

# S5900-24S4T2Q Switch ERPS CLI Reference Guide

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Model: S5900-24S4T2Q

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# Chapter 1 Fast Ethernet Protection ERPS Configuration Command

## 1.1 Global Configuration Command

### 1.1.1 Erps

configure the ring network instance to enter node configuration mode.

erps id

Delete node instances:

no erps id

#### Parameters

Parameters	Parameter description
id	Node instance number.

#### Default

By default, the ring network node instance is not configured.

#### Command mode

Global configuration mode.

#### Use instructions

None.

#### Example

```
Switch_config#erps 1
```

```
Switch_config_ring1#
```

#### Related Orders

None.

### 1.1.2 control-vlan

Configure the control vlan value of the local node.

#### control-vlan value

Delete the control vlan value of the local node.

#### no control-vlan

#### Parameters

Parameters	Parameter description
value	Range 1-4094.

#### Default

no control-vlan. by default

#### Command mode

ring network node configuration mode.

#### Use instructions

Node configuration must be optional, node after normal operation can not be changed.

#### Example

```
Switch_config#erps 1
Switch_config_ring1#
Switch_config_ring1#control-vlan 2
```

**Related Orders**

None.

**1.1.3 interconnection-node**

configure the local node as an interconnected node.

**interconnection-node**

Configuring local nodes is not an interconnected node.

**no interconnection-node****Parameters**

None.

**Default**

default is local node not interconnected node.

**Command mode**

ring network node configuration mode.

**Use instructions**

Node configuration must be optional, node after normal operation can not be changed. At the same time, although it is a required command item, it has an default configuration, so you can omit these commands when you create a local node without modifying the default value.

**Example**

```
Switch_config#erps 1
Switch_config_ring1#
Switch_config_ring1#interconnection-node
```

**Related Orders**

None.

**1.1.4 raps -virtual-channel**

Configure local nodes to use R-APS virtual channels.

**raps -virtual-channel**

Configure the local node without using R-APS virtual channels.

**no raps -virtual-channel****Parameters**

None.

**Default**

Default uses R-APS virtual channels for local nodes.

**Command mode**

ring network node configuration mode.

### Use instructions

Node configuration must be optional, node after normal operation can not be changed. At the same time, although it is a required command item, it has an default configuration, so you can omit these commands when you create a local node without modifying the default value.

### Example

```
Switch_config#erps 1
Switch_config_ring1#
Switch_config_ring1#raps -virtual-channel
```

### Related Orders

None.

#### 1.1.5 revertive-mode

configure the return mode of the local node as return mode.

#### revertive-mode

Configure the return mode of the local node as non-return mode.

#### no revertive-mode

### Parameters

None.

### Default

Default is local node for return mode.

### Command mode

ring network node configuration mode.

### Use instructions

Node configuration must be optional, node after normal operation can not be changed. At the same time, although it is a required command item, it has an default configuration, so you can omit these commands when you create a local node without modifying the default value.

### Example

```
Switch_config#erps 1
Switch_config_ring1#
Switch_config_ring1#revertive-mode
```

### Related Orders

None.

#### 1.1.6 Version

Configure version. of local nodes

#### version value

The configuration version is value.

#### no version

### Parameters

Parameters	Parameter description
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**value**

Default 1, range 0-2.

**Default**

Default, version 1.

**Command mode**

ring network node configuration mode.

**Use instructions**

None.

**Example**

```
Switch_config#erps 1
Switch_config_ring1#
Switch_config_ring1#version 1
```

**Related Orders**

None.

**1.1.7 wtr-time**

configure the switching recovery timer WTR timeout.

**wtr-time value****no wtr-time****Parameters**

Parameters	Parameter description
<b>value</b>	Timer timeout, default 20 seconds, range 10-720 seconds.

**Default**

By default, WTR timer timeout is 300 seconds.

**Command mode**

ring network node configuration mode.

**Use instructions**

None.

**Example**

```
Switch_config#erps 1
Switch_config_ring1#
Switch_config_ring1#wtr-time 15
```

**Related Orders**

None.

**1.1.8 guard-time**

configure Guard timer timeout time.

**guard-time value**

**no guard-time****Parameters**

Parameters	Parameter description
<b>value</b>	Timer timeout, unit 10 milliseconds, default 50, range 1-200.

**Default**

By default, Guard timer timeout is 500 milliseconds.

**Command mode**

ring network node configuration mode.

**Use instructions**

As a port recovers from the failure state, the Guard timer for a short period of time forbids processing the received protocol message to avoid the wrong protocol action due to receiving the expired message.

**Example**

```
Switch_config#erps 1
Switch_config_ring1#guard-time 60
```

**Related Orders**

None.

