ct this option, your compu	ter's privacy m	ight be at risk.		

Figure 16: Manually connect to a wireless window

5. Enter the G34/G36 Wi-Fi network name or SSID (G34/G36-####) for your G34/G36 in the **Network name** field.

The default SSID is listed on the Wi-Fi cable modem label on the bottom of your G34/G36.



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 42) for more information.

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



Note: WPA2-Personal is the recommended wireless security level for your Wi-Fi home network. It is the default security level for the G34/G36 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 G34/G36.
- 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 G34/G36 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 G34/G36 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 G34/G36.

- 2. Check that the LED on the G34/G36 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) 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 G34/G36 Web Manager to view and monitor the network configuration settings and operational status of your G34/G36. 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 G34/G36 Web Manager (first-time login)



Note: Your network security is very important to ARRIS. The first time you log on to the G34/G36, the Gateway Home Network Wizard opens for you to set up your login password. The wizard walks you through setting up your G34/G36 Web Manager login password, Wi-Fi home network security information, and time zone.

- 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 G34/ G36.
- 2. Type the default LAN IP address, **192.168.0.1**, in the Address bar and then press Enter to log onto the G34/G36.

The G34/G36 Home Network Wizard screen displays (see figure 17).

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



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:
 ~! @ # \$ % ^ * () _ = + [] { } | ;:,. / ?

- 4. Enter your password again in the Re-enter New Password field.
- 5. Select the **Show Typed Password** check box to confirm that both passwords match.

Please note that this password is required to log in to the G34/G36 Web Manager. Write it down and place it in a secure place for future reference and availability, if needed.

Gateway > Home Network Wizard - Step 1
The Home Network Wizard walks you through the settings to change for better network security. We recommend that you use the mobile app to configure your Gateway. ARRIS SURFboard® Manager is an easy to use app that makes configuring your SURFboard home network quick and easy. While just a lew sleps you can customize your network settings from your smartphone or tablet. Please see the IOS or Android application store to download the application for free. Step 1 changes your password for logging into this site in the future.
Step 1 of 3
To configure your home network, we need some basic information
New Password: Re-enter New Password:
Show Typed Password:
Password requirements - Minimum 6 sharacters - A least 1 munter - O least 0 munter - A least 1 munter - O least 1 munter - Pieses type this CAPTCHA code or click on it for a new code: PB2A

Figure 17: G34/G36 Home Network Wizard-Step 1 screen

- 6. Enter the four-digit CAPTCHA code in the **Type CAPTCHA Here** entry box.
- 7. Click **NEXT STEP** to continue.

The G34/G36 Home Network Wizard – Step 2 screen displays.

Gateway > Home Network Wizard - Step 2

Step 2 of 3	
Ve need to configure your wireless net GHz compatible devices.	work. Note that your network can be accessed by both 2.4 GHz and 5
Wi-Fi Network Name (2.4GHz):	G34-D399
Encryption Method (2.4GHz):	WPA2WPA3-PSK (AES) (Recommended) V
Network Password (2.4GHz):	817540496306
WPA	2/3 requires a 8-03 ASCII character password.
Wi-Fi Network Name (5 GHz):	G34-D399-5G
Encryption Method (5 GHz):	WPA2WPA3-PSK (AES) (Recommended) V
Network Password (5 GHz):	817540496306
Hetwork Password (5 GHZ):	01/240420300

Figure 18: G34/G36 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 G34/G36 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)
 - WPA3 Personal (AES) : Wi-Fi Protected Access version 3 with Pre-Shared Key.
 - WPA 2/WPA3 Mixed Personal (AES) (Recommended): Combination Wi-Fi Protected Access version 2 and Wi-Fi Protected Access version 3 and provides additional network security.
- 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.

ARRIS SURFboard	đ
	Gateway > Home Network Wizard - Step 3
	You may want to select your timezone. A correct timezone ensures that your Parental Control rules will work properly.
	Step 3 of 3
	Choose the timezone from the list or let the network set it automatically Time Zone Selection:
	Time Zone US/Eastern T
	FINISH

Figure 19: G34/G36 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 G34/G36 Web Manager

To open the G34/G36 Web Manager:

- 1. Open a web browser (such as Internet Explorer, Google Chrome, Firefox, or Safari) on the computer or laptop connected to your G34/G36.
- 2. Type the default LAN IP address, **192.168.0.1**, in the Address bar and then press **Enter** to log onto the G34/G36 and open the G34/G36 Web Manager Login screen.

sername: dmin	Please login to view your Wi-Fi password or to view and edit detailed network settings.		
issword:	Device Info		
LOGIN	Software Image Name: AR01.04.024_011421_7241.NCS.20		
	Wi-Fi Status	+ Home Network	
	Primary Home	C Ethernet	
	2.4GHz SSID: G34-D399	🔿 Wi-Fi	
	SGHz SSID: G34-D399-5G	Firewall Security Level: Medium	
	Secondary Home		
	😋 🔒 2.4GHz \$ \$ID: G34-D399-2		
	😋 🔒 5GHz SSID: G34-D399-5G-2		
	Guest		
	C 🔒 2.4GHz SSID: G34Guest-D399		
	G 6 5GHz SSID: G34Guest-D399-5G		

Figure 20: G34/G36 Web Manager Login screen

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

ARRIS SURFboard O Internet O Ethernet O Wi-Fi O Low Securit					
Username: Password:	admin	Gateway > Login			
LOGIN		Please login to view your Wi-Fi passkey or to	iew and edit detailed network settings.		

Figure 21: G34/G36 Web Manager Login screen

5. Click **LOGIN** to open the G34/G36 Web Manager.

The Product Registration window opens.



Figure 22: G34/G36 Product Registration screen

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

Gateway	Gateway > Summary		
Summary Connection	Summary of your network and connected devices.		mote
 Firewall 			
Software	WI-Fi Status		
 Hardware 	Primary Home		
Time	2.4GHz SSID: <u>G34-D399</u>	Password: *******	SHOW
Wizard	SGHz SSID: <u>G34-D399-5G</u>	Password: *******	SHOW
Connected Devices	Secondary Home		
Parental Control	2.4GHz SSID: G34-D399-2	Password: *******	SHOW
Advanced	5GHz SSID: G34-D399-5G-2	Password: *******	SHOW
Troubleshooting	Guest		(199941)
User Account	2.4GHz SSID: G34Gpest-D399	Password:	SHOW
	• 5GHz SSID: <u>G34Guest-D399-5G</u>	Password: *******	SHOW
	Bridge Mode: Enable Disable Home Network Ethernet	Connected Devices Consected Devices	
	O Wi-Fi	VIEW CONNECTED DEVICES	
	Firewall Security Level: Medium		

Figure 23: G34/G36 Summary screen



Note: See *Set up your Wi-Fi network* (page 38)to configure your home network for Wi-Fi.

