ELPS Configuration Commands
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Chapter 1   ELPS Configuration Commands

1.1 Global Commands

1.1.1  `elps id`

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

    `elps id`

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

    `no elps id`

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>Stands for the node instance ID, which ranges from 0 to 7.</td>
</tr>
</tbody>
</table>

Default value

By default, the ELPS node instance is not configured.

Command mode

Global configuration mode

Explanation

N/A.

Example

    S1_config#elps 1
    S1_config_elps1#

Related command

N/A.
1.1.2 **working-vlanmap** *vlanmap*

To set the working vlan map of the ELPS node, run the following command:

```
working-vlanmap vlanmap
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>vlanmap</td>
<td>Stands for the VLAN range table (1-4094), which is similar with (1,3,5,7), (1,3-5,7) or (1-7).</td>
</tr>
</tbody>
</table>

**Default value**

By default, the working vlan map of a node is not configured.

**Command mode**

EPLS node configuration mode

**Explanation**

1. Configuring working VLAN does not mean creating this VLAN, so you have to establish the control VLAN manually.

2. After working-vlanmap, protection-mode, revertive-mode and detect-fault are configured, the ELPS configuration mode exits and the ELPS node is started, the working-vlanmap cannot be modified.

**Example**

```
S1_config#elps 1
S1_config_elps1#working-vlanmap 1-10
S1_config_elps1#
```

**Related command**

- `protection-mode {1plus1-bidirectional | 1plus1-unidirectional | 1to1-bidirectional}`
- `revertive-mode {revertive | nonrevertive}`
- `detect-fault {physical-port-check | continuity-check | both-check}`

1.1.3 **protection-mode** {1plus1-bidirectional | 1plus1-unidirectional | 1to1-bidirectional}

To set the protection mode of the ELPS node to be the 1plus1-bidirectional mode, run the following command:
**protection-mode 1plus1-bidirectional**

To set the protection mode of the ELPS node to be the 1plus1-unidirectional mode, run the following command:

```
protection-mode 1plus1-unidirectional
```

**protection-mode 1plus1-unidirectional**

To set the protection mode of the ELPS node to be the 1to1-bidirectional mode, run the following command:

```
protection-mode 1to1-bidirectional
```

Parameter

N/A.

Default value

By default, the ELPS node's protection mode is not configured.

Command mode

ELPS node configuration mode

Explanation

1. When the ELPS node's protection mode is set to **1plus1-bidirectional** or **1plus1-unidirectional**, the revertive mode of node is **non-revertive** by default; the protection mode is **1to1-bidirectional**, it is **revertive** by default.

2. After working-vlanmap, protection-mode, revertive-mode and detect-fault are configured, the ELPS configuration mode exits and the ELPS node is started, the working-vlanmap cannot be modified.

Example

```
S1_config#elps 1
S1_config_elps1#working-vlanmap 1-10
S1_config_elps1#protection-mode 1plus1-bidirectional
S1_config_elps1#
```

Related command

- **working-vlanmap vlanmap**
- **revertive-mode {revertive | nonrevertive}**
- **detect-fault {physical-port-check | continuity-check | both-check}**
1.1.4 revertive-mode {revertive | nonrevertive}

To set the mode of the ELPS to revertive, run the following command:

revertive-mode revertive

To set the mode of the ELPS to non-revertive, run the following command:

revertive-mode nonrevertive

Parameter

N/A.

Default value

By default, the ELPS node’s mode is not configured.

Command mode

ELPS node configuration mode

Explanation

1. When the ELPS node’s protection mode is set to 1plus1-bidirectional or 1plus1-unidirectional, the revertive mode of node is non-revertive by default; the protection mode is 1to1-bidirectional, it is revertive by default. The two cases change after the configuration of the revertive mode.

2. After working-vlanmap, protection-mode, revertive-mode and detect-fault are configured, the ELPS configuration mode exits and the ELPS node is started, the working-vlanmap cannot be modified.

Example

S1_config#elps 1
S1_config_elps1#working-vlanmap 1-10
S1_config_elps1#protection-mode 1plus1-bidirectional
S1_config_elps1#revertive-mode revertive
S1_config_elps1#
1.1.5 **detect-fault {physical-port-check| continuity-check | both-check}**

To set the trouble monitoring mode of the ELPS node to **physical-port-check**, run the following command:

```
detect-fault physical-port-check
```

To set the trouble monitoring mode of the ELPS node to **continuity-check**, run the following command:

