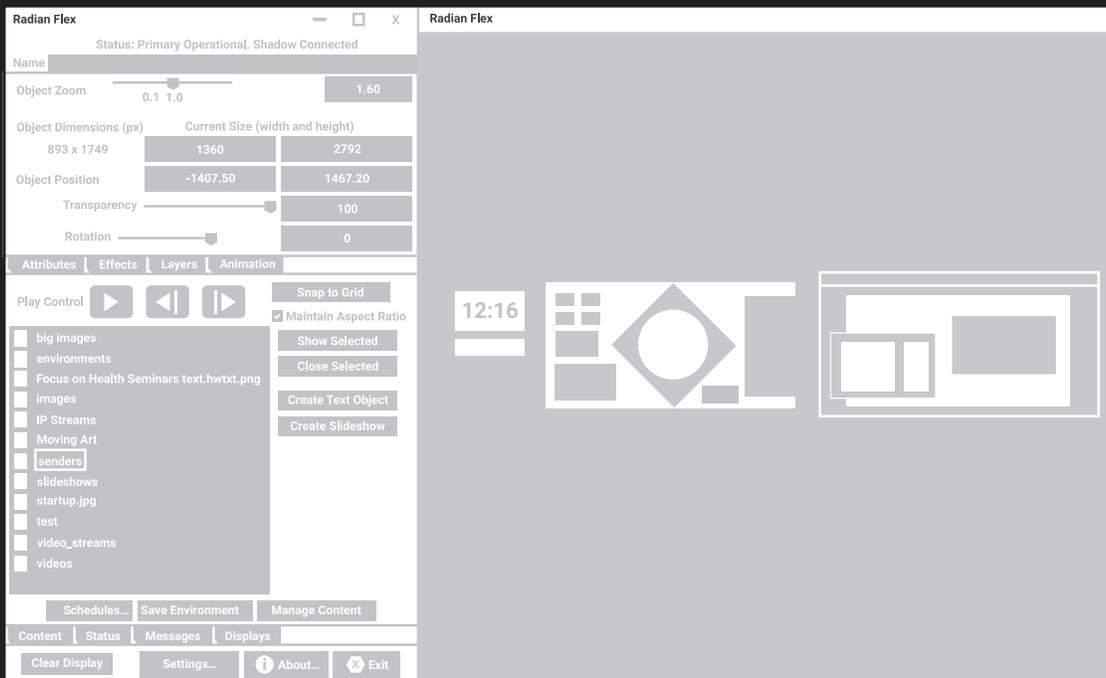


# NEW INSTALLATION GUIDE

VW-FLEX

# RADIAN FLEX VIDEO WALL PROCESSOR

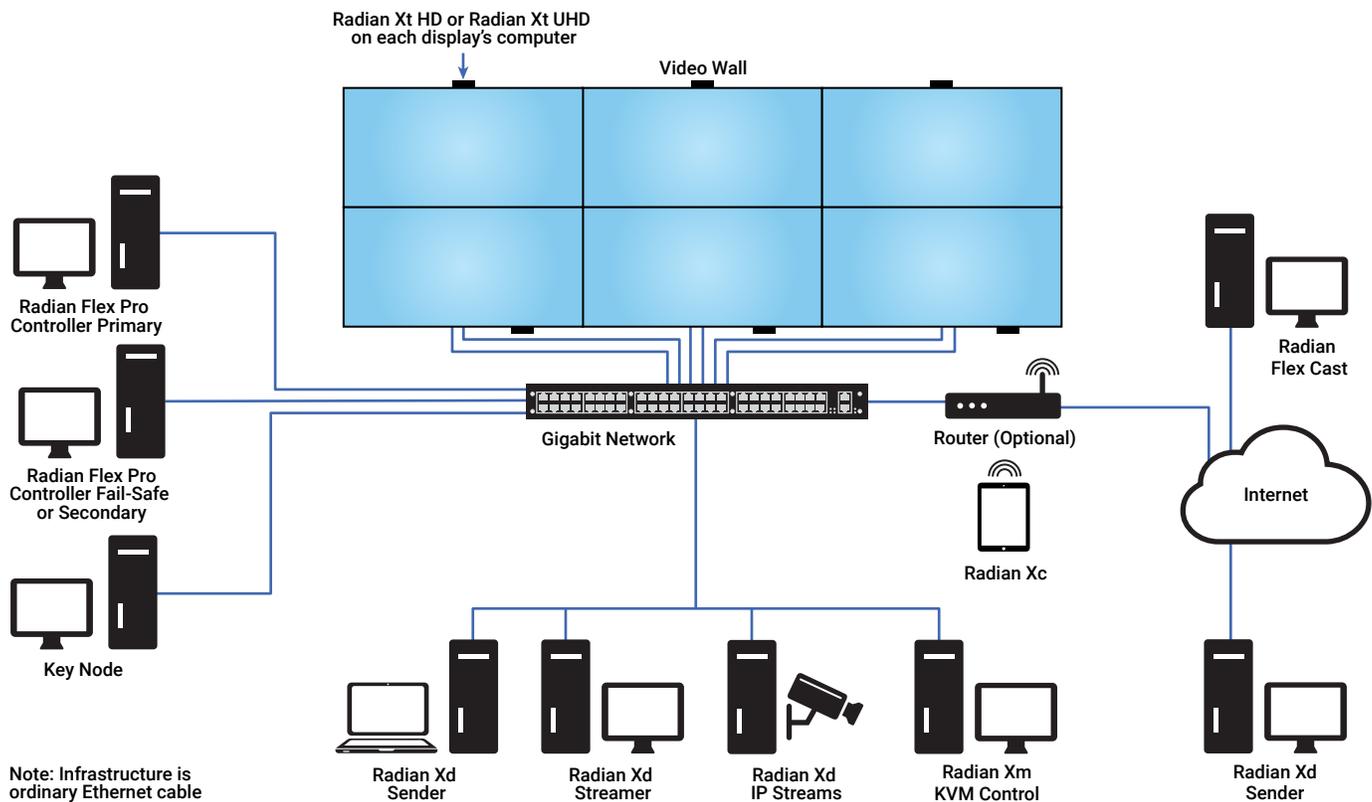
24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT BLACKBOX.COM



# INTRODUCTION

## INSTALLATION INSTRUCTIONS FOR SYSTEM COMPONENTS

This technical guide describes how to install a Radian Flex system, including set up tips on network configuration, node installation, system configuration and switch configuration. In addition, this guide includes helpful information about optimizing sender and streamer fps, the first test run configuration and the IGMP Multicast Test.



# HOW TO SET UP A RADIAN FLEX SYSTEM

---

## 1) PREPARING TO INSTALL RADIAN FLEX SOFTWARE

1. Check that each PC has the correct hardware and operating system installed for each Radian Flex software component.
2. Check that all the PCs are in good working order with a standard burn-in test successfully completed on each PC.
3. Check that all monitors are operational.
4. Check that the required number of Radian Flex USB flash drives are on site. Radian Flex Pro Suite has three USB flash drives: one for each computer running the controller software and one for the Key Node computer. The Radian Flex Suite has one Radian Flex USB flash drive for the controller computer. Each USB flash drive contains the Radian Flex software license key and must be inserted for the Radian Flex system to run. The Radian Flex software will prompt for when to insert a Radian Flex USB flash drive.

## 2) CONFIGURING THE RADIAN FLEX NETWORK

1. Turn off CPU protection on the switch. Use a Gigabit switch with non-blocking performance.
2. Configure the DHCP server. Static addressing is recommended for most nodes running Radian Flex software.
3. Ensure that IGMP is fully enabled. The switch must support IGMP snooping and querier.
4. Configure the switch to enable IGMP snooping and IGMP querier. Click on the links for configuration instructions in Appendix A, B, C and G.
  - How to Configure a Black Box LGB1100A and LGB5000A Series Switch for a Radian Flex System
  - How to Configure a Layer 2 Cisco IOS Switch for a Radian Flex System
  - How to Configure a Cisco SG300 Switch for a Radian Flex System
  - How to Configure a D-Link DGS1510 Switch for a Radian Flex System
5. Turn OFF Broadcast/Packet Storm protection, if any.
6. Optionally connect the switch to a router.