G34/G36 Web Manager menu links

The G34/G36 main menu links and related submenu option links are displayed along the left side of the G34/G36 Web Manager screen. Click on the main menu link to expand the list of submenu options.



Figure 24: G34/G36 Web Manager menu links

Table 4: G34/G36 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 G34/ G36 network, Local IP network, and your private Wi-Fi network.
Firewall	Configures the G34/G36 firewall settings to protect your home network from possible attacks from hackers or viruses.
Software	Displays information related to the G34/G36 software version.
Hardware	Displays status information for the G34/G36 hardware, such as the battery status, Ethernet connection(s), and Wi-Fi connections.
Time	Allows you to set the time on your G34/G36 based on your selected time zone.
Wizard	Allows you to configure the default network settings on your G34/G36 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 G34/G36.

Exit the G34/G36 Web Manager

To log out and close the G34/G36 Web Manager:

Click Logout link located in the upper right corner of the G34/G36 Web Manager screen.



Figure 25: G34/G36 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 G34/G36 for security purposes or you can configure different network settings. The G34/G36 supports a secure method for setting up multiple Wi-Fi networks on your G34/G36.

Set up your Wi-Fi network

1. Open a web browser and log on to the G34/G36 to open the G34/G36 Web Manager.

See *Start the G34/G36 Web Manager (first-time login)* (page 30) for more information, if necessary.

2. Click the menu links Gateway > Connection > Wi-Fi > Networks . The Gateway Connection Wi-Fi screen appears.

Summary						
- Connection	Mana	ige your Wi-Fi connection	n settings.			more
Status	-					
WAN	Prin	ary Home Wi-Fi Netwo				
Local IP Network		Name	Frequency Band	MAC Address	Security Mode	
▼ Wi-Fi	0	G34-D399	2.4 GHz	40:28:50 FE:3D:52	WPA2WPA3-PSK (AES)	EDIT
Networks	0	G34-D399-5G	5 GHz	40.28 50 FE 3D 53	WPA2WPA3-PSK	EDIT
2.4 GHz Radio					(AES)	
5 GHz Radio	APIs	olation: Enabled				
MAC Filtering						_
WPS	Sec	ondary Home Wi-Fi Net	work			
 Firewall 		Namo	Frequency Band	MAC Address	Security Mode	
Software	0	G34-D399-2	2.4 GHz	42.28.50 FE:3D:53	WPA2-PSK (AES)	EDIT
 Hardware 	0	G34-D399-5G-2	5 GHz	42 28 50 FE 3F 54	WPA2-PSK (AES)	EDIT
Time	11.5755	-				
Wizard	AP Is	olation: C Enabled				
Connected Devices	0.00	st Wi-Fi Network				
Parental Control	oue	Name	Frequency Band	MAC Address	Security Mode	
Advanced	0	G34Guest-D399	2.4 GHz	42:28:50:FE:3D:55	WPA2-PSK (AES)	EDIT
Troubleshooting	0	G34Guest-D399-5G	5 GHz	42.28 50 FE 3F 56	WPA2-PSK (AES)	EDIT
User Account	0	054000000000	5.012	HE.L.D. 39 1 6.01 (89	miner on (neo)	2011
	APIs	olation: 🖬 Enabled				
	Net	vork Options				
	Netw	ork Priorities: ® Disable	Enable			_
	Band	Steering: Disable	Enable			

Figure 26: G34/G36 Wi-Fi connection screen

3. To set up the Network Security mode for your Wi-Fi home network, click the Home Wi-Fi Network **2.4 GHz EDIT** button.

- Gateway	Gateway > Connectio	n > Wi-Fi > Edit Home 2.4	GHZ
Summary			mo
▼ Connection	Manage your Home 2.4 GHz network settings.		
Status			
WAN	Home 2.4 GHz		
Local IP Network	Wireless Network:	Enable Disable	
₩i-Fi			
Networks	Network Name (SSID):	G34-D399	
2.4 GHz Radio	Security Mode:	WPA2WPA3-PSK (AES) (Recommended) >	
5 GHz Radio	Piez	se note 802.11 n/ax mode is only compatible with AES and Open enor	yption!
MAC Filtering	Network Password:	SHOW	
WPS	WPA	v2/3 requires a 8-63 ASCII character password.	
 Firewall 			
Software	Broadcast Network Name (SSID):	Enabled	
Hardware	Enable WMM:	Enabled	
Time			
Wizard	Save Settings		
Connected Devices	Ple	ase type this CAPTCHA code or	
Parental Control	New York	click on it for a new code:	
Advanced	L	16Y3	
Troubleshooting		Type CAPTCHA Here	
User Account		SAVE CANCEL	

Figure 27: Wi-Fi network setup screen

4. 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.
- 5. Select one of the following Wi-Fi network security options for your G34/G36 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 G34/G36. 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).
- WPA3 Personal (AES): Wi-Fi Protected Access version 3 with Pre-Shared Key.
- WPA 2/WPA3 Mixed Personal (AES) (Recommended): Combination Wi-Fi Protected Access version 2 and Wi-Fi Protected Access version 3 and provides additional network security.

6. 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.

- 7. Select the **Show Network Password** checkbox to view and confirm your network password.
- 8. 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.

9. Select the Enable WMM checkbox 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.

- 10. Enter the four-digit CAPTCHA code located in the Type CAPTCHA Here entry box.
- 11. Click **SAVE** to save the settings.
- 12. To set up the Network Security mode for your Wi-Fi home network, click the Home Wi-Fi Network **5 GHz EDIT** button.
- 13. Perform steps 4 through 11.
- 14. To enable separate virtual networks for your Wi-Fi clients, in the G34/G36 Wi-Fi connection screen, select the **AP Isolation** checkbox.

