

# 1 ERPS Commands

Command	Function
<a href="#">associate sub-ring raps-vlan</a>	Associate major rings of Ethernet intersecting rings with subrings.
<a href="#">erps enable</a>	Enable the global ERPS function.
<a href="#">erps monitor link-state by oam</a>	Monitor the logical status of ERPS links through OAM.
<a href="#">erps raps-vlan</a>	Create an Ethernet ring R-APS VLAN and enter the R-APS VLAN configuration mode.
<a href="#">protected-instance</a>	Configure the VLANs protected by an Ethernet ring.
<a href="#">ring-port</a>	Add ports to an ERPS ring.
<a href="#">rpl-port</a>	Configure the RPL port for an ERPS ring.
<a href="#">show erps</a>	Display the parameters and state of ERPS.
<a href="#">state enable</a>	Enable the ERPS function for a specified ring.
<a href="#">sub-ring tc-propagation</a>	Enable the subring topology change notification.
<a href="#">timer</a>	Configure ERPS timers.

## 1.1 associate sub-ring raps-vlan

### Function

Run the **associate sub-ring raps-vlan** command to associate major rings of Ethernet intersecting rings with subrings.

Run the **no** form of this command to remove this configuration.

A major ring of Ethernet intersecting rings is not associated with its subrings by default.

### Syntax

**associate sub-ring raps-vlan** *vlan-list*

**no associate sub-ring raps-vlan** *vlan-list*

### Parameter Description

*vlan-list*: R-APS VLAN list of subrings. The value range is from 1 to 4094. The VLAN list can contain one or more VLANs. When multiple VLANs are contained, separate VLAN IDs by a comma (,) or connect continuous VLAN IDs with a hyphen (-).

### Command Modes

R-APS VLAN configuration mode

### Default Level

14

### Usage Guidelines

This command needs to be configured on all nodes in an Ethernet Ring Protection Switching (ERPS) major ring so that ERPS packets of its subrings can be transmitted in the major ring.

The association aims to ensure that ERPS packets of the subrings can be transmitted in other Ethernet rings. You can also use the command provided by the VLAN module to configure a VLAN and its member ports so that ERPS packets of subrings can be transmitted in the major ring and are not leaked to user networks.

### Examples

The following example associates the major ring R-APS VLAN 4093 with the subring R-APS VLAN 100 in an Ethernet.

- (1) The following example configures the links of ports (TenGigabitEthernet 0/1 and TenGigabitEthernet 0/2) in the major ring to work in trunk mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/1)# exit
Hostname(config)# interface tenGigabitEthernet 0/2
Hostname(config-if-TenGigabitEthernet 0/2)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/2)# exit
```

- (2) The following example configures R-APS VLAN 4093, adds the ports to the Ethernet ring, specifies the ring protection link (RPL) port and RPL owner, and enables the ERPS function.

```
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps 4093)# ring-port west tenGigabitEthernet 0/1 east
tenGigabitEthernet 0/2
Hostname(config-erps 4093)# rpl-port east rpl-owner
Hostname(config-erps 4093)# state enable
Hostname(config-erps 4093)# exit
```

- (3) The following example enables the ERPS function globally.

```
Hostname(config)# erps enable
```

- (4) The following example configures the link mode for the subring port, configures R-APS VLAN 100, adds TenGigabitEthernet 0/3 to the Ethernet ring, and enables the ERPS function.

```
Hostname(config)# erps raps-vlan 100
Hostname(config)# interface tenGigabitEthernet 0/3
Hostname(config-if-TenGigabitEthernet 0/3)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/3)# exit
Hostname(config)# erps raps-vlan 100
Hostname(config-erps 100)# ring-port west tenGigabitEthernet 0/3 east virtual-
channel
Hostname(config-erps 100)# state enable
Hostname(config-erps 100)# exit
```

- (5) The following example associates the major ring R-APS VLAN 4093 with the subring R-APS VLAN 100.