## 3) INSTALLING RADIAN FLEX PRO CONTROLLER AND RADIAN FLEX CONTROLLER SOFTWARE

1. Set static IP address (recommended).
2. Install VNC Server (recommended) (<http://www.tightvnc.com/download.php>).
3. Run Radian Flex Controller Setup.
4. Reboot Controller PC.
5. Confirm that the Controller PC is connected to the switch at 1 Gbps speed.
6. For Radian Flex Pro Suite: Repeat for the second controller computer. The second controller computer will automatically pick up some settings from the first controller computer.
7. The Radian Flex controller software will prompt for the Radian Flex USB flash drive to be inserted into the computer.
8. The USB flash drive has the software license key and must be inserted for the Radian Flex system to run. Please consider physical drive size and port location to prevent damage or accidental removal.

## 4) INSTALLING KEY NODE SOFTWARE

1. For Radian Flex Pro Suite: Set static IP address (recommended).
2. Run Radian Flex Key Node Setup.
3. Reboot the Key Node PC.
4. Confirm that the Key Node PC is connected to the switch at 1 Gbps speed.
5. The Radian Flex Key Node software will prompt for the Radian Flex USB flash drive to be inserted into the computer.
6. The USB flash drive has the software license key and must be inserted for the Radian Flex system to run. Please consider physical drive size and port location to prevent damage or accidental removal.



# HOW TO SET UP A RADIAN FLEX SYSTEM

---

## 5) INSTALLING RADIAN XT SOFTWARE

1. Set static IP address (recommended).
2. Install VNC Client (recommended). (<http://www.tightvnc.com/download.php>).
3. Verify VNC connectivity from controller computer.
4. Name the Radian Xt computers. For standard grids, use the A1, A2 naming scheme like a spreadsheet (recommended). For custom configurations, or for more information on recommended naming schemes, contact the Radian Flex Technical Services Team.
5. Run Radian Flex Radian Xt Setup.
6. Enable Wake-On-LAN and Wake-On-LAN from Standby with Magic Packet.
7. If the system uses write-protected flash drives (for example, EWF), run EWF utility to commit changes.
8. The Radian Xt software will automatically reboot each Radian Xt monitor/computer. Check that all Radian Xt monitors/computers have rebooted.
9. Confirm that each Radian Xt PC is connected to the switch at 1 Gbps speed.

## 6) INSTALLING RADIAN XD SENDER SOFTWARE

1. Set static IP address for local, permanent Senders (recommended).
2. Dynamic IP (DHCP) may be used for temporary or remote Senders.
3. Name the PC with an appropriate, meaningful name (for example, Sender1).
4. Run Radian Flex Sender Setup.
5. Copy sender shortcut to startup folder if desired to automatically start Sender after each boot.

## 7) INSTALLING RADIAN XD STREAMER SOFTWARE

1. Set static IP address (recommended).
2. Name the PC with an appropriate, meaningful name (for example, Streamer1).
3. Run Radian Flex Streamer Setup.
4. Reboot each streamer PC.
5. Confirm that each streamer PC is connected to the switch at 1 Gbps speed.
6. Optimize senders and streamers. Click on the link below for instructions in Appendix E of this guide.
  - [How to Optimize Senders and Streamers for the Best Performance](#)
7. The streamer software has the ability to create a new shortcut that will launch the streamer software and immediately start streaming to the Radian Flex. This shortcut can be copied to the Windows startup folder to automatically start streaming after Windows login. See the Radian Flex User Guide for more information.

## 8) INSTALLING RADIAN XD IP STREAMS SOFTWARE

1. Set static IP address (recommended).
2. Name the PC with an appropriate, meaningful name (for example, IPStreams1).
3. Run Radian Flex IP Streams Setup.
4. Reboot each IP Streams computer.
5. Confirm that each IP Streams PC is connected to the switch at 1 Gbps speed.
6. Copy IP Streams shortcut to startup folder, if desired, to automatically start IP Streams after each boot.



# HOW TO SET UP A RADIAN FLEX SYSTEM

---

## 9) INSTALLING RADIAN XC SOFTWARE

1. Run Radian Flex Radian Xc Setup.
2. Reboot each Radian Xc computer.
3. Confirm that each Radian Xc computer is connected to the switch at 1 Gbps speed.
4. Copy Radian Xc shortcut to startup folder, if desired, to automatically start Radian Xc after each boot.

## 10) CONFIGURING THE RADIAN FLEX SYSTEM

1. Start the Radian Flex Pro Controller or Radian Flex Controller.
2. The system will automatically display the settings dialog box.
3. Enter all appropriate system settings and save. Click on the link below for instructions in Appendix F of this guide.
  - First Run Configuration
4. Navigate to Settings/System setup in the Control Panel and run the IGMP Multicast Test. Follow the instructions in Appendix D of this guide. It is extremely important that the IGMP be set up correctly for a fully functional Radian Flex system.
  - Using the Radian Flex IGMP Multicast Test
5. Forward the results of the IGMP Test to [info@blackbox.com](mailto:info@blackbox.com) for evaluation.
6. Continue to optimize senders and streamers on computers running Radian Xd software. Click on the link below for instructions in Appendix E of this guide.
  - How to Optimize Senders and Streamers for the Best Performance
7. The Radian Flex system is now ready for use.

For more information, contact the Black Box Technical Support Team.

Telephone: 877.877.2269

Email: [info@blackbox.com](mailto:info@blackbox.com)

We offer around-the-clock, U.S.-based service from our Customer and Technical Support Teams, including 24/7 phone and chat support.



# APPENDIX A

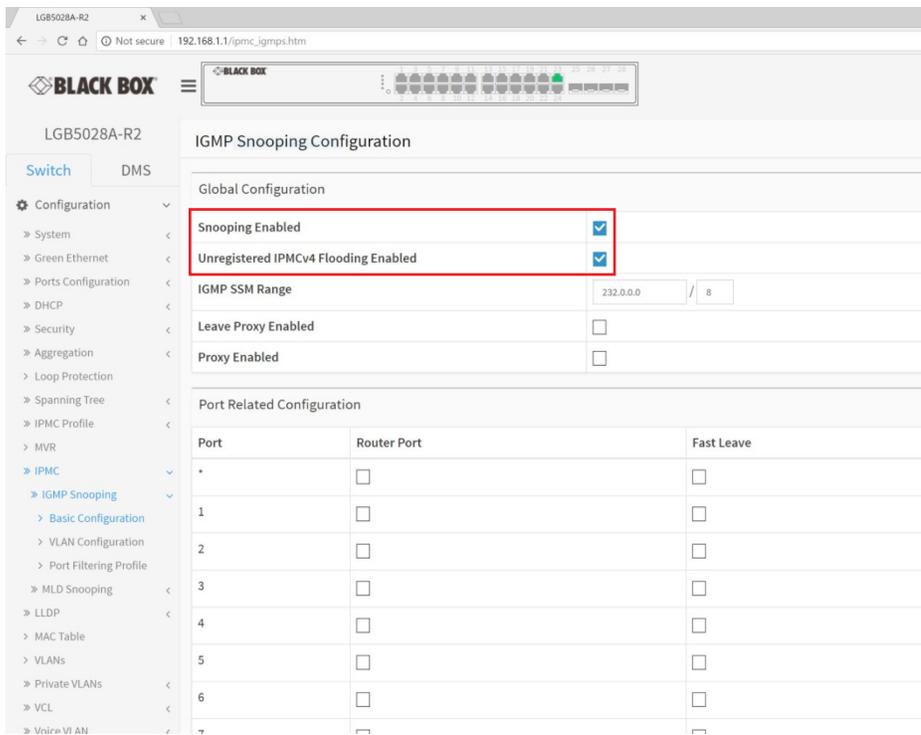
## HOW TO CONFIGURE A BLACK BOX LGB1100A AND LGB5000A SERIES SWITCH FOR A RADIAN FLEX SYSTEM

This procedure applies to the Black Box LGB1110A, LGB1126A-R2, LGB1148A, LGB1152A, LGB5028A-R2 and LGB5052A-R2 Gigabit switches.

The guide's objective is to show how to configure the switch's IGMP settings correctly for Radian Flex use. You will need to have an IP address already configured on the switch (even if it is just the default IP address).

Log into the switch and navigate the menu items on the left-hand side. Select Configuration > IPMC > IGMP Snooping.

