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# / Gateway User Manual

**Model:** SR400ac

**Release:** 5.1

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**Software Version:** 10.8.4.1

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# Table of Contents

# Welcome!

Thank you for purchasing this SmartRG product.

SmartRG offers solutions that simplify the complex Internet ecosystem. Our solutions include hardware, software, applications, enhanced network insights, and security delivered via a future-proof operating system. Based in the USA, SmartRG provides local, proactive software development and customer support. We proudly offer the best, most innovative broadband gateways available. Learn more at www.SmartRG.com.

## *Purpose & Scope*

This User Manual provides SmartRG customers with installation, configuration and monitoring information for their SR400ac gateway.

## *Intended Audience*

The information in this document is intended for Network Architects, NOC Administrators, Field Service Technicians and other networking professionals responsible for deploying and managing broadband access networks. Readers of this manual are assumed to have a basic understanding of computer operating systems, networking concepts and telecommunications.

## *Getting Assistance*

Frequently asked questions are provided at the bottom of the Support page of the SmartRG Web site.

- **Subscribers:** If you require further help with this product, please contact your service provider.
- **Service providers:** if you require further help with this product, please open a support request.

## *Copyright and Trademarks*



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# Getting Familiar with your Gateway

This section explains the SR400ac gateway's lights, ports, and buttons.

## *LED Indicators*

Your SR400ac gateway has several status indicators (LEDs) on its top which are described below.

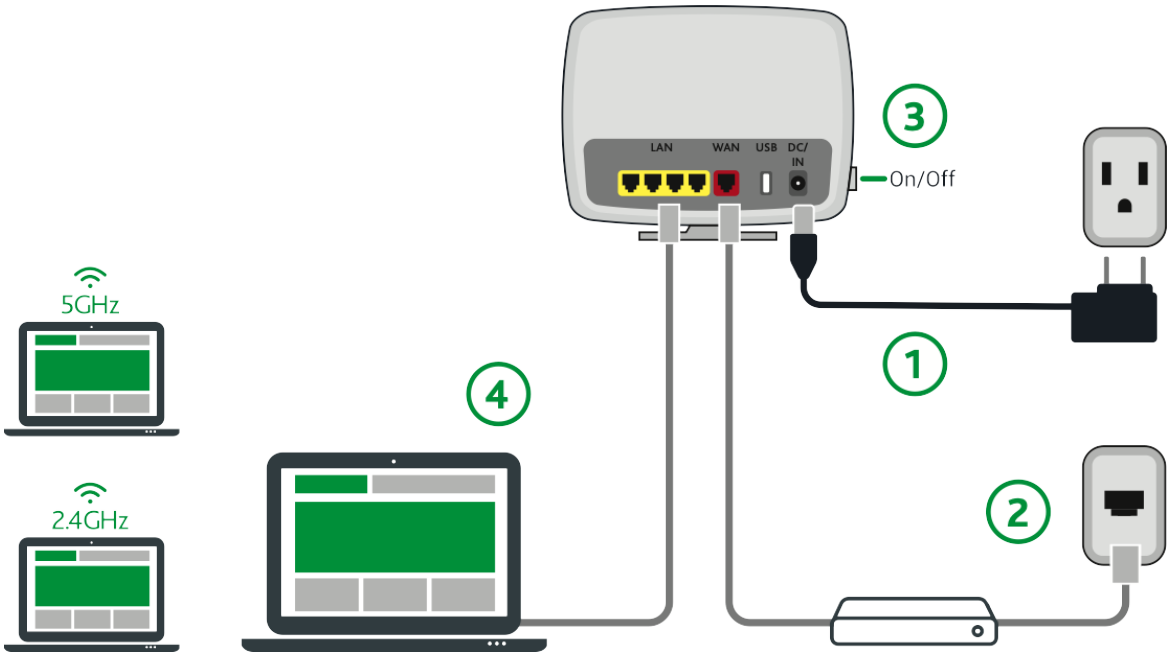
There is also a small LED on the front of the gateway that flickers when data is being transferred.

**Legend:** ○ White ⚙ White blinking ● Green ⚙ Green blinking ● Red

| LED | Action | Explanation |
|---|---|---|
| POWER | ⚙ | Device in CFE mode |
| | ○ | Device powered on and ready for use |
| WAN | ○ | Device online (at 1000 BASE-T) |
| | ● | Device online (at 10/100 BASE-T) |
| | ○ | WAN Ethernet connected (at 1000 BASE-T) |
| | ⚙ | Data being transferred (at 1000 BASE-T) |
| | ● | WAN Ethernet connected (at 10/100BASE-T) |
| | ⚙ | Data being transferred (at 10/100BASE-T) |
| INTERNET | ○ | Gateway on line |
| | ⚙ | Data being transferred |
| | ● | Internet authentication / connection has failed |
| USB / USB 3.0 | ○ | USB device connected |
| | ⚙ | Data being transferred |
| 2.4 GHZ<br>5 GHZ | ○ | WiFi enabled |
| | ⚙ | Data being transferred |
| ((·🔒·))<br>(locked WiFi / WPS) | ○ | WPS enabled |
| | ⚙ | Data being transferred |
| LAN 1-4 | ○ | LAN Ethernet connected (at 1000 BASE-T) |
| | ⚙ | Data being transferred (at 1000 BASE-T) |
| | ● | LAN Ethernet connected (at 10/100BASE-T) |
| | ⚙ | Data being transferred (at 10/100BASE-T) |

# Connections

The SR400ac's exterior ports are shown in the following cabling diagram.




### LAN

The four yellow RJ45 Ethernet ports located on the back of the gateway (labeled LAN1, LAN2, LAN3, LAN4) are used to connect client devices such as computers and printers.

### WAN

The red RJ45 port labeled WAN is used to connect the SR400ac gateway to another network device using a RJ45/Ethernet cable.

### USB

The two USB ports (2.0 port on the back and 3.0 on the left side) are used to connect USB storage devices to the gateway for transferring data. They also provide +5 VDC for charging other devices.

### POWER

- Use ONLY the dedicated power supply included with your gateway (3 amp 12 v). Intended for indoor use only.
- Do NOT open the device. Opening or removing covers can expose dangerous high voltage points or other risks. ONLY qualified service personnel can service the device. Please contact your vendor for further information.

# External Buttons

The SR400ac gateway provides push-button controls on its exterior for critical features. These buttons provide a convenient means to trigger WPS mode, toggle the WiFi radios on and off, or reset the gateway. The button functions are described below.

## WPS Button (5 GHz Band)

WiFi Protected Setup™ (WPS) is a standard means for creating secure connections between the gateway and various wireless client devices. It is designed to simplify the pairing process between devices. This button is located on the left side of the SR400ac gateway.

Press this button for 1-3 seconds, the **5 GHz** LED starts to flash. If no client pairs with the gateway after 2 minutes, the **5 GHz** LED turns off.

When the gateway pairs successfully with a client, the **5 GHz** LED glows solid for 5 minutes and then turns off.

## WiFi Button (2.4 GHz Band)

The **WiFi** button toggles the 2.4 GHz WiFi radio on and off. This button is located on the left side of the SR400ac gateway. Look at the **2.4 GHz** LED indicator to determine the current state of the WiFi radio.

To activate the radio, press and hold the **WiFi** button for 3-5 seconds then release. Expect a 1-3 second delay before the **2.4 GHz** LED turns on. The WiFi radio is now on.

To deactivate the radio, press and hold the **WiFi** button for 3-5 seconds then release. Expect a 1-3 second delay before the **2.4 GHz** LED turns off. The WiFi radio is now off.

## On/Off Button

The **On/Off** button turns the gateway on and off. This button is located on the left side of the gateway.

## Reset Button

The **Reset** button returns the gateway to its default settings.

This button is in a small circular hole in the back of the gateway case with the actual button mounted behind the surface. This style of push button prevents the gateway from being inadvertently reset during handling.

**Warning:** Do not press the **Reset** button unless you want to clear the current settings.

To restore the default settings, insert a thin wire (such as a paper clip) into the hole, press the **Reset** button for 1 second, then release the button. The gateway reboots and returns to the current defaults.

To return the gateway to factory default settings, press the **Reset** button until the LEDs flash red and orange. The gateway reboots and returns to the default settings applied in the factory. This process may take a few minutes.

# Installing your SR400ac Gateway

1. Connect a **LAN** port on the SmartRG gateway to a PC using an Ethernet cable.

2. To connect a broadband device (such as a cable modem):
    a. Connect one end of an Ethernet cable to the **WAN** port on the SmartRG gateway and connect the other end of the cable to the broadband modem.
    b. Connect one end of the supplied silver cable to the broadband modem and connect the other end of the cable to the wall jack installed by your provider.

3. Plug the power adapter to the wall outlet and then connect the small end of to the **Power** port on the back of the gateway.

4. Turn on the unit by pressing the **Power** button on the side of the gateway.

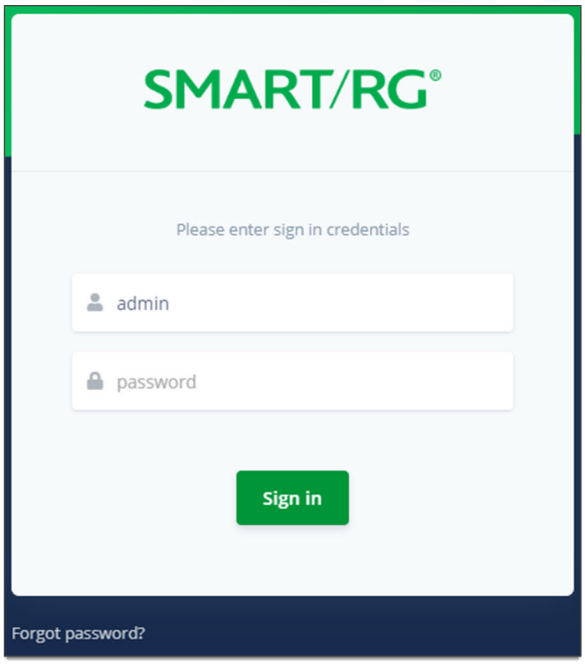
The gateway is now automatically being set up to connect to the Internet. This process may take a few minutes to complete before you can begin using your Internet applications (browser, email, etc.).

If connection to the Internet is unsuccessful, verify that all cable connections are in place and the gateway's power is turned on.

# Logging in to the SR400ac Interface

To manually configure the SR400ac gateway, you must access the gateway's Web-based UI.

1. Configure your computer's IP interface to acquire an IP address automatically using DHCP.
2. Open a browser and enter the gateway's default address: http://192.168.1.1 in the address bar. The sign-in page appears.




3. Enter the default username and password.
   - For the administrator user, these are "admin" and "admin".
   - For the support user, these are "support" and the last three octets of the MAC address. The MAC address is located on a label on the back of the gateway. Make sure to enter the letters in all caps and include the separating colons (e.g., AA:BB:CC).

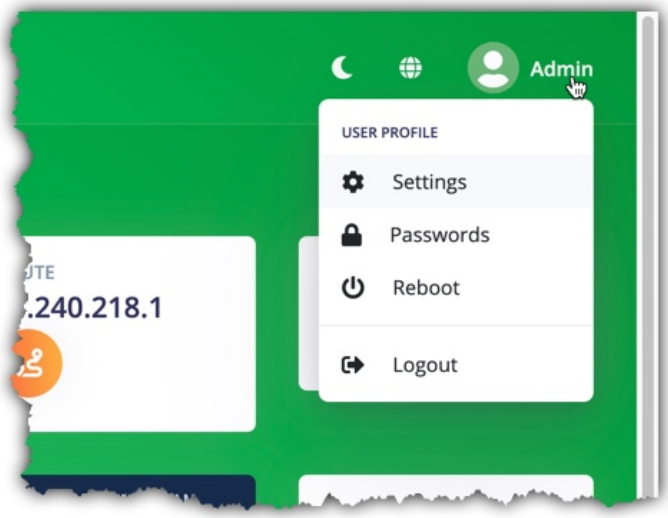
   To review the end user license agreement, click the **License Agreement** link at the bottom right corner of the browser window. The agreement appears in a separate tab.

   **Note:** If you have forgotten the password, click **Forgot password?** and follow the instructions to reset the gateway to the factory defaults. Then, enter the credentials provided with the gateway when it first arrived.
4. Click **Sign In**. The Dashboard page appears, showing data about your system.

# User Preferences

The top of the screen displays various options that are always present:

- Next to the logo in the upper-left is the **Menu** button ( ). Click to minimize or reveal the left navigation menu.
- To the right is a **Search** box which returns a list of pages that match the search terms entered. Click the page name that you want to view.
- Next is the **Dark Mode** icon ( ). Click to engage an alternate color scheme for the UI. The icon changes to the **Light Mode** icon ( ). Click to return to the original color scheme.
- Next is the **Language** icon ( ). Click to select the preferred interface language from the list.
- The far right corner displays the username currently logged in (typically "Admin"). Click the name to reveal a list of additional preferences.



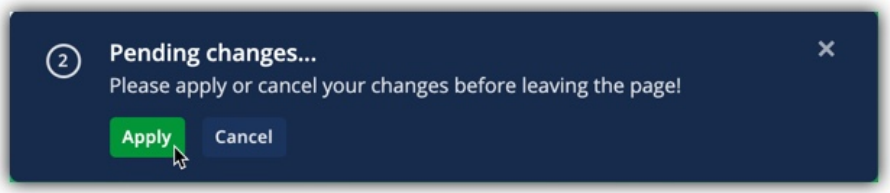

The preferences under the **User Profile** link to options found under **Admin** in the left menu.

- **Settings**: Save or load a router configuration file. Go to instructions.
- **Passwords**: Change passwords for gateway access. Go to instructions.
- **Reboot**: Initiate a reboot of the gateway. Go To instructions.
- **Logout**: Ends the current session with the gateway.

The page footers display the WAN IP address and firmware version. Mouse over the labels to view the details.

# *Saving Your Changes*

When you change settings, the **Pending changes** dialogue appears at the top of the page.




Changes made on a page must be applied before you can navigate to a different page.

The circled number shown at left indicates the quantity of changes waiting to be applied. To view a list of your unsaved changes, click the circled number. The Unsaved Changes pop-up window appears.


To undo a change in the list, click the **trash can** icon in the far right column for the line item to be cancelled. If you remove all of the changes from the change list, the Unsaved Changes window closes and you can proceed to another page.

# Dashboard

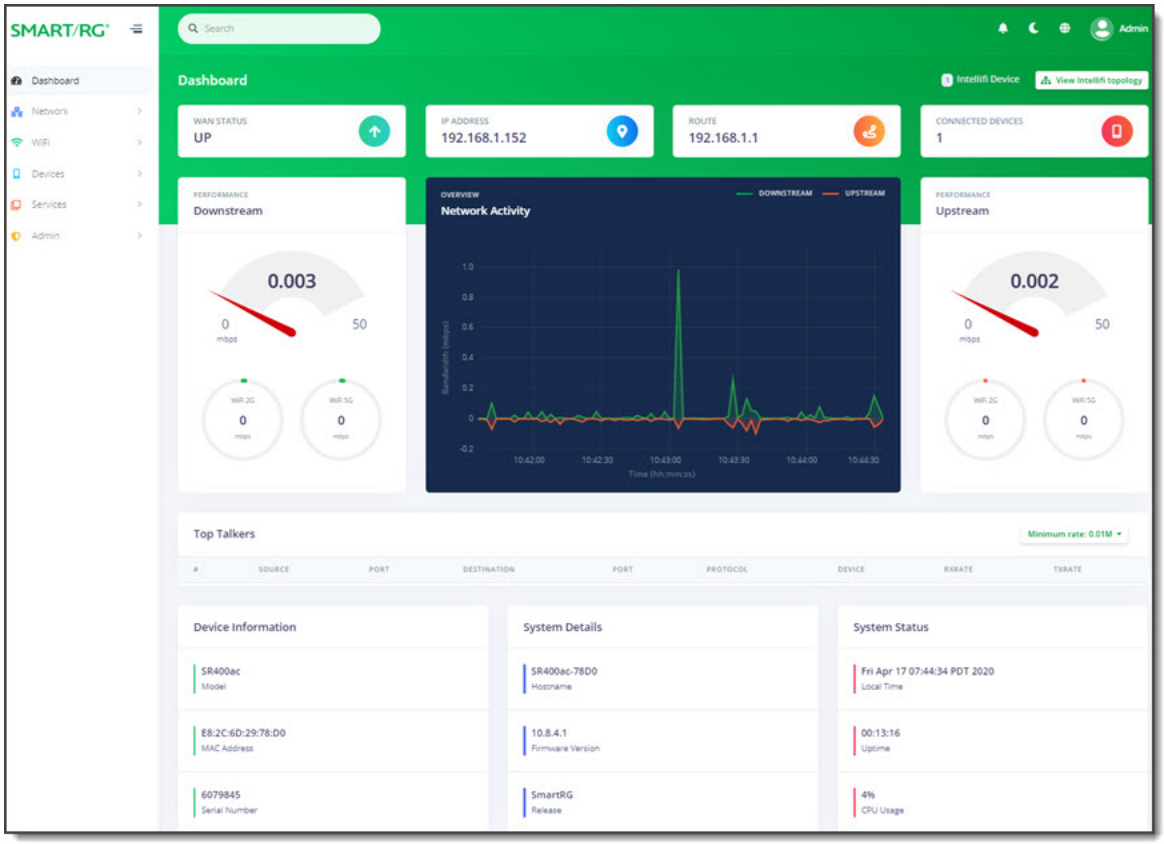
When you log in to the gateway, the following Dashboard landing page appears. On this page, you can view the IP address, route, number of connected devices, WAN and WiFi traffic, device and system information, system status, and memory statistics. You can also reach this page by clicking **Dashboard** in the left menu.

At the top right of the page, you will find the number of Intellifi devices connected to your gateway plus the **View Intellifi topology** button that will take you to the Intellifi Devices page.

A list of top talkers appears below the WiFi information.

- To sort this table, click on any of the headings.
- The **Minimum rate** field appears at the top right of the **Top Talkers** frame. You can select a different transmission rate. Options are **None**, **0.01M**, **0.1M**, **1M**, **10M**, and **100M**. The default is **0.01M**.

In the footer of each page are the WAN IP address and the firmware version. Mouse over the labels to view the information.



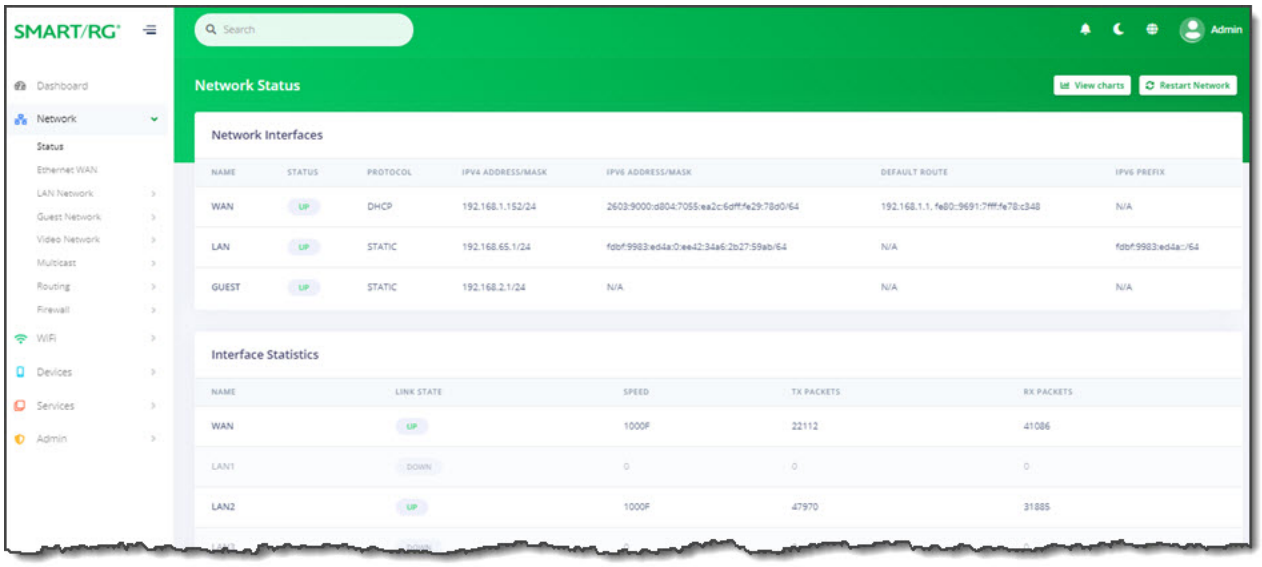

# Network

In this section, you can view and configure information about your gateway connections.

# Status

On this page, you can view the status and detailed information for gateway connections.

In the left menu, click **Network** > **Status**. The following page appears.



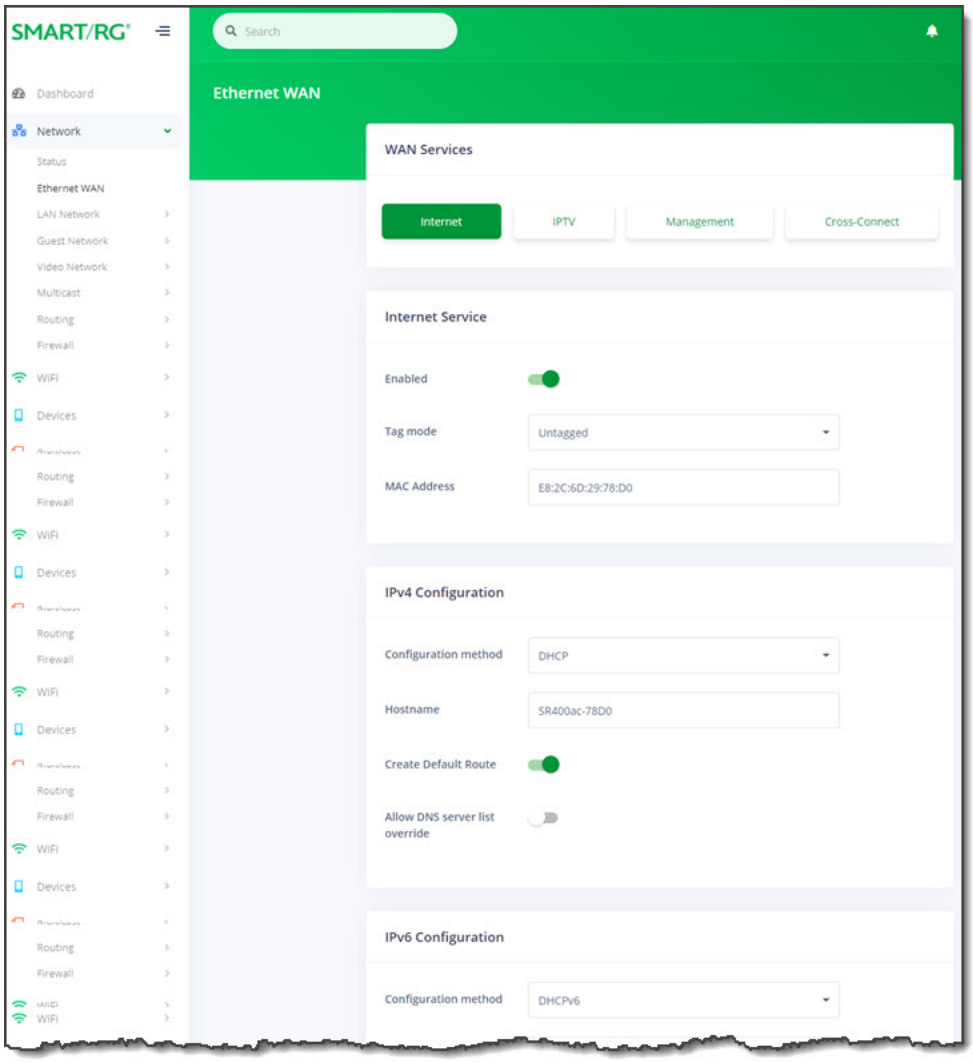

To restart your network, click the **Restart Network** button at the upper right. The confirmation message appears. Click **Ok, restart** to proceed. The **STATUS** column for WAN may briefly change to **PENDING** and then back to the previous status.

To view detailed transmission data for the individual interfaces, click the **View Charts** button at the upper-right. The netdata window opens in a new tab, showing information about the overall SR400ac system, memory, CPUs, firewall, IPv4 networking, etc. Use the navigation menu at right to select the statistics that you want to view.

# Ethernet WAN

On this page, you can configure WAN settings for connecting to the Internet via Ethernet.

To access this page, click **Network** > **Ethernet WAN** in the left menu. The following page appears, showing the Internet settings.




By clicking the buttons across the top of the page, you can select and configure the following WAN services.

Internet IPTV Management Cross-Connect

## Internet

1. After selecting **Network** > **Ethernet WAN** in the left menu, the Ethernet WAN page appears, showing the Internet settings.
2. By default, the **Internet Service** is *enabled*. To *disable* the Internet feature, click the **slide button** next to **Enabled**.
3. Configure the tagging options:
    a. In the **Tag mode** field, select the type of tagging that should be performed. Options are **Untagged**, **Tagged**, and **DQTagged**. The default is **Untagged**.
    b. If **Tagged** or **DQTagged** is selected, the **VLAN** and **P-bit** fields appear. Enter the ID of the appropriate VLAN. Valid values are **1** - **4079**. The default is **2**. Enter the P-bit type. Options are **0** - **7**. The default is **0**.

c. If **DQTagged** is selected, the **CVID** field also appears. Enter the Customer VLAN ID or the first in a range of CVIDs that will be accepted and mapped to the specified WAN. Valid values are **1** - **4062**. The default is **0**.

4. (*Optional*) In the **MAC Address** field, enter the MAC address that to be used with this configuration. By default, this value is set to the gateway MAC address.
5. Complete the fields for **IPv4 Configuration** and **IPv6 Configuration** sections as they apply to your environment, using the information provided below.
   a. In the **Configuration method** field, select the appropriate method for your WAN.

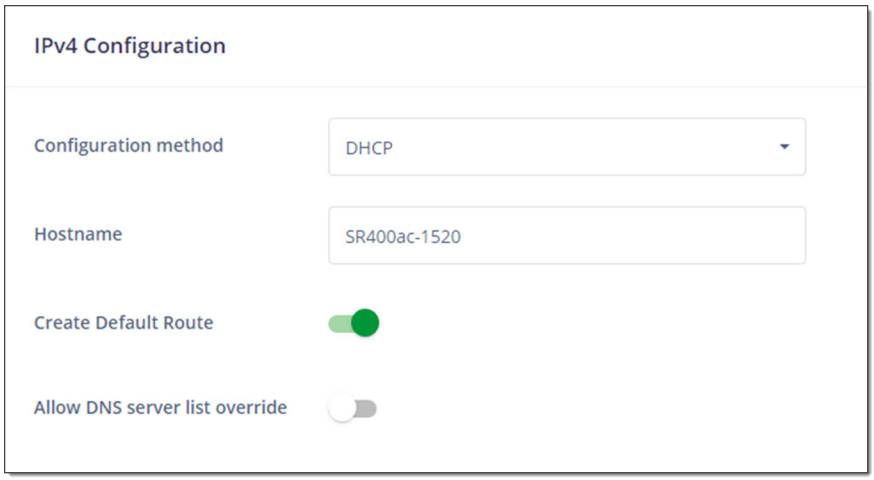
      Options for IPv4 WANs are **DHCP**, **Static Address**, and **PPPoE**. The default is **DHCP**.

      Options for IPv6 WANs are **DHCPv6**, **Static Address**, and **None**. The default is **DHCPv6**.

   b. Complete the remaining fields as instructed below for each option:
      - "DHCP for IPv4 WANs" (IPoE)
      - "Static Address for IPv4 WANs"
      - "PPPoE for IPv4 WANs"
      - "DHCPv6 for IPv6 WANs"
      - "Static Address for IPv6 WANs"
   c. To *disable* the default route for this WAN, click the **slide button** to the right of **Create default route**.
6. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

### DHCP for IPv4 WANs

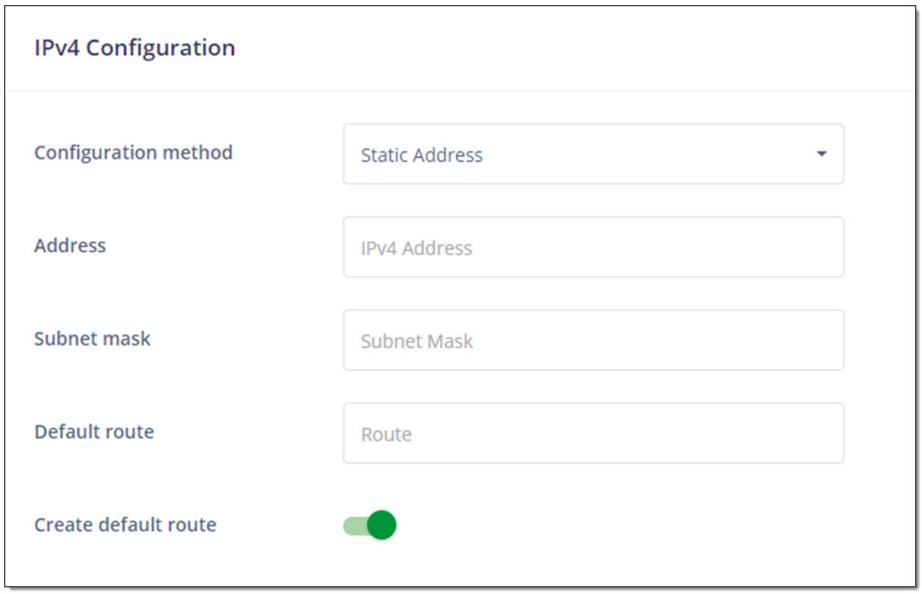
The following fields appear when **DHCP** is selected as the configuration method. This method is the default for IPv4 WANs.




1. To use a different host, enter the desired host name to be included in DHCP requests in the **Hostname** field.
2. To *disable* the default route for this WAN, click the **slide button** to the right of **Create default route**.
3. To *allow* override of the DNS server list, click the **slide button** next to **Allow DNS server list override**.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

### Static Address for IPv4 WANs

The following fields appear when **Static Address** is selected as the configuration method.



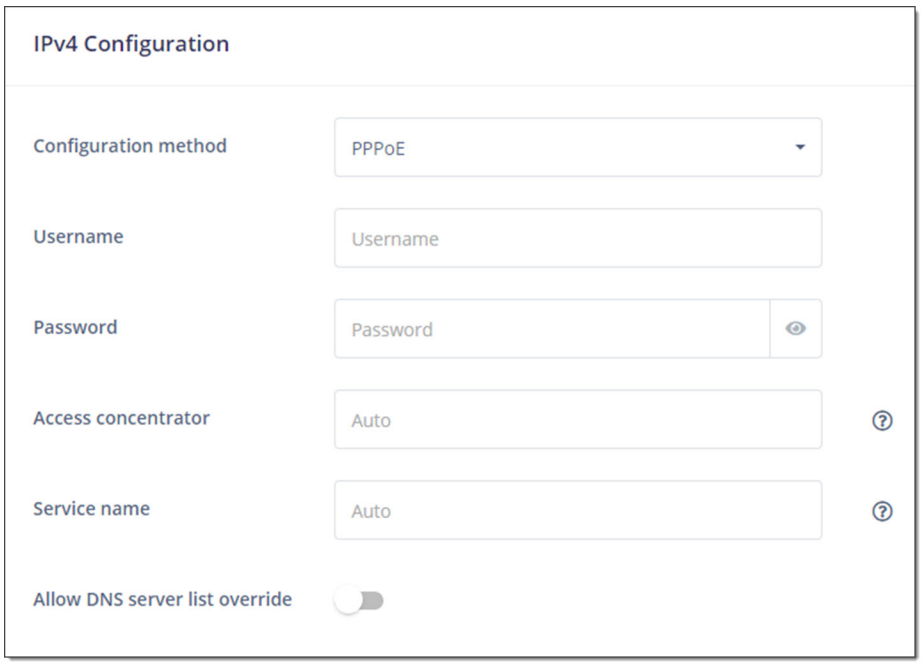

1. Complete the fields using the information in the table below.
2. To *disable* the default route for this WAN, click the **slide button** to the right of **Create default route**.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

The fields for this option are explained in the table below.

| Field | Description |
|---|---|
| Address | Enter the IP address for IPv4 communications (such as 192.168.1.44). |
| Subnet mask | Enter the IP address for the subnet mask. |
| Default route | Enter the IP address for the default IPv4 route. |

### PPPoE for IPv4 WANs

The following fields appear when **PPPoE** is selected as the configuration method.




1. To access LCP and PPP settings, click the **down arrow** next to **Advanced**.
2. Complete the fields using the information in the table below. To configure
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

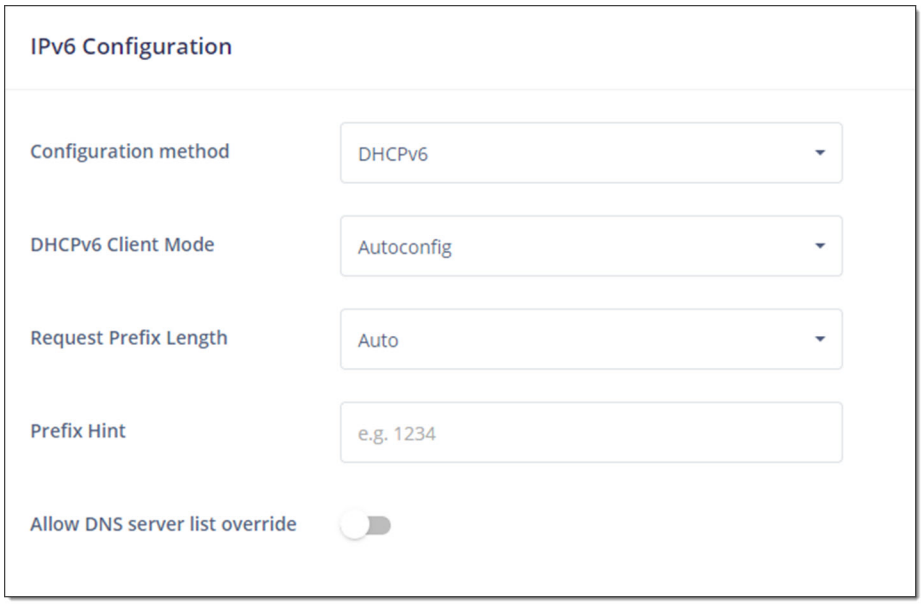
The fields for this option are described in the following table.

| Field | Description |
|---|---|
| Username | Enter the user ID for this WAN. |
| Password | Enter the password for this WAN. To view the password characters, click the **Show** icon ( ). |
| Access concentrator | Enter the name of the concentrator application. To have the system detect this automatically, accept the default of **Auto** |
| Service name | Enter the name of the service for this interface. To have the system detect this automatically, accept the default of **Auto** |
| Allow DNS server list override | (*Optional*) To *allow* override of the DNS server list, click this **slide button**. To *prevent* override, click the **slide button** again. |
| **Advanced** section | |
| LCP Echo Interval | Enter the interval for sending echos in seconds. Options are **None** and **1** - **60** seconds. The default is **None**. |
| LCP Echo Retry | Enter the number of ping retries before the connection is identified as down. The default is **None**. |
| PPP Persist | PPP persistent dialing ensures that a dropped call link is rebuilt. To *enable* PPP persistence, click the **slide button**. |
| PPP Holdoff | Enter the number of seconds before attempting to reconnect a dropped call. The default is **zero** (**0**). |

| Field | Description |
|---|---|
| Allow DNS server list override | (*Optional*) To *allow* override of the DNS server list, click this **slide button**. To *prevent* override, click the **slide button** again. |

### DHCPv6 for IPv6 WANs

The following fields appear when **DHCPv6** is selected as the configuration method. This method is the default for IPv6 WANs.



