Gepon OLT Web User Manual

Contents

Chapter 1 System Description 7

1.1 Overview 7

1.1.1 OLT Introduction 7

1.1.2 OS Requirement 7

1.2 Connection 8

Chapter 2 OLT Information 9

2.1 Login 9

2.2 Device Information 9

Chapter 3 OLT Configuration 11

3.1 VLAN 11

3.1.1 New VLAN 11

3.1.2 VLAN Port 11

3.1.3 QinQ/Translation 12

3.2 Uplink Port 13

3.2.1 Information 13

3.2.2 Configuration 14

3.3 PON 15

3.3.1 Information 15

3.3.2 Configuration 15

3.4 MAC 16

3.4.1 MAC Table 16

3.4.2 Configuration 17

3.5 LACP 17

3.5.1 Static LACP 17

3.5.2 Dynamic LACP 18

3.6 QOS 20

3.7 ACL 21

3.7.1 IP Filter 21

3.7.2 MAC Filter 22

3.7.3 IP/MAC Filter 22
3.7.4 Effect Filter 23
3.8 IPv6 ACL 23
3.8.1 IPv6 Filter 24
3.8.2 IPv6/MAC Filter 24
3.7.4 IPv6 Effect Filter 25
3.9 IGMP 25
3.9.1 Group Member 25
3.9.2 Global 26
3.9.3 Port 26
3.9.4 Port User VLAN 27
3.9.5 Port Mrouter 28
3.9.6 Static Group 28
3.10 IPv6 MLD 29
3.10.1 Group Member 29
3.10.2 Global 29
3.10.3 Port User VLAN 30
3.10.4 Port 30
3.10.5 Port Mrouter 31
3.10.6 Static Group 32
3.11 RSTP 33
3.11.1 Information 33
3.11.2 Global 33
3.11.3 Port 34
3.12 Loopback 35
3.12.1 Information 35
3.12.2 Global 35
3.12.3 Port 36
3.13 DHCP 37
3.13.1 DHCP Server 37

3.13.2 DHCP Relay 38
3.13.3 DHCP Snooping 39
3.14 DHCPv6 42
3.14.1 DHCPv6 Server 42
3.14.2 DHCPv6 Relay 44
3.15 IPv6 SLAAC 44
3.15.1 IPv6 SLAAC 45
3.15.2 IPv6 SLAAC Prefix 45
3.16 Route 46
3.16.1 IP 46
3.16.2 Static Route 47
3.16.3 RIP 48
3.16.4 OSPF 51
3.16.5 Key Chain 55
3.16.6 Route Table 56
3.17 IPv6 Route 56
3.17.1 VLAN IPv6 56
3.17.2 IPv6 Static Route 57
3.17.3 IPv6 Route Table 58
Chapter 4 ONU Configuration 59
4.1 ONU List 59
4.1.1 Config 59
4.1.2 Profile 70
4.1.3 Deregister Reset Unauth 71
4.1.4 ONU Status 71
4.1.5 OPM Diag 72
4.2 Authentication 72
4.2.1 Authentication Mode 72
4.2.2 MAC list 73
4.2.3 LOID List 74

4.3 Upgrade 75
4.3.1 Upgrade Status 75
4.3.2 Manual Upgrade 75
4.3.3 Auto Upgrade 76
Chapter 5 Profile Configuration 77
5.1 DBA Profile 77
5.1.1 Add/Commit 77
5.1.2 Bandwidth 77
5.2 Service Profile 78
5.2.1 Add/Commit 78
5.2.2 Content 79
5.3 VoIP Profile 79
5.3.1 Add/Commit 79
5.3.2 Content 80
5.4 Alarm Profile 81
5.4.1 Add/Commit 81
5.4.2 Content 82
5.5 Bind Profile 83
5.5.1 Information 83
5.5.2 Configuration 84
Chapter 6 System Configuration 86
6.1 System Log 86
6.1.1 System Log 86
6.1.2 Alarm 87
6.1.3 Threshold Alarm 88
6.1.4 Syslog Server 89
6.2 Device Management 90
6.2.1 Firmware Upgrade 90
6.2.2 Device Reboot 90
6.2.3 Config File 91

6.3 User Management 91
6.4 SNMP 92
6.4.1 SNMP V1/V2 92
6.4.2 SNMP V3 93
6.4.3 SMNP V3 Trap 94
6.5 AUX IP 95
6.6 System Time 95
6.6.1 RTC 95
6.6.2 NTP 96
6.7 FAN 96
6.8 Mirror 96
Chapter 7 Configuration Examples 98
7.1 Internet Service with VLAN 100 98
7.2 IPTV Service with VLAN 200 100
7.3 VoIP Service with VLAN 300 103
7.4 DHCPv6 Configuration 105
7.5 IPv6 SLAAC Configuration 111

Chapter 1 System Description

1.1 Overview

1.1.1 OLT Introduction

The WEB management user manual For AS Fiber OLT listed in Table 1-1. After you have completed installation, connection and commissioning of the equipment, you can start on configuring various services and functions for the equipment.

Table 1-1 OLT interfaces

Products		2 ports EPON OLT(L)	4 ports EPON OLT(L)	8 ports EPON OLT	16 ports EPON OLT
Chassis	Rack	1U 19 inch standard box	1U 19 inch standard box	1U 19 inch standard box	1U 19 inch standard box
1000M Uplink Port	QTY	4	8	16	12
	Copper	2*10/100/1000M auto-negotiation	4*10/100/1000M auto-negotiation	8*10/100/1000M auto-negotiation	4*10/100/1000M
	SFP (Independent)	2*SFP	4*SFP	4*SFP and 4*SFP+ (SFP+ is compatible with 10GE)	4*SFP and 4*SFP+ (SFP+ is compatible with 10GE)
EPON Port	QTY	2	4	8	16
	Physical Interface	SFP Slots	SFP Slots	SFP Slots	SFP Slots
Management Ports		1*10/100BASE-T out-band port(AUX), 1*CONSOLE port			
Management Mode		SNMP, WEB,Telnet and CLI			

1.1.2 OS Requirement

For OLT management, it supports or requires the following operation system.

