GEPON 4/8 PON OLT

Web user manual

Version R1.0

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1 About the user manual

This user manual introduce WEB configuration based on 4/8 PON OLT

1.1 Manual conventions

Different striking signs are used in the user manual to indicate where special attention is required during operation. Below is the meaning of those signs.

signs	meaning
	Warning/attention Remind matters need pay attention to during operation.
	Instructions \ prompts Make necessary additions and instructions to the description of operations to avoid repeating common errors.

1- 1 Symbol convention

format	meanings
Bold	Boldface represent the window name, menu name, button name and different variable input and Settings in graphical interface. Click “revise” access to “revise basic configuration” interface.
>	Simple operation step concatenations. For example, open Start > control panel > network connections successively.
Courier	Courier font text represents input result of the command and command line. for example: #Ping -t 192.168.0.1

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<...>	<…> represents key press. For example, press <Ctrl> + <Alt> + <Delete> simultaneous will access to task manager Window.

Table 1- 2 graphic interface convention

The Illustration and relevant parameters in user manual is just a reference for guiding you how to config and use the device. There may some slightly difference, so please config the device according to actual situations.

2 Configuration and preparation

Before login config interface, please confirm the followings.

- The computer used for management have installed Ethernet card.
- To achieve the best display, suggest use Microsoft IE explore (9.0 or 9.0+ version) and make sure the resolution of the displayer is 1024 x 768.

2.1 **config computer IP**

When config device defaults, the steps are as follows (take windows 7 for example):

1. click <**start**> button at lower left corner of the screen to enter **start menu** and choose <**control panel**>. Then click <**network**

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status> and<taste icon>, double click <**local connection** > icon at the same time. Local connection status window will come out as photo.

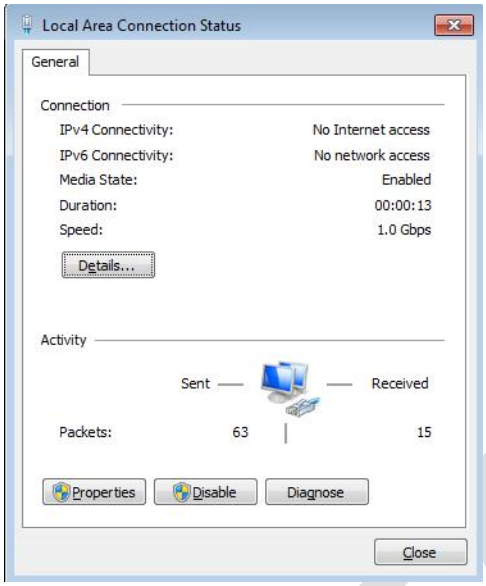

Figure 2- 1 Local connection status

2. click the < **property** > button to enter the l**ocal connection properties** window as below photo.

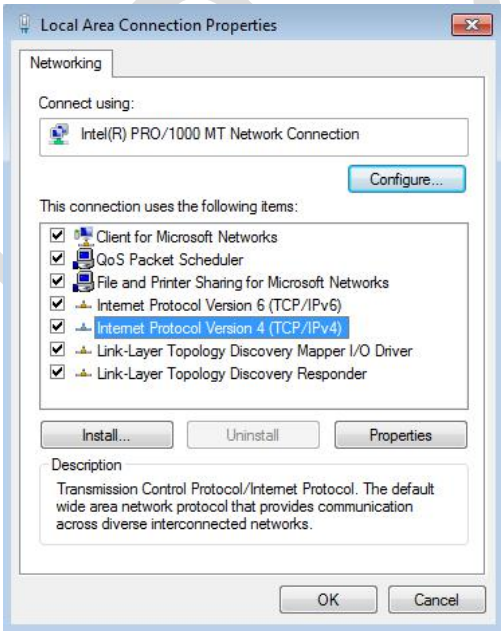

Figure 2- 2 local connection properties

3. choose internet protocol version 4（TCP/IPv4）, click <property> button

to enter internet protocol(TCP/IP property)window. Input IP address (choose any value in 192.168.1.1-192.168.1.99

and 192.168.1.101-192.168.1.254) and subnet mask (255.255.255.0), click confirm button.

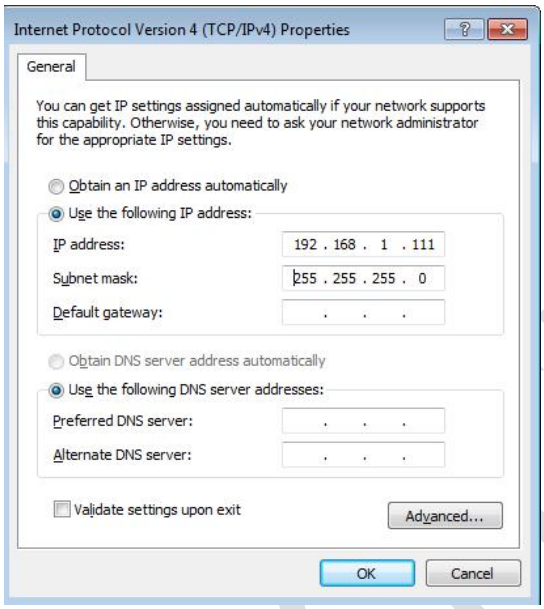

Figure 2- 3 Internet protocol（TCP/IP property）

2.2 Check network

Check network between computer and OLT as below tow steps：

1. click <start> button at lower left corner of the screen, choose <run>,A dialog box appears as below:

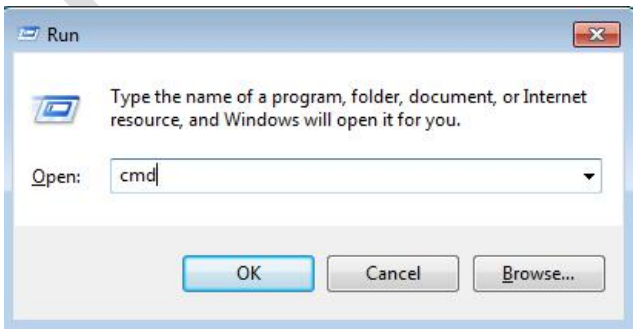

Figure 2- 4 run window

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2. Input ping 192.168.1.100 (use the IP address configured on OLT before), then click enter key. If dialog box appear below response, it means network is connected. Or please check network connection.

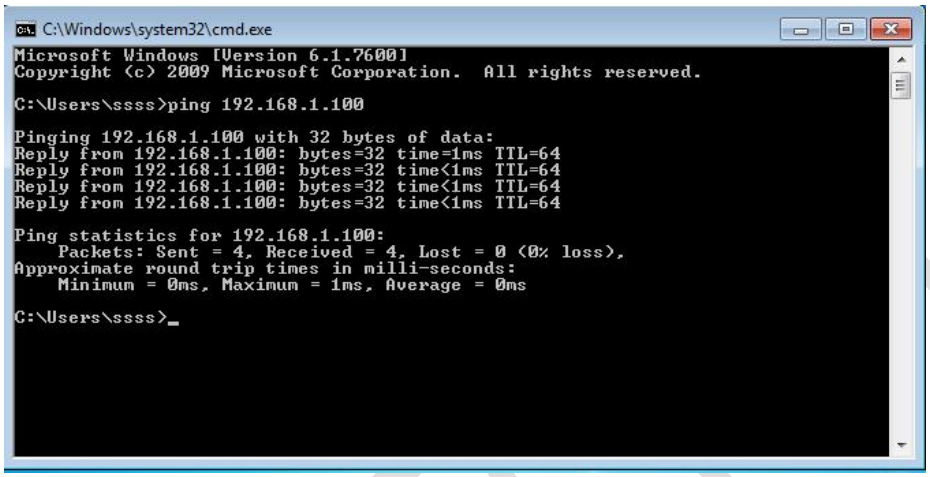

Figure 2- 5 Ping command

2.3 Login EPON OLT

1. input OLT management IP in address bar with IE explore (OLT IP address 192.168.1.100 by default)

2. input user name and password at login interface (OLT user name and password are both admin by default), click< login>, then you will enter OLT web management interface.

Figure 2- 6 OLT web login interface

3 . WEB Configuration

3.1 Basic information

Web configuration of 4/8 PON OLT is divided into two parts: menu bar and configuration area. Click menu item in menu bar to enter corresponding configuration page, config what you need at configuration area and check device status or config information at the same time.

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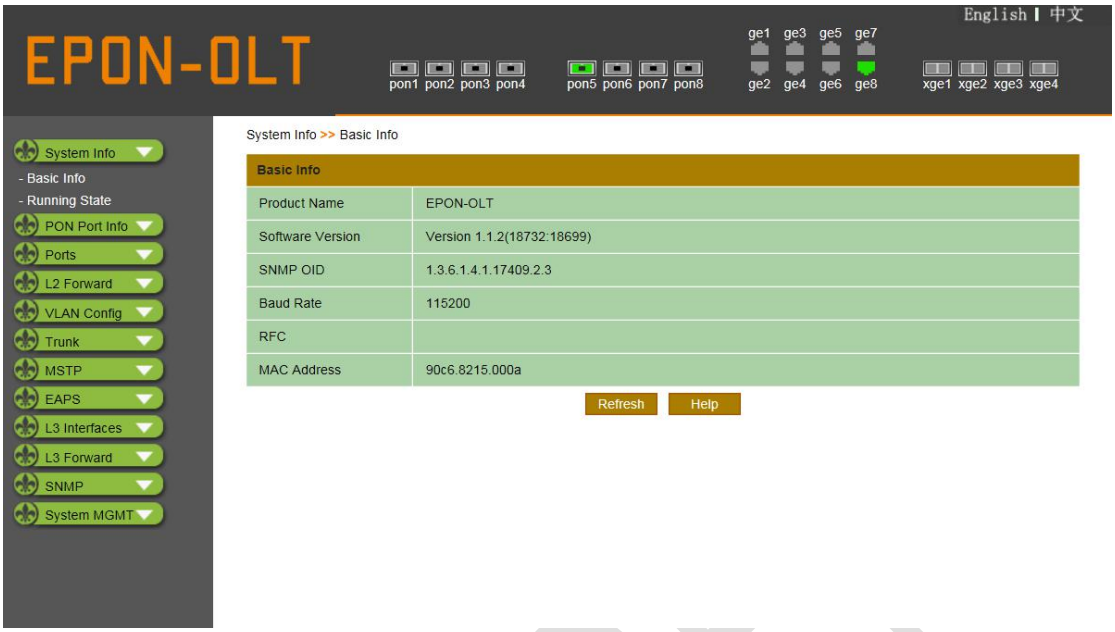

Figure 3- 1 Web configuration page

3.2 system information

Click **system information** at menu bar to check **basic information** (item name, version etc) and **run information** (CPU and memory status).

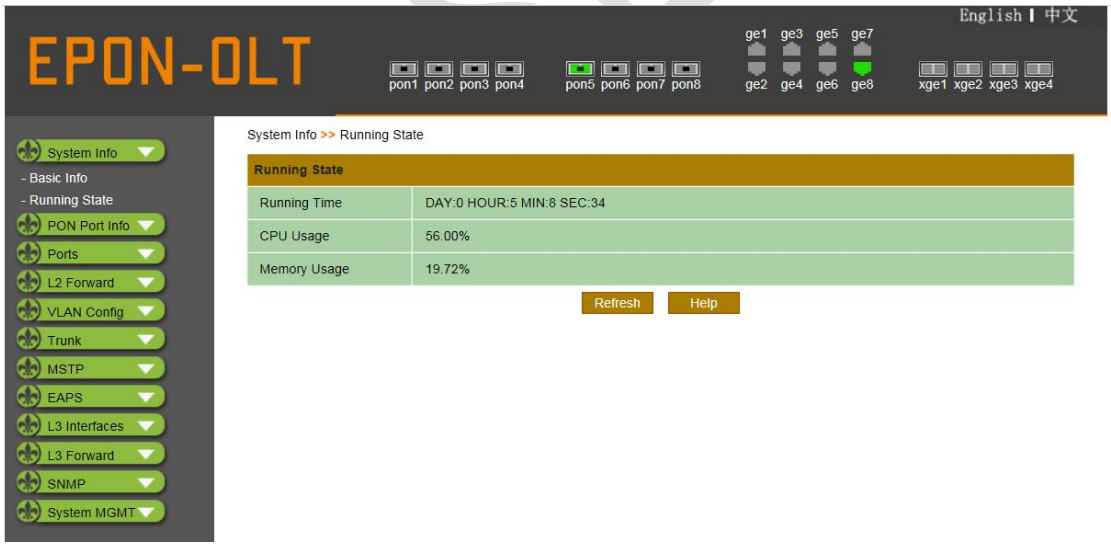

Figure 3- 2 run information

3.3 ONU MGMT

3.3.1 ONU Information

Click **ONU MGMT** >**PON5** (can only manage online PON port), you can check and configure ONU information, ONU registration information, ONU capability set.

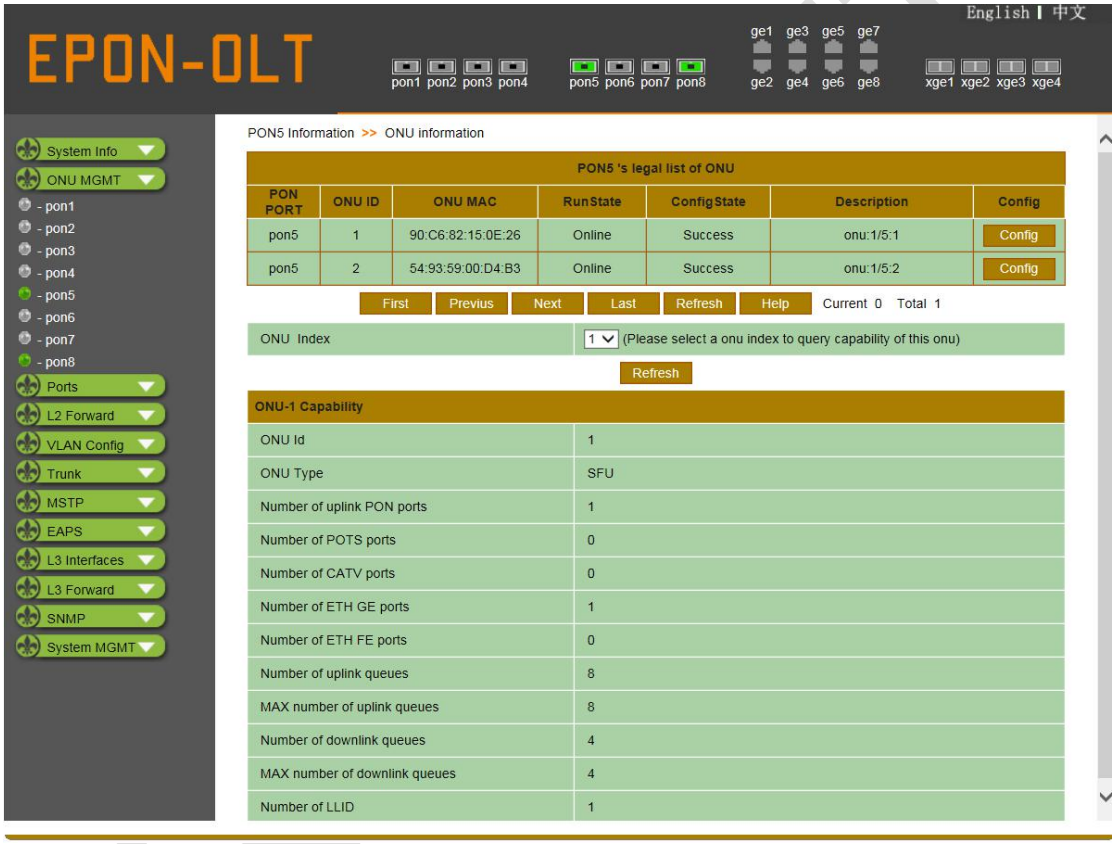

Figure 3- 3 ONU Management

3.3.2 ONU management and configuration

Click **config** under the ONU registration list, which can be used to config ONU description, VLAN etc.

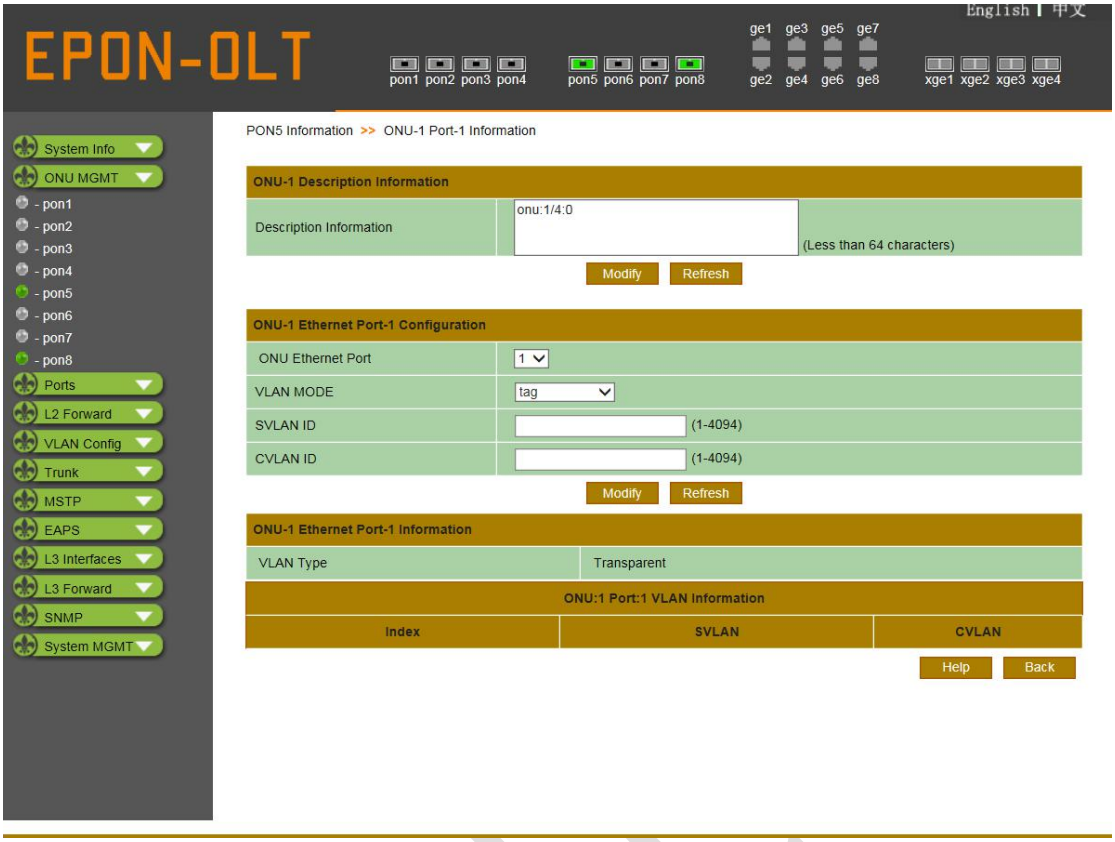

Figure 3- 4 ONU information

3.4 L2 interface

3.4.1 Port management

Click **Port>port setting**, you can revise some properties. Such as enable/disable port, port rate, enable/disable flow control, Jumbo frame, port description etc. click <**Modify**>to save.

