D-Link
Building Networks for People

Configuration Examples

IGMP Snooping

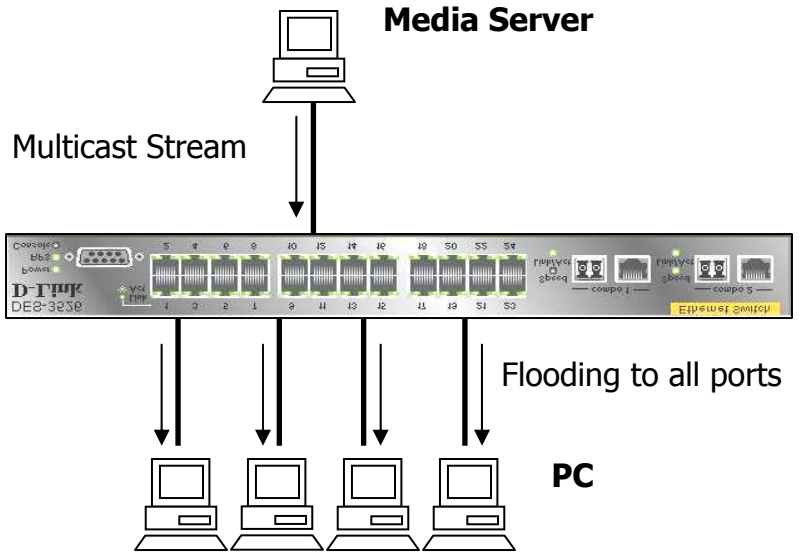
• The IGMP Snooping is a L2 function.

• IGMP snooping enables the Switch to learn Multicast group membership based on IGMP messages passing through the switch

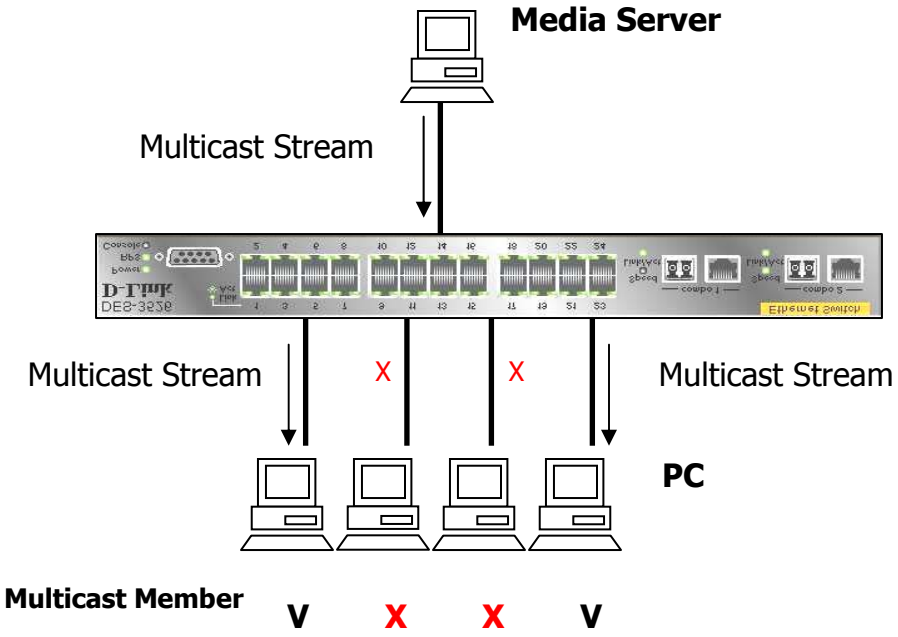
• Based on the IGMP query and report messages that are snooped, the switch forwards multicast traffic only to the ports that requested it.