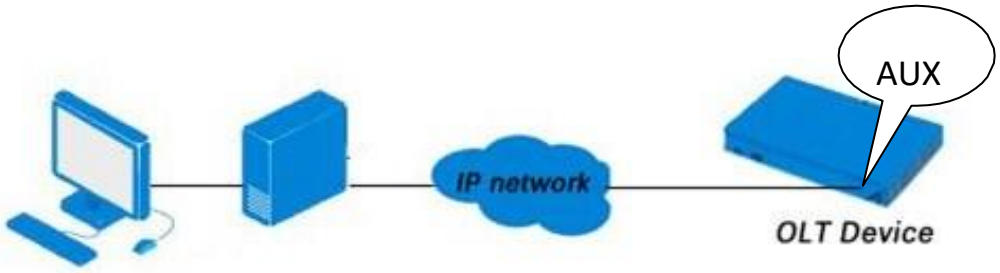
Table 1-2 OS requirements

CPU	Memory	DISK	Video Card	Operating System
Frequency above 2GHz	2GB Or above	10GB disk space	65000 color resolving capability 1024*768 and above	Windows2008 Windows XP Windows 7 Windows 8 Windows 10

1.2 Connection

Connect the OLT AUX port to IP network. The OLT default management IP is 192.168.8.100.

Please set your PC IP to192.168.8.X (e.g.192.168.8.123).



Chapter 2 OLT Information

2.1 Login

Follow the steps to login:

1. Conform “1.2 Connection” to connect;

2. The device default IP address is 192.168.8.100;

3. Open your web browser, type the device IP in address bar;

4. Entry of the username and password will be prompted. Enter the default login User Name and Password. Both the username and password are "**Xpon@Olt9417#**" by default.

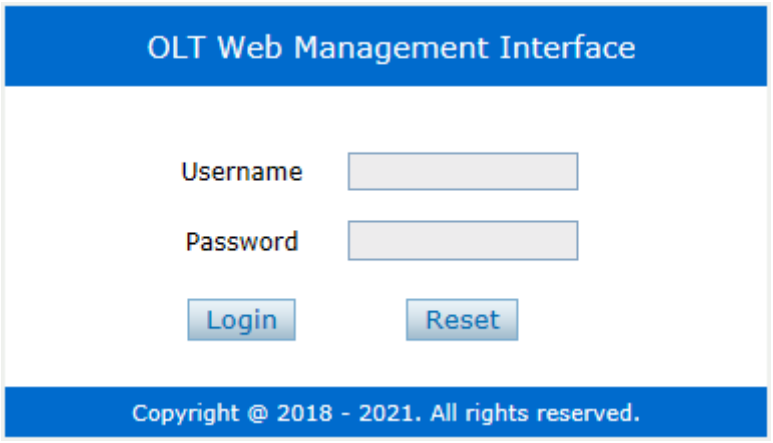


Figure 2-1: Login

2.2 Device Information

The OLT ports connection status are shown in the top of the interface, and about the OLT basic information.

Click **OLT Information→Device Information** to get the information.

This part shows the OLT information such as system name, serial number,

hardwareversion, firmwareversion, MAC address and system time. The system name can be modified if need.

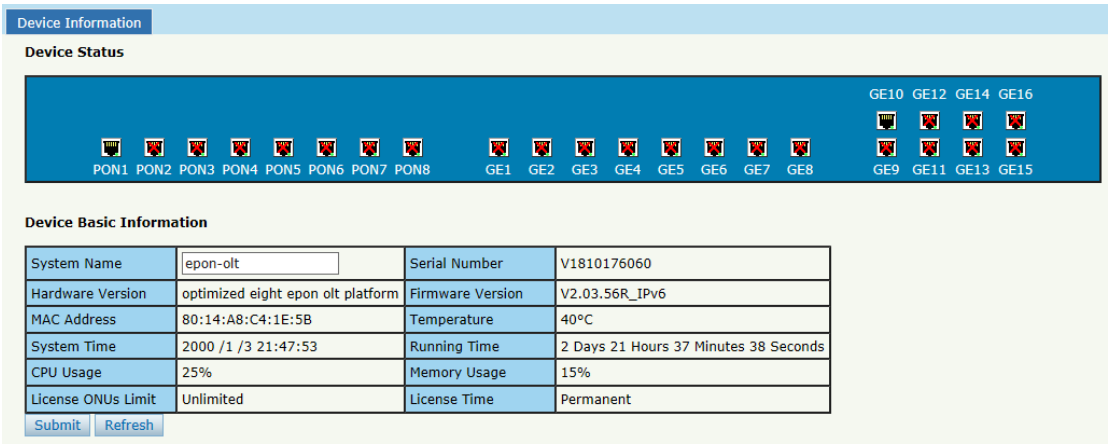


Figure 2-2: Device Information

Chapter 3 OLT Configuration

This section is about the basic service of OLT configuration.

3.1 VLAN

3.1.1 New VLAN

Click **OLT Configuration→VLAN** to create new VLAN.

