



NetGear Ethernet Switch Quick Setup Guide

For MuxLab AV over IP Devices



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1. Introduction

This document covers the basic setup requirements for a NetGear Ethernet Switch. The setup examples and screen shots shown are for the NetGear model S3300-52x-PoE+, but these instructions are similar and applicable to other NetGear Ethernet Switch models.

2. MuxLab Ethernet Switch Setup Requirements

All MuxLab AV over IP Transmitters and Receivers require IGMP support to be enabled on the Ethernet Switch, and a select number of MuxLab units also require Jumbo Frames to be enabled.

Also note that all models below work on a 1G Ethernet Switch, except for the 500760, which requires a 10G Ethernet Switch.

The below table specifies the IGMP and Jumbo Frames requirement per MuxLab AV over IP Transmitter / Receiver model.

AV over IP Model	Ethernet Switch BW Required	IGMP Required	Jumbo Frame Required
500752	1G	X	
500753	1G	X	
500754	1G	X	
500755	1G	X	
500755-AMP	1G	X	
500756	1G	X	
500757	1G	X	
500758	1G	X	X
500759	1G	X	X
500760	10G	X	
500762	1G	X	
500770	1G	X	X
500771	1G	X	X

3. Ethernet Switch Setup

3.1. Enabling IGMP

Follow the steps below to enable the IGMP feature on the Ethernet Switch. For further details on navigating through the Ethernet Switch web server menus, please refer to the Ethernet Switch manual.

Step 1: Access the Ethernet Switch web server

- Locate the Ethernet Switch default IP address
- Make sure your computer is on the same subnet as the Ethernet Switch (your network administration can assist you with this, if required)
- Enter the Ethernet Switch IP address into a browser

Step 2: IGMP Snooping Configuration

- Navigate to the menu:
[Switching → Multicast → IGMP Snooping → IGMP Snooping Configuration]
- Set the configuration as shown below, and then click *[Apply]*

NETGEAR S3300-52X-PoE+ ProSAFE 48-Port Gigabit Stackable Smart Switch with PoE+ and 4 10G uplinks

Welcome admin

System Switching Routing QoS Security Monitoring Maintenance Help Index

Ports LAG VLAN Auto-VoIP STP Multicast MVR Address Table

Cancel Apply

Multicast

- MFDB
- Auto-Video
- IGMP Snooping
- IGMP Snooping Configuration**
- IGMP Snooping Interface Configuration
- IGMP Snooping Table
- IGMP Snooping VLAN Configuration
- Multicast Router Configuration
- Multicast Router VLAN Configuration
- IGMP Snooping Querier
- MLD Snooping

IGMP Snooping Configuration

IGMP Snooping Status ☒ Disable ☒ Enable

Validate IGMP IP header ☒ Disable ☒ Enable

IGMP Statistics

Multicast Control Frame Count 4887

Interfaces Enabled for IGMP Snooping

VLAN IDs Enabled for IGMP Snooping

1

VLAN IDs Enabled for IGMP Snooping Querier

1

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- Navigate to the menu:
[Switching → Multicast → IGMP Snooping → IGMP Snooping Interface Configuration]
- Enter the settings shown below as indicated by the orange arrows, and then click [Apply]

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Ports LAG VLAN Auto-VoIP STP Multicast MVR Address Table

Cancel Apply

Multicast

IGMP Snooping Interface Configuration

Go To Interface Go

Interface	Admin Mode	Host Timeout	Max Response Time	MRouter Timeout	Fast Leave Mode
1/g1	Enable	260	10	0	Enable
1/g2	Disable	260	10	0	Disable
1/g3	Disable	260	10	0	Disable
1/g4	Disable	260	10	0	Disable
1/g5	Disable	260	10	0	Disable
1/g6	Disable	260	10	0	Disable
1/g7	Disable	260	10	0	Disable
1/g8	Disable	260	10	0	Disable
1/g9	Disable	260	10	0	Disable
1/g10	Disable	260	10	0	Disable
1/g11	Disable	260	10	0	Disable
1/g12	Disable	260	10	0	Disable
1/g13	Disable	260	10	0	Disable
1/g14	Disable	260	10	0	Disable
1/g15	Disable	260	10	0	Disable
1/g16	Disable	260	10	0	Disable
1/g17	Disable	260	10	0	Disable
1/g18	Disable	260	10	0	Disable
1/g19	Disable	260	10	0	Disable
1/g20	Disable	260	10	0	Disable
1/g21	Disable	260	10	0	Disable
1/g22	Disable	260	10	0	Disable
1/g23	Disable	260	10	0	Disable
1/g24	Disable	260	10	0	Disable
1/g25	Disable	260	10	0	Disable
1/g26	Disable	260	10	0	Disable