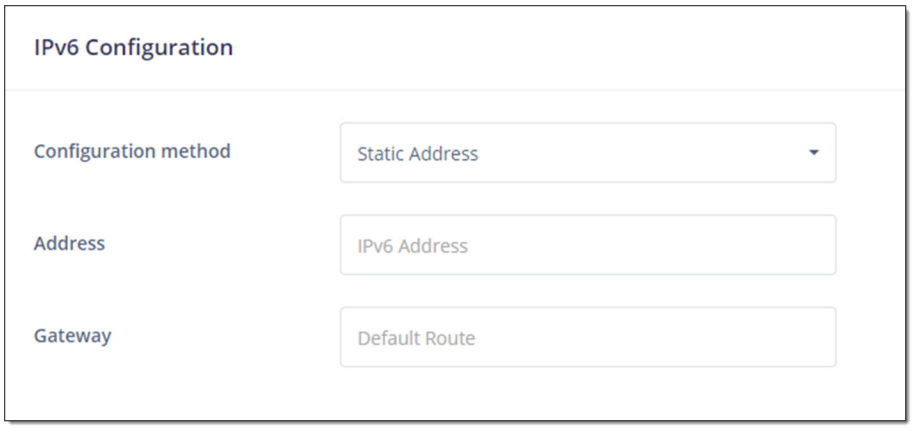

1. Complete the fields using the information in the table below.
2. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

The fields for this option are described in the following table.

| Field | Description |
|---|---|
| DHCPv6 Client Mode | Select the mode for the DHCPv6 client. Options are:<br>• **Autoconfig**: Attempt to use the DHCP server for configuration. If no IP address is provided, then use SLACC for configuration. This is the default.<br>• **Stateful**: Use only the IP address provided by the DHCP server.<br>• **Stateless**: Use only SLACC for configuration. |
| Request Prefix Length | Select the length of the prefix sent with the request. Options are **Auto**, **48**, **52**, **56**, **59** - **64**, and **None**. The default is **Auto**. |
| Prefix Hint | Enter the 4-digit hint for the subprefix ID. |
| Allow DNS server list override | (*Optional*) To *allow* override of the DNS server list, click this **slide button**. To *prevent* override, click the **slide button** again. |

### Static Address for IPv6 WANs

The following fields appear when **Static Address** is selected as the configuration method.




1. Complete the fields using the information in the table below.
2. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

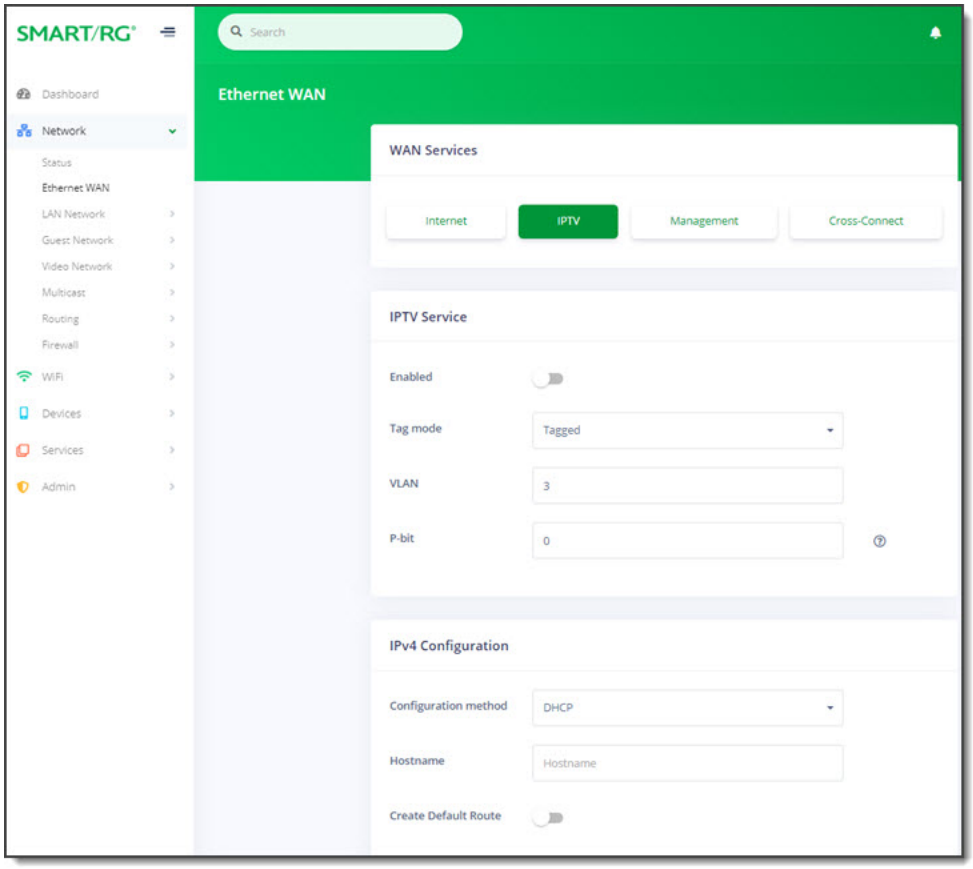
Complete the fields using the information in the table below.

| Field | Description |
|---|---|
| Address | Enter the static address for IPv6 communications (such as 2001:db8:a0b:12f0::1). |
| Gateway | Enter the IP address for the default IPv6 route. |

## IPTV

On this page, you can configure the IPTV settings for your Ethernet WAN.

1. In the left menu, click **Network** > **Ethernet WAN**. The Ethernet WAN page appears showing the **Internet** settings.
2. Click the **IPTV** button. The following page appears.

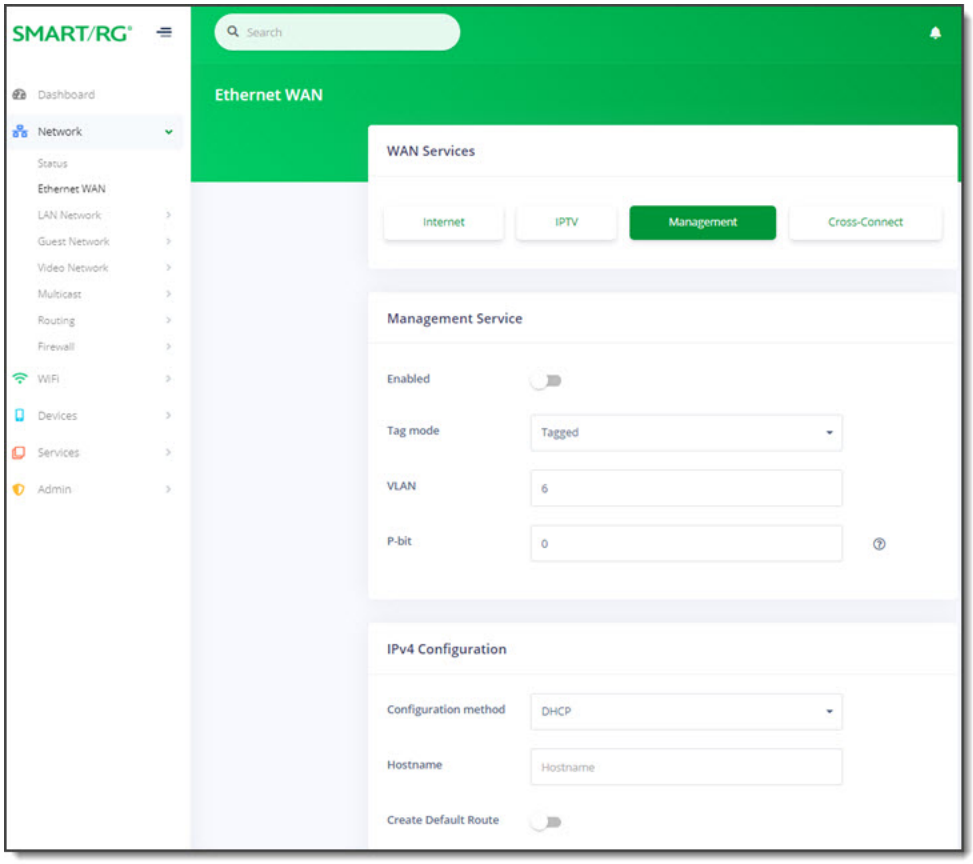



3. To *enable* the IPTV feature, click the **slide button** to the right of **Enabled**.
4. Configure the tagging options:
    a. In the **Tag mode** field, select the type of tagging that should be performed. Options are **Untagged** and **Tagged**. The default is **Tagged**.
    b. If **Tagged** is selected, the **VLAN** and **P-bit** fields appear. Enter the ID of the appropriate VLAN. Valid values are **1** - **4079**. The default is **3**. Enter the P-bit type. Options are **0** - **7**. The default is **0**.
5. In the **IPV4 Configuration** section, configure the settings using the information in "DHCP for IPv4 WANs" and "Static Address for IPv4 WANs".
6. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## Management

On this page, you can configure the settings for managing your network and the devices connected to it.

1. In the left menu, click **Network** > **Ethernet WAN**. The Ethernet WAN page appears showing the **Internet** settings.
2. Click the **Management** button. The following page appears.

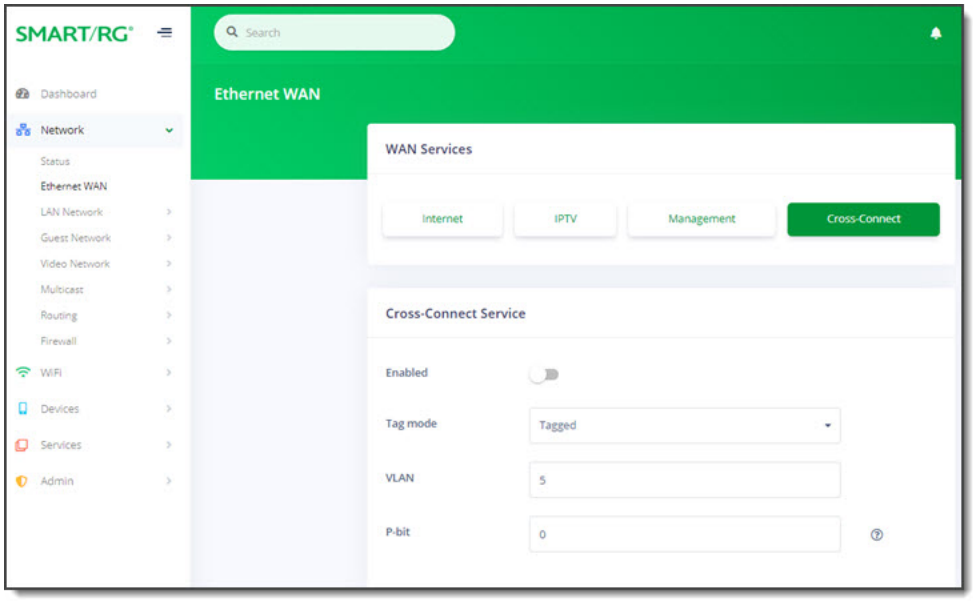



3. Configure the tagging options:
    a. In the **Tag mode** field, select the type of tagging that should be performed. Options are **Untagged**, **Tagged**, and **DQTagged**. The default is **Tagged**.
    b. If **Tagged** or **DQTagged** are selected, the **VLAN** and **P-bit** fields appear. Enter the ID of the appropriate VLAN. Valid values are **1** - **4079**. The default is **6**. Enter the P-bit type. Options are **0** - **7**. The default is **0**.
    c. If **DQTagged** is selected, the **CVID** field also appears. Enter the Customer VLAN ID or the first in a range of CVIDs that will be accepted and mapped to the specified WAN. Valid values are **1** - **4062**. The default is **0**.
4. In the **IPV4 Configuration** section, configure the settings using the information in "DHCP for IPv4 WANs", "Static Address for IPv4 WANs", or "PPPoE for IPv4 WANs".
5. In the **IPV6 Configuration** section, configure the settings using the information in "DHCPv6 for IPv6 WANs" and "Static Address for IPv6 WANs".
6. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## Cross-Connect

On this page, you can configure bridge settings for traffic moving from a WAN-side VLAN to a LAN port. This can be used for bridged IPTV or other services.

1. In the left menu, click **Network** > **Ethernet WAN**. The Ethernet WAN page appears showing the **Internet** settings.
2. Click the **Cross-Connect** button. The following page appears.

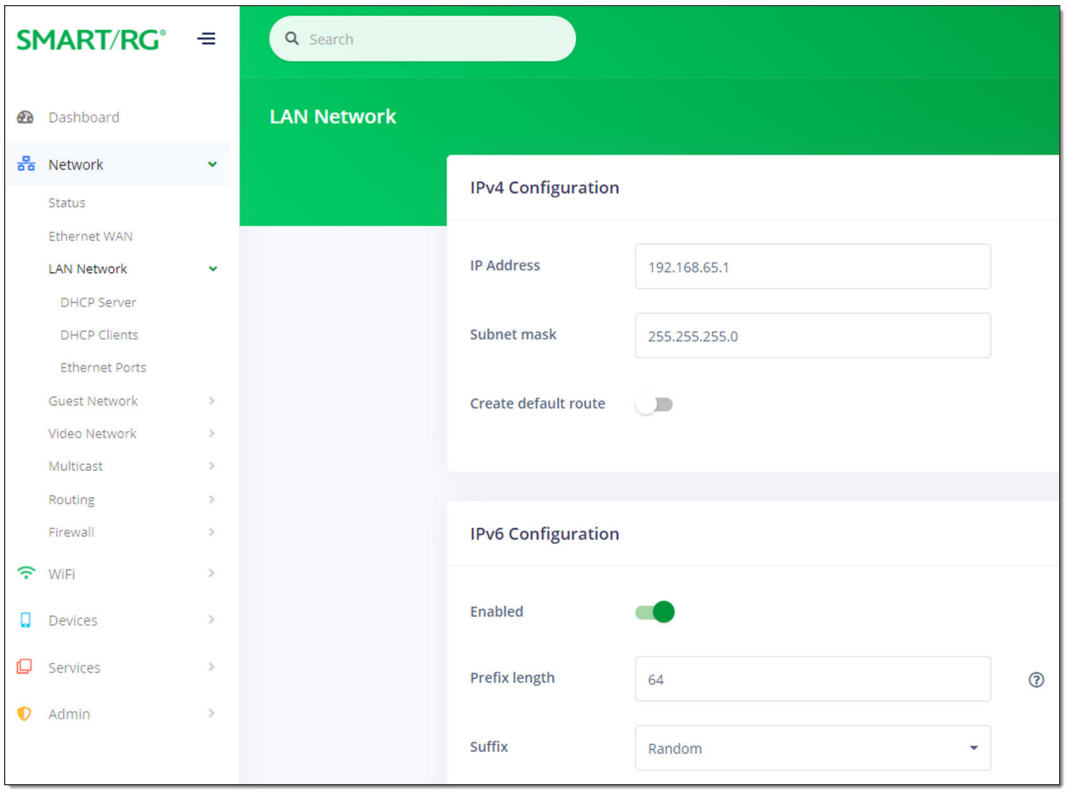



3. Configure the tagging options:
   a. In the **Tag mode** field, select the type of tagging that should be performed. Options are **Untagged**, **Tagged**, and **DQTagged**. The default is **Tagged**.
   b. If **Tagged** or **DQTagged** is selected, the **VLAN** and **P-bit** fields appear. Enter the ID of the appropriate VLAN. Valid values are **1** - **4079**. The default is **5**. Enter the P-bit type. Options are **0** - **7**. The default is **0**.
   c. If **DQTagged** is selected, the **CVID** field also appears. Enter the Customer VLAN ID or the first in a range of CVIDs that will be accepted and mapped to the specified WAN. Valid values are **1** - **4062**. The default is **0**.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# LAN Network

In this section, you can view and configure information about the DHCP server, DHCP clients and Ethernet ports.

1. In the left menu, click **Network** > **LAN Network**. The following page appears.




2. Fill in the fields using the information in the table below.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

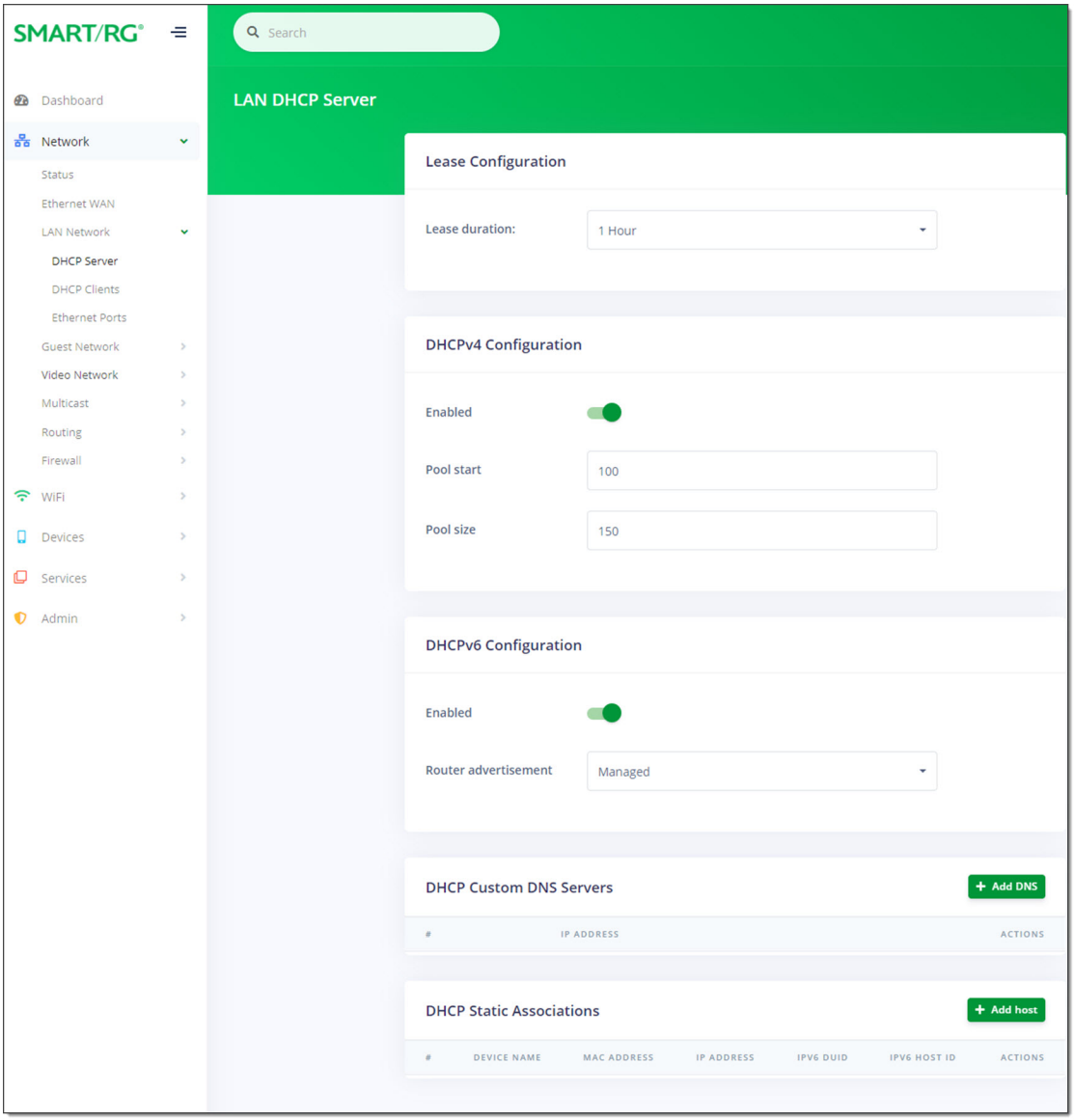
| Field | Description |
|---|---|
| **IPv4 Configuration** section | |
| IP Address | Enter the IP address for IPv4 communications (such as 192.168.1.44). The default is the address assigned to the gateway. |
| Subnet mask | Enter the IP subnet mask for this gateway. The default is **255.255.255.0**. |
| Create default route | (*Optional*) To create the default route for this LAN, click the **slide button**. |
| **IPv6 Configuration** section | |
| Enabled | This option is *enabled* by default. To *disable* IPv6 address configuration, click the **slide button** to the right of **Enabled**. The **Prefix length** and **Suffix** fields are hidden. |
| Prefix length | Enter the prefix length for this IPv6 address. Options are **0** - **64**. The default is **64**. |

| Field | Description |
| --- | --- |
| Suffix | Select the interface identifier for this IPv6 address. Options are **Random**, **MAC Based**, and **Suffix Address**. The default is **Random**.<br><br>If you select **Suffix Address**, the **Suffix Address** field appears. Enter the address in format: "::a:b:c:d". |

## DHCP Server

On this page, configure the DHCP settings for the gateway. The Dynamic Host Control Protocol Server (DHCP) feature of this gateway will automatically assign LAN IP addresses to host devices as they connect.

1. In the left menu, click **Network** > **LAN Network** > **DHCP Server**. The following page appears.




2. Fill in the fields using the information in the table below.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

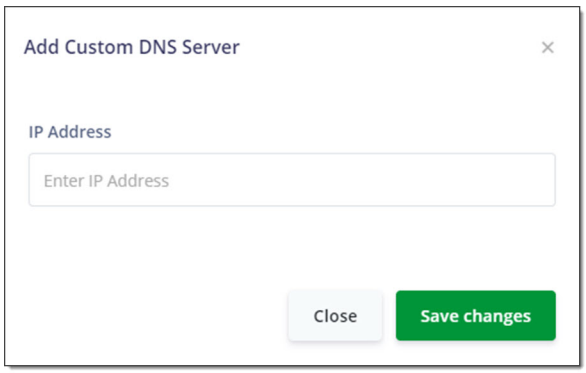
| Field | Description |
|---|---|
| Lease duration | Select the amount of time for which an IP address will be leased. Options range from **5 minutes** to **24 hours**. The default is **1 hour**. |
| **DHCPv4 Configuration** section | |
| Enabled | This feature is *enabled* by default. To *disable* this feature, click this **slide button**. |

| Field | Description |
|---|---|
| Pool start | Enter the beginning of the class-C IP address range to be assigned by the DHCP server. The default is **100**. |
| Pool size | Enter the size of the DHCP pool. The maximum size allowed is **252**. The default is **150**. |
| **DHCPv6 Configuration** section | |
| Enabled | This feature is *enabled* by default. To *disable* this feature, click this **slide button**. |
| Router advertisement | Select how this gateway will be advertised through this DHCPv6 server. Options are:<br>• **Assisted**: Advertises this gateway with all configuration, with stateless auto-configuration, or both.<br>• **Managed**: Advertises this gateway with all configuration. This is the default.<br>• **Unmanaged**: Advertises this gateway with only stateless auto-configuration. |
| Custom DNS Servers | (*Optional*) To define a custom DNS server, follow the steps in "Defining a Custom DNS Server". |
| DHCP Static Associations | (*Optional*) To define a static DHCP server, follow the steps in "Defining a Static DHCP IP Address Association". |

### Defining a Custom DNS Server

If desired, you can define custom DNS servers.

1. To define a custom DNS server, click **+ Add DNS** to the right of the **DHCP Custom DNS Servers** section heading. The Add Custom DNS Server dialog box appears.




2. Enter the IP address of the host device (such as 192.168.1.44).
3. Click **Save changes** to commit your changes.

To add another DNS server, repeat Steps 1-3.

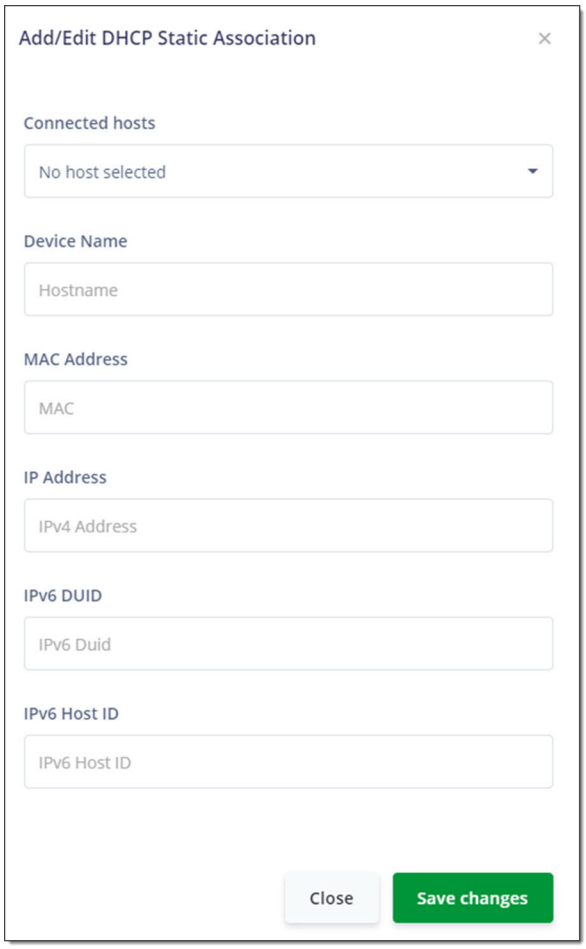
To edit a static DHCP IP address, click the **Edit** ( ) icon next to it. The Add/Edit dialog box appears. Change the entries as needed and click **Save Changes** to commit your changes.

To remove a custom server IP address, click the **Delete** icon ( )next to it.

## Defining a Static DHCP IP Address Association

If desired, a static IP address may be associated with the MAC address of a specific LAN host device.

1. To select a LAN client device, click **+ Add host** to the right of the **DHCP Custom DNS Servers** section heading. The **Add Custom DNS Server** dialog box appears.




2. Enter the IP address of the host device (such as 192.168.1.44).
3. Click **Save changes** to commit your changes.

To add another static DHCP configuration, repeat Steps 1-3.

To edit a static DHCP IP address, click the **Edit** ( ) icon next to it. The Add/Edit dialog box appears. Change the entries as needed and click **Save Changes** to commit your changes.

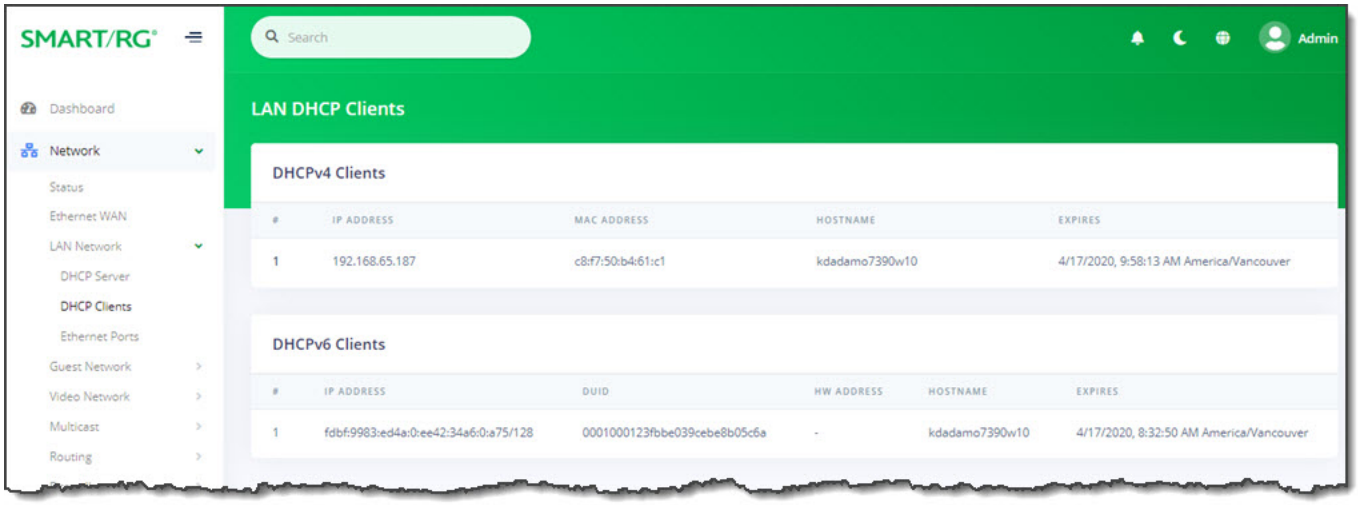
To remove a static DHCP IP address, click the **Delete** icon ( )next to it.

Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## DHCP Clients

On this page, you can view the IPv4 and IPv6 DHCP clients connected to your LAN.

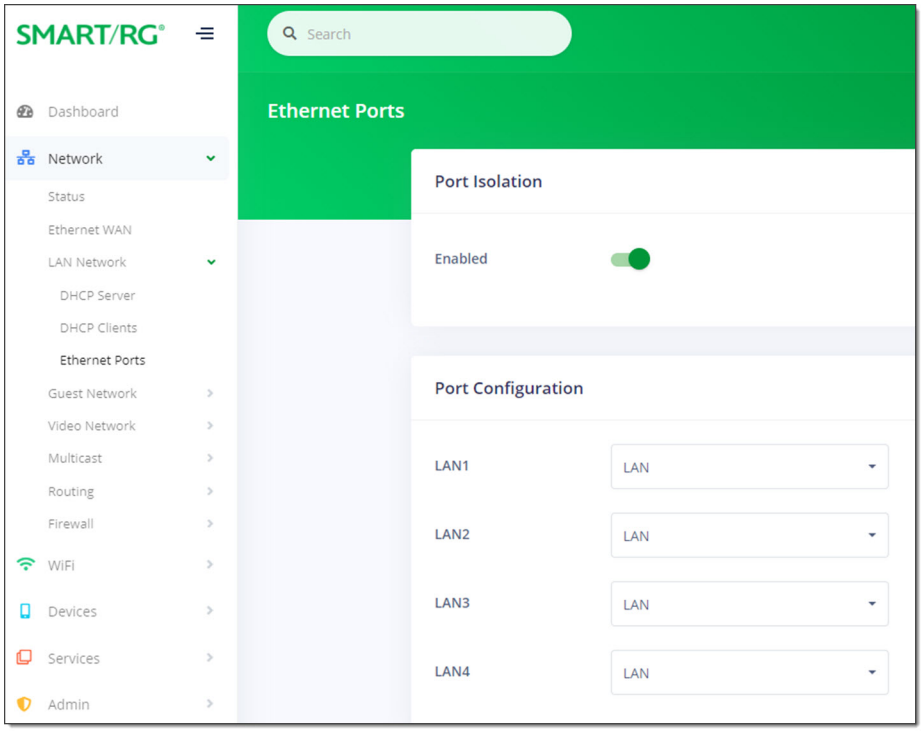
In the left menu, click **Network** > **LAN Network** > **DHCP Clients**. The following page appears.



## Ethernet Ports

On this page, you can select which service to run for each interface defined on your gateway.

1. In the left menu, click **Network** > **LAN Network** > **Ethernet Ports**. The following page appears.

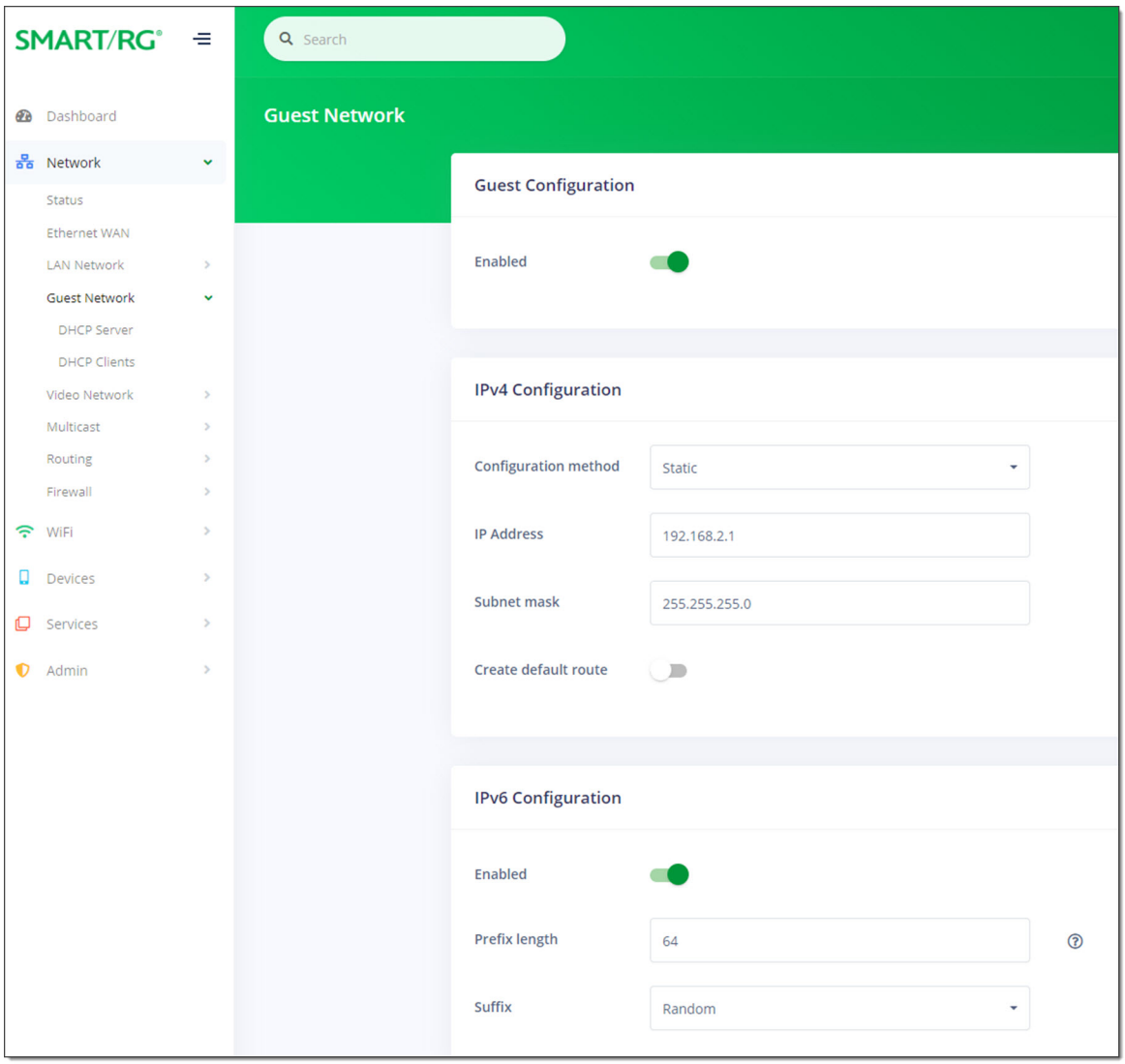



2. To *disable* **Port Isolation**, click the **slide button** next to **Enabled**.
3. Select an option for each port where a particular service is to be defined. Options are **LAN**, **Guest**, **Video**, **Cross-Connect**, and **None**. The default is **LAN**.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# Guest Network

On this page, you can configure settings for a guest network.