```
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps4093)# associate sub-ring raps-vlan 100
```

### Notifications

N/A

### Common Errors

N/A

### Platform Description

N/A

### Related Commands

- [erps enable](#)
- [erps raps-vlan](#)
- [ring-port](#)
- [state enable](#)

## 1.2 erps enable

### Function

Run the **erps enable** command to enable the global ERPS function.

Run the **no** form of this command to disable this feature.

The global ERPS function is disabled by default.

### Syntax

**erps enable**

**no erps enable**

### Parameter Description

N/A

### Command Modes

Global configuration mode

### Default Level

14

### Usage Guidelines

ERPS, also known as G.8032, is a ring protection protocol specially designed for the link layer in an Ethernet ring. It eliminates loops in the link layer in an Ethernet ring and prevents broadcast storms caused by data loops by blocking the specified ports. ERPS can rapidly recover the communication between nodes in the event that a link is disconnected in the Ethernet ring. ERPS has the L2 convergence time less than 50 ms, while the L2 convergence time is 50s for the Spanning Tree Protocol (STP) with similar functions, and nearly 1s for the Rapid Spanning Tree Protocol (RSTP) and Multiple Spanning Tree Protocol (MSTP).

ERPS takes effect in a specified ring only after ERPS is enabled globally and for the ring.

Run the **state enable** command to enable the ERPS function for a specified ring.

### Examples

The following example enables the ERPS function globally.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# erps enable
```

The following example enables the ERPS function for a specified ring in R-APS VLAN configuration mode.

```
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps4093)# state enable
```

### Notifications

N/A

### Common Errors

N/A

### Platform Description

N/A

## Related Commands

- [state enable](#)

## 1.3 erps monitor link-state by oam

### Function

Run the **erps monitor link-state by oam** command to monitor the logical status of ERPS links through OAM.

Run the **no** form of this command to directly monitor the physical status of ERPS links.

The physical status of ERPS links is directly monitored by default.

### Syntax

**erps monitor link-state by oam vlan** *vlan-id*

**no erps monitor link-state by oam**

### Parameter Description

*vlan-id*: ID of the VLAN that uses OAM to monitor the link status. The value range is from 1 to 4094.

### Command Modes

Global configuration mode

### Default Level

14

### Usage Guidelines

There are two methods of monitoring the ERPS link status.

- The physical status of ERPS links is directly monitored: up or down. This method is highly efficient.
- The logic status of ERPS links is monitored through OAM: unidirectional failure, bidirectional failure, or normal. This method is less efficient and the convergence time may be longer when the topology changes.

### Examples

The following example monitors the logical status of ERPS links through OAM.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# erps monitor link-state by oam vlan 100
```

### Notifications

N/A

### Common Errors

N/A

### Platform Description

N/A

## Related Commands

- [erps enable](#)

## 1.4 erps raps-vlan

### Function

Run the **erps raps-vlan** command to create an Ethernet ring R-APS VLAN and enter the R-APS VLAN configuration mode.

Run the **no** form of this command to remove this configuration.

No R-APS VLAN is configured by default.

### Syntax

**erps raps-vlan** *vlan-id*

**no erps raps-vlan** *vlan-id*

### Parameter Description

*vlan-id*: ID of an R-APS VLAN. The value range is from 1 to 4094.

### Command Modes

Global configuration mode

### Default Level

14

### Usage Guidelines

An R-APS VLAN must be an unused VLAN on a device. VLAN 1 cannot be configured as an R-APS VLAN.

In an Ethernet ring, different devices must be configured with the same R-APS VLAN.

If a device with ERPS disabled needs to transparently transmit ERPS packets, ensure that only the two ports connecting the device to an ERPS ring allow packets from the ERPS ring to pass. Otherwise, packets from other VLANs may be transparently transmitted to the R-APS VLAN, causing impact on the ERPS ring.

### Examples

The following example configures the R-APS VLAN 4093 for an Ethernet ring.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps4093)#
```

### Notifications

N/A

### Common Errors

N/A

## Platform Description

N/A

## Related Commands

- [erps enable](#)

## 1.5 protected-instance

### Function

Run the **protected-instance** command to configure the VLANs protected by an Ethernet ring.

