



# APPLICATION NOTE

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**Product Family:** Networking Hardware

**Number:** AN-NH-004

**Subject:** IGMP Configuration

**Date Issued:** Dec 14, 2011

**Revision:** Original

## Synopsis:

Industrial networks often have devices that require support for IGMP. IGMP stands for Internet Group Management Protocol. It is a protocol used to manage the membership of Multicast groups. Multicast data allows the same data to be generated once and then received by many users, similar to listeners of an FM radio station.

1. Frequently Asked Questions
2. IGMP Configuration

## Frequently Asked Questions

Q: Which managed switches support IGMP?

A: All Stride Managed switches fully support IGMP.

Q: What versions of IGMP are supported?

A: IGMP V1 and V2.

Q: Do the switches support IGMP Snooping?

A: Yes, the managed switches support both active and passive IGMP Snooping. Active snooping actively controls the flow of multicast data; passive snooping only listens to the IGMP messages on the network.

Q: What are the differences between the multicast suppression modes?

A: The multicast suppression modes suppress packets as follows:

- **None**—Multicast packets are sent to all ports unless IGMP is enabled and one or more clients have sent IGMP Report requests.
- **IP Multicast Groups**—Multicast packets corresponding to IP multicast groups (with MAC addresses starting **01:00:5e**) are suppressed unless one or more



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clients have sent IGMP Report messages. Multicast packets with other addresses (any other packet with a MAC address starting 01) are sent to all ports.

- **All Unreserved Multicast**—Multicast packets with reserved multicast addresses (01:80:c2:00:00:0x where x is 0..f) are sent to all ports. All other multicast packets are suppressed unless one or more clients have sent IGMP Report messages.

## IGMP Configuration

1. **IGMP is enabled by default.**
2. Log into the switch from your Web browser. The default username and password are admin/admin.
3. From the Managed Switch menu, click on the Setup menu to see the options, and then click on Multicast Filtering (IGMP). Click on Protocol Settings to begin configuring IGMP.

The screenshot shows the Stride Web Interface Tool. On the left is a navigation menu with 'Protocol Settings' expanded to 'IGMP'. The main content area is titled 'IGMP PROTOCOL SETTINGS' and includes a descriptive text: 'Reduce unnecessary bandwidth usage in a network that has IP multicast traffic by enabling IGMP.' Below this is a configuration table:

IGMP mode	Active IGMP handling
Multicast suppression	All unreserved multicast
IGMP version	Version 2
Robustness	2
Query Interval	125
Query Response Interval	10

A 'Commit Changes' button is located at the bottom of the settings area.

4. On the IGMP Protocol Settings page, click on the **IGMP mode** drop-down list, and select either **Active** or **Passive** IGMP handling. View the FAQ for the differences between these two modes. Typically, **Active IGMP handling** is used.
5. Click on the **Multicast suppression** drop-down list to select the suppression mode you want to use. Review the FAQs for the differences between these modes. Typically, **All unreserved multicast** is used.
6. Click on the **IGMP version** drop-down list to select IGMP version you want to use. Commonly, **Version 2** is used unless your network administrator has instructed otherwise.
7. All other settings are generally left at the defaults unless you have been directed otherwise by your network administrator.



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8. Click **Commit Changes**.
9. To view the IGMP Group information, click on the Monitoring menu and then choose Multicast Filtering status. On the IGMP Group Status page, click on the **Page** drop-down list to select either the **IGMP Port Status** or **IGMP Group Status** pages.

#### **Technical**

**Assistance:** If you have questions regarding this Application Note, please contact us at 770-844-4200 for further assistance.