The IGMP Snooping Configuration should be set as follows:



The screenshot shows the web interface for a Black Box LGB5028A-R2 switch. The left-hand navigation menu is expanded to 'IPMC' > 'IGMP Snooping'. The main content area displays the 'IGMP Snooping Configuration' page. Under the 'Global Configuration' section, the following settings are visible:

- Snooping Enabled**:
- Unregistered IPMCv4 Flooding Enabled**:
- IGMP SSM Range**: 232.0.0.0 / 8
- Leave Proxy Enabled**:
- Proxy Enabled**:

Below this is the 'Port Related Configuration' section, which is a table with the following structure:

Port	Router Port	Fast Leave
*	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>



# APPENDIX A

## HOW TO CONFIGURE A BLACK BOX LGB1100A AND LGB5000A SERIES SWITCH FOR A RADIAN FLEX SYSTEM

Return to the menu on the left-hand side and select VLAN Configuration under IGMP Snooping.

Click the Add New IGMP VLAN button.

Fill in the VLAN information and click on the Snooping Enabled radio button. Only enable the Querier Election radio button for one switch in your Multicast Network of switches. For all other switches, do not select this option.

Click Apply for changes to take effect.

The screenshot shows the Black Box web interface for configuring IGMP Snooping VLANs. The page title is "IGMP Snooping VLAN Configuration" for device "LGB5028A-R2". The interface includes a navigation menu on the left with "VLAN Configuration" selected under "IGMP Snooping". The main content area shows a table of VLAN configurations with columns: Delete, VLAN ID, Snooping Enabled, Querier Election, Querier Address, Compatibility, PRI, and RV. A single row is visible with "Delete" (orange button), "VLAN ID" (input field), "Snooping Enabled" (checked checkbox), "Querier Election" (checked checkbox), "Querier Address" (0.0.0.0), "Compatibility" (IGMP-Auto), "PRI" (0), and "RV" (2). Below the table is an "Add New IGMP VLAN" button (blue) and "Apply" (blue) and "Reset" (orange) buttons. The "Add New IGMP VLAN" button and the "Snooping Enabled" and "Querier Election" checkboxes in the table are highlighted with red boxes.

Delete	VLAN ID	Snooping Enabled	Querier Election	Querier Address	Compatibility	PRI	RV
<input type="button" value="Delete"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.0.0.0	IGMP-Auto	0	2

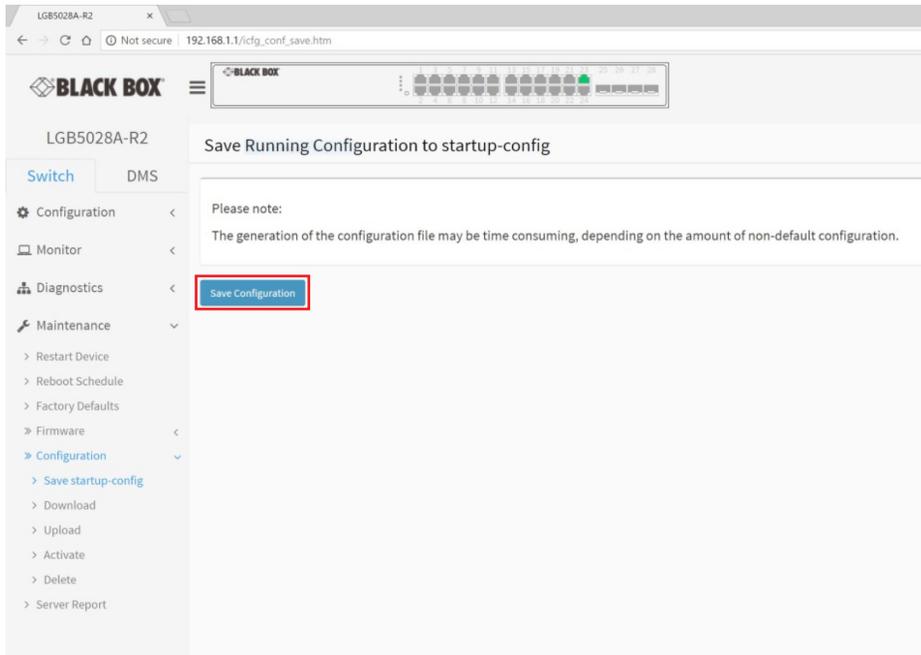


# APPENDIX A

## HOW TO CONFIGURE A BLACK BOX LGB1100A AND LGB5000A SERIES SWITCH FOR A RADIAN FLEX SYSTEM

Return to the menu on the left-hand side and select Maintenance > Configuration > Save startup-config.

Click Save Configuration.



After these settings are configured and saved, restart Radian Flex and run the IGMP (Multicast) Test (under Settings/System Setup). Provide the Black Box Technical Support Team with the results. While rare, it is possible that you may need to restart the switch as well.

## APPENDIX B

---

### HOW TO CONFIGURE A LAYER 2 CISCO® IOS SWITCH FOR A RADIAN FLEX SYSTEM

**First, an IP address must be configured on the switch (must be in enable mode):**

```
Switch# configure terminal
Switch(config)# interface vlan {switch management vlan}
Switch(config-if)# ip address {desired IP address} {network mask}
```

**So it should look something like this:**

```
Switch# configure terminal
Switch(config)# interface vlan 1
Switch(config-if)# ip address 10.0.1.3 255.255.255.0
```

**Press Ctrl-Z to exit config mode.**

**Once an IP address is on the switch, configure IGMP:**

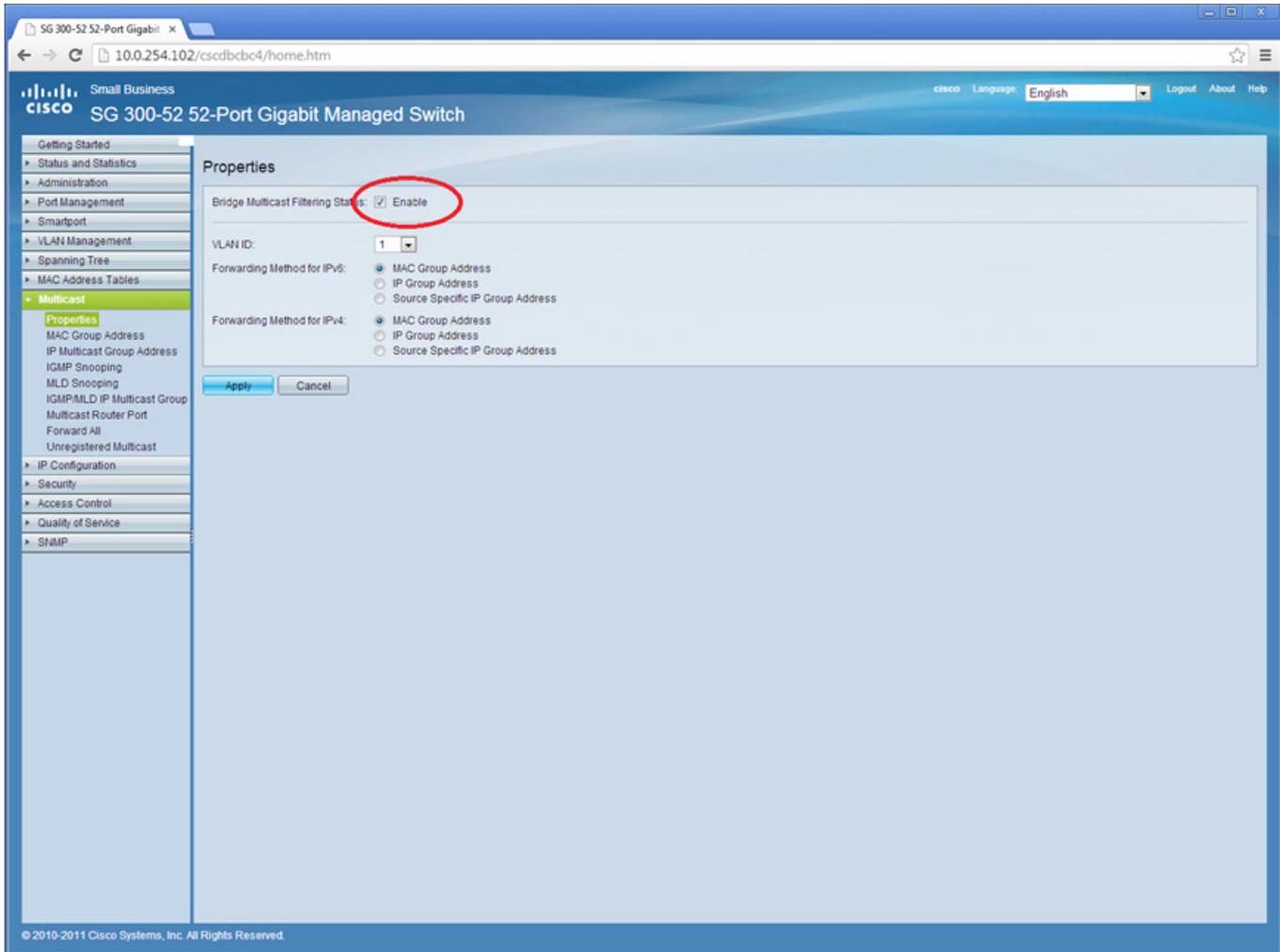
```
Switch(config)# configure terminal
Switch(config)# ip igmp snooping querier address {IP address of the switch}
Switch(config)# ip igmp snooping querier
Switch(config)# ip igmp snooping vlan 1 immediate-leave
```