1. In the left menu, click **Network** > **Guest Network**. The following page appears. This feature is enabled by default.




2. To *disable* the guest network feature, click the **slide button** next to **Enabled**.
3. Fill in the fields using the information from the table below.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

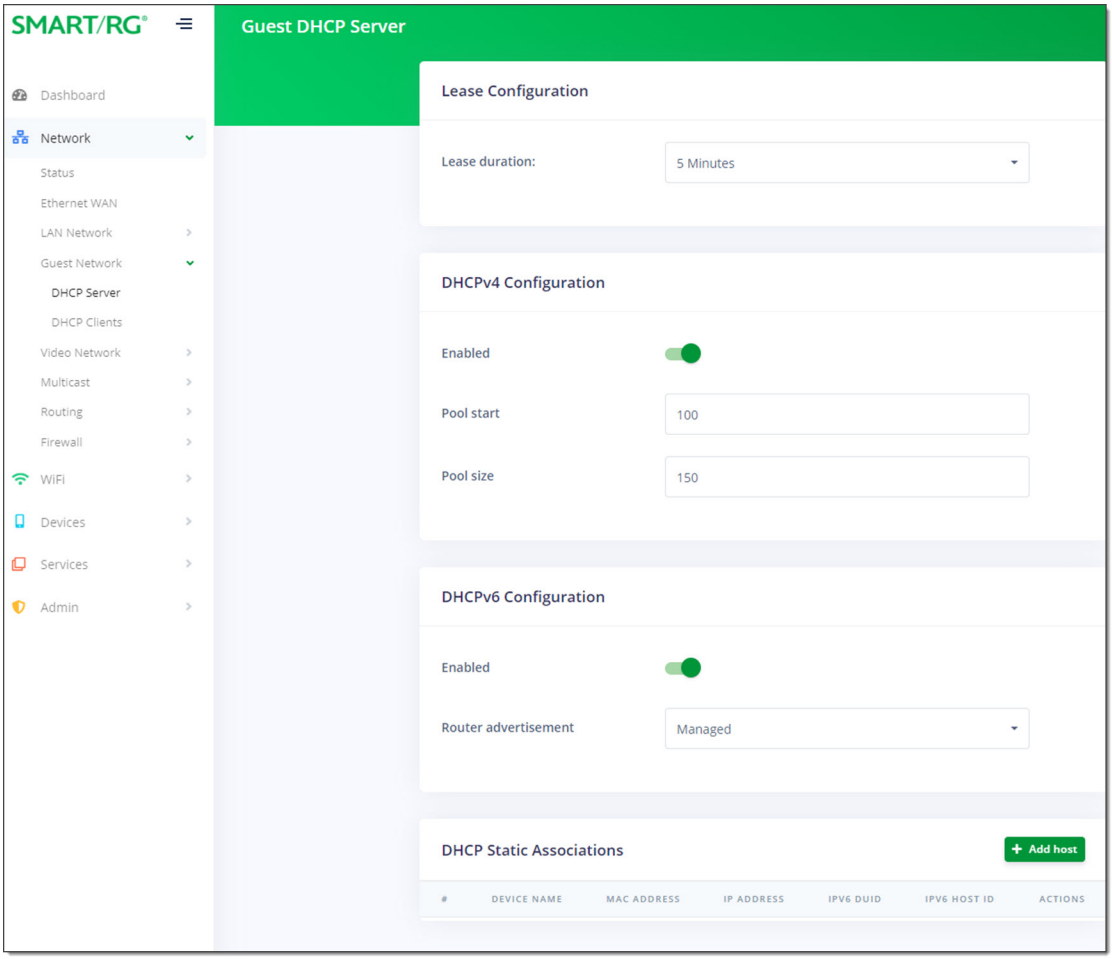
| Field | Description |
|---|---|
| **IPv4 Configuration** section | |

| Field | Description |
|---|---|
| Configuration method | Select the appropriate method for your WAN. The page refreshes to show the fields that apply for the selected method. Options are **Static**, **DHCP**, and **None**. The default is **Static**. |
| Fields available for **Static** Configuration Method | |
| IP Address | Enter the IP address for IPv4 communications (such as 192.168.1.44). The default is the address assigned to the gateway. |
| Subnet mask | Enter the IP subnet mask for this gateway. The default is **255.255.255.0**. |
| Create default route | To create a default route for this LAN, click this **slide button**. |
| Fields available for **DHCP** Configuration Method | |
| Hostname | Enter the host name to be included in DHCP requests. |
| **IPv6 Configuration** section | |
| Enabled | This feature is *enabled* by default. To *disable* IPv6 address configuration, click the **slide button** to the right of **Enabled**. |
| Prefix length | Enter the prefix length for this IPv6 address. Options are **0** - **64**. The default is **64**. |
| Suffix | Select the interface identifier for this IPv6 address. Options are **Random**, **MAC Based**, and **Suffix Address**. The default is **Random**.<br>When you select **Suffix Address**, the **Suffix Address** field appears. Enter the address in format: "::a:b:c:d". |

## DHCP Server

On this page, you can configure DHCP server settings for the guest network.

1. In the left menu, click **Network** > **Guest Network** > **DHCP Server**. The following page appears.




2. Fill in the fields using the information in the table below.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

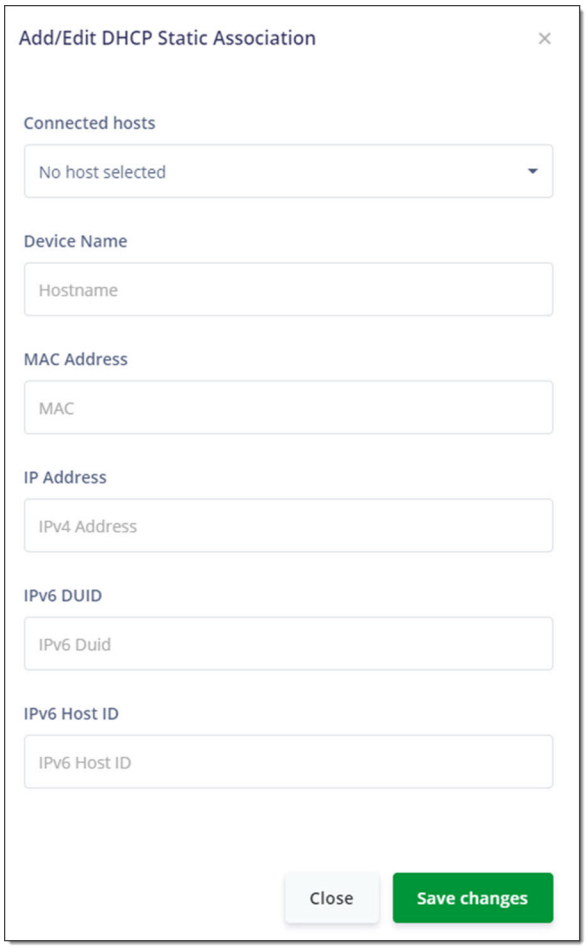
| Field | Description |
|---|---|
| Lease duration | Select the amount of time for which an IP address will be leased. Options range from **5 minutes** to **24 hours**. The default is **5 minutes**. |
| **DHCPv4 Configuration** section | |
| Enabled | This feature is *enabled* by default. To *disable* this feature, click the **slide button**. |
| Pool start | Enter the beginning of the class-C IP address range to be assigned by the DHCP server. The default is **100**. |
| Pool size | Enter the size of the DHCP pool. The maximum size allowed is **252**. The default is **150**. |
| **DHCPv6 Configuration** section | |
| Enabled | This feature is *enabled* by default. To *disable* this feature, click the **slide button**. |

| Field | Description |
| --- | --- |
| Router advertisement | Select how this gateway will be advertised through this DHCPv6 server. Options are:<br>• **Assisted**: Advertises this gateway with all configuration, with stateless auto-configuration, or both.<br>• **Managed**: Advertises this gateway with all configuration. This is the default.<br>• **Unmanaged**: Advertises this gateway with only stateless auto-configuration. |
| DHCP Static Associations | (*Optional*) To define a static DHCP server, follow the steps in "Defining a Static DHCP IP Address Association". |

### Defining a Static DHCP IP Address Association

If desired, a static IP address may be associated with the MAC address of a specific LAN host device.

1. To select a LAN client device, click **+ Add host** to the right of the **DHCP Static Associations** section heading. The Add/Edit DHCP Static Association dialog box appears.



2. When you select a connected host, the fields in the dialog box are populated with the necessary information. If the host is currently offline or you select **None** in this field, you must enter the information manually.
3. Complete the fields, using the information in the table below.
4. Click **Save changes** to commit your changes.

The fields in this section are described in the following table.

| Field | Description |
|---|---|
| Device Name | Enter a name for the host device. |
| MAC Address | Accept the displayed address or enter the MAC address of the host device (such as 00:23:6A:A3:7C:C3). The MAC address of the device selected in Step 1 appears in this field. |
| IP Address | Accept the displayed address or enter the IP address of the host device (such as 192.168.1.44). The IP address of the device selected in Step 1 appears in this field. |
| IPv6 DUID | Enter the DHCP Unique Identifier (DUID) for the IPv6 server. |
| IPv6 Host ID | Enter the ID for the IPv6 server. |

To add another static DHCP configuration, repeat Steps 1-4.

To edit a static DHCP IP address, click the **Edit** ( ) icon next to it. The Add/Edit dialog box appears. Change the entries as needed and click **Save Changes** to commit your changes.

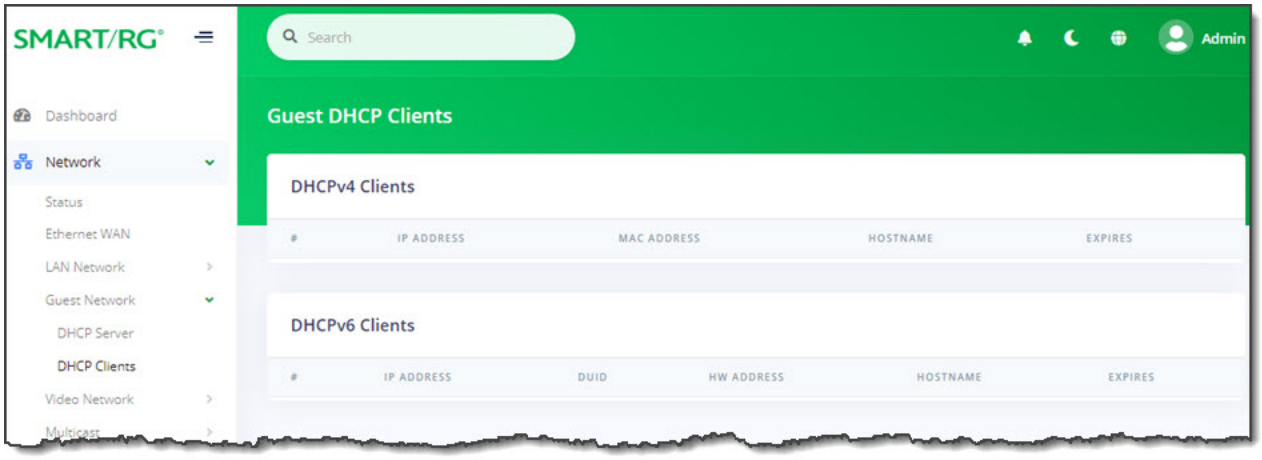
To remove a static DHCP IP address, click the **Delete** icon ( )next to it.

Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## DHCP Clients

On this page, you can view the IPv4 and IPv6 DHCP clients connected to your gateway.

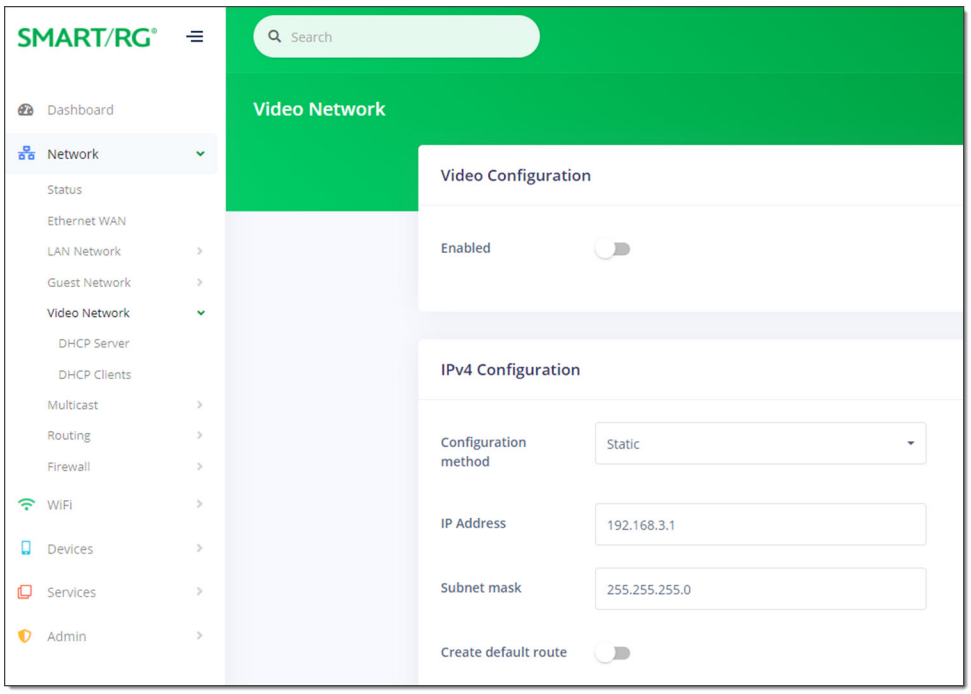
In the left menu, click **Network** > **Guest Network** > **DHCP Clients**. The following page appears.



# *Video Network*

In this section, you can configure WAN settings for video data.

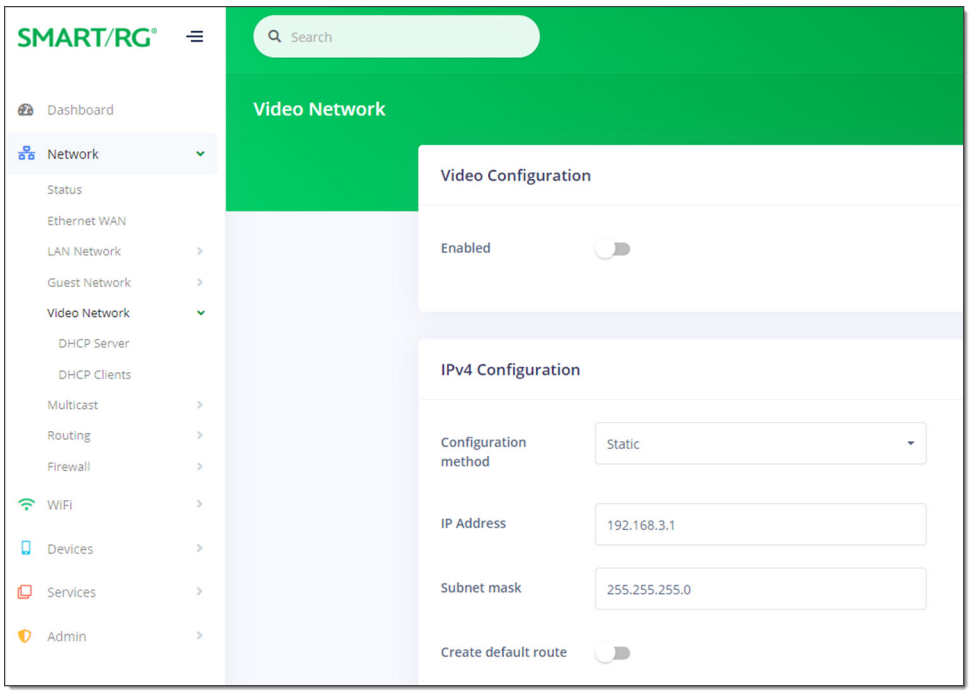
1. In the left menu, click **Network** > **Video Network**. The following page appears. This feature is *disabled* by default.




2. To *enable* this feature, click the **slide button** to the right of **Enabled**.
3. In the **Configuration method** field, select the appropriate method for your WAN. Options are **Static**, **DHCP**, and **None**. The default is **Static**. The page refreshes to show the fields that apply for the selected method. If you select **None**, the other fields are hidden.
4. Fill in the other fields as explained below for each option:
   - "Static"
   - "DHCP"
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## Static

When you select **Static** in the **Configuration method** field, the following fields appear.

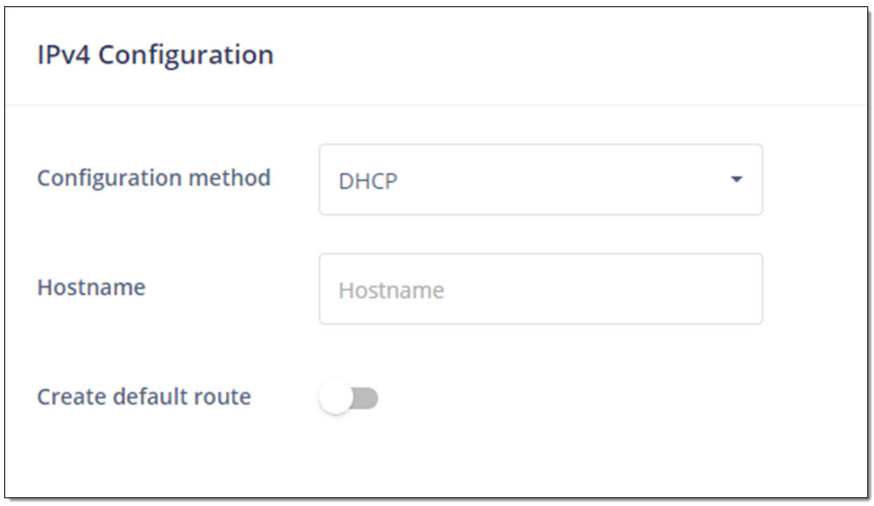



1. Modify the fields using the information in the table below.
2. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field | Description |
|---|---|
| Address | Enter the IP address for IPv4 communications (such as 192.168.1.44). |
| Subnet mask | Enter the IP address for the subnet mask. |
| Create default route | To create a default route for this WAN, click the **slide button** next to **Create default route**. |

## DHCP

When you select **DHCP** in the **Configuration method** field, the following fields appear.

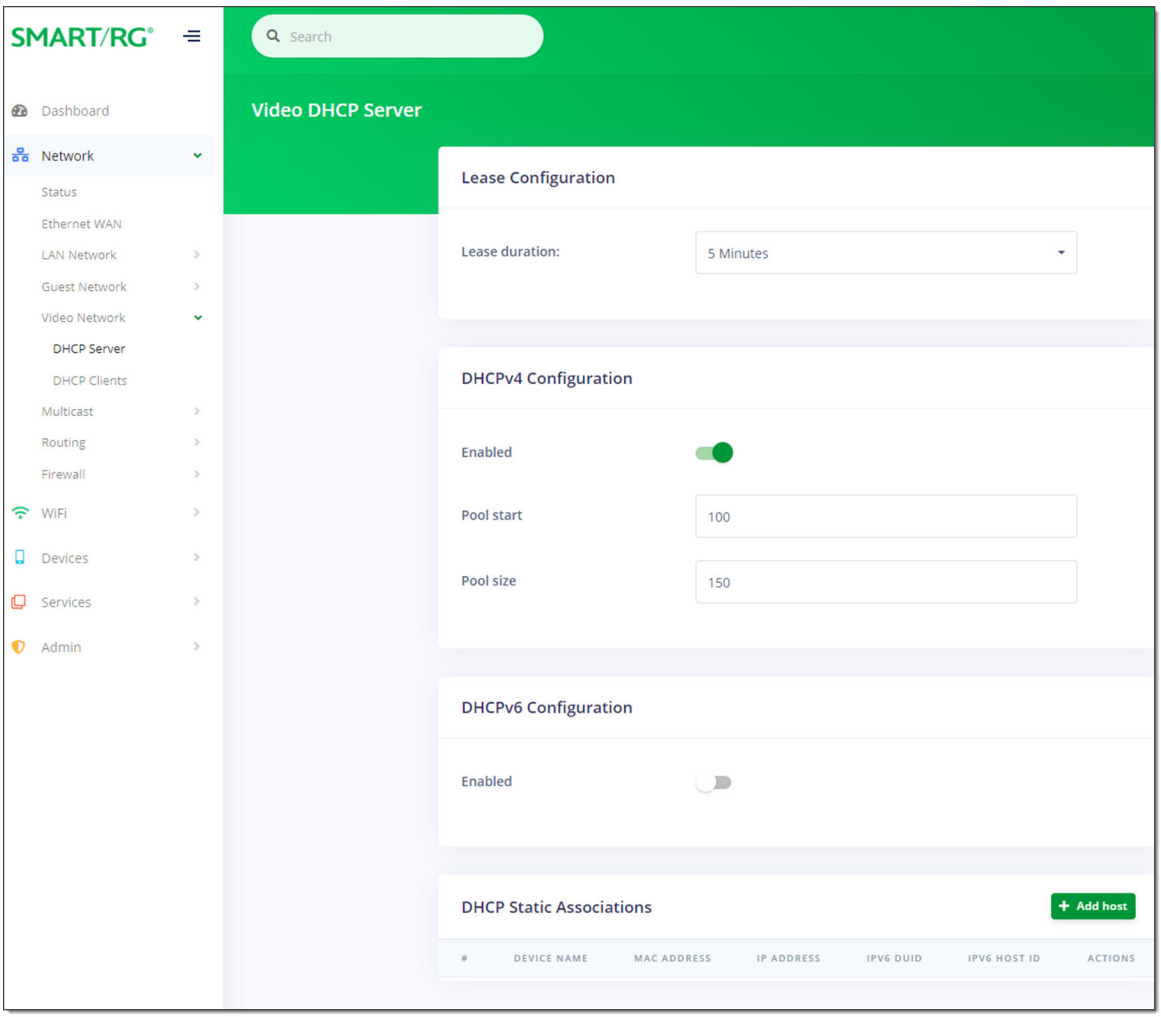



1. (*Optional*) In the **Hostname** field, enter the host name to be included in DHCP requests.
2. To create a default route for this WAN, click the **slide button** for **Create default route**.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## DHCP Server

On this page, you can configure DHCP settings for the video network.

1. In the left menu, click **Network** > **Video Network** > **DHCP Server**. The following page appears.



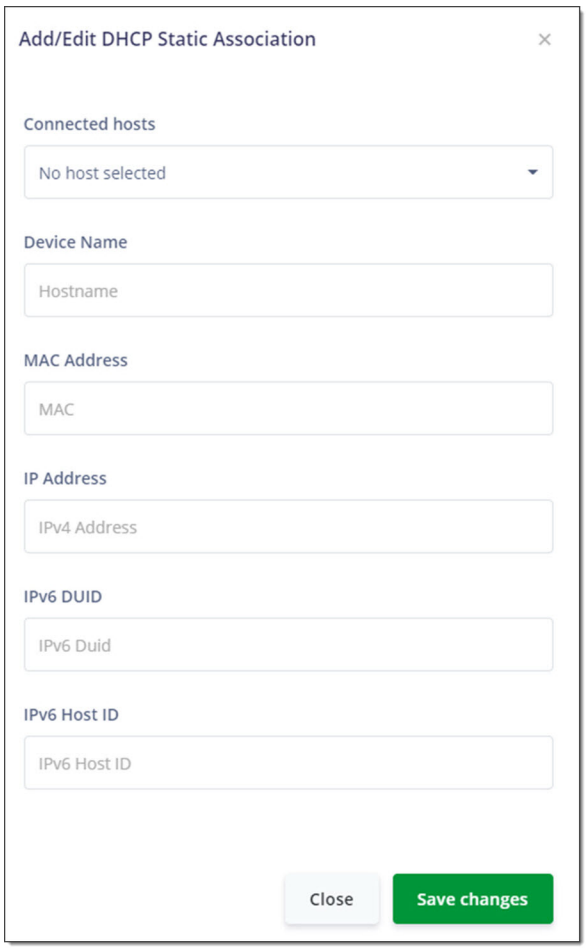

2. Fill in the fields using the information in the table below.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field | Description |
|---|---|
| Lease duration | Enter the amount of time for which an IP address will be leased. Options range from **5 minutes** to **24 hours**. The default is **5 minutes**. |
| **DHCPv4 Configuration** section | |
| Enabled | This feature is *enabled* by default. To *disable* this feature, click the **slide button**. |
| Pool start | Enter the beginning of the class-C IP address range to be assigned by the DHCP server. The default is **100**. |
| Pool size | Enter the size of the DHCP pool. The maximum size allowed is **252**. The default is **150**. |
| **DHCPv6 Configuration** section | |
| Enabled | This feature is *disabled* by default. To *enable* this feature, click the **slide button**. |
| Router advertisement | (*Appears when **Enabled** is set to **On***) Select how this gateway will be advertised through this DHCPv6 server. Options are **Assisted**, **Managed**, and **Unmanaged**. The default is **Managed**.<br>The **Assisted** option advertises this router with all configuration through a DHCPv6 server *and/or* stateless auto configuration. |
| DHCP Static Associations | (*Optional*) To define a static DHCP server, follow the steps in "Defining a Static DHCP IP Address Association". |

### Defining a Static DHCP IP Address Association

If desired, a static IP address may be associated with the MAC address of a specific LAN host device.

1. To select a LAN client device, click **+ Add host** to the right of the **DHCP Static Associations** section heading. The Add/Edit DHCP Static Association dialog box appears.




2. When you select a connected host, the fields in the dialog box are populated with the necessary information. If the host is currently offline or you select **None** in this field, you must enter the information manually.
3. Complete the fields, using the information in the table below.
4. Click **Save changes** to commit your changes.

The fields in this section are described in the following table.

| Field | Description |
|---|---|
| Device Name | Enter a name for the host device. |
| MAC Address | Accept the displayed address or enter the MAC address of the host device (such as 00:23:6A:A3:7C:C3). The MAC address of the device selected in Step 1 appears in this field. |
| IP Address | Accept the displayed address or enter the IP address of the host device (such as 192.168.1.44). The IP address of the device selected in Step 1 appears in this field. |
| IPv6 DUID | Enter the DHCP Unique Identifier (DUID) for the IPv6 server. |
| IPv6 Host ID | Enter the ID for the IPv6 server. |

To add another static DHCP configuration, repeat Steps 1-4.

To edit a static DHCP IP address, click the **Edit** ( ) icon next to it. The Add/Edit dialog box appears. Change the entries as needed and click **Save Changes** to commit your changes.

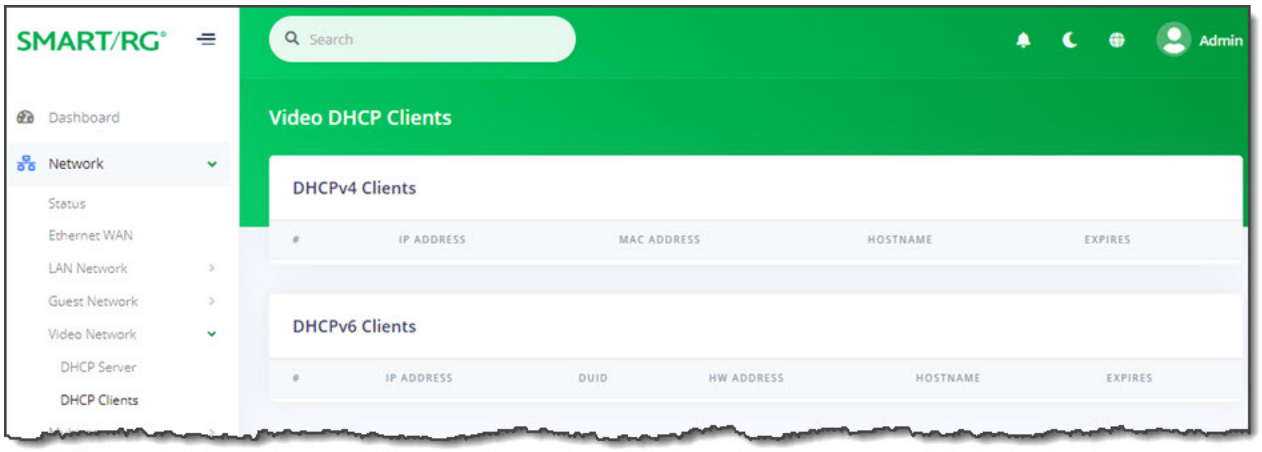
To remove a static DHCP IP address, click the **Delete** icon ( )next to it.

Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

### DHCP Clients

On this page, you can view the IPv4 and IPv6 DHCP clients connected to the video network.

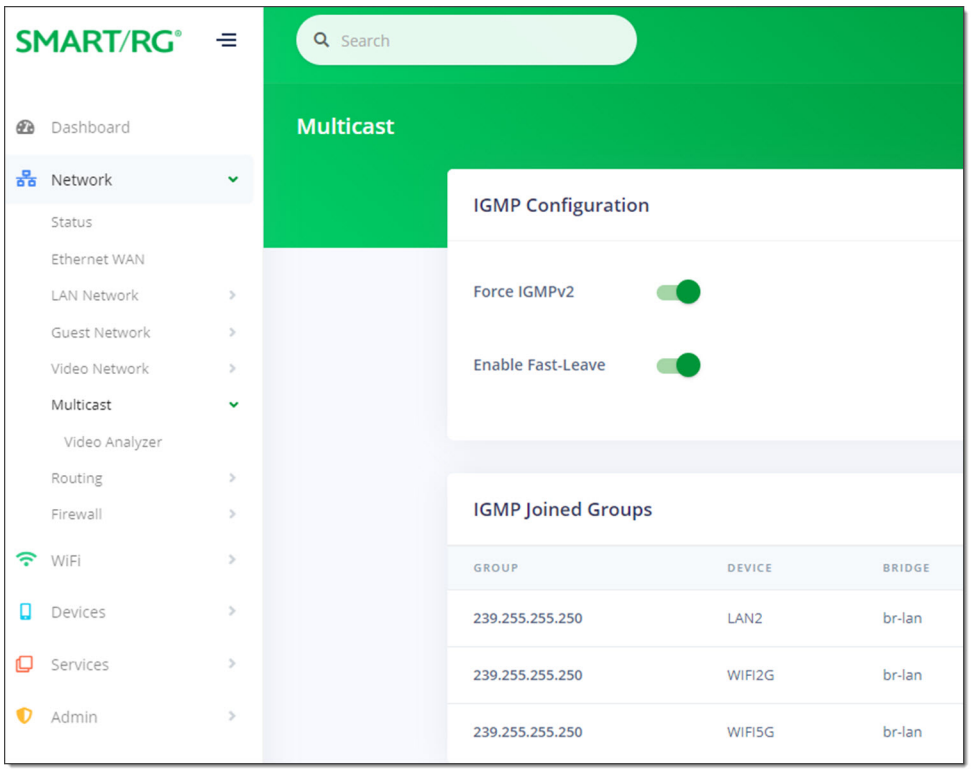
In the left menu, click **Network** > **Video Network** > **DHCP Clients**. The following page appears, showing any active video clients.




# *Multicast*

On this page, you can configure IGMP settings such as the Fast-Leave option and view details of the joined groups including IP address, device name, and bridge ID.

1. In the left menu, click **Network** > **Multicast**. The following page appears.




(*Optional*) To *disable* the IGMPv2 feature, click the **slide button** next to **Force IGMPv2**.

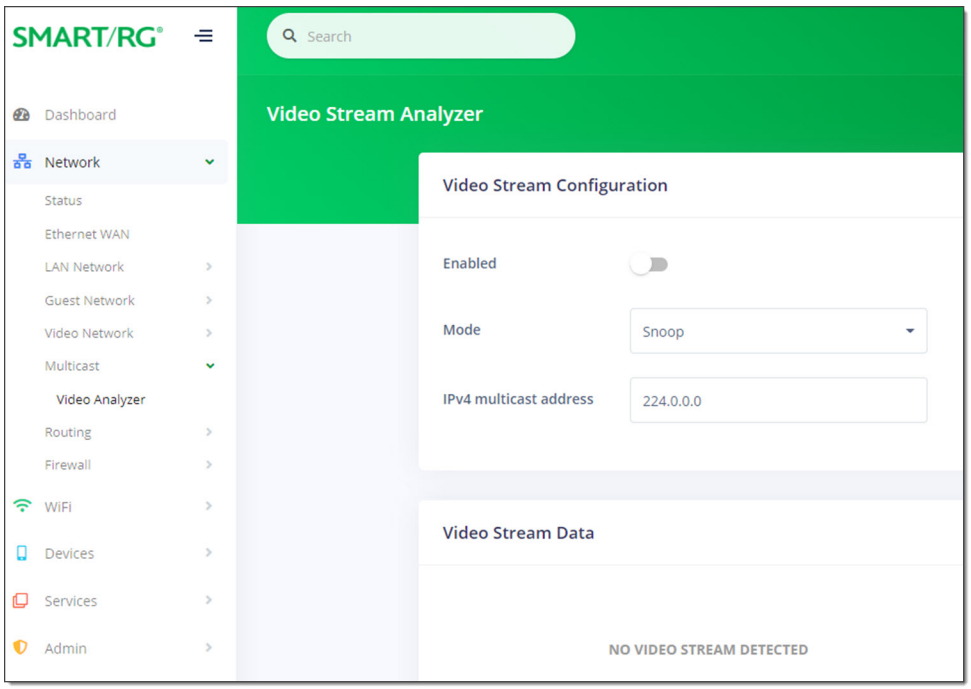
(*Optional*) To *disable* the Fast-Leave feature, click the **slide button** next to **Enable Fast-Leave**.

Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## Video Analyzer

On this page, you can configure the IP multicast video streams.

1. In the left menu, click **Network** > **Multicast** > **Video Analyzer**. The following page appears. If video is configured for your gateway, data about the video stream appears in the bottom section of the page.