Run the **no** form of this command to configure an Ethernet ring to protect all VLANs.

An Ethernet ring protects all VLANs by default.

### Syntax

**protected-instance** *instance-id-list*

**no protected-instance**

### Parameter Description

*instance-id-list*: List of the instances protected by an Ethernet ring. The VLAN group corresponding to an instance needs to be configured to configure the protected VLANs for an Ethernet ring. The value range is from 0 to 64. The instance list can contain one or more instances. When multiple instances are configured, separate the instances by a comma (,) and separate continuous instances with a hyphen (-).

### Command Modes

R-APS VLAN configuration mode

### Default Level

14

### Usage Guidelines

Instances protected by an Ethernet ring can implement load balancing.

### Examples

The following example configures ERPS 1 and ERPS 2 on a device to implement load balancing. In ERPS 1, the R-APS VLAN is VLAN 100, and protected data VLANs are 1-99 and 101-2000. In ERPS 2, the R-APS VLAN is VLAN 4093, and protected data VLANs are 2001-4092 and 4094. The load balancing is configured as follows.

The following example sets the protected VLANs of the Ethernet ring ERPS1 R-APS VLAN 100 to VLANs 1-99 and 101-2000 in instance 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# spanning-tree mst configuration
Hostname(config-mst)# instance 1 vlan 100,1-99,101-2000
Hostname(config-mst)# exit
```

```
Hostname(config)# erps raps-vlan 100
Hostname(config-erps 100)# protected-instance 1
Hostname(config-erps 100)# exit
```

The following example sets the protected VLANs of the Ethernet ring ERPS2 R-APS VLAN 4093 to VLAN 2001-4092 and 4094 in instance 2.

```
Hostname(config)# spanning-tree mst configuration
Hostname(config-mst)# instance 2 vlan 4093,2001-4092,4094
Hostname(config-mst)# exit
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps 4093)# protected-instance 2
```

### Notifications

N/A

### Common Errors

N/A

### Platform Description

N/A

### Related Commands

- [erps raps-vlan](#)

## 1.6 ring-port

### Function

Run the **ring-port** command to add ports to an ERPS ring.

Run the **no** form of this command to remove this configuration.

No member port is configured in an ERPS ring by default.

### Syntax

```
ring-port west { interface-type interface-number | virtual-channel } east { interface-type interface-number | virtual-channel }
```

```
no ring-port
```

### Parameter Description

**west** *interface-type interface-number*: Configures a port as the west port of an ERPS ring.

**west virtual-channel**: Configures a virtual channel as the west port of an ERPS subring.

**east** *interface-type interface-number*: Configures a port as the east port of an ERPS ring.

**east virtual-channel**: Configures a virtual channel as the east port of an ERPS subring.

### Command Modes

R-APS VLAN configuration mode



## Default Level

14

## Usage Guidelines

The trunk attributes of a port cannot be modified after the port is added to an ERPS ring.

**virtual-channel** is only used to configure a port for an ERPS subring.

The ports running ERPS are not involved in the STP calculation. ERPS, Rapid Ethernet Ring Protection (RERP), and Rapid Ethernet Uplink Protection (REUP) do not share ports.

## Examples

The following example configures the link mode for Ethernet ring ports.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/1)# exit
Hostname(config)# interface tenGigabitEthernet 0/2
Hostname(config-if-TenGigabitEthernet 0/2)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/2)# exit
```

The following example configures TenGigabitEthernet 0/1 as the west port and TenGigabitEthernet 0/2 as the east port, and adds them to R-APS VLAN 4093.

```
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps 4093)# ring-port west tenGigabitEthernet 0/1 east
tenGigabitEthernet 0/2
```

## Notifications

N/A

## Common Errors

N/A

## Platform Description

N/A

## Related Commands

- [erps enable](#)

## 1.7 rpl-port

### Function

Run the **rpl-port** command to configure the RPL port for an ERPS ring.