# APPENDIX C

## HOW TO CONFIGURE A CISCO SG300 SWITCH FOR A RADIAN FLEX SYSTEM

Log into the switch (SG300). There will be menu items on the left-hand side under Multicast. Under Properties, check the Enable box as in the following image.



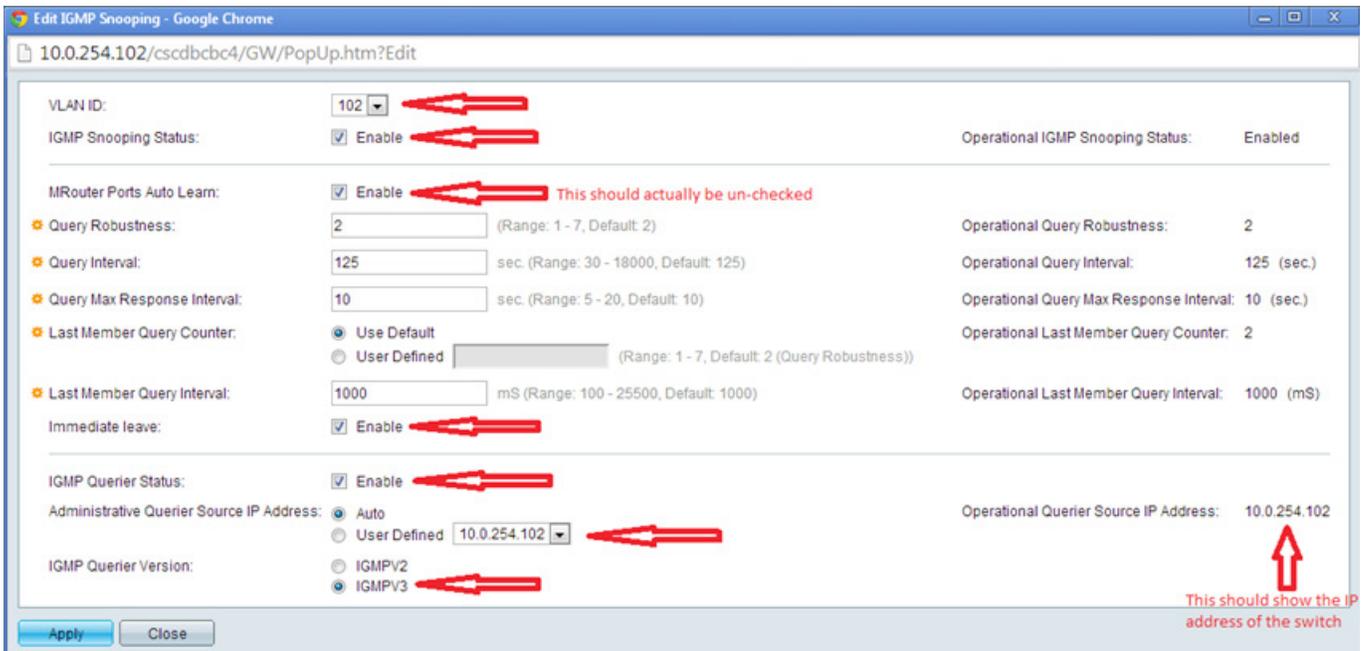
# APPENDIX C

## HOW TO CONFIGURE A CISCO SG300 SWITCH FOR A RADIAN FLEX SYSTEM

Under IGMP Snooping, the IGMP Snooping Status box should be checked. Then select the Radio Button on the IGMP Snooping Table that corresponds to the VLAN you use (by default, it will be VLAN 1).



Once you select the appropriate VLAN, the Edit button will no longer be grayed out. Click the Edit button, which will bring up the following:



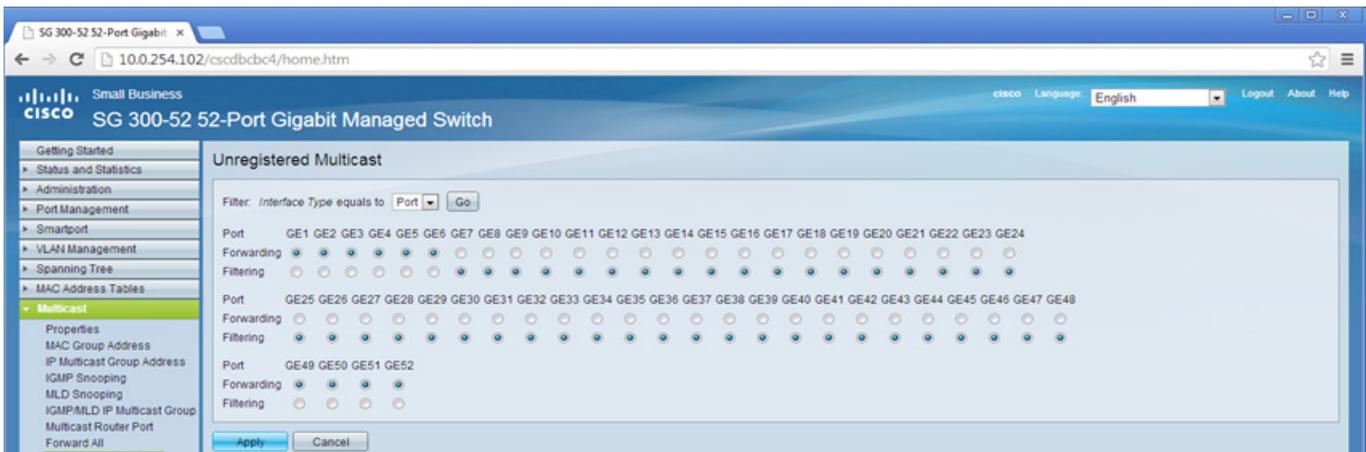
# APPENDIX C

## HOW TO CONFIGURE A CISCO SG300 SWITCH FOR A RADIAN FLEX SYSTEM

Be sure to choose the correct VLAN ID (the drop-down box at the top of the window, again, by default, is VLAN 1, but it may have been changed, such as in the example above, it is 102). Make sure that you complete this setup as in the example shown, with the following exceptions:

1. Uncheck MRouter Ports Auto Learn.
2. Ensure that the IP addresses shown match the IP address of your switch.

Click Apply, then go to the Unregistered Multicast Page.



Set all ports to Filtering. While a few ports are set to Forwarding in the above example, you should not need to do this; set them all to Filtering.

Be sure to save the configuration changes by clicking the red flashing icon in the upper right-hand side of the window and following the instructions. If the changes are not saved, they will be lost if the switch reboots.

After the settings are saved, restart Radian Flex and run the IGMP Multicast Test (under Settings/System Setup). Contact the Radian Flex support team with the results. You may need to restart the switch as well (although this is not typically needed).

### Black Box Technical Support Team Contact Information

Telephone: 877.877.2269

Email: [info@blackbox.com](mailto:info@blackbox.com)

We offer around-the-clock, U.S.-based service from our Customer and Technical Support Teams, including 24/7 phone and chat support.

# APPENDIX D

---

## USING THE RADIAN FLEX IGMP MULTICAST TEST

When using Radian Flex, do you experience any of the following issues?

1. Objects will not move on the wall when you try to reposition them using the Radian Flex Pro Controller or Radian Flex Controller.
2. Video "tearing" appears, creating a "torn" look that appears as thin, black, horizontal lines.
3. Radian Xd sources keep disconnecting.
4. If you answered yes to any of these questions, it is recommended that you run the IGMP Multicast Test.