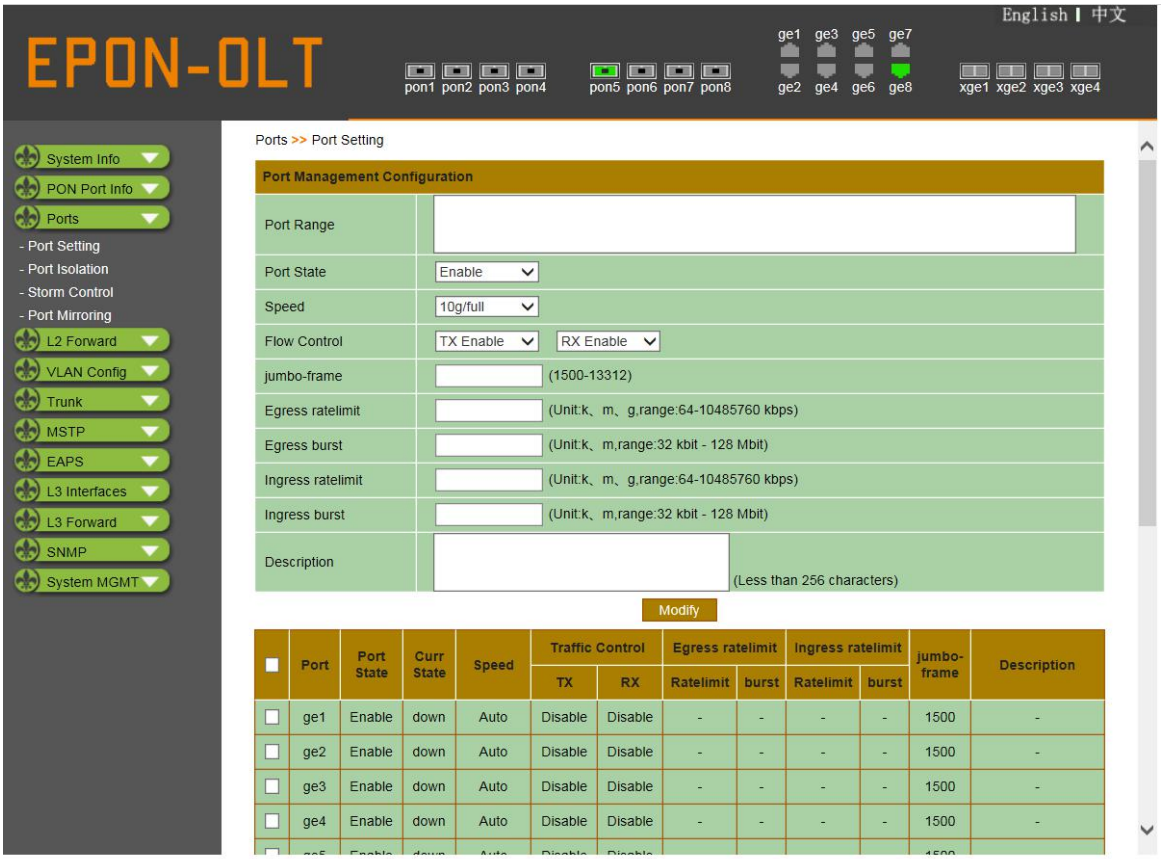

Figure 3- 5 port management

interface	Description
Port range	choose L2 port which need modify property
Port enable	open/close port state
Port rate	Set port duplex state and port rate
Flow control	enable/disable port flow congestion control
Jumbo frame	set L2 port jumbo-frame value (1550 by default)
egress rate-limiting	maximum actual forwarding speed of egress port
egress burst	The maximum number of frames for egress port in a burst transmission

ingress rate-limiting	maximum actual forwarding speed of ingress port
ingress burst	The maximum number of frames for ingress port in a burst transmission
Port description	set L2 Port description

Table 3- 1 port management

Note：

Please do not input port name manually in textbox. Revise port rate, egress rate-limiting, egress burst, ingress rate-limiting, ingress burst at aggregation port is invalid.

3.4.2 Port isolation

Click **Ports>port isolation**, check the ports in below lists to config port isolation. After configuration ports are isolated, the ports under VLAN cannot communicate. Click **<Modify>**to save.

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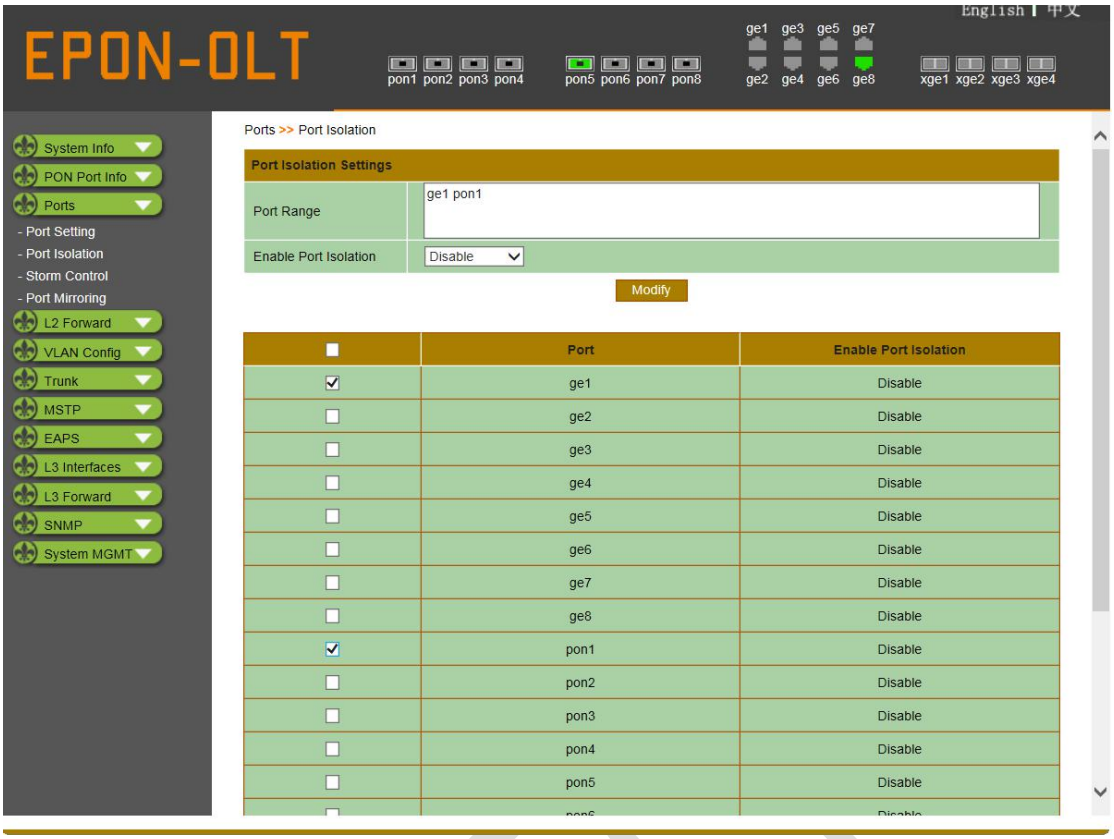
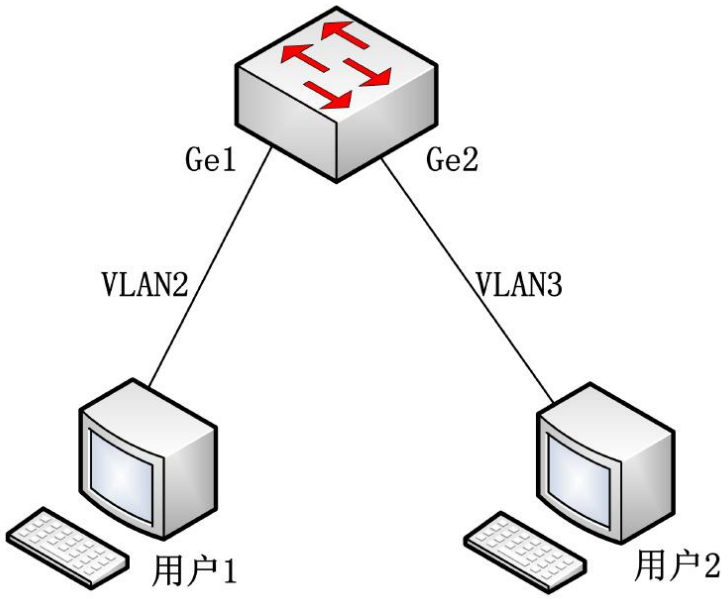


Figure 3- 6 port isolation

interface	**Description**
port range	choose L2 port need modify
Enable port isolation	Open/close port isolation. Port isolation is closed by default.

Sheet 3- 2 port isolation

Example: as below figure , if config Ge1 and Ge2 under the same VLAN, user1 and user2 can communicate. But if Ge1 and Ge2 are added to port isolation, user1 and user2 can not communicate.



3.4.3 Broadcast storm restriction

A broadcast storm occurs when the host system responds to a packet that is constantly circulating on the Internet or trying to respond to an unresponsive system. Normally in order to change the situation, Requests or response groups are continuously generated, this will make situation worse. As the number of network groups increases, the congestion appears which will reduce the network performance even make it paralyzed.

Click **Ports> storm control**; check port to config relevant port restriction. Click **<Modify>** to save; click **<delete>** to restore the number of storm restriction by default.

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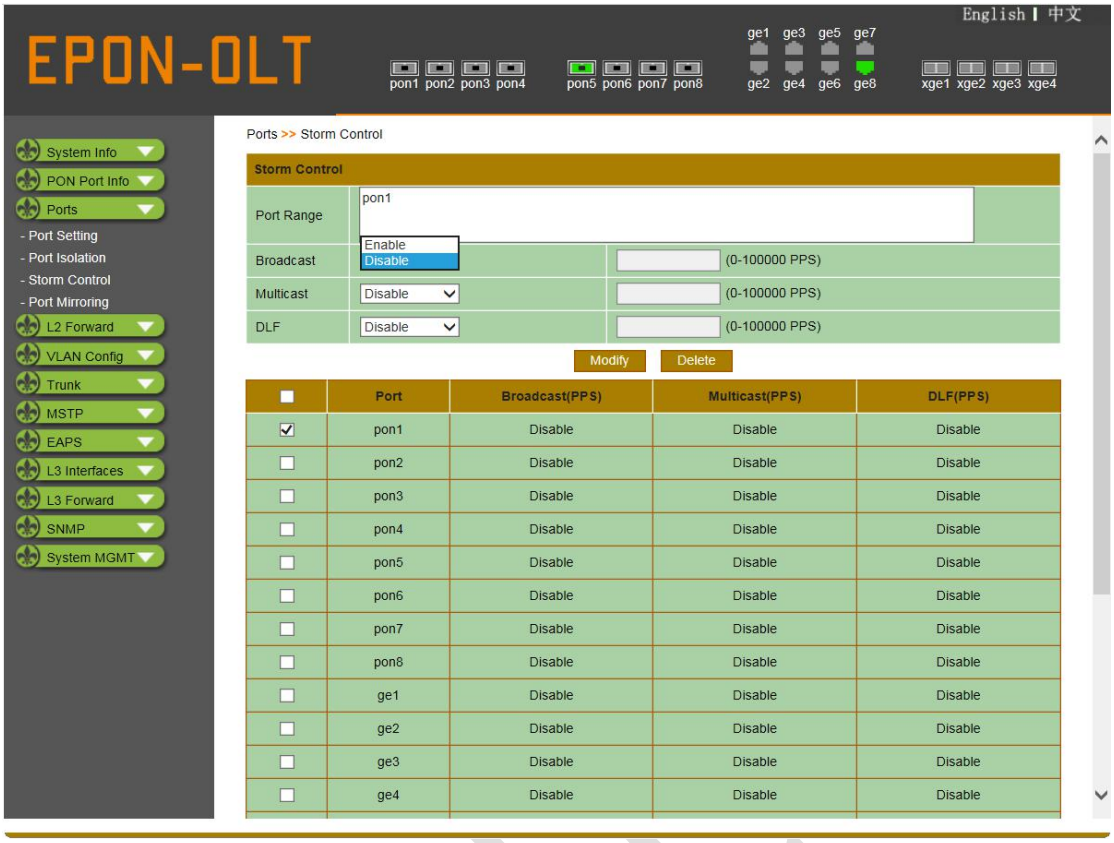
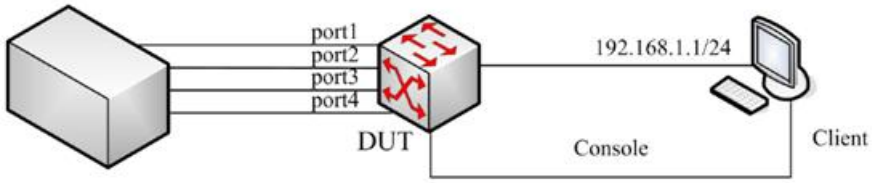


Figure 3- 7 storm restriction

Interface	Description
port range	choose L2 port need modify
Broadcasting data packet	Set broadcasting restriction PPS, range from 0 to 100000, disable by default
multicast data packet	Set multicast packet restriction PPS, range from 0 to 100000, disable by default
unknown unicast packet	Set unicast packet restriction PPS, range from 0 to 100000, disable by default

Sheet 3- 3 storm restriction

case：



test device

1. Close OLT broadcasting restriction and send speed limit broadcast packet from testing equipment to the port 1, you will find if not control the broadcast packets received by other ports of DUT, the communication between DUT and PC will be influenced.
2. Only open broadcast control of port 1 and set value as 500, then send rate-limiting packet to the device connect to DUT port1, you will find the broadcasting packet received by other ports DUT is in the scope of storm control, but no impact on DUT.

3.4.4 Port mirror

Port mirror means copy the specific port message to mirror destination port. Mirror destination port will access flow analysis equipments. Users can use those equipments to analyze the flow received from destination port and to do network monitoring and trouble removal.

Click **ports>port mirror**; set monitoring port and mirror port

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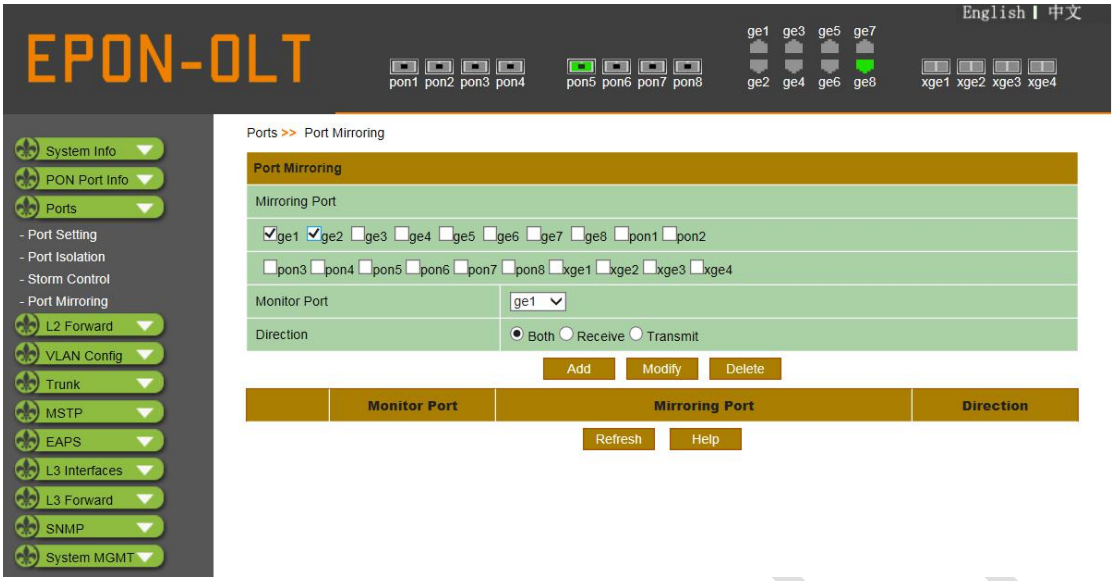
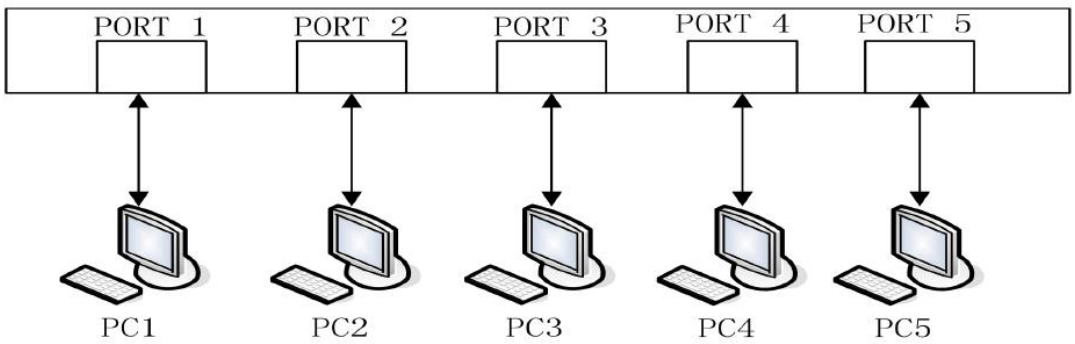


Figure 3- 8 port mirror

Interface	Description
mirror port	Set port to be monitored, that is source port of flow
Monitoring port	Set monitoring port, that is destination port of flow, to connect flow monitoring and analysis equipment
Direction	Set the data acquisition direction of the monitored port

Note:

Modification can only change the data acquisition direction value, which is called direction.



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Configure port 3 to monitor port 2 receive packets; PC2 sends packets to PC1, then PC3 on port3 can receive packets sent by PC2.

3.5 L2 forward

3.5.1 Forward table

OLT need maintain the MAC address forward table to make sure forwarding message quickly. MAC address forwarding table is a port-based L2 forwarding table. It is the foundation of OLT to realize L2 message to be forwarded quickly. MAC address forwarding table includes destination MAC address, VLAN ID of the port and forwarding port no. etc

Click **L2 forward>MAC Address table**; modify configuration of L2 forward table.

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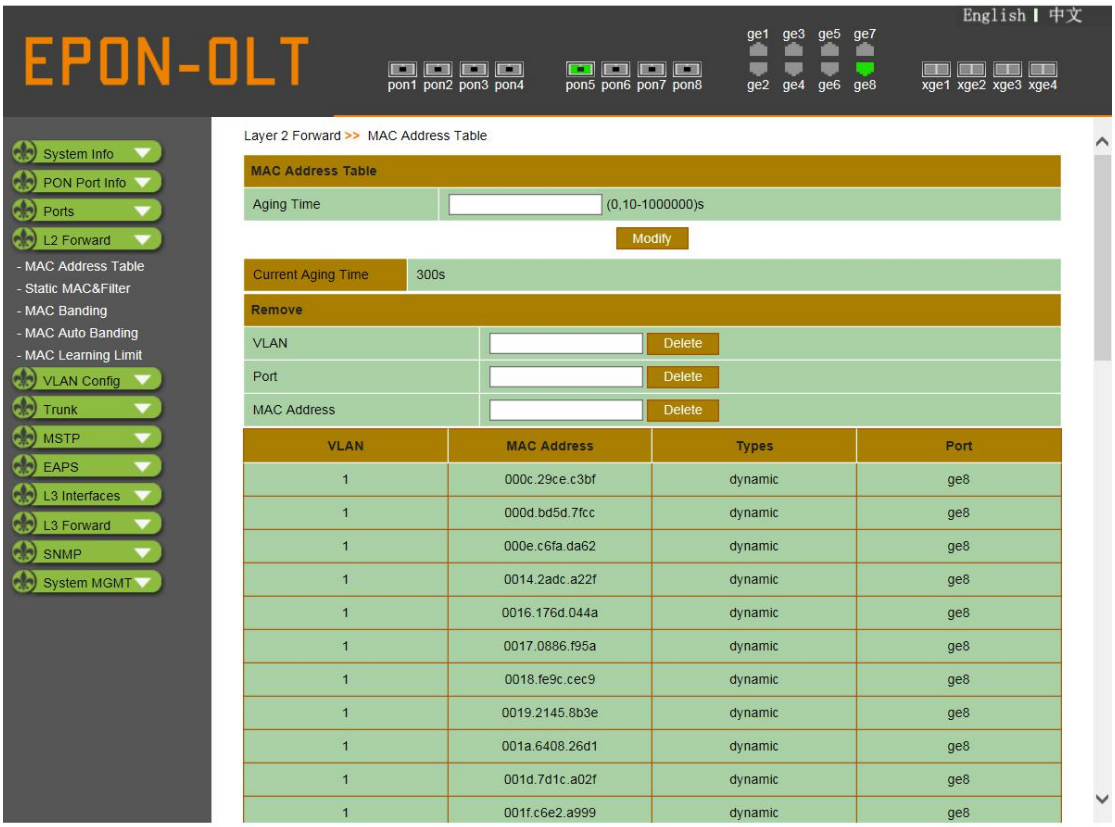


Figure 3- 9 forward table

Interface	Description
Aging time	Modify aging time of forward table, 300s by default. It can be set as “0”, “0”mean no aging.
Delete L2 table item	L2 table item can be deleted as per conditions of VLAN, port ID, MAC address etc. or you can delete all with **<clear>** button.