Why IGMP Snooping

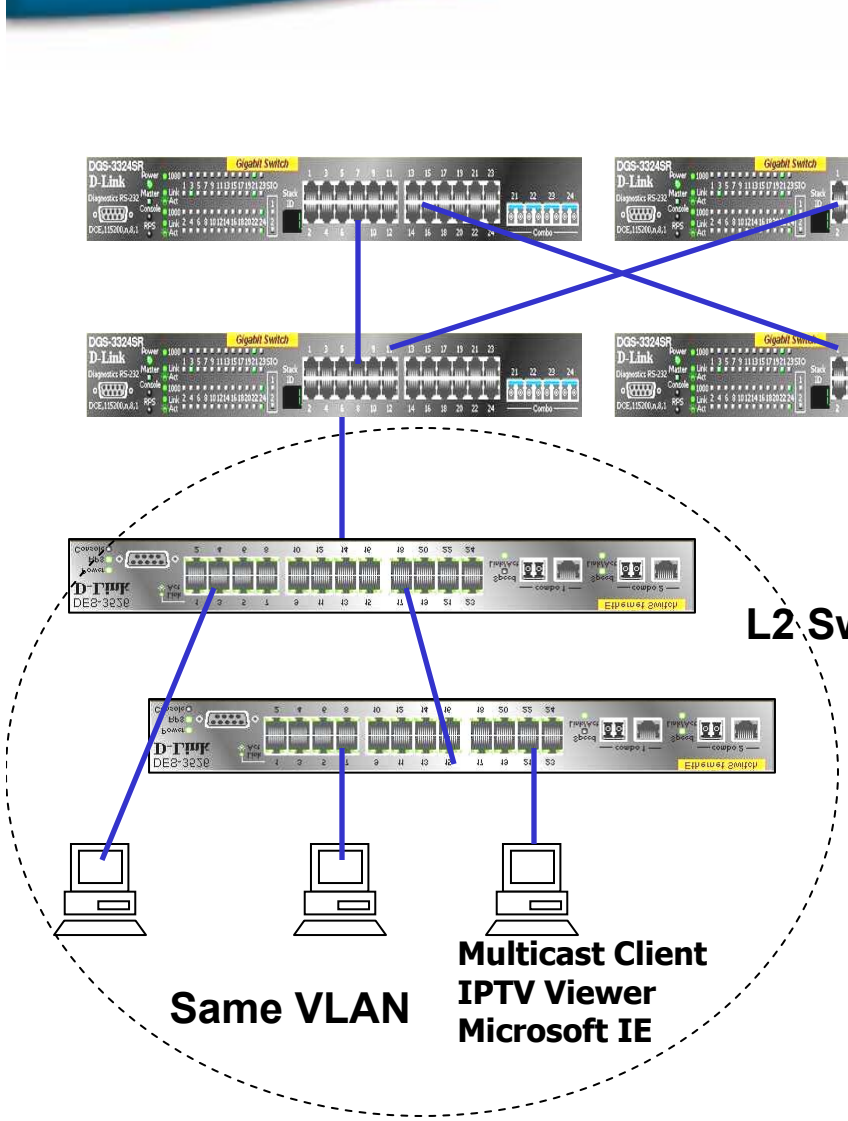
Without Multicast Supporting



IGMP Snooping Support

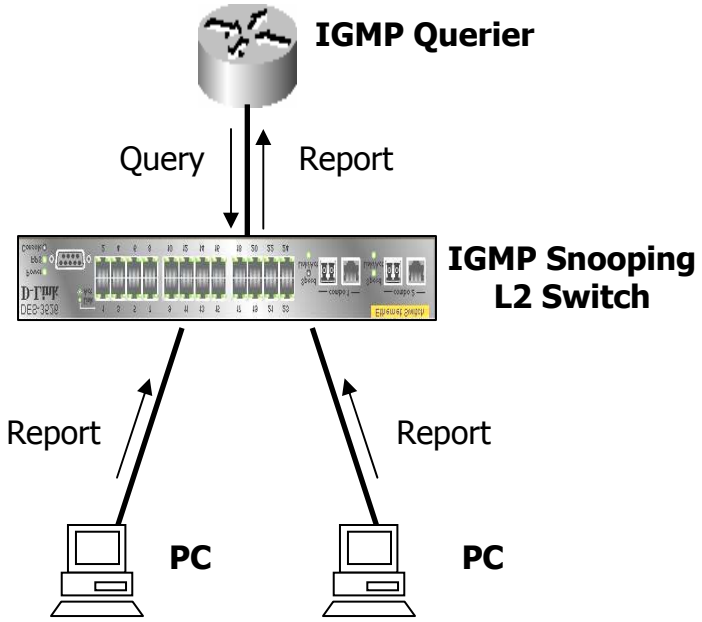


Where IGMP snooping located

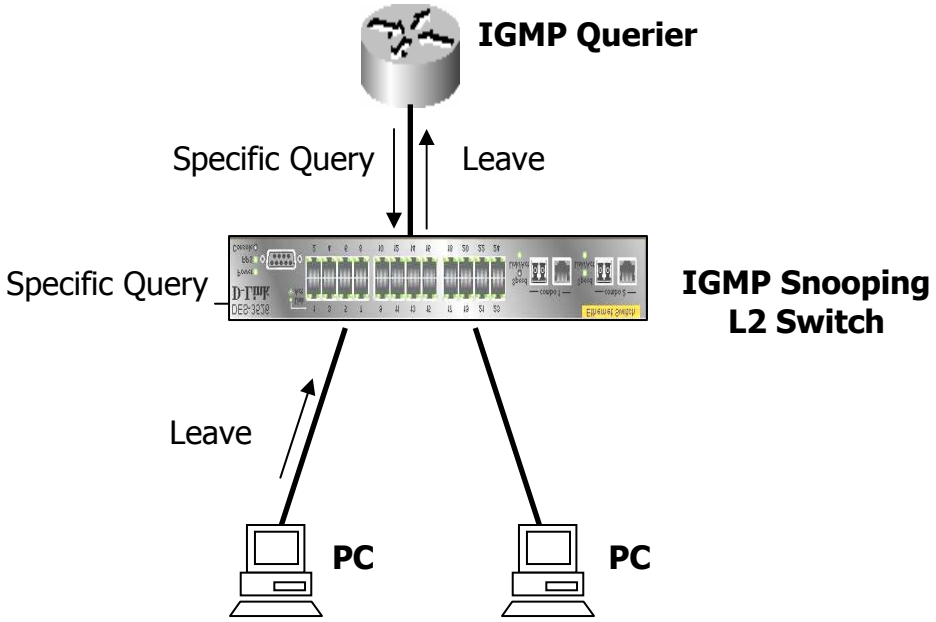


How IGMP Snooping works

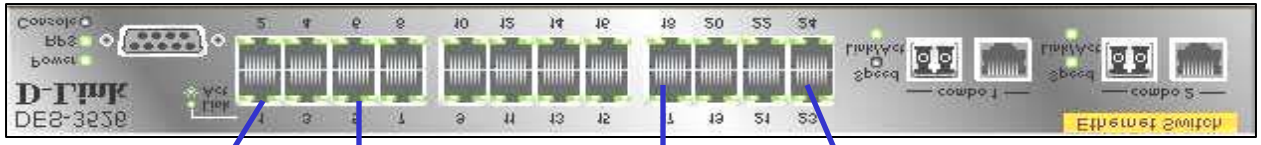
Joining a Group



Leaving a Group



IGMP Snooping Example



DES-3526

Querier.

PCA

Multicast Client
IPTV Viewer
Microsoft IE
Join Program1

PCB

Multicast Client
IPTV Viewer
Microsoft IE
Join program2

PCC

Multicast Server
IPTV Server
Microsoft Media Server
Two Multicast programs

Objective:

Only the client which join a multicast group received the multicast packet, and the multicast packet stream will not flood to other ports where no client joins.

IGMP Snooping Example

DES-3526 configuration.

- **Config the L2 switch as the querier.**

config igmp_snooping querier default state enable

2. Enable the IGMP snooping in VLAN default VLAN).

config igmp_snooping all state enable
enable igmp_snooping

3. Filter unregistered group (optional), so that even no client joins, multicast packet will not flood.

config multicast port_filtering_mode all filter_unregistered_groups

Test:

PC_A joins a multicast group (e.g, viewing movie1). The multicast packets of Movie1 only forward to the port PC_A connected, and don't flood to other PCs which don't join the group.

PC_B joins the second multicast group (e.g, viewing movie2), The multicast packet for movie2 only forwarded to the port PC_B connected, and don't flood to other PCs.