### ABOUT IGMP

The Internet Group Management Protocol (IGMP) is a communications protocol used by hosts and adjacent routers on IP networks to establish multicast group memberships.

When IGMP is not configured on your Radian Flex switch properly, you may experience poor Radian Flex performance, such as objects on the wall not moving via the Radian Flex Control Node, video tearing or Sender or Streamer Nodes disconnecting. It is extremely important that the IGMP be set up correctly for a fully functional Radian Flex system.

The IGMP Test is used to verify that IGMP has been configured on the switch correctly. The IGMP Multicast Test can be found on the Control Node System Setup Tab in the Settings dialog.



# APPENDIX C

## USING THE RADIAN FLEX IGMP MULTICAST TEST

The test requires that two items be connected to the controller:

1. At least two Radian Xt computers.
2. At least one Radian Xd Streamer with at least one stream open and connected to the controller.

The screenshot shows the 'Settings and Preferences' dialog box with the 'System Setup' tab selected. The dialog contains several configuration sections:

- Controller "contents" directory:** A text field containing 'C:\Users\Public\Radian Flex\contents' and a 'Browse' button. Below it, a note says 'Please choose an empty directory or create a new directory.'
- Radian Flex computers directory:** A dropdown menu showing 'C:\Radian Flex\contents' with a downward arrow. Below it, a note says 'Use the default value unless you add storage to the monitors.'
- Display wall subnet:** A dropdown menu showing '5 - Qualcomm Atheros AR8151 PCI-E Gigabit Ethernet Controller (NDIS 6.30)' with a downward arrow. Below it, a note says 'Note that this address normally ends with .255'.
- Display wall size:** A dropdown menu showing 'Radian Flex showroom' with a downward arrow.
- Monitor naming:** A note stating 'The monitors should be named properly. Columns are designated with letters, while rows are numbered, so A1 is the top left, while B1 is next to it.'
- Bezel Compensation:** A note stating 'Bezel Compensation settings have moved to the Control Panel's Displays tab. Choose a wall, then press the Configure Selected button.'
- Connected devices:** 'Radian Xt connected: 33' and a checkbox for 'Radian Xt Update'.
- Buttons:** 'Run Batch File', 'System Test', 'Clear Radian Xt Contents', 'IGMP (Multicast) Test', and 'Synchronize Display Contents'.
- Controller Window Size/Position:** Radio buttons for 'Allow Controller Window Size/Position Changes' (selected), 'Keep Windows At Default Position/Size', and 'Lock Windows To Current Position/Size'.
- Footer buttons:** 'Load Settings File', 'Clear Settings', 'Save Settings', and 'Cancel'.



# APPENDIX C

## USING THE RADIAN FLEX IGMP MULTICAST TEST

Once you start the IGMP Multicast Test, the Radian Xt monitors will show some diagnostics similar to this:

```
[M1] IP: 10.0.1.80/24 1366x768 3.1.0.35 [00:00:08:27]
Microsoft Windows 7 Ultimate Edition Service Pack 1 (build 7601), 64-bit
CPU: Intel(R) Core(TM) i5-3550 CPU @ 3.30GHz x4 4.0GB [2.0GB 2.0GB]
GPU: Intel(R) HD Graphics [10.18.10.3345] 2013/10/31 [BGR0]
NIC: Realtek PCIe GBE Family Controller
Contents: E:\RadianFlexContents\
IM: 0/0, BI: 0/0, QT: 0/0, SN: 0/0, ST: 0/0, SL: 0/0, UK: 0
CPU Usage: 4% [Viewer: 2%] 59.93FPS [16.04 - 17.25ms]
Network: 0.01% [1Gbps]
IGMP/Multicast Test
Packets: [100.00%] [0.00%]
Test 1 : From Control Node (All)
Network: 33.64% 77.25% 75.62% 74.59% 74.60% 74.00% 75.22% 74.61% 74.79% 74.35%
Average Packet Received: 99.94%
Test 2 : From Streamer (All)
Network: 0.01% 43.13% 76.78% 75.25% 74.03% 75.45% 74.27% 75.79% 74.65% 74.59%
Average Packet Received: 100.00%
Test 3 : From Control Node (Half / Half)
Network: 15.93% 77.17% 75.60% 74.38% 74.58% 74.40% 75.06% 74.34% 74.69% 74.68%
Average Packet Received: 99.95%
```

There are three phases to the IGMP Multicast Test:

1. Phase 1 will send approximately 750 Mbps of bandwidth to each Radian Xt computer from the controller computer.
2. Phase 2 will do the same, except it will be sent from an available Radian Xd Streamer computer.
3. Phase 3 will send half of the Radian Xt data from the controller and send the other half of the Radian Xt data from the available Radian Xd Streamer.

The test conducted during Phase 3 is the most significant. If IGMP is not configured correctly, each Radian Xt computer will be receiving 1.5 Gbps on a 1 Gbps Ethernet connection, which will cause excessive packet loss.

The tests conducted during Phase 1 and Phase 2 will provide a baseline so you can see what your Radian Xt computer is capable of handling. If you have an older or slower Radian Xt computer, it may only be able to receive 60% to 75% of the packets sent.

If you compare the Average Packets Received on tests 1 and 2 to test 3, they should be similar. If test 3 is significantly lower, then you have an IGMP problem. Another indication of an IGMP problem is if your sources are unable to generate 750 Mbps. This can be seen by examining the Network lines on the output of the test. After the first few iterations, each number (percentage) should be roughly 75%. If you see a percentage that is significantly lower, such as 65%, then this is also a problem and could be an IGMP issue.



# APPENDIX C

---

## USING THE RADIAN FLEX IGMP MULTICAST TEST

Here are some examples:

	EXAMPLE	PHASE 1	PHASE 2	PHASE 3
Scenario 1: Average Packets Received	99.94%	100%	99.95%	Yes
Scenario 2: Average Packets Received	98.46%	99.74%	72.34%	No
Scenario 3: Average Packets Received	88.87%	92.65%	90.6%	Yes*

\*Note: Although this test shows that the node dropped almost 10% of the packets, Phase 3 was similar in results to Phase 1 and Phase 2.

It is also important to note that if even one computer running Radian Flex software passes the test, then most likely IGMP is set up correctly. So if other computers do not pass, IGMP may not be an issue. If in doubt, send the results to the Black Box Technical Support Team for analysis.

Fixing IGMP issues is highly dependent on the make and model of your switch, so if you run into a problem and need help fixing IGMP, please call the Black Box Technical Support line. We will be happy to help you troubleshoot and resolve the issues.



# APPENDIX E

## HOW TO OPTIMIZE SENDERS AND STREAMERS FOR THE BEST PERFORMANCE

Do you find that your Radian Xd senders or display capture streamers have low frame rates or appear “jerky”? Here are a few basic things you can do to increase the frame rate on a sender or streamer.

1. If you are capturing a desktop from a streamer computer, the first thing to check is the “throttle” slider in the Desktop Preview Window (circled in the following image). If this is set to low, then your fps will be low.



2. If the throttle is set high enough and the frame rate is still low, check to make sure that the connection is at Gigabit speeds.

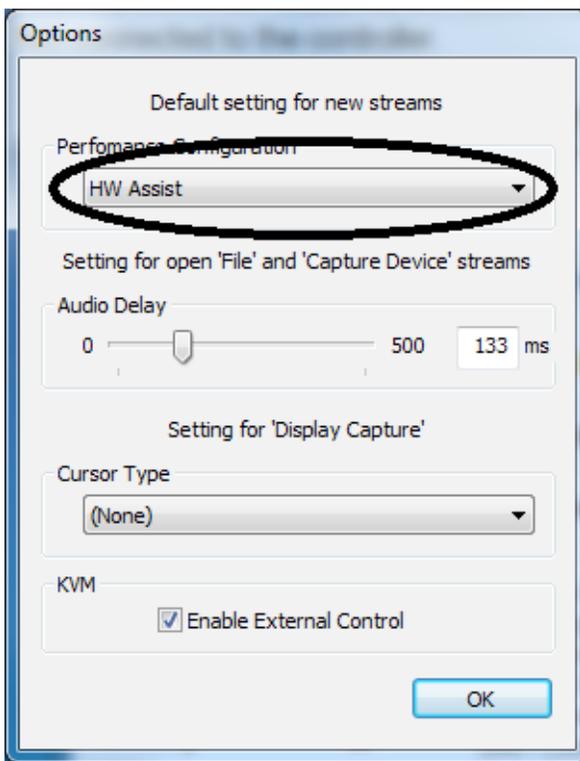


# APPENDIX E

## HOW TO OPTIMIZE SENDERS AND STREAMERS FOR THE BEST PERFORMANCE

If for some reason the connection is at 100 Mbps, the frame rate will be dramatically reduced, and you could see artifacts such as tearing or dropped frames/packets.

