

Supported Products:	NetworkHD 100, 200, 400
Supported NetworkHD Firmware:	v1.0 or higher
Supported Switch Firmware:	v.2.0.0

Overview

The following information outlines how to configure Pakedge S3 and S3L series network switches for use with WyreStorm NetworkHD 100, 200 & 400 components. The following configuration steps are specific to a cascaded switch network topology.

Important! Pakedge S3 and S3L series switches require NetworkHD component IP addresses to be in the same management IP range as the switch(es). This is for IGMP group registering to work properly.

Before You Begin

Verify that the following items are on hand and that all documentation is reviewed before continuing.

- NetworkHD 100, 200 or 400 series components
- Appropriate Pakedge series switch
- PC or Mac with an Ethernet Connection

Procedure Steps

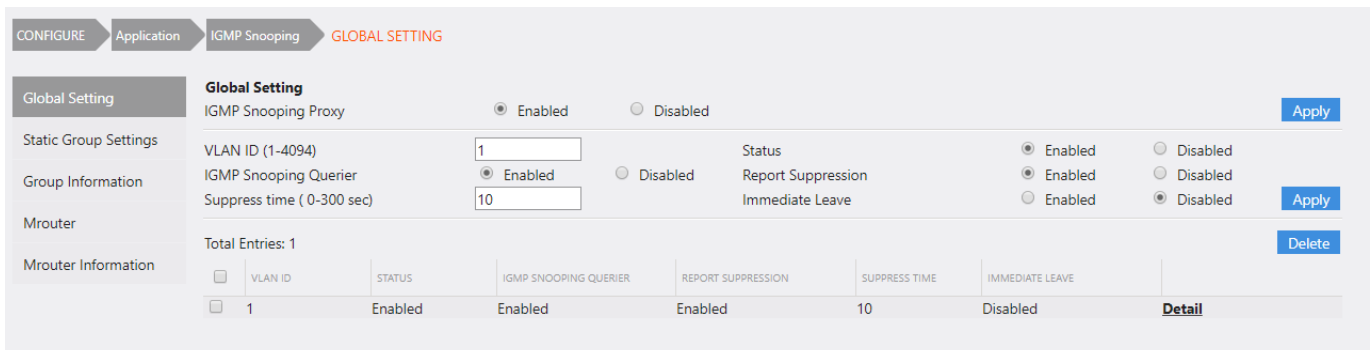
A cascaded switch topology, unlike stacked, requires each switch to be individually configured. A cascaded topology requires that one switch is elected as a “core” switch or IGMP Querier. Any additional switches are referred to as an “extended” switch.

Each switch must be configured separately before interconnecting. Be sure to configure each switch with a unique IP address.

It is best practice to restore factory default settings to a network switch prior to continuing with the steps below. Pakedge switches can be reset by pressing and holding the rest button on the front of the unit 10 seconds.

Core Switch Configuration

- Log into the Web UI of the switch elected as the “Core” switch. The default IP addresses of Pakedge S3 series is **192.168.1.205** with a username of **pakedge** and a password of **pakedges**.
- When prompted, adjust the username and password as you see fit and set the privilege level to **15**.
- From the main menu, hover over **Configure** then **Application** and choose **IGMP Snooping**.
- From Global Settings, set the IGMP Snooping Proxy to **Enabled** and click Apply.
- Continue configuring the following settings:
 - VLAN ID: **1**
 - IGMP Snooping Querier: **Enabled**
 - Status: **Enabled**
 - Report Suppression: **Enabled**
 - Immediate Leave: **Disabled**
 - Click Apply



- Return to the main menu, hover over **Configuration** and then **Application** and choose **IGMP**.
- From IGMP Settings, configure the following:
 - VLAN ID: **1**

