

IGMP-SNOOPING Configuration Commands

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Chapter 1 IGMP-SNOOPING Configuration Commands

IGMP-SNOOPING configuration commands include:

- `ip igmp-snooping`
- `ip igmp-snooping static`
- `ip igmp-snooping immediate-leave`
- `ip igmp-snooping dlf-frames`
- `ip igmp-snooping router age`
- `ip igmp-snooping response time`
- `ip igmp-snooping querier`
- `show ip igmp-snooping`
- `show ip igmp-snooping timer`
- `show ip igmp-snooping groups`
- `show ip igmp-snooping statistics`
- `debug ip igmp-snooping packet`
- `debug ip igmp-snooping timer`

1.1.1 igmp-snooping

Description

To enable the IGMP-snooping of VLAN, use the `ip igmp-snooping` command. Use the `no` form of this command to restore the default.

`ip igmp-snooping [ vlan vlan_id ]`

`no ip igmp-snooping [ vlan vlan_id ]`

Parameter

Parameter	Description
<i>vlan id</i>	VLAN identity. Value is from 1 to 4094.

Default

disabled

Instruction

If not specified the vlan parameter, this command enable or disable all vlans in the system (IGMP-snooping currently can be ran on 16 vlans at most at the same time.)

Example

The following command enables IGMP snooping of vlan 1:

```
switch(config)# ip igmp-snooping vlan 1
switch(config)#
```

1.1.2 igmp-snooping static**Description**

ip igmp-snooping vlan *vlan_id* static *A.B.C.D* interface *intf*

no ip igmp-snooping vlan *vlan_id* static *A.B.C.D* interface *intf*

Parameter

Parameter	Description
<i>vlan id</i>	VLAN identity。 Value is from 1 to 4094。
<i>A.B.C.D</i>	Specifies the IP address of multicast
<i>intf</i>	Specifies the interface

Default

None

Instruction

Use this command to configure the static multicast address of vlan. Use the no form of this command to delete the address.

Example

The following command adds the static multicast address at 234.5.6.7 to the fast ethernet interface 5 of vlan 2:

```
switch(config)# ip igmp-snooping vlan 2 static 234.5.6.7 interface FastEthernet0/5
switch(config)#
```

Note:

224.0.0.0-224.0.0.255, as the multicast address which cannot be routed, cannot be registered to each interface.

1.1.3 igmp-snooping immediate-leave

Description

To configure the immediate-leave characteristic of vlan, use the `ip igmp-snooping vlan` command. Use the `no` form of this command to restore the default value.

ip igmp-snooping vlan *vlan_id* immediate-leave

no ip igmp-snooping vlan *vlan_id* immediate-leave

Parameter

Parameter	Description
<i>vlan id</i>	VLAN identity. Value is from 1 to 4094.

Default

disabled

Instruction

None

Example

The following command enables immediate-leave characteristic of vlan 1:

```
switch(config)# ip igmp-snooping vlan 1 immediate-leave
switch(config)#
```

1.1.4 igmp-snooping dlf-frames

Description

ip igmp-snooping dlf-frames *filter*

no ip igmp-snooping dlf-frames

Parameter

Parameter	Description
<i>filter</i>	Filters for the multicast packets of the unregistered address

Default

None

Instruction

Use this command to configure filter mode for the multicast packets of the unregistered destination address. Use the no form of this command to restore the default configuration(broadcasting in vlan)

Example

The following example configures to drop multicast packets of the unregistered destination address in all vlans:

```
switch(config)# ip igmp-snooping dlf-frames filter
switch(config)#
```

1.1.5 igmp-snooping router age

Description

ip igmp-snooping timer router-age *timer_value*

no ip igmp-snooping timer router-age *timer_value*

Parameter

Parameter	Description
<i>time value</i>	Query timer time. Value is from 10 to 2147483647.

Default

260 seconds

Instruction

Use this command to configure query timer time. Use the no form of this command to restore the default value.