Summary						
- Connection	Mana	ige your Wi-Fi connection	n settings.			more
Status	-					
WAN	Prin	hary Home Wi-Fi Netwo	rik			
Local IP Network		Name	Frequency Band	MAC Address	Security Mode	
▼ Wi-Fi	•	G34-D399	2.4 GHz	40:28:50 FE:3D:52	WPA2WPA3-PSK (AES)	EDIT
Networks	0	G34-D399-5G	5 GHz	40:28:50 FE:3D:53	WPA2WPA3-PSK	EDIT
2.4 GHz Radio		034-0333-30	0.012	40.20.001 2.00.00	(AES)	
5 GHz Radio	APIs	iolation: CEnabled				
MAC Filtering						
WPS	Sec	ondary Home Wi-Fi Net	work			
+ Firewall		Name	Frequency Band	MAC Address	Security Mode	
Software	0	G34-D399-2	2.4 GHz	42.28.50 FE:3D:53	WPA2-PSK (AES)	EDIT
+ Hardware	0	G34-D399-5G-2	5 GHz	42.28:50:FE:3F:54	WPA2-PSK (AES)	EDIT
Time						
Wizard	AP Is	olation: CEnabled				
Connected Devices	1000					
Parental Control	Gue	st Wi-Fi Network				
Advanced		Name	Frequency Band	MAC Address	Security Mode	
Troubleshooting	0	G34Guest-D399	2.4 GHz	42:28:50:FE:3D:55	WPA2-PSK (AES)	EDIT
User Account	0	G34Guest-D399-5G	5 GHz	42.28.50 FE 3F 56	WPA2-PSK (AES)	EDIT
- osti riccount	APIs	olation: 🖾 Enabled				
	Net	work Options				
	Netw	ork Priorities: ® Disable	Enable			
	Band	I Steering: Disable	Enable			

Figure 28: G34/G36 Wi-Fi connection screen (1 of 2)

- **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.
- 15. To turn ON the 2.4 GHz Wi-Fi frequency range for your Wi-Fi home network, click the **2.4 GHz Radio** submenu and then click **Enable** button .
- 16. Select the wireless networking standard mode for your Wi-Fi home network from the **Mode** drop-down list.
- 17. Select the Tx (Transmit) Power level of the Wi-Fi radio from the **Tx Power** drop-down list.
- 18. Select a channel number (Auto, 1 through 11) from the **Channel** drop-down list to set the communications channel for your Wi-Fi cable modem.
 - Note: For 2.4 GHz Wi-Fi networks, it is recommended to use Channel 1, 6,or 11, if it is not listed as the Current Channel. In the Wi-Fi spectrum, there are multiple channels that overlap and thus degrade Wi-Fi network performance. Channels 1, 6, and 11 are used for better network performance and stability because they do not overlap.
- 19. Set the channel bandwidth for your Wi-Fi cable modem from the **Channel Bandwidth** box.
- 20. To enable the dynanmic channel selection option, click Enable .
- 21. To set the DCS scan interval, you can choose from the DCS Scan Interval drop-down list.

- 22. Click SAVE SETTINGS to save the changes.
- 23. To turn ON the 5 GHz Wi-Fi frequency range for your Wi-Fi home network, click the **5 GHz Radio** submenu and then click **Enable** button .

Figure 29: Wi-Fi connection 5GHz Radio screen

Gateway > Connection > Wi-Fi > 5 GHz Radio

Manage your Wi-Fi connection settings.		more
5 GHz Wi-Fi Radio Configuration		
Wireless Radio:	Enable Disable	
Mode:	802.11 a/n/ac/ax 🗸	
Tx Power:	100% 🗸	
DFS:	Disable Enable	
Channel Selection:	O Manual Automatic	
Channel:	157 💌	
Channel Bandwidth:	○ 20 ○ 20/40	
Dynamic Channel Selection:	○ Disable	
DCS Scan Interval:	8 Hours 🗸	
MU-MIMO:	○ Disable	
	SAVE SETTINGS	

24. Perform steps 16 through 22.

Change your Wi-Fi network name (SSID)

The SSID (Service Set Identification) is the Wi-Fi network name assigned to your G34/G36 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.

To change your Wi-Fi network name (SSID):

1. Open a web browser and log on to the G34/G36 to open the G34/G36 Web Manager. See *Start the G34/G36 Web Manager* (page 33) for more information, if necessary.

- 2. From any G34/G36 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.

Summary						
- Connection	Mana	ige your Wi-Fi connection	n settings.			more
Status	-					
WAN	Prin	hary Home Wi-Fi Netwo	rik			
Local IP Network		Name	Frequency Band	MAC Address	Security Mode	
▼ WI-FI	0	G34-D399	2.4 GHz	40:28:50 FE:3D:52	WPA2WPA3-PSK (AES)	EDIT
Networks		G34-D399-5G	5 GHz	40.28.50 FE 3D 53	WPA2WPA3-PSK	EDIT
2.4 GHz Radio	~				(AES)	
5 GHz Radio	APIs	olation: Enabled				
MAC Filtering	-					-
WPS	Sec	ondary Home Wi-Fi Net	work			
 Firewall 		Namo	Frequency Band	MAC Address	Security Mode	
Software	0	G34-D399-2	2.4 GHz	42.28.50 FE 3D 53	WPA2-PSK (AES)	EDIT
 Hardware 	0	G34-D399-5G-2	5 GHz	42.28.50 FE 3F 54	WPA2-PSK (AES)	EDIT
Time						
Wizard	AP Is	iolation: CEnabled				
Connected Devices	0.00	st Wi-Fi Network				
Parental Control	Gue	Name	Frequency Band	MAC Address	Security Mode	
Advanced	0	G34Guest-D399	2.4 GHz	42:28:50:FE:3D:55	WPA2-PSK (AES)	EDIT
Troubleshooting	0	G34Guest-D399-5G	5 GHz	42 28 50 FE 3F 56	WPA2-PSK (AES)	EDIT
User Account	U	G34G0651-D333-3G	5.012	42.20.001 6.01.00	TIPACTOR (ACO)	CON
	APIs	olation: 🖬 Enabled				
	Net	work Options				
	Netw	ork Priorities: ® Disable	Enable			
	Band	l Steering: Disable	Enable			

Figure 30: G34/G36 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.

