Monitor Link Function

Configuration

Contents

Chapter 1 Monitor Link Function Configuration

1.1 Introduction to the Monitor Link Function

The Monitor Link function enables the switch to perceive the status change (up/down) of the ports on the indirectly-connected link so as to link a group of ports. The Monitor Link function is used to cooperate with the networking applications of the layer 2 topology protocol to monitor the uplink of the device and trigger the status change (up/down) of the downlink based on the status change (up/down) of the uplink, thereby triggering the switching to the backup link controlled by the topology protocol on the downstream device.

Monitor Link group:

The Monitor Link group consists of the uplink and downlink and the members and roles are configured by users. The uplink and downlink can have multiple member ports but each member port must belong to only one Monitor Link group. Member ports can be Ethernet ports or aggregation ports.

Uplink:

The uplink is the monitored link in the Monitor Link group. The Monitor Link group is down when it does not contain uplink members or all uplink member ports are down. The Monitor Link group is up as long as any of the uplink members is up.

Downlink:

The downlink is the linked link in the Monitor Link group. When the status (up/down) of the Monitor Link group changes, the Monitor Link function changes the status of the downlink member port accordingly based on the status of the Monitor Link group.

1.2 Monitor Link Function Configuration

1.2.1 Monitor Link Function Configuration List

Table 1-1 Monitor Link function configuration list

Configuration Task	Description	Detailed Configuration
Enabling or disabling the Monitor Link function of the port (or the aggregation group)	Mandatory	1.2.2
Displaying information about the Monitor Link group	Mandatory	1.2.3

1.2.2 Enabling or Disabling the Monitor Link Function of the Port (or the Aggregation Group)

Enable or disable the Monitor Link function for the port in port configuration mode and for the aggregation group in global configuration mode. The Monitor Link function is disabled by default.

Table 1-2 Enabling or disabling the Monitor Link function of the port (or the aggregation group)

Operation	Command	Remarks
Enter the global configuration mode.	**configure terminal**	N/A
Enter the port configuration mode.	**interface ethernet** *interface-num*	N/A
Add the current port to the Monitor Link group with the group number being *group-ID* and then specify the port type (uplink or downlink).	**switchport monitor-link-group** *group-ID* {**uplink** |**downlink**}	Optional(*group-ID*: ID of the Monitor Link group uplink: The uplink is configured. downlink: The downlink is configured.)
Delete the current port from the Monitor Link group with the group number being *group-ID.*	**no switchport monitor-link-group** *group-ID*	Optional(*group-ID*: Monitor Link group)
Return to the global configuration mode.	**exit**	N/A
Add the aggregation group *channel-group-number* to the Monitor Link group with the group number being *group-ID* and then specify the type (uplink or downlink).	**channel-group** *channel-group-number* **monitor-link-group** *group-ID* {**uplink** |**downlink**}	Optional(channel-group -number: number of the aggregation group (*group-ID*: Monitor Link group)
Delete the aggregation group *channel-group-number* from the Monitor Link group with the group number being *group-ID*.	**no channel-group** *channel-group-number* **monitor-link-group** *group-ID*	Optional(channel-group -number: number of the aggregation group (*group-ID*: Monitor Link group)

1.2.3   Displaying Information About the Monitor Link Group

All Monitor Link groups created in the system and their uplink/downlink configurations and connection status can be displayed in any mode.

Table 1-3 Displaying information about the Monitor Link group

Operation	Command	Remarks

Display information about the configured Monitor Link group in the system.	**show monitor-link-group**	This command can be run in all modes.

1.3   Configuration Instance

To configure port 0/2/1 as the uplink port and aggregation group 1 as the downlink port in the Monitor Link group with aggregation group 1 containing ports 4 to 8, run the following commands:

Switch(config)#
Switch(config)#channel-group 1
Switch(config)#interface range ethernet 0/0/4 to ethernet 0/0/8
Switch(config-if-range)#channel-group 1 mode on
Remember to re-config mac-addresses associated with port e0/0/4
Remember to re-config mac-addresses associated with port e0/0/5
Remember to re-config mac-addresses associated with port e0/0/6
Remember to re-config mac-addresses associated with port e0/0/7
Remember to re-config mac-addresses associated with port e0/0/8
Switch(config-if-range)#exit
Switch(config)#channel-group 1 monitor-link-group 1 downlink
Switch(config)#interface ethernet 0/2/1
Switch(config-if-ethernet-0/2/1)#switchport monitor-link-group 1 uplink
Switch(config-if-ethernet-0/2/1)#exit
Switch(config)#show monitor-link-group
Monitor-link Group

Group 1:
UplinkID   UplinkStatus
e0/2/1   DOWN
DownlinkID   DownlinkStatus
ch-1   DOWN
Switch(config)#