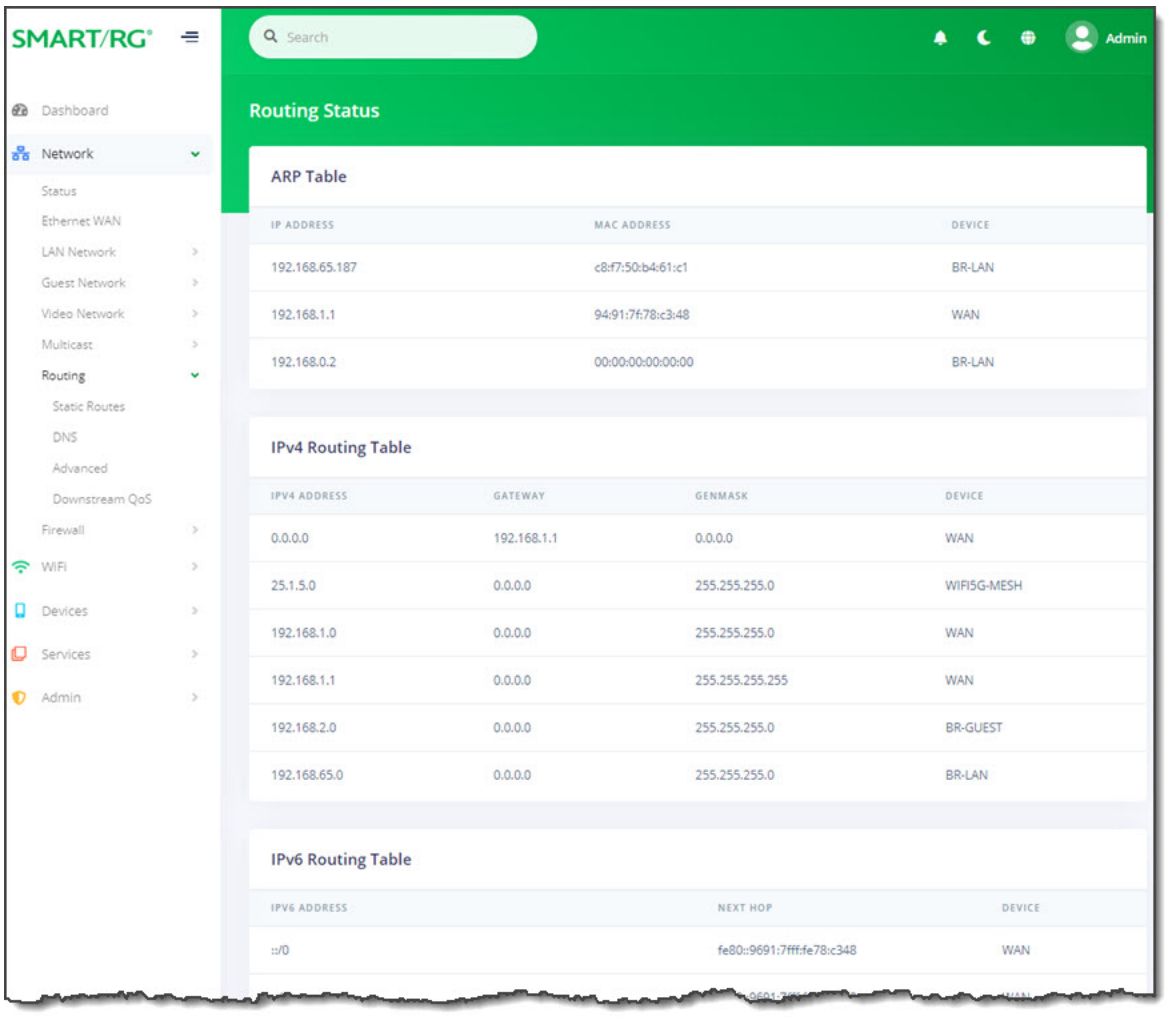

2. To *enable* this feature, click the **slide button** to the right of **Enabled**.
3. In the **Mode** field, select the analyzer mode. Options are **Snoop** and **Join**. The default is **Snoop**.
4. (*Optional*) In the **IPv4 multicast address** field, enter the IP address. Options range from **224.0.0.0** through **239.255.255.255**. The default is **224.0.0.0**.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

In the **Video Stream Data** section, when a video stream is active, the stream summary is shown along with information about the stream rate, media delivery index, packet header, and PID counters display.

# *Routing*

On this page, you can view the static routes configured for the network (including tables for ARP, IPv4, IPv6, and IPv6 Neighbors).

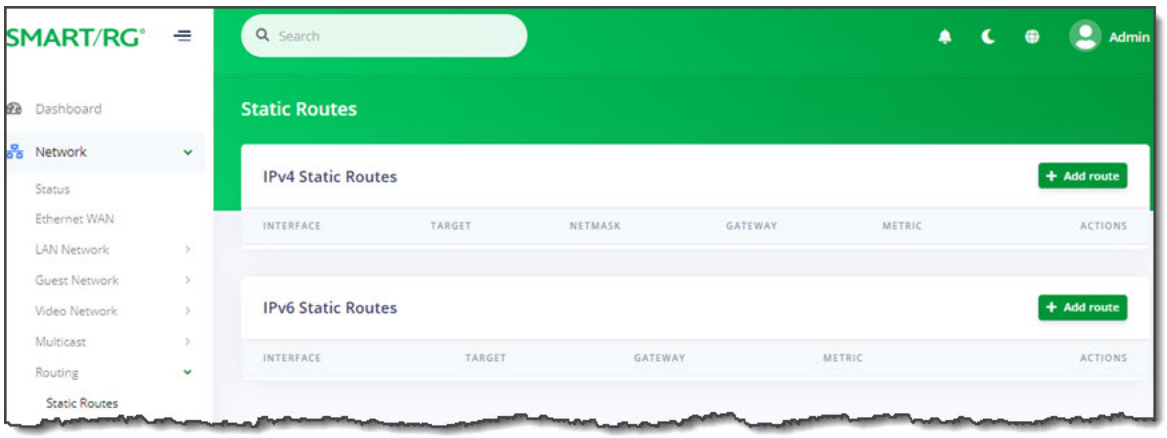
In the left menu, click **Network** > **Routing**. The following page appears.



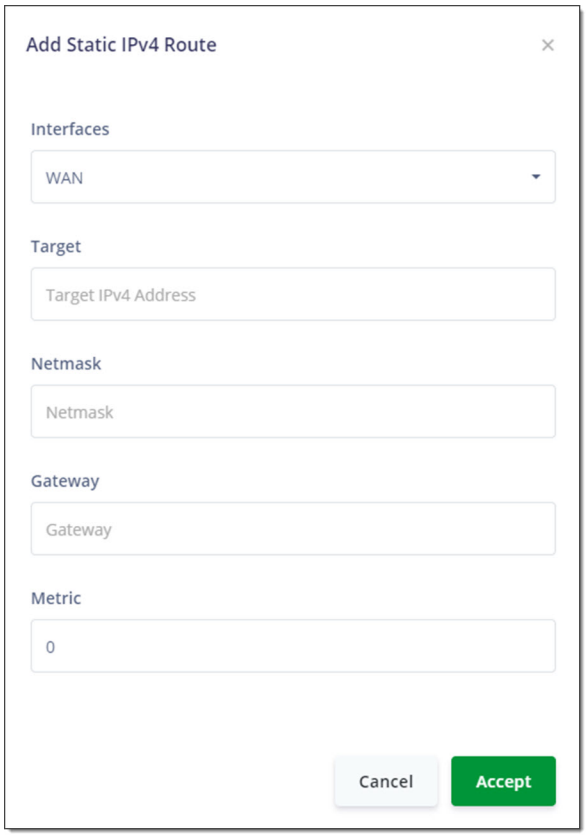

# *Static Routes*

On this page, you can specify the routes over which interface and gateway for a certain host or network can be reached. When several networks are accessible from the gateway, Static Routes become useful to ensure packets get correctly routed between them.

1. In the left menu, click **Network** > **Routing** > **Static Routes**. The following page appears, showing sections for **IPv4 Static Routes** and **IPv6 Static Routes**.




2. Click the **+ Add Route** button to the right of the heading for the desired IP version.
   a. The appropriate Add Static Route dialog box appears.




   b. Complete the fields, using the information provided in the table below.
   c. Click **Accept** to save your changes. You are returned to the Static Routes page.

3. To edit an existing route:
   a. Click the **Edit** icon ( ) to the right of the entry to be edited. The Add Static Route dialog box appears.
   b. Modify the fields as needed and then click **Accept**.
4. To delete a route, click the **Delete** icon ( ) to the right of the entry to be deleted.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

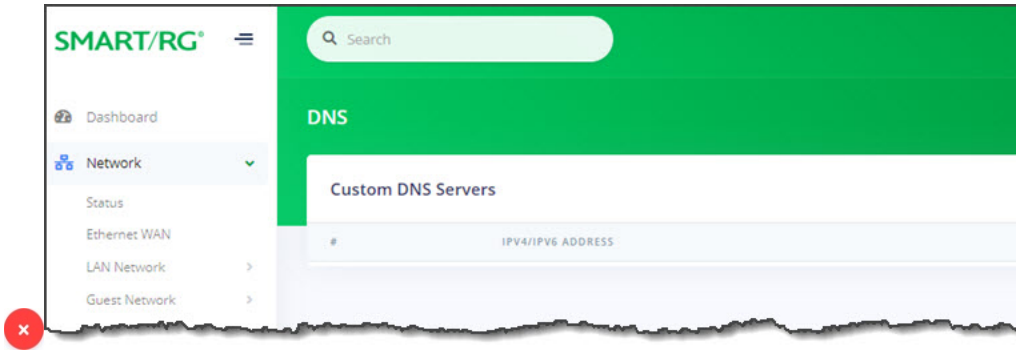
The following table describes the fields on this page.

| Field Name | Description |
|---|---|
| Interfaces | Select the interface for the static route. |
| Target | Enter the host IP or network address. Enter specific IP addresses for a single device or identify an entire subnet. e.g., enter 192.168.1.0 to identify that subnet as the target. |
| Netmask | (*Appears for IPv4 routes only*) Enter the net mask for the target IP address. |
| Gateway | Enter the gateway address for the route. |
| Metric | Enter the number of hops needed to reach the default gateway. The default is **0**. |

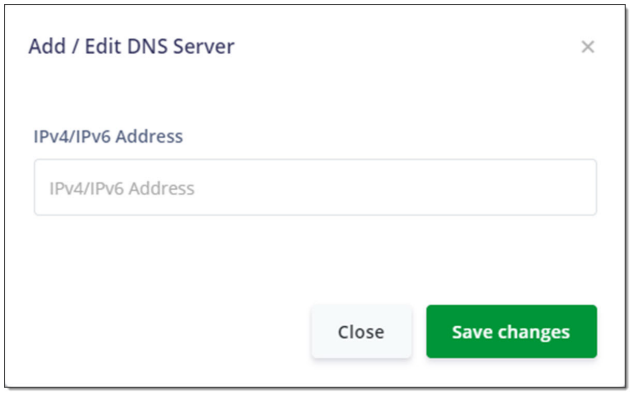
# *DNS*

On this page, you can configure network DNS servers.

1. In the left menu, click **Network** > **Routing** > **DNS**. The following page appears.



2. To add a custom DNS server, in the **Custom DNS Servers** section:
   a. Click the **+ Add server** button. The **Add/Edit DNS Server** dialog box appears.

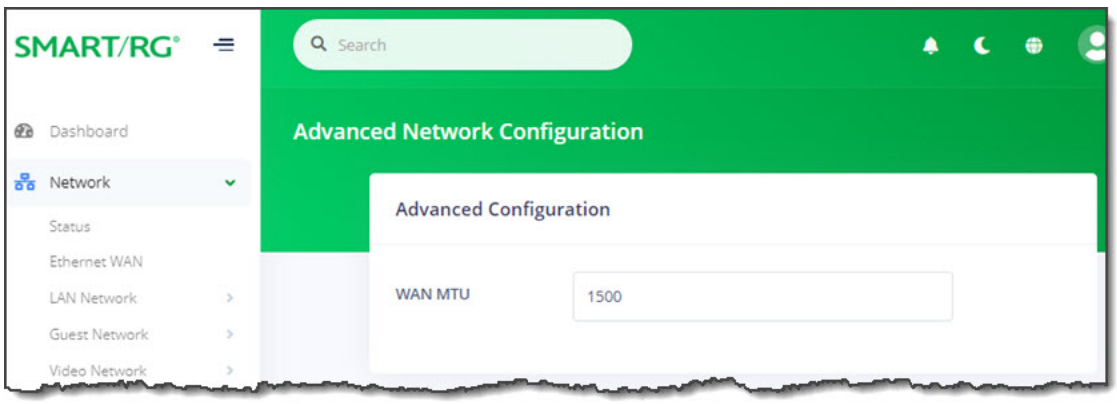



   b. Enter the IP address of the custom DNS server and click **Save changes**.
   c. To add another IP address, repeat steps a and b.
3. To edit a DNS server address, click the **Edit** ( ) icon next to it. The Add/Edit dialog box appears. Enter the new server address and click **Save Changes** to commit your changes.
4. To remove a server, click the **Delete** icon ( ) next to it.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

## Advanced

On this page, you can configure the WAN MTU setting.

1. In the left menu, click **Network** > **Routing** > **Advanced**. The following page appears.

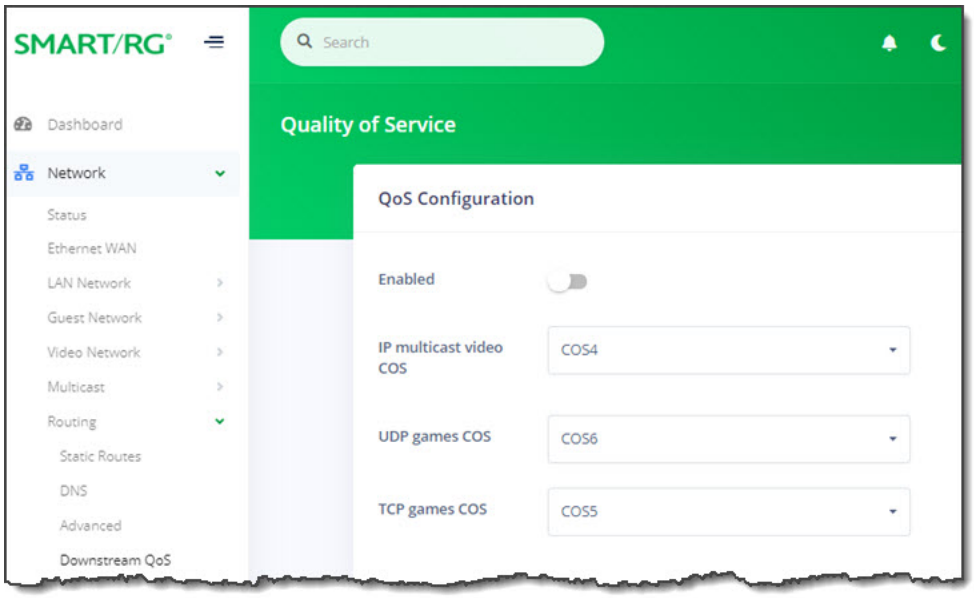



2. Enter or select the MTU (Maximum Transmission Unit) size for the network. Options are **0** - **2048**. The default is **1500**.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# Downstream QoS

On this page, configure how traffic is prioritized over wireless networks to improve quality of service.

1. In the left menu, click **Network** > **Routing** > **Downstream QoS**. The following page appears.




2. To *enable* the quality of service feature, click the **slide button** to the right of **Enabled**.
3. In the three remaining fields, select the appropriate COS (priority) level. Options are **COS7** - **COS0**. The default settings work for most systems.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

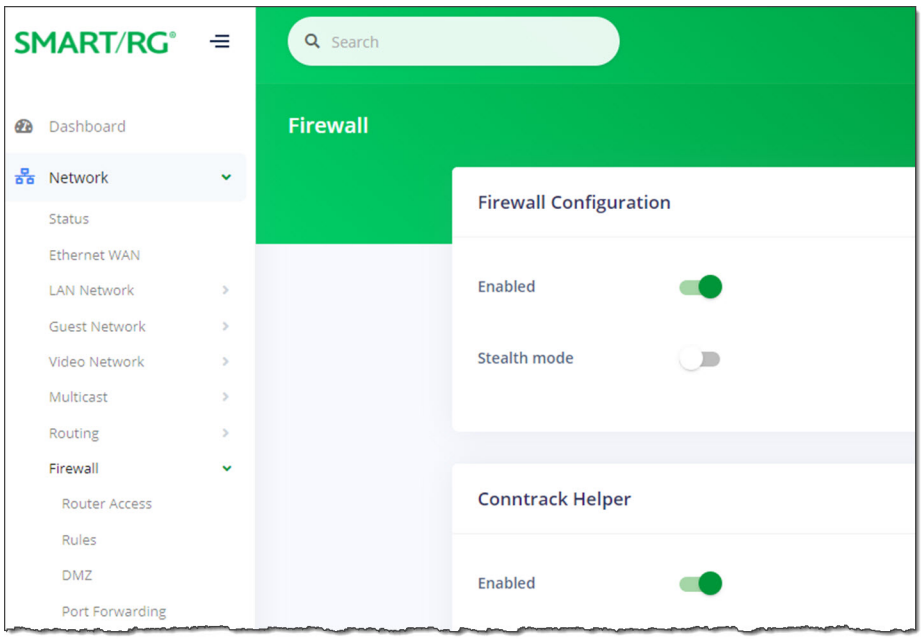
# Firewall

In this section, you can configure router access, rules, DMZ settings, and port forwarding settings.

## Firewall Settings

On this page, you can enable the firewall for your system.

1. In the left menu, click **Network** > **Firewall**. The following page appears. The firewall is enabled by default.

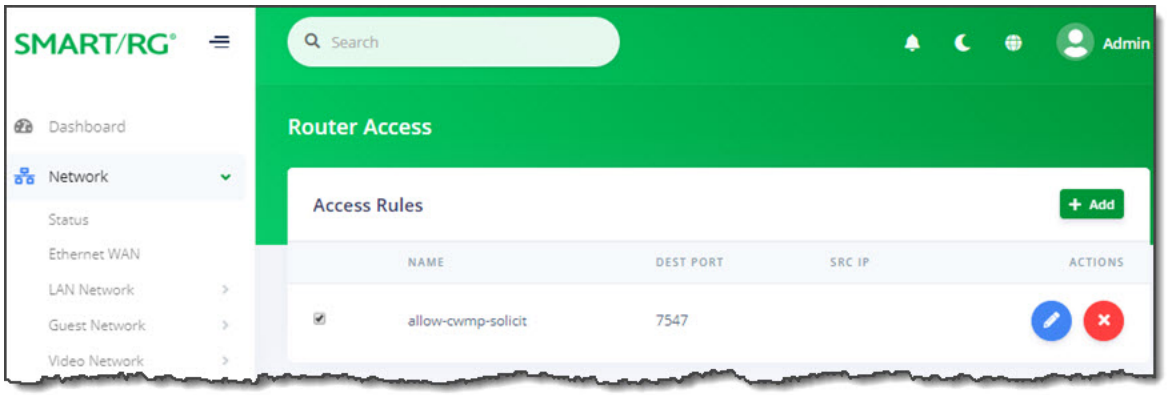



2. To *disable* the firewall, click the **slide button** next to **Enabled**.
3. To prevent malicious users from discovering information about your network and its devices and service, click the **slide button** next to **Stealth mode**.
4. The Conntrack Helper feature is *enabled* by default. To *prevent* these modules from assisting the firewall in tracking the various protocols used to establish traffic flow. click the **slide button**.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

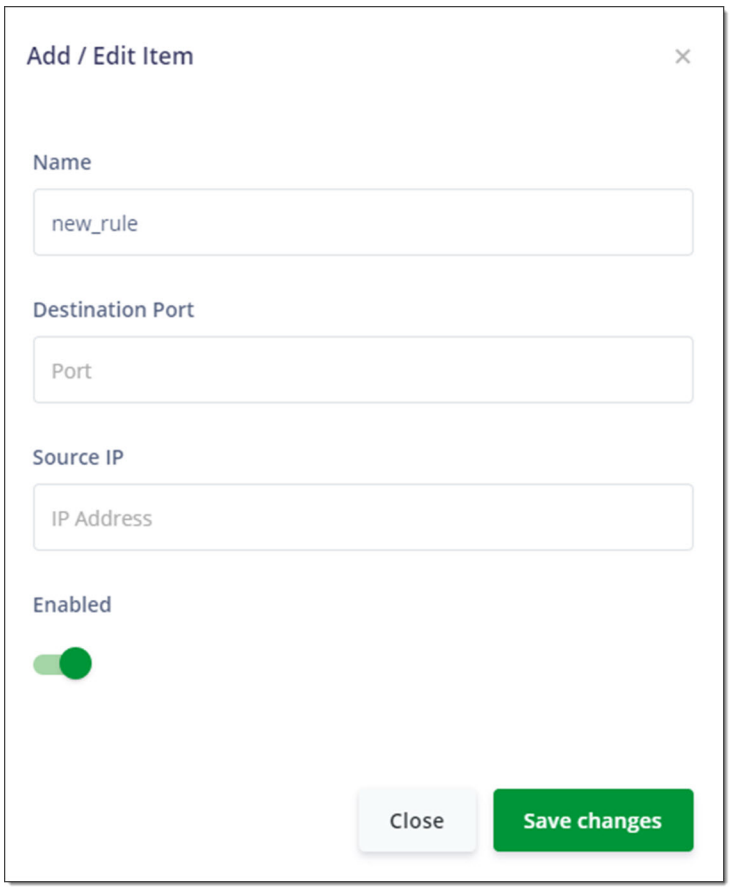
## Router Access

On this page, you can configure a destination port and source IP address for router access.

1. In the left menu, click **Network** > **Firewall** > **Router Access**. The following page appears.



2. To add a mapping, click the **+ Add** button at the right side of the page. The **Add / Edit Item** dialog box appears.




3. Fill in the fields using the information provided in the table below. All fields are optional.
4. Click **Save changes**. The dialog box closes and the new mapping appears in the **Router Access** list.
5. To edit a mapping:
   a. Click the **Edit** icon ( ) next to the line item to be changed. The **Add / Edit Item** dialog box appears.
   b. Modify the fields as needed.
   c. Click **Save changes**. The updated values appear on the page.
6. To *disable* a mapping, clear the checkbox in the far left column for the mapping you wish to suspend. The mapping definition remains on the page but is not active.
7. To *remove* a mapping, click the **Delete** icon ( ) at the end of the row to be deleted. The mapping definition is removed.
8. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

The fields on this page are explained in the following table.

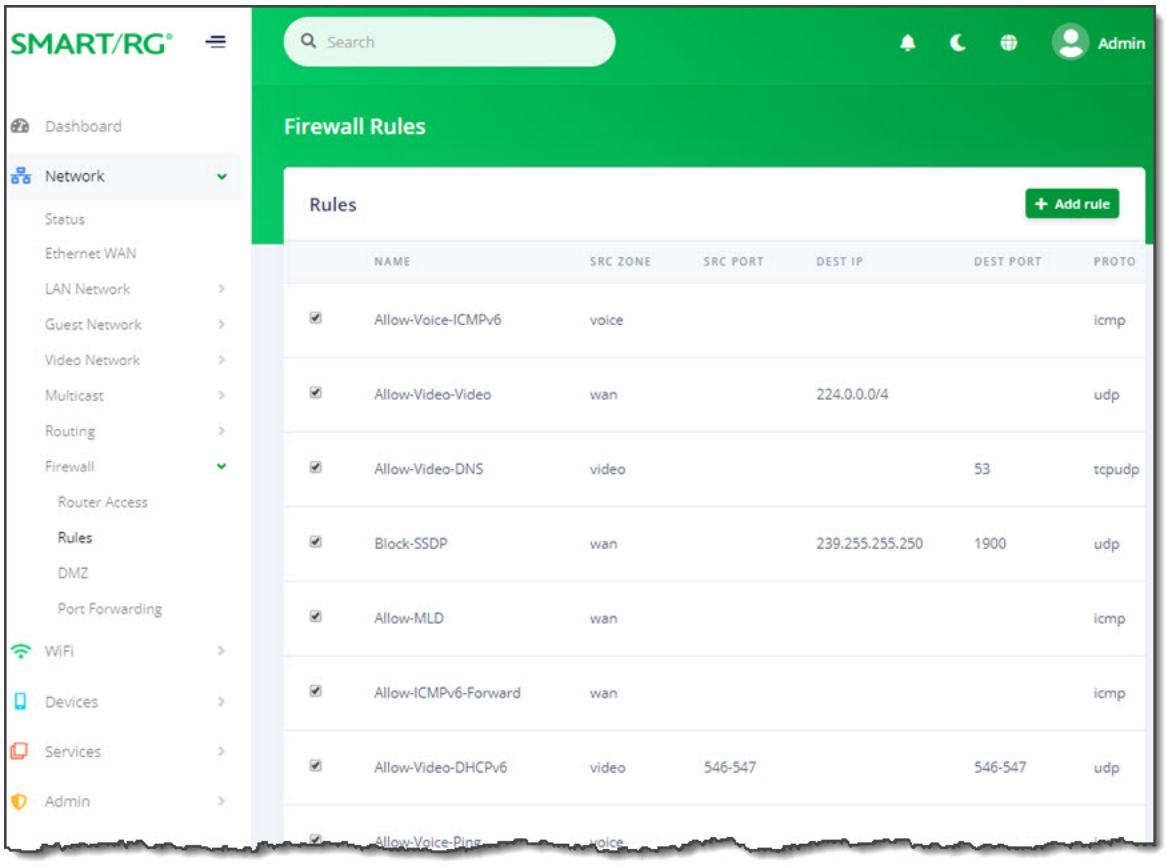
| Field Name | Description |
|---|---|
| Name | Enter a descriptive name for this rule. No spaces are allowed. |

| Field Name | Description |
|---|---|
| Destination Port | Enter the destination port for this rule. |
| Source IP | Enter the IP address for the source device (such as 192.168.1.44). |
| Enabled | New rules are *enabled* by default. To *disable* this rule but save the settings, click the **slide button**. |

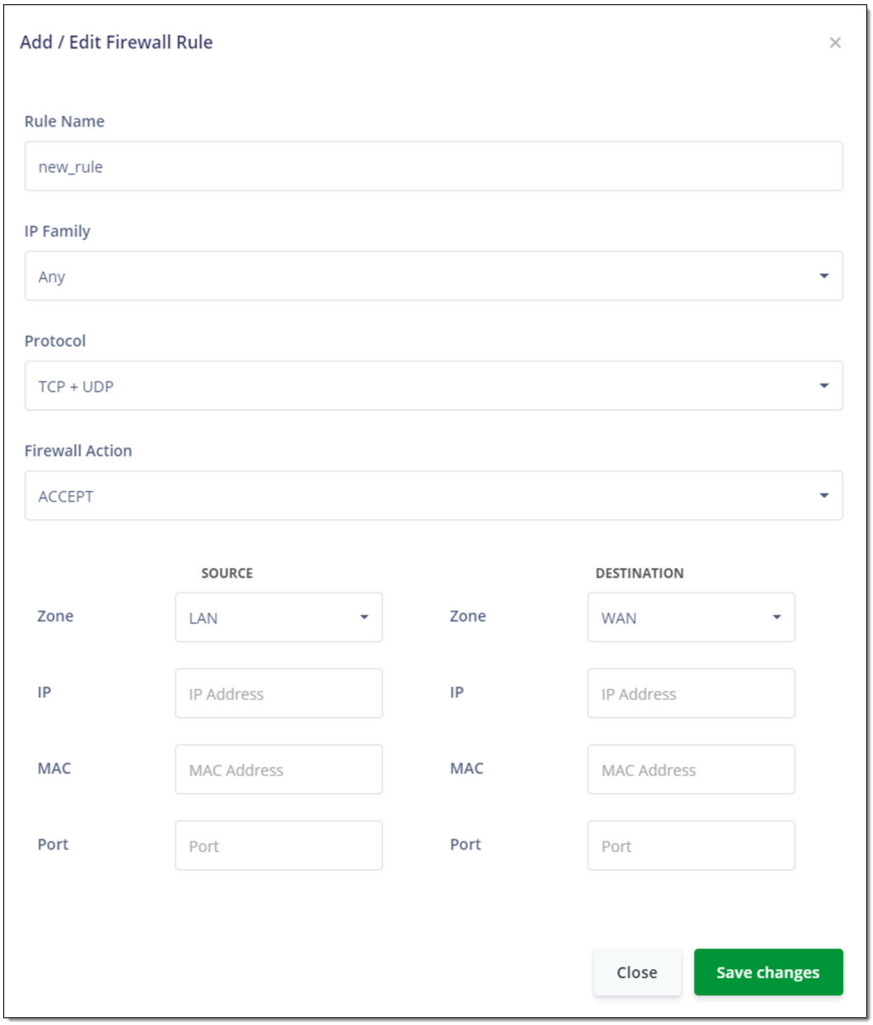
## Firewall Rules

On this page, you can define firewall rules to filter traffic.

1. In the left menu, click **Network** > **Firewall** > **Rules**. The following page appears.




2. To create a new rule:
   a. Click the **+ Add rule** button to the right of the **Rules** section heading. The **Add / Edit Firewall Rule** dialog box appears.




b. In the **Rule Name** field, enter a descriptive name for the rule.
c. Fill in the other fields using the information in the table below.
d. Click **Save changes**.

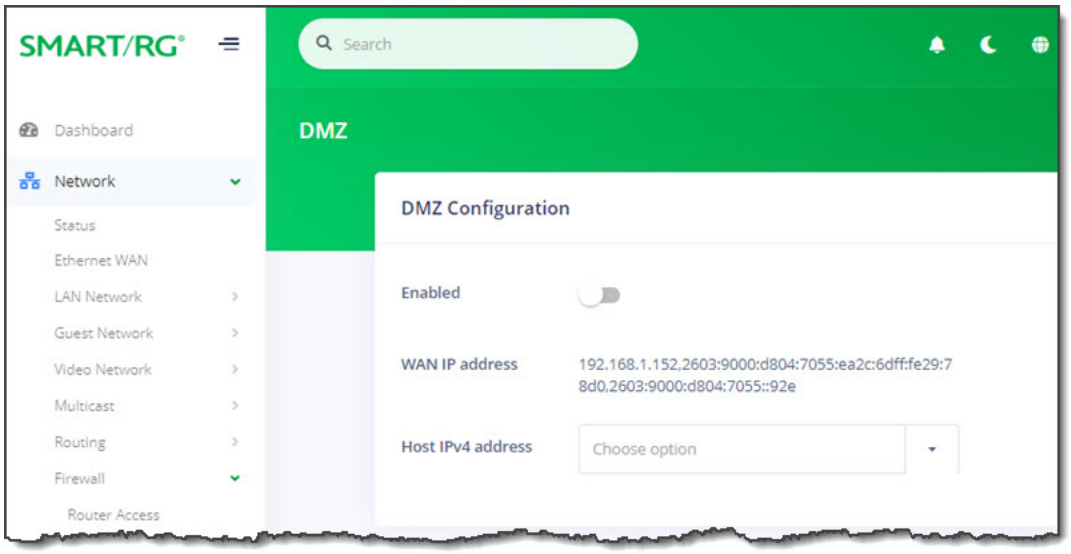
3. To edit a mapping:
   a. Click the **Edit** icon ( ) next to the line item to be changed. The **Add / Edit Item** dialog box appears.
   b. Modify the fields as needed.
   c. Click **Save changes**. The updated values appear on the page.
4. To *remove* a rule, click the **Delete** icon ( ) at the end of the row to be deleted. The rule is removed.
5. To *disable* a rule, clear the checkbox in the far left column. The rule remains on the page but is not active.
6. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field Name | Description |
|---|---|
| IP Family | Select the address family. Options are **Any**, **IPv4**, and **IPv6**. |
| Protocol | Select the protocol for this rule. Options are **UDP**, **TCP**, **ICMP**, **TCP + UDP**, and **ESP**. |
| Firewall Action | Select the action to be performed when this rule is triggered. Options are **ACCEPT**, **REJECT**, **FORWARD**, and **DROP**. The default is **ACCEPT**. |
| **SOURCE** | |
| Zone | Select the source zone. Options are **Unspecified**, **Any**, **GUEST**, **VIDEO**, **WAN**, **MGMT**, **LAN** and **VOICE**. The default is **LAN**. |
| IP | Enter the source IP address for this rule. |
| MAC | (*Optional*) To associate a source MAC address (such as 00236AA37CC3) with this rule, enter the MAC address for your gateway. If an IP address has been entered, the related MAC address appears in this field. To change the source MAC address, enter a new address. |
| Port | (*Optional*) To associate a source port with this rule, click the checkbox next to the entry field and then enter the port number for the source address. |
| **DESTINATION** | |
| Zone | Select the destination zone. Options are **Unspecified**, **Any**, **GUEST**, **VIDEO**, **WAN, MGMT**, **LAN**, and **VOICE**. The default is **WAN**. |
| IP | Enter the destination IP address for this rule. |
| MAC | *Optional*) To associate a source MAC address (such as 00236AA37CC3) with this rule, enter the MAC address for your gateway. If an IP address has been entered, the related MAC address appears in this field. To change the source MAC address, enter a new address. |
| Port | (*Optional*) To associate a destination port with this rule, enter the port number for the destination address. |

## DMZ

On this page, you can configure DMZ settings for your gateway. For security reasons, it is recommended that you create a static IP address for the host server that you enter on this page.

1. In the left menu, click **Network** > **Firewall** > **DMZ**. The following page appears. The WAN IP Address is read-only.



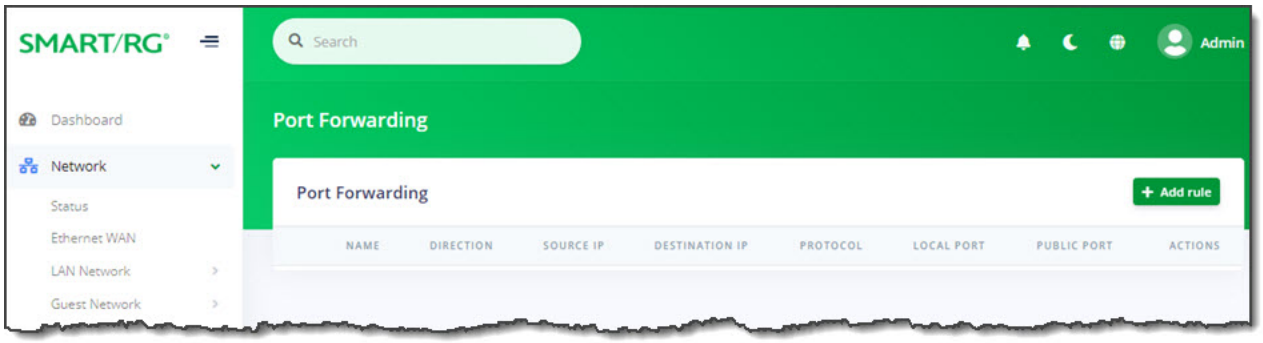

2. To *enable* this feature, click the **slide button** to the right of **Enabled**.
3. In the **Host IPv4 Address** field, select or enter the IP address for which unrestricted Internet access is to be allowed.

