ERPS Configuration Commands
(G8032-201003)
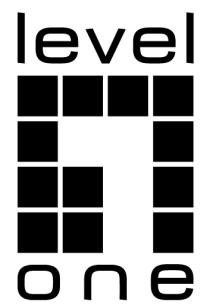
Table of Contents

Chapter 1 ERPS Configuration Commands

1.1 Global Configuration Commands

1.1.1 Erps

Syntax

To set an instance of ring and enter the node mode, run the following command:

erps *id*

To cancel an instance of ring, run the following command:

no erps *id*

Parameter

Parameter	Description
id	ID of the node

Default

By default, the ring node is not configured.

Command Mode

Global Configuration Mode

Usage Guidelines

None

Example

Switch(config)# erps 1
Switch(config_ring1)#

Related Command

None

1.1.2 control-vlan

Syntax

To set the control vlan value of the local node, run the following command:

control-vlan *value*

To return to the default setting, use the no form of this command.

no control-vlan

Parameter

Parameter	Description
value	The value ranges from 1 to 4094.

Default

No control-vlan

Command Mode

Node configuration mode for the Ethernet ring

Usage Guidelines

The command is the compulsory option for the node configuration. The node cannot be modified after it works well.

Example

Switch(config)# erps 1
Switch(config_ring1)#
Switch(config_ring1)# control-vlan 2

Related Command

None

1.1.3 wtr-time

Syntax

To configure the timeout time of the WTR timer, run the following command:

wtr-time *value*

no wtr-time

Parameter

Parameter	Description
value	The timeout time of WTR is 20s by default. The value ranges from 10 to 720s.

Default

The timeout time of WTR is 20s by default.

Command Mode

Node configuration mode for the Ethernet ring

Usage Guidelines

None

Example

Switch(config)# erps 1
Switch(config_ring1)#
Switch(config_ring1)# wtr-time 15

Related Command

None

1.1.4 guard-time

Syntax

To configure the timeout time of the Guard timer, run the following command:

guard-time *value*

no guard-time

Parameter

Parameter	Description
value	The timeout time of the Guard timer. Unit: 1ms. The default is 500. The value ranges from 10 to 2000. The step is 10ms.

Default

The timeout time of the Guard timer is 500 milliseconds by default.

Command Mode

Node configuration mode for the Ethernet ring.

Usage Guidelines

When a port is recovered from an invalid state, the Guard timer is forbidden to handle the received protocol packets to avoid outdated packets from generating inaccurate protocols.

Example

Switch(config)# erps 1
Switch(config_ring1)# guard-time 60

Related Command

None

1.1.5   send-time

Syntax

To set the interval of transmission of the protocol packets, run the following command:

send-time *value*

no send-time

Parameter

Parameter	Description
value	The timeout time of the timer. The default value is 5 seconds. The value ranges from 1 to 10 seconds.

Default

By default, ERPS PDU is transmitted every five seconds.

Command Mode

Node configuration mode for the Ethernet ring

Usage Guidelines

None

Example

Switch(config_ring1)# wtr-time 15
Switch(config_ring1)# send-time 5

Related Command

None

1.2 Port Configuration Commands

1.2.1 erps ring-port

Syntax

To set a port to be a common ring port, run the following command:

erps *id* **ring-port**

To delete the common ring port or the ring configuration on the RPL port, run the following command:

no erps *id* **ring-port**

Parameter

Parameter	Description

id	ID of the node

Default

None

Command Mode

Configuration mode of the switching port (physical port or aggregation port)

Usage Guidelines

ERPS can set a physical or aggregation port to be a ring port. However, the physical port where link aggregation, 802.1X or port security has been configured can not be set to be an ERPS ring port.

The default VLAN for each ring port must be configured to be consistent so that ERPS packets can be normally forwarded.

Example

Switch(config)# interface g0/0/1
Switch(config-g0/0/1)# erps 1 ring-port

Related Command

None

1.2.2 erps rpl

Syntax

To set a port to be a RPL (ring protection link) port of ERPS, run the following command:

erps *id* **rpl**

To delete the RPL port and retain its role as a common ring port, run the following command:

no erps *id* **rpl**

Parameter

Parameter	Description
id	ID of the node

Default

None

Command Mode

Configuration mode of the switching port (physical port or aggregation port)

Usage Guidelines

In case of automatic discovery, the function of the erps rpl command is as same as the priority value is modified to 0.

If you want to delete the ring settings of the port, run the following command.

no erps *id* **ring-port**

Example

Switch(config-g0/0/1)# interface g0/0/3
Switch(config-g0/0/3)# erps 1 rpl

Related Command

None

1.2.3   erps neighbor

Syntax

To set the port as ERPS RPL neighbor, run the following command.

erps *id* **neighbour**

To return to the default setting, use the no form of this command.

no erps *id* **neighbour**

Parameter

Parameter	Description
id	ID of the node

Default

None

Command Mode

Configuration mode of the switching port (physical port or aggregation port).

Usage Guidelines

Set a port to be RPL of a designated node. Meanwhile, the port must be connected to the RPL port and become the RPL neighbor port.

Example

Switch(config-g0/0/1)# interface g0/0/3
Switch(config-g0/0/3)# erps 1 neighbour

Related Command

None

1.3 Control Commands

1.3.1 erps [ForcedSwitch | ManualSwitch | Clear]

Syntax

To force the node switch to the interface *interface-type interface-number*, run the following command:

erps *id* **ForcedSwitch interface** *interface-type interface-number*

To force the node switch to the interface *interface-type interface-number* manually, run the following command:

erps *id* **ManualSwitch interface** *interface-type interface-number*

To clear the switch command of the node, run the following command:

erps *id* **Clear**

Parameter

Parameter	Description
id	ID of the node
interface-type	Type of the interface
interface-number	Number of the interface

Default

None

Command Mode

Monitoring mode

Usage Guidelines

None

Example

None

Related Command

None

1.4 Show Configuration Commands

1.4.1   show erps

Syntax

To show the abstract information of the ERPS, run the following command:

show erps [*id*]

To show the detailed information of the Ethernet ring node, run the following command:

show erps *id* **detail**

To show the information of the Ethernet interface, run the following command:

show erps interface *intf-name*

Parameter

Parameter	Description
id	ID of the node
intf-name	Interface name

Default

None

Command Mode

Monitoring mode, global configuration mode, node configuration mode or port configuration mode

Usage Guidelines

None

Example

None

Related Command

None