Example

The following example configures router-age to 300 seconds

```
switch(config)# ip igmp-snooping timer router-age 300
switch(config)#
```

1.1.6 igmp-snooping response time

Description

To configure the maximum response time of IGMP-snooping, use IGMP-snooping command. Use the no form of this command to restore the default value.

ip igmp-snooping timer response-time *timer_value*

no ip igmp-snooping timer response-time *timer_value*

Parameter

Parameter	Description
<i>time value</i>	Query timer time 。 Value is from 1 to 255。

Default

10 seconds

Instruction

None

Example

The following example configures response-time to 20 seconds:

```
switch(config)# ip igmp-snooping timer response-time 20
switch(config)#
```

1.1.7 igmp-snooping querier

Description

To activate IGMP-snooping querier mechanism or configure the source ip address of the spontaneous query packets. Use the no form of this command to restore the default value.

ip igmp-snooping querier [address <ip_addr>]

no ip igmp-snooping querier [address <ip_addr>]

Parameter

Parameter	Description
<i>ip_addr</i>	The common unicast IP address

Default

disabled, the default source IP address is 10.0.0.200.

Instruction

None

Example

The following command activates IGMP querier:

```
switch(config)# ip igmp-snooping querier  
switch(config)#
```

1.1.8 show ip igmp-snooping

Description

show ip igmp-snooping

Parameter

None

Default

None

Instruction

Use this command to show configuration information of IGMP-snooping.

Example

The following example shows the vlan information of the running ipmp-snooping:

```
switch(config)# show ip igmp-snooping
igmp-snooping router age:260 s
igmp-snooping response time:10 s
vlan 1
-----
running
Router: 90.0.0.120(F0/2)
switch(config)#
```

1.1.9 show ip igmp-snooping timer

Description

show ip igmp-snooping timer

Parameter

None

Default

None

Instruction

Use this command to show timer information of IGMP.

Example

The following example shows timer information of igmp-snooping:

```
switch(config)# show ip igmp-snooping timer
vlan 1 router age : 246
switch(config)#
```

1.1.10 show ip igmp-snooping groups

Description

show ip igmp-snooping groups

Parameter

None

Default

None

Instruction

Use this command to configure multicast group information of IGMP-snooping.

Example

The following example shows the multicast group information of igmp-snooping:

```
switch(config)# show ip igmp-snooping groups
```

Vlan	Source	Group	Type	Port(s)
------	--------	-------	------	---------

1	0.0.0.0	234.5.6.6	IGMP	F0/2
---	---------	-----------	------	------

1	0.0.0.0	239.255.255.250	IGMP	F0/2
---	---------	-----------------	------	------

```
switch(config)#
```

1.1.11 show ip igmp-snooping statistics**Description**

show ip igmp-snooping statistics

Parameter

None

Default

None

Instruction

Use this command to show IGMP-snooping statistics.

Example

The following example shows igmp-snooping statistics:

```
switch(config)# show ip igmp-snooping statistics
```

```
vlan 1
```

```
-----
```

```
v1_packets:1
```

```
v2_packets:2
```

```
v3_packets:0
general_query_packets:1
special_query_packets:2
join_packets:0
leave_packets:0
send_query_packets:0
err_packets:0
switch(config)#
```

1.1.12 debug ip igmp-snooping packet

Description

debug ip igmp-snooping packet

no debug ip igmp-snooping packet

Parameter

None

Default

None

Instruction

Use this command to enable/disable the packet debugging switch of IGMP-snooping.

Example

The followig command enables the packet debugging switch of igmp-snooping:

```
switch(config)# debug ip igmp-snooping packet
switch(config)#
```

1.1.13 debug ip igmp-snooping timer

Description

debug ip igmp-snooping timer

no debug ip igmp-snooping timer

Parameter

None

Default

None

Instruction

Use this command to enable/disable the timer debugging switch of IGMP-snooping

Example

The following example enables timer debugging switch of igmp-snooping:

```
switch(config)# debug ip igmp-snooping timer
switch(config)#
```