+ Gateway	Gateway > Connection	on > Wi-Fi > Edit	t Home 2.4 GHz	2
Summary				
▼ Connection	Manage your Home 2.4 GHz network settings.			more
Status				_
WAN	Home 2.4 GHz			
Local IP Network	Wireless Network:	Enable Disable		
→ Wi-Fi	Maturade Manua (C CID)	G34-D399		
Networks	Network Name (SSID):			
2.4 GHz Radio	Security Mode:	WPA2WPA3-PSK (AES) (R		
5 GHz Radio	Pa	ase note 802.11 n/ax mode is only compa	atible with AES and Open encryption!	
MAC Filtering	Network Password:		SHOW	
WP5	w	A/2/3 requires a 8-63 ASCII character pa	ssword.	
→ Firewall				
Software	Broadcast Network Name (SSID):	Enabled		
Hardware	Enable WMM:	2 Enabled		
Time	Downerserver			
Wizard	Save Settings			
Connected Devices	P	lease type this CAPTCHA code click on it for a new code:	or	
Parental Control	2.00		14	
Advanced	l.	461		
Troubleshooting		Type CAPTCHA Here		
User Account		SAVE CANCEL		

Figure 31: Sample G34/G36 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 G34/G36 to connect WPS-enabled devices on your Wi-Fi home network.

- 1. Open a web browser and log on to the G34/G36 to open the G34/G36 Web Manager. See *Start the G34/G36 Web Manager* (page 33) for more information, if necessary.
- 2. Click the **Gateway** menu link and then click the **Connection** submenu options link.
- 3. Click **Wi-Fi** > **WPS** to open the Gateway Connection Wi-Fi screen.

dd Wi-Fi Client (WPS)		
WI-FI Protected Setup (WPS):	Enable Disable	
AP PIN:	16618442	
WPS PIN Method:	Enable Disable	
Push Button (recommended Click PAIR button below to connect y		
O PIN Method		
If your Wireless client supports WPS	(PIN Type), enter the PIN number here.	
Enter Wireless Client's PIN:		
1	Press PAIR button to begin pairing	
	PAIR	

Figure 32: G34/G36 WPS device connection screen

- 4. 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.
- 5. 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.
- 6. To proceed with the PIN method, click the **PIN Method** option and then Enter the WPS Pin number listed in the **AP PIN** field when you are prompted on your WPS device screen.
- 7. Click **PAIR** to connect your WPS-enabled device.
- 8. Repeat steps 6 through 8 for each additional WPS-enabled device that you want to connect to your Wi-Fi home network.
- 9. To proceed with the Push button option, click the **Push Button (recommended)** option to connect your wireless client to your network.
- 10. Click **PAIR** to connect your WPS-enabled device.

Protecting & monitoring your Wi-Fi network

After you have successfully connected the G34/G36 and your Wi-Fi devices, you should configure the G34/G36 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 G34/G36 is already configured, you can use the G34/G36 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 G34/G36 Web Manager, you will be prompted to change the default login 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 G34/G36 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 G34/G36.
- 2. Type the default LAN IP address, **192.168.0.1**, in the Address bar and then press Enter to log on to your G34/G36.

The G34/G36 Login screen displays.

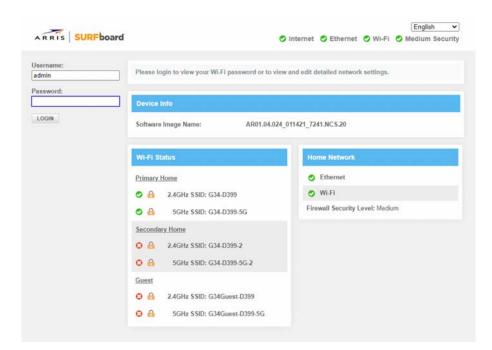


Figure 33: G34/G36 Login screen

- 3. Type admin for the default username (case-sensitive) in the Username field.
- 4. Type your password (case-sensitive) in the Password field.
- 5. Click LOGIN to open the G34/G36 Web Manager.
- 6. Click the **User Account** main menu link to change the password.

Gateway	User Account > Account Ma	nagement
Connected Devices		
Parental Control	You should change your password periodically to bett	er protect your network.
Advanced	Account Management	
Troubleshooting	Account management	
- User Account	Current Password:	SHOW
Account Management	New Password:	SHOW
	Re-enter New Password:	SHOW
	- At least one symbol - At least one symbol Please type this click on it fo	
	SAVE SE	TTINGS

Figure 34: G34/G36 Change Password screen

- 7. Enter the current admin password in the Current Password field.
- 8. Enter your new admin password in the New Password field.



Note: Remember passwords are case-sensitive and that you can use any combination of the following letters, numbers and special characters:

- Letters: A through Z (uppercase and lowercase)
- 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 G34/G36:

- 1. From any G34/G36 Web Manager screen, click the **Gateway** menu link on the G34/G36 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 G34/G36 firewall.
- 4. When done, click **SAVE SETTINGS**.

IPv4 security

Firewall Security Level			
• Maximum Security (High)	¥8		
• <u>Typical Security (Medium</u>)		
O Minimum Security (Low)			
© Custom Security			
	SAVE SETTINGS	RESTORE DEFAULT SETTINGS	

Figure 35: Firewall IPv4 available security levels screen

High: Safest configuration, maximum security level

Firewall Security Level			
Maximum Security (High LAN-to-WAN: Allow as per below HTTP and HTTPS (TCP port DNS (TCP/UDP port 53) NTP (TCP port 119, 123) email (TCP port 25, 110, 143 iTunes (TCP port 3689)	80, 443)		
WAN-to-LAN: Block all unrelated	traffic and enable IDS	È.	
<u>Typical Security (Mediur</u>)	<u>n)</u>		
Minimum Security (Low)			
Custom Security			
	SAVE SETTINGS	RESTORE DEFAULT SETTINGS	

Figure 36: Firewall IPv4 high security level screen

• Medium: Safer configuration, medium security level

Firewall Security Level
• <u>Maximum Security (High)</u>
Typical Security (Medium) LAN-to-WAN: Allow all. WAN-to-LAN: Block as per below and enable IDS IDENT (port 113) ICMP request Peer-to-peer apps: kazaa - (TCP/UDP port 1214) bittorrent - (TCP port 6881-6999) gnutella- (TCP/UDP port 6346)
O <u>Minimum Security (Low)</u>
© <u>Custom Security</u>
SAVE SETTINGS RESTORE DEFAULT SETTINGS

Figure 37: Firewall IPv4 medium security level screen

• Low: Common security, low security level, higher risk

Firev	all Security Level			
• <u>N</u>	laximum Security (I	<u>ligh)</u>		
• 1	<u>ypical Security (Me</u>	<u>dium)</u>		
L	linimum Security (L AN-to-WAN: Allow all. /AN-to-LAN: Block as per l IDENT (port 113)			
• <u>c</u>	ustom Security			
		SAVE SETTINGS	RESTORE DEFAULT SETTINGS	

Figure 38: Firewall IPv4 low security level screen

IPv6 security

Firewall Security Level			
• <u>Typical Security (Defaul</u>	<u>t)</u>		
Custom Security			
	SAVE SETTINGS	RESTORE DEFAULT SETTINGS	

Figure 39: 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 G34/G36 Web Manager screen, click the **Parental Control** menu link on the G34/G36 Web Manager screen.
- 2. Click **Managed Sites** from the Parental Control submenu options list to display the Parental Control Managed Sites screen.