3. If you are trying to do multiple streams from one Streamer PC, you may be running out of bandwidth. Try running fewer streams, or if you are using HW Assist2, try changing to HW Assist. This setting can be found under Tools/Options (see the following image):

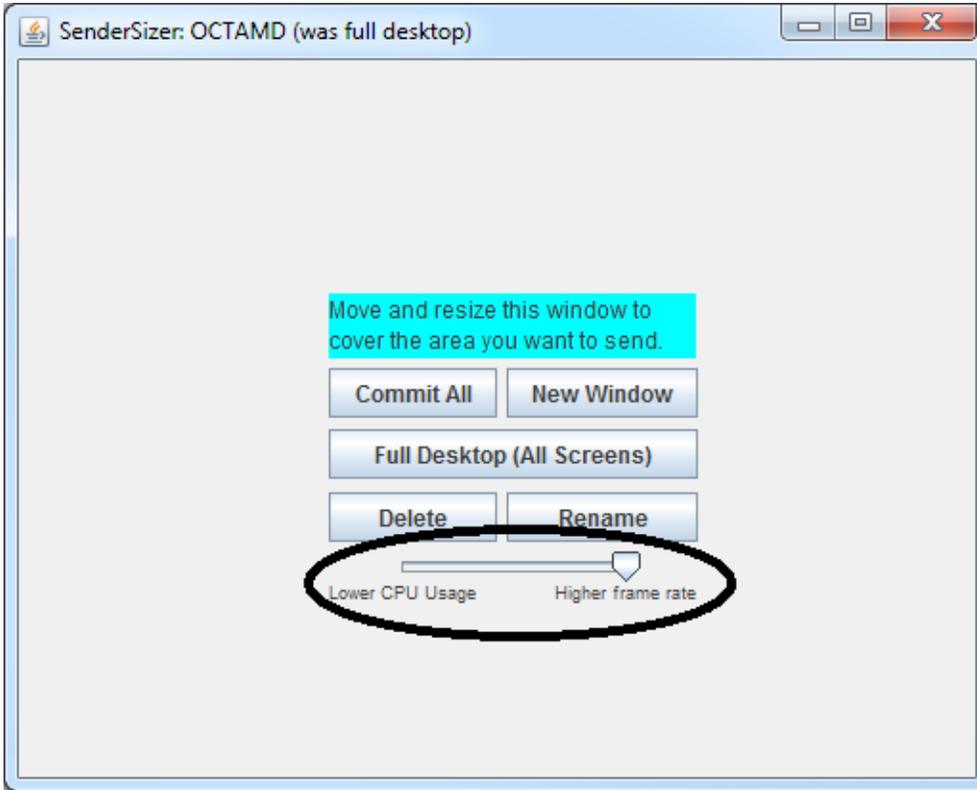


4. Last but not least, display capture on a streamer requires the use of a graphics card, but if it is underpowered, it may be affecting performance. Refer to the Radian Flex's User Manual: 2.3 Controlling Content: Hardware Requirements for recommended graphics cards and other hardware. Try upgrading to an NVIDIA GTX1050 or better.

# APPENDIX E

## HOW TO OPTIMIZE SENDERS AND STREAMERS FOR THE BEST PERFORMANCE

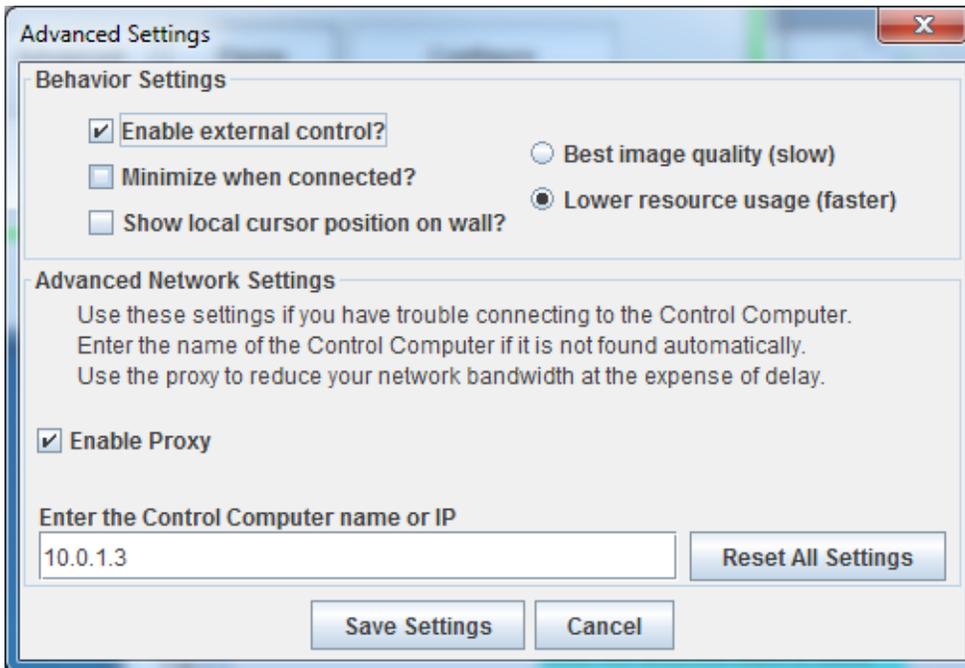
If you are running a Sender Node and you want more fps, check the throttle. The throttle can be found under the Configure Sender Windows button (see the following image):



# APPENDIX E

## HOW TO OPTIMIZE SENDERS AND STREAMERS FOR THE BEST PERFORMANCE

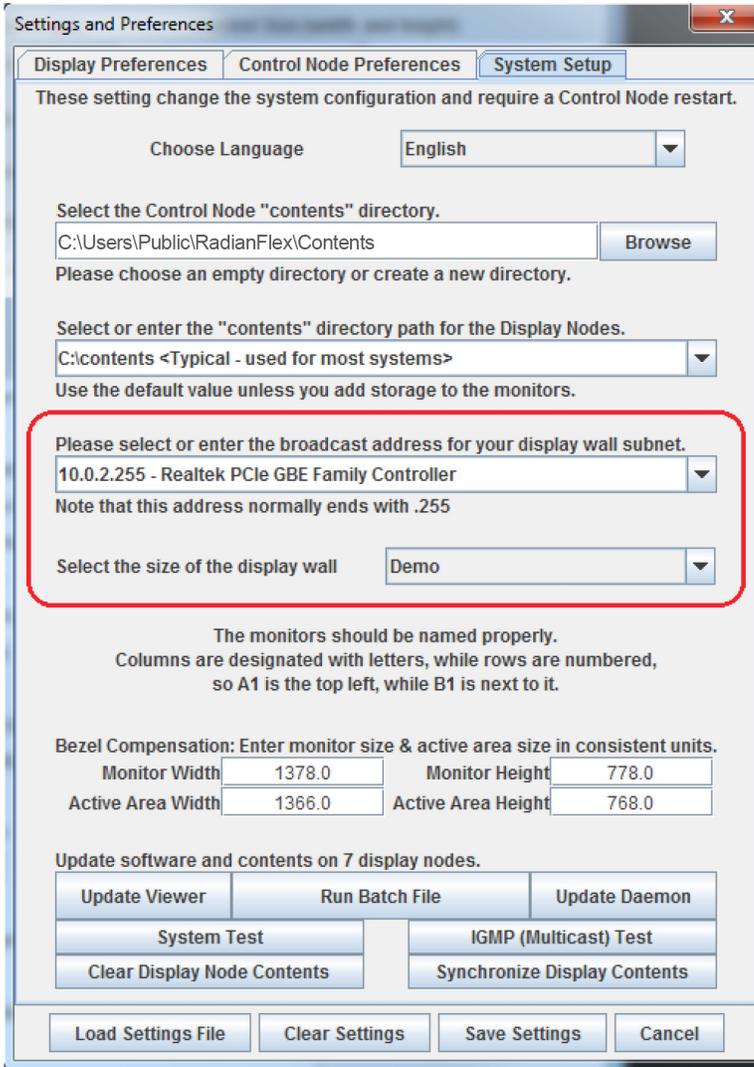
Senders can also run off of Wi-Fi, or even over the internet, but keep in mind that this could affect performance. It is recommended that you select Lower resource usage under Advanced Settings.



