

# EAPS Configuration Commands

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# CHAPTER 1 EAPS CONFIGURATION COMMANDS

## 1.1. Global Commands

### 1.1.1. ether-ring

#### Syntax

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

**ether-ring id**

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

**no ether-ring id**

#### Parameter

Parameter	Description
<i>id</i>	ID of the node

#### Default value

By default, the ring node is not configured.

#### Command mode

Global configuration mode

#### Usage guidelines

STP should not be disabled before the configuration of node instance.

#### Example

```
S1_config#ether-ring 1
```

```
S1_config_ring1#
```

#### Related command

N/A.

### 1.1.2. control-vlan

#### Syntax

To set the control VLAN of the ring node, run the following command:

**control-vlan vlan-id**

#### Parameter

Parameter	Description
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<i>vlan-id</i>	ID of the control VLAN Value range: 1-4094
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### Default value

By default, the control VLAN of a node is not configured.

### Command mode

Node configuration mode for the Ethernet ring

### Usage guidelines

1. Any VLAN can be configured as the control VLAN of the node.
2. After the control VLAN and node types of the Ethernet ring are configured, you cannot modify the control VLAN even if the system exits from the Ethernet ring configuration mode because the Ethernet ring has already been started.

### Example

```
S1_config#ether-ring 1  
S1_config_ring1#control-vlan 2
```

### Related command

```
ether-ring  
master-node  
transit-node
```

## 1.1.3. master-node

### Syntax

To configure an Ethernet ring as a master node, run the following command:

```
master-node
```

### Parameter

N/A.

### Default value

By default, the node type is not configured.

### Command mode

Node configuration mode

### Usage guidelines

1. A node can be set to be a master node or a transit node.
2. After the control VLAN and node types of the Ethernet ring are configured, you cannot modify the control VLAN even if the system exits from the Ethernet ring configuration mode because the node of the Ethernet ring has already been started.

## Example

```
S1_config#ether-ring 1
S1_config_ring1#control-vlan 2
S1_config_ring1#master-node
```

## Related command

```
control-vlan
transit-node
```

### 1.1.4. transit-node

#### Syntax

Configures the node type to be a transit node.

**transit-node**

#### Parameter

N/A.

#### Default value

By default, the node type is not configured.

#### Command mode

Node configuration mode

#### Usage guidelines

1. A node can be set to be a master node or a transit node.
2. After the control VLAN and node types of the Ethernet ring are configured, you cannot modify the control VLAN even if the system exits from the Ethernet ring configuration mode because the node of the Ethernet ring has already been started.

## Example

```
S1_config#ether-ring 1
S1_config_ring1#control-vlan 2
S1_config_ring1#transit-node
```

## Related command

```
control-vlan
master-node
```

### 1.1.5. hello-time

#### Syntax

To configure the cycle for the master node to transmit the HEALTH packets of the Ethernet ring, run the following command:

**hello-time value**

To resume the default value of the cycle, run the following command:

**no hello-time**

#### Parameter

Parameter	Description
<i>value</i>	Stands for a time value, whose unit is second. The default value is one second. The value ranges between 1 and 10 seconds.

#### Default value

By default, the hello-time is one second.

#### Command mode

Node configuration mode for the Ethernet ring

#### Usage guidelines

1. The hello-time configuration validates only on the master node.
2. By default, the value of the hello-time is smaller than that of the fail-time, which avoids the Ethernet ring protocol from being shocked.

#### Example

```
S1_config#ether-ring 1
S1_config_ring1#control-vlan 2
S1_config_ring1#master-node
S1_config_ring1#hello-time 2
```

#### Related command

`fail-time`

#### 1.1.6. fail-time

##### Syntax

To configure the time cap of waiting for the HEALTH packets for the secondary port of the master node, run the following command:

**fail-time value**

To resume the default value of the fail-time, run the following command:

**no fail-time**

#### Parameter

Parameter	Description
-----------	-------------

<i>value</i>	Stands for a time value, whose unit is second. The default value is three seconds. The value ranges between 3 and 30 seconds.
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**Default value**

By default, the fail-time is 3 seconds.

**Command mode**

Node configuration mode for the Ethernet ring

**Usage guidelines**

1. The fail-time configuration validates only on the master node.
2. By default, the value of the fail-time is triple of the fail-time, which avoids the Ethernet ring protocol from being shocked.

**Example**

```
S1_config#ether-ring 1
S1_config_ring1#control-vlan 2
S1_config_ring1#master-node
S1_config_ring1#hello-time 2
S1_config_ring1#fail-time 6
```

**Related command**

`hello-time`

**1.1.7. pre-forward-time****Syntax**

Configures the time of maintaining the pre-forward state on the transit port.