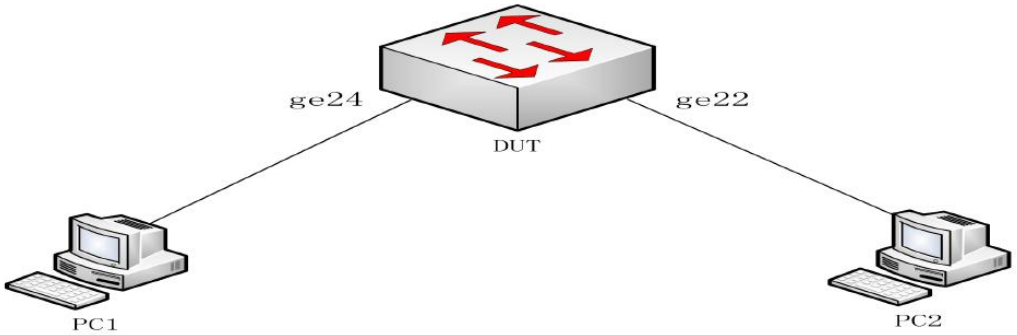
Table 3- 4 forward table

Attention:

Delete and **clear** operations can only remove MAC address

table items of dynamic type

Config instance:



1. If PC1 can ping PC2 successfully, MAC address L2 forwarding table of PC1 and PC2 will show on DUT.

2. Shut down automatic learning function of OLT MAC table and modify aging time, you will find L2 forwarding table will be deleted.

3. You can also delete L2 forwarding table by pressing VLAN, port or MAC address manually.

3.5.2 Static MAC and filtration

Click **L2 forward>static MAC&Filte**r to set static MAC filtration.

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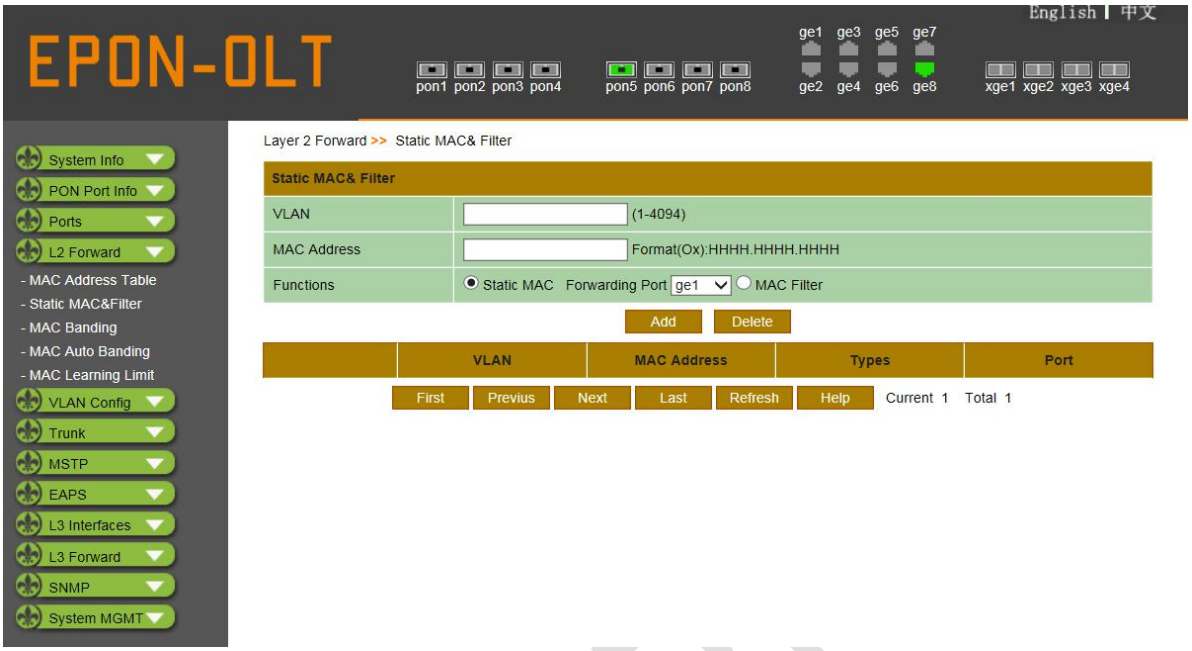

Figure 3- 10 Static MAC and filter

interface	description
VLAN	Set VLAN of the static MAC address
MAC address	Set MAC address of corresponding destination
Functions	Static MAC refers to adding a MAC address static table item, which need specific forwarding port. While MAC address filtration will filter corresponding MAC address, no need specific forwarding port.

Table 3- 5 Static MAC and filtration

Note:

MAC address filtration includes the filtration of both source MAC and destination MAC

Config instance:

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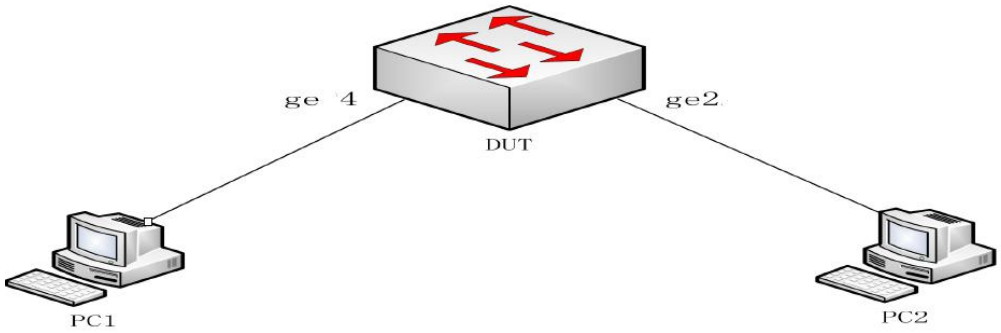

1. If DUT turn off MAC learning function of OLT, we can add static MAC address manually to realize L2 forward table. Fill in the VLAN,GE4 Ports and MAC address of PC1.

2.Connect PC1 to GE2 port, you will find PC1 and PC2 cannot ping.

3. Connect PC1 to GE4 port, config MAC address binding of PC1 which belongs to VLAN2. You will find PC1 and PC2 cannot Ping too.

4. To filter out some MAC address, you can use MAC address filtration. If filter MAC address of PC1, you will find PC1 and PC2 cannot Ping.

3.5.3 MAC binding

Click **L2 forward>MAC binding** to bind MAC address

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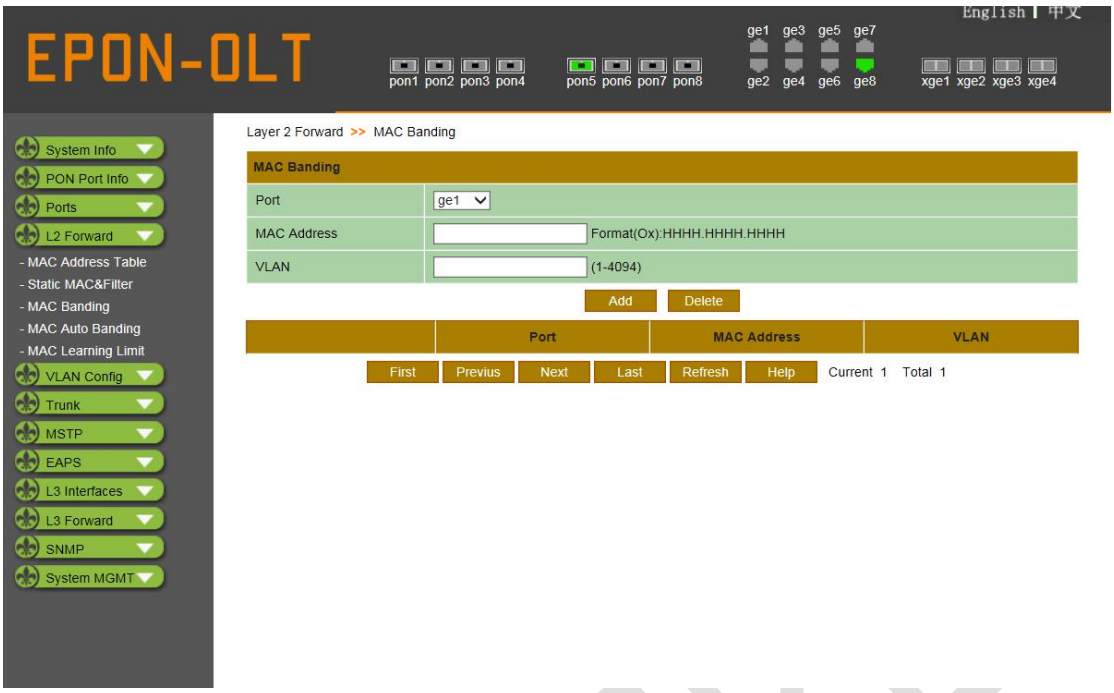


Figure 3- 11 MAC binding

interface	description
port	Set physical port of MAC address binding
MAC address	Set destination MAC address
VLAN	Set corresponding VLAN ID

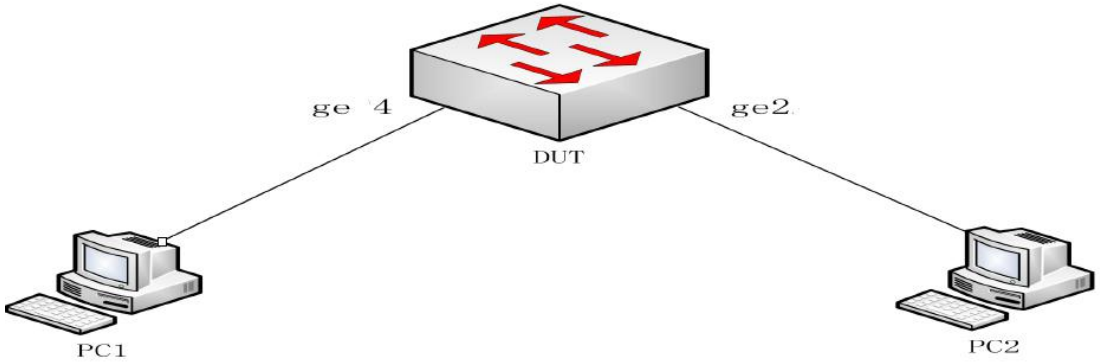
Table 3- 6 MAC binding

Attention

o

MAC binding will close port MAC learning function. Only binding MAC address can forward.

Config instance:



1. If DUT close MAC address automatic learning function, you can bind MAC address, VLAN with egress port. Config MAC address bindings (not PC1 MAC address) to see binding entries, PC1 and PC2 can't ping each other.

2. Config MAC address bindings of PC1, PC1, PC2 and DUT can be interconnected.

3. Connect PC1 to GE2 port, PC1、PC2、DUT can't ping each other

4. Connect PC1 to GE4 port, config MAC address bindings of PC1,which belongs to VLAN2, PC1、PC2、DUT can't ping each other.

3.5.4 MAC automatic binding

Click **L2 forward>MAC auto binding** to bind MAC automatically.

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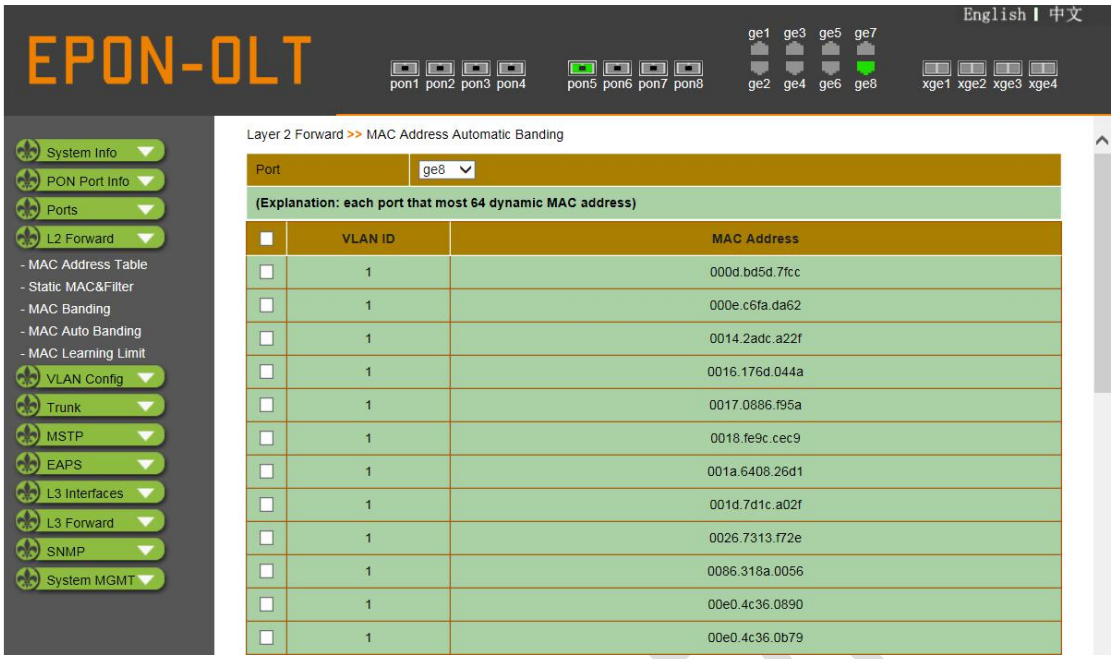

Figure 3- 12 MAC automatic binding

interface	Description
port	Set physical port of MAC address automatic binding
MAC address	set destination MAC address of binding
VLAN	Set corresponding VLAN ID

Table 3- 7 MAC automatic binding

Attention

MAC binding will close port MAC learning function. Only binding MAC address can forward. Each port max binds 64 dynamic MAC address.

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3.5.5 MAC learning Limit

Click **L2 forward>MAC learning limit** to set MAC learning restriction

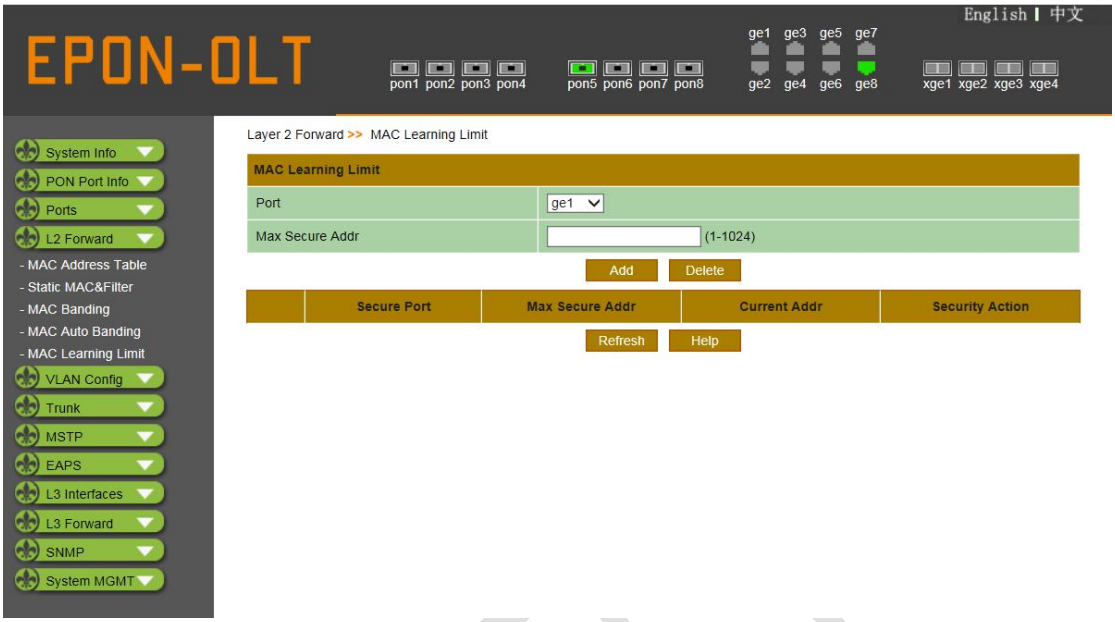
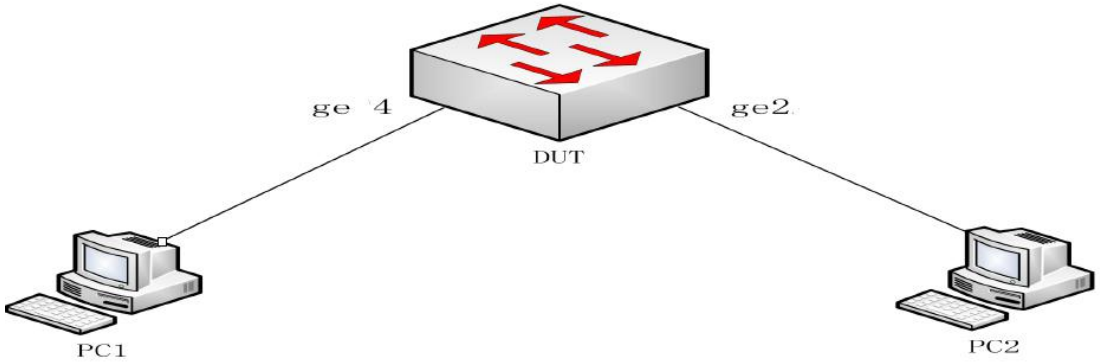


Figure 3- 13 MAC learning restriction

Interface	**Description**
port	Set physical port of MAC address learning restriction
MAC Secure Address	Set learning limit of network ports

Table 3- 8 MAC Learning settings

Config instance:



1. If DUT learn too much L2 forwarding might affect its performance, so we need set MAC learning restriction. Config MAC address learning restriction number; PC1 sends the source jump MAC address (not PC1 address) which is more than the number of limitation to DUT, you will find the Maximum number of binding tables.
2. PC1 and PC2 send Ping package to each other, but can't ping each other.
3. Modify the number of MAC address learning restrictions; PC1 sends the source jump MAC address (not PC1 address) which is less than the number of limitation to DUT. In this situation, DUT can learn new MAC table, that is MAC address of PC1. PC1 and PC2 can ping each other.

3.6 VLAN

VLAN divides a physical LAN into multiple logical LAN. Each VLAN is a broadcast domain. Hosts in VLAN can interact message by traditional Ethernet communication. But hosts in different VLAN have to realize

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communication via router or L3 switch.

3.6.1 VLAN Config

Click **VLAN config>VLAN Config** to modify or config 802.IQ VLAN. Click **<add>** to finish setting.

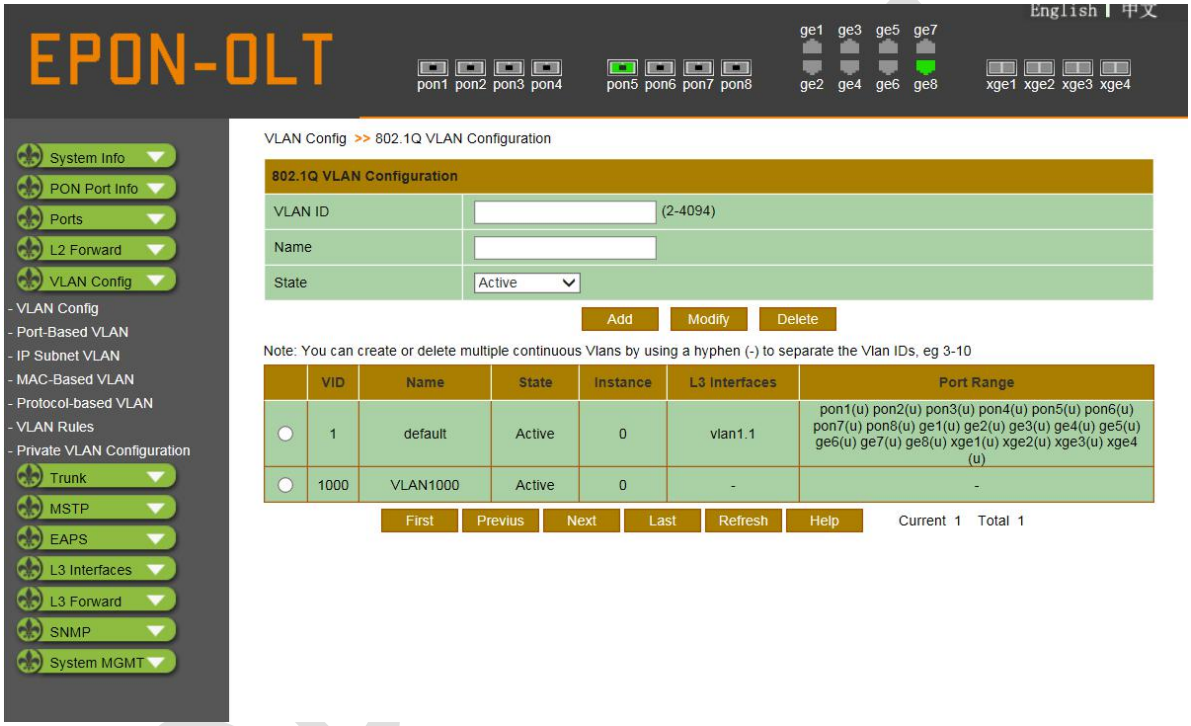

Figure 3- 14 802.1Q VLAN setting

Interface	Description
VLAN ID	Set VLAN ID. Batch create or delete multiple continuous VLAN need connect each VLAN with strigular. For example, 3-10
Name	Set VLAN name. VLANxxxx by default
status	Enable/disable VLAN status. Enable by default

Table 3- 9 802.1Q VLAN setting

Note:

100 continuous VLAN can be created or deleted at a time

3.6.2 Port VLAN

Click **VLAN Config>Port-based VLAN** to modify or config Port VLAN. Click **<add>** to finish setting.