Run the **no** form of this command to remove this configuration.

No RPL port is configured in an ERPS ring by default.

## Syntax

```
rpl-port { west | east } rpl-owner
```

```
no rpl-port
```

## Parameter Description

**west:** Specifies the west port as the RPL port.

**east:** Specifies the east port as the RPL port.

## Default Level

14

## Command Modes

R-APS VLAN configuration mode

## Usage Guidelines

Each ring must be configured with only one RPL and only one RPL owner node.

For non-RPL owner nodes, the RPL port does not need to be configured. If you need to perform the RPL port, configure it on the port connected to the RPL.

## Examples

The following example configures the link mode for Ethernet ring ports in global configuration mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/1)# exit
Hostname(config)# interface tenGigabitEthernet 0/2
Hostname(config-if-TenGigabitEthernet 0/2)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/2)# exit
```

The following example adds the ports to an Ethernet ring in R-APS VLAN configuration mode.

```
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps 4093)# ring-port west tenGigabitEthernet 0/1 east
tenGigabitEthernet 0/2
```

The following example configures the RPL port and RPL owner node.

```
Hostname(config-erps 4093)# rpl-port west rpl-owner
```

## Notifications

N/A

## Common Errors

N/A

## Platform Description

N/A

## Related Commands

- [erps raps-vlan](#)
- [ring-port](#)

## 1.8 show erps

### Function

Run the **show erps** command to display the parameters and state of ERPS.

### Syntax

```
show erps [ { global | raps-vlan vlan-id [ sub-ring ] } ]
```

### Parameter Description

**global**: Displays global ERPS information.

**raps-vlan *vlan-id***: Displays information about a specified R-APS VLAN. The value range of *vlan-id* is from 1 to 4094.

**sub-ring**: Displays information about a specified subring.

### Command Modes

All modes except the user EXEC mode

### Default Level

14

### Usage Guidelines

N/A

### Examples

The following example displays the parameters and state of ERPS.

```
Hostname> enable
Hostname# show erps
ERPS Information
Global Status           : Enabled
Link monitored by       : Not Oam
-----
R-APS VLAN              : 4092
Ring Status             : Enabled
West Port               : Te 0/5 (Blocking)
East Port               : Te 0/7 (Forwarding)
RPL Port               : West Port
Protected VLANs        : ALL
RPL Owner               : Enabled
Holdoff Time            : 0 milliseconds
Guard Time             : 500 milliseconds
WTR Time                : 5 minutes
```

```

Current Ring State      : Idle
Associate R-APS VLAN   :
-----
R-APS VLAN             : 4093
Ring Status            : Enabled
West Port              : Virtual Channel
East Port              : Te 0/10 (Forwarding)
RPL Port               : None
Protected VLANs       : ALL
RPL Owner              : Disabled
Holdoff Time           : 0 milliseconds
Guard Time             : 500 milliseconds
WTR Time               : 5 minutes
Current Ring State     : Idle
Associate R-APS VLAN   :
-----
R-APS VLAN             : 4094
Ring Status            : Enabled
West Port              : Virtual Channel
East Port              : Te 0/12 (Forwarding)
RPL Port               : None
Protected VLANs       : ALL
RPL Owner              : Disabled
Holdoff Time           : 0 milliseconds
Guard Time             : 500 milliseconds
WTR Time               : 5 minutes
Current Ring State     : Idle
Associate R-APS VLAN   :

