OLT Port Configuration

channel-group group_id

To configure the aggregation group ID, use the **channel-group** *channel_group_id* command in global configuration mode. To disable the aggregation group ID, use the **no channel-group** *channel_group_id* command.

channel-group *channel_group_id*

no channel-group *channel_group_id*

Syntax Description

channel_group_id	The channel group ID. The range is 0-5.

Command Modes

Global configuration (config)

Examples

This example shows how to configure the aggregation group ID

```
Device> enable
Device# configure terminal
Device(config)# channel-group 4
```

channel-group load-balance

To configure a load balance policy, use the **channel-group load-balance** command in global configuration mode. To disable a load balance policy, use the **no channel-group load-balance** form of this command.

channel-group load-balance {**dst-ip** | **dst-mac** | **src-dst-ip** | **src-dst-mac** | **src-ip** | **src-mac**}

no channel-group load-balance

Syntax Description

dst-ip	Configures the load balance policy based on destination IP.
dst-mac	Configures the load balance policy based on destination MAC.
src-dst-ip	Configures the load balance policy based on source and destination IP.
src-dst-mac	Configures the load balance policy based on source and destination MAC.
src-ip	Configures the load balance policy based on source IP.
src-mac	Configures the load balance policy based on source MAC.

Command Modes

Global configuration (config)

Examples

This example shows how to configure a load balance policy based on source MAC.

```
Device> enable
Device# configure terminal
Device(config)# channel-group load-balance src-mac
```

channel-group group_id mode

To add a port to an aggregation group, use the **channel-group** *channel_group_id* **mode** command in interface configuration mode. To disable the aggregation group ID, use the **no channel-group** *channel_group_id* **mode** command.

channel-group *channel_group_id* **mode** {**on** | **active** | **passive**}

no channel-group *channel_group_id* **mode**

Syntax Description

channel_group_id	The channel group ID. The range is 0-5.
on	Configures the LACP static mode.
active	Configures the LACP active mode
passive	Configures the LACP passive mode

Command Modes

Interface configuration (config-if)

Examples

This example shows how to add a port to an aggregation group.

```
Device> enable
Device# configure terminal
Device(config)# interface ethernet 1/1
Device(config-if-ethernet-1/1)# channel-group 2 mode active
```

clear channel-group

To clear the LACP statistical information, use the **clear channel-group** *channel_group_id* command in global configuration mode.

clear channel-group [*channel_group_id*]

Syntax Description

channel_group_id	The channel group ID. The range is 0-5.

Command Modes

Global configuration (config)

Examples

This example shows how to clear the LACP statistical information.

```
Device> enable
Device# configure terminal
Device(config)# clear channel-group
Clear channel group statistics information record successfully.
```

clear interface

To clear interface statistics information, use the **clear interface** command in global configuration mode.

clear interface {*slot-number* | **ethernet** *slot-number/port-number* | **gpon** *slot-number/port-number* }

Syntax Description

slot-number	The slot number. The range is from 0 to 3.
slot-number/port-number	The port ID. • *slot-number*: • GPON: The value is 0. • GE Ethernet: The value is 1. • 10GE Ethernet: The value is 2. • *port-number*: • GPON: The range is from 1 to 8. • GE Ethernet: The range is from 1 to 4. • 10GE Ethernet: The range is from 1 to 2.

Command Modes

Global configuration (config)

Examples

This example shows how to clear interface statistics information

```
Device> enable
Device# configure terminal
Device(config)# clear interface ethernet 0/1
clear ports statistics information record successfully.
```

interface range ethernet

To configure port mode in bulk, use the **interface range ethernet** command in interface configuration mode.

interface range ethernet *slot-number/port-number* **to ethernet** *slot-number/port-number*

Syntax Description

slot-number/port-number	The port ID. • *slot-number*: • GPON: The value is 0. • GE Ethernet: The value is 1. • 10GE Ethernet: The value is 2. • *port-number*: • GPON: The range is from 1 to 8. • GE Ethernet: The range is from 1 to 4. • 10GE Ethernet: The range is from 1 to 2.

