

IP Multicasting

(IGMP Snooping)

Ethernet Switch

ZyNOS 3.7

Support Notes

Version 3.70

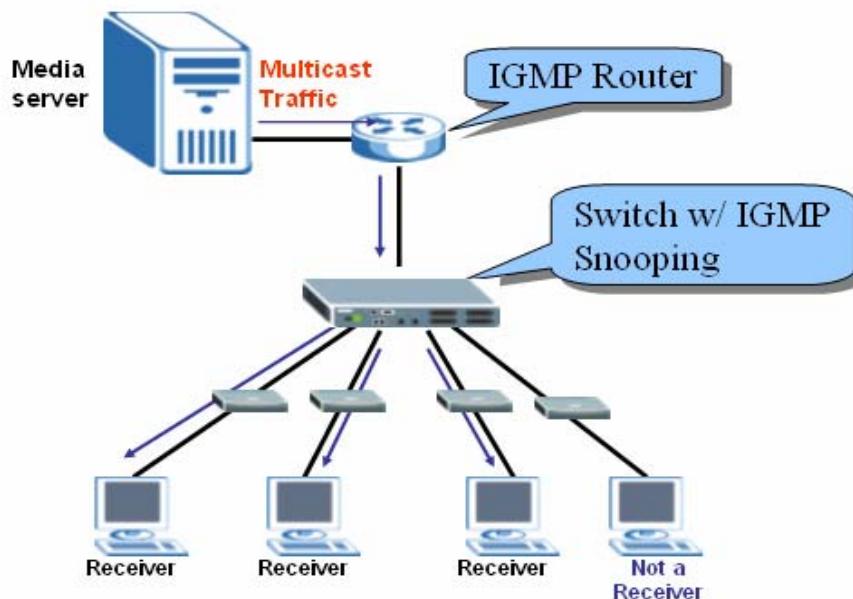
August 2006



IP Multicasting

How to setup IGMP snooping in your switch?

Figure 1: IGMP and IGMP snooping

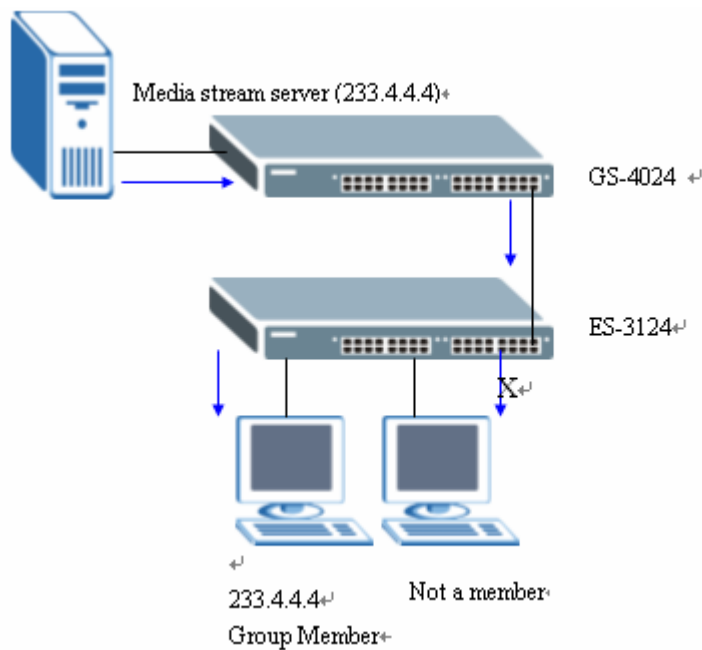


IGMP snooping is designed for application with deployment of multicast traffic. It operates on the underlying IGMP mechanism where a layer two switch passively listens to the IGMP Query, Report and Leave (IGMP version 2) packets transmitted between the IGMP router and clients, and collects passing IGMP messages. Also, the switch records the message's group registration information and configures multicasting information accordingly. If the multicast group information is unknown (not recorded on the switch), the switch discards that multicast traffic. Only the registered clients that join the group will receive multicast stream from the IGMP router. Thus this significantly reduces the multicast traffic forwarded down to the clients. Another advantage of IGMP snooping is that it allows the intermediate switches to learn multicast group information without the need of configuring them manually.