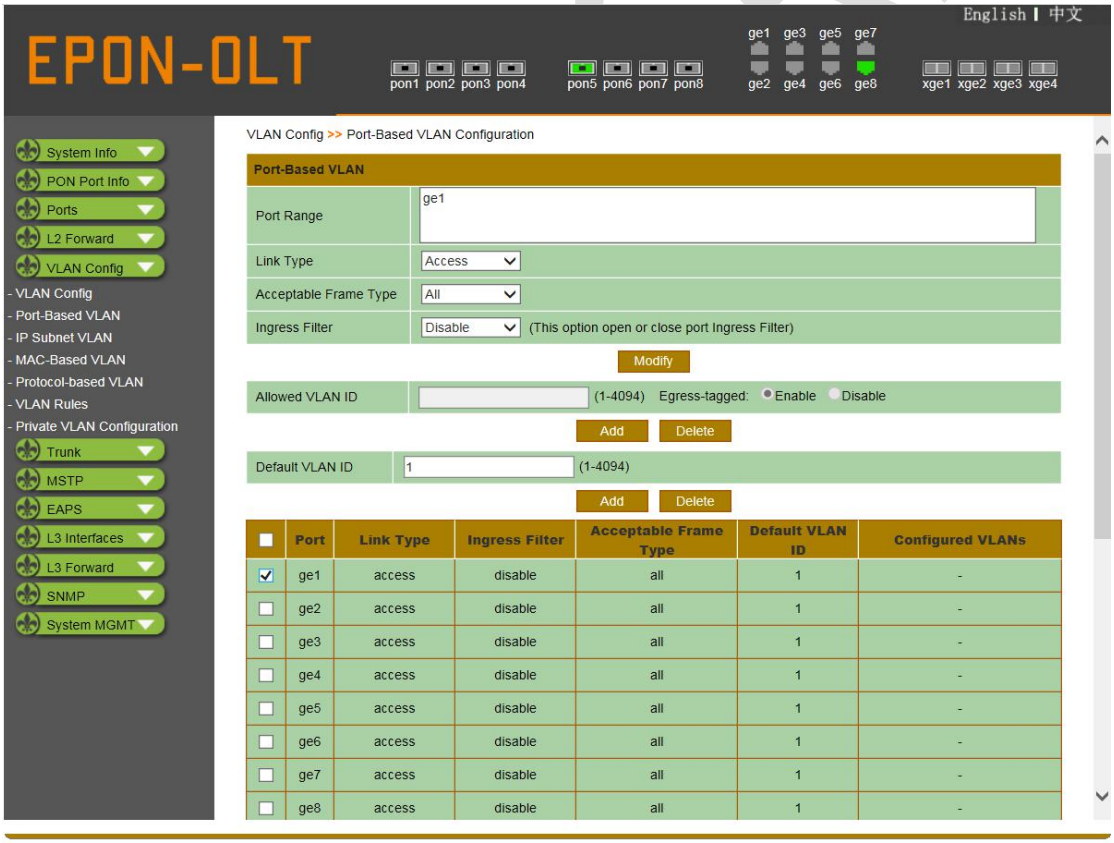

Figure 3- 15 Port VLAN

Interface	Description

Port Range	Choose L2 port of VLAN properties need to modify in page check box.
Link type	Set link type of port. All ports are “access” by default
Acceptable frame type	Set acceptable frame type. For example, set VLAN-untagged as untagged, set VLAN-tagged as tagged. “All” by default.
ingress filter	Set if open ingress filtration. Close by default.
Allowed VLAN ID	Set allowed VLAN ID in trunk mode
Default VLAN ID	Set default VLAN ID, default ID is “1” in trunk mode

Table 3- 10 Port VLAN

Attention:

Before setting Allowed VLAN and Default VLAN, you need modify link type of ports.

Config instance:

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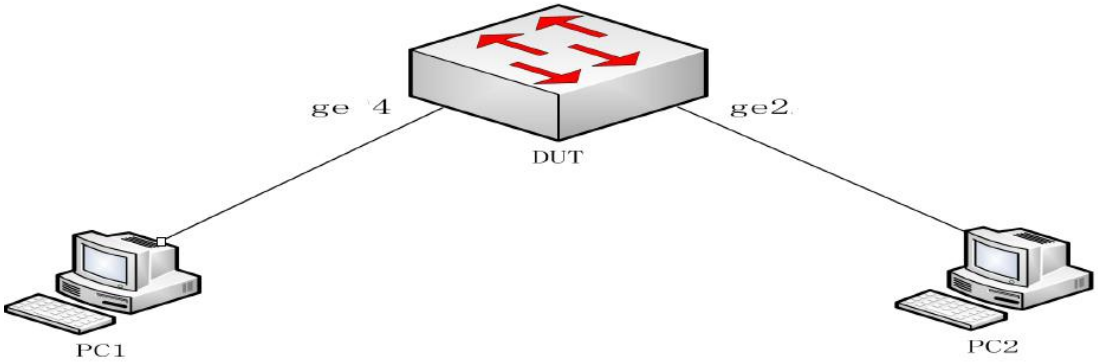

Create VLAN 10 and VLAN of ge4 and ge2 port as access port at the same time. PC1 and PC2 can ping each other.

3.6.3 Ip Subnet VLAN

Click **VLAN config>IP subnet VLAN** to modify and config subnet VLAN. Click **<add>** to finish setting.

Then OLT will check IP package source address at ingress port. Data package is processed at which VLAN depends on this source address and config rules.

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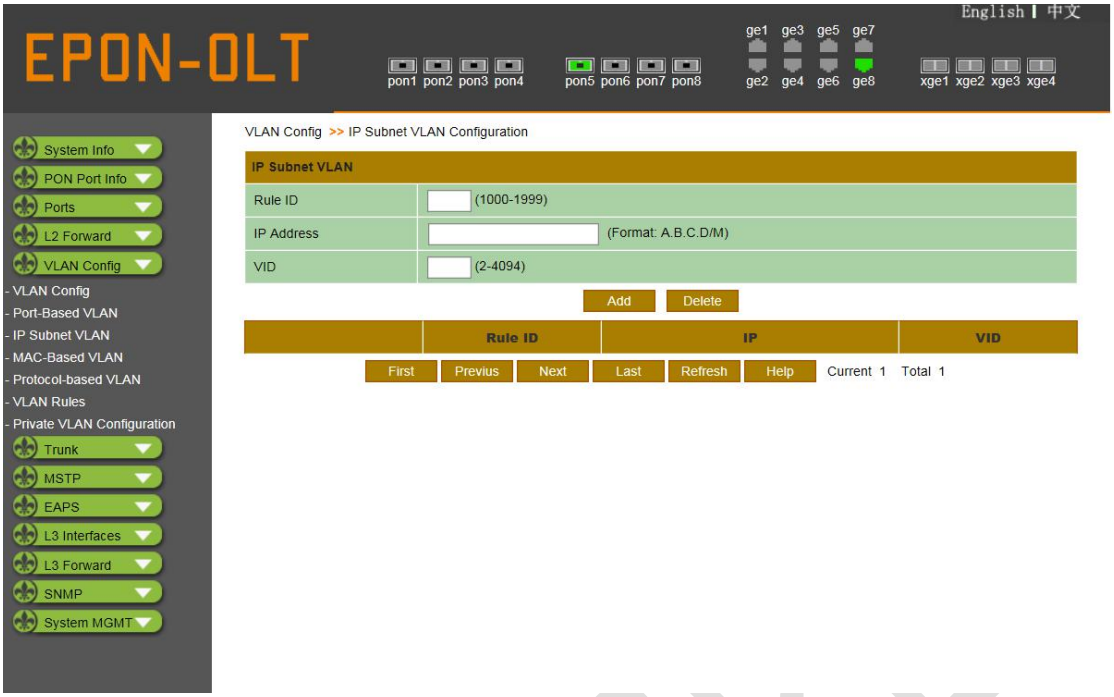


Figure 3- 16 subnet VLAN

interface	description
Rule ID	IP subnet VLAN corresponding rule ID. Range is 1000-1999
IP address	Set subnet segment which need allocate specified VLAN ID
VID	Set VLAN ID for dynamic allocation

Table 3- 11 subnet VLAN

3.6.4 MAC-Based VLAN

Click **VLAN config>MAC-based VLAN** to modify and config MAC VLAN. Click **<add>** to finish setting.

MAC VLAN configuration make MAC address correspond with VLAN ID. And OLT determine the device belongs to which VLAN by checking MAC address connecting to the device.

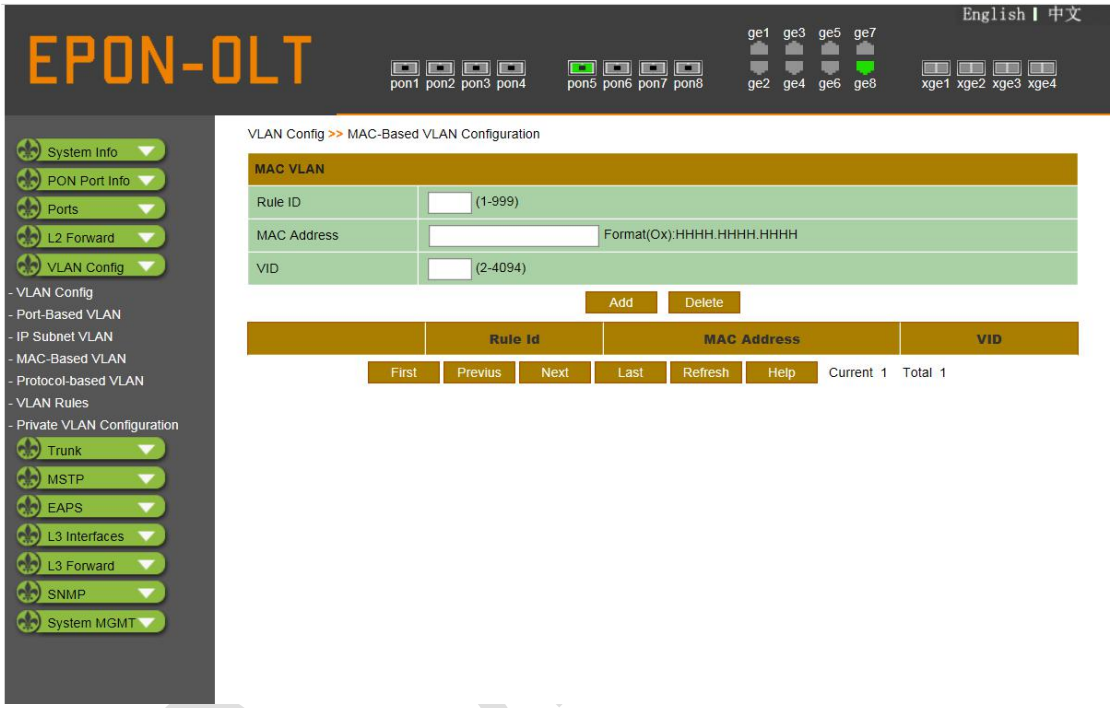


Figure 3- 17 MAC-Based VLAN

interface	description
Rule ID	Subnet VLAN corresponding rule ID. Range is 1000-1999
MAC address	Set MAC address which need allocate specified MAC address
VID	Set VLAN ID for dynamic allocation

Table 3- 12 MAC-Based VLAN

3.6.5 Protocol-based VLAN

Click **VLAN config> Protocol-based VLAN** to modify or config protocol VLAN. Click **<add>** to finish setting.

This OLT will checked the encapsulation protocol at the ingress port and according to the encapsulation protocol rules, which VLAN is handled in the packet.

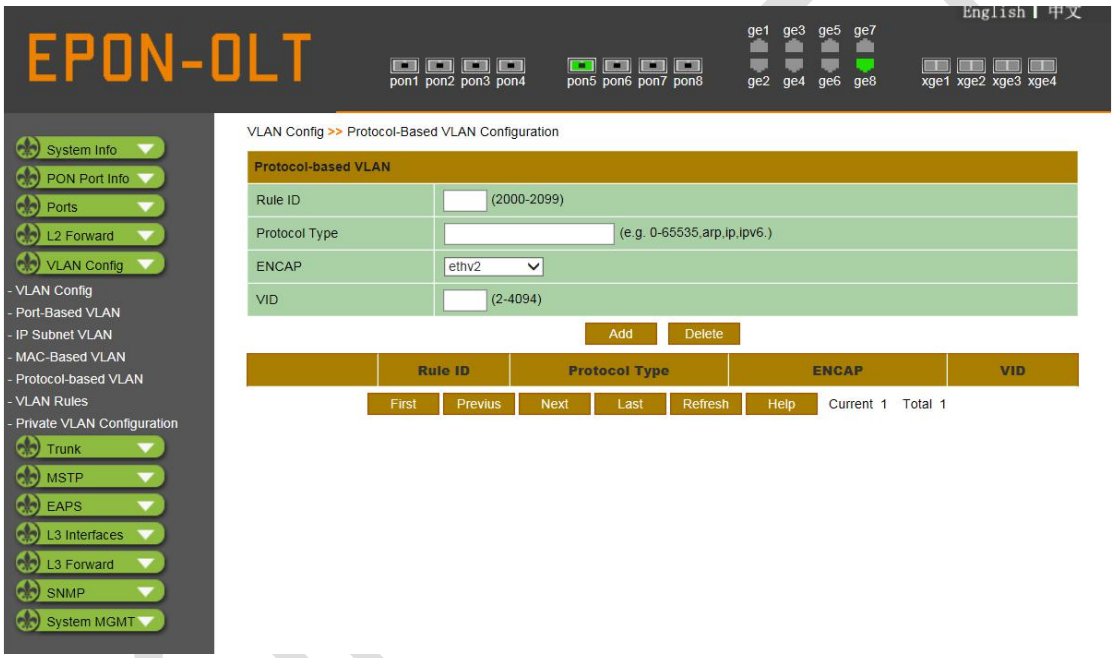


Figure 3- 18 Protocol VLAN

Interface	Description
Rule ID	Subnet VLAN corresponding rule ID. Range is 2000-2099
Protocol type	subnet protocol type which need allocate specified VLAN ID. Protocol number is 0-65535

ENCAP	Set ENCAP type. There are three types at the moment, ethv2,nosnapllc and snapllc
VID	Set VLAN ID for dynamic allocation

Table 3- 13 Protocol VLAN

3.6.6 VLAN rule

Click **VLAN config>VLAN rule** to config VLAN rule. Click **<add>** to finish setting.

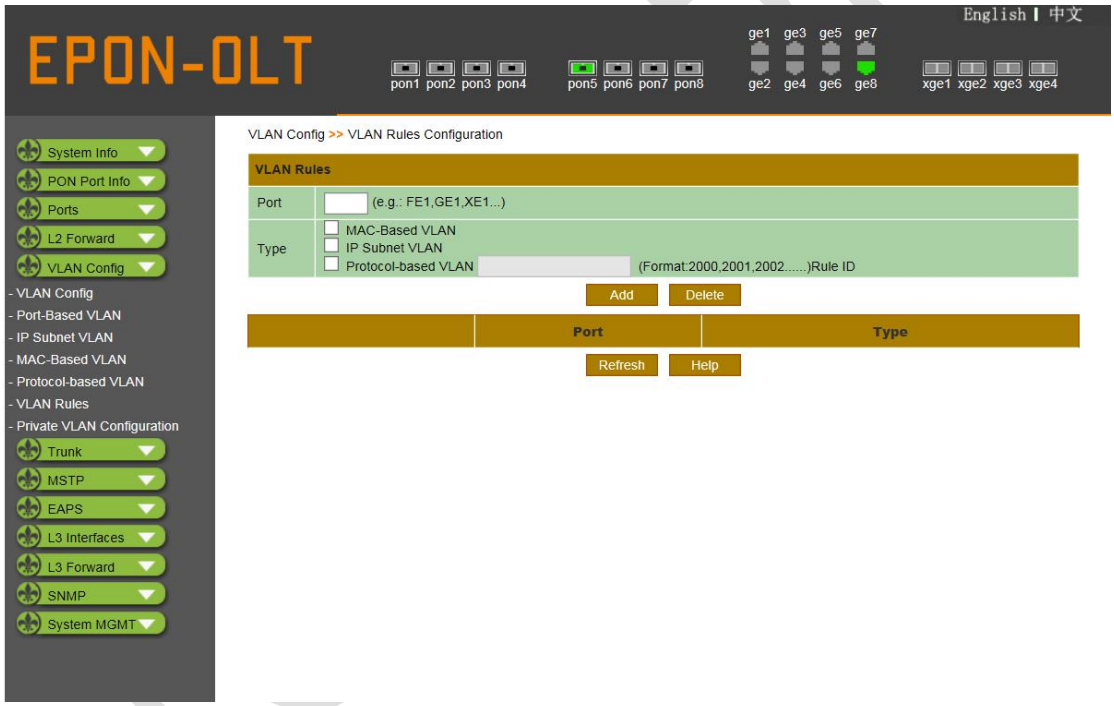


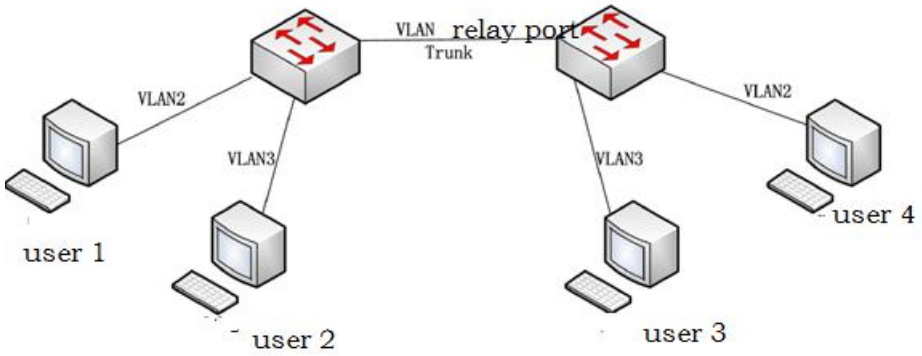
Figure 3- 19 VLAN rule

Interface	Description
Port	choose the port need config
MAC-Based VLAN	enable MAC-based VLAN at corresponding

	port
Subnet VLAN	Enable IP-based subnet VLAN at corresponding port
Protocol VLAN	Enable Ethernet-based VLAN (with Rule ID) at corresponding port

Table 3- 14 VLAN rule

Config instance:



1. As above Figure , user1 and user4 can communicate with each other. But user 1 and user4 can't communicate with uer2 and user3. OLT need create VLAN2, VLAN3; config port VLAN which connect to users as access port; config the port connect to OLT as Trunk port, and Trunk port allow all VLAN pass.
2. If want to set a user of 192.168.10.0/24 network segment as VLAN2, you can use subnet VLAN to config.
3. If want to set a user of fixed MAC as VLAN 3， you can use MAC-Based VLAN。

4. If want to set package of the fixed protocol as VLAN 3,you can user protocol-based VLAN.
5. Finally,add VLAN rule id to port .

3.6.7 Private VLAN configuration

Click **VLAN config>private VLAN configuration** to config VLAN rule. Click **<add>** to finish setting.