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- Navigate to the menu:
[Switching → Multicast → IGMP Snooping → IGMP Snooping VLAN Configuration]
- Enter the settings shown below as indicated by the orange arrows, and then click [Add]

NETGEAR S3300-52X-PoE+ x

192.168.0.239/base/cheetah_login.html/#

NETGEAR

S3300-52X-PoE+ ProSAFE 48-Port Gigabit Stackable Smart Switch with PoE+ and 4 10G uplinks

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Ports LAG VLAN Auto-VoIP STP Multicast MVR Address Table

Add Delete Cancel Apply

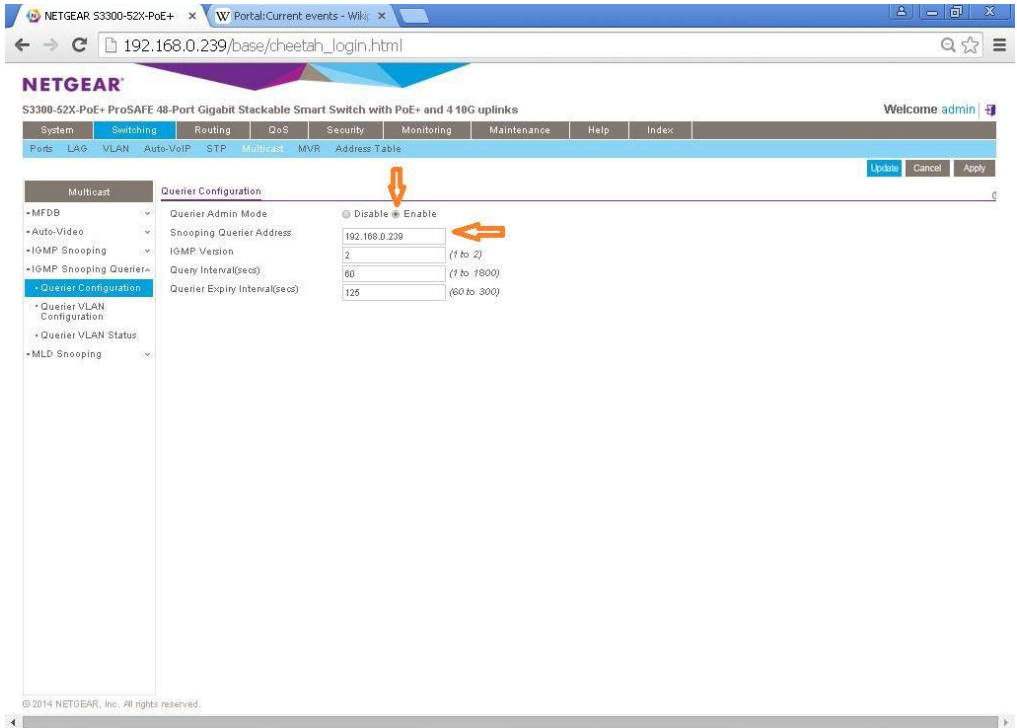
Multicast

IGMP Snooping VLAN Configuration

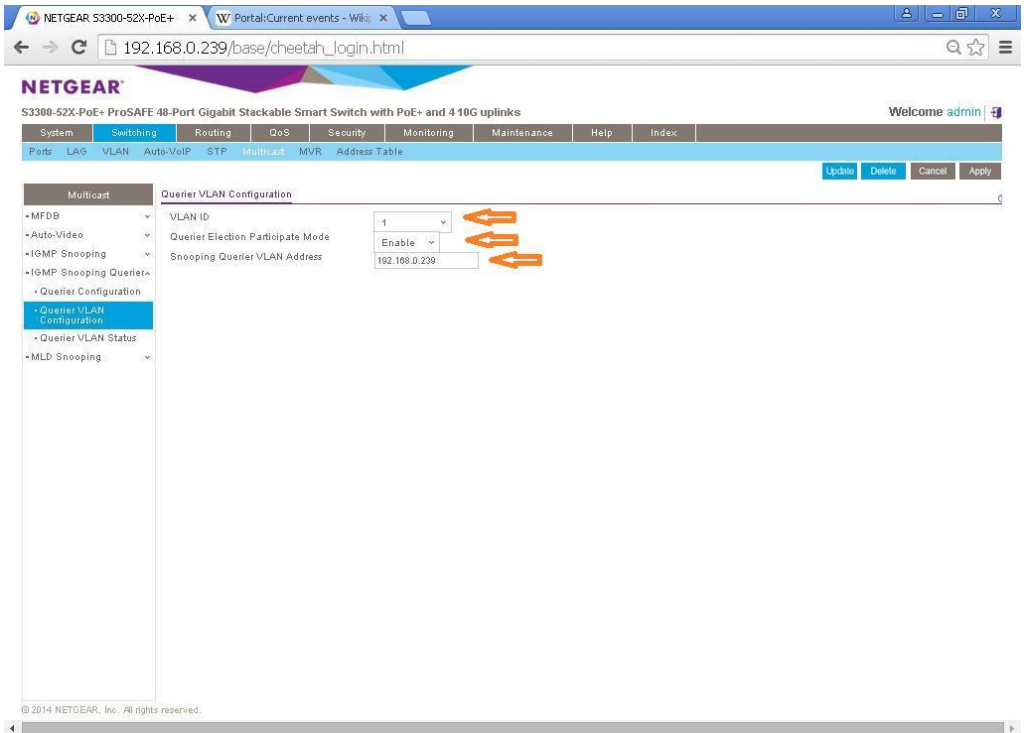
VLAN ID	Fast Leave Mode	Host Timeout	Maximum Response Time	MRouter Timeout	Report Suppression Mode	Query Mode	Query Interval (1 to 1800 secs)
1	Enable						

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- Navigate to the menu:
[Switching → Multicast → IGMP Snooping Querier → Querier Configuration]
- Click the “Enable” radio button next to the “Querier Admin Mode”
- Enter the IP Address of the Ethernet Switch (this is usually done for the first Ethernet Switch, with Stack ID 1, in the case of a stack of Switches) in the “Snooping Querier Address”, and then click [Apply]



- Navigate to the menu:
[Switching → Multicast → IGMP Snooping Querier → Querier VLAN Configuration]
- Ensure that the “VLAN ID” is set to “1”, as indicated by the orange arrow below.
- “Enable” the “Querier Election Participate Mode”, as indicated by the orange arrow below.
- Ensure that the “Snooping Querier VLAN Address” is set to the same value as the IP address set earlier, as indicated by the orange arrow below.
- Then click [Apply]



3.2. Enabling Jumbo Frames

Follow the steps below to enable the Jumbo Frames feature on the Ethernet Switch. For further details on navigating through the Ethernet Switch web server menus, please refer to the Ethernet Switch manual.