   **Note:** It is recommended to create a static DHCP association to this host address.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

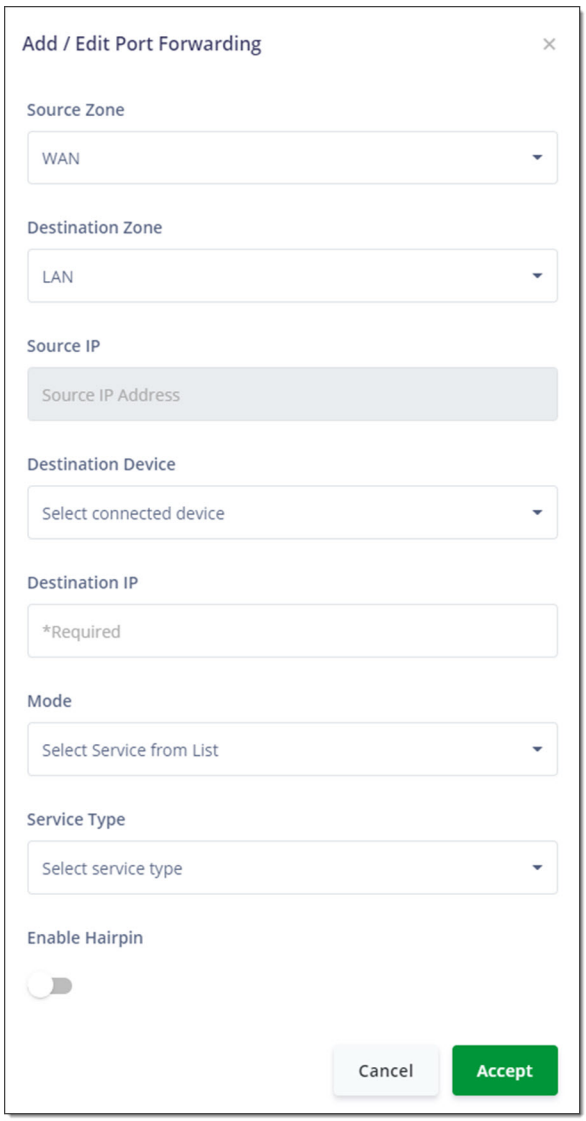
## Port Forwarding

On this page, you can configure a local network device to have unrestricted access to the Internet. This is useful when local network devices cannot run an Internet application properly behind the firewall. This is also known as *exposed host* or *virtual server*.

1. In the left menu, click **Network** > **Firewall** > **Port Forwarding**. The following page appears.




2. To add a mapping, click the **+ Add Rule** button to the right of the **Port Forwarding** section heading. The **Add/Edit Port Forwarding** dialog box appears.




3. Fill in the fields using the information provided in the table below. All fields are optional.

| Field Name | Description |
|---|---|
| Source Zone | Select the source zone from the drop-down list of zones defined on this network. Options are **GUEST**, **VIDEO**, **WAN**, **MGMT**, **LAN** and **VOICE**. The default is **WAN**. |
| Destination Zone | Select the destination zone from the drop-down list of zones. Options are **GUEST**, **VIDEO**, **WAN**, **MGMT**, **LAN** and **VOICE**. The default is **LAN**. |
| Source IP | Enter the IP address for the source device (such as 192.168.1.44). |
| Destination Device | Select a connected device from the devices available in the selected zone. |

| Field Name | Description |
|---|---|
| Destination IP | This field is populated when a destination device is selected. To change this address, type a different address in the field. |
| Mode | Select whether to use the settings defined for a service or to define the port settings manually. Options are **Select Service From List** and **Configure Manually**. The default is **Select Service From List**. |
| *Fields defined for using a service* | |
| Service Type | Select the type of service. The **Service** field appears. Options are **Server**, **Consoles**, **Remote Access**, **VPN**, **Messaging Telephone**, and **Audio and Video**. |
| Service | Select the service for the service type selected. The options vary by the type of service. |
| *Fields defined for configuring the rule manually* | |
| Public port/<br>Public port range | (*Appears when **Configure Manually** is selected in the **Mode** field*) Enter the applicable port number or range of numbers. Options are **1** - **65535**. |
| Protocol | (*Appears when **Configure Manually** is selected in the **Mode** field*) Select the correct protocol. Options are **UDP**, **TCP**, and **TCP + UDP**. |
| Local port/<br>Local port range | (*Appears when **Configure Manually** is selected in the **Mode** field*) Enter the local port number or range of numbers. Options are **1** - **65535**. |
| Port Type | (*Appears when **Configure Manually** is selected in the **Mode** field*) Select whether to enter a single port or a range of ports. If **Port range** is clicked, the **Public port** field changes to the **Public port range** fields and the **Local port** field changes to the **Local port range** fields. |
| Enable Hairpin | To *enable* hairpin protocol, click the **slide button**. |

4. Click **Accept**. The dialog box closes and the new mapping appears in the **Port Forwarding** list.
5. To edit a mapping:
   a. Click the  icon to the right of the mapping entry. The **Add/Edit Port Forwarding** dialog box appears.
   b. Modify the fields as needed, and then click **Save**. The updated values appear on the page.
6. To *disable* a mapping, clear the checkbox that appears before the **Name** column. The mapping definition remains on the page but is not active.
7. To *remove* a mapping, click the **Delete** icon (  ) at the end of the row to be deleted. The rule is removed.
8. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

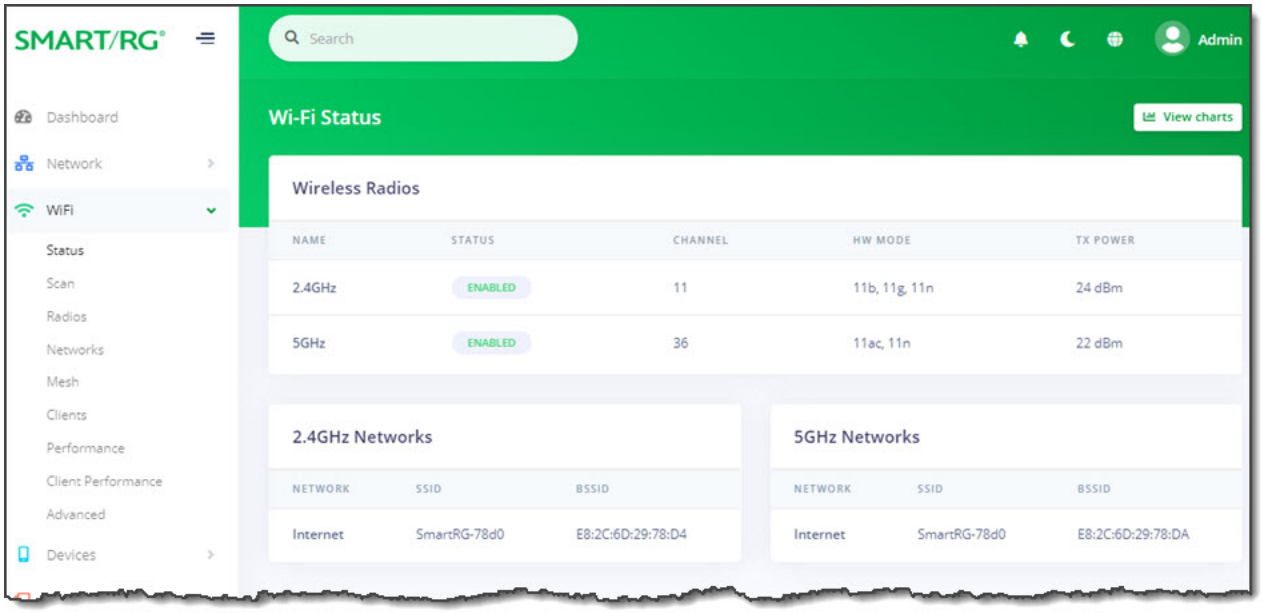
# WiFi

In this section, you can adjust settings and view performance associated with the Wi-Fi networks configured on this gateway.

## *Status*

On this page, you can view information about the wireless networks connected to your system.

In the left menu, click **WiFi** > **Status**. The following page appears, showing information for the 2.4 GHz and 5 GHz wireless networks.

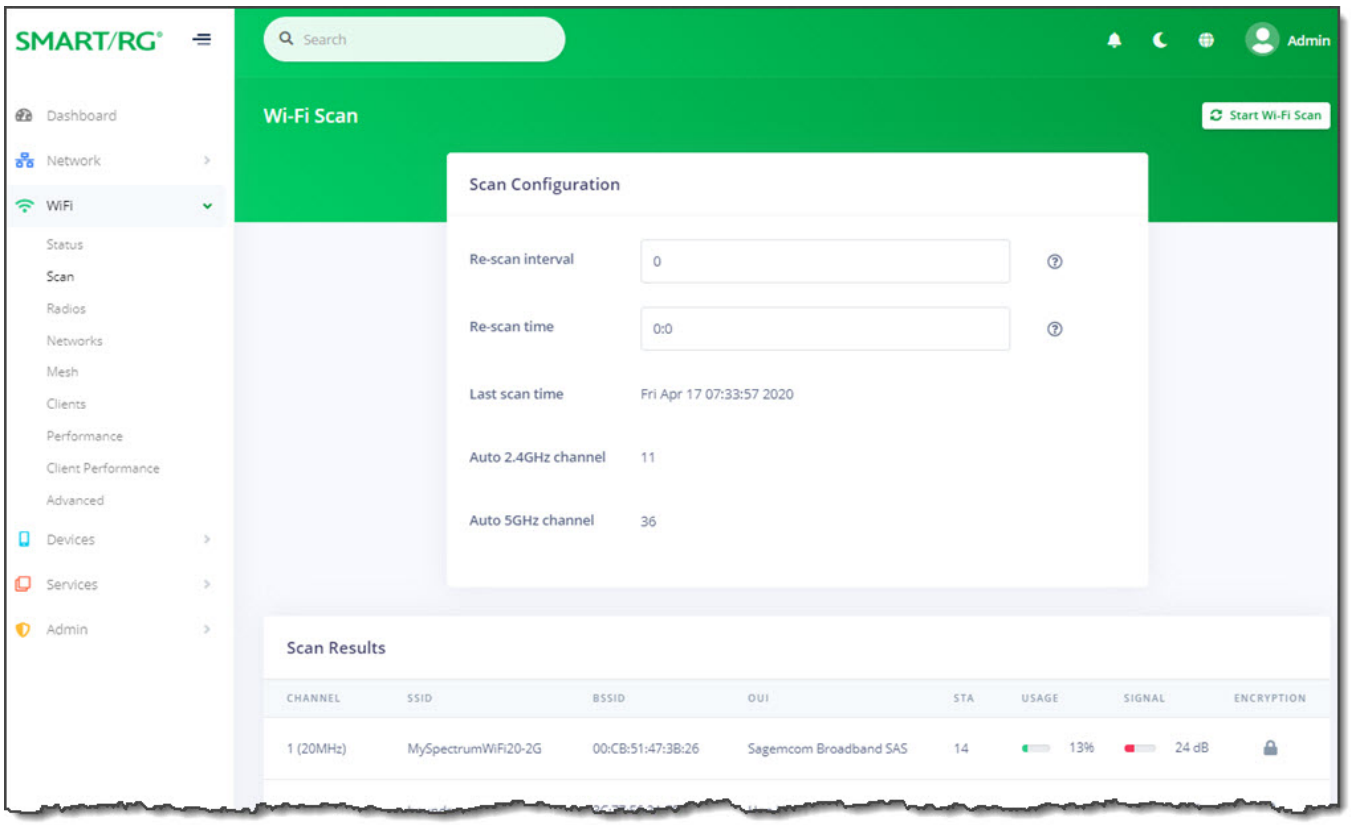



To view detailed transmission data for the individual interfaces, click the **View charts** button (View Charts) at the top right. The netdata window opens in a new tab, showing information about the overall SR400ac system, memory, CPUs, firewall, IPv4 networking, etc. Use the navigation menu at right to select the desired statistics to be displayed.

## *Scan*

On this page, you can scan for nearby wireless access points. The available data includes the channel number, SSID, BSSID, OUI, STA, usage, signal, and encryption.

1. In the left menu, click **WiFi** > **Scan**. The following page appears, showing the wireless access points found during the most recent scan. You can find the latest scan date and time in the upper section next to **Last scan time**. The channels currently in use are displayed below that field.

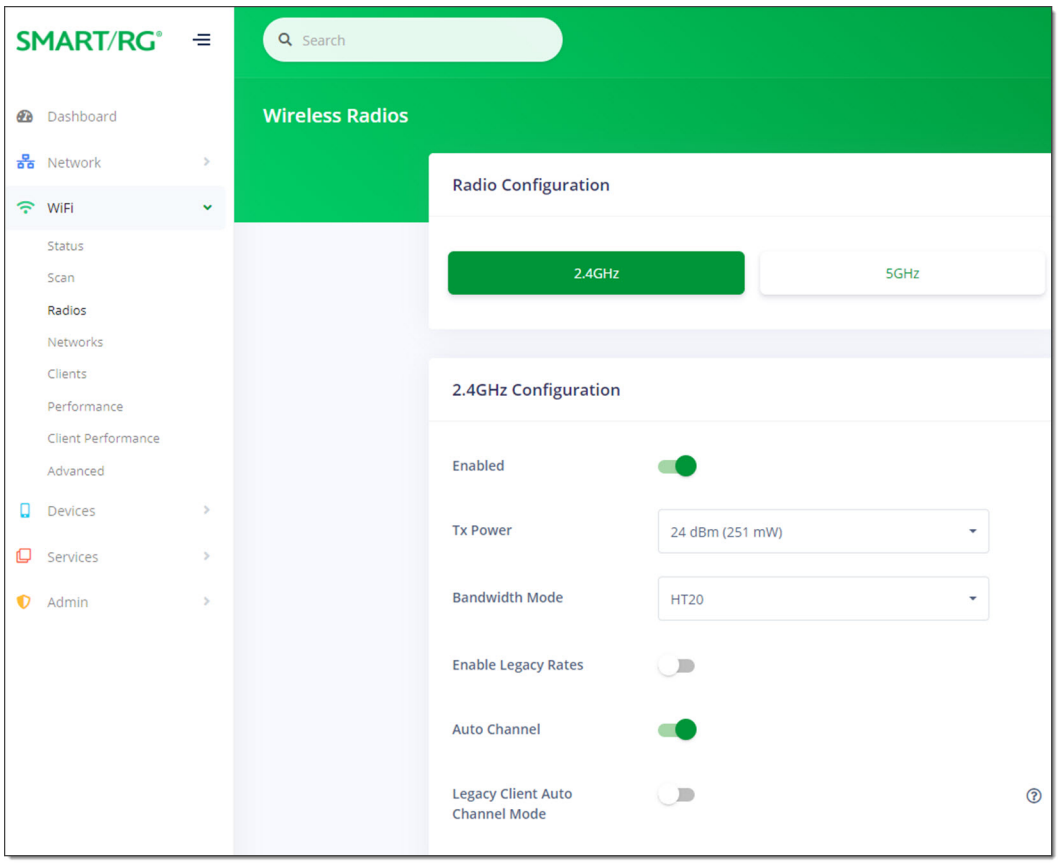



2. Do any of the following:
   - To re-scan for wireless access points near your location, click the **Start Wi-Fi Scan** button at the top right. The list refreshes in a few moments.
   - To define how often the scan should occur, in the **Re-scan interval** field, enter the number of hours between scans. To disable scanning, enter **zero** (**0**) in this field. This is the default.
   - To define the time of day when the scan should occur, in the **Re-scan time** field, enter the time in hh:mm format. Options are **00:01** - **23:59**. The default is **0:0** (disabled).
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# *Radios*

On this page, you can configure 2.4 or 5 GHz wireless networks for the primary SSID.

1. In the left menu, click **WiFi** > **Radios**. The following page appears, showing the fields for the 2.4 GHz radio. To view and adjust 5 GHz settings, click the **5GHz** button.




2. Fill in the fields, using the information in the following table. The same fields are used for both 2.4 GHz and 5 GHz configurations.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

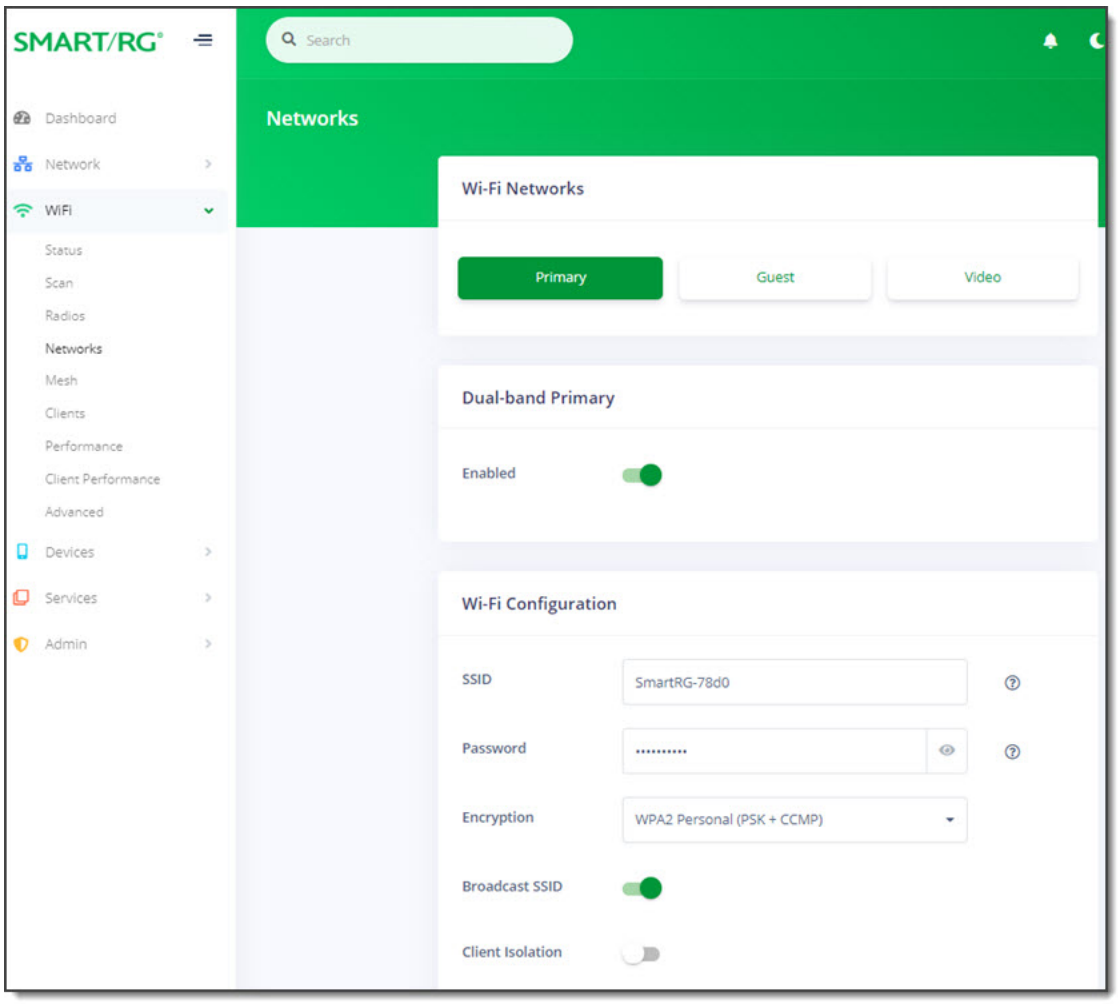
| Field Name | Description |
|---|---|
| Enabled | Each radio is enabled by default. To *disable* a radio, click the **slide button**. |
| TX Power | Select the maximum rate at which transmission is allowed. Options range from **6 dBm (4 mw)** to **26 dBm (398 mw)**.<br><br>The default is **24 dBm (250 mw)** for the 2.4 GHz radio and **22 dBm (160 mw)** for the 5 GHz radio. |
| Bandwidth Mode | **2.4 GHz radio:** Select the "high throughput" (HT) bandwidth mode for this device. Options are **HT20** and **HT40** (MHz). The default is **HT20**.<br><br>**5 GHz radio:** Select the " very high throughput" (VHT) bandwidth mode for this device. Options are **VHT20**, **VHT40**, and **VHT80**. The default is **VHT80**. |

| Field Name | Description |
|---|---|
| Enable Legacy Rates | To set the gateway to cut transmission briefly when changing channels, click the **slide button** . This is useful for legacy WiFi clients, enabling them to connect more effectively to a new channel. This feature is *disabled* by default. |
| Auto Channel | This feature is *enabled* by default. To *disable* automatic channel selection , click the **slide button**. The **Channel** field appears. |
| Channel | (*Available only when **Auto Channel** is disabled*) Select the channel for this device.<br><br>**2.4 GHz radio:** Options include **Channel 1 (2.412 GHz)** - **Channel 11 (2.462 GHz)**.<br><br>**5 GHz radio:** Options include **Channel 36 (5.18 GHz)** - **Channel 64 (5.32 GHz)** and **Channel 100 (5.5 GHz)** - **Channel 165 (5.825 GHz)**. |
| Legacy Client Auto Channel Mode | (*Appears for 2.4GHz only*) This feature is *disabled* by default. To allow the gateway to select the best channel for legacy clients, click the **slide button**. |

# *Networks*

On this page, you can configure the Primary, Guest and Video wireless networks.

1. In the left menu, click **WiFi** > **Networks**. The following page appears, showing the information for the primary wireless network.




2. Fill in the fields for the primary network, using the information provided in the table below.
3. To configure the guest network, click the **Guest** button and modify the fields as needed, using the information provided in the table below.
4. To configure the video network, click the **Video** button and modify the fields as needed, using the information provided in the table below.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

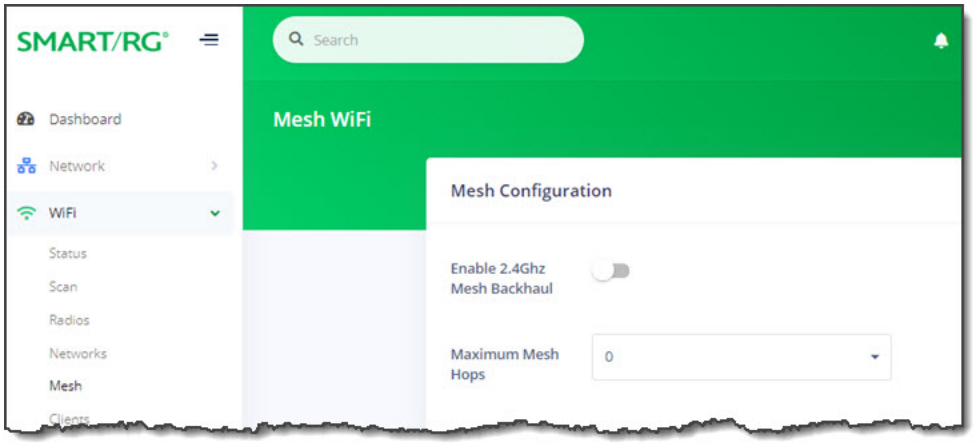
| Field Name | Description |
|---|---|
| Dual-band Primary<br>Dual-band Guest<br>Dual-band Video | This feature is *enabled* by default. To *disable* the dual-band feature for these networks, click the **slide button**. |
| **Wi-Fi Configuration** section | |
| Enabled | (*Appears on the **Guest** and **Video** pages only*) To enable the Wi-Fi configuration, click the **slide button**. |

| Field Name | Description |
|---|---|
| SSID | (*Optional*) Customize the wireless network ID. This field cannot contain quotes (") or back slashes (\) but can contain most other special characters. It is recommended that this ID be no more than 32 characters. |
| Password | Enter the passphrase for this connection. To show the key characters, click the icon.<br>This field cannot contain the following characters: " \ ( ) ; & \| < > but spaces are allowed. |
| Encryption | Select the encryption protocol (mode and cypher) for this connection. Options are **None** and **WPA2 Personal (PSK + CCMP)**. The default is **WPA2 Personal (PSK + CCMP)**. |
| Broadcast SSID | This option is *enabled* by default. To *hide* the SSID from end users, click the **slide button**. |
| Client Isolation | This option is *disabled* by default for the Primary and Video networks and enabled for the Guest network. To *enable* client isolation, click the **slide button**. |

# Mesh

On this page, you can configure WiFi options for your mesh network.

1. In the left menu, click **WiFi** > **Mesh**. The following page appears.

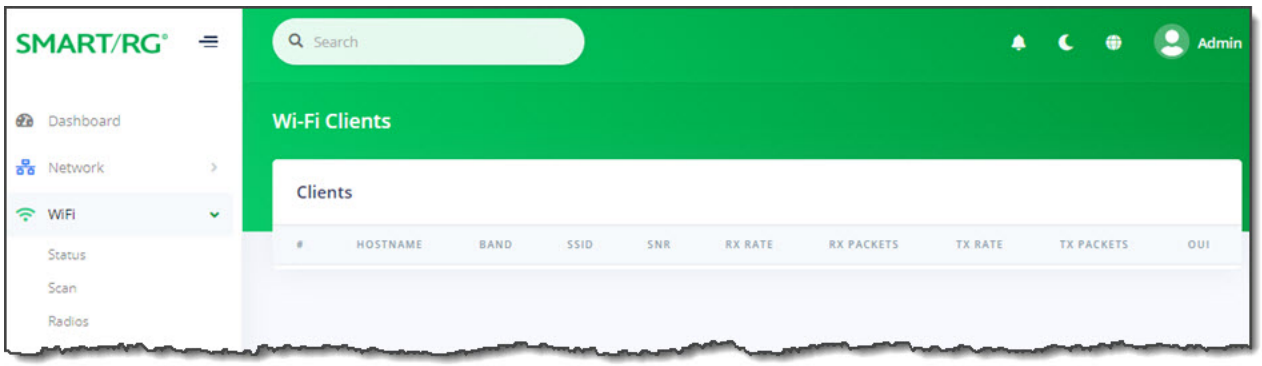



2. To *enable* the 2.4 GHz mesh backhaul feature, click the **slide button** next to **Enable 2.4Ghz Mesh Backhaul**.
3. (Optional) In the **Maximum Mesh Hops** field, select the maximum number of hops allowed for the mesh network. Options are **0** - **3**. The default is **0**.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# Clients

On this page, you can view information about the clients connected to the network via wireless interfaces.

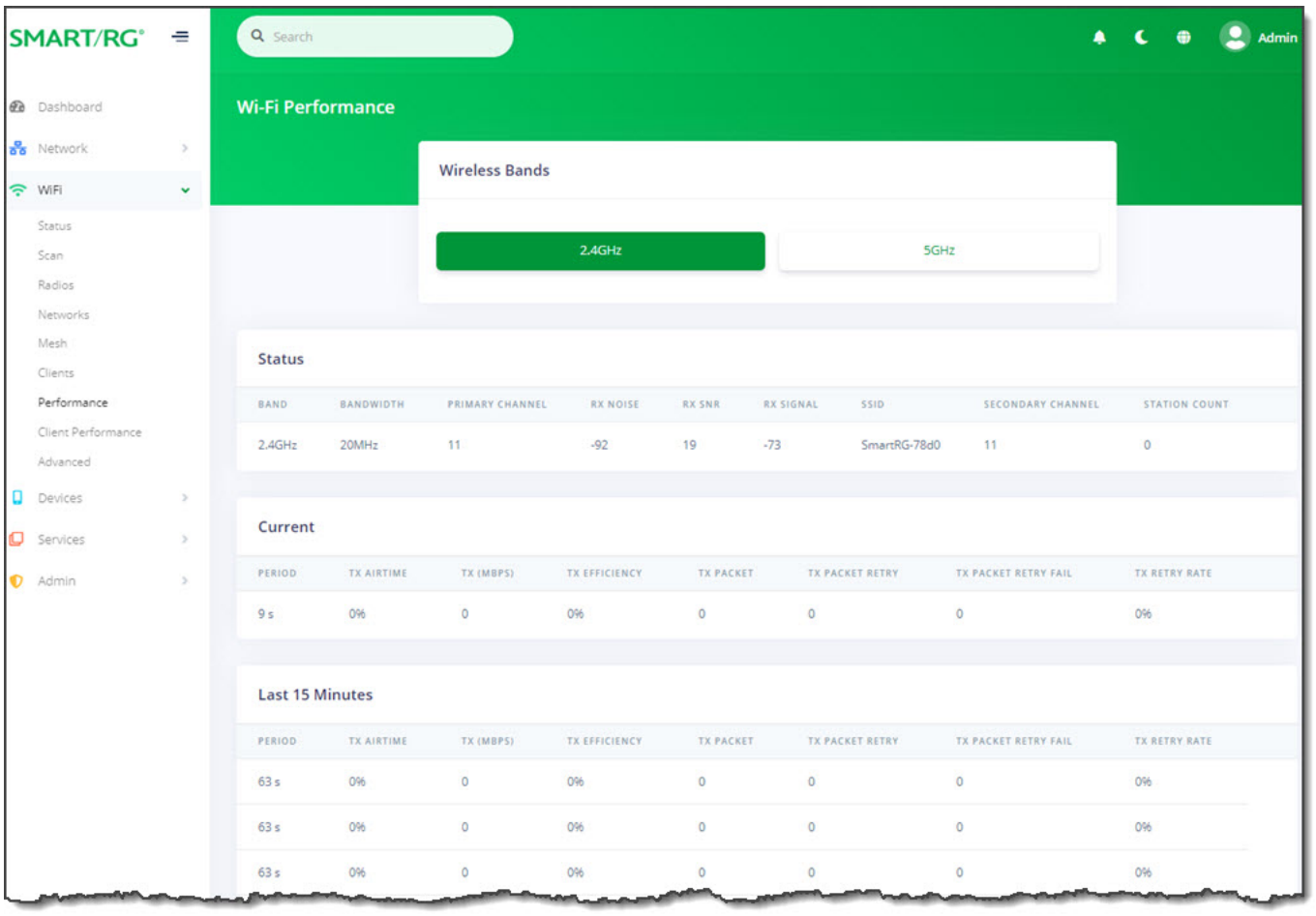
In the left menu, click **WiFi > Clients**. The following page appears, listing the clients currently connected to your network.




# *Performance*

On this page, you can view performance information about the wireless networks connected to your system.

In the left menu, click **WiFi** > **Performance**. The following page appears, showing the information for the 2.4 GHz wireless network. To view information about the 5 GHz network, click the **5 GHz** button.

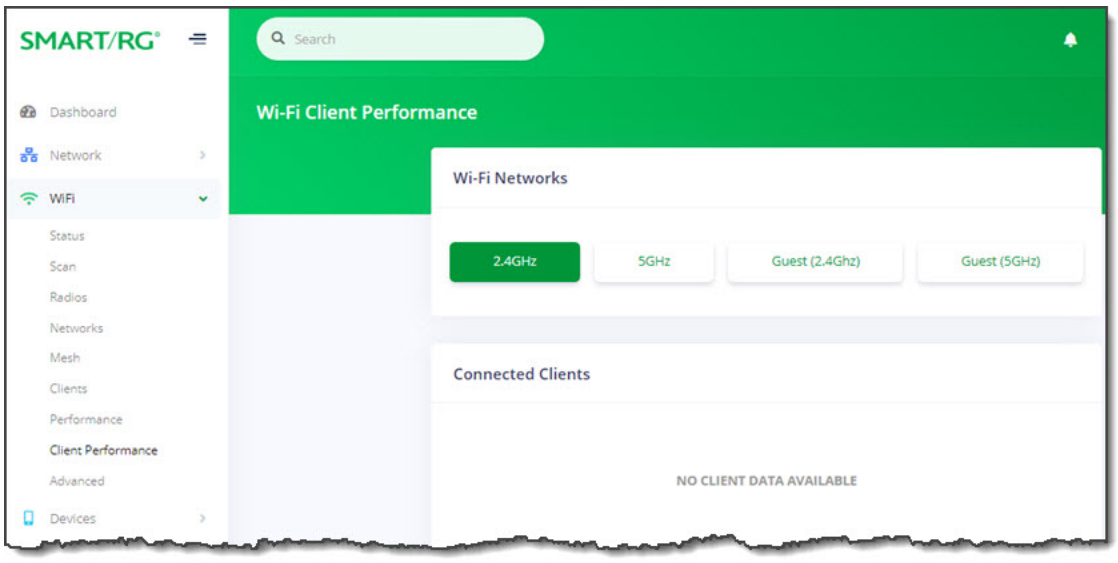



To view detailed information about each network, scroll through the **Current**, **Last 15 minutes**, **Last Hour**, **Last Day**, and **Last Week** sections.

# *Client Performance*

On this page, you can view information about the performance of clients connected to the network via wireless interfaces.

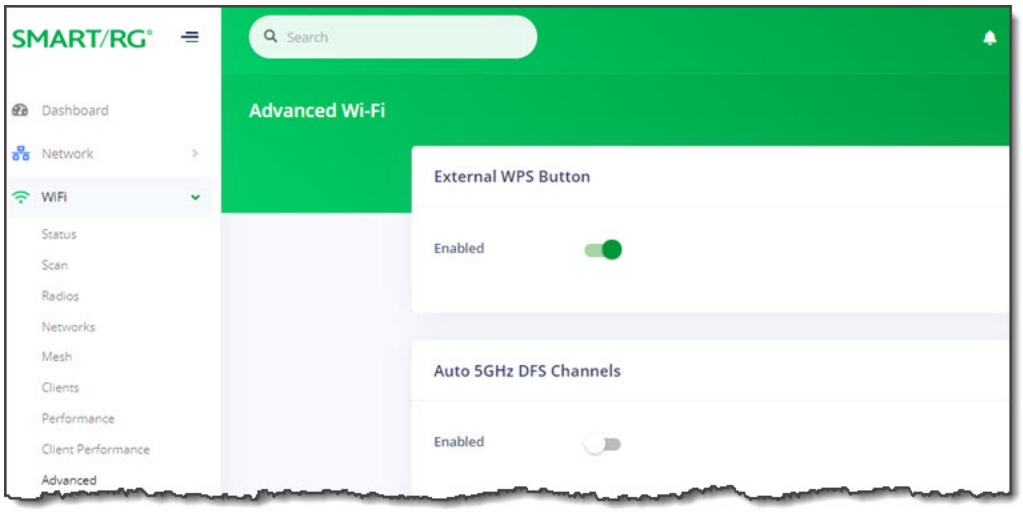
In the left menu, click **WiFi** > **Client Performance**. The following page appears, showing information for the clients connected to the 2 GHz network. To view details about a different band (5GHz, and Guest [2.4GHz and 5GHz]), click the appropriate button.




# *Advanced*

On this page, you can configure advanced WiFi options for the gateway.

1. In the left menu, click **WiFi** > **Advanced**. The following page appears.




2. To *disable* the physical WPS button on the outside of the gateway, click the **slide button** next to **Enabled** below **External WPS Button**.
3. To include 5 GHz DFS channels in automatic channel selection, click the **slide button** next to **Enabled** below **Auto 5GHz DFS Channels**.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# Devices

In this section, you can configure and manage the devices connected to your gateway. You can group and manage LAN devices as well as Intellifi mesh network devices.