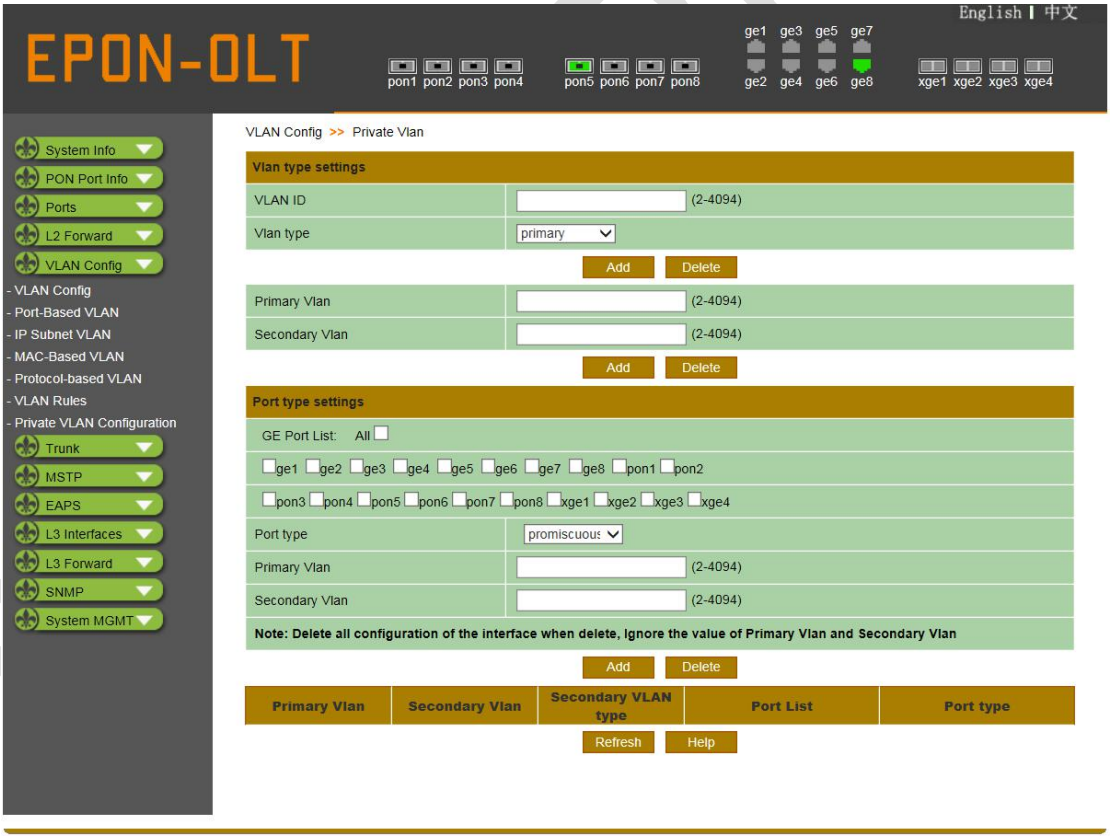


Figure 3- 20 private VLAN configuration

3.7 Trunk

3.7.1 static Aggregation

Static aggregation manual binding multiple physical ports to a logical accordingly increasing the bandwidth between OLT and network node. Static aggregation does not allow the system to auto add or delete port in the trunk group. The trunk group contain at least one port.

Click **Trunk > Static aggregation** to config static aggregation. Click **<add>** to finish setting.

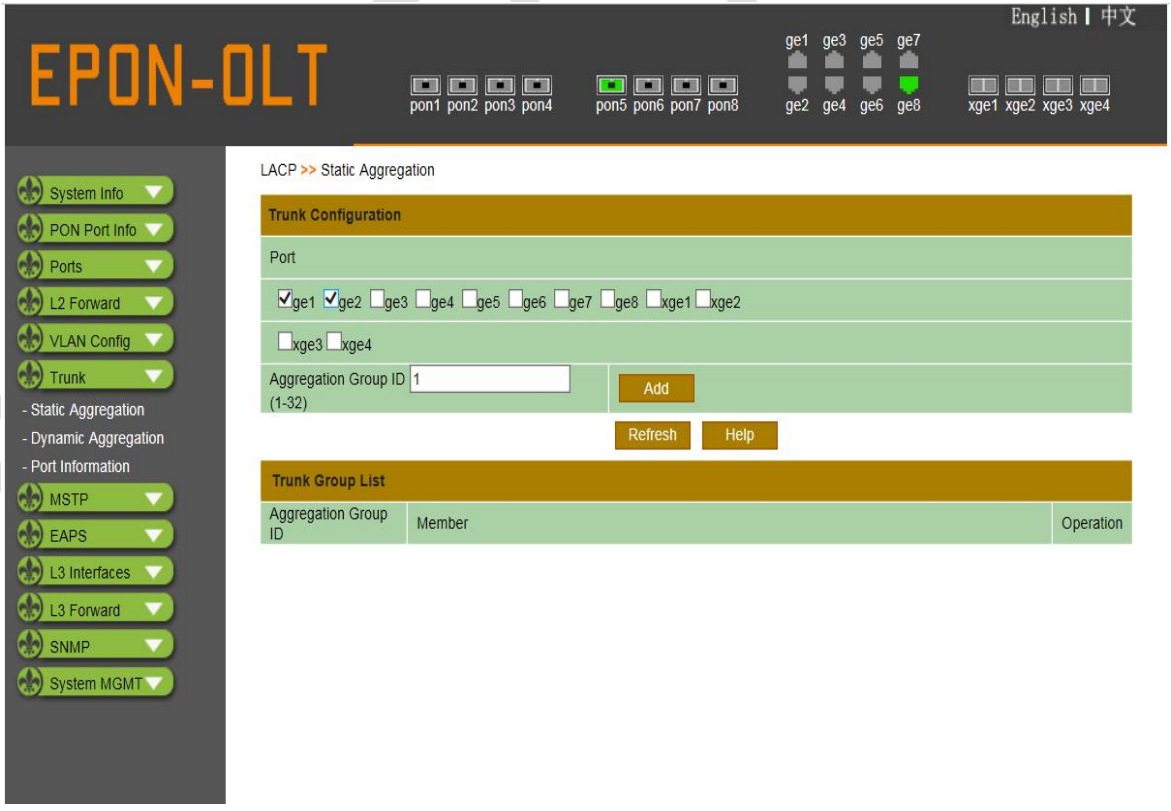


Figure 3- 21 static aggregation

interface	Description
port	Select the ports that need static aggregation, which can be multiple selected.
Aggregation group ID	Add to setting aggregation group ID

table 3- 15 static aggregation

3.7.2 Dynamic aggregation

LACP binding physical port to a logical port, The physical port negotiated through the LACP protocol can be binded into a logical port and other ports will not be binded into the logical port, the layer 2 attribute of these physical ports must be the same, such as: speed,duplex ,VLAN and so on.

Click **Trunk > Dynamic aggregation** to config LACP. Click **<add>** to finish setting.

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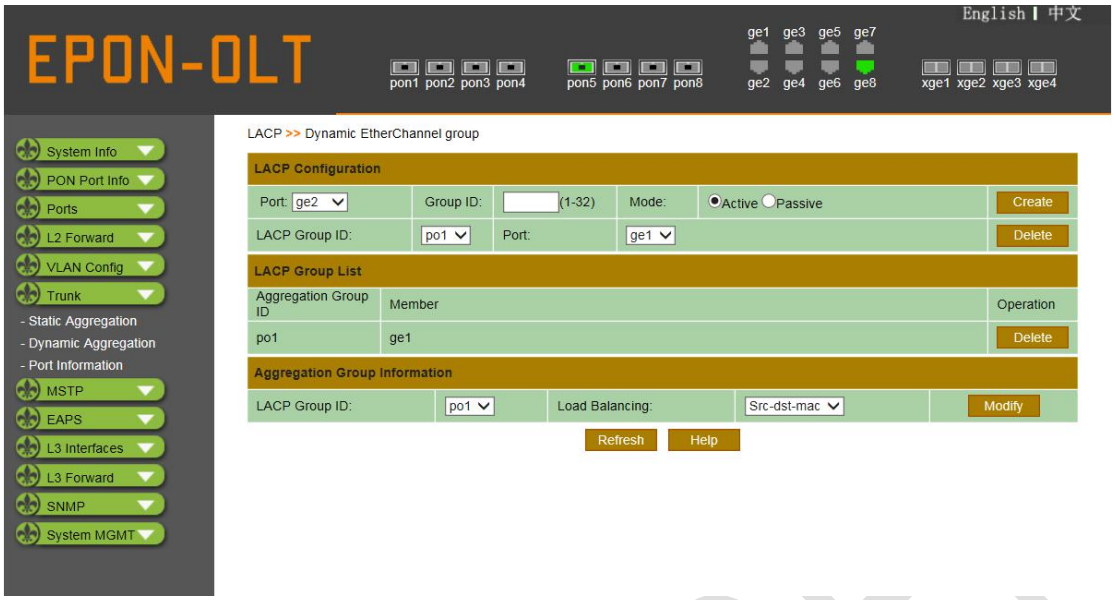


Figure 3- 22 Dynamic aggregation

interface	Description
LACP configuration	Set port、LACP aggregation ID and LACP mode
LACP group list	Show and delete related dynamic aggregation group
Aggregation group information	Show the dynamic aggregation group and set load balancing.

table 3- 16 dynamic aggregation

Note：

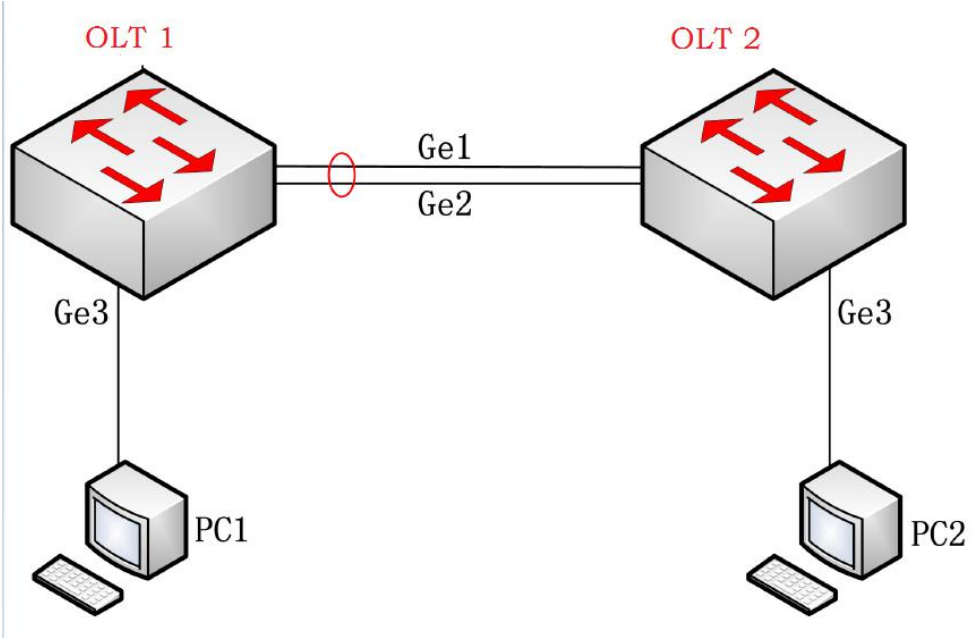
Dynamic aggregation list can show and delete related dynamic group.

3.7.3 Port information

Click **Trunk> Port information**， show detailed information of the related aggregation members.

Figure 3- 23 Port information

3.7.4 Port trunk config instance



Networking requirement：

OLT 1 user two port (Ge1~2) trunk OLT 2 to achieve the maximum 2G flow of PC1 and PC2, achieve Load Balancing of traffic in each member port.

Static aggregation config steps：

at Figure 3.7.1，check out ge1,ge2，filled in“aggregation group ID”，click“add”button.

Dynamic aggregation config steps：

At Figure 3.7.2，“LACP config” choice ge1，filled in“group ID”，then click“Create”button； And then choice ge2， filled in the same as ge1

"group ID"， then click"Create". LACP needs to be added individually to each port.

3.8 MSTP

MSTP (Multi Spanning Tree MST) protocol is a two layer management protocol which selectively blocking redundant links in the network to eliminate of two layers loop, it also has function of link backup. MSTP can fetch up the defect of STP and RSTP, it can converge quickly, but it also enable different VLAN traffic to be forwarded along their respective path, thus providing a better load sharing mechanism for redundant link.

3.8.1 Basic information

Click **MSTP > Basic info** to show configuration information at the MSTP domain.

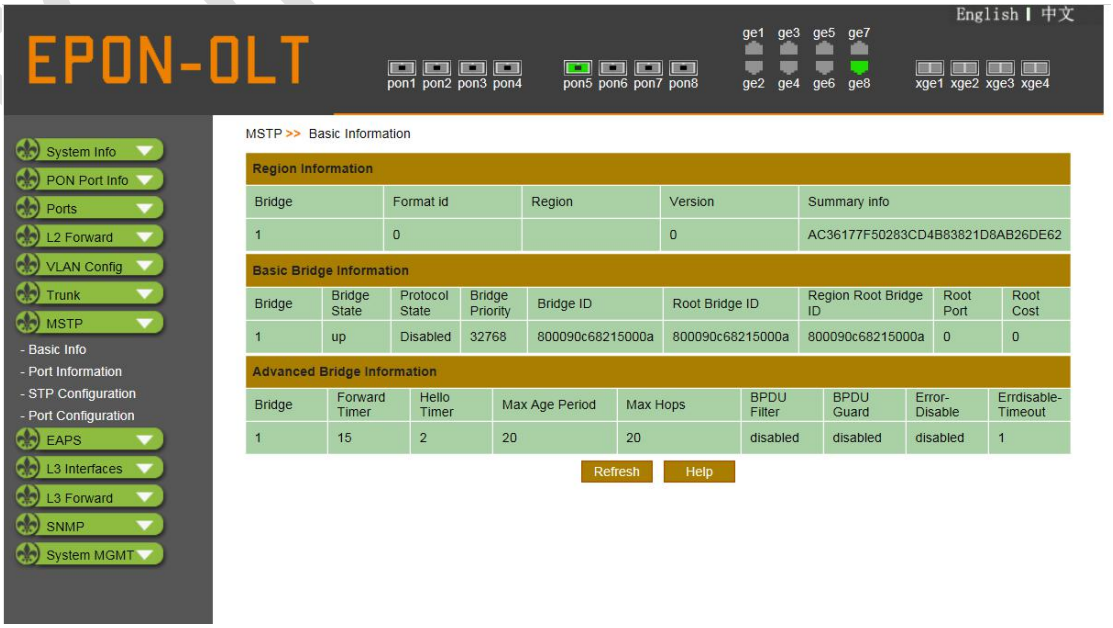


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Figure 3- 24 Basic information

3.8.2 Port information

Click **MSTP > Port information**，*show the basic information of STP bridge and the attribute information related to STP of the port.*

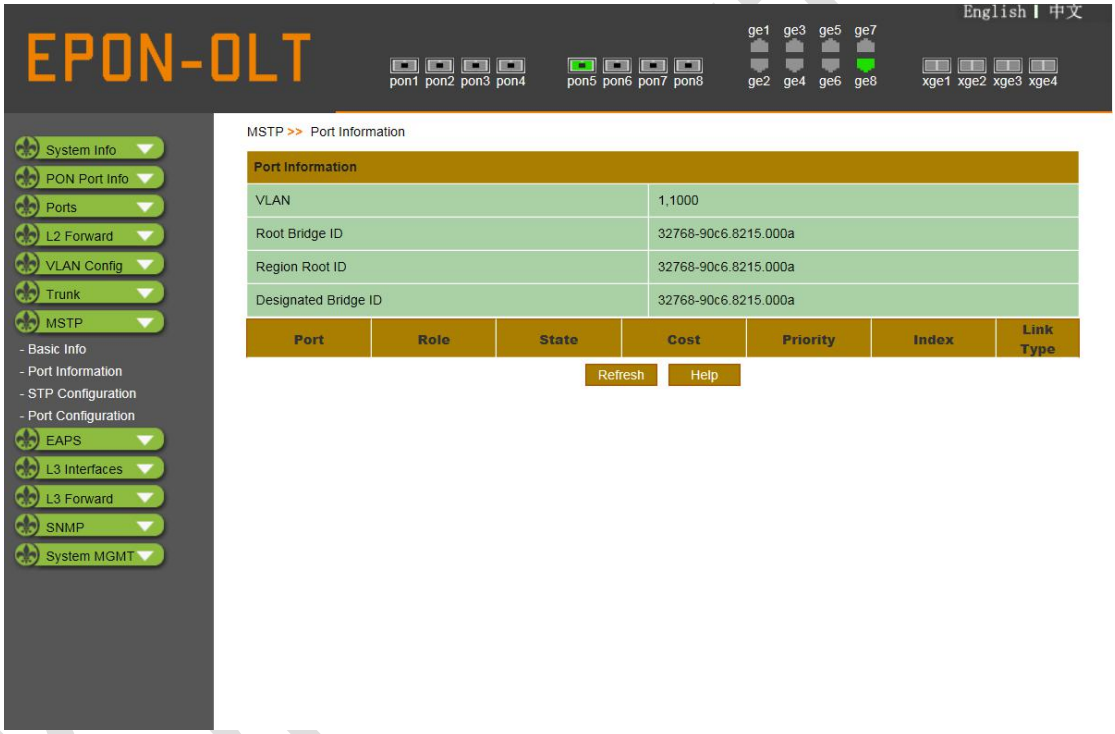

Figure 3- 25 Port information

3.8.3 STP configuration

Click **MSTP > STP configuration** to STP attribute configuration.

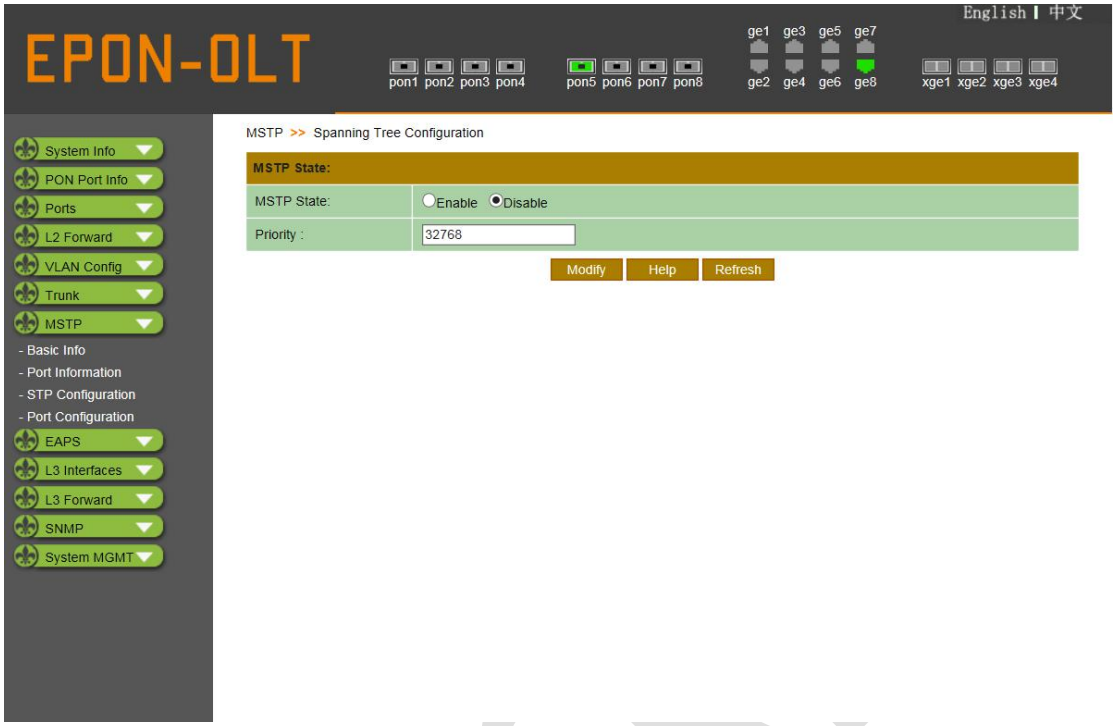

Figure 3- 26 STP configuration

interface	Description
MSTP state	Shut down or turn on MSTP protocol state, shut down by default .
priority	MSTP priority

table 3- 17 MSTP configuration

3.8.4 Port configuration

Click **MSTP > Port configuration** to configure port MSTP related attributes which including path cost, priority, portfast , root protection and so on. Click **<Modify>** to save port configuration.