- b. Version: **V2**
- c. Click **Apply**

IGMP Settings

VLAN ID (1-4094): 1

Access Group: Enabled Disabled

Last Member Query Interval (1000-25000 msec): 1000

Query Interval (1-31744 sec): 125

Query Max Response Time (1-25 sec): 10

Robustness Variable (1-7): 2

Version: V1 V2 V3

Apply

Total Entries: 1

INTERFACE	ACCESS GROUP	VERSION	QUERY INTERVAL(SEC)	QUERY MAX RESPONSE TIME	LAST MEMBER QUERY INTERVAL	ROBUSTNESS VARIABLE	
VLAN1		V2	125	10	1000	2	Detail

- 8. Return to the main menu, hover over **Configure** and then **L2 Switching** and choose **Multicast Filtering**.
- 9. Ensure **VLAN1** is set to **Forward Unregistered**

Multicast Filtering

Filtering Mode: Interface:

FILTERING MODE	
Forward All	--
Forward Unregistered	vlan1
Filter Unregistered	--

- 10. Return to the main menu, hover over **Administration** and then **Management** and choose **Port**.
- 11. From Port Settings set the **Maximum Receive Frame Size** to **9216** and click **Apply**.

Maximum Receive Frame Size (1536-9216 bytes): **Apply**

Description: **Apply**

PORT	STATE	SPEED	DUPLEX	FLOW CONTROL	MAXIMUM RECEIVE FRAME SIZE	DESCRIPTION
eth1/1	Enabled	AUTO	AUTO	None	9216	
eth1/2	Enabled	AUTO	AUTO	None	9216	
eth1/3	Enabled	AUTO	AUTO	None	9216	
eth1/4	Enabled	AUTO	AUTO	None	9216	
eth1/5	Enabled	AUTO	AUTO	None	9216	
eth1/6	Enabled	AUTO	AUTO	None	9216	
eth1/7	Enabled	AUTO	AUTO	None	9216	
eth1/8	Enabled	AUTO	AUTO	None	9216	
eth1/9	Enabled	AUTO	AUTO	None	9216	
eth1/10	Enabled	AUTO	AUTO	None	9216	
eth1/11	Enabled	AUTO	AUTO	None	9216	

- 12. Return to the main menu, hover over **Maintenance** and choose **Save**

Save

Press the button to save the system settings to NV-RAM.