Command Modes

Interface configuration (config-if)

Examples

This example shows how to configure port mode in bulk

```
Device> enable
Device# configure terminal
Device(config)# interface ethernet 1/1
Device(config-if-ethernet-1/1)# interface range ethernet 1/1 to ethernet 1/4
Device(config-if-range)#
```

lacp port-priority

To configure port priority, use the **lacp port-priority** command in interface configuration mode. To disable port priority, use the **no lacp port-priority** command.

lacp port-priority *priority_value*

no lacp port-priority

Syntax Description

priority_value	The priority value. The range is from 1 to 65535.

Command Modes

Interface configuration (config-if)

Examples

This example shows how to configure port priority.

```
Device> enable
Device# configure terminal
Device(config)# interface ethernet 1/1
Device(config-if-ethernet-1/1)# lacp port-priority 8
```

lacp system-priority

To configure system priority, use the **lacp system-priority** command in global configuration mode. To disable port priority, use the **no lacp system-priority** command.

lacp system-priority *priority_value*

no lacp system-priority

Syntax Description

priority_value	The priority value. The range is from 1 to 65535.

Command Modes

Global configuration (config)

Examples

This example shows how to configure the system priority.

```
Device> enable
Device# configure terminal
Device(config)# lacp system-priority 3
```

port-control mode master

To configure the master mode, use the **port-control mode master** command in interface configuration mode. To disable the master mode, use the **no port-control mode** command.

port-control mode master
no port-control mode

Command Modes

Interface configuration (config-if)

Examples

This example shows how to configure the master mode.

```
Device> enable
Device# configure terminal
Device(config)# interface ethernet 1/1
Device(config-if-ethernet-1/1)# port-control mode master
```

port-control mode slave

To configure the master slave, use the **port-control mode slave** command in interface configuration mode. To disable the master mode, use the **no port-control mode** command.

port-control mode slave
no port-control mode

Command Modes

Interface configuration (config-if)

Examples

This example shows how to configure the master mode.

```
Device> enable
Device# configure terminal
Device(config)# interface ethernet 1/1
Device(config-if-ethernet-1/1)# port-control mode slave
```

port-isolation

To configure port isolation, use the **port-isolation** command in global configuration mode. To disable port isolation, use the **no port-isolation** command.

port-isolation ethernet *slot-number/port-number*

no port-isolation ethernet *slot-number/port-number*

Syntax Description

slot-number/port-number	The port ID. • *slot-number*: • GPON: The value is 0. • GE Ethernet: The value is 1. • 10GE Ethernet: The value is 2. • *port-number*: • GPON: The range is from 1 to 8. • GE Ethernet: The range is from 1 to 4. • 10GE Ethernet: The range is from 1 to 2.

Command Modes

Global configuration (config)

Examples

This example shows how to configure port isolation.

```
Device> enable
Device# configure terminal
Device(config)# port-isolation ethernet 1/1
Add port isolation downlink port successfully.
```

Related Commands

Command	Description
show port-isolation	Displays the isolation port

port-rate-statistics interval

To configure port interface statistic interval, use the **port-rate-statistics interval** *value* command in global configuration mode. To restore the default value, use the **no** form of this command.

port-rate-statistics interval *value*

no port-rate-statistics interval

Syntax Description

value	The time interval range. The range is from 1 to 5. The unit is minutes. The default is 5.

Command Modes

Global configuration (config)

Examples

This example shows how to configure port interface statistic interval.

```
Device> enable
Device# configure terminal
Device(config)# port-rate-statistics interval 3
Port rate statistics interval has been changed, and will
restart calculating port average rate!
```

psg group-id force-switch

To force a port changeover, use the **psg** *group-id* **force-switch** command in global configuration mode

psg *group-id* **force-switch**

Syntax Description

group-id	The protection switch group ID. The range is 0 to 7.