## *Intellifi Devices*

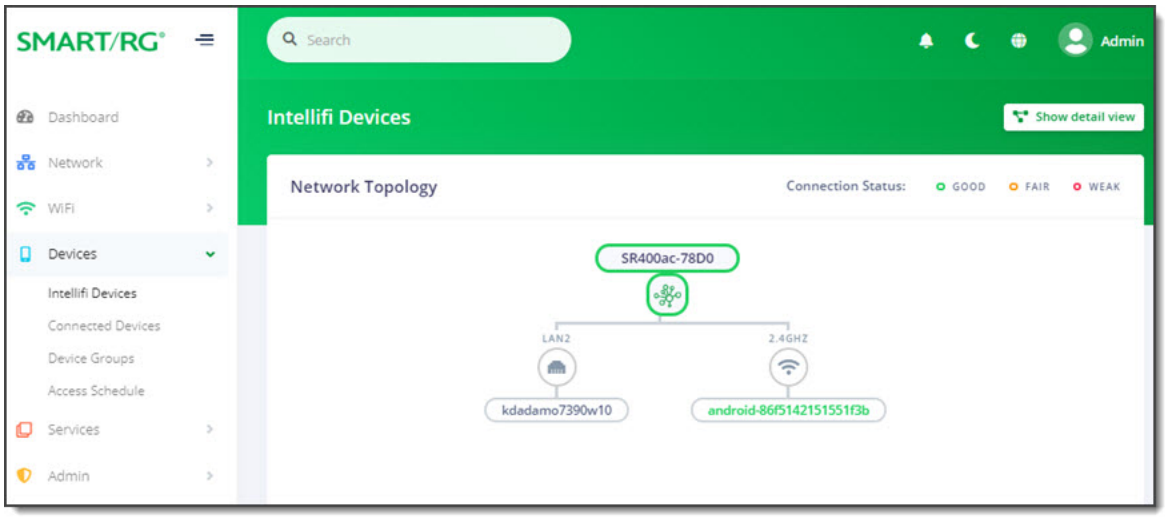
On this page, you can view the Intellifi mesh devices connected to the network.

**Note:** To extend the network, you can connect a satellite to a satellite.

1. In the left menu, click **Devices** > **Intellifi Devices**. The following page appears showing a diagram of the connected devices.

   If a LAN device is connected via wireless, the WiFi band appears as the name instead of LAN or WAN. The device colors identify the device status. See the legend in the **Device Topology** header for details.

   There are two views: the simple view (the default) and the detailed view. (The detail view shows the IP addresses for each device.) Click the **Show** button (at the top right) to switch between these views. This map refreshes every 10 seconds.




2. To view details of a device, click the device label. The Device Details pane appears.

   You can edit the host name, click the IP address to log into the device, or click **Internet Access** to pause access to this device. For detailed information about the available information and functions, see Accessing Device Information

3. When finished, close the pane.

### Accessing Device Information

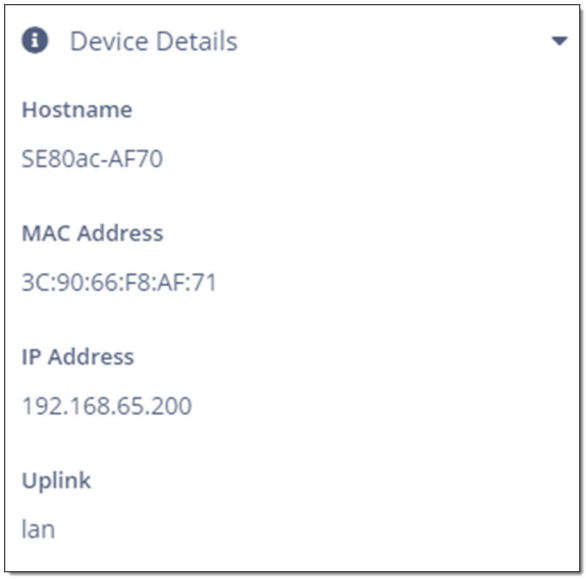
From the SR400ac gateway GUI, you can view the details and configure some of the settings on your satellite devices.

**Note:** Only the **Device Details** pane and the **Internet Access** pane are available for devices communicating via wireless. The other panes (**Wi-Fi Overrides**, **Interface Statistics**, and **Advanced**) are available when a device is connected via Ethernet cable to the Intellifi controller (SR400ac gateway).

1. Log into your SR400ac gateway and click the **View Intellifi topology** button at the top right.
2. Click the label for the device you want to work with. The device information pane appears to the right.
3. Do any of the following:
   - View details of a device
   - Pause Internet access for a device
   - Configure the wireless network and radio settings
   - View Interface Statistics
   - Reboot the Device
   - Reset the Device to Factory Defaults
   - Update the Device Software

### Viewing Device Details

To view the device's host name, MAC address, IP address, and uplink type, click **Device Details**.

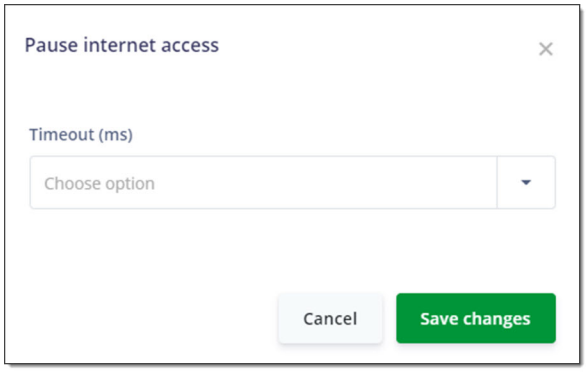



You can edit the host name or click the IP address to log into the device and view status and statistics.

### Pause Internet Access

You can halt a device's access to the Internet for a specific amount of time.

1. Click **Internet Access** to expand the pane.
2. Click **Pause**. The Pause internet access dialog box appears.

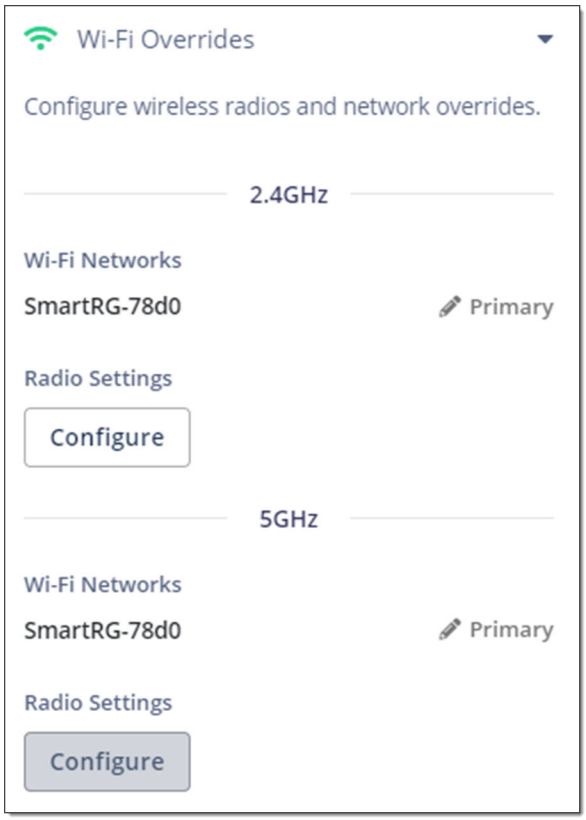



3. Select a time period in the **Timeout(ms)** field (**15 minutes - 1 day**).
4. Click **Save changes**.

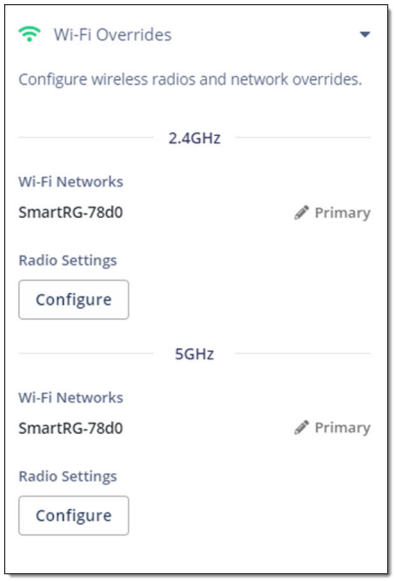
## Configure Wireless Settings

To configure the wireless network and radio settings:

1. Click **Wi-Fi Overrides**.

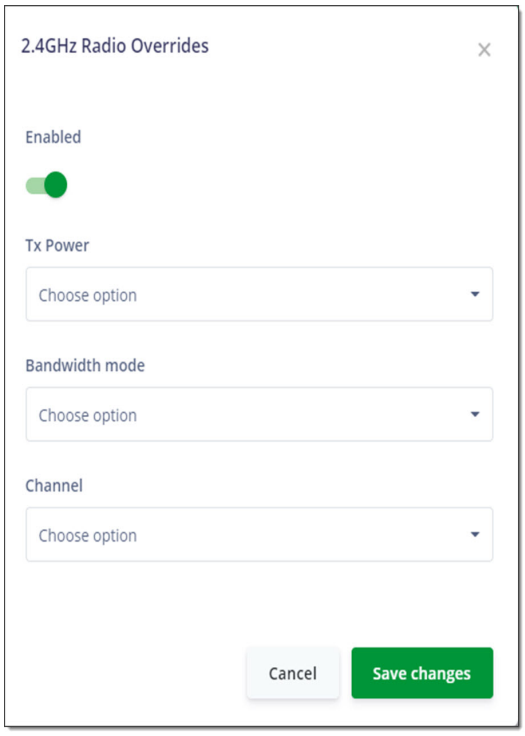


2. To edit the SSID name or password:
    a. Click the **Edit** icon ( ) next to the network you want to change.




    b. Enter the new information and click **Save changes**.

3. To modify the transmittal power, bandwidth mode or channel settings:
   a. Click **Configure** for the network you want to change. The setting details appear.



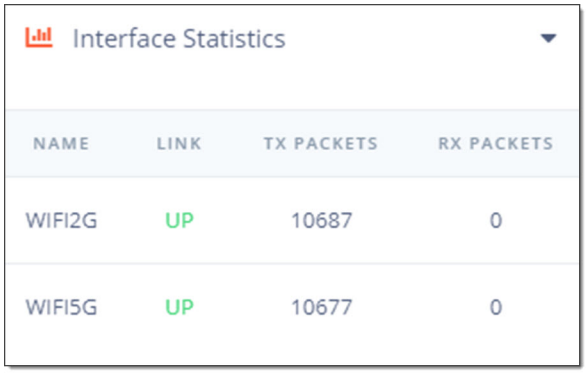

   b. Modify the fields as needed, using the information in the following table.

| Field Name | Description |
|---|---|
| TX Power | Select the maximum transmit power at which transmission is allowed. Options range from **6 dBm (4 mw)** to **26 dBm (400 mw)**. |
| Bandwidth mode | • **2.4 GHz radio:** Select the "high throughput" (HT) bandwidth mode for this device. Options are **HT20** and **HT40** (MHz). The default is **HT20**.<br>• **5 GHz radio:** Select the "very high throughput" (VHT) bandwidth mode for this device. Options are **VHT20**, **VHT40**, and **VHT80**. The default is **VHT80**. |
| Channel | Select the channel for this device.<br>• **2.4 GHz radio:** Options include **Channel 1 (2.412 GHz)** - **Channel 11 (2.462 GHz)**.<br>• **5 GHz radio:** Options include **Channel 36 (5.18 GHz)** - **Channel 64 (5.32 GHz)** and **Channel 100 (5.5 GHz)** - **Channel 165 (5.825 GHz)**. |

   c. Click **Save changes**.

## View Interface Statistics

To view statistics, click **Interface Statistics**. The statistics for the wi-fi networks appear.




## Reboot the Device

**Note:** If you reboot multiple devices (APs) at the same time, they may connect in a different topology than before based on what signals they see first when coming up. For example, 2 APs connected to a hub (Intellifi controller) may connect to each other first, creating a daisy-chained setup instead of a hub and spoke configuration.

To reboot the device:

1. Expand the **Advanced** pane.
2. Click **Reboot**. A confirmation message appears.
3. Click **OK**. The device reboots and is removed from the topology. Once the device is reconnected, it appears on the topology.

## Reset the Device to Factory Default Settings

To reset the device to factory defaults:

1. Expand the **Advanced** pane.
2. Click **Reset**. A red warning dialog box appears, stating that resetting the device will unpair it from your Intellifi network.
3. If you're sure you want to reset the device, click **Yes, I'm sure**. The device reboots and is removed from the topology. Once the device is reconnected, it appears on the topology.

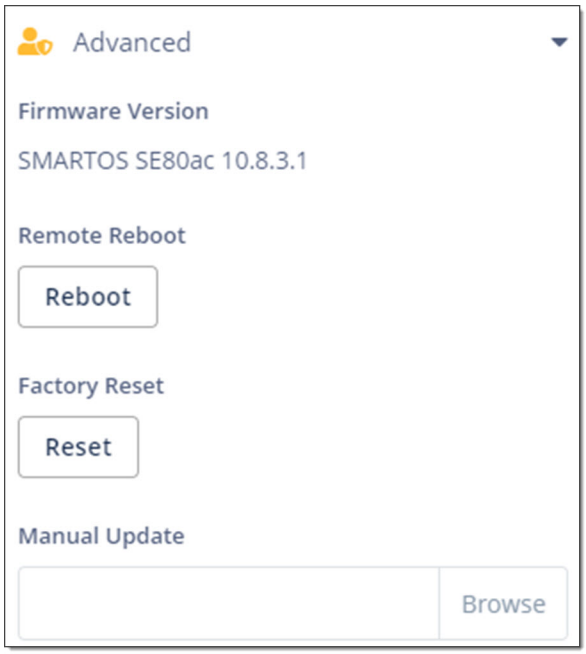
### Update Device Software

You can update the firmware installed on your SE80ac by way of the gateway to which it's connected. Firmware updates for SmartRG products are available for download in the SmartRG Customer Portal.

**Note:** Following a firmware upgrade, the device reboots.

To update the firmware installed on the device:

1. Expand the **Advanced** pane. The following fields appear. The current firmware version is shown at the top.




2. Next to the **Manual Update** field, click **Browse**.
3. Select the firmware image file to be installed and then click **Open**. A progress bar and a **Cancel** button appears.
4. Click **Start Upgrade**. The Please wait popup appears, showing the Upgrading progress bar.
5. Click **OK**. When the upgrade has completed, the device reboots. When the SE80ac reboots, its outline on the topology changes to a dashed gray line and the LED on the device changes color as it goes through the reconnection process. When the upgrade process has completed, the SE80ac device shows a solid outline again in the Intellifi topology. It takes about 5-7 minutes for the upgraded SE80ac to return to the topology.

If you wish to verify that the software version has been upgraded, click the device label again and then click **Advanced**. The software version appears at the top of the pane.

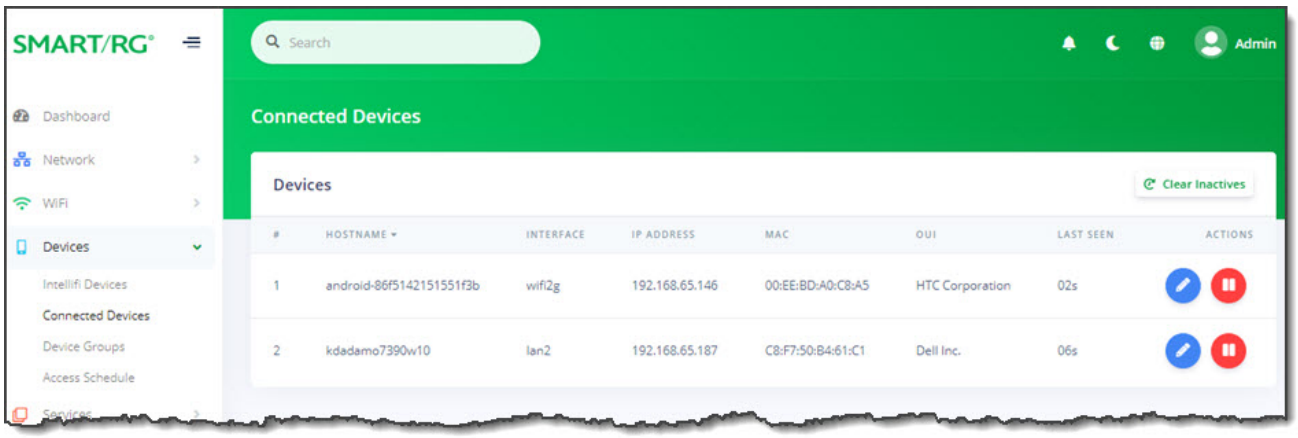
# *Connected Devices*

This page displays a list of devices connected to the LAN.

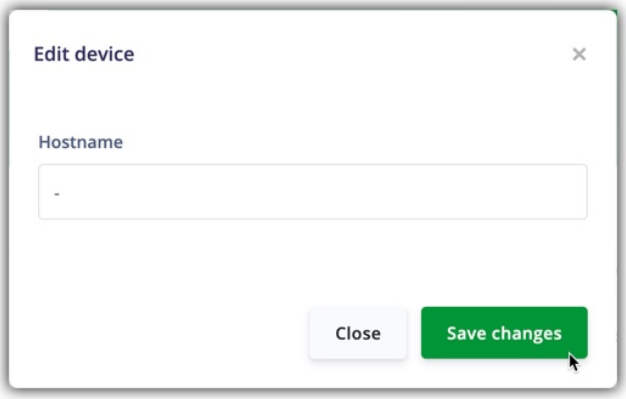
**Note:** Before you can assign a device to a group, you must configure an access schedule, then configure a device group, and finally assign the schedule to the group.

**Warning:** Pausing access for LAN devices not only restricts access to the Internet but LAN access as well. This in turn prevents you from logging in to the SmartRG gateway to make changes from any LAN clients included in the pause. With this in mind, users are strongly advised against pausing all LAN devices at the same time. Instead, exclude at least one browser-equipped LAN device from the Device Group to ensure that a means to modify access schedules, device groups and timeout periods is preserved.

1. In the left menu, click **Devices** > **Connected Devices**. The following page appears.




2. To edit a device host name:
   a. Click the icon to the right of the entry that you want to edit. The **Edit Device** dialog box appears.




   b. (*Optional*) In the **Hostname** field, enter a descriptive name for the device.
   c. Click **Save changes**.

3. To pause access for a device temporarily:
    a. Click the **Pause** icon ( ) to the right of the device for which you want to halt access. The Pause dialog box appears.
    b. In the **Set timeout** field, select how long you want access paused. Options are **None**, **15 - 60 minutes**, **2-8 hours**, and **1 day**.
    c. Click **Save changes**.
4. To restart access, click the **Play** icon ( ) to the right of the line item for which you wish to resume Internet access. The **Pause** icon ( ) re-appears.

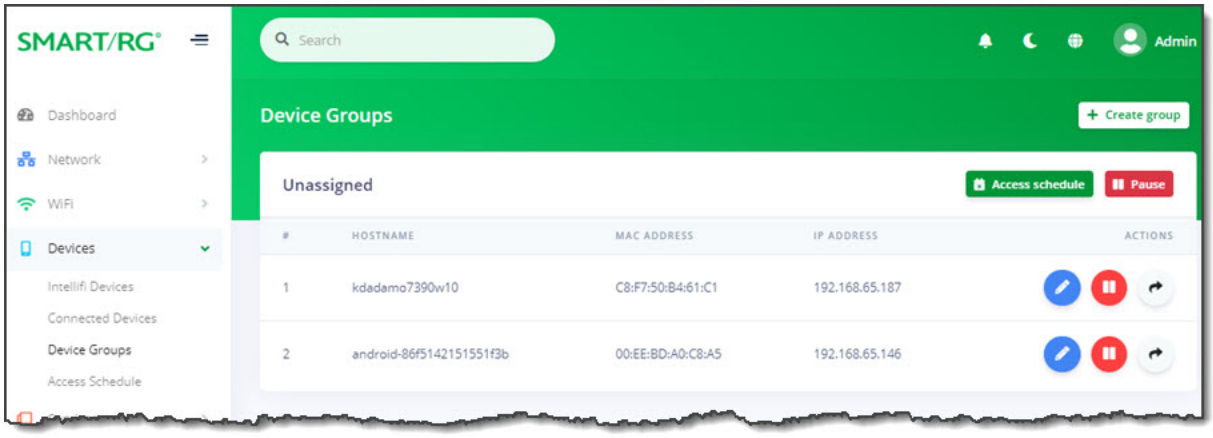
# *Device Groups*

On this page, you can create device groups, assign devices to groups, pause access for devices, delete groups

**Note:** Before it is possible to assign a device to a group, configuring an access schedule is required first, then configure a device group, and finally assign the schedule to the group.

**Warning:** Pausing access for LAN devices not only restricts access to the Internet but LAN access as well. This in turn prevents you from logging in to the SmartRG gateway to make changes from any LAN clients included in the pause. With this in mind, users are strongly advised against pausing all LAN devices at the same time. Instead, exclude at least one browser-equipped LAN device from the Device Group to ensure that a means to modify access schedules, device groups and timeout periods is preserved.

1. In the left menu, click **Devices** > **Device Groups**. The following page appears.




**Note:** You cannot delete or rename the unassigned (default) group. You can assign a schedule and pause/restart it.

2. To add a new device group:
    a. Click the **Create group** button ( + Create group ) at the upper right. The Create Group dialog box appears.
    b. In the **Name** field, enter a descriptive name for the device group.

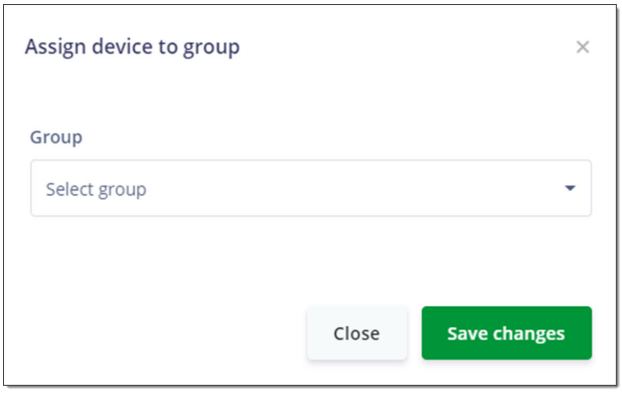
c. To assign a schedule to the device group, select the schedule in the **Access schedule** field.

   **Note:** If you do not see the schedule that you want, go to the Devices > Access Schedule page and create it. Then, return to this page and select it.

d. Click **Create**. The new group appears on the page and a **Delete group** button appears at the top right.

3. To add a device to a group:

   a. Click the **Assign** button ( ) at the far right , next to the device that you want to add to a device group. The **Assign device to group** dialogue appears.




   b. In the **Group** field, select a group.

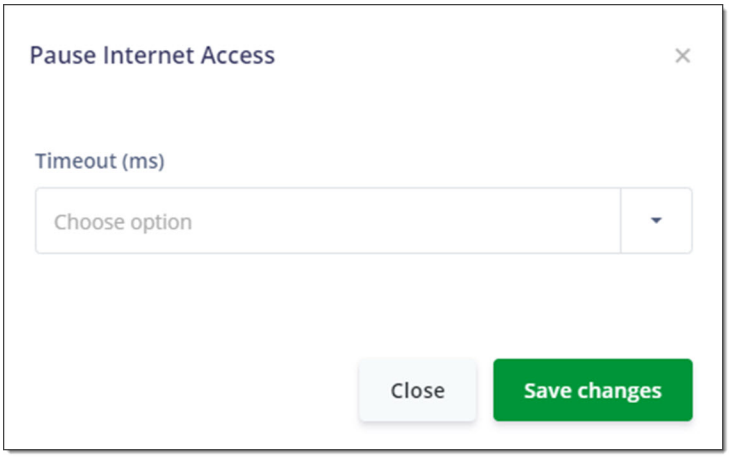
      **Note:** If you do not see the group that you want, create it, following the steps provided above.

   c. Click **Save changes**.

4. To define a timeout period for a group:

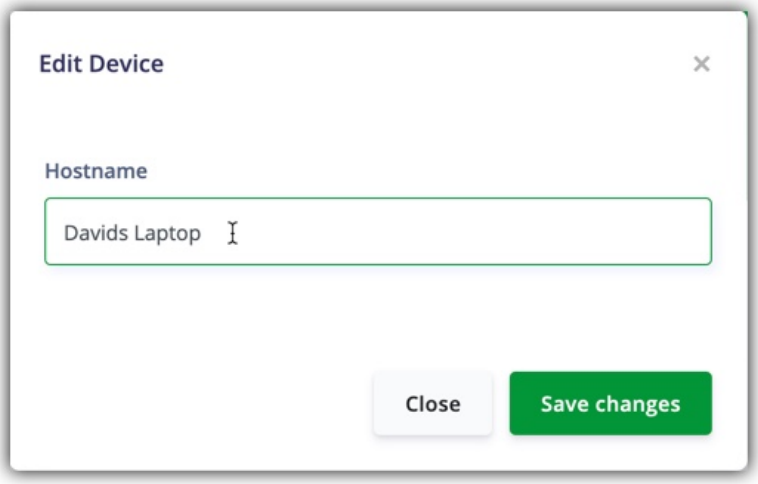
   Before pausing a device, read the **Warning** above.

   a. Click the **Pause** button ( ) at the far right, next to the device for which you want to withhold Internet access. The Pause Internet Access dialogue appears.




b. In the **Timeout** field, select the duration of the pause. Options are **None**, **15** - **60** minutes, **2 - 8 hours**, and **1 day**.
c. Click **Save changes**.

5. To customize the host name for a device:
   a. Click the icon next to the device you want to customize. The **Edit Device** dialog box appears.




   b. Enter the desired host name.
   c. Click **Save changes**.
6. To delete a device group:
   a. Click the **Delete group** button ( Delete group ) at the top of the device pane. The **Delete Group** dialogue appears.
   b. Select the group to be deleted from the drop-down list.
   c. Click **Delete**.
7. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

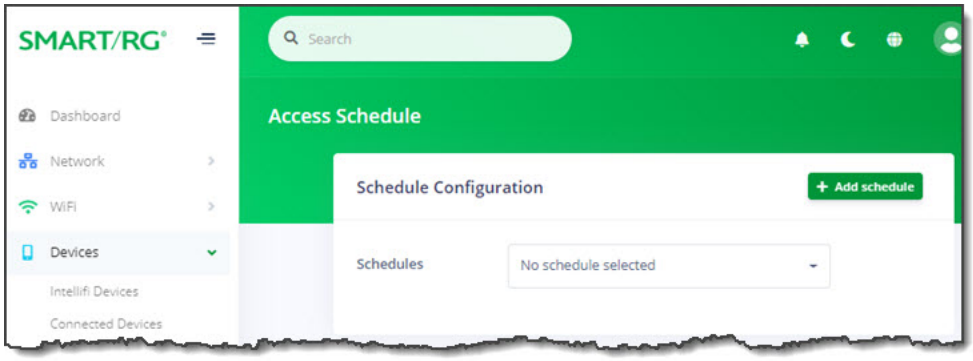
# Access Schedule

On this page, you can configure the access schedules that are needed to control access for LAN device groups.

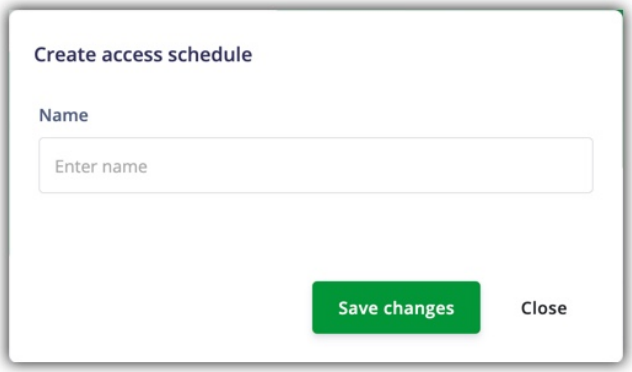
**Note:** Before you can assign a device to a group, you must configure an access schedule, then configure a device group, and finally assign the schedule to the group.

**Warning:** Pausing access for LAN devices not only restricts access to the Internet but LAN access as well. This in turn prevents you from logging in to the SmartRG gateway to make changes from any LAN clients included in the pause. With this in mind, users are strongly advised against pausing all LAN devices at the same time. Instead, exclude at least one browser-equipped LAN device from the Device Group to ensure that a means to modify access schedules, device groups and timeout periods is preserved.

1. In the left menu, click **Devices** > **Access Schedule**. The following page appears.

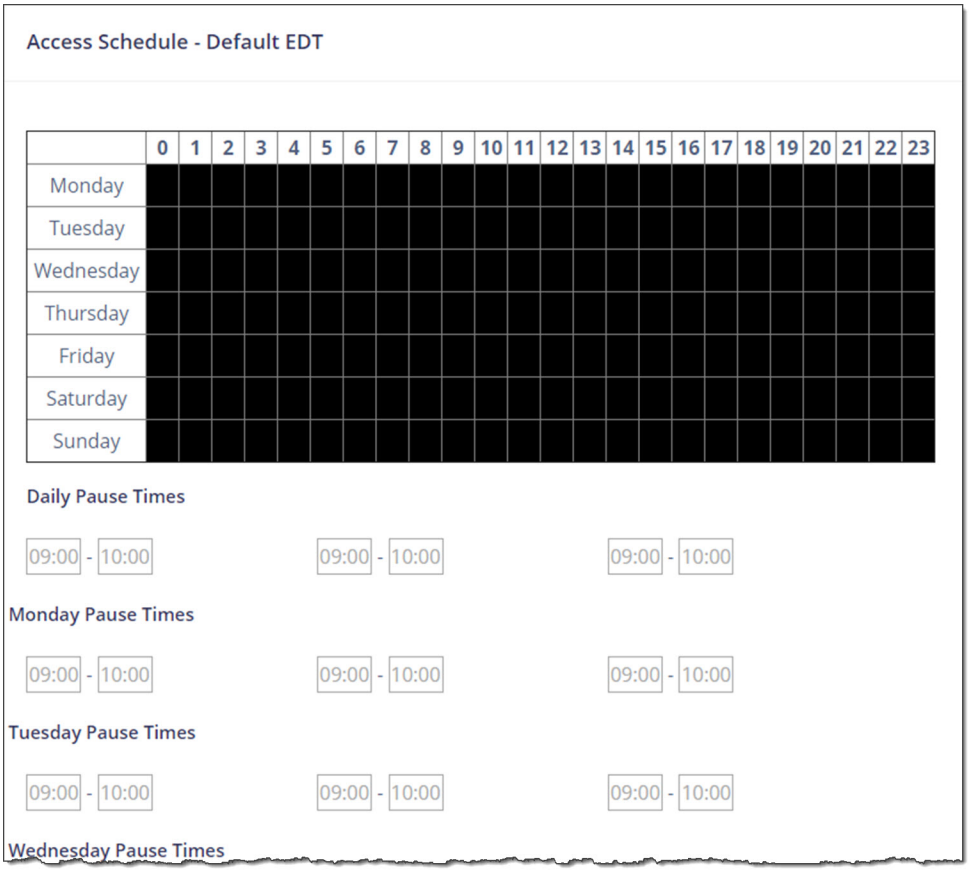



2. To create an access schedule:
   a. Click the **Add schedule** button at the top right. The Create access schedule dialog box appears.




   b. Enter a descriptive name for the new schedule and click **Save changes**. Additional fields appear on the Access Schedule page for configuring blocked access time for every day or for specific days. The **Delete schedule** button

appears at the top right of the pane.




3. Enter start and end times in the fields below the **Pause Times** labels. Use 24-hour format. The separating colon is added for you as you type the numbers.

   The entered time periods are shown in **red** on the grid in whole-hour blocks only. When times are entered in the **Daily Pause Times** fields, that period changes to **red** for *every* day.

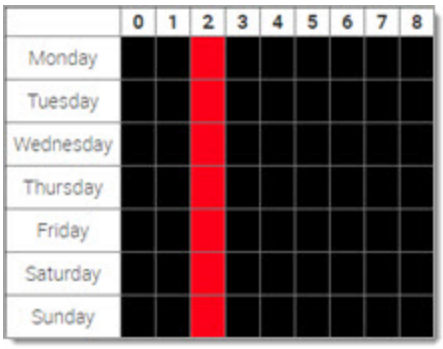
   For example, to prevent access between 2 am and 3 am, enter "0200" in the first (start) field and "0259" in the second (end) field for either every day (daily) or specific days. The grid refreshes to show that access is blocked for the 2:00 hour.

   If you enter "0300" in the second field, a 2-hour block is selected in the grid, from 2:00 - 4:00 am.

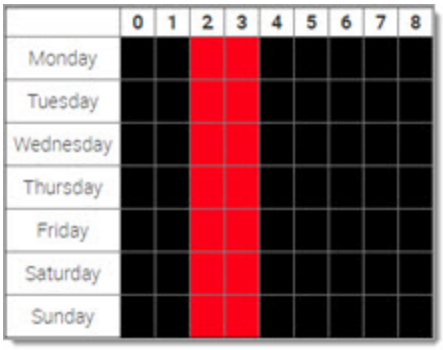
   The maximum number of blocked periods allowed per day is 3.

   To add another blocked period *for the same day*, enter values in the 2nd and 3rd time fields.

   **Example of a 1-hour block (entered as 02:00 to 02:59)**




**Example of a 2-hour block (entered as 02:00 to 03:00)**




3. To change a schedule, select it in the **Access Schedule** field and modify the fields.
4. To delete a schedule, select it in the **Access Schedule** field and click the Delete schedule button (Delete schedule at the top right.
   **Note:** If you delete a schedule that is assigned to a device group, it is removed from the device group configuration.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

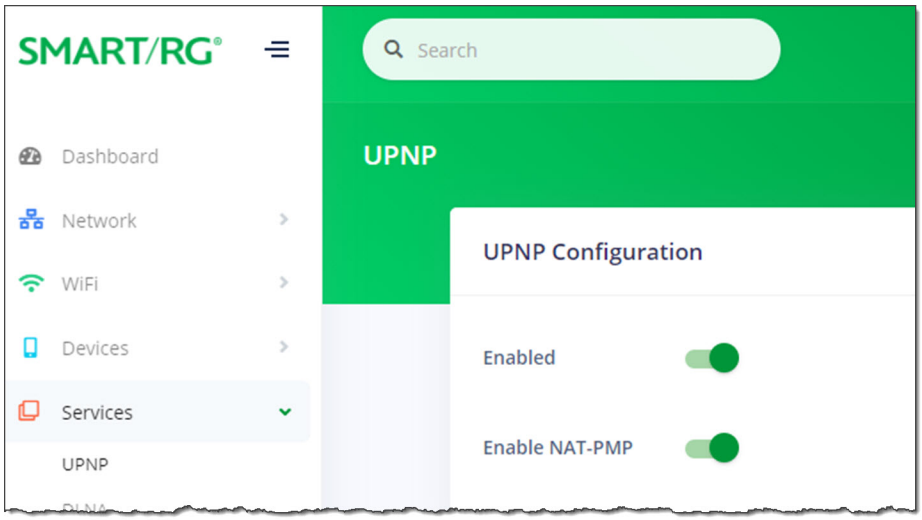
# Services

In this section, you can configure the various services for the network including UPnP, TR-069, SNMP, hosts, DDNS, and others.

## *UPNP*

On this page, you can manage the UPnP (Universal Plug and Play) service so that third-party devices on the LAN that support this standard can connect. Common devices include gaming consoles, IP cameras, printers, and so on.