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

> Gateway	Parental C	ontrol > Mana	ged Sites	
Connected Devices				more
- Parental Control	Manage access to	specific websites by networ	k devices.	IIIVI.9
Managed Sites				
Managed Services	Managed Sites:	Enable Disable]	
Managed Devices				_
Reports	Blocked Sites			+ADD
Advanced	URL		When	
Troubleshooting	Blocked Keywor	ds		+ADD
▶ User Account	Keyword		When	
	Auto-Learned De	vices		
		Device Name	MAC Address	Trusted
	1	AE-Lab-Retail-2	90:e2:ba.6d:79:4f	No Yes

Figure 40: Parental Control Managed Sites screen

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

URL:	http://
Always Block?	No Yes
Set Blocked Time	
Start from:	12 · 00 · AM ·
End on:	11 V 59 V PM V
et Blocked Days	Select All Select None
	 Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Figure 41: 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.
- 12. To manage network devices' access to specific services and applications, click **Manage Services** from the submenu and then click **Enable**.
- 13. Click +ADD button in the Blocked Services section to add a service to be blocked.

+ Gateway	Parental Control > Managed Services > Add Blocked
Connected Devices	Service
- Parental Control	
Managed Sites	Add Service to be Blocked
Managed Services	User Defined Service:
Managed Devices	Protocol: TCP V
Reports	
Advanced	Start Port:
 Troubleshooting 	End Port:
• User Account	Always Block? No Yes
	Set Blocked Time
	Start from: $00 \Rightarrow 00 \Rightarrow$
	End on: 23 w 59 w
	Set Blocked Days Select All Select None
	Monday Tuesday Wednesday Thursday Friday Saturday Saturday Saturday Saturday

Figure 42: Managed Services screen - Add Blocked Service screen

- 14. Type the service that you want to block in the User Defined Service field.
- 15. Select **UDP**, **TCP**, or **TCP/UDP** for the port filter type from the **Protocol** drop-down list.
- 16. Enter the range of port numbers for the port filter range in the **Start Port** and **End Port** fields.
- 17. To fully block a service, click Yes, in the Always Block? field.
- 18. To block a service for specific days and times, click **No**, in the **Always Block?** field and then specify the time and days in the **Set Block Time** and **Set Block Days** fields.
- 19. Click **SAVE** to save the changes.
- 20. To manage access to specific devices on your network, click **Manage Devices** from the submenu.

Gateway	Parental Control > Managed Dev	ices
Connected Devices		mor
Parental Control	Manage access by specific devices on your network.	ma
Managed Sites		
Managed Services	Managed Devices	
Managed Devices	Managed Devices: Enable Di	sable
Reports	Access Type: Allow All Bio	ck All
Advanced	Access (per	CA CHI
Troubleshooting	Blocked Devices	+ADD BLOCKED DEVICE
User Account	Device Name MAC Address	When Blocked

Figure 43: Manage Devices screen

- 21. To manage devices, click Enable.
- 22. If you do not want to restrict your devices, click **Allow All** and then click **+ADD BLOCKED DEVICE** to add only the device you want to restrict.
- 23. If you want to restrict your devices, click **Block All** and then click **+ADD ALLOWED DEVICE** to add only the device you do not want to restrict.

Add Device to be Blocked		
Set Blocked Device		
Auto-Learned Devie	ces:	
	Device Name	MAC Address
	AE-Lab-Retail-2	90:e2:ba:6d:79:4f
Custom Dev	ice:	
	Device Name	MAC Address
Always Block?	No Yes	
Set Blocked Time		
Start from	00 ~ 00 ~	
End on	23 🗸 59 🗸	
Set Blocked Days	Select All Select None	
	Monday	
	Tuesday	
	Wednesday	
	Thursday	
	Friday Saturday	
	Sunday Sunday	
	SAVE CANCEL	

Figure 44: Add Blocked device screen

- 24. To manually block a device, type the **Device name** and the **MAC address** fields.
- 25. To fully block a device, click **Yes**, in the **Always Block?** field.

- 26. To block a device for specific days and times, click **No**, in the **Always Block?** field and then specify the time and days in the **Set Block Time** and **Set Block Days** fields.
- 27. Click **SAVE** to save the changes.
- 28. To generate, download and print reports based on your parental controls, click **Reports** from the sub menu.

Gateway	Parental Control > Reports
Connected Devices	
- Parental Control	Generate, download, and print reports based on your parental controls.
Managed Sites	December 201
Managed Services	Report Filters
Managed Devices	Report Type: All V Time Frame: Today V GENERATE REPORTS
Reports	
Advanced	
Troubleshooting	
User Account	

Figure 45: Generate report screen

- 29. Select the report type from the **Report Types** drop-down list and the time frame from the **Time Frame** drop-down list.
- 30. Click GENERATE REPORTS.

Set up Port Forwarding

Your G34/G36 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 G34/G36 Web Manager screen, click the **Advanced** menu link on the G34/G36 Web Manager screen.
- 2. Click **Port Forwarding** from the Advanced submenu options list to display the Port Forwarding Configuration screen.

Gateway	Advanced > Port Forwarding
Connected Devices Parental Control	Manage external access to specific ports on your network.
+ Advanced	Port forwarding permits communications from external hosts by forwarding them to a particular port.
Port Forwarding Port Triggering	Select Enable to manage external access to specific ports on your network. Select ADD SERVICE to add new port forwarding rules.
DMZ	Port forwarding settings can affect the Gateway's performance.
ALG	
Routing	Port Forwarding: Enable Disable
Dynamic DNS	
Device Discovery	Port Forwarding +ADD SERVI
MAC Bridging	
Services	
Troubleshooting	
User Account	

Figure 46: G34/G36 Advanced Port Forwarding screen

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

Add Port Forward	
Common Service:	Other •
Service Name:	
Service Type:	TCP/UDP •
Server IPv4 Address:	
Server IPv6 Address:	
Start Port:	
End Port:	
Select a device to add IPv4 and IPv6 CONNECTED DEVICE	address
	SAVE CANCEL

Figure 47: 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.
- 10. Click **CONNECTED DEVICE** button to display the list of connected devices on your Wi-Fi home network.