# APPENDIX F

## FIRST RUN CONFIGURATION

These are the two items that you need to configure immediately following the first-time launch of the software for the Radian Flex Pro Controller and Radian Flex Controller:



Be sure to save the configuration once the broadcast address and size of the wall have been selected.



# APPENDIX G

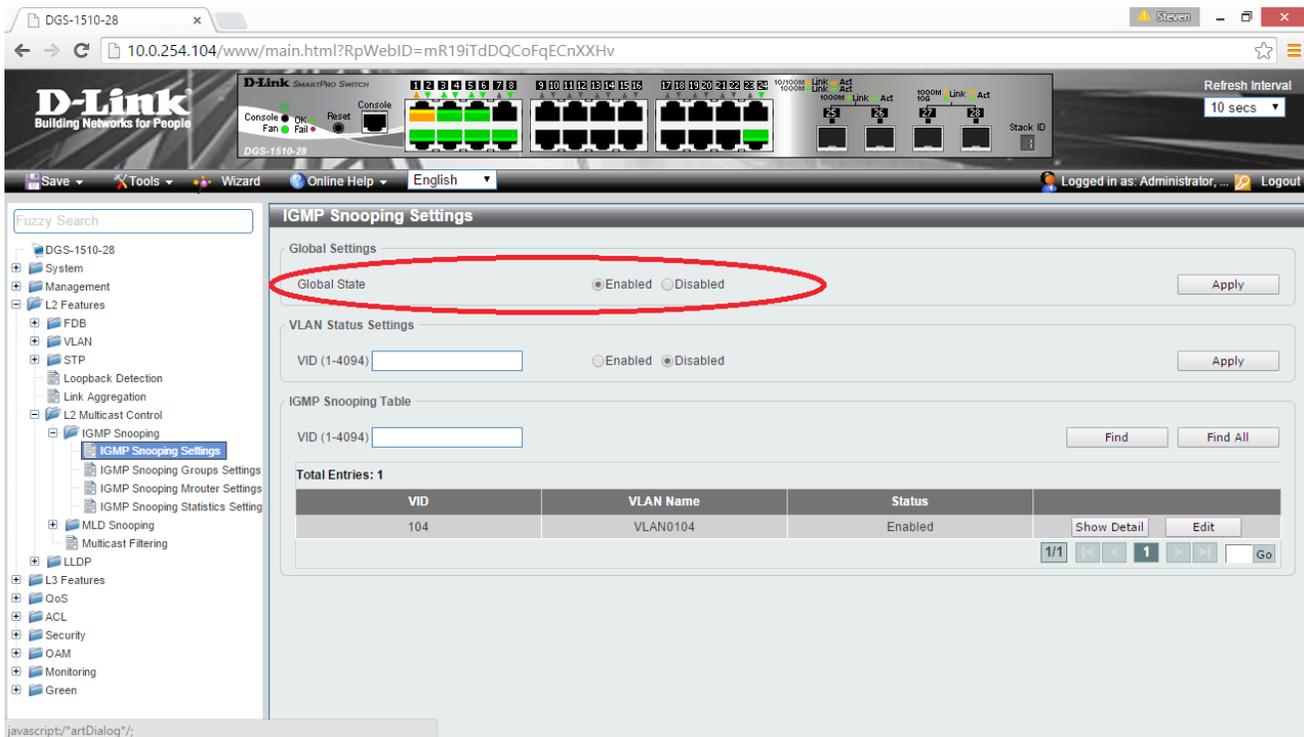
## HOW TO CONFIGURE A D-LINK DGS-1510 SWITCH FOR A RADIANT FLEX SYSTEM

This procedure applies to the D-Link DGS-1510 Gigabit switch

The guide's objective is to show how to configure the switch's IGMP settings correctly for Radian Flex use. You will need to have an IP address already configured on the switch (even if it is just the default IP address).

Log into the switch and navigate the menu items on the left-hand side. All of these are under the menu L2 Features > L2 Multicast Control > IGMP Snooping.

The IGMP Snooping Settings should be set as follows:



The screenshot shows the web interface of a D-Link DGS-1510-28 switch. The browser address bar shows the URL 10.0.254.104/www/main.html?RpWebID=mR19iTdDQCoFqECnXXHv. The interface includes a top navigation bar with the D-Link logo and a left-hand menu. The main content area is titled "IGMP Snooping Settings" and contains the following sections:

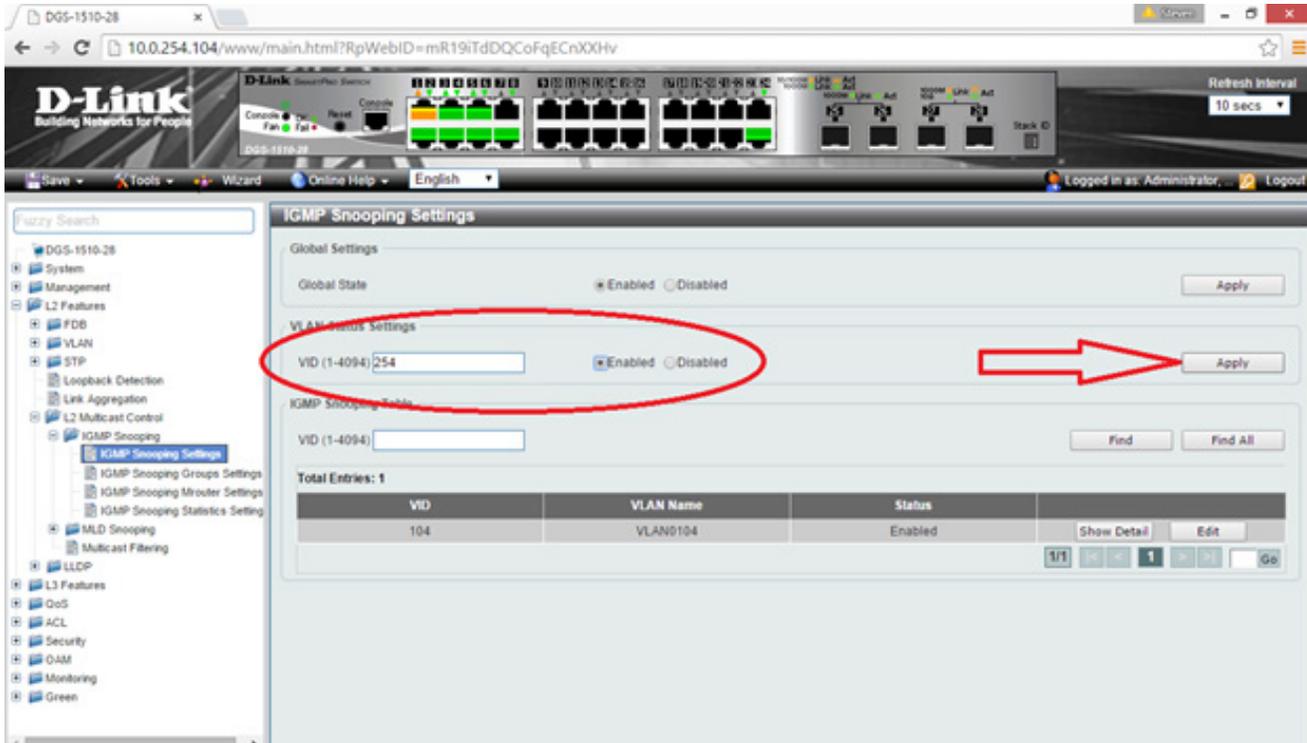
- Global Settings:** The "Global State" is set to  Enabled and  Disabled. An "Apply" button is to the right.
- VLAN Status Settings:** The "VID (1-4094)" field is empty. The status is  Enabled and  Disabled. An "Apply" button is to the right.
- IGMP Snooping Table:** The "VID (1-4094)" field is empty. There are "Find" and "Find All" buttons.
- Total Entries: 1**
- Table:** A table with 4 columns: VID, VLAN Name, Status, and an action column. The table contains one entry: VID 104, VLAN Name VLAN0104, Status Enabled. The action column has "Show Detail" and "Edit" buttons.
- Page Navigation:** Shows "1/1" entries, navigation arrows, and a "Go" button.