1. In the left menu, click **Services** > **UPnP**. The following page appears.



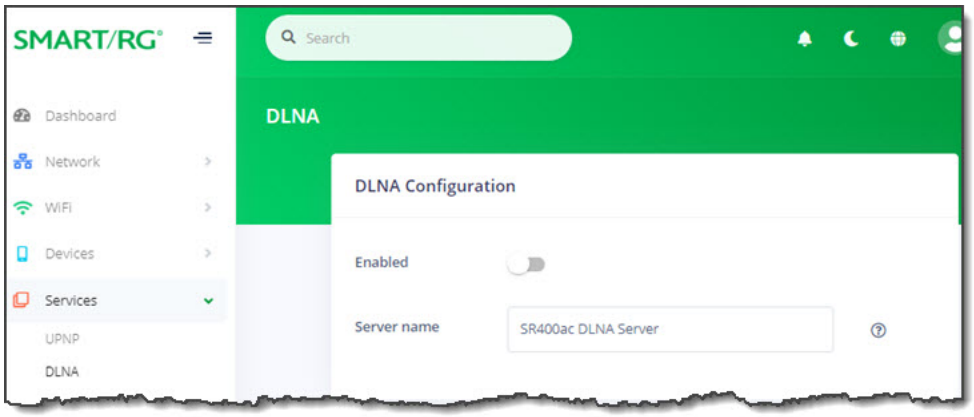

2. To *disable* UPnP, click the **slide button** to the right of **Enabled**.
3. To *disable* the automatic configuration of NAT settings, click the **slide button** to the right of **Enable NAT-PMP**.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# DLNA

On this page, you can configure the settings for DLNA (Digital Living Network Alliance) server software.

**Note**: You must reboot the gateway to implement any changes made on this page.

1. In the left menu, click **Services** > **DLNA**. The following page appears.



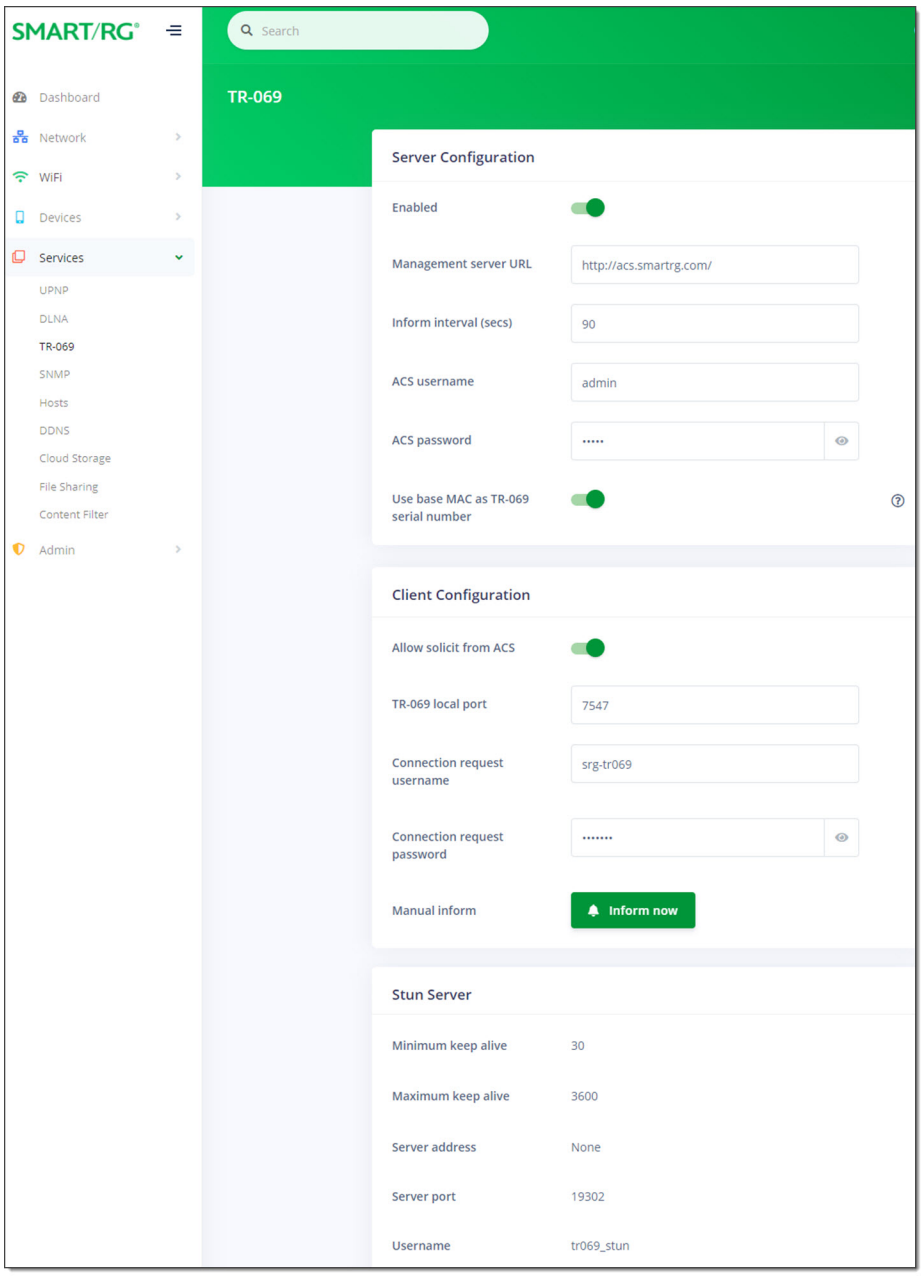

2. To *enable* this option, click the **slide button** to the right of **Enabled**.
3. (*Optional*) In the **Server name** field, enter a descriptive name for this network that DLNA clients will see.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# TR-069 Configuration

On this page, you can configure the gateway with details about the management server to which this gateway will be linked.

**Note**: You must reboot the gateway to implement any changes made on this page.

1. In the left menu, click **Services** > **TR-069**. The following page appears.




2. Fill in the fields, using the information in the following table. Values appear in the **Stun Server** section if that feature is configured for your system.
3. To connect to the ACS, in the **Client Configuration** section, click the **Inform now** button.
4. Management by ACS is *enabled* by default. To *disable* this option, click the **slide button** to the right of **Enabled** near the top of the page.

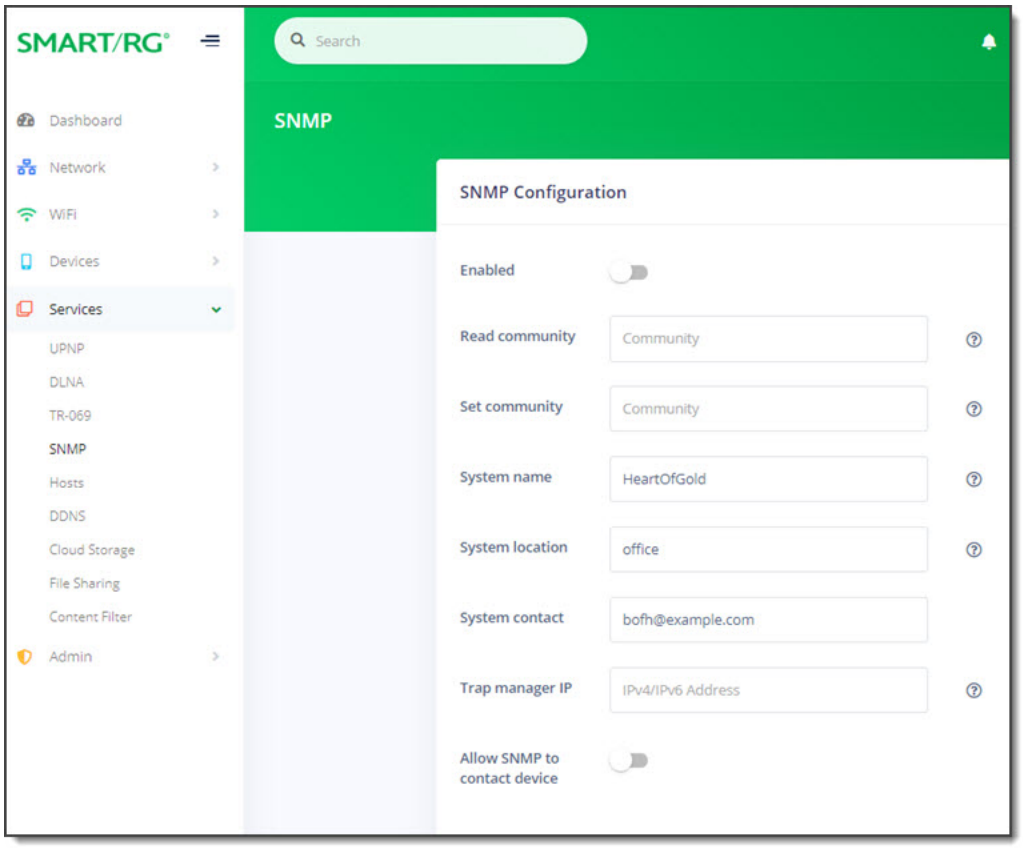
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field Name | Description |
|---|---|
| **Server Configuration** | |
| Management server URL | Enter the URL of the management server such as http://youracsname.youracsprovider.com. |
| Inform interval (in secs) | Enter the number of seconds for how often the gateway contacts the host server. The default setting is whatever interval is defined on your ACS. |
| ACS username | Enter the user name for the ACS.<br>**Note:** If you clear this field and the **ACS Password** field, the ACS will populate these fields on the next inform. |
| ACS password | Enter the password for the ACS. |
| Use base MAC as TR-069 serial number | This option is *enabled* by default. The base MAC address of your device is used as the serial number. To use the device's actual serial number instead, click the **slide button** to the right to disable this option. |
| **Client Configuration** | |
| Allow solicit from ACS | This feature is *enabled* by default. To *prevent* solicitation transactions from your ACS, click the **slide button**. |
| TR-069 local port | Enter the port number for the local port as defined for your ACS. The default is **7547**. |
| Connection request username | Enter the user name for requesting the connection.<br>**Note:** If you clear this field and the **Connection request password** field, the ACS will re-populate these fields on the next inform. |
| Connection request password | Enter the password for requesting the connection. |
| **Stun Server** | |
| **Note:** Values appear for these fields *only* when a STUN server is configured. | |
| Minimum keep alive | The minimum time( in seconds)that the keepalive function should be active. Options are **0** - **Unlimited**. The default is **30** seconds. |
| Maximum keep alive | The maximum time( in seconds)that the keepalive function should be active. Options are **0** - **Unlimited**. The default is **3600** seconds. |
| Server address | The assigned network address of the physical STUN server. An invalid address will produce an immediate on-page error message from the gateway. Maximum length is 256 characters. |
| Server port | The port number associated with your STUN server infrastructure. Options are **0** - **64435**. The default is **19302**. |
| Username | The user name by which the gateway accesses the STUN infrastructure. Maximum length is 256 characters. Special characters are allowed. |

# SNMP

On this page, you can configure an SNMP service for the gateway.

1. In the left menu, click **Services** > **SNMP**. The following page appears.



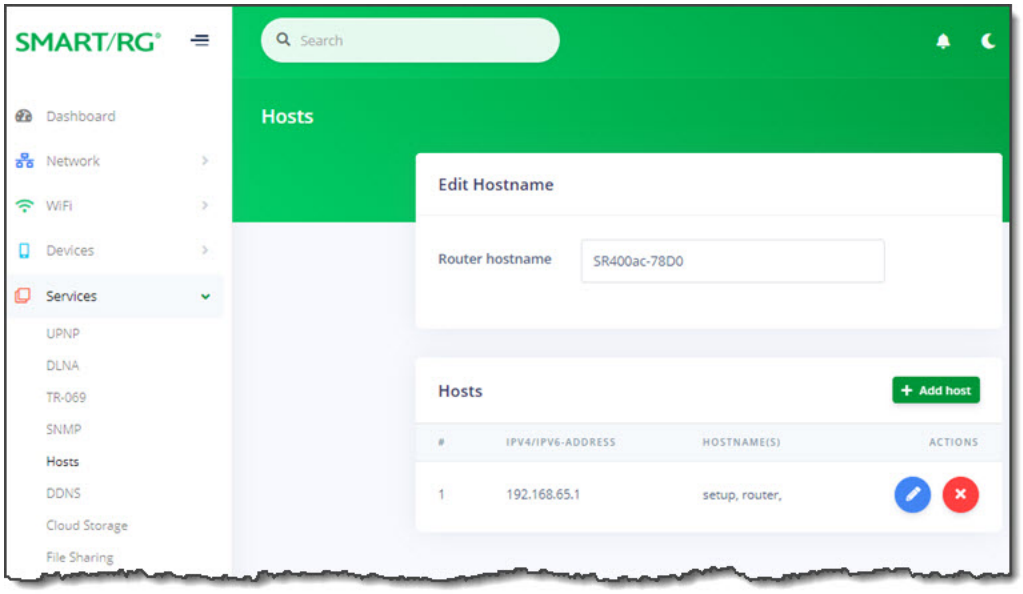

2. To *enable* the SNMP service, click the **slide button** to the right of **Enabled**.
3. Fill in the fields, using the information in the following table. All fields are optional.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field Name | Description |
|---|---|
| Read community | Enter the SNMP community string for your network which allows read-only access. |
| Set community | Enter the SNMP community string for your network which allows read-write access. |
| System name | Modify the name of the gateway. |
| System location | Modify the default location of this service. |
| System contact | Enter the email address for the contact person. |
| Trap manager IP | Enter the IP address of the server where the SNMP trap manager is located. |
| Allow SNMP to contact device | This option is *disabled* by default. To *enable* this option, click the **slide button**. |

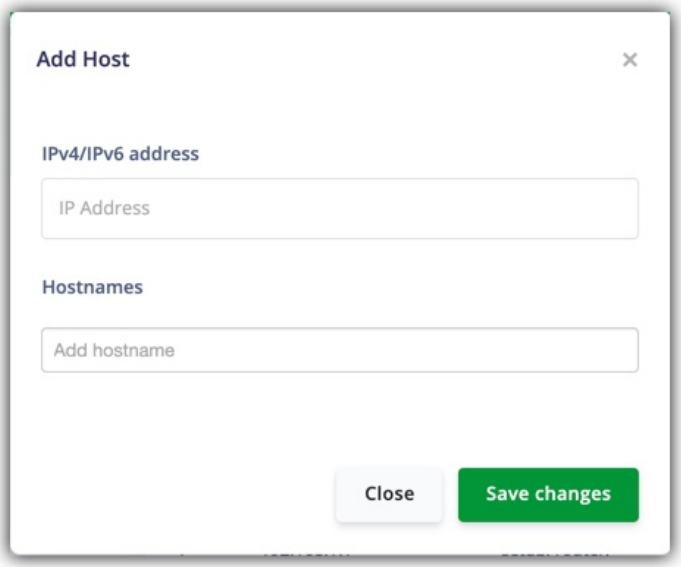
# *Hosts*

On this page, you can configure the hostname of the gateway and add IP addresses for other hosts on the gateway. To begin, configure the host servers in the **Network** section.

1. In the left menu, click **Services** > **Hosts**. The following page appears.



2. To add a host:
    a. Click the **+ Add Host** button to the right of the **Hosts** section heading. The **Add Host** dialog box appears.




    b. In the **IPv4/IPv6 address** field, enter the host IP address.
    c. In the **Hostnames** field, enter the host name and press **Enter** or **Tab**. The name is added and the cursor moves to a new **Add hostname** entry field. To add more hosts, repeat this step as needed.

       **Note:** No spaces are allowed.

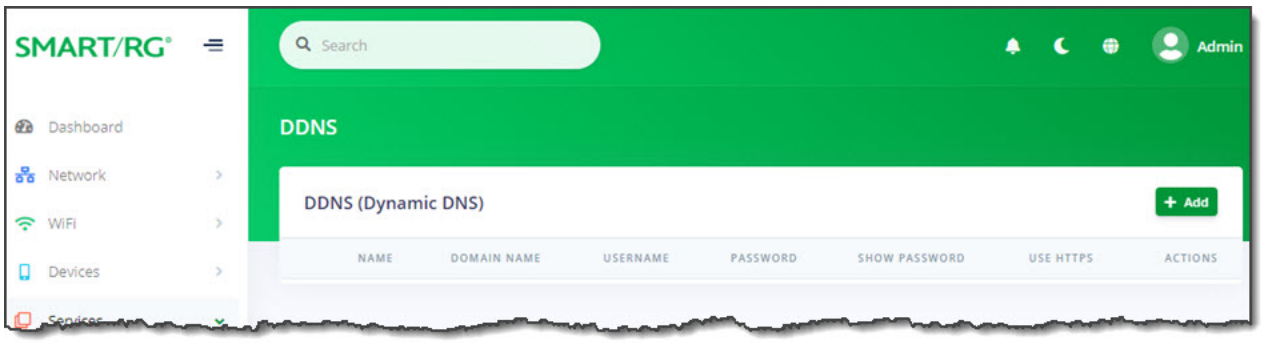
       You can also delete names from this field by click the **X** next to the name.
    d. Click **Save changes**.
3. To edit the details of a host:
    a. Click the **Edit** icon ( ) next to the host that you want to edit. The **Add/Edit Item** dialog box appears.
    b. Modify the fields as needed.
    c. Click **Save changes**.
4. To delete a host, click the **Delete** icon ( ) to the right of the host that you want to delete.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# *DDNS*

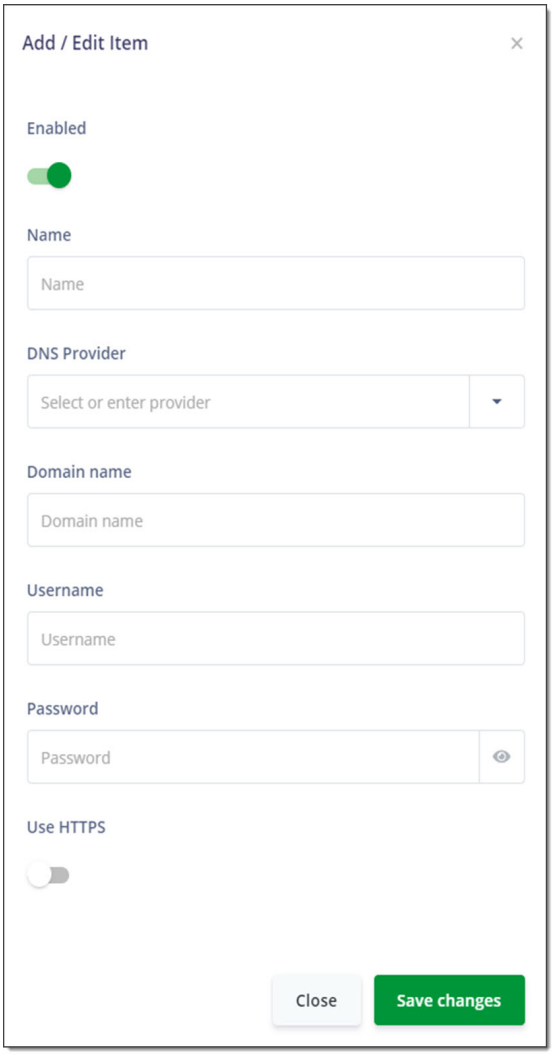
On this page, you can configure the DDNS settings for the gateway.

Dynamic DNS allows remote access the router from the Internet using a domain name instead of an IP address. An account on a DDNS service provider is required to implement this feature.

1. In the left menu, click **Services** > **DDNS**. The following page appears.




2. To add a dynamic DNS server:
    a. Click the **+ Add** button near the upper-right. The **Add / Edit Item** dialog box appears. New definitions are enabled by default.




b. Fill in the fields, using the information in the table below.
c. Click **Save changes**.

3. To edit the details of a server:
   a. Click the **Edit** icon ( ) next to the server that you want to edit. The **Add/Edit Item** dialog box appears.
   b. Modify the fields as needed, using the information in the table below.
   c. Click **Save changes**.
4. To delete a server, click the **Delete** icon ( ) to the right of the server that you want to delete.
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field Name | Description |
|---|---|
| Enabled | New configurations are enabled by default. To *disable* a configuration, click the **slide button**. |

| Field Name | Description |
|---|---|
| Name | Enter a descriptive name for this entry. |
| DNS Provider | *(Optional)* Select the DNS provider.<br><br>To enter a provider that is not found in the drop-down list, click the **checkbox** next to **Enter DDNS Provider** and enter the URL of your DDNS provider. |
| Domain name | Enter the URL or name of the domain. |
| Username | Enter the user name required to access the domain. |
| Password | Enter the password required to access the domain. To display the password, click the **Show/hide password** icon ( ). |
| Use HTTPS | (*Optional*) To *enable* HTTPS security, click the **slide button**. |

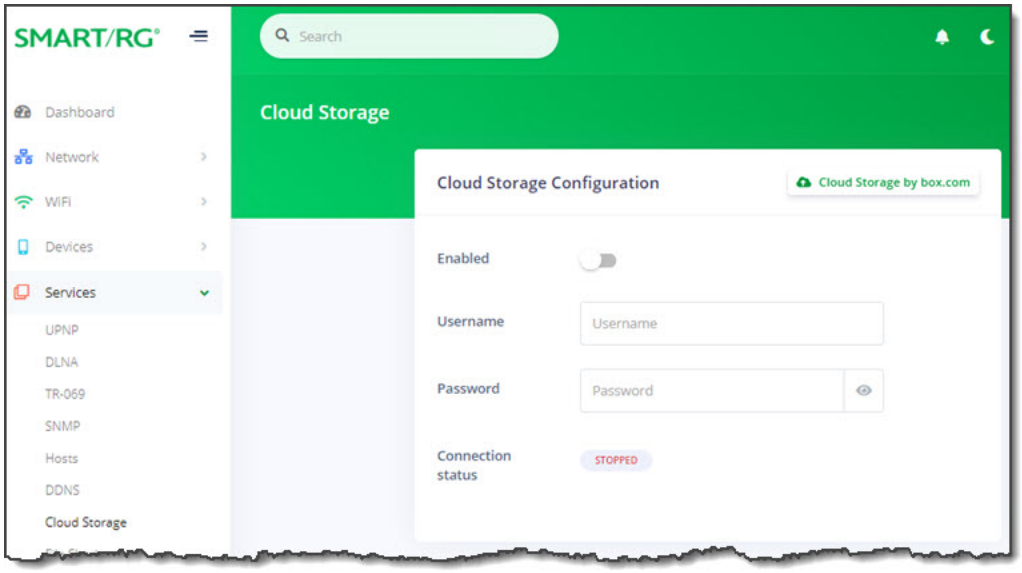
# Cloud Storage

On this page, you can configure access to a cloud storage account. Cloud storage is supported by box.com.

To create an account, click the **Cloud Storage by box.com** button at the top of this page.

**Warning:** To link a box.com account with this gateway, enable the BOX share on the Services > File Sharing page first. Then return to this page and enter the related credentials. If you don't follow this sequence, recovery may require a factory reset (FRESET) of the gateway.

1. In the left menu, click **Services** > **Cloud Storage**. The following page appears. The connection status for existing cloud storage accounts is displayed at the bottom of the page.




2. To *enable* cloud storage, click the **slide button** to the right of **Enabled**.
3. In the **Username** field, enter the user name for accessing your cloud storage account.
4. In the **Password** field, enter the password for accessing your cloud storage account.
   To display the password, click the **Show/hide password** icon ( ).
5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

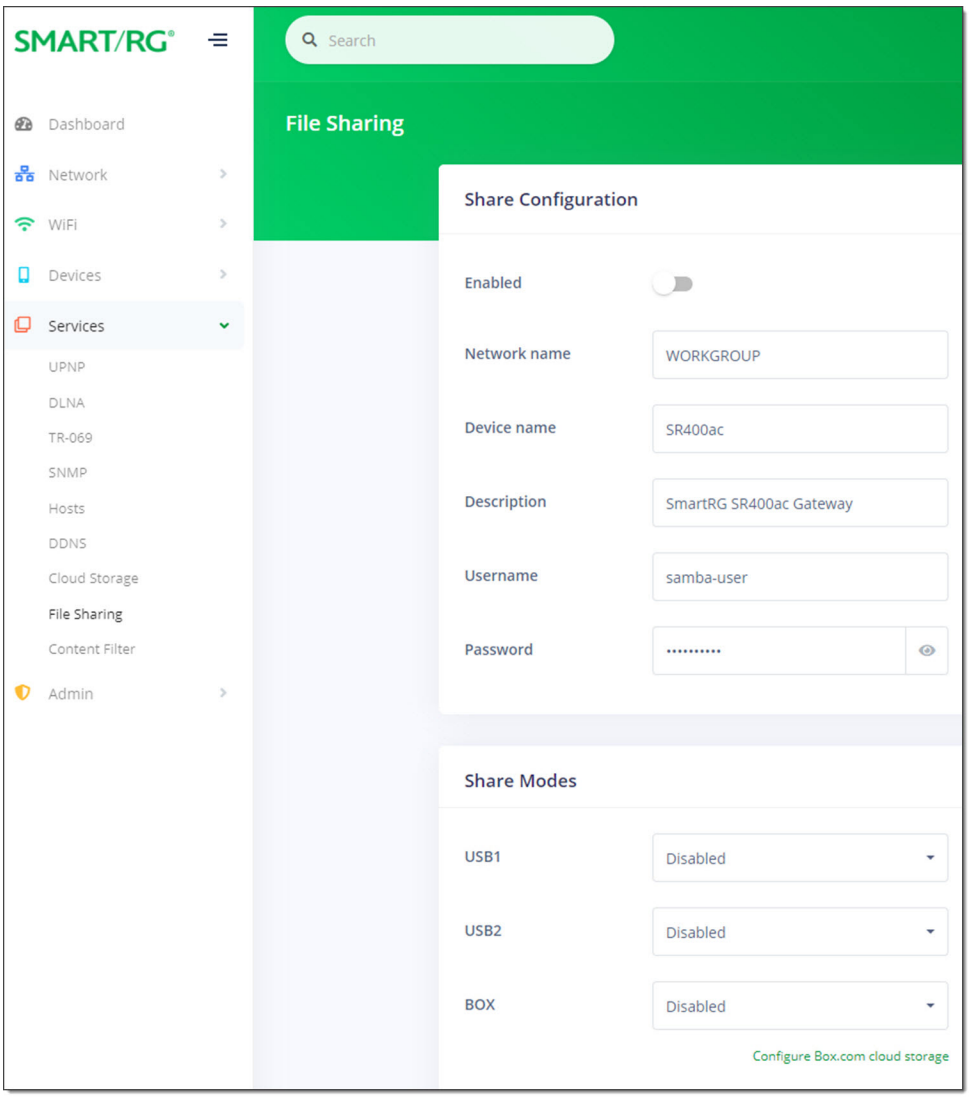
# File Sharing

On this page, you can configure network settings and shares (on box.com) settings for sharing files.

**Warning:** To link a box.com account with this gateway, enable the BOX share on this page *first*. *Then* go to the Services Cloud Storage page and enter the related credentials. If you don't follow this sequence, recovery may require a factory reset (FRESET) of the gateway.

To create an account, click the **Cloud Storage by box.com** button at the bottom of this page.

1. In the left menu, click **Services** > **File Sharing**. The following page appears. This feature is *disabled* by default.




2. To *enable* file sharing, click the **slide button** to the right of **Enabled**.
3. Modify the fields as needed, using the information provided in the following table.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

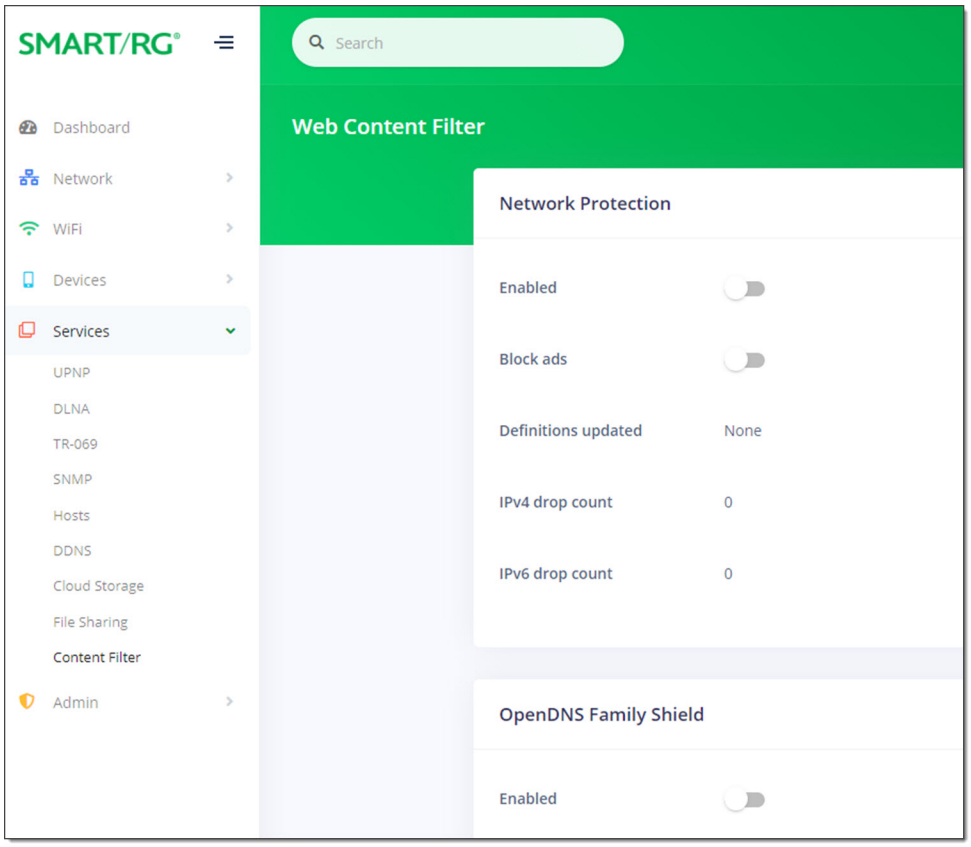
| Field Name | Description |
|---|---|
| **Share Configuration** section | |
| Network name | Enter the name of the network used for file sharing. |
| Device name | Enter the device name. |
| Description | Enter a brief description of the device. |
| Username | Enter the user name for your cloud storage account. |

| Field Name | Description |
| --- | --- |
| Password | Enter the password for your cloud storage account. To display the password, click the **Show/Hide** icon ( ). |
| **Share Modes** section<br><br>**Note:** Information is shown here if these options are configured for your gateway. | |
| USB1<br>USB2<br>BOX | Select whether this share is disabled, read-only or read & write. The USB port to which you connect first is designated as USB1 and the other port is designated as USB2. The gateway uses either port equally. Options are **Disabled**, **Read only**, and **Read / Write**.<br><br>**Note:** To use the **BOX** option, create a box.com cloud storage account first. To do so, click the **Configure box.com cloud storage** link near the bottom of the page. |

# Content Filter

On this page, you can configure web content filtering, i.e., parental controls.

1. In the left menu, click **Services** > **Content Filter**. The following page appears.




2. To *enable* network protection, click the **slide button** to the right of **Enabled**.
3. Fill in the fields, using the information in the table below.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field Name | Description |
|---|---|
| Block ads | To *enable* the advertisement blocking feature, click the **slide button**. |
| Definitions updated | The date and time when the filter definitions were last updated. If the definitions were never updated, "None" appears in the field. |
| IPv4 drop count | The number of dropped packets on the IPv4 network. |
| IPv6 drop count | The number of dropped packets on the IPv6 network. |
| **OpenDNS Family Shield** section | |
| Enabled | To *enable* the adult content blocking feature, click the **slide button**. |

# Admin

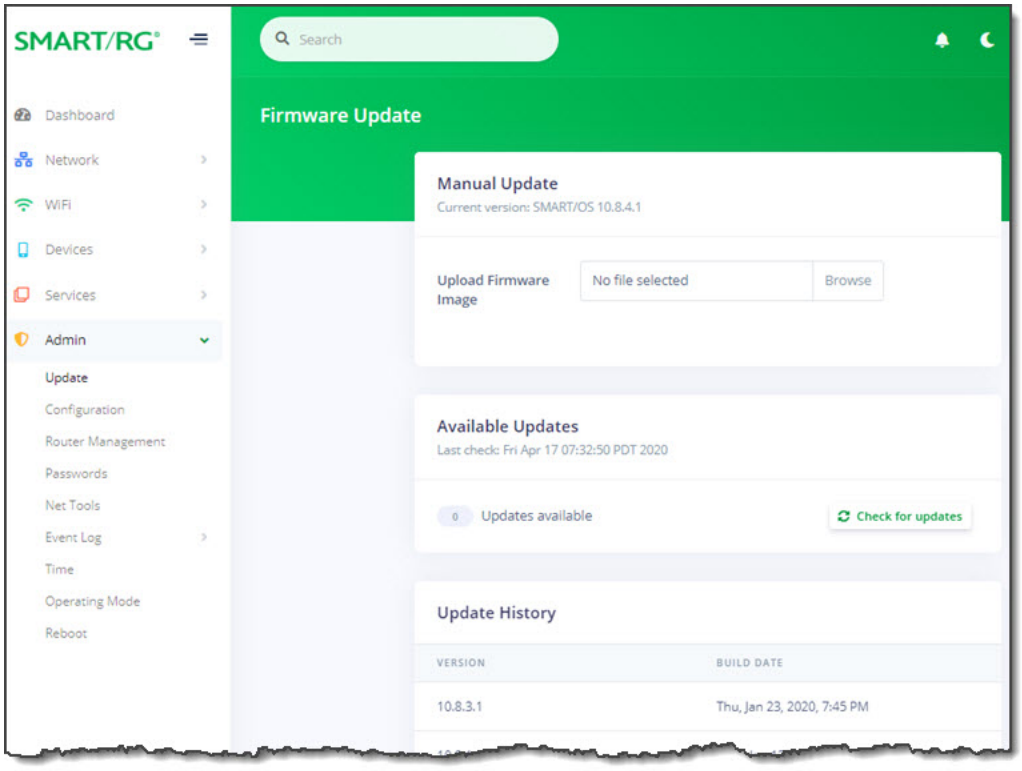
In this section, you can update firmware on your gateway, manage passwords, run diagnostics, view the event log, an set the operating mode.

## *Update*

On this page, you can update the firmware of your SmartRG gateway. Software updates for SmartRG products are available for download in the SmartRG Customer Portal.

Note: Following a firmware upgrade, the gateway reboots; rebooting takes approximately 6 minutes.

1. In the left menu, click **Admin** > **Update**. The following page appears, showing the **Update History** at the bottom of the page. The version number and build date are listed for each update.