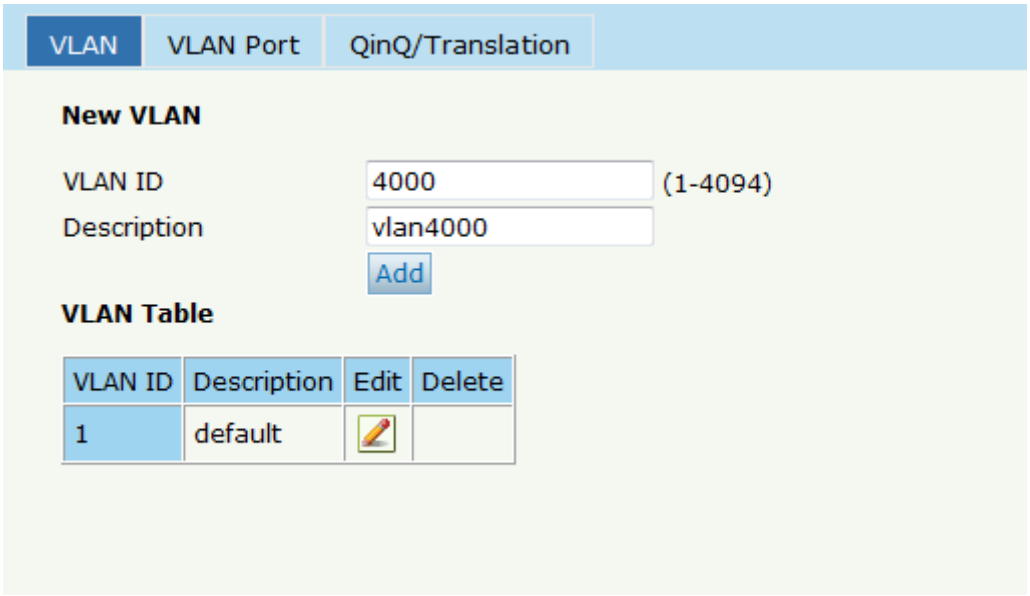


Figure 3-1: Create New VLAN

3.1.2 VLAN Port

Assign the ports to the VLANs that have been created. You can choose the tag or untag VLAN mode.

Click **OLT Configuration→VLAN→VALN Port** to configure VLAN ports, as shown in Figure 3-2.

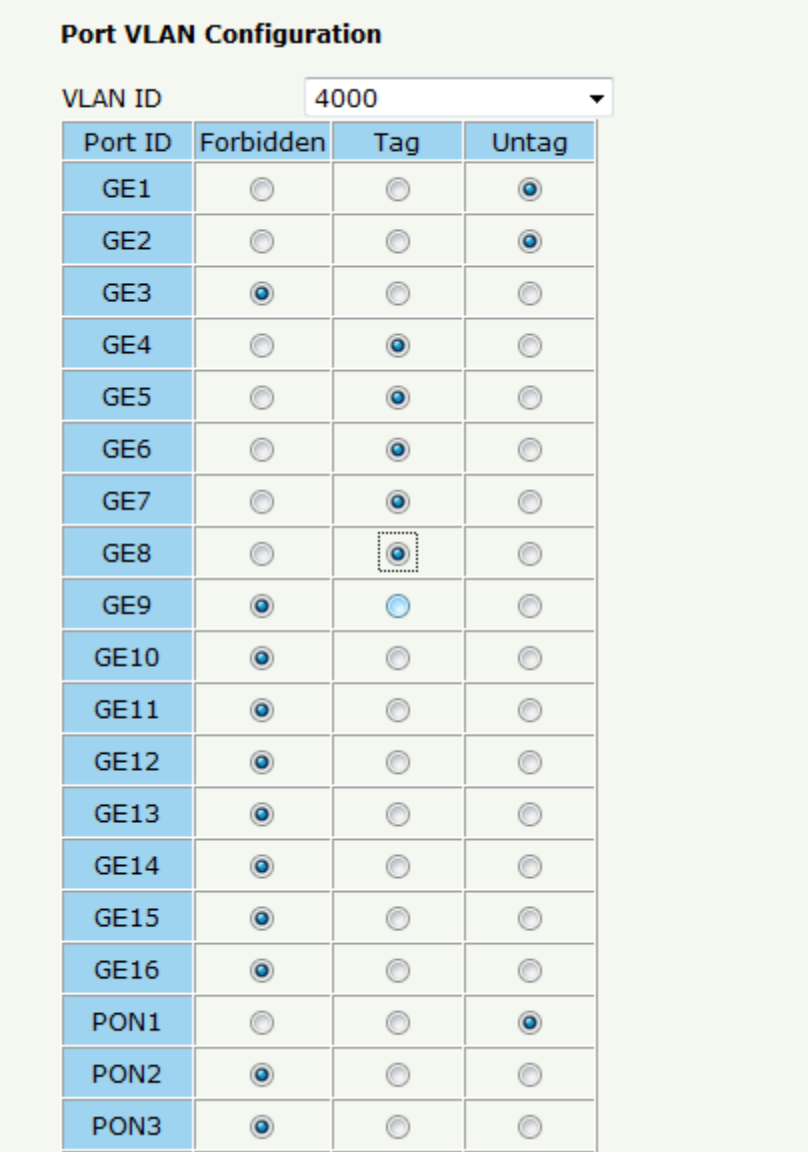


Figure 3-2: Add VLAN Port

3.1.3 QinQ/Translation

To configure the port mode VLAN translation or double VLAN tag, click **OLT Configuration→VLAN→QinQ/Translation**, as shown in Figure 3-3.