Command Modes

Global configuration (config)

Examples

This example shows how to force a switch changeover.

```
Device> enable
Device# configure terminal
Device(config)# psg 1 type-b primary interface gpon 0/3 secondary interface gpon 0/1
Config success.
Device(config)# psg 1 force-switch
Switch success.
```

psg group-id type-b

To configure a protection switch group, use the **psg** *group-id* **type-b interface gpon** *slot-number/port-number* **secondary interface gpon** *slot-number/port-number* command in global configuration mode. To remove the protection switch group, use the **no psg** *group-id* command.

psg *group-id* **type-b interface gpon** *slot-number/port-number* **secondary interface gpon** *slot-number/port-number*
no psg *group-id*

Syntax Description

group-id	The protection switch group ID. The range is from 0 to 7.
slot-number/port-number	• *slot-number*: The GPON slot number. The value is 0. • *port-number*: The GPON port number. The range is from 1 to 8.

Command Modes

Global configuration (config)

Examples

This example shows how to configure a protection switch group.

```
Device> enable
Device# configure terminal
Device(config)# psg 1 type-b primary interface gpon 0/3 secondary interface gpon 0/1
Config success.
```

show description

To display the interface description, use the **show description** command in privileged EXEC or global configuration mode.

show description interface ethernet *slot-number/port-number*

Syntax Description

slot-number/port-number	The port ID. • *slot-number*: • GPON: The value is 0. • GE Ethernet: The value is 1. • 10GE Ethernet: The value is 2. • *port-number*: • GPON: The range is from 1 to 8. • GE Ethernet: The range is from 1 to 4. • 10GE Ethernet: The range is from 1 to 2.

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the interface description.

```
Device> enable
Device# configure terminal
Device(config)# show description interface ethernet 1/1
Port     description
e1/1     text
Total entries: 1.
```

show interface sfp

To display information about SFP parameters, use the **show interface sfp** command in privileged EXEC or global configuration mode.

show interface sfp {**ethernet** | **gpon** }*slot-number/port-number*

Syntax Description

slot-number/port-number	The port ID. • *slot-number*: • GPON: The value is 0. • GE Ethernet: The value is 1. • 10GE Ethernet: The value is 2. • *port-number*: • GPON: The range is from 1 to 8. • GE Ethernet: The range is from 1 to 4. • 10GE Ethernet: The range is from 1 to 2.

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the information about SFP parameters

```
Device> enable
Device# configure terminal
Device(config)# show interface sfp ethernet 1/1
```

show lacp internal

To display information of the aggregation group, use the **show lacp internal** command in privileged EXEC or global configuration mode.

show lacp internal [*channel_group_id*]

Syntax Description

channel_group_id	The channel group ID. The range is from 0 to 5.

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view information about the aggregation group.

```
Device> enable
Device# configure terminal
Device(config)# show lacp internal
Load balance: dst-ip

Channel: 2, static channel
Port   State   A-Key  O-Key  Priority   Logic-port   Actor-state
e1/1   down    -      -      -          9            -

Channel: 4, dynamic channel
Port   State   A-Key  O-Key  Priority   Logic-port   Actor-state

actor-state: activity/timeout/aggregation/synchronization
             collecting/distributing/defaulted/expired
```

show lacp neighbor

To display the neighbor information of the aggregation group, use the **show lacp neighbor** command in privileged EXEC or global configuration mode.

show lacp neighbor [*channel_group_id*]

Syntax Description

channel_group_id	The channel group ID. The range is from 0 to 5.

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the neighbor information of the aggregation group

```
Device> enable
Device# configure terminal
Device(config)# show lacp neighbor

Channel: 4
Local  Port   Key   Pri    ID          Timeout    Nei-state

nei-state: activity/timeout/aggregation/synchronization
           collecting/distributing/defaulted/expired
```

show lacp sys-id

To display the system priority configuration, use the **show lacp sys-id** command in privileged EXEC or global configuration mode.

show lacp sys-id

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the system priority configuration.

```
Device> enable
Device# configure terminal
Device(config)# show lacp sys-id

3,000a5a9b1815
```

show port-control mode

To display the configured port-control mode, use the **show port-control mode** command in privileged EXEC or global configuration mode.