Hostname# show erps raps-vlan 4093 sub-ring
R-APS VLAN: 4093
Sub-Ring R-APS VLANs   TC Propagation State
-----
100                     Enable
200                     Enable
-----None

```

**Notifications**

N/A

**Common Errors**

N/A

**Platform Description**

N/A

**Related Commands**

- [erps enable](#)

## 1.9 state enable

### Function

Run the **state enable** command to enable the ERPS function for a specified ring.

Run the **no** command to disable this feature.

The ERPS function of an Ethernet ring is disabled by default.

### Syntax

**state enable**

**no state enable**

### Parameter Description

N/A

### Command Modes

R-APS VLAN configuration mode

### Default Level

14

### Usage Guidelines

ERPS takes effect in a specified ring only after ERPS is enabled both globally and for the ring.

### Examples

The following example configures the link mode for Ethernet ring ports in global configuration mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/1)# exit
Hostname(config)# interface tenGigabitEthernet 0/2
Hostname(config-if-TenGigabitEthernet 0/2)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/2)# exit
```

The following example adds the ports to an Ethernet ring in R-APS VLAN configuration mode.

```
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps 4093)# ring-port west tenGigabitEthernet 0/1 east
tenGigabitEthernet 0/2
```

The following example enables the ERPS function for the specified ring.

```
Hostname(config-erps 4093)# state enable
```

The following example enables the ERPS function globally.

```
Hostname(config-erps 4093)# exit
Hostname(config)# erps enable
```

**Notifications**

N/A

**Common Errors**

N/A

**Platform Description**

N/A

**Related Commands**

- [erps raps-vlan](#)
- [ring-port](#)

## 1.10 sub-ring tc-propagation

**Function**

Run the **sub-ring tc-propagation** command to enable the subring topology change notification.

Run the **no** form of this command to disable this feature.

The topology change notification is disabled by default.

**Syntax**

**sub-ring tc-propagation enable**

**no sub-ring tc-propagation**

**Parameter Description**

N/A

**Command Modes**

R-APS VLAN configuration mode

**Default Level**

14

**Usage Guidelines**

This command is configured only on intersecting nodes. After this function is enabled, when the subring topology changes, the intersecting nodes send a topology change notification.

**Examples**

The following example configures the link mode for Ethernet ring ports in global configuration mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/1)# exit
Hostname(config)# interface tenGigabitEthernet 0/2
```

```
Hostname(config-if-TenGigabitEthernet 0/2)# switchport mode trunk
Hostname(config-if-TenGigabitEthernet 0/2)# exit
```

The following example enters the R-APS VLAN configuration mode and configures ports that need to be added to the Ethernet ring and participate in ERPS calculation.

```
Hostname(config)# erps raps-vlan 4093
Hostname(config-erps4093)# ring-port west tenGigabitEthernet 0/1 east
tenGigabitEthernet 0/2
```

The following example configures an Ethernet subring.

```
Hostname(config)# erps raps-vlan 100
Hostname(config)# interface tenGigabitEthernet 0/3
Hostname(config-if-TenGigabitEthernet 0/3)# switchport mode trunk
Hostname(config-if-GTenGigabitEthernet 0/3)# exit
Hostname(config)# erps raps-vlan 100
Hostname(config-erps 100)# ring-port west tenGigabitEthernet 0/3 east virtual-
channel
```

The following example associates the subring with the other Ethernet ring.

```
Hostname(config-erps 100)# associate sub-ring raps-vlan 4093
```

The following example enables the subring topology change notification.

```
Hostname(config-erps 100)# sub-ring tc-propagation enable
```

### Notifications

N/A

### Common Errors

N/A

### Platform Description

N/A

### Related Commands

- [erps raps-vlan](#)
- [ring-port](#)

## 1.11 timer

### Function

Run the **timer** command to configure ERPS timers.

Run the **no** form of this command to restore the default configuration.

By default, the time from a failure to the protection switching of a device is 0 milliseconds, the time from failure recovery to a response to SF R-APS packets is 500 milliseconds, and the time from failure recovery and reblocking of the RPL owner port is 2 minutes.

### Syntax