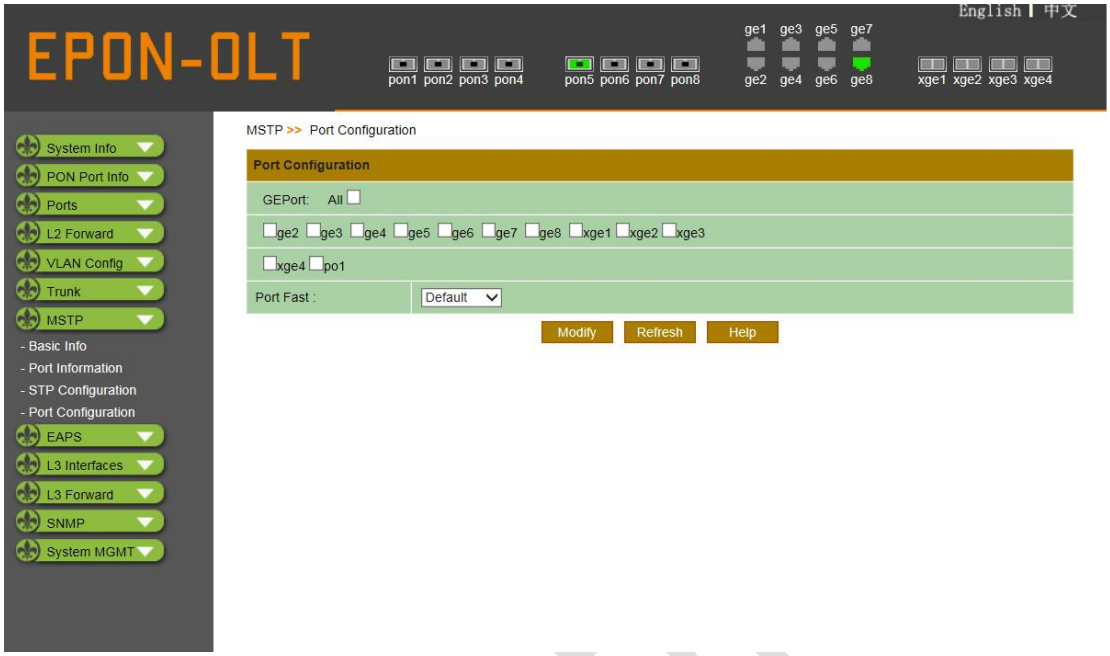

Figure 3- 27 Port configuration

3.9 EAPS

3.9.1 EAPS Management

EAPS is link layer protocol for Ethernet loop protection. It can prevent a broadcast storm from the data loop when it's all over the Ethernet ring, and when a link on the Ethernet loop is broken, it quickly restores the traffic pathways between each of the nodes on the Internet. Configure EAPS protocol parameters which including ring ID, mode, extreme compatibility, primary port, second port, control VLAN, protection VLAN, failure time and hello time.

Note:

It is must to correctly configure all the properties of EAPS to enable the ring. All properties of the modified ring must be

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closed to the ring.

Click **EAPS > EAPS Management** to configure EAPS。

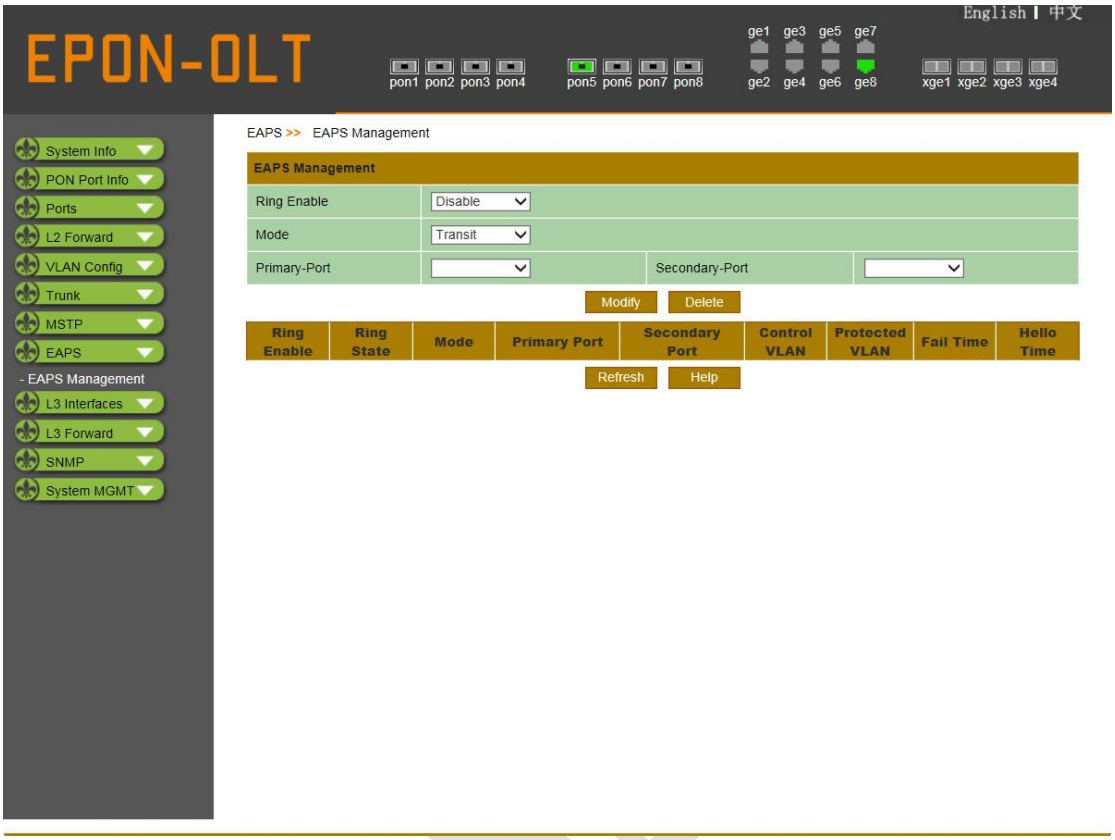
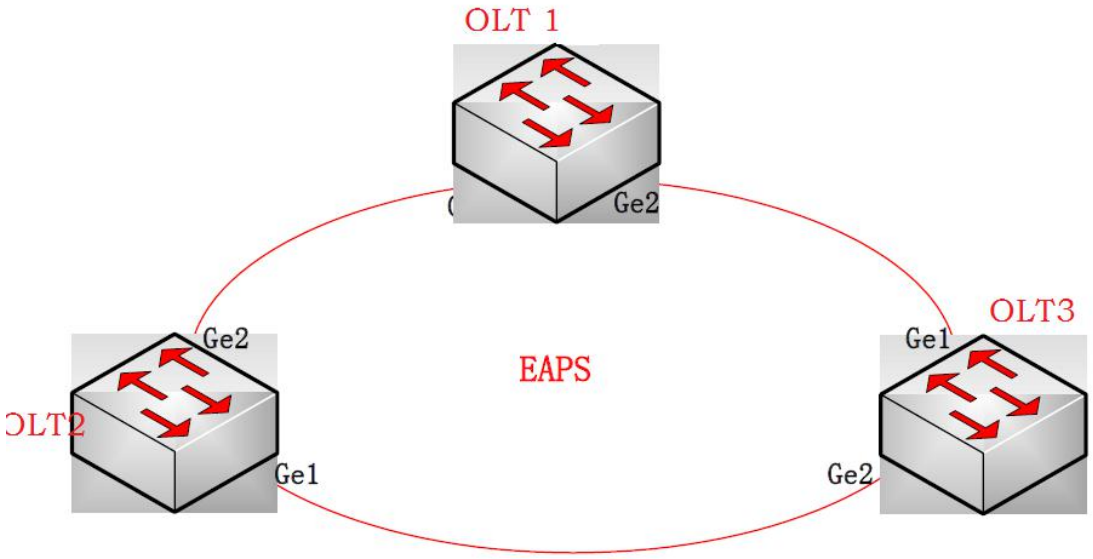


Figure 3- 28 EAPS management

Configuration instance：

The OLT1,OLT2 and OLT3 which is not possible to form a loop when VLAN 1 is protect by EAPS protocol, and it is guaranteed to enable that standby link with a link open between OLT 1, OLT 2 and OLT 3. According to the above requirements, OLT 1 can be configured as master node, OLT 2 and OLT 3 as transit nodes. Finally add a control VLAN(i.e VLAN 2) for packet transmission.



- Configuration OLT 1:

  OLT 1 is configured as the master of EAPS Domain ring 1, the control VLAN is VLAN2, the protected VLAN is VLAN 1, the primary-port is ge1 and secondary-port is ge2 .Finally other values is defaulted.

- Configuration OLT 2 :

  OLT 2 is configured as the transit of EAPS Domain ring 1,the control VLAN is VLAN2,the protected VLAN is VLAN1, the primary-port is ge1 and secondary-port is ge2.Finally other values is defaulted.

- Configuration OLT 3:

  OLT3 is configured as the transit of EAPS Domain ring 1,the control VLAN is VLAN 2,the protected VLAN is VLAN1, the primary-port is ge1 and secondary-port is ge2.Finally other values is defaulted.

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3.10 Layer 3 interface

3.10.1 Layer 3 Management

Clink **L3 interfaces> L3 Management** to configuration L3 interface.

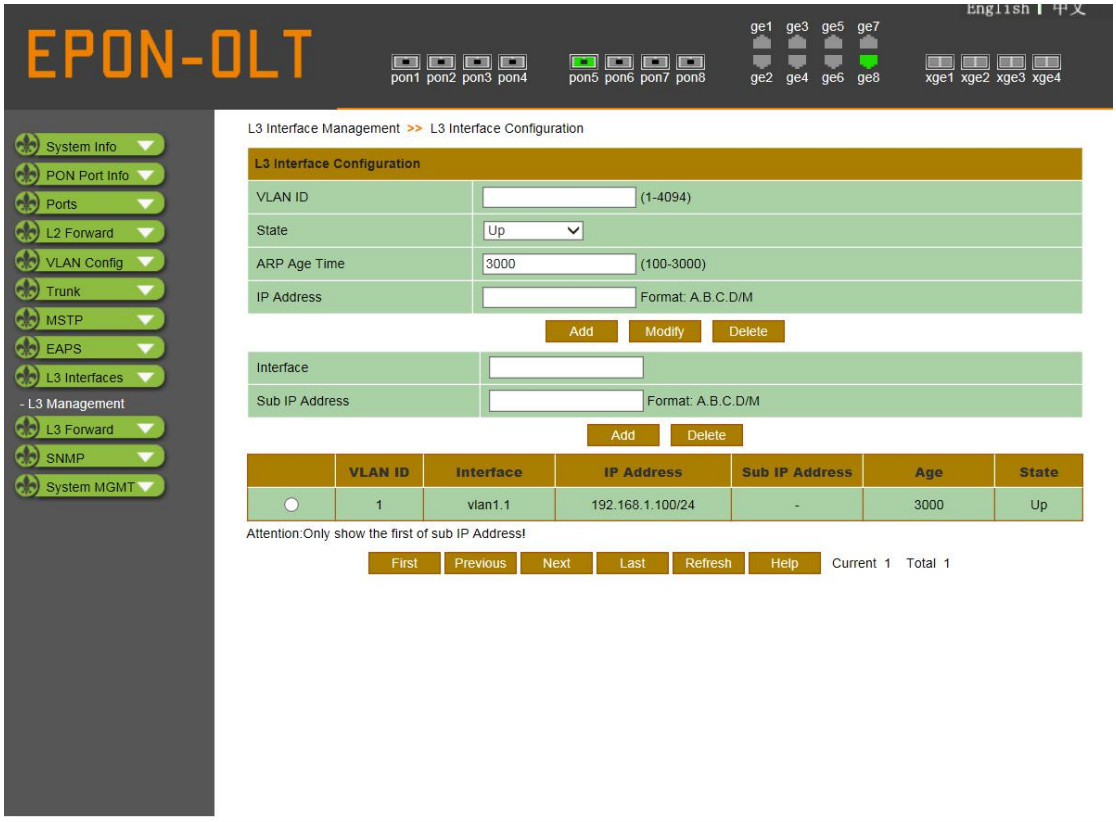

Figure 3- 29 L3 interface Management

Interface	Description
VLAN ID	Set L3 interface VLAN
IP address	Set L3 interface ip address
ARP AGE time	Set L3 interface ARP age time, 3000 seconds is defaulted.

State	Set L3 interface management statue(UP/DOWN).
Secondary IP address	Set L3 interface secondary ip address.

Table 3- 18 L3 interface management

Note：

You must create a L3 interface and configure the primary IP address before configuring the secondary IP address.

3.11 Layer 3 forwading

3.11.1 Static ARP

The static ARP refers to the mapping between IP and MAC address which will not be aged and deleted dynamically.

Click L3 **forward > static ARP** for static ARP configuration.

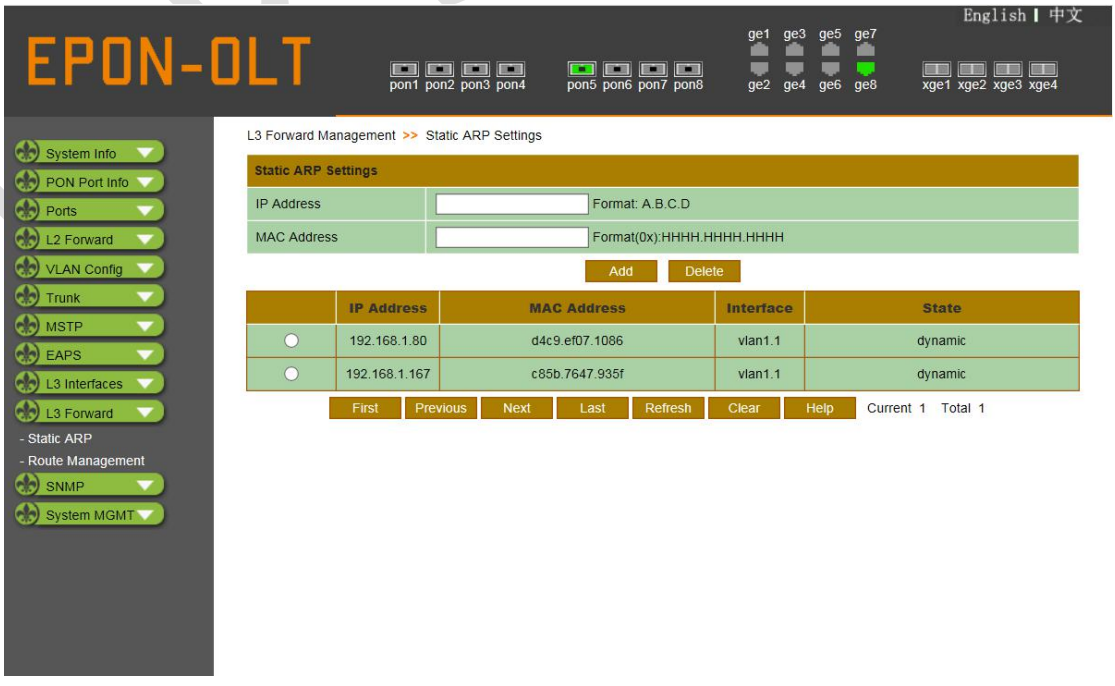

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Figure 3- 30 Static ARP

Interface	Description
IP address	The corresponding IP address in the ARP table item.
MAC address	The corresponding MAC address in the ARP table item.

Table 3- 19 Static ARP

Note：

If you want to clear ARP table items, you can only delete dynamic ARP table items.

3.11.2 Route Management

Click **L3 forward > Route Management** for static routing Settings.

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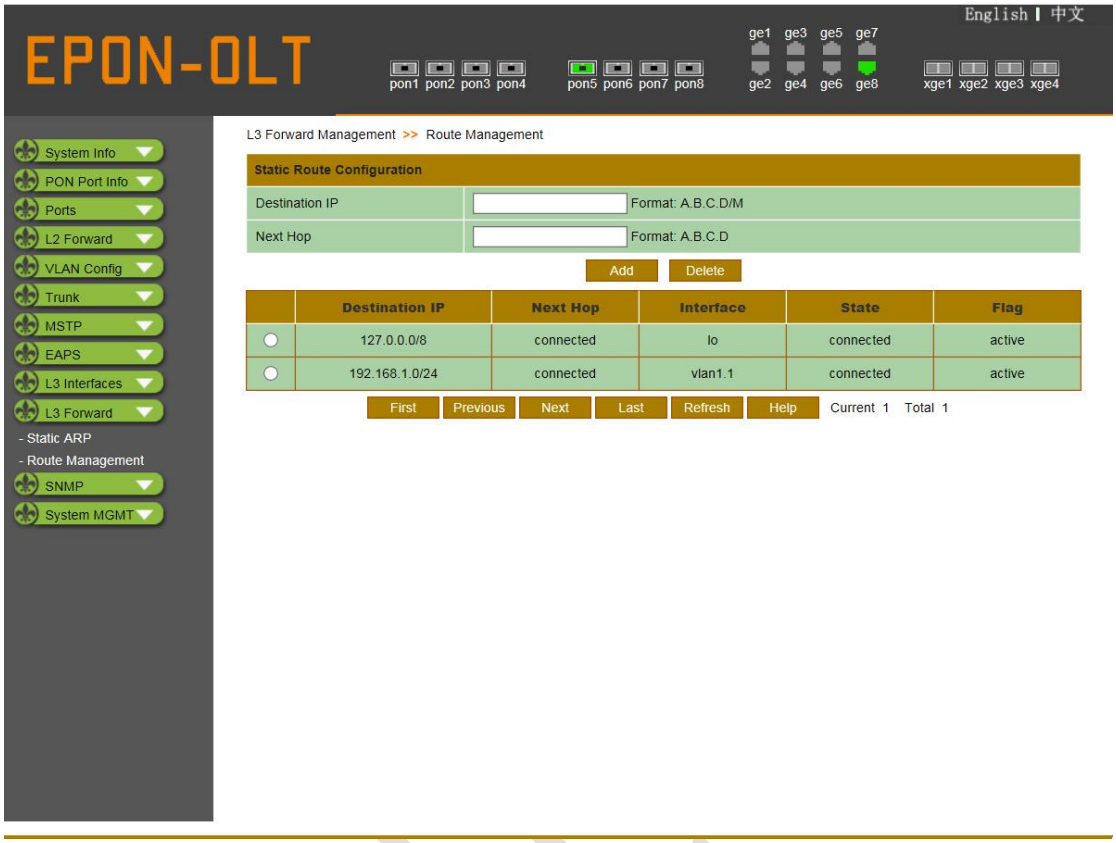

Figure 3- 31 Static route management

Interface	Description
Destination IP	This is the destination IP address segment of static routing.
Next Hop	This is the next hop IP address for static routing.

Table 3- 20 Static route management

Note：

You can only add and remove static routing in the routing management, but you can show all routing information of the device.

3.11.3 Static router config examples

Network requirement：

- There are VLAN2 and VLAN4 in OLT1 and VLAN3 and VLAN4 in OLT2. This two OLT devices are connected through the ge2 port which belonging to VLAN4, user A belong to VLAN2 and user B belong to VLAN3. The following figure topology configure the relevant parameters of each VLAN and the L3 interface of VLAN.
- You can configure static routing on OLT1 and OLT2 so that user A and user B can communicate.
- You can configure user A static ARP table entry on OLT1 and user A MAC address is 0000.0000.

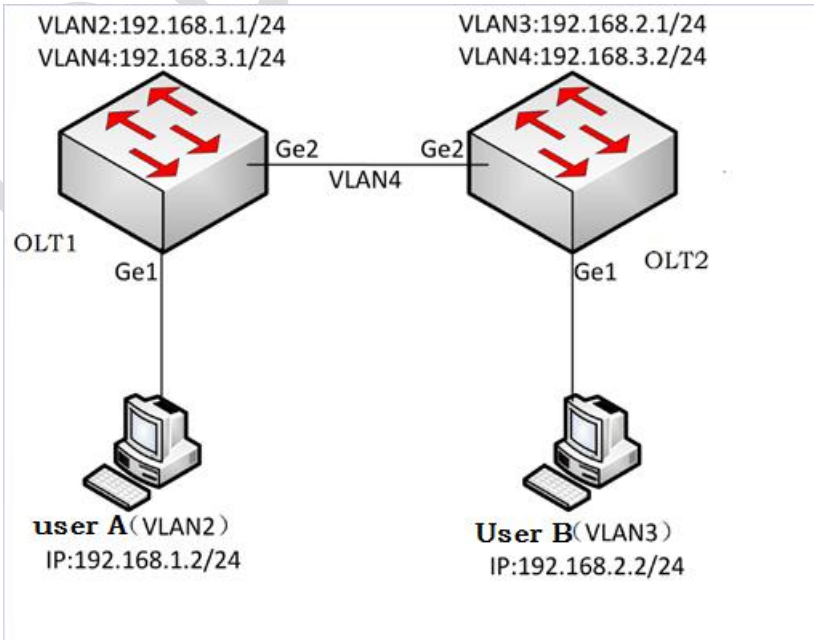

Figure 3.11.3.1

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Configuration Steps：

1. Refer to **3.6.1** to create VLAN2 and VLAN4 on OLT1 and VLAN3 and VLAN4 on OLT2.
2. Refer to **3.6.2** to add VLAN2 on the port of ge1 and VLAN4 on the port of ge2 on OLT1. You can add VLAN3 on the port of ge1 and add VLAN4 on the port of ge2 on OLT2.
3. Refer to **3.10.1** to configure the L3 interface IP address on OLT1 and OLT2. The address information is as shown in the figure above.
4. Configure static routing on OLT1:

   In the figure **3.11.3.1**, you can set the destination IP address is **192.168.2.2/24** and set the next hop IP address is **192.168.3.2**,then please click **<add >** button.
5. Configure static routing on OLT2:

   In the figure **3.11.3.1**, you can set the destination IP address is **192.168.1.2/24** and set the next hop IP address is **192.168.3.1**,then please click **<add>** button.
6. Configure static ARP on OLT1:

   As shown in figure **3.11.3.1**, you can set IP address is **192.168.1.2** and set MAC address is **0000.0000.AAAA** (this is user A network MAC address.).Then please click **<add>** button.