The "Global State" section is circled in red in the original image.

# APPENDIX G

## HOW TO CONFIGURE A D-LINK DGS-1510 SWITCH FOR A RADIAN FLEX SYSTEM

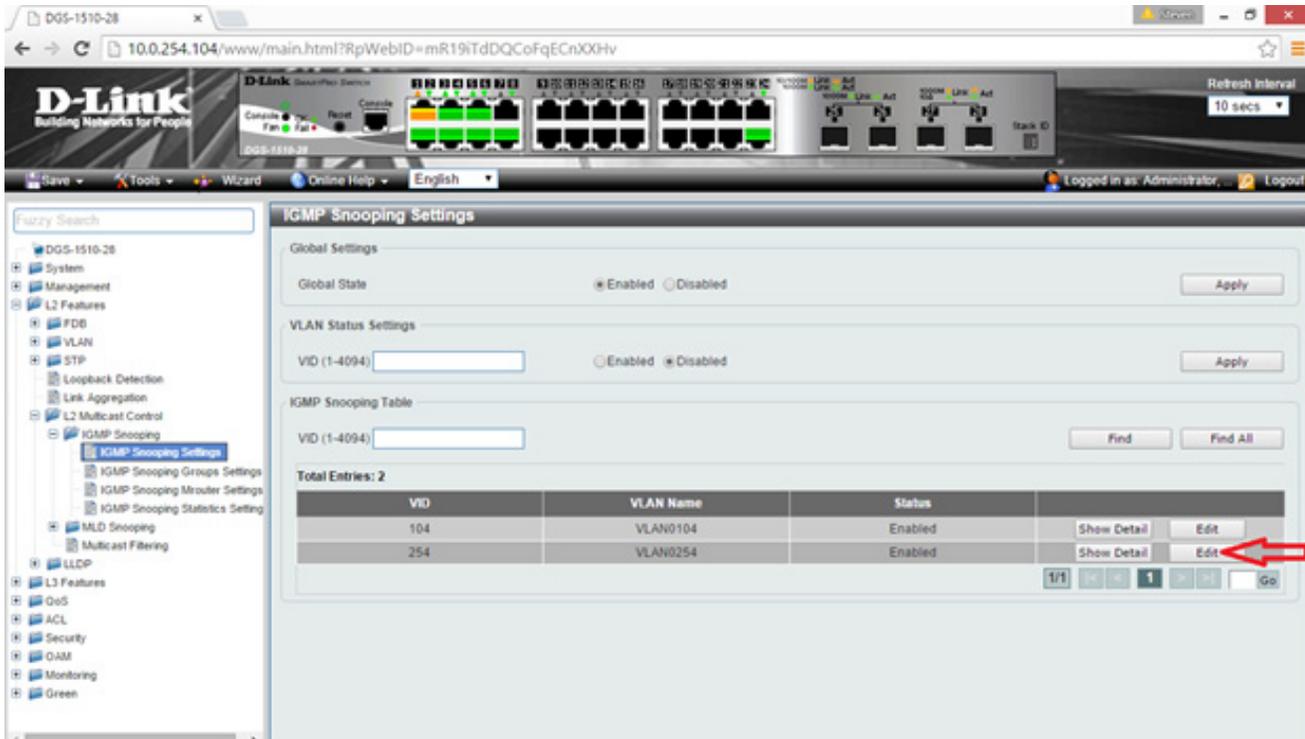
Enter the Radian Flex VLAN number (by default it will be VLAN 1) in the VLAN Status Settings, select Enable and click the Apply button to the right of the settings.



# APPENDIX G

## HOW TO CONFIGURE A D-LINK DGS-1510 SWITCH FOR A RADIAN FLEX SYSTEM

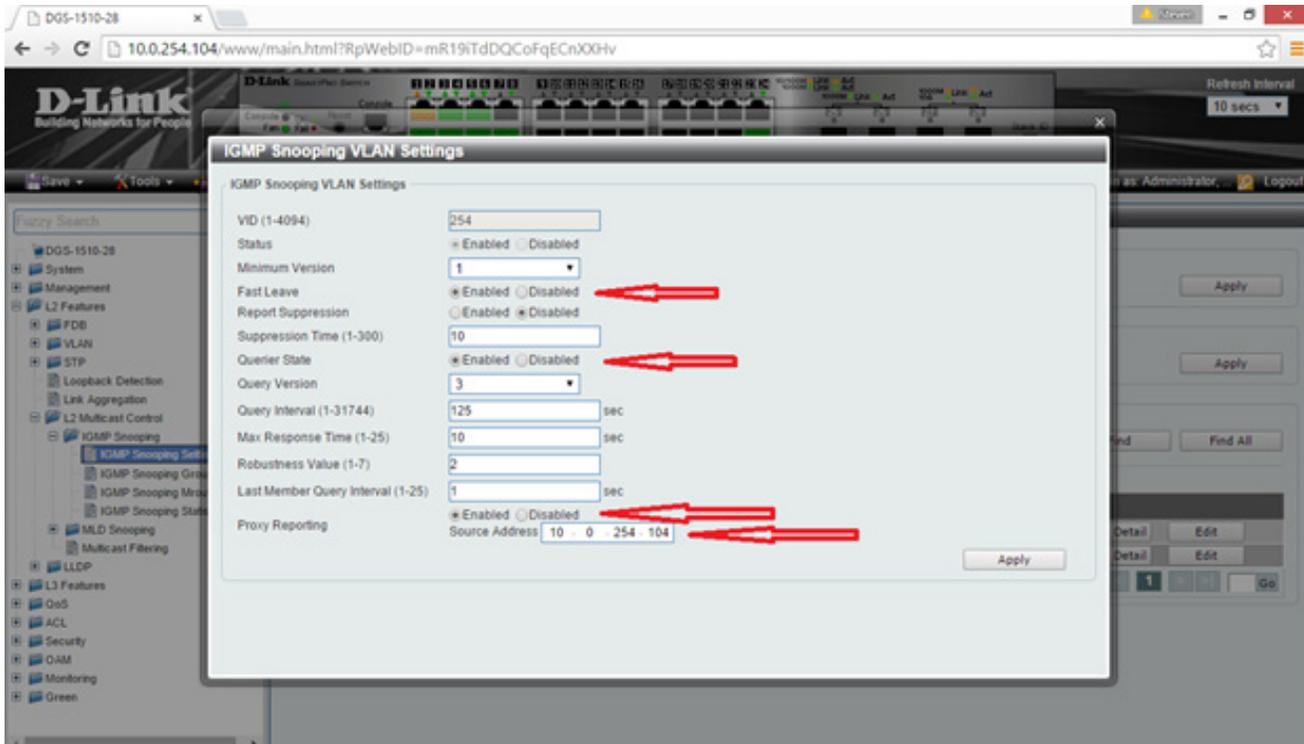
This will add the VLAN to the table below. Click the Edit button that corresponds to the Radian Flex VLAN ID.



# APPENDIX G

## HOW TO CONFIGURE A D-LINK DGS-1510 SWITCH FOR A RADIAN FLEX SYSTEM

Make sure that your switch's settings are set like the marked areas in the following image (the Proxy Reporting Address should be the IP address of the switch).



Click apply.

As an option, you can go to the Multicast Filtering menu item and enable Filter Unknown Multicast. If enabled, Filter Unknown Multicast ensures that if the IGMP settings are configured wrong, then the Radian Flex system will not work properly. The benefit is that you get immediate and clear feedback whether or not the network is set up correctly.

Be sure to save the configuration by clicking the Save button in the upper-left side of the browser window. If they are not saved, all changes will be lost if the switch reboots. After these settings are configured and saved, restart Radian Flex and run the IGMP (Multicast) Test (under Settings/System Setup). Provide the Black Box Technical Support Team with the results. While rare, it is possible that you may need to restart the switch as well.

**NEED HELP?  
LEAVE THE TECH TO US**

---

**LIVE 24/7  
TECHNICAL  
SUPPORT**

**1.877.877.2269**