**pre-forward-time value**

To resume the default value of the pre-forward-time, run the following command:

**no pre-forward-time****Parameter**

Parameter	Description
<i>value</i>	Stands for a time value, whose unit is second. The default value is three seconds. The value ranges between 3 and 30 seconds.

## Default value

By default, the pre-forward-time is 3 seconds.

## Command mode

Node configuration mode for the Ethernet ring

## Usage guidelines

1. The pre-forward-time configuration validates only on the transit node.
2. By default, the pre-forward-time on the transit node is three times the value of the hello-time on the master node, which avoids the network loop from being occurred after the transmission link recovers from disconnection. After the hello-time of the master node is modified, the corresponding pre-forward-time on the transit node need be adjusted.

## Example

```
S1_config#ether-ring 1
S1_config_ring1#control-vlan 2
S1_config_ring1#transit-node
S1_config_ring1#pre-forward-time 8
```

## Related command

N/A.

## 1.2. Port Configuration Commands

### 1.2.1. ether-ring primary-port

#### Syntax

To set a port to be the primary port of a master node, run the following command:

**ether-ring id primary-port**

To cancel the primary port configuration of a port, run the following command:

**no ether-ring id primary-port**

#### Parameter

Parameter	Description
<i>id</i>	ID of the node

#### Default value

The primary port is not configured by default.

#### Command mode

The physical port configuration mode and the converged port configuration mode



**Note:** The versions of switch software prior to version 2.0.1L and the versions of hi-end switch software prior to version 4.0.0M do not support the configuration of the converged port.

### Usage guidelines

The primary port can be configured only after the control VLAN and node type of the Ethernet ring are configured, and when the node type is the master node.

### Example

```
S1_config#interface GigaEthernet 0/1
S1_config_g0/1#ether-ring 1 primary-port
S1_config_g0/1#exit
```

### Related command

`master-node`

`ether-ring secondary-port`

## 1.2.2. ether-ring secondary-port

### Syntax

To set a port to be the secondary port of a master node, run the following command:

**ether-ring id secondary-port**

To cancel the secondary port configuration, run the following command:

**no ether-ring id secondary-port**

### Parameter

Parameter	Description
<i>id</i>	ID of the node

### Default value

The secondary port on the master node is not configured by default.

### Command mode

The physical port configuration mode and the converged port configuration mode

**Note:** The versions of switch software prior to version 2.0.1L and the versions of hi-end switch software prior to version 4.0.0M do not support the configuration of the converged port.

### Usage guidelines

The secondary port can be configured only after the control VLAN and node type of the Ethernet ring are configured, and when the node type must be the master node.

### Example

```
S1_config#interface GigaEthernet 0/3
S1_config_g0/3#ether-ring 1 secondary-port
S1_config_g0/3#exit
```

### Related command

```
master-node
```

```
ether-ring primary-port
```

### 1.2.3. ether-ring transit-port

#### Syntax

To set a port to be the transit port of a transit node, run the following command:

```
ether-ring id transit-port
```

To cancel the transit port, run the following command:

```
no ether-ring id transit-port
```

#### Parameter

Parameter	Description
<i>id</i>	ID of the node

#### Default value

The transit port on the transit node is not configured by default.

#### Command mode

The physical port configuration mode and the converged port configuration mode

**Note:** The versions of switch software prior to version 2.0.1L and the versions of hi-end switch software prior to version 4.0.0M do not support the configuration of the converged port.

#### Usage guidelines

The transit port can be configured only after the control VLAN and node type of the Ethernet ring are configured, and when the node type must be the transit node. Two transit ports can be configured on one transit node.

#### Example

```
S1_config_ring1#exit
S1_config#interface GigaEthernet 0/1
S1_config_g0/1#ether-ring 1 transit-port
S1_config_g0/1#exit
S1_config#interface GigaEthernet 0/3
```

```
S1_config_g0/3#ether-ring 1 transit-port
```

```
S1_config_g0/3#exit
```

### Related command

`transit-node`

## 1.3. Show

### 1.3.1. show ether-ring

#### Syntax

To display the summary information about the Ethernet-ring node, run the following command:

**show ether-ring id**

To display the detailed information about the Ethernet-ring node, run the following command:

**show ether-ring id detail**

To display the information about the Ethernet-ring port, run the following command:

**show ether-ring id interface intf-name**

To display the summary information about the Ethernet-ring node, run the following command:

**show ether-ring <cr>**

#### Parameter

Parameter	Description
<i>id</i>	ID of the node
<i>intf-name</i>	Name of an interface

#### Default value

N/A.

#### Command mode

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

#### Usage guidelines

N/A.

#### Example

N/A.

## Related command

N/A.