**1.1.9 send-time**

configure protocol message sending cycle.

**send-time value****no send-time****Parameters**

Parameters	Parameter description
<b>value</b>	Timer timeout, default 5 seconds, range 1-10 seconds.

**Default**

By default, the ERPS PDU transmission interval is 5 seconds.

**Command mode**

ring network node configuration mode.

**Use instructions**

None.

**Example**

```
Switch_config_ring1#wtr-time 15
Switch_config_ring1#send-time 5
```

**Related Orders**

None.

## 1.2 Port Configuration Command

### 1.2.1 erps ring-port

The configuration port is a normal ring network port.

#### erps id ring-port

Delete loop configuration for normal or RPL ports:

#### no erps id ring-port

#### Parameters

Parameters	Parameter description
id	Node instance number.

#### Default

No default configuration.

#### Command mode

Switch port configuration mode (physical port or aggregate port).

#### Use instructions

ERPS protocol supports configuring physical or aggregate ports as ring network ports. physical ports that have been configured for link aggregation ,802.1 X authentication, or port security are not configurable as ERPS ring network ports.

The default VLAN of all ring ports need to be configured consistently to ensure that ERPS messages are forwarded properly.

#### Example

```
Switch_config#interface f0/1
Switch_config_f0/1#erps 1ring-port
```

#### Related Orders

None.

### 1.2.2 erps rpl

the configuration port is ERPS ring network protection link (Ring Protection Link).

#### erps id rpl

Delete the RPL port configuration but retain the normal ring network port role of the port:

#### no erps id rpl

#### Parameters

Parameters	Parameter description
id	Node instance number.

#### Default

No default configuration.

#### Command mode

Switch port configuration mode (physical port or aggregate port).

#### Use instructions

For automatic discovery of enabling, the function of the erps rpl command is equivalent to modifying the priority value to 0.



To remove the ring configuration of the port, use the command:

### no erps id ring-port

#### Example

```
Switch_config_f0/1#interface f0/3
Switch_config_f0/3#erps 1rpl
```

#### Related Orders

None.

### 1.2.3 erps neighbour

Configuration port is ERPS RPL neighbour.

#### erps id neighbour

Delete RPL neighbour port configuration:

### no erps id neighbour

#### Parameters

Parameters	Parameter description
id	Node instance number.

#### Default

No default configuration.

#### Command mode

Switch port configuration mode (physical port or aggregate port).

#### Use instructions

the port is configured as the RPL neighbor port of the specified node, and the port must be connected to the RPL port and must be configured as the RPL neighbor port.

#### Example

```
Switch_config_f0/1#interface f0/3
Switch_config_f0/3#erps 1neighbour
```

#### Related Orders

None.

### 1.2.4 erps mep

bind ERPS port to MEP port.

**erps id mep [up1|up2|down]md md-WORD ma ma-WORD level level-id local local-id remote remote-id**

unbind ERPS port to MEP port.

**no erps id mep [up1|up2|down]**

#### Parameters

Parameters	Parameter description
id	ring network instance number.
md-WORD	MEP maintenance domain information.
ma-WORD	MEP maintenance link information.

<b>level-id</b>	MEP rating information.
<b>local-id</b>	MEP local id information.
<b>remote-id</b>	MEP distal id information.

**Default**

No default configuration.

**Command mode**

Switch port configuration mode (physical port or aggregate port).

**Use instructions**

CFM ports need to be configured before binding.

**Example**

```
Switch_config_f0/1#interface f0/3
Switch_config_f0/3#erps 1mep down md d ma d level 4local 4remote 1
```

**Related Orders**

None.

## 1.3 Control Command

### 1.3.1 erps [ForcedSwitch |ManualSwitch |Clear]

Forced switching of nodes to port *interface-type interface -number*:

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

Change nodes manually to port *interface-type interface -number*:

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

Clear node switching command:

**erps id Clear****Parameters**

Parameters	Parameter description
<b>id</b>	Node instance number.
<b>interface-type</b>	Port type.
<b>interface -number</b>	Port number.

**Default**

None.

**Command mode**

Monitoring mode.

**Use instructions**

None.

**Example**

None.

**Related Orders**

None.

## 1.4 Display command

### 1.4.1 show erps

Display summary information ERPS ring protection:

**show erps [id]**

Display ring node details:

**show erps id detail**

Display ring network port information:

**show erps interface intf-name**

#### Parameters

Parameters	Parameter description
<b>id</b>	Node instance number.
<b>intf-name</b>	Port name.

#### Default

None.

#### Command mode

monitoring mode, global configuration mode, node configuration mode, or port configuration mode.

#### Use instructions

None.

#### Example

None.

#### Related Orders

None.



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