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3.12 SNMP

SNMP （Simple Network Management Protocol） is used for transferring management information between arbitrary two points, providing convenience for network manger to retrieve and modify information, locate fault, diagnose fault, do Capacity planning and report generation at any node.

3.12.1 SNMP Configuration

Click **SNMP > SNMP Management** to config SNMP parameters.

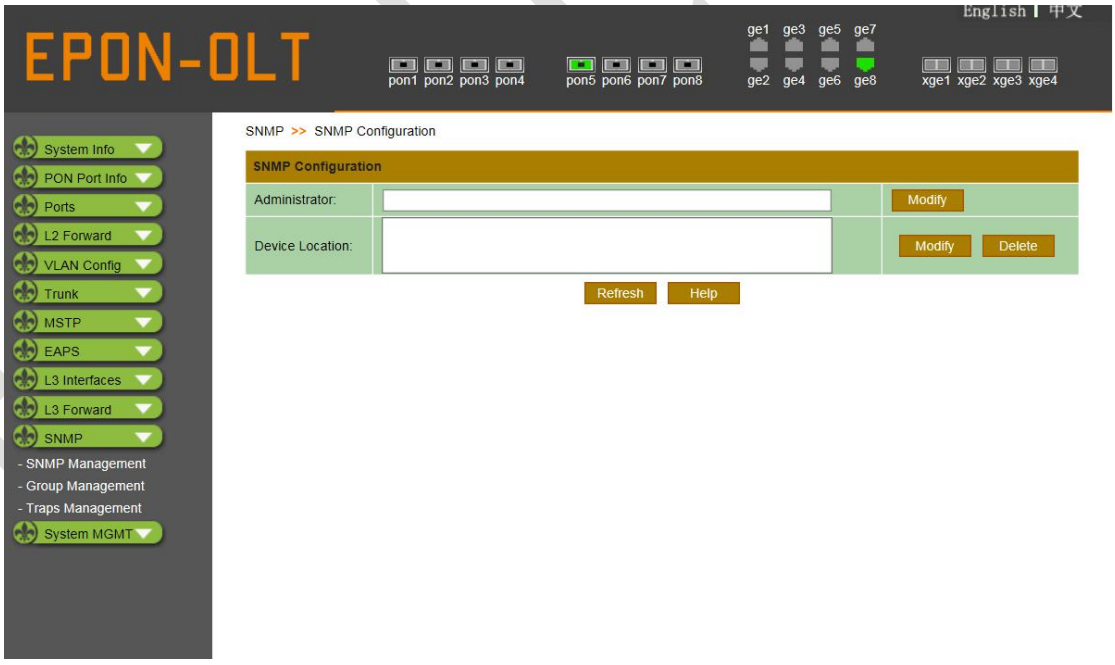


Figure 3- 32 SNMP configuration

Interface	Description
Administrator	System management maintenance contact information.

Device Location	Physical location information of the device.

Table 3- 21 SNMP configuration

3.12.2 Community configuration

Click **SNMP > Group Management** to set the community name and read&write permission of SNMP.

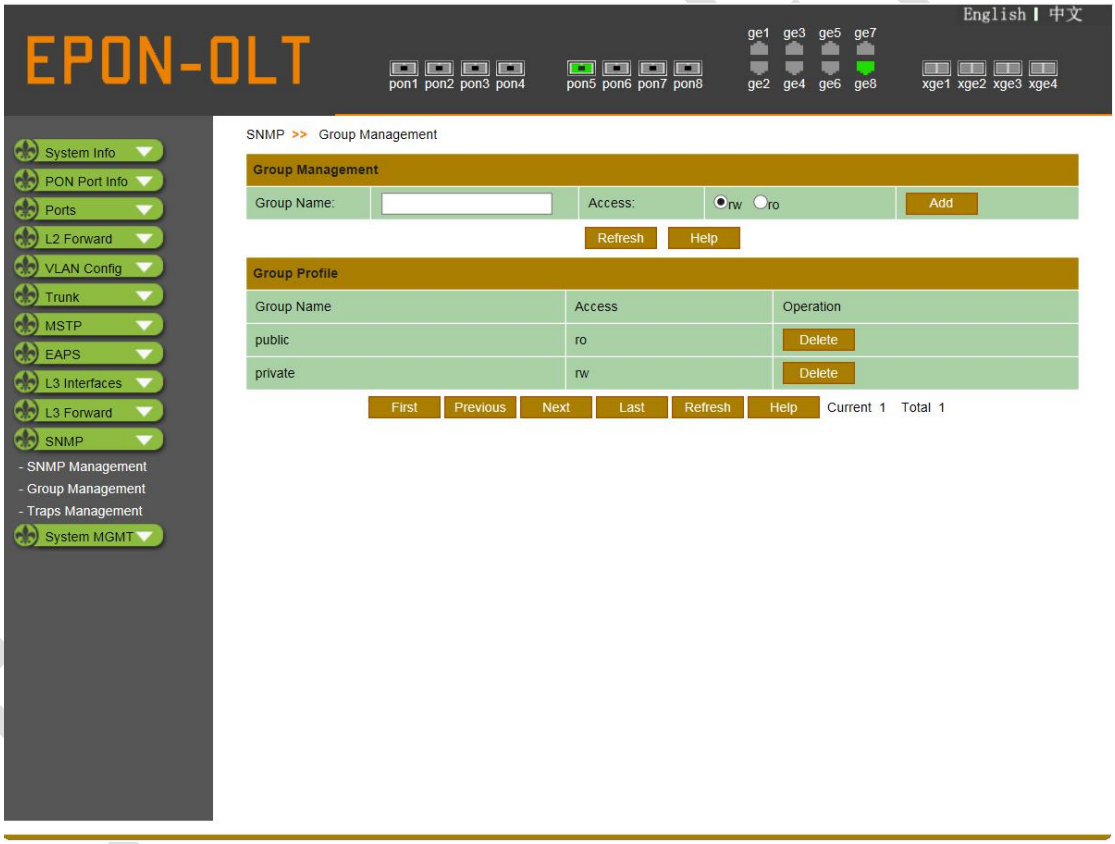


Figure 3- 33 Group configuration

Note:

The list of community name allows you to show and delete information.

3.12.3 Traps Configuration

Click **SNMP> Traps Management** to configure trap parameters.

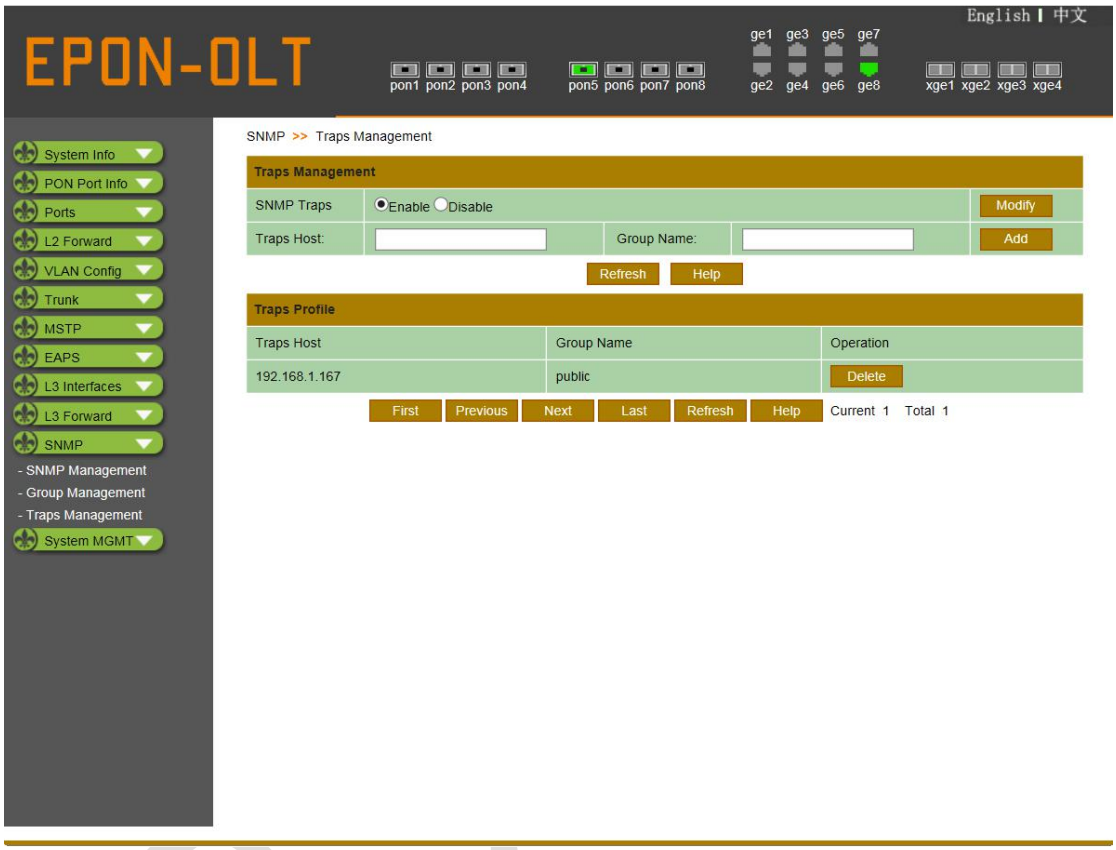


Figure 3- 34 Traps Configuration

Interface	Description
SNMP Traps	Set the community name and read&write permission of SNMP.
Traps host	Trap host IP address configuration and corresponding group name Settings

Table 3- 22 Traps configuration

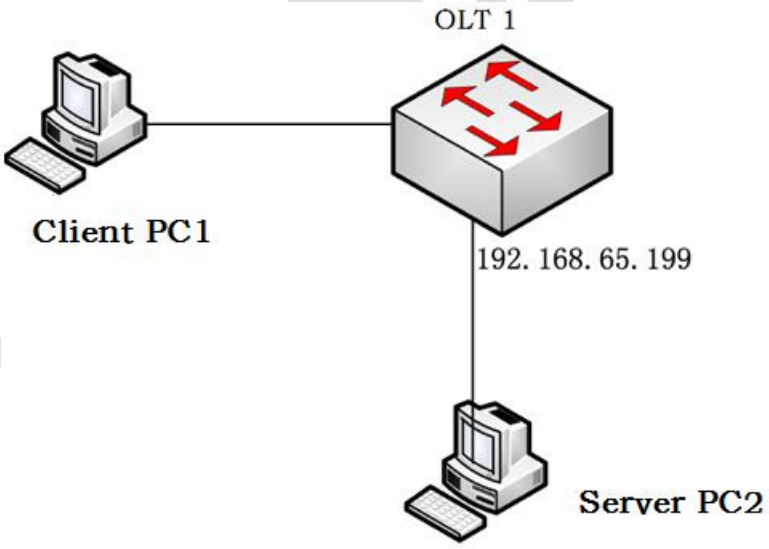
Note:

The Trap list allow you to show and delete information.

3.12.4 SNMP configuration instance

Network requirement：

- Allow client PC1 to read the MIB node information of OLT1 through the read-write test of community with the SNMP browser.
  - Allowed OLT1 send trap to the server PC2:192.168.65.199 with format of the SNMPv2 at the same time. The community with name as test.



Configuration Steps：

1. In the figure 3- 33 group configuration, config group name as test, Permissions as rw permission .Then click **<add>** button to

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complete.

2. In the figure 3- 34 Traps configuration, set SNMP trap as enable and click **<Modify>** to complete. Then set traps host as 192.168.65.199(it's PC2's IP address) and the group name as test. Finally please click **<add>** button to complete.

3.13 System Management

3.13.1 User Management

Click **System MGMT> User Management** to modify the current user password.

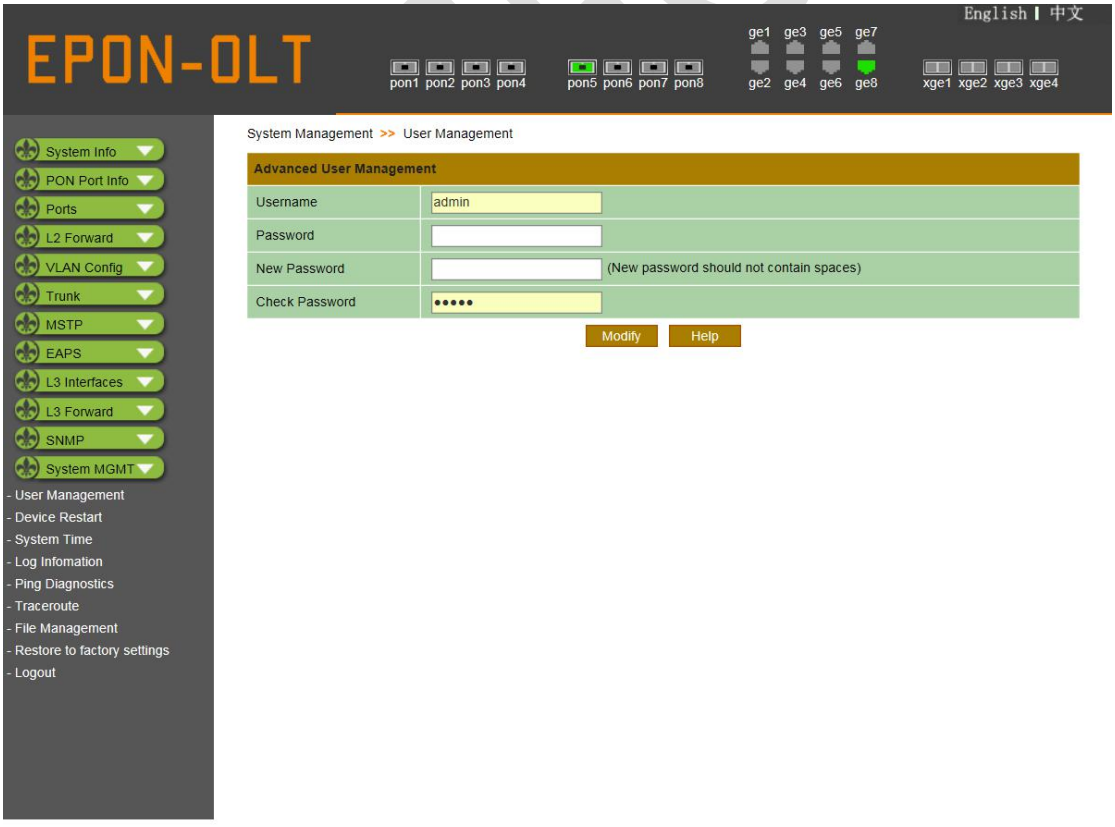

Figure 3- 35 user management

Note:

You can only change the password for the current user.

3.13.2 Restart OLT

Click **System MGMT> Device Restart** to restart the current device

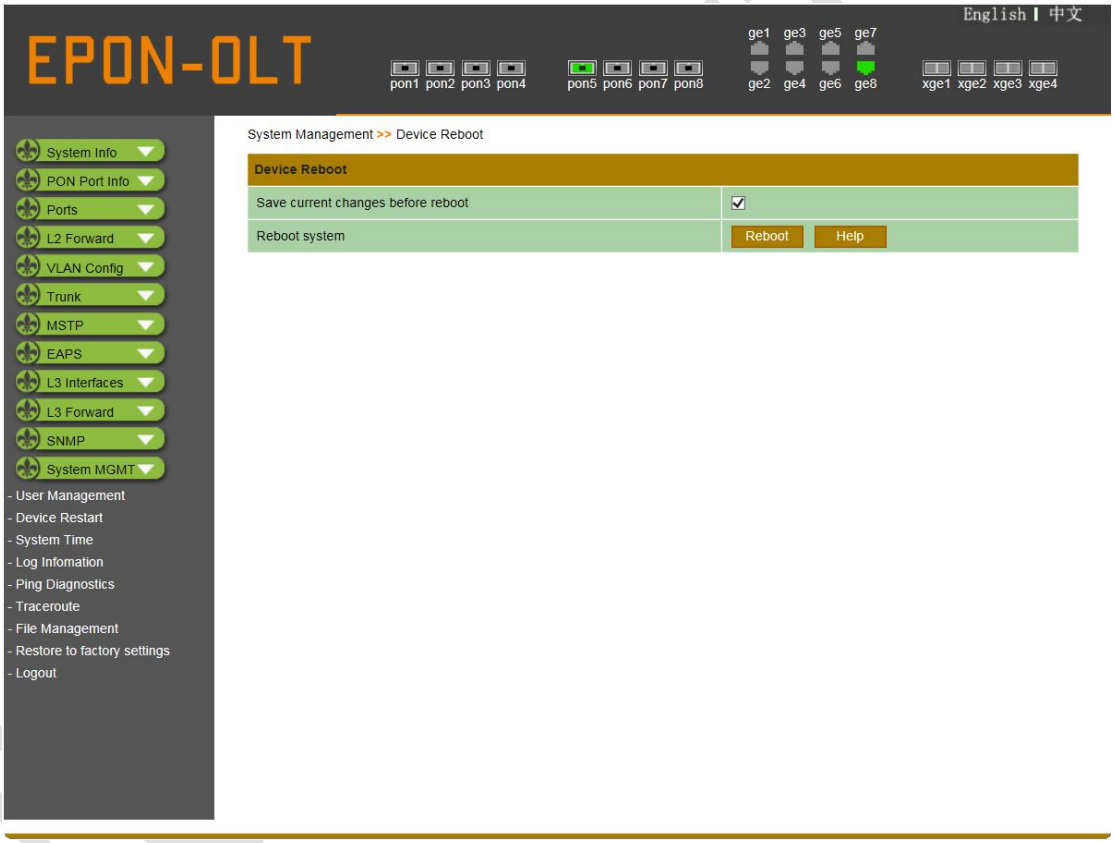

Figure 3- 36 restart OLT

3.13.3 System Time

Click **System MGMT> System time** to set device system time.

