

EAPS Configuration Commands (GTL-2091)



Digital Data Communications GmbH, Germany.

<http://www.level1.com>

Table of Contents

Chapter 1 EAPS Configuration Commands.....	1
1.1 Global Commands	1
1.1.1 ether-ring	1
1.1.2 control-vlan	1
1.1.3 master-node	2
1.1.4 transit-node	3
1.1.5 hello-time	4
1.1.6 fail-time.....	5
1.1.7 pre-forward-time	6
1.2 Port Configuration Commands.....	7
1.2.1 ether-ring primary-port.....	7
1.2.2 ether-ring secondary-port	8
1.2.3 ether-ring transit-port.....	9
1.3 Show.....	10
1.3.1 show ether-ring.....	10

Chapter 1 EAPS Configuration Commands

1.1 Global Commands

1.1.1 ether-ring

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
id	ID of the node

Default value

By default, the ring node is not configured.

Command mode

Global configuration mode

Explanation

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

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

control-vlan *vlan-id*

Parameter

Parameter	Description
vlan-id	ID of the control VLAN Value range: 1-4094

Default value

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

Command mode

Node configuration mode for the Ethernet ring

Explanation

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

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

Explanation

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

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

Explanation

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

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
value	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

Explanation

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

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
value	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 fail-time is 3 seconds.

Command mode

Node configuration mode for the Ethernet ring

Explanation

1. The fail-time configuration validates only on the master node.

2. By default, the value of the fail-time is triple of the hello-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

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
value	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

Explanation

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

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
id	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.

Explanation

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

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
id	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.

Explanation

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

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
id	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.

Explanation

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

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
id	ID of the node
intf-name	Name of an interface

Default value

N/A.

Command mode

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

Explanation

N/A.

Example

N/A.

Related command

N/A.