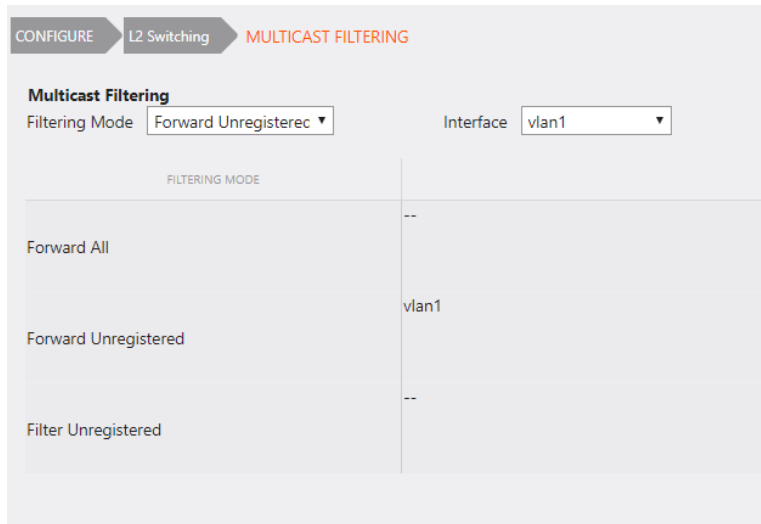
Save

Extended Switch(es) Configuration

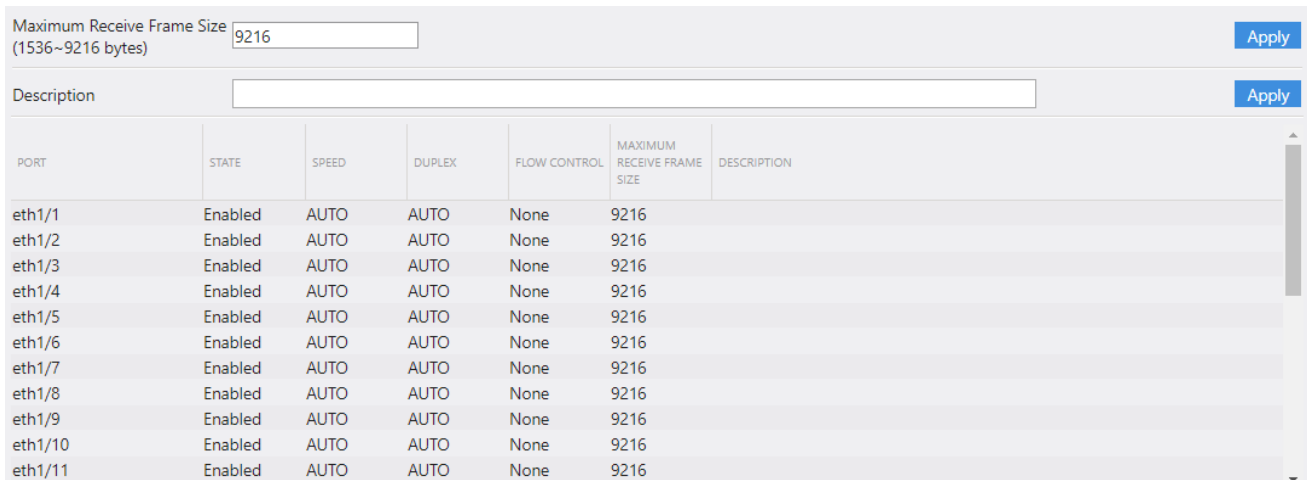
1. Log into the Web UI of the switch elected as the first "Extended" switch. The default IP addresses of Pakedge S3 series is **192.168.1.205** with a username of **pakedge** and a password of **pakedges**.
2. When prompted, create a username and password as you see fit and set the privilege level to **15**.
3. From the main menu, hover over **Configure** then **Application** and choose **IGMP Snooping**.
4. Continue configuring the following settings:
 - a. VLAN ID: **1**
 - b. IGMP Snooping Querier: **Disabled**
 - c. Status: **Enabled**
 - d. Report Suppression: **Enabled**
 - e. Immediate Leave: **Enabled**
 - f. Click Apply

5. Return to the main menu, hover over **Configuration** and then **Application** and choose **IGMP**.
6. From IGMP Settings, configure the following:
 - a. VLAN ID: **1**
 - b. Version: **V2**
 - c. Click Apply

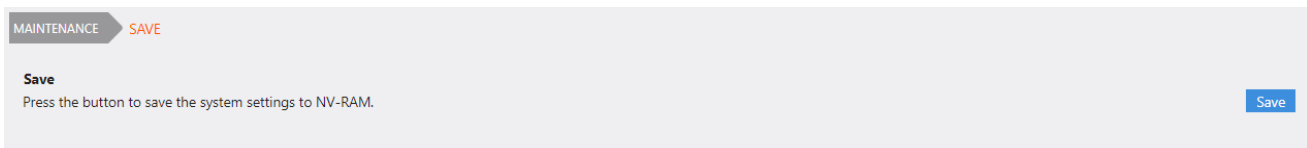
7. Return the main menu, hover over **Configure** and the **L2 Switching** and choose **Multicast Filtering**.
8. Ensure **VLAN1** is set to **Forward Unregistered**



- Return to the main menu, hover over **Administration** and then **Management** and choose **Port**.
- From Port Settings set the **Maximum Receive Frame Size** to **9216** and click Apply.



- Return to the main menu, hover over **Maintenance** and choose **Save**



- Repeat the Extended Switch Configuration steps for any additional switches required. When finished configuring all switches, connect switch interlinks and NetworkHD components.

Contacting Support

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Revision History

v1.0 – July 2018

All Sections Initial Release of Document