show port-control mode

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the configured port-control mode.

```
Device> enable
Device# configure terminal
Device(config)# show port-control mode
port   negotiate-flag  port-control-mode
e1/1   enable          auto
e1/2   enable          auto
e1/3   enable          auto
e1/4   enable          auto
```

show port-isolation

To display the isolation port, use the **show port-isolation** command in privileged EXEC or global configuration mode.

show port-isolation

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view isolation port configuration.

```
Device> enable
Device# configure terminal
Device(config)# show port-isolation
Port isolation downlink port :
e1/2-e1/4.
```

Related Commands

Command	Description
port-isolation	Configures port isolation

show psg

To display the protection switch group configurations, use the **show psg** *group-id* command in privileged EXEC or global configuration mode.

show psg { *group-id* | **all** }

Syntax Description

group-id	The protection switch group ID. The range is from 0 to 7.
all	All protection switch groups

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to configure a protection switch group.

```
Device> enable
Device# configure terminal
Device(config)# show psg 0
GroupID   Member  Role      State
0         0/1     PRIMARY   WORKING
          0/2     SECONDARY STANDBY
Total: 1.
```

show statistics interface ethernet

To display the port rate statistics information, use the **show statistics interface** command in privileged EXEC or global configuration mode.

show statistics interface ethernet *slot-number/port-number*

Syntax Description

slot-number/port-number	The port ID. • *slot-number*: • GPON: The value is 0. • GE Ethernet: The value is 1. • 10GE Ethernet: The value is 2. • *port-number*: • GPON: The range is from 1 to 8. • GE Ethernet: The range is from 1 to 4. • 10GE Ethernet: The range is from 1 to 2.

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the port rate statistics information.

```
evice> enable
Device# configure terminal
Device(config)# show statistics interface ethernet 1/3
Port number  :  e1/3
last 5 minutes input rate 24784 bits/sec, 37 packets/sec
last 5 minutes output rate 1120 bits/sec, 1 packets/sec
64 byte packets:455394067
65-127 byte packets:302514090
128-255 byte packets:17535520
256-511 byte packets:20599116
512-1023 byte packets:4737262
1024-1518 byte packets:475868
788888610 packets input, 69778227468 bytes , 312945536 discarded packets
18800297 unicasts, 270957185 multicasts, 499131128 broadcasts
0 input errors, 0 FCS error, 0 symbol error, 0 false carrier
0 runts, 0 giants
12367313 packets output, 1245119790 bytes, 256 discarded packets
8303627 unicasts, 3620977 multicasts, 442709 broadcasts
0 output errors, 0 deferred, 0 collisions
0 late collisions
Total entries: 1.
```

show statistics

To display port rate statistics information, use the **show statistics interface ethernet** command in privileged EXEC or global configuration mode.

show statistics interface ethernet *slot-number/port-number*

Syntax Description

slot-number/port-number	The port ID. • *slot-number*: • GPON: The value is 0. • GE Ethernet: The value is 1. • 10GE Ethernet: The value is 2. • *port-number*: • GPON: The range is from 1 to 8. • GE Ethernet: The range is from 1 to 4. • 10GE Ethernet: The range is from 1 to 2.

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example show how to view the port rate statistics information.

```
Device> enable
Device# configure terminal
Device(config)# show statistics interface ethernet 1/1
Port number  :  e1/1
last 5 minutes input rate 0 bits/sec, 0 packets/sec
last 5 minutes output rate 0 bits/sec, 0 packets/sec
64 byte packets:0
65-127 byte packets:0
128-255 byte packets:0
256-511 byte packets:0
512-1023 byte packets:0
1024-1518 byte packets:0
0 packets input, 0 bytes , 0 discarded packets
0 unicasts, 0 multicasts, 0 broadcasts
0 input errors, 0 FCS error, 0 symbol error, 0 false carrier
0 runts, 0 giants
0 packets output, 0 bytes, 0 discarded packets
0 unicasts, 0 multicasts, 0 broadcasts
0 output errors, 0 deferred, 0 collisions
0 late collisions
Total entries: 1.
```

show statistics channel-group

To display LACP statistical information, use the **show statistics channel-group** command in privileged EXEC or global configuration mode.

show statistics channel-group [*channel_group_id*]

Syntax Description

channel_group_id	The channel group ID. The range is from 0 to 5.