Device Name	IPv4 Address	IPv6 Address	Add
SpeedTest	192.168.0.222		

Figure 48: G34/G36 Connected Devices screen

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

Set up Port Triggers

You can use Port Triggers to set up your G34/G36 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 G34/G36 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:

- 1. From any G34/G36 Web Manager screen, click the **Advanced** menu link on the G34/G36 Web Manager screen.
- 2. Click **Port Triggering** from the Advanced submenu options list to display the Port Triggering Configuration screen.

Gateway	Advanced	> Port Ir	iggering			
Connected Devices						more
Parental Control	Manage external	access to specific p	orts on your network.			Liber S
Advanced	and services and	_				
Port Forwarding	Port Triggering	g: Enable	Disable			
Port Triggering						
DMZ	Port Triggering					T TRIGGER
ALG	Service Name	Service Type	Trigger Port(s)	Target port(s)	Active	
Routing						
Dynamic DNS						
Device Discovery						
MAC Bridging						
Services						
Troubleshooting						

Figure 49: Advanced Port Triggering screen

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

Advanced > Port Triggering > Add Port Trigger			
Add a rule for port triggering services	s by user. more		
Add Port Trigger			
Service Name:			
Service Type:	TCP v		
Trigger Port From:			
Trigger Port To:			
Target Port From:			
Target Port To:			
	ADD CANCEL		

Figure 50: 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.

Gateway	Advanced > Port Triggering > Add Port T	rigger
Connected Devices Parental Control	Add a rule for port triggering services by user.	
+ Advanced	Add Port Trigger	
Port Forwarding	Add Fort higger	
Port Triggering	Service Name:	
DMZ	Service Type: TCP •	
Dynamic DNS		
Device Discovery	Trigger Port From:	
Troubleshooting	Trigger Port To:	
	Target Port From:	
	Target Port To:	
	ADD CANCEL	

Figure 51: Advanced Add Port Trigger screen

Set up the DMZ host



Warning: The gaming DMZ host is not protected by the G34/G36 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 G34/G36 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 G34/G36 Web Manager screen, click the Advanced menu link.
- 2. Click **DMZ** to display the Advanced DMZ screen.

Gateway	Advanced > DMZ	
Connected Devices		
Parental Control	Configure DMZ to allow a single device Internet. Your firewall settings will not b	on your LAN to open and expose all of its ports to the be applied to this device.
- Advanced		
Port Forwarding	DMZ	
Port Triggering	DMZ:	Enable Disable
DMZ	Dinc.	Chobe: Unsaure
ALG	DMZ v4 Host:	192.168.0
Routing	DMZ v6 Host:	
Dynamic DNS		SAVE
Device Discovery		
MAC Bridging		
Services		
Troubleshooting		
· User Account		

Figure 51: 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.

Set up the ALG

Application Layer Gateway (ALG) allows your router to recognize and treats certain network protocols .



Note: Please change these settings if recommended by your service provider.

To set up the ALG:

- 1. From any G34/G36 Web Manager screen, click the Advanced menu link.
- 2. Click ALG to display the ALG screen.

Gateway	Advanced > A	LG		
Connected Devices	E			
Parental Control		ay settings allow the router to change these settings if reco		
- Advanced				
Port Forwarding	Application Layer Gate	eway		
Port Triggering	Check All	SIP	🖬 FTP	🖾 TFTP
DMZ	PPTP	M H323	IRC IRC	RTSP
ALG		SAVE SETTINGS	TTINGS	
Routing				
Dynamic DNS				
Device Discovery				
MAC Bridging				
Services				
Troubleshooting				
User Account				

Figure 53: Advanced ALG screen

3. Click the required check boxes and then click **SAVE SETTINGS**.

Restore the G34/G36 default configuration settings



Warning: This action will delete your current G34/G36 configuration settings and allow you to restore the default (original) G34/G36 configuration.



Note: After the configuration settings are restored, the G34/G36 will automatically reboot and you will have to log in using the default username (**admin**) and your current admin password.

To open the Restart/Restore Gateway screen:

- 1. From any G34/G36 Web Manager screen, click the **Troubleshooting** menu link.
- 2. Click **Restart/Restore** from the Troubleshooting submenu links to display the Troubleshooting **Restart/Restore Gateway** screen.

Troubleshooting >	Reset / Restore Gateway	
Reset or restore the Gateway.		more
Reset / Restore Gateway		
RESET	Press "Reset" button to restart the gateway.	
RESET WI-FI MODULE	Press "Reset Wi-Fi Module" to restart just the Wi-Fi Module only.	
RESET WI-FI ROUTER	Press "Reset Wi-Fi Router" to restart Wi-Fi and Router modules.	
RESTORE WI-FI SETTINGS	Press "Restore Wi-Fi Settings" to activate your Gateway Default Settings for Wi-Fi only. Only your Wi-Fi settings will be lost.	
RESTORE FACTORY SETTINGS	Press "Restore Factory Settings" to activate your Gateway Default Settings. All your previous settings will be lost.	

Figure 54: G34/G36 restore settings screen

3. Click **RESTORE Wi-Fi SETTINGS** to reset your G34/G36 Wi-Fi settings.

Are you sure	
Are you sure you want to Restore manufa	-Fi Only?
WARNING: Wi-Fi will be unavailable for a	CANCEL

Figure 55: G34/G36 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.

Exchange the routing information

The RIP protocol is used to exchange the routing information between the gateway and the headend.

To enable routing information:

- 1. From any G34/G36 Web Manager screen, click the **Advanced** menu link.
- 2. Click **Routing** to display the Routing screen.

Gateway	Advanced > Routing
Connected Devices	The RIP protocol is used to exchange the routing information between the gateway and headend.
Parental Control	If Routed Subnet is enabled, the Routed Subnet Address will be advertised with the next hop as
- Advanced	In Routed subnet is enabled, the Routed Subnet Address will be advertised with the next hop as the CM IP address.
Port Forwarding	
Port Triggering	RIP (Routing Information Protocol)
DMZ	RIP: Enable Disable
ALG	NF. Enable Lisable
Routing	Interface Name: Ethernet
Dynamic DNS	RIP Send Version: RIP2 V
Device Discovery	RIP Receive Version: Do Not Receive 🗸
MAC Bridging	Update Interval: 5 sec
Services	Default Metric: 1 V
Troubleshooting	Authentication Type: No Authentication 🗸
User Account	Authentication Key & ID: ID:
	Neighbor: 0.0.0.0
	Routed Subnet Configuration
	Routed Subnet: Enable Disable
	Routed Subnet Address:
	Routed Subnet Netmask:
	SAVE

Figure 56: Routing Information screen

- 3. Click **Enable** button to set up the routing information.
- 4. Specify the details for the RIP (Routing Information Protocol) and Routed Subnet Configuration.
- 5. Click **SAVE** to save the changes.