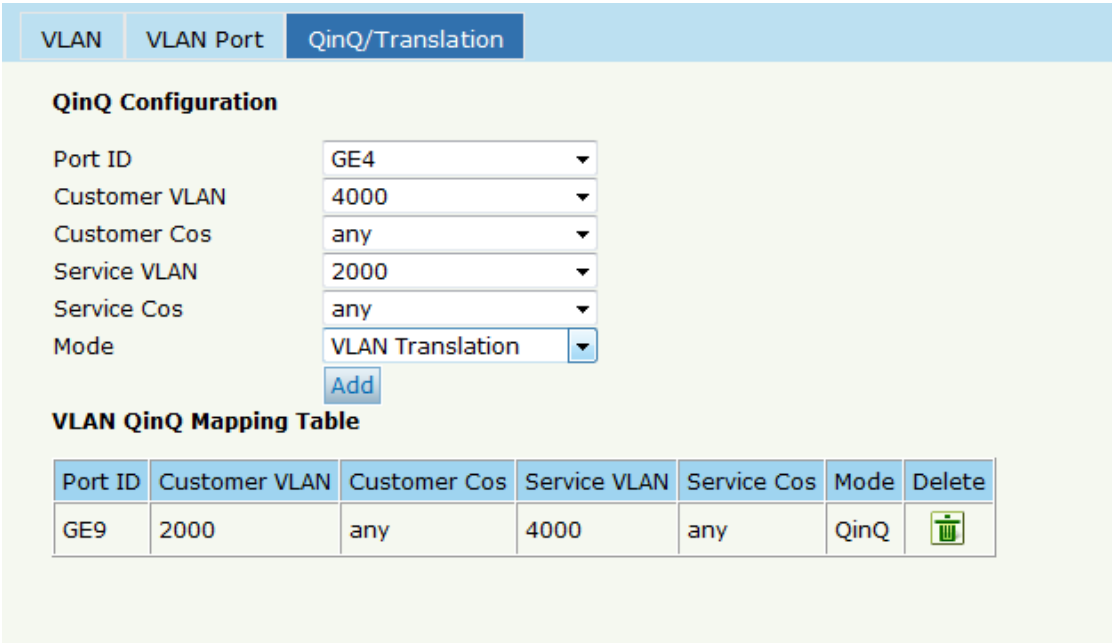


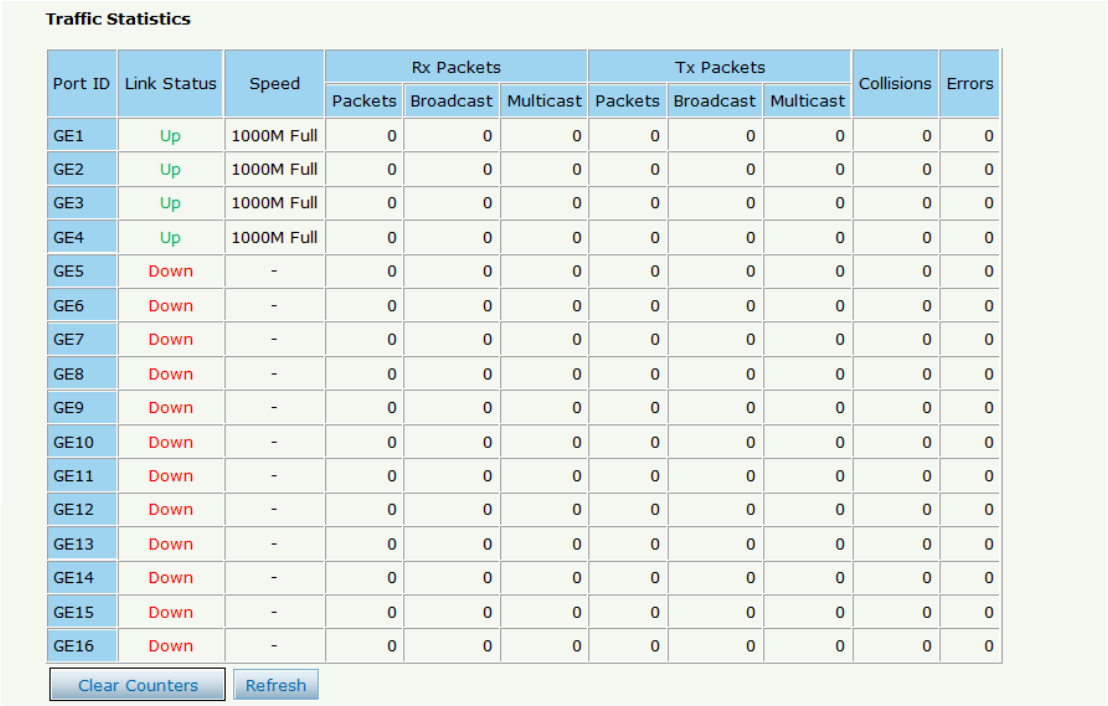
Figure 3-3: QinQ/Translation Configuration

3.2 Uplink Port

GE ports traffic statistics and basic configuration setting.

3.2.1 Information

Click **OLT Configuration →Uplink Port →Information** to check uplink information, as shown in Figure 3-4.



Traffic Statistics

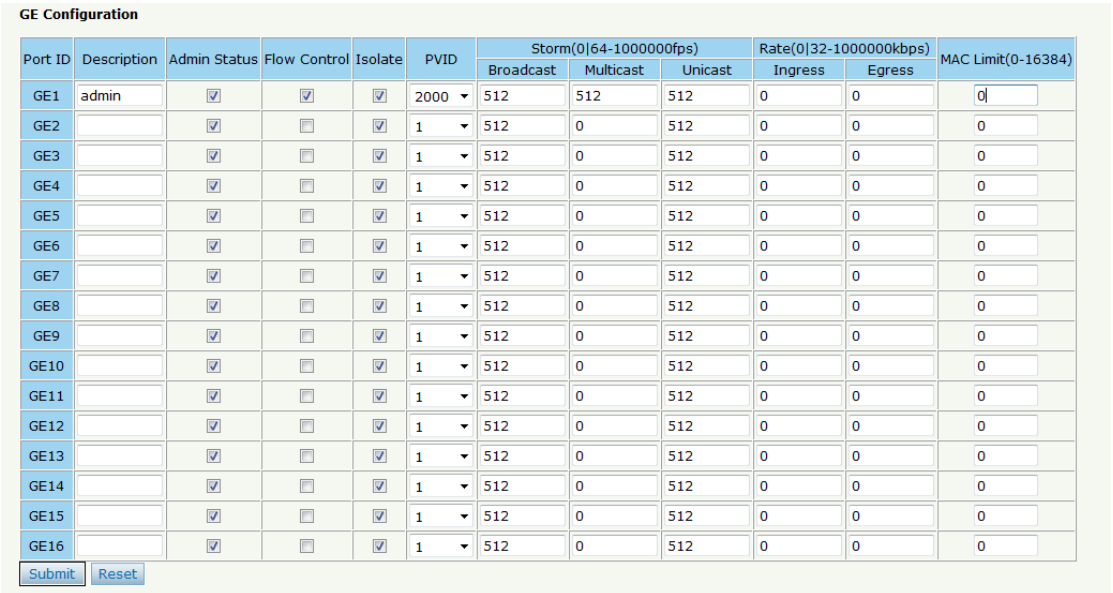
Port ID	Link Status	Speed	Rx Packets			Tx Packets			Collisions	Errors
			Packets	Broadcast	Multicast	Packets	Broadcast	Multicast		
GE1	Up	1000M Full	0	0	0	0	0	0	0	0
GE2	Up	1000M Full	0	0	0	0	0	0	0	0
GE3	Up	1000M Full	0	0	0	0	0	0	0	0
GE4	Up	1000M Full	0	0	0	0	0	0	0	0
GE5	Down	-	0	0	0	0	0	0	0	0
GE6	Down	-	0	0	0	0	0	0	0	0
GE7	Down	-	0	0	0	0	0	0	0	0
GE8	Down	-	0	0	0	0	0	0	0	0
GE9	Down	-	0	0	0	0	0	0	0	0
GE10	Down	-	0	0	0	0	0	0	0	0
GE11	Down	-	0	0	0	0	0	0	0	0
GE12	Down	-	0	0	0	0	0	0	0	0
GE13	Down	-	0	0	0	0	0	0	0	0
GE14	Down	-	0	0	0	0	0	0	0	0
GE15	Down	-	0	0	0	0	0	0	0	0
GE16	Down	-	0	0	0	0	0	0	0	0