**Note:** The current firmware version is listed below the **Manual Update** heading.

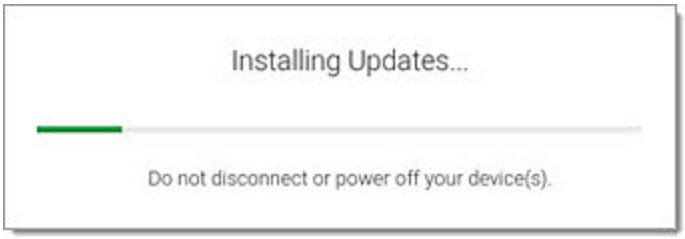
2. To update firmware manually:
   a. In the **Manual Update** section, click **Browse**. An Open dialog box appears.
   b. Navigate to and select the firmware image file to be installed and then click **Open**. A progress bar and a Cancel button appear.

c. Click **Start Upgrade**. The Please wait popup appears, showing the Upgrading progress bar.

**Note:** If the failed message appears, click the message to clear it. Then try downloading the file again and repeating the above steps.

3. To check for available updates:
   a. In the **Available Updates** section, click the **Check for updates** button. The CHECKING FOR UPDATES message appears. The **Update status** field refreshes to show either a list of available updates or the 0 Updates available message.
   b. If updates are available, click **Install Updates**. A confirmation message appears.


   c. Click **Yes**. The installing message appears. When the installation has finished, the gateway reboots.

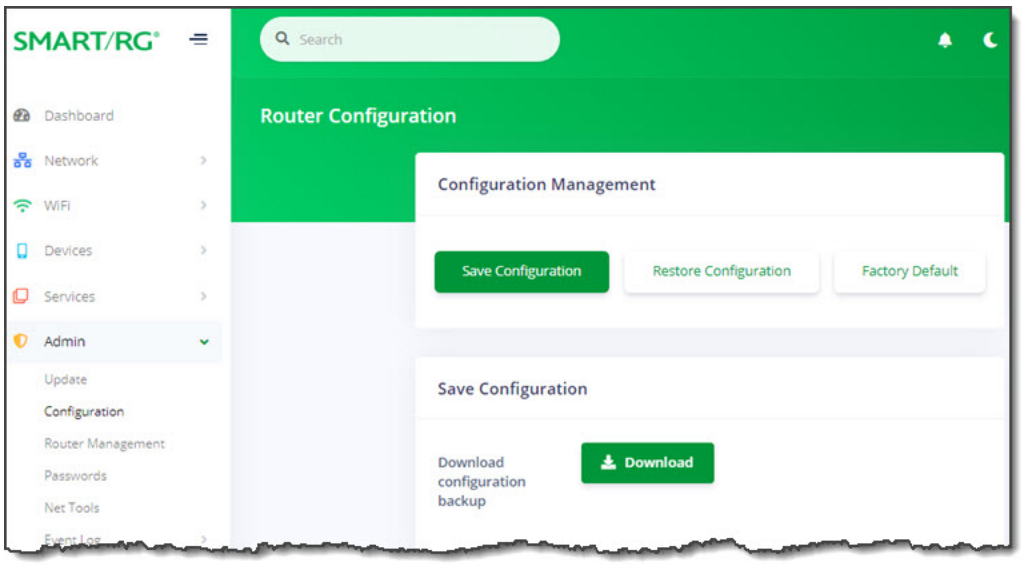



4. To view the update history, review the version number and build date for each update made to this gateway.

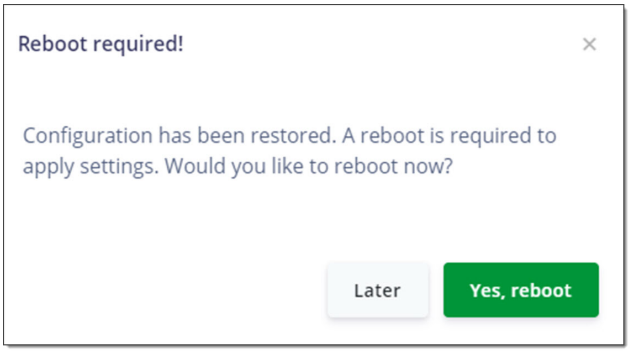
# Configuration

On this page, you can save your settings (back up) to a local computer, restore previously saved settings, and reset your device to its factory settings. It is recommended that you save your settings as a first step whenever you plan to change the configuration.

1. In the left menu, click **Admin** > **Configuration**. The following page appears.




2. To back up your settings:
   a. Click the **Save Configuration** button.
   b. Click the **Download** button. The zipped .tar file is saved (.gz.zip format) to your default download location and is named "backup" followed by the gateway model number and the date in *yyyy-mm-dd* format, e.g., backup-SR400ac-2020-10-15.tar.gz.
3. To restore settings saved previously saved:
   a. Click the **Restore Configuration** button.
   b. Click the **Browse** button to select a file to upload, such as backup-SR400ac-2020-10-15.tar.gz and then click **Open**. The Reboot required dialog box appears.



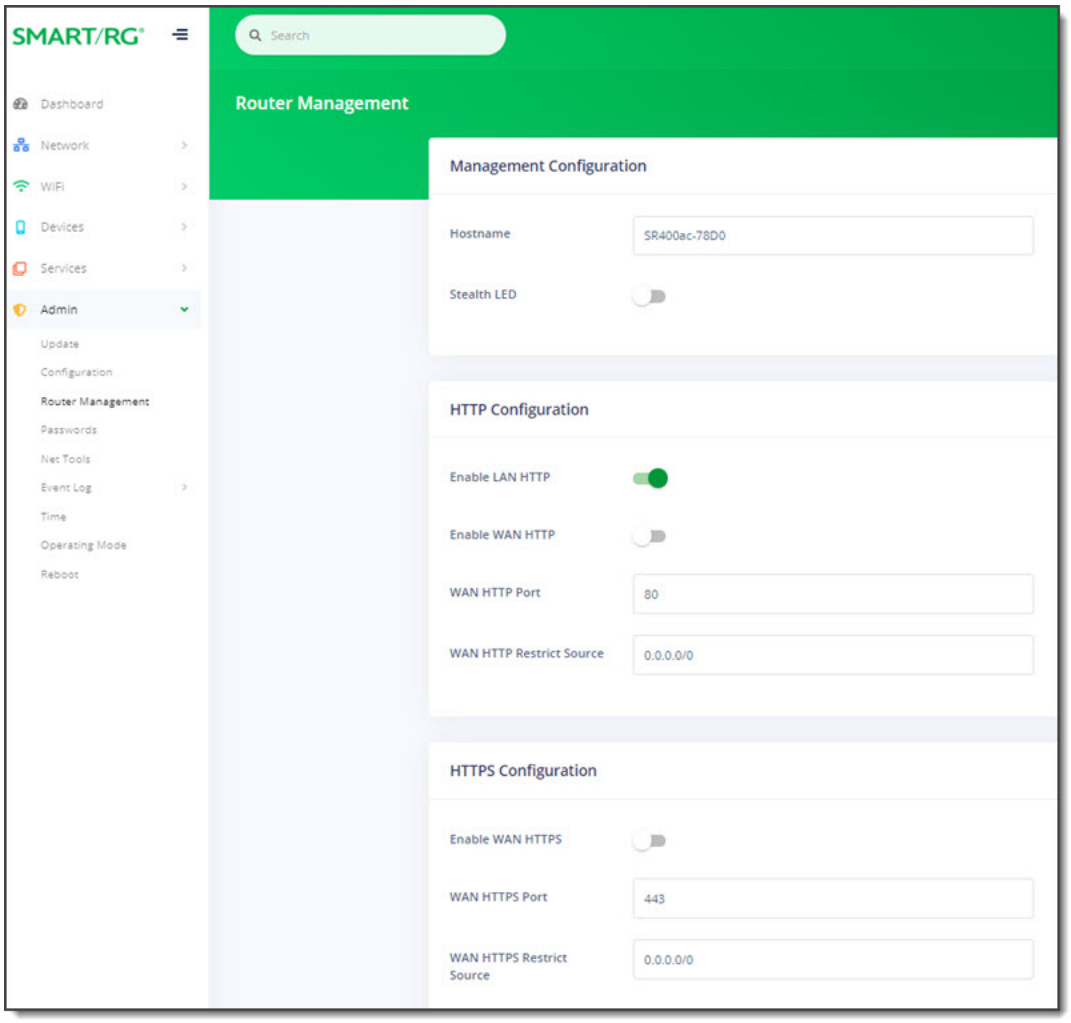
c. Click **Yes, reboot**. The selected configuration is applied and the gateway reboots.

4. To restore the device to factory default settings:
   a. Click the **Factory Default** button.
   b. Click the **Factory reset** button. The reset warning dialog box appears.
   c. Click **OK**. The device is restored to default configuration.

# *Router Management*

On this page, you can enable or disable WAN HTTP and mobile management.

1. In the left menu, click **Admin** > **Router Management**. The following page appears.



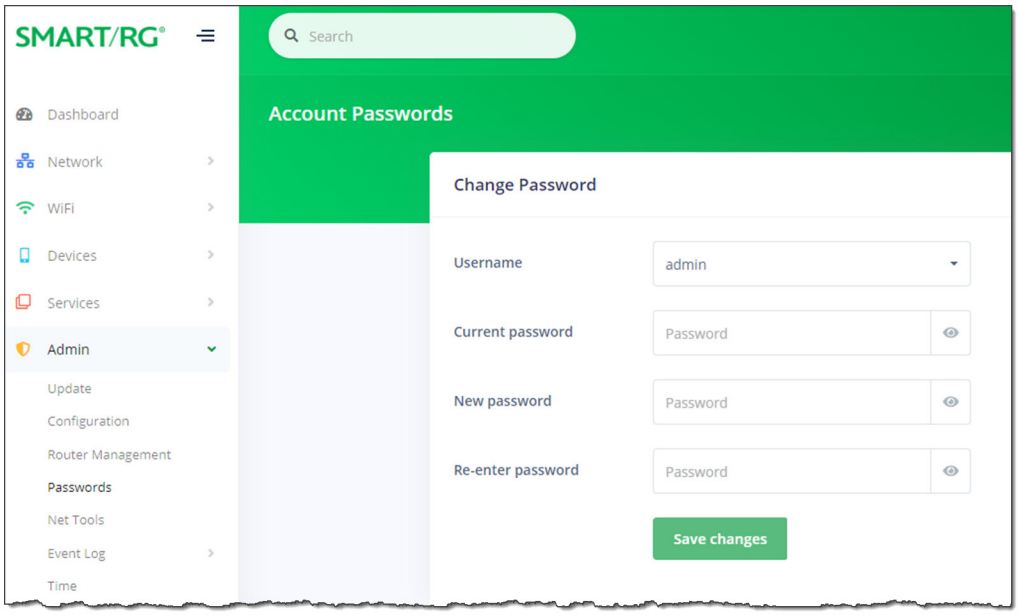

2. Fill in the fields using the information in the table below.
3. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

| Field | Description |
|---|---|
| **Management Configuration** section | |
| Hostname | (*Optional*) Enter a new name for the host. |
| Stealth LED | This option *prevents* the LEDs on the gateway from shining. To *allow* the LEDs to shine, click the **slide button**. |
| Enable Mobile Management | This option is *enabled* by default. It allows or denies the gateway to be remotely managed. Click the **slide button** to turn this feature on or off. |
| **HTTP Configuration** section | |
| Enable LAN HTTP | This feature is *enabled* by default. To *disable* LAN HTTP, click the **slide button**. |
| Enable WAN HTTP | This feature is *disabled* by default. To *enable* WAN HTTP, click the **slide button**. |
| WAN HTTP Port | (*Optional*) Enter a different port number for the WAN. The default is **80**. |
| WAN HTTP Restrict Source | (*Optional*) Enter the IP address for which you want access restricted. |
| **HTTPS Configuration** section | |
| Enable WAN HTTPS | This feature is *disabled* by default. To *enable* WAN HTTPS, click the **slide button**. |
| WAN HTTPS Port | (*Optional*) Enter a different port number for the secure WAN. The default is **443**. |
| WAN HTTPS Restrict Source | (*Optional*) Enter the IP address for which you want access restricted. |

# Passwords

On this page, you can change the passwords used to access your device.

1. In the left menu, click **Admin** > **Passwords**. The following page appears.

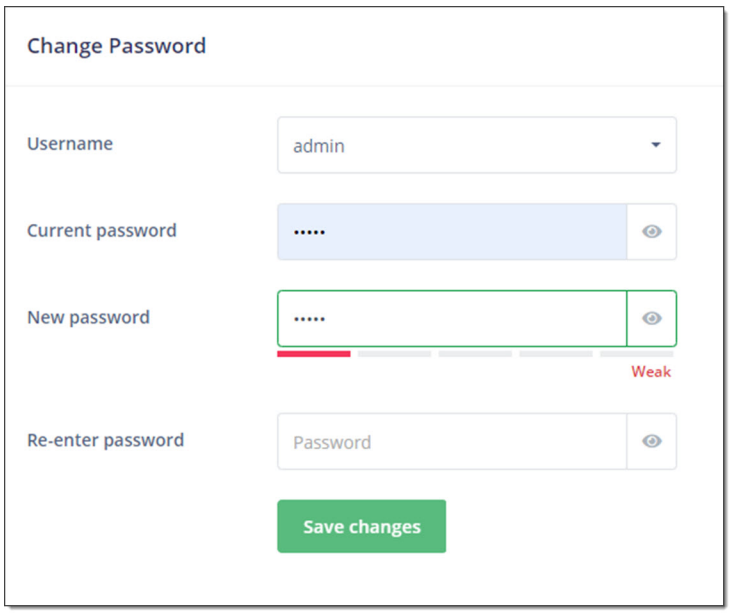



2. In the **Username** field, select the user password that you want to modify.
3. In the **Current password** field, either enter the current password for the selected user, or click in the field to select a stored password.

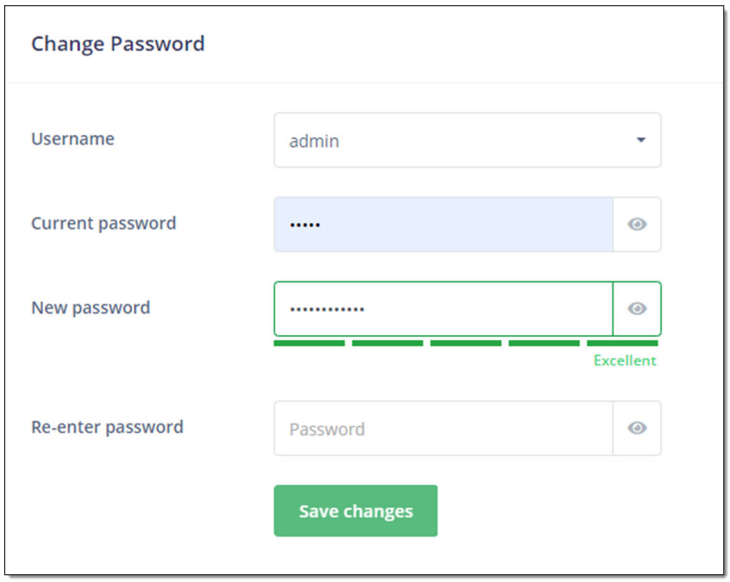
   **Note:** If you click the **Manage passwords** link, the Settings window opens for your browser. You can change passwords there as well.

4. In the **New password** and **Re-enter password** fields, enter the new password.
   The password strength rating located below each of these fields refreshes automatically as each character is typed.

   **Weak password example**




**Strong password example**

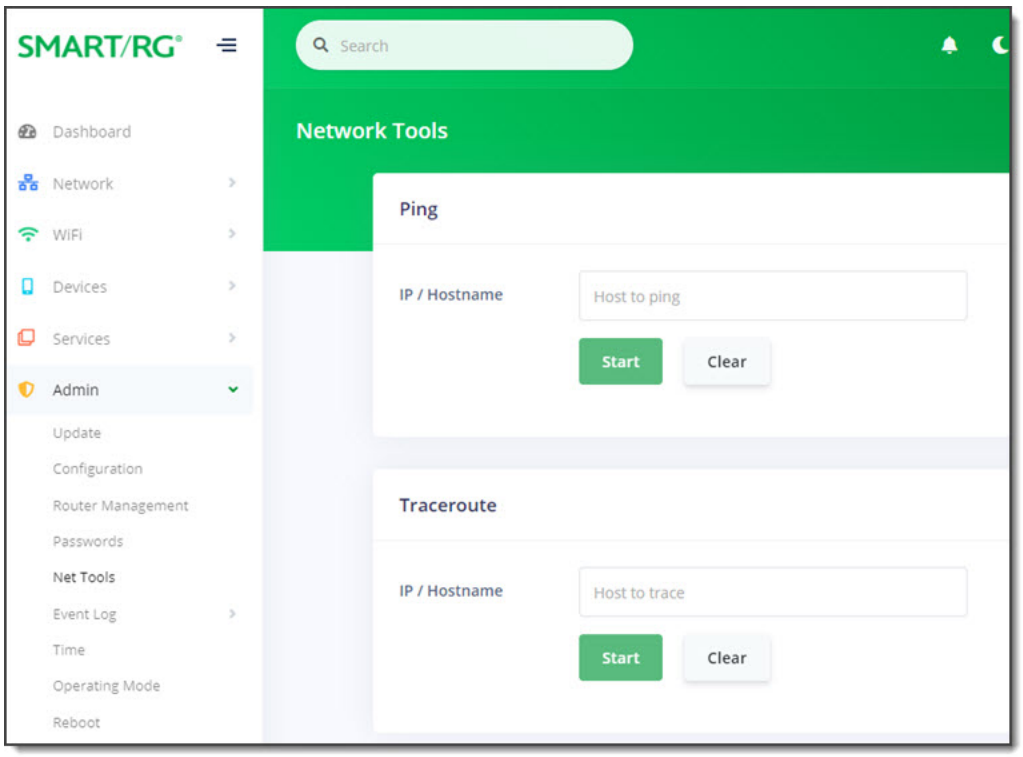



5. Click **Save Changes**. The new password takes effect immediately.

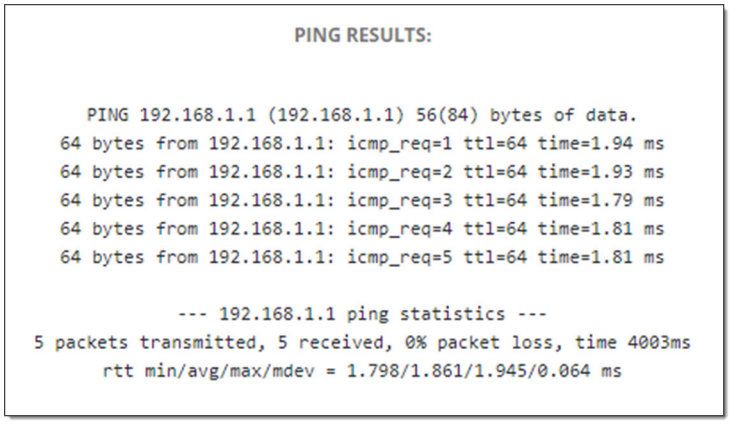
# *Net Tools*

On this page, you can ping a server and use the traceroute utility to display a packet's path over the IP network and measure route transit delays that may be present.

1. In the left menu, click **Admin** > **Net Tools**. The following page appears.




2. To ping a server, enter an IP address or host name in the upper **IP/Hostname** field (such as 192.168.1.44), then click the upper **Start** button. The **PING RESULTS** appear.




3. To trace a transmission, enter an IP address or host name in the lower **IP/Hostname** field (such as 192.168.1.44), then click the lower **Start** button.
   The **TRACE RESULTS** appear.

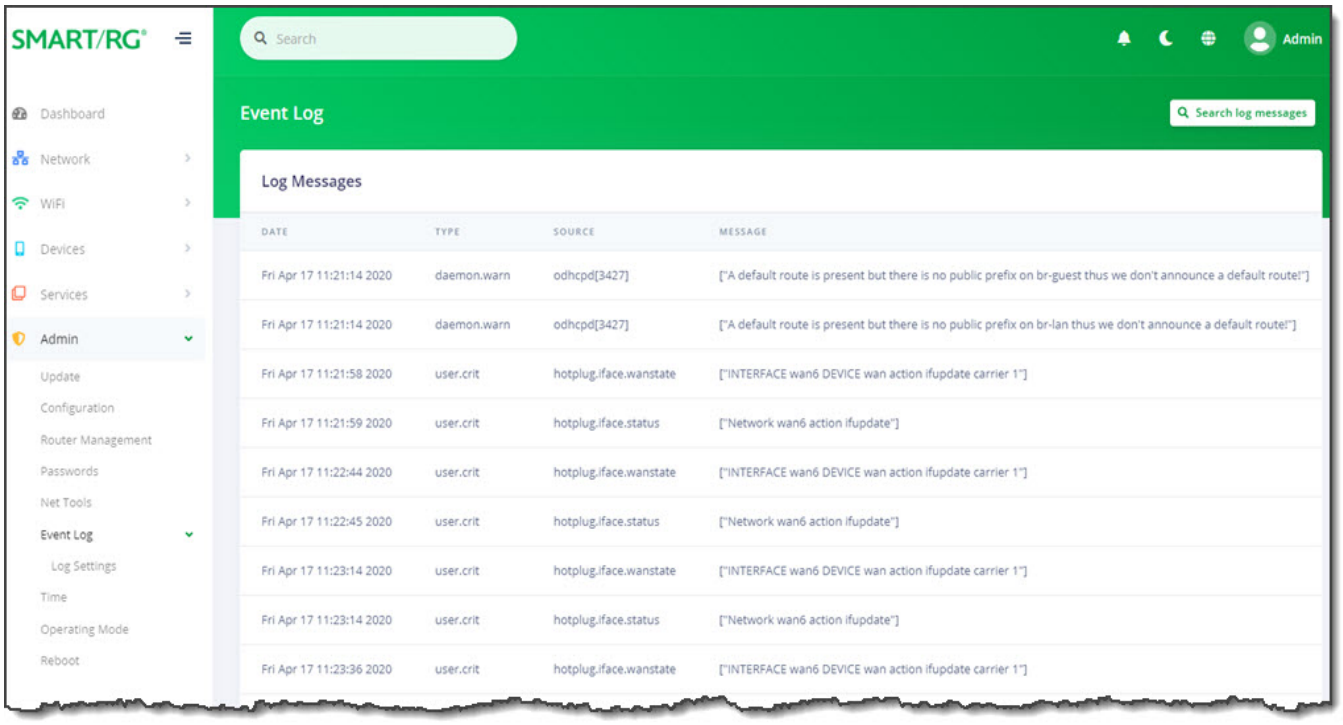
TRACE RESULTS:

```
traceroute to 192.168.1.1 (192.168.1.1), 30 hops max, 38 byte packets
 1  192.168.1.1  4.491 ms
```

# Event Log

On this page, you can view the event log (system log) and configure how the log entries are displayed.

1. In the left menu, click **Admin** > **Event Log**. The following page appears.



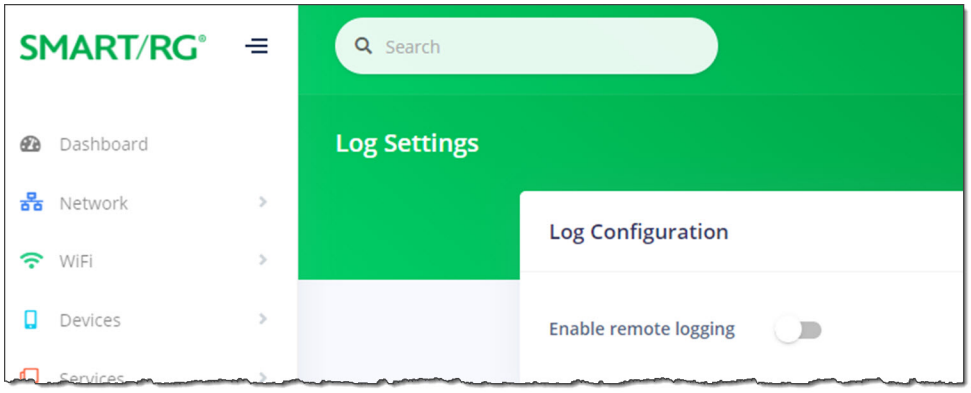

2. To filter the displayed messages:
    a. Click the **Search log messages** button at top right. The Search log messages dialog box appears.
    b. Enter a search string and click **Search**. The list refreshes to show the matching entries. The **Clear search** button also appears next to the **Search log messages** button.
3. To clear the current filter, click **Clear search** near the upper right corner of the screen.
4. To configure log settings, follow the "Configuring Log Settings" instructions below.

As new entries are added to the event log file, the list refreshes to display them.

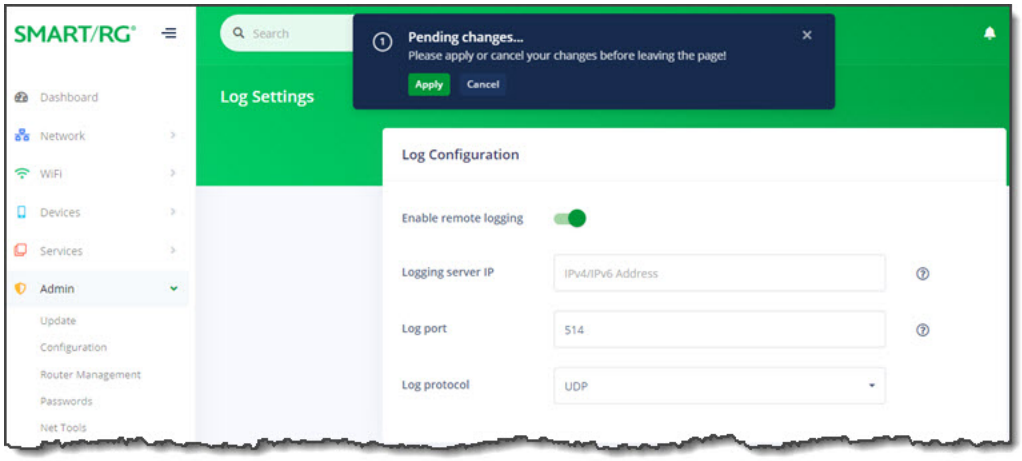
## Configuring Log Settings

On this page, you can enable remote logging.

1. In the left menu, click **Admin** > **Event Log** > **Log Settings**. The following page appears.




2. (*Optional*) To activate remote logging, click the **slide button** next to **Enable remote logging**.

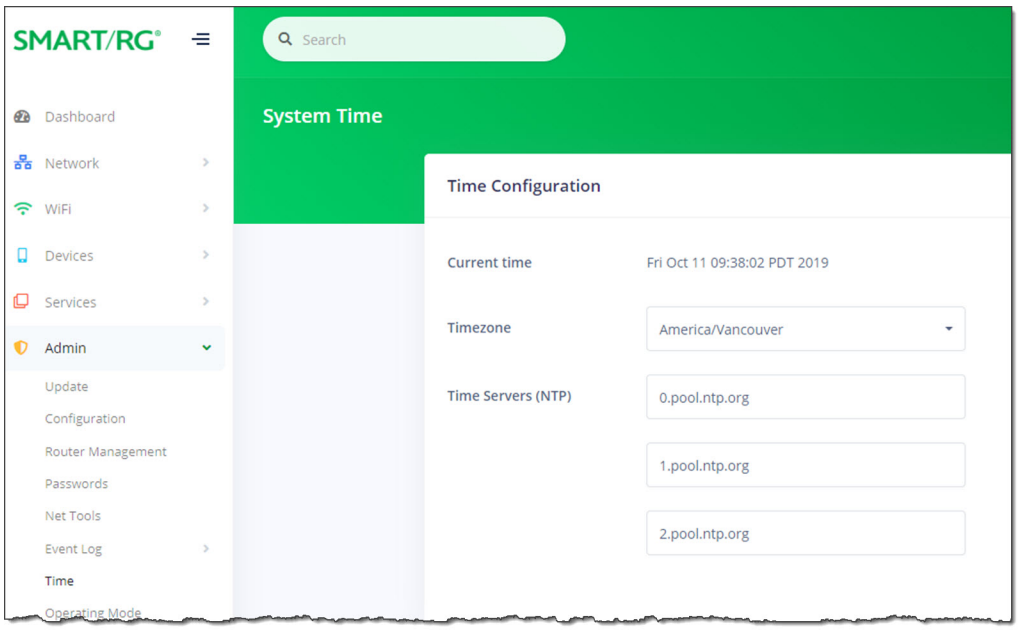



3. In the **Logging server IP** field, enter the IP address (such as 192.168.1.44) of the syslog server to which the log messages should be sent. Log messages are sent to this server in addition to the default local destination.
4. In the **Log port** field, enter or select the port number for the specified logging server. Options are **1** - **9999**.
5. In the **Log protocol** field, select the protocol. Options are **TCP** and **UDP**. The default is **UDP**.
6. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# Time

On this page, you can select a timezone and manage connections to the reliable clocking servers available on the Internet.

1. In the left menu, click **Admin** > **Time**. The following page appears. All fields on this page are optional.



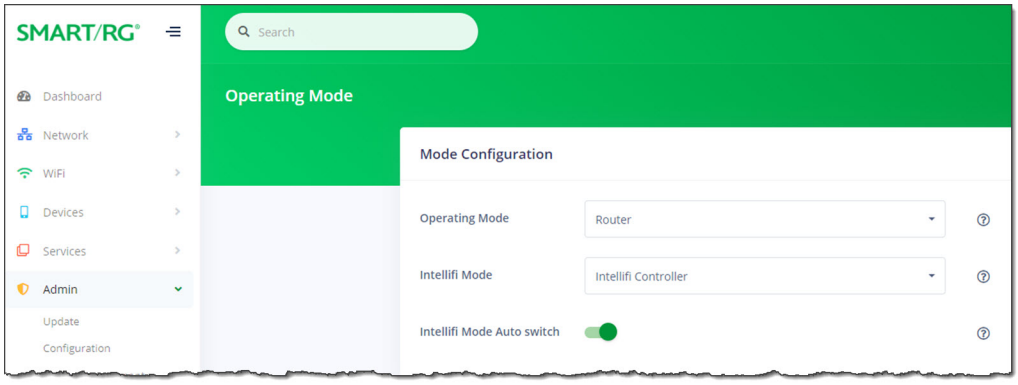

2. To change the time zone, in the **Timezone** field, select the appropriate zone.
3. To change or remove time servers, in the **Time servers (NTP)** section, modify or delete the addresses in the fields.
4. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# Operating Mode

On this page, you can select whether the gateway operates as a router or a wireless access point.

Intellifi Mode:

1. In the left menu, click **Admin** > **Operating Mode**. The following page appears.




2. To configure how this gateway should operate, in the **Operating Mode** field, select the appropriate setting. Options are **Router** and **Wireless Access Point**. The default is **Router**.

   In **Router** mode, this device functions as a router between your ISP's WAN and your home network LAN. It provides firewall, NAT server, DHCP server, UPnP, DDNS, Cloud File Sharing and other services. Select this option if you do not currently have a router.

   **Warning:** A notification appears, stating that the gateway will reboot upon applying this setting.

3. To configure this gateway as part of a mesh network, in the **Intellifi Mode** field, select the appropriate setting. Options are **Intellifi Controller**, **Satellite**, and **None**. **Satellite** is only available when you select **Wireless Access Point** in the **Operating Mode** field. The default is **Intellifi Controller**.

   In **Intellifi Controller** mode, this device also becomes the central control center for your Intellifi network. Select this option if you are deploying Intellifi mesh nodes to support WiFi coverage at this location.

4. The **Intellifi Mode Auto switch** feature is *enabled* by default. To *prevent* the gateway from automatically switching from Intellifi Controller mode to the managed Satellite mode, click the **slide button**.

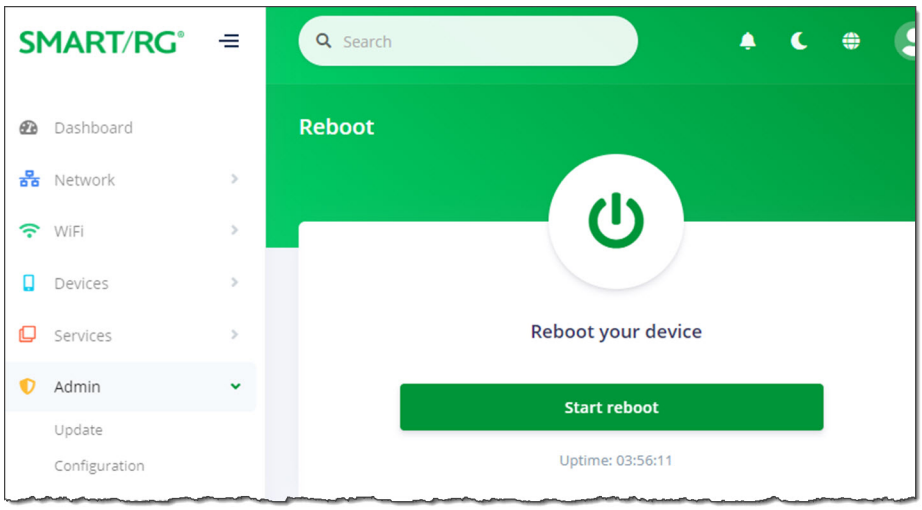
   To learn more about Intellifi network configuration, refer to the "Setting up an Intellifi Network" How-To article available in the SmartRG Customer Portal.

5. Click the **Apply** button in the **Pending changes...** dialogue to save your settings.

# Reboot

On this page, you can reboot your device.

1. In the left menu, click **Admin** > **Reboot**. The following screen appears. The amount of time that the gateway has been connected is shown in the **Uptime** line below the **Start Reboot** button.




2. Click the **Start Reboot** button.
   The restart confirmation dialog box appears, stating that rebooting takes approximately three minutes.
3. Click the **Yes, reboot** button. The Rebooting dialog box appears, showing the time remaining until completion. When your gateway is ready, the sign-in page appears.

# Logging out

1. In the top right corner of the interface, click the profile name. The **USER PROFILE** pane appears.
2. Click **Logout**. The Sign in dialog box appears.

# Appendix: Compliance Statements

## *FCC Interference Statement*

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

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 installation. 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 equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment 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 Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numrique de la classe B est conforme Ã  la norme NMB-003 du Canada.

## *FCC Radiation Exposure Statement*

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules.

- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- This equipment should be installed an operated with a minimum distance of 20cm between the radiator and your body.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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 the party responsible for compliance could void the user's authority to operate the equipment.

### 5GHz

5150-5250 MHz band is restricted to indoor operations only.

# Revision History

| Rev | Date | Description |
|---|---|---|
| 5.1 | March 2020 | Header features updated; related screen captures updated to match. Other minor updates. |
| 5.0 | January 2020 | New screen captures and updated navigation paths reflect the GUI facelift for Version 10.8.3.1 Related content was updated as well. |
| 4.0 | June 2019 | Updated to match Version 10.7.1.1. |
| 3.2 | December 2018 | Updated to match Version 10.6.3.1. |
| 3.1 | August 2018 | Updated to match Version 10.5.4.1. |
| 3.0 | July 2018 | Intellifi Devices screen capture replaced. No other changes to content. |
| 3.0 | June 2018 | Updated to capture redesigned interface for Version 10.5.0.4. |
| 2.1 | April 2018 | Screen captures updated to match Version 10.5.0.2. |
| 2.0 | April 2018 | Initial document release for Versions 10.5 and later. |