Configuration of IGMP snooping using web

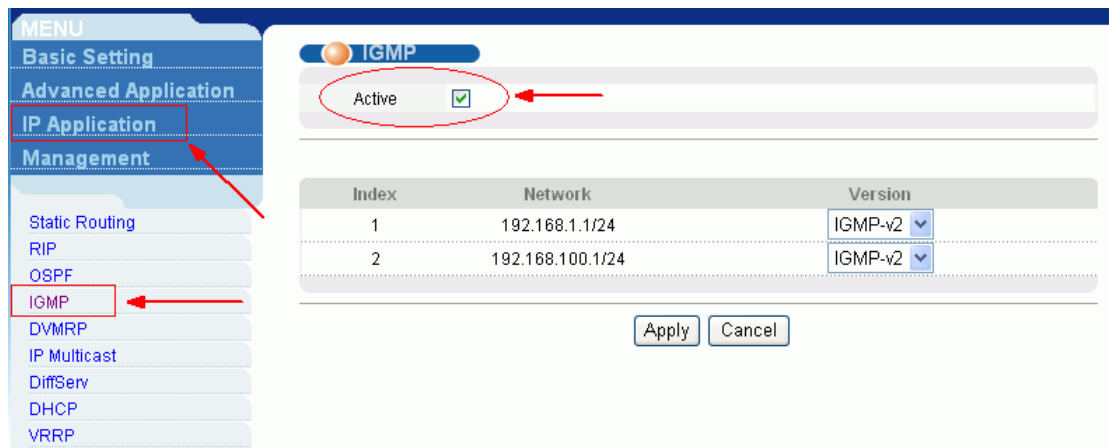
In this example, we enable the IGMP function on the GS-4024 device (or it has to be a ZyXEL L3 Switch) and connect it to a multimedia server. Also, we enable IGMP snooping function on the ES-3124 Switch or other ZyXEL L2 Switch which support IGMP Snooping to connect to the multimedia clients.

Figure 2: IGMP snooping Example



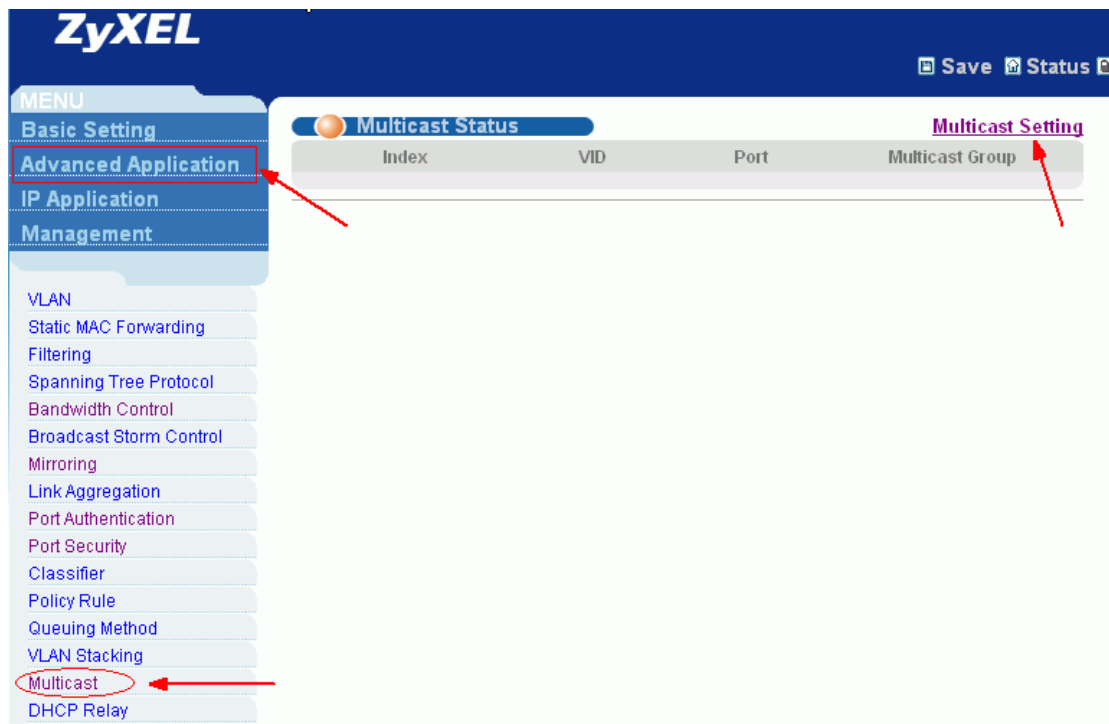
Step one: In the GS-4024 GUI, click the **IP Application** → **IGMP**. Here, both versions of the the IGMP function can be enabled (IGMP-v1 and IGMP-v2). At this case, we enabled IGMPv2 for both IP Domain.

Figure 3: IGMP Setup



Step two: In the L2 Switch GUI, click **Advanced Application** → **Multicast** and then click **Multicast Setting** to get to the Multicast Setting page.

Figure 4: IGMP Snooping Setup



Step three: enable IGMP snooping function using the Web-GUI.

Multicast Setting

[Multicast Status](#)
[IGMP Filtering Profile](#)
[MVR](#)

<div>IGMP Snooping</div>	Active	<input checked="" type="checkbox"/>	
	Host Timeout	<input type="text" value="260"/>	
	Leave Timeout	<input type="text" value="2"/>	
	802.1p Priority	<input type="text" value="No-Change"/>	
IGMP Filtering	Active	<input type="checkbox"/>	
Unknown Multicast Frame	<input checked="" type="radio"/> Flooding <input type="radio"/> Drop		
Reserved Multicast Group	<input checked="" type="radio"/> Flooding <input type="radio"/> Drop		

Port	Immed. Leave	Group Limited	Max Group Num.	IGMP Filtering Profile	IGMP Querier Mode
*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text" value=""/>	Default <input type="button" value="v"/>	Auto <input type="button" value="v"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text" value="0"/>	Default <input type="button" value="v"/>	Auto <input type="button" value="v"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text" value="0"/>	Default <input type="button" value="v"/>	Auto <input type="button" value="v"/>