Step 1: Enable Jumbo Frames

- Navigate to the menu:
[Switching → Ports → Port Configuration]
- For each port, set the “Maximum Frame Size” allowed, which in this case is the value “9216”, and then click [Save]

4. Preparing for System Installation

The Ethernet Switch is now properly configured to support MuxLab AV over IP devices with respect to IGMP and Jumbo Frames.

Note that MuxLab AV over IP Transmitters and Receivers are set by default with DHCP enabled, and the MuxLab 500811 ProDigital Network Controller has DHCP disabled by default and is set to a Static IP address of 192.168.168.50. It is recommended that you operate your system with the Transmitters and Receivers with DHCP enable and the 500811 Network Controller with DHCP disabled.

If however you intend to disable the DHCP on the Transmitters and Receivers, then please take note that the default Static IP address for the Transmitters is 192.168.168.55, and for the Receivers is 192.168.168.56.

Note that in order for the entire system to operate correctly, the Ethernet Switch, MuxLab Transmitters and Receivers, and the MuxLab ProDigital Network Controller must all be on the same subnet. Devices with DHCP enabled will adjust automatically to the correct subnet, while devices with DHCP disabled, may need to be set by the user to the correct subnet, if not already set correctly. Your network administrator can assist with this configuration if you are not familiar with how to accomplish this task.

If you are having issues which require further assistance, please contact the respective device manufacturer for the device in question. For MuxLab device related questions, please contact MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).



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