```
timer { holdoff-time holdoff | guard-time guard | wtr-time wtr }
```

```
no timer { holdoff-time | guard-time | wtr-time }
```

### Parameter Description

**holdoff-time** *holdoff*: Indicates the Holdoff timer, which controls the time from a failure to protection switching of a device, in 100 milliseconds. The value range is from 0 to 100. The default value is **0**. When a failure occurs, the Holdoff timer is started. After the timer times out, if the failure persists, the system reports the failure to ERPS.

**guard-time** *guard*: Indicates the Guard timer, which controls the time from failure recovery to a response to SF R-APS packets, in 10 milliseconds. The value range is from 1 to 200. The default value is **50**, indicating 500 milliseconds. When a device or link fails, the device will firstly recover the failure, and then send the No Request Ring Auto Protection Switching (NR R-APS) packet to other devices, and start the Guard timer at the same time. The device will respond to the R-APS packet after the timer times out. This timer is used to prevent the device from receiving expired SF R-APS packets.

**wtr-time** *wtr*: Indicates the Wait to Restore (WTR) timer, which controls the time from failure recovery to reblocking of the RPL owner port, in minutes. The value range is from 1 to 12. The default value is **2**. When an Ethernet ring is in good conditions, the RPL owner port is blocked to prevent loops in the network. If a device or link fails in an Ethernet ring, the RPL owner port will be unblocked. If these device or link failures are recovered, the RPL owner port can be blocked again after a certain period of time. The purpose is to prevent link flapping caused by some ports not recovered to the up state during link recovery.

### Command Modes

R-APS VLAN configuration mode

### Default Level

14

### Usage Guidelines

The Holdoff timer is used to minimize frequent ERPS topology switching due to intermittent link failures. After you configure the Holdoff timer, ERPS performs topology switching only if the link failure still persists after the timer times out.

The Guard timer is used to prevent a device from receiving expired R-APS messages. When the device detects that a link failure is cleared, it sends link recovery packets and starts the Guard timer. Before the Guard timer expires, all packets except Flush packets indicating a subring topology change will be discarded.

The WTR timer is effective only for RPL owner nodes. It is used to avoid ring status misjudgment by the RPL owner node. When an RPL owner node detects that a failure is cleared, it will not perform topology switching immediately but only if the Ethernet ring is recovered after the WTR timer times out. If a ring failure is detected again before the timer expires, the RPL owner node cancels the timer and does not perform topology switching.

### Examples

The following example displays the default values of the ERPS timers before configuration in R-APS VLAN configuration mode.

```
Hostname> enable
Hostname# configure terminal
```



```

Hostname(config)# erps raps-vlan 4093
Hostname(config-erps 4093)# show erps
ERPS Information
Global Status           : Disabled
Link monitored by      : Not Oam
-----
R-APS VLAN              : 4093
Ring Status             : Disabled
West Port               : None
East Port               : None
RPL Port                : None
Protected VLANs        : None
RPL Owner               : Disabled
Holdoff Time            : 0 milliseconds
Guard Time              : 500 milliseconds
WTR Time                : 2 minutes
Current Ring State     : initialize
Associate R-APS VLAN   :

```

The following example configures the ERPS timers.

```

Hostname(config-erps 4093)# timer holdoff-time 10
Hostname(config-erps 4093)# timer guard-time 10
Hostname(config-erps 4093)# timer wtr-time 10

```

The example displays the configured values of the ERPS timers.

```

Hostname(config-erps 4093)#show erps
ERPS Information
Global Status           : Disabled
Link monitored by      : Not Oam
-----
R-APS VLAN              : 4093
Ring Status             : Disabled
West Port               : None
East Port               : None
RPL Port                : None
Protected VLANs        : None
RPL Owner               : Disabled
Holdoff Time            : 1000 milliseconds
Guard Time              : 100 milliseconds
WTR Time                : 10 minutes
Current Ring State     : initialize
Associate R-APS VLAN   :

```

### Notifications

N/A

### Common Errors

N/A

**Platform Description**

N/A

**Related Commands**

- [erps raps-vlan](#)