```
detect-fault continuity-check
```

To set the trouble monitoring mode of the ELPS node to **both-check**, run the following command:

```
detect-fault both-check
```

**Default value**

By default, the ELPS node’s trouble monitoring mode is not configured.

**Command mode**

ELPS node configuration mode

**Explanation**

1. After working-vlanmap, protection-mode, revertive-mode and detect-fault are configured, the ELPS configuration mode exits and the ELPS node is started, the working-vlanmap cannot be modified.

**Example**

```
S1_config#elps 1
S1_config_elps1#working-vlanmap 1-10
S1_config_elps1#protection-mode 1plus1-bidirectional
S1_config_elps1#revertive-mode revertive
S1_config_elps1#detect-fault continuity-check
S1_config_elps1#
```

**Related command**

- **working-vlanmap vlanmap**
- **protection-mode {1plus1-bidirectional | 1plus1-unidirectional | 1to1-bidirectional}**
- **revertive-mode {revertive | nonrevertive}**
1.1.6 **WTR-time**

To set the WTR time of the ELPS node, run the following command:

`WTR-time value`

To resume the default WTR time of the ELPS node, run the following command:

`no WTR-time`

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>value</td>
<td>Stands for the WTR time, which ranges from 5 to 12 minutes. Its step is 1 minute and its default value is 5 minutes.</td>
</tr>
</tbody>
</table>

**Default value**

By default, the WTR-time is 5 minutes.

**Command mode**

ELPS node configuration mode

**Explanation**

N/A.

**Example**

```
S1_config#elps 1
S1_config_elps1#working-vlanmap 1-10
S1_config_elps1#protection-mode 1plus1-bidirectional
S1_config_elps1#revertive-mode revertive
S1_config_elps1#detect-fault continuity-check
S1_config_elps1#WTR-time 6
S1_config_elps1#
```

**Related command**

N/A

1.1.7 **hold-off-time**

To set the hold-off time of the ELPS node, run the following command:
**hold-off-time** *value*

To resume the default hold-off time of the ELPS node, run the following command:

```
no hold-off-time
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>value</td>
<td>Stands for the hold-off time, which ranges from 1 to 10 seconds. Its step is 100ms and its default value is 1 second.</td>
</tr>
</tbody>
</table>

**Default value**

By default, the hold-off time is one second.

**Command mode**

ELPS node configuration mode

**Explanation**

N/A.

**Example**

```
S1_config#elps 1
S1_config_elps1#working-vlanmap 1-10
S1_config_elps1#protection-mode 1plus1-bidirectional
S1_config_elps1#revertive-mode revertive
S1_config_elps1#detect-fault continuity-check
S1_config_elps1#hold-off-time 2
S1_config_elps1#
```

**Related command**

N/A

### 1.2 Port Configuration Commands

#### 1.2.1 **elps id {working-transport | protection-transport}**

To set a port where the ELPS working transport entity is located, run the following command:
elps \textit{id} \textit{working-transport}

To delete the ELPS working transport entity configuration on a port, run the following command:

\textbf{no elps \textit{id} \textit{working-transport}}

To set a port where the ELPS protection transport entity is located, run the following command:

\textbf{elps \textit{id} \textit{protection-transport}}

To delete the ELPS protection transport entity configuration on a port, run the following command:

\textbf{no elps \textit{id} \textit{protection-transport}}

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>ID of the node</td>
</tr>
</tbody>
</table>

Default value

No ELPS configuration exists on ports by default.

Command mode

The physical port configuration mode and the converged port configuration mode

Explanation

The port cannot be configured until \textit{working-vlanmap}, \textit{protection-mode}, \textit{revertive-mode} and \textit{default-fault} are all configured.

Example

S1\_config#interface GigaEthernet 0/1
S1\_config\_g0/1# elps 1 working-transport
S1\_config\_g0/1#exit

Related command

\textbf{elps \textit{id} \textit{mep} \textit{md} \textit{md-string} \textit{ma} \textit{ma-string} \textit{level} \textit{level-id} \textit{local} \textit{local-id} \textit{remote} \textit{remote-id}}
1.2.2  

```
elps id mep md md-string ma ma-string level level-id local local-id remote remote-id
```

To set the MEP information about the ELPS port, run the following command:

```
elps id mep md md-string ma ma-string level level-id local local-id remote remote-id
```

To delete the MEP information about the ELPS port, run the following command:

```
no elps id mep
```

**Parameter**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>ID of the node</td>
</tr>
<tr>
<td>md-string</td>
<td>MEP maintenance domain</td>
</tr>
<tr>
<td>ma-string</td>
<td>MEP maintenance link</td>
</tr>
<tr>
<td>level-id</td>
<td>MEP level</td>
</tr>
<tr>
<td>local-id</td>
<td>Local MEP ID</td>
</tr>
<tr>
<td>remote-id</td>
<td>Remote MEP ID</td>
</tr>
</tbody>
</table>

**Default value**

No MEP information exists on ports by default.