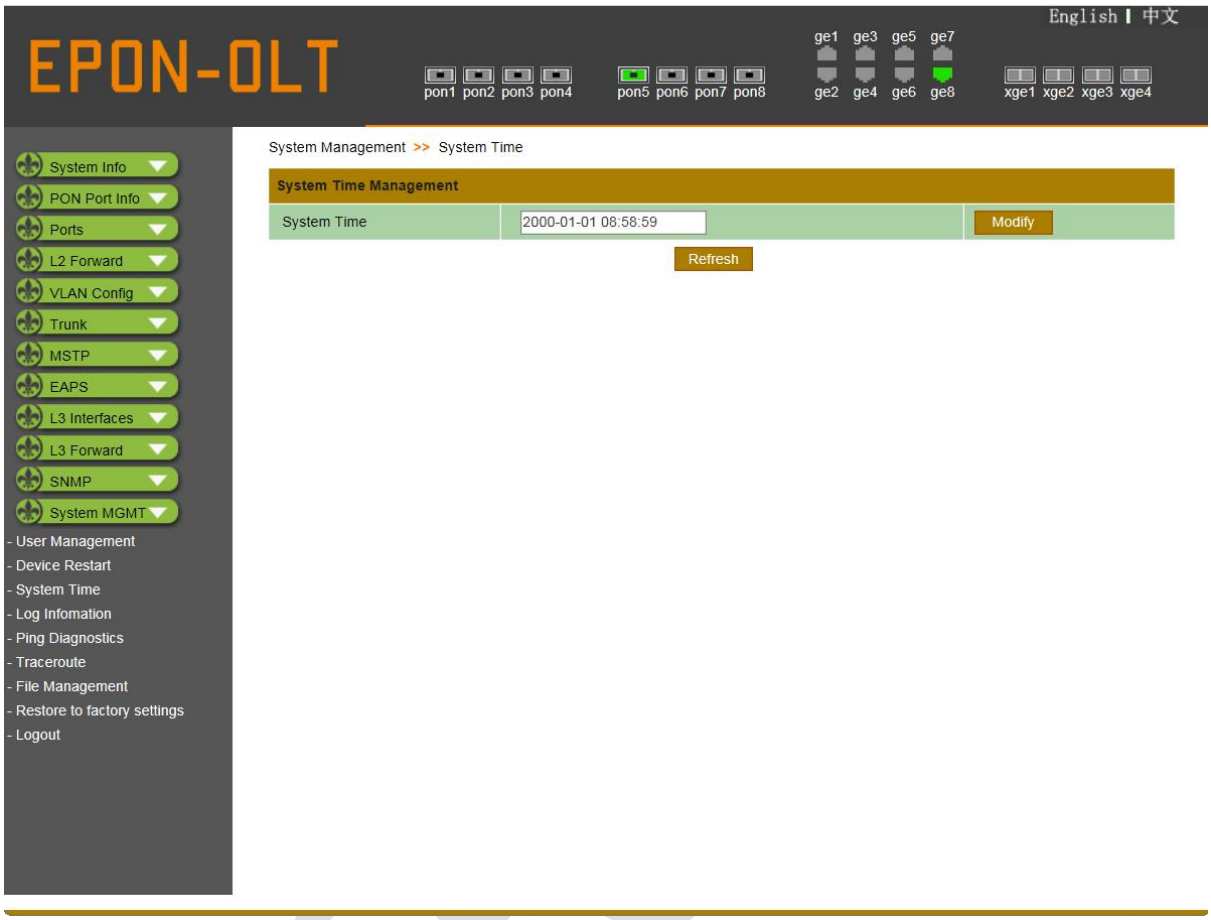

Figure 3- 37 System time

Note：

System time cannot be saved if RTC is not supported.

3.13.4 Log Output

Click **System MGMT> Log information** to show current device log output information.

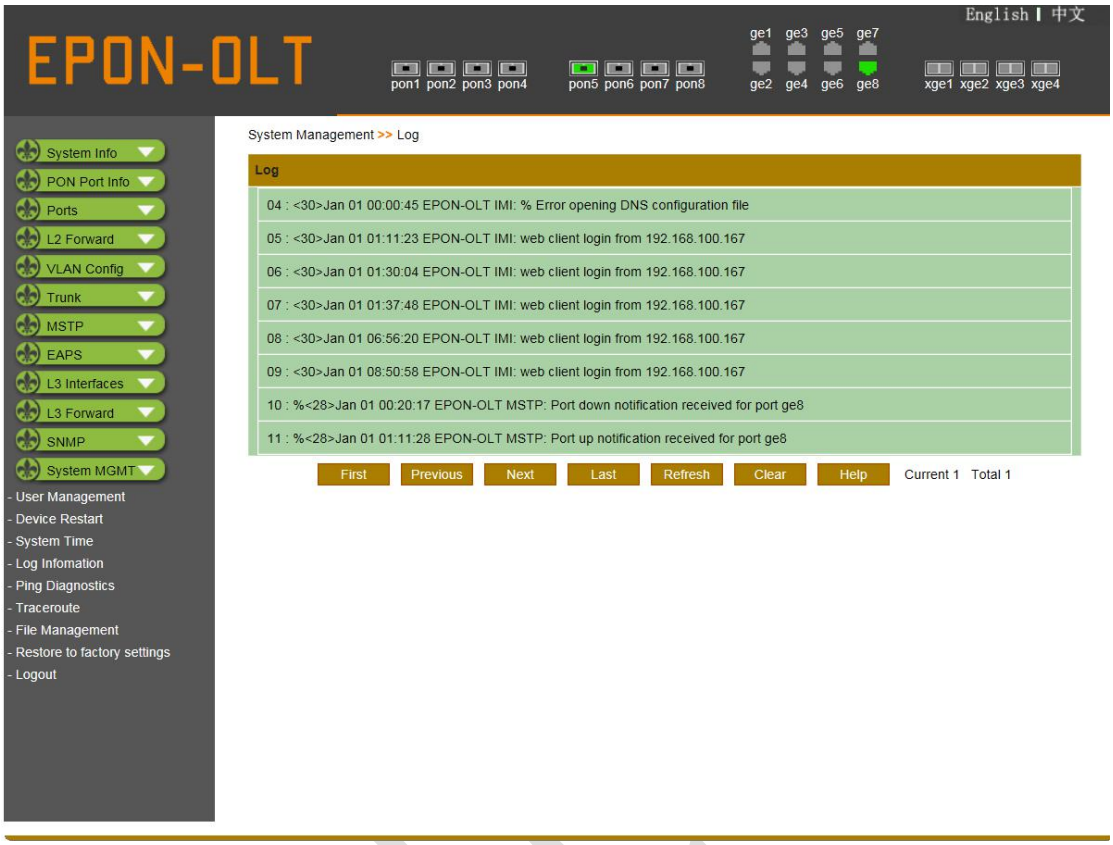

Figure 3- 38 Log output

3.13.5 Ping Diagnostics

Click **System MGMT> Ping Diagnostics** to diagnose the accessibility of the destination IP address.

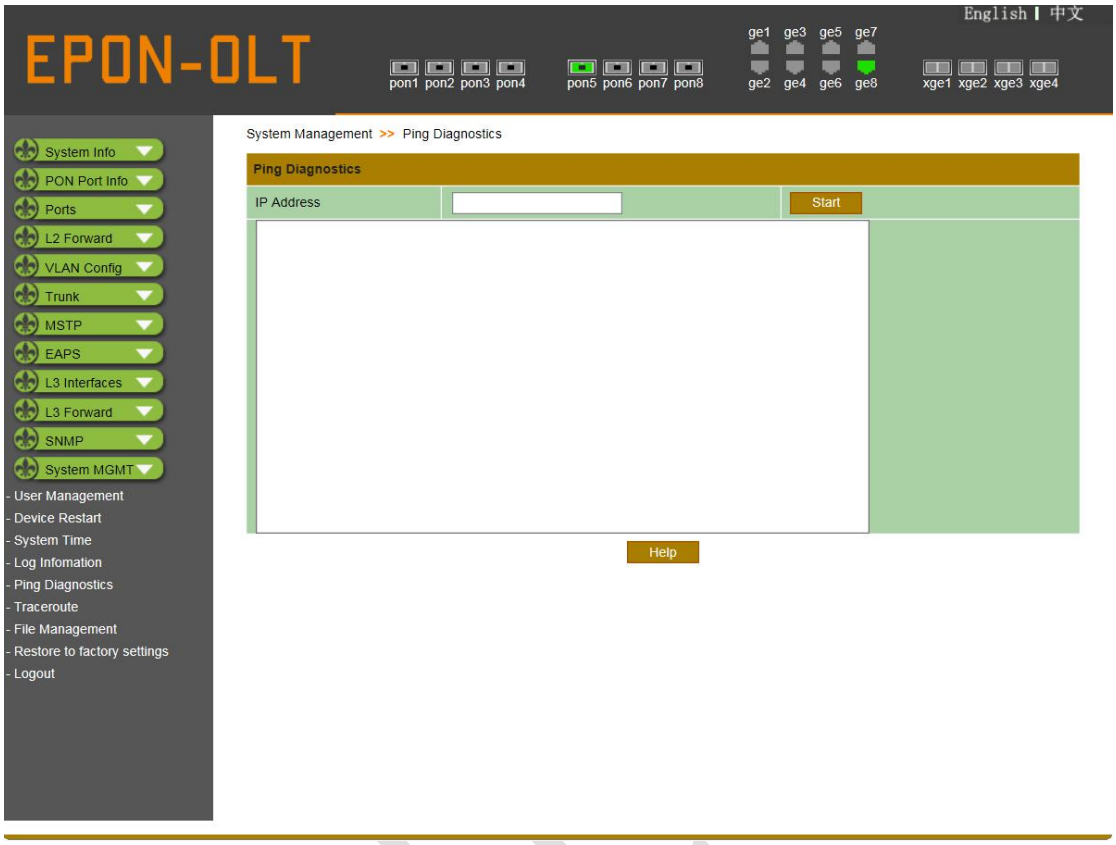

Figure 3- 39 Ping diagnostics

3.13.6 Traceroute

Click **System MGMT> Trace route** to detect the path information of destination IP address.

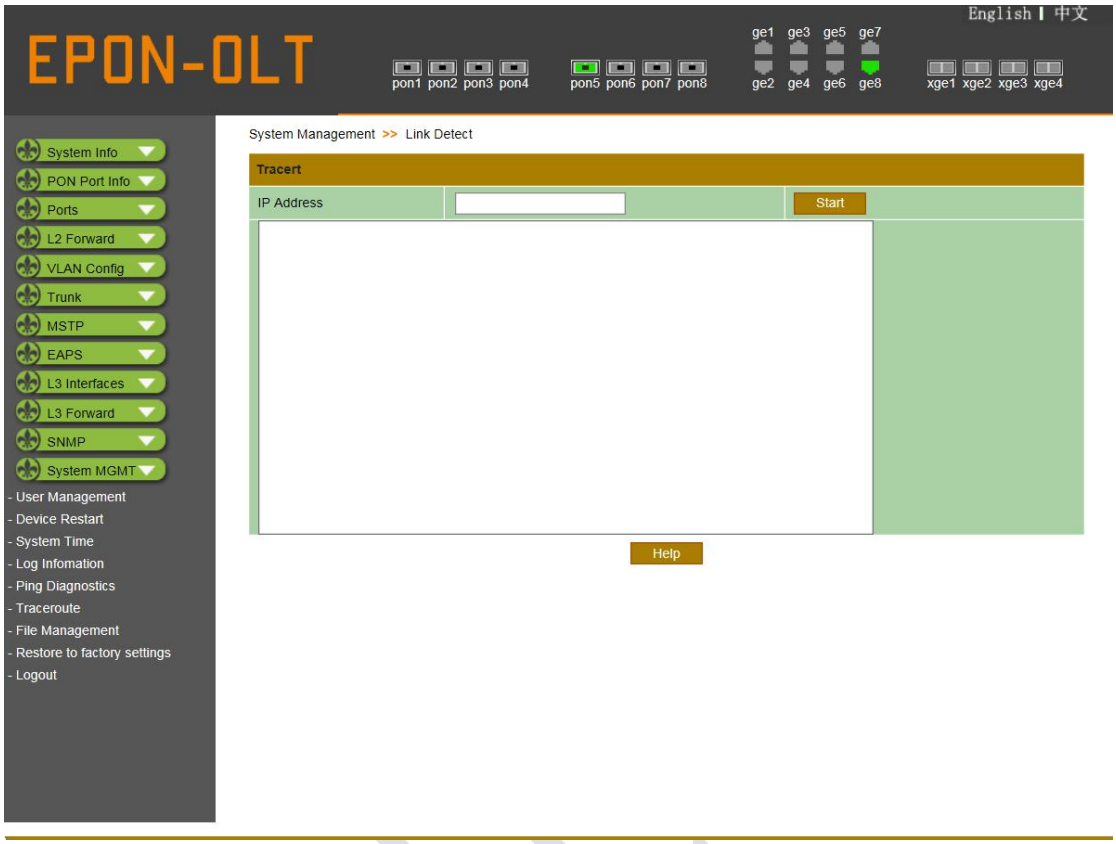

Figure 3- 40 Trace route detect

3.13.7 File Management

Click **System MGMT> File management** to show, upload/download configuration files or restore factory Settings.

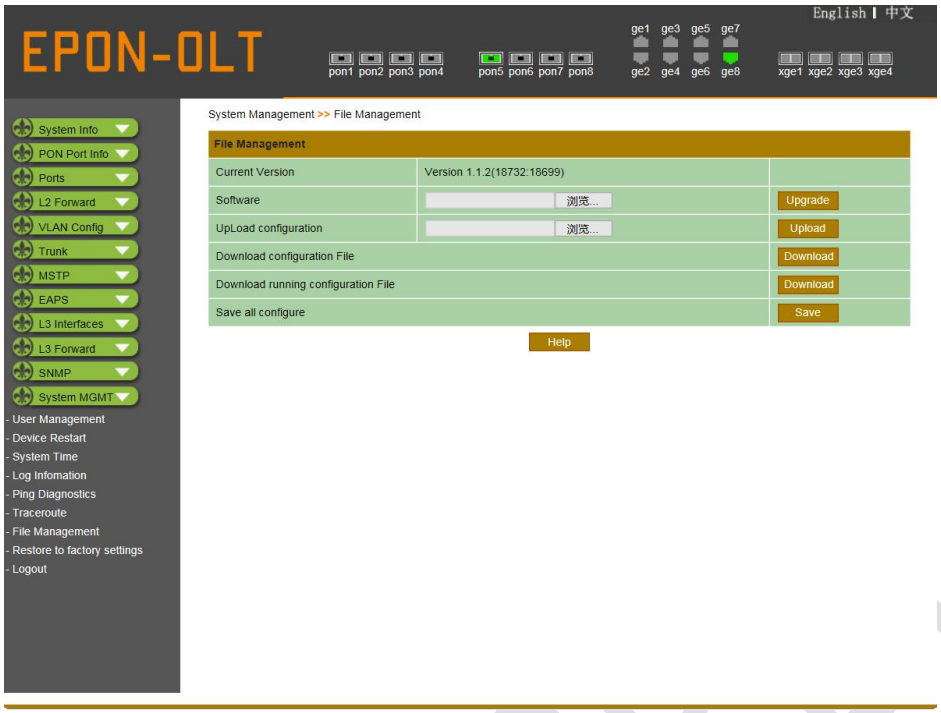

Figure 3- 41 file management

Interface	Description
Current Version	Display current version information and the download of the current version image
Software upgrade	Update image file (fs3526_4.img.gz) through WEB.
Upload configuration	Upload backup OLT profile through WEB.
Download configuration File	Download the configuration file saved by the current device.
Download running status File	Download the current running status file
Save all configuration	Save all the page configuration information

Table 3- 23 File management

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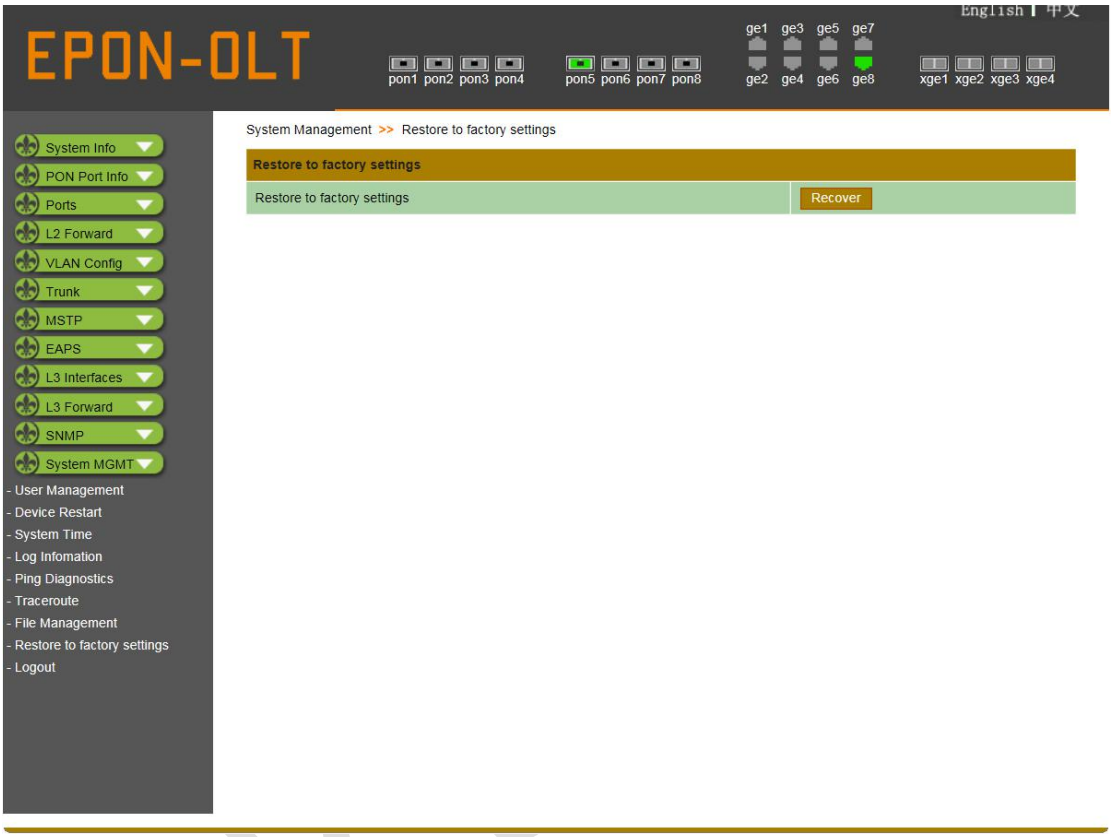
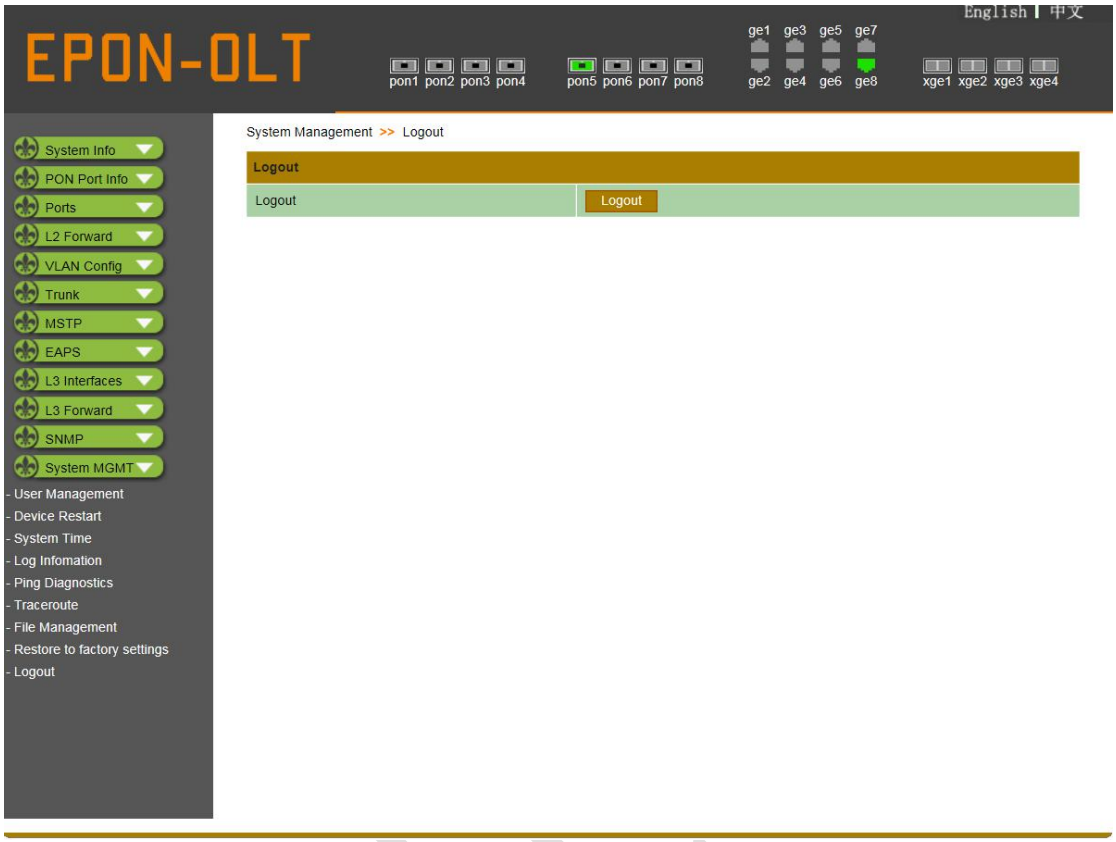
3.13.8 Restore to factory settings

Click **System MGMT> Restore to factory settings** to restore to factory settings.



3.13.9 Log out

Click **System MGMT> Log out** to log out the Web management system.



Abbreviation list:

ARP Address Resolution Protocol

BPDU Bridge Protocol Data Unit

EAPS Ethernet Automatic Protection Switching

LACP Link Aggregation Control Protocol

MSTP Multiple Spanning Tree Protocol

RSTP Rapid spanning Tree Protocol

RTP Real-time Transport Protocol

SNMP Simple Network Management Protocol

STP Spanning Tree Protocol

VLAN Virtual Local Area Network