Clear Counters Refresh

Figure3-4: GE Traffic Statistics

3.2.2 Configuration

The GE ports basic configuration can be set. Click **OLT Configuration →Uplink Port→Information** to configureuplink ports, as shown in Figure 3-5.



GE Configuration

Port ID	Description	Admin Status	Flow Control	Isolate	PVID	Storm(0|64-1000000fps)			Rate(0|32-1000000kbps)		MAC Limit(0-16384)
						Broadcast	Multicast	Unicast	Ingress	Egress	
GE1	admin	☑	☑	☑	2000	512	512	512	0	0	0
GE2		☑	☐	☑	1	512	0	512	0	0	0
GE3		☑	☐	☑	1	512	0	512	0	0	0
GE4		☑	☐	☑	1	512	0	512	0	0	0
GE5		☑	☐	☑	1	512	0	512	0	0	0
GE6		☑	☐	☑	1	512	0	512	0	0	0
GE7		☑	☐	☑	1	512	0	512	0	0	0
GE8		☑	☐	☑	1	512	0	512	0	0	0
GE9		☑	☐	☑	1	512	0	512	0	0	0
GE10		☑	☐	☑	1	512	0	512	0	0	0
GE11		☑	☐	☑	1	512	0	512	0	0	0
GE12		☑	☐	☑	1	512	0	512	0	0	0
GE13		☑	☐	☑	1	512	0	512	0	0	0
GE14		☑	☐	☑	1	512	0	512	0	0	0
GE15		☑	☐	☑	1	512	0	512	0	0	0
GE16		☑	☐	☑	1	512	0	512	0	0	0

Submit Reset

Figure3-5: Uplink Ports Configuration

3.3 PON

3.3.1 Information

The OLT PON ports information can be shown here, about the PON ports current temperature, Voltage,current, transmit power and the traffic statistics.

Click **OLT Configuration →PON →Information** to check PON ports information, as shown in Figure 3-6.

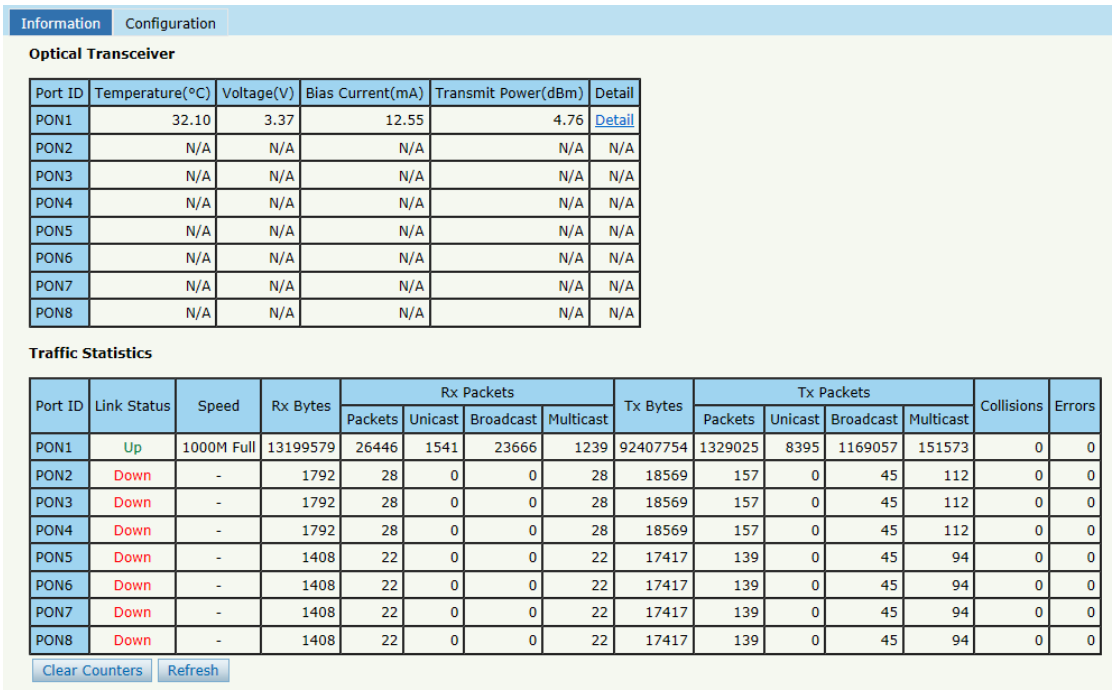


Figure3-6: PON Information

3.3.2 Configuration

The PON ports basic configuration can be set.