**Command mode**

The physical port configuration mode and the converged port configuration mode

**Explanation**

The port cannot be configured until working-vlanmap, protection-mode, revertive-mode and default-fault, transport entity of the ELPS port are all configured.

**Example**

```
S1_config#interface GigaEthernet 0/1
S1_config_g0/1#elps 1 working-transport
S1_config_g0/1#elps 1 mep md x ma x level 1 local 1 remote 2
S1_config_g0/1#exit
```

**Related command**

```
elps id {working-transport | protection-transport}
```
1.3 Control Commands

1.3.1 `elps id LockOut`

To set the protection lockout of ELPS, run the following command:

`elps id LockOut`

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>ID of the node</td>
</tr>
</tbody>
</table>

Default value

N/A.

Command mode

Monitoring mode

Explanation

N/A.

Example

N/A.

Related command

`elps id ForcedSwitch`
`elps id ManualSwitch`
`elps id ManualSwitch-Working`
`elps id Exercise`
`elps id CLEAR`
1.3.2  **elps id ForcedSwitch**

To set the forced switching operation of ELPS, run the following command:

```
elps id ForcedSwitch
```

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>ID of the node</td>
</tr>
</tbody>
</table>

Default value

N/A.

Command mode

Monitoring mode

Explanation

N/A.

Example

N/A.

Related command

- **elps id LockOut**
- **elps id ManualSwitch**
- **elps id ManualSwitch-Working**
- **elps id Exercise**
- **elps id CLEAR**

1.3.3  **elps id ManualSwitch**

To set the manual switching operation of ELPS, run the following command:

```
elps id ManualSwitch
```
Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>ID of the node</td>
</tr>
</tbody>
</table>

Default value

N/A.

Command mode

Monitoring mode

Explanation

N/A.

Example

N/A.

Related command

elpid LockOut
elpid ForcedSwitch
elpid ManualSwitch-Working
elpid Exercise
elpid CLEAR

1.3.4  *eld pid ManualSwitch-Working*

To switch to the working entity of ELPS manually, run the following command:

elpid ManualSwitch-Working

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>ID of the node</td>
</tr>
</tbody>
</table>
ELPS Configuration Commands

Default value

N/A.

Command mode

Monitoring mode

Explanation

N/A.

Example

N/A.

Related command

elps id LockOut
elps id ForcedSwitch
elps id ManualSwitch
elps id Exercise
elps id CLEAR

1.3.5  elsps id Exercise

To set the exercise operation of ELPS, run the following command:

elps id Exercise

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>ID of the node</td>
</tr>
</tbody>
</table>

Default value

N/A.
ELPS Configuration Commands

Command mode

Monitoring mode

Explanation

N/A.

Example

N/A.

Related command

- elps id LockOut
- elps id ForcedSwitch
- elps id ManualSwitch
- elps id ManualSwitch-Working
- elps id CLEAR

1.3.6 elps id CLEAR

To clear the control command of ELPS, run the following command:

elp id CLEAR

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>ID of the node</td>
</tr>
</tbody>
</table>

Default value

N/A.

Command mode

Monitoring mode
ELPS Configuration Commands

Explanation

N/A.

Example

N/A.

Related command

elps id LockOut
elps id ForcedSwitch
elps id ManualSwitch
elps id ManualSwitch-Working
elps id Exercise

1.4 Show

1.4.1 show elps

To display the summary information about the ELPS node, run the following command:

show elps id

To display the detailed information about the ELPS node, run the following command:

show elps id detail

To display the information about the ELPS port, run the following command:

show elps id interface intf-name

To display the summary information about all ELPS nodes, run the following command:

show elps

Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>ID of the node</td>
</tr>
<tr>
<td>intf-name</td>
<td>Name of an interface</td>
</tr>
</tbody>
</table>
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.