Set up Dynamic DNS client

You can configure your Gateway's router functionality as a Dynamic DNS client. To create as DNS client:

- 1. From any G34/G36 Web Manager screen, click the **Advanced** menu link.
- 2. Click Dynamic DNS to display the Dynamic DNS client screen.

Gateway	Advanced >	Dynamic D	NS			
Connected Devices Parental Control	Configure the Gateway	y's router functionalit	y as a Dynamic DNS	š client.		more
- Advanced			-			
Port Forwarding	Dynamic DNS:	Enable Disable				
Port Triggering					-	
DMZ	Dynamic DNS				and the second second	ADD DDN S
ALG	Service Provider	Username	Password	Host Name	Token	
Routing						
Dynamic DNS						
Device Discovery						
MAC Bridging						
Services						
Troubleshooting						
• User Account						

Figure 57: Dynamic DNS client screen

- 3. Click the Enable button to configure your Gateway's router functionality as DNS client.
- 4. Click +ADD DDNS to configure new DDNS.
- 5. Click **SAVE** to save the changes.



Note: To disable configuring the DNS client, click the **Disable** button and then click **SAVE**.

Manage UPnP network

The UPnP enabled gateway discovers all UPnP devices such as printers and computers. Using UPnP, the ports are automatically open for appropriate services and applications.

- 1. From any G34/G36 Web Manager screen, click the Advanced menu link.
- 2. Click Device Discovery to manage UPnP screen.

Figure 58: Advanced Device Discovery screen

▶ Gateway	Advanced > Device Discov	very
Connected Devices	Manage UPnP network.	more
 Parental Control 	manage of it' network.	
- Advanced	Device Discovery	
Port Forwarding	Dence Discovery	
Port Triggering	UPNP: End	ble Disable
DMZ	Advertisement Period: 30	minutes
ALG	Time To Live: 5	hops
Routing	Zero Config: Ena	
Dynamic DNS	Zero Config: Ena	Disable
Device Discovery		SAVE
MAC Bridging		
Services		
Troubleshooting		
User Account		

- 3. Click the **Enable** button for the managing UPnP.
- 4. Enter the time in the **Advertisement Period** field to allow your gateway to advertise the UPnP information.
- 5. Enter the number of steps each UPnP advertisement is allowed to propogate before disappearing in the **Time To Live** field.
- 6. Click the **Enable** button to allow devices such as printers and computers to connect to a network automatically.
- 7. Click SAVE.

Set up MAC bridging

Using MAC bridging mechanism, you can allow devices on your LAN network to directly connect to the WAN network. The bridged device will get the IP address from your Internet provider and does not have access to your local network.

To set up the MAC bridging:

- 1. From any G34/G36 Web Manager screen, click the Advanced menu link.
- 2. Click MAC Bridging to display the MAC Bridging screen.

› Gateway	Advan	ced > MAC Bridg	ing	
Connected Devices Parental Control	connection	to the WAN. A bridged device wi	wing devices on your LAN network to hav I get an IP address directly from your inte	
- Advanced	provider an	nd not have access to your local r	ietwork.	
Port Forwarding Port Triggering		ged Addresses		
DMZ		Address(es)		
ALG	There are n	o devices to display.		
Routing	Auto-Leas	med Devices		
Dynamic DNS		Device Name	MAC Address	
Device Discovery	1	AE-Lab-Retail-2	90:E2:BA:6D:79:4F	ADD
MAC Bridging				
Services	Custom D	levice		
Troubleshooting				ADD
User Account				
	Custom R	lange		
	MAC Range	e Prefix:		ADD
	Bridged Ra	inge: 00:00:00:00:00:00 - FF:FF:I	FF:FF:FF:FF	

Figure 59: MAC Bridging screen

3. Enter the MAC addresses of the device or the MAC range that you want to allow to connect to the WAN.

Managing your Wi-Fi cable modem and connected networks

You can also use the G34/G36 Web Manager to view and monitor the network configuration settings and operational status of your G34/G36.

View the G34/G36 system hardware information

The Gateway Hardware screen displays system hardware information for your G34/G36. This information may be helpful if you contact ARRIS, Comcast, or Cox for technical assistance.

To open the G34/G36 Hardware screen:

1. From any G34/G36 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.

/iew information about the Gateway's	i hardware.	more
System Hardware		
Model:	G34	
Vendor:	ARRIS Group, Inc.	
Hardware Revision:	4	
Serial Number:	ACN536242400094	
Processor Speed:	2559.92 MHz	
DRAM Total Memory:	677 MB	
DRAM Used Memory:	410 MB	
DRAM Available Memory:	267 MB	
Flash Total Memory:	462 MB	
Flash Used Memory:	425 MB	
Flash Available Memory:	36 MB	

Figure 60: G34/G36 System Hardware screen

View the G34/G36 software version

The Gateway Software Version screen displays device software related information for your G34/G36. This information may be helpful if you have to contact ARRIS or Comcast for technical support.

To open the G34/G36 Software screen:

- 1. From any G34/G36 Web Manager screen, click the **Gateway** menu link.
- 2. Click **Software** from the Gateway submenu links to display the Gateway Software screen.

Gateway > Software	2	
View details about the Gateway's sof You may need this information if you co	tware.	<u>less</u>
System Software Version		-
Software Version:	AR01.01.086.09_011718_70.NCS.10	_
DOCSIS Version:	unknown	
Software Image Name:	AR01.01.086.09_011718_70.NCS.10	
RDK-B-LLC:	2.1-20161219	
Intel-SDK:	7.0	
Yocto:	1.6.2.0 (daisy)	
IoT:	N/A	
Wi-Fi Driver Ver:	4.6.89.2.0.0	
Product Registration		
Registration status:	Registered. <u>Click here</u> to visit the registration page again	

Figure 61: G34/G36 hardware information screen

Set up an Ethernet port connection for your data input

If you have installed your G34/G36 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 G34/G36 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.

