FSOS

Shutdown-Control Configuration

Contents

1. Shutdown-Control

1.1 Overview

When the network appears loop or malicious attack, there will be a lot of messages, these messages waste bandwidth or even make the network equipment in the collapse of the edge, and affect the normal use of other users. The shutdown-control function is used to avoid excessive messages in the network. It monitors the bandwidth of each port on the switch. When the number of unknown messages received by the port exceeds the security set by the administrator threshold, the shutdown-control function automatically shuts down the port to ensure that the other links and devices are protected from the impact in the network.

1.1.1 Enable/disable Shutdown-Control

Enable/disable Shutdown-Control

operation	command	remark
Enter the global configuration mode	configure terminal	-
Enter the port configuration mode	interface ethernet *port-num*	-
Enable and configure the shutdown rate	shutdown-control **{broadcast |multicast |unicast}***rate*	required
Shutdown function	no shutdown-control **{broadcast |multicast |unicast}**	optional ，default close
View the configuration information	show shutdown-control interface [ethernet ***port-numer***]	optional

1.1.2 Configure Recovery Mode

Port is shutdown, need to manually restore by default. Administrators can configure automatic recovery, and set the recovery cycle, the default is 480s.

Configure recovery mode

operation	command	remark
Enter the global configuration mode	configure terminal	-
Configure the recovery mode	[no] shutdown-control-recover mode {**automatic** | **manual**}	Optional, manual and no commands are used to restore the default configuration
Configure the automatic recovery period	[no] shutdown-control-recover automatic-open-time ***value***	optional，Default 480s, only valid for

|		automatic recovery
View configuration information	show shutdown-control interface [ethernet *port-number*]	optional

1.1.3 Manually Restore Shutdown Port

<div align="center">Manually restore shutdown port</div>

operation	command	remark
Enter the shutdown port configuration mode	interface ethernet *port-number*	required
Command the shutdown port	shutdown	required
Restore the port	no shutdown	required

1.1.4 Configuration Example

1、Network Requirement

　　Port 2 receiving unknown unicast rate is limited for 1000pps, if it is shutdown, automatic recovery, the default value 480s is used for recovery cycle.
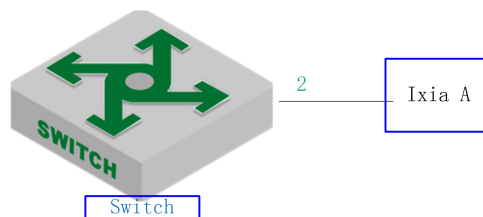
　Shutdown-control sketch map

2.configuration steps

Enable the unknow unicast shutdown-control function and set the rate to 1000 pps

Switch(config)#interface ethernet 0/0/2

Switch(config-if-ethernet-0/0/2)#shutdown-control unicast 1000

Switch(config-if-ethernet-0/0/2)#ex

View Configuration Information

Switch(config)#show shutdown-control interface ethernet 0/0/2

port shutdown control recover mode : automatic

Port recover time(second)　　: 480

port shutdown control information :

PortID	Broadcast status	Broadcast value	Multicast status	Multicast value	Unicast status	Unicast value	RemainTime
e0/0/2	disable	-	disable	-	enable	1000	-

Total entries: 1 .

3. Validation results

Switch(config)#logging monitor 0

The tester sends an unknown message to the DUT 0/0/2 at a rate of 1100 pps.

Switch(config)#05:12:04: Switch: %DEVICE-3-LINKUPDOWN: e0/0/2 LinkDown.

05:12:04: Switch: %OAM-5-SHUTDOWN-CTRL: port e0/0/2 **was shutdown.**

Switch(config)#show shutdown-control interface ethernet 0/0/2

port shutdown control recover mode : automatic

Port recover time(second)   : 480

port shutdown control information :

PortID	Broadcast status	Broadcast value	Multicast status	Multicast value	Unicast status	Unicast value	**RemainTime**
e0/0/2	disable	-	disable	-	enable	1000	**07min48sec**

Total entries: 1 .

Switch(config)#show interface brief ethernet 0/0/2

Port	Desc	Link	shutdn	Speed	Pri	PVID	Mode	TagVlan	UtVlan
e0/0/2		down	**ERROR**	auto	0	1	hyb		1

Total entries: 1 .

Switch(config)#05:20:06: Switch: %DEVICE-3-LINKUPDOWN: e0/0/2 LinkUp.

05:20:08: Switch: %OAM-5-PORTRECOVER: port e0/0/2 **recover.**