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the LACP statistical information

```
Device> enable
Device# configure terminal
Device(config)# show statistics channel-group
Channel group : 2
last 5 minutes input rate 0 bits/sec, 0 packets/sec
last 5 minutes output rate 0 bits/sec, 0 packets/sec
64 byte packets:0
65-127 byte packets:0
128-255 byte packets:0
256-511 byte packets:0
512-1023 byte packets:0
1024-1518 byte packets:0
0 packets input, 0 bytes , 0 discarded packets
0 unicasts, 0 multicasts, 0 broadcasts
0 input errors, 0 FCS error, 0 symbol error, 0 false carrier
0 runts, 0 giants
0 packets output, 0 bytes, 0 discarded packets
0 unicasts, 0 multicasts, 0 broadcasts
0 output errors, 0 deferred, 0 collisions
0 late collisions

Channel group : 4

This channel group does not include any ports!


Total entries: 2.
```

show statistics dynamic interface

To display the real-time statistic information of an interface, use the **show statistics dynamic interface** command in privileged EXEC or global configuration mode.

show statistics dynamic interface

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the real-time statistic information of an interface.

```
Device> enable
Device# configure terminal
Device(config)# show statistics dynamic interface
Port Statistics        Sun Dec 9 17:40:29 2001
port  link   Tx Pkt    Tx Byte     Rx Pkt    Rx Byte     Rx        Rx
      Status Count     Count       Count     Count       Bcast     Mcast
================================================================================
g0/1    up   1427776E3 122120178E3 3230173   579417376   279481    171727
g0/2    down 0         0           0         0           0         0
g0/3    down 0         0           0         0           0         0
g0/4    down 0         0           0         0           0         0
g0/5    down 0         0           0         0           0         0
g0/6    down 0         0           0         0           0         0
g0/7    down 0         0           0         0           0         0
g0/8    down 0         0           0         0           0         0
e1/1    down 0         0           0         0           0         0
e1/2    down 0         0           0         0           0         0
e1/3    up   12366419  1245034896  788871832 69776674248 499122592 270949818
e1/4    down 2         210         4         256         0         4
e2/1    down 0         0           0         0           0         0
e2/2    down 0         0           0         0           0         0
==============0->Clear Counters U->page up D->page down CR->exit==============

Notes:If you see a E number, you can use the command "line width" to get more
information.
```

show utilization interface

To display the interface utilization, use the **show utilization interface** command in privileged EXEC or global configuration mode.

show utilization interface

Command Modes

Privileged EXEC (#)

Global configuration (config)

Examples

This example shows how to view the interface utilization.

```
Device> enable
Device# configure terminal
Device(config)# show utilization interface
Link Utilization Averages           Tue Dec 4 19:06:53 2001
port  link    Receive   Peak Rx   Transmit  Peak Tx
      Status  pkts/sec  pkts/sec  pkts/sec  pkts/sec
================================================================
g0/1  up      0         0         16        16
g0/2  down    0         0         0         0
g0/3  down    0         0         0         0
g0/4  down    0         0         0         0
g0/5  down    0         0         0         0
g0/6  down    0         0         0         0
g0/7  down    0         0         0         0
g0/8  down    0         0         0         0
e1/1  down    0         0         0         0
e1/2  down    0         0         0         0
e1/3  up      37        37        2         2
e1/4  down    0         0         0         0
e2/1  down    0         0         0         0
e2/2  down    0         0         0         0
=====spacebar->toggle screen U->page up D->page down CR->exit=====
```

speed

To configure the interface speed, use the **speed** command in interface configuration mode. To disable the interface speed, use the **no speed** command.

speed {**1000** | **10000** | **auto**}

no speed

Syntax Description

1000	Port speed is 1000Mbps
10000	Port speed is 10000Mbps
auto	Port speed is automatic

Command Modes

Interface configuration (config-if)

Examples

This example shows how to configure the interface speed

```
Device> enable
Device# configure terminal
Device(config)# interface ethernet 1/1
Device(config-if-ethernet-1/1)# speed 1000
```