Click **OLT Configuration →PON →Configuration** to configure PON ports, as shown in Figure 3-7.

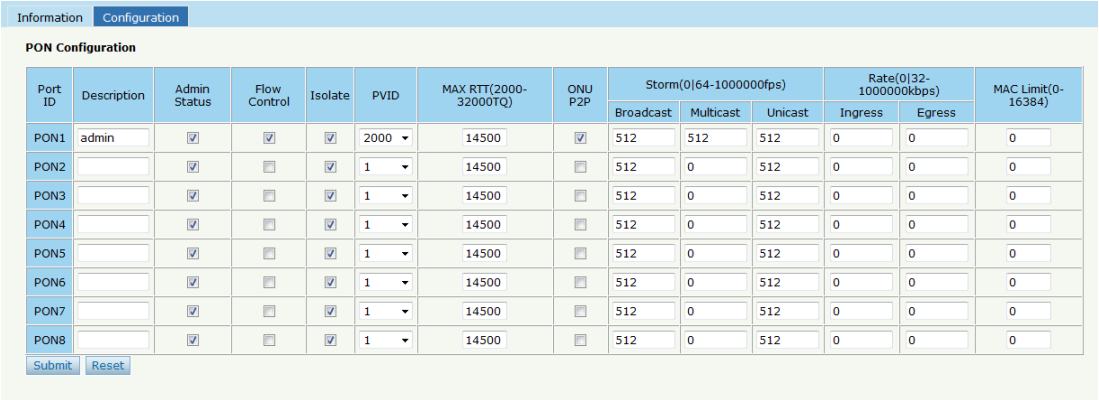


Figure3-7: PON configuration

3.4 MAC

3.4.1 MAC Table

All the OLT learning MAC can be shown.

Select **OLT Configuration→MAC→MAC Table,** as shown in Figure 3-8.

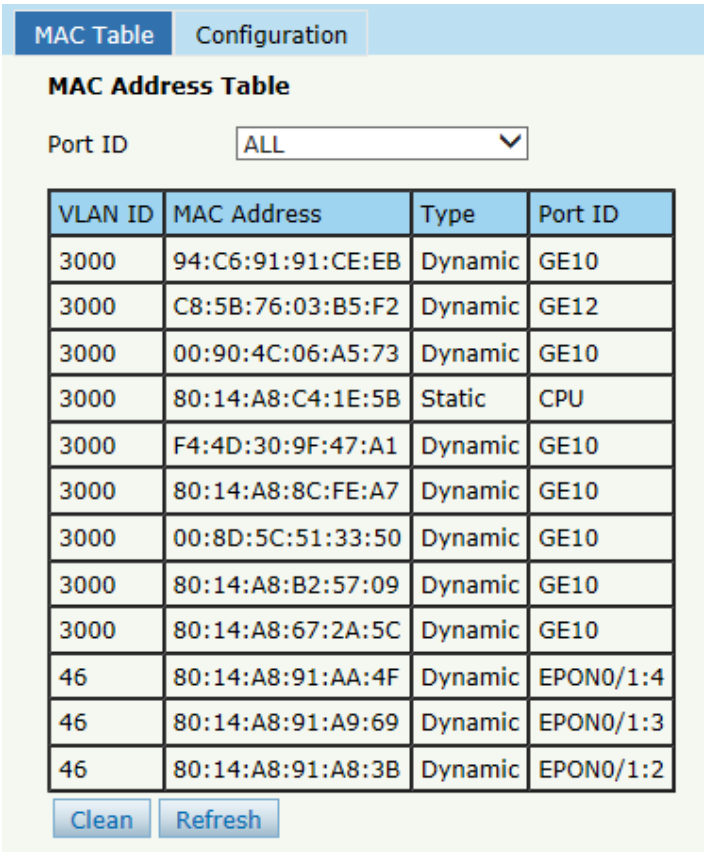


Figure3-8: MAC Address Table

3.4.2 Configuration

The default MAC aging time of OLT is 300s, user can change the value between 10~1000000s. Also, user can add the MAC to the OLT manually. Select **OLT Configuration→MAC→Configuration,** as shown in Figure 3-9.

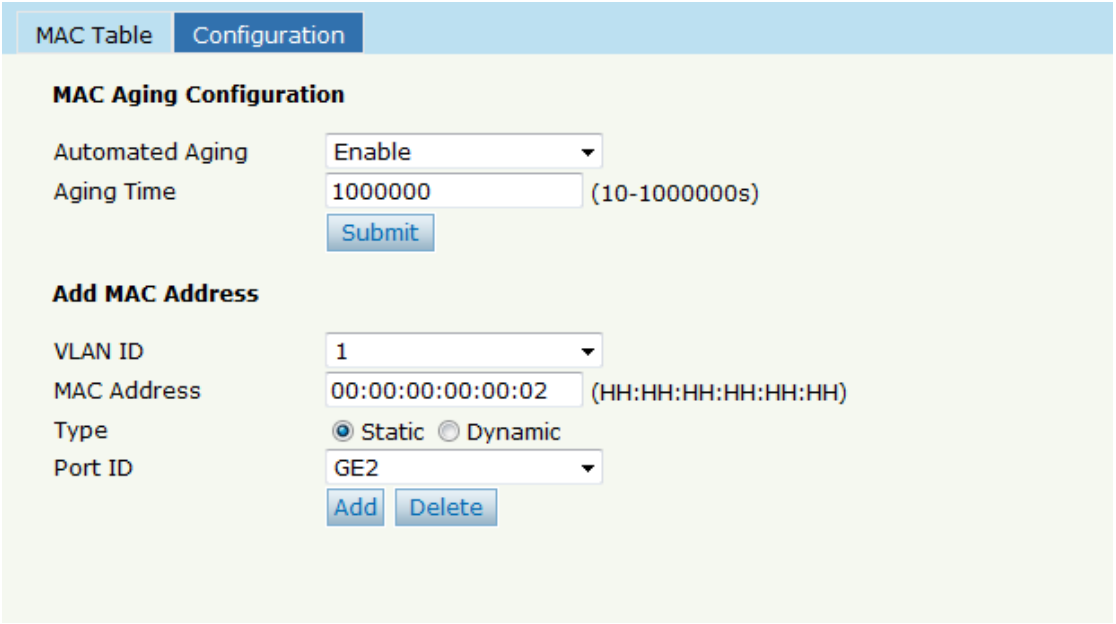


Figure 3-9: MAC Configuration

3.5 LACP

3.5.1 Static LACP

Select **OLT Configuration→LACP→Static LACP** to assign and configure an uplink physical interface to an EtherChannel. When a traffic link can't be used suddenly, this traffic link will switch to another link automatically.The group range is from 1 to 4.Each group can add 4 ports maximally. Only GE ports can be added in the channel groups.

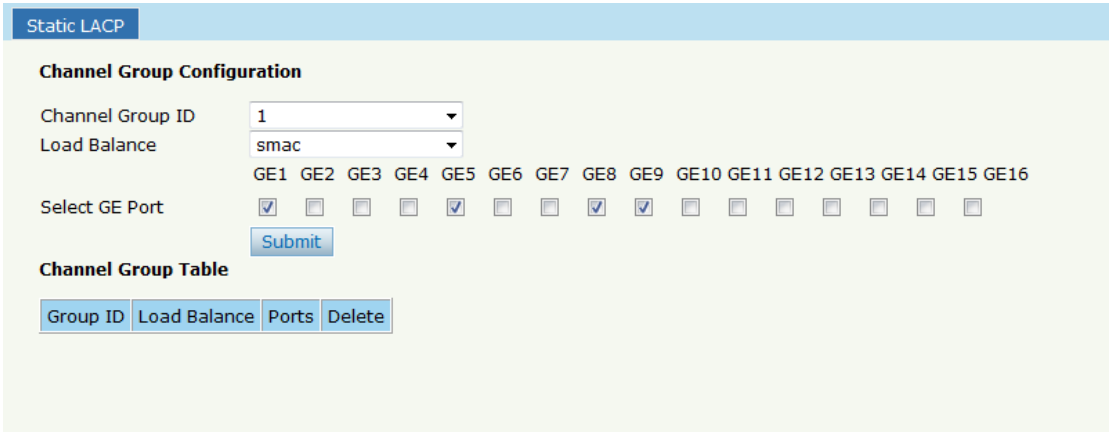


Figure 3-10: Create Static LACP

3.5.2 Dynamic LACP

3.5.2.1 Information

This page displays dynamic LACP information. Only the port which is linkup can be shown in the table. OLT can detect how many devices the uplink ports connected to. If the ports are connected to the same device, they will be in a channel group, otherwise in different channel group.

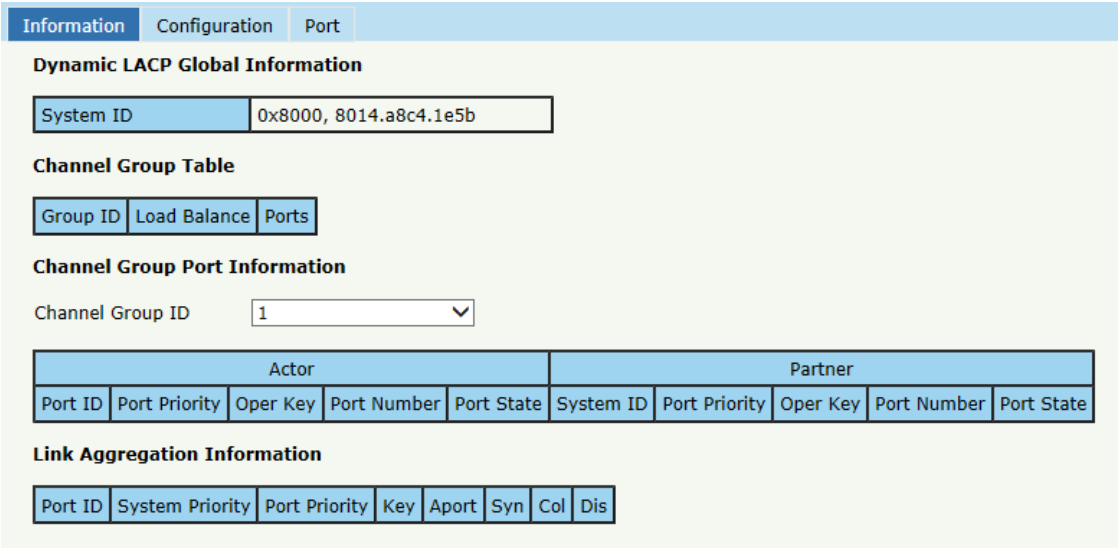


Figure 3-11: Dynamic LACP Information

3.5.2.2 Configuration

This page is used to configure device priority and load balance mode. OLT will distribute traffic to the ports which are in the same channel group averagely by load balance mode.

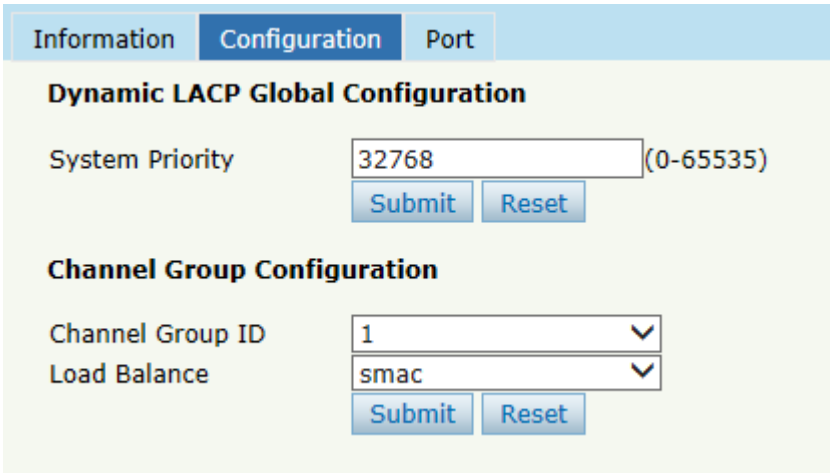


Figure 3-12: Dynamic LACP Configuration

3.5.2.3 Port

This page is used to configure port parameters for dynamic LACP. Only the port which LACP status is checked can become a LACP member port.

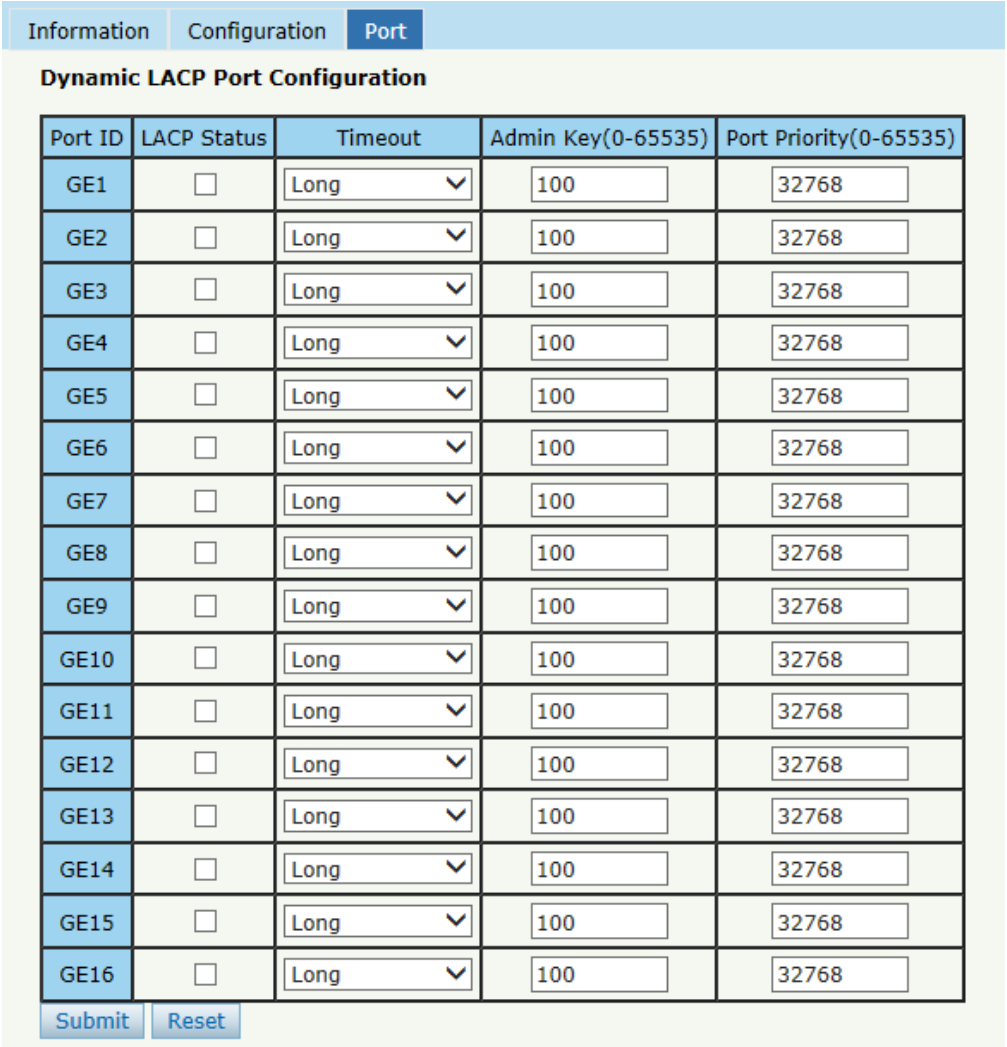


Figure 3-13: Dynamic LACP Port Configuration

3.6 QOS

The EPON OLT supports layer 2 802.1p and layer 3 DSCP QOS. Frames can be placed in different queues and serviced via Strict Priority (SP), Weighted Round Robin (WRR) and SP+WRR. Select **OLT Configuration →QOS** to set QOS configuration, as shown in Figure 3-14.

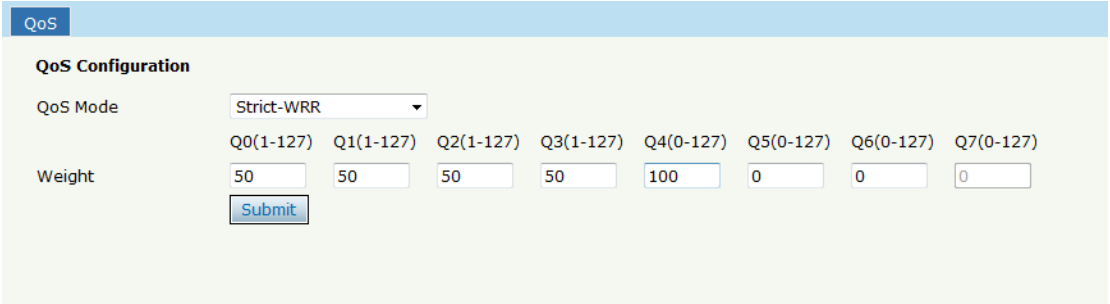


Figure 3-14: QOS Configuration

3.7 ACL

This part is about the security configuration of OLT. ACL can permit or deny data passing and accessing.

3.7.1 IP Filter

The filter is based on the IP address, including source IP address and destination IP address.

Select **OLT Configuration→ACL→IP Filter** to set the configuration, as shown in Figure 3-15.