- Gateway	Gateway > Connect	ion > WAN	
Summary			
* Connection	View technical information related to	your Wide Area Network (WAN) connection.	more
Status			
WAN	WAN		EDIT
Local IP Network	Internet:	Active	
Wi-Fi	Local time:	10/12/2020 10:33:48 PM	
 Firewall 	System Uptime:	33d 13h 25m 27s	
Software			
+ Hardware	WAN IP Address (IPv4):	206.19.87.171	
Time	WAN Default Gateway Address (IPv4):	206.19.87.161	
Wizard	WAN IP Address (IPv6):		
Connected Devices			
Parental Control	WAN Default Gateway Address (IPv6):	fe80::201:5cff:fe87:a246	
+ Advanced	Delegated prefix (IPv6):		
 Troubleshooting 	Primary DNS Server (IPv4):	8.8.8.8	
User Account	Secondary DNS Server (IPv4):	8.8.4.4	
	Primary DNS Server (IPv6):		
	Secondary DNS Server (IPv6):		

Figure 62: G34/G36 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 G34/G36 Ethernet port 4.

From any G34/G36 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 63: G34/G36 Gateway Hardware Ethernet screen

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

AN Ethernet Port	1	LAN Ethernet Port	2
LAN Ethernet link status:	Active	LAN Ethernet link status:	Inactive
MAC Address:	f4:0e:83:ab:e4:e8	MAC Address:	f4:0e:83:ab:e4:e8
Connection Speed:	1000 Mbps	Connection Speed:	No Connection
Energy Efficient	Enable Disable	Energy Efficient	Enable Disable
Ethernet:		Ethernet:	
		Ethernet:	4
Ethernet:	3		
Ethernet: AN Ethernet Port LAN Ethernet link status:	3	LAN Ethernet Port	
Ethernet: AN Ethernet Port LAN Ethernet link status:	3 Inactive f4:0e:83:ab:e4:e8	LAN Ethernet Port	Inactive f4:0e:83:ab:e4:e8

Figure 64: G34/G36LAN Ethernet Port screen

Reboot the G34/G36

Choose one of the following options to reboot (or restart) your G34/G36:

- Reboot the G34/G36 using the Reset button (page 68)
 OR
- Reboot the G34/G36 using the Web Manager (page 69)

Reboot the G34/G36 using the Reset button

To reboot (or restart) your G34/G36 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 G34/G36.



Figure 65: G34/G36 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 G34/G36 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 G34/G36 using the Web Manager

To reboot (or restart) your G34/G36 using the G34/G36 Web Manager:

- 1. From any G34/G36 Web Manager screen, click the **Troubleshooting** menu link.
- 2. Click Restart/Restore Gateway from the Troubleshooting submenu links.

Gateway	Troubleshooting > Restart/Restore		
Connected Devices	Participant of Change		ore
Parental Control	Restart or restore the Gateway.		
Advanced	Restart/Restore		
- Troubleshooting	Resiardiresiore		
Logs	System Uptime:	0d 4h 19m 18s	
Diagnostic Tools	RESTART GATEWAY	Restarts the entire Gateway.	
Wi-Fi Spectrum Analyzer	RESTART WI-FI MODULE	Restarts only the Wi-Fi module.	
DOCSIS Spectrum Analyzer	RESTART WI-FI & ROUTER	Restarts both the Wi-Fi and Router modules.	
Restart/Restore	RESTORE WI-FI DEFAULTS	Restores Wi-Fi settings back to the factory defaults. Any changes you made will be lost.	
User Account		Any changes you made will be lost.	
	RESTORE GATEWAY DEFAULTS	Restores all Gateway settings back to the factory defaults. Any changes you made will be lost.	

Figure 65: G34/G36 Restart/Restore settings screen

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

The following message will display:



Figure 66: Restart the Gateway message box

4. Click **OK** to reboot the G34/G36 and then log back in.

Restore the G34/G36 default configuration settings



Warning: This action will delete your current G34/G36 configuration settings and allow you to restore the default (original) G34/G36 configuration.



Note: After the configuration settings are restored, the G34/G36 will automatically reboot and you will have to log in using the default username (**admin**) and your current admin password.

To open the Reset/Restore Gateway screen:

- 1. From any G34/G36 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.

Gateway	Troubleshooting > Restart/Restore	
Connected Devices		mo
Parental Control	Restart or restore the Gateway.	
Advanced	Restart/Restore	
 Troubleshooting 	Restaturestore	
Logs	System Uptime:	0d 4h 19m 18s
Diagnostic Tools	RESTART GATEWAY	Restarts the entire Gateway.
Wi-Fi Spectrum Analyzer	RESTART WI-FI MODULE	Restarts only the Wi-Fi module.
DOCSIS Spectrum Analyzer	RESTART WI-FI & ROUTER	Restarts both the Wi-Fi and Router modules.
Restart/Restore	RESTORE WI-FI DEFAULTS	Restores Wi-Fi settings back to the factory defaults. Any changes you made will be lost.
User Account		Any changes you made will be lost.
	RESTORE GATEWAY DEFAULTS	Restores all Gateway settings back to the factory defaults. Any changes you made will be lost.

Figure 67: G34/G36 restore settings screen

3. Click **RESTORE Wi-Fi DEFAULTS** to reset your G34/G36 Wi-Fi settings.



Figure 68: G34/G36 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 G34/G36 Web Manager

To log out and close the G34/G36 Web Manager:

 Click the Logout link located in the upper right corner of the G34/G36 Web Manager screen.



Figure 69: G34/G36 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.

You may have to reset the G34/G36 Wi-Fi cable modem configuration to its original factory settings if the G34/G36 is not functioning properly. See *Restore the G34/G36 default configuration settings* (page 60) for more information.

Solutions

ck each end of the coaxial cable connection on the and cable outlet. your hand to tighten each connector, if necessary.
ck the Ethernet cable (if connected) to make sure it is properly nected to your and computer.
u have cable television service, check your television to ensure cable service is operating properly.
one of the above solutions resolves the problem, contact your ice provider or call ARRIS Technical Support at 7-466-8646 for assistance.
ck that all cable and power connections on your and computer properly connected.
ck that the front panel LED is lit up solid.
tact your service provider for assistance.
e problem continues after checking the coaxial cable and ernet connections and your IP address, check the Wi-Fi Irity Mode setting on the Gateway Wi-Fi Connection screen.
u enabled Wi-Fi security and configured a passphrase on the , ure each affected Wi-Fi client has the identical passphrase. If does not solve the problem, check if the Wi-Fi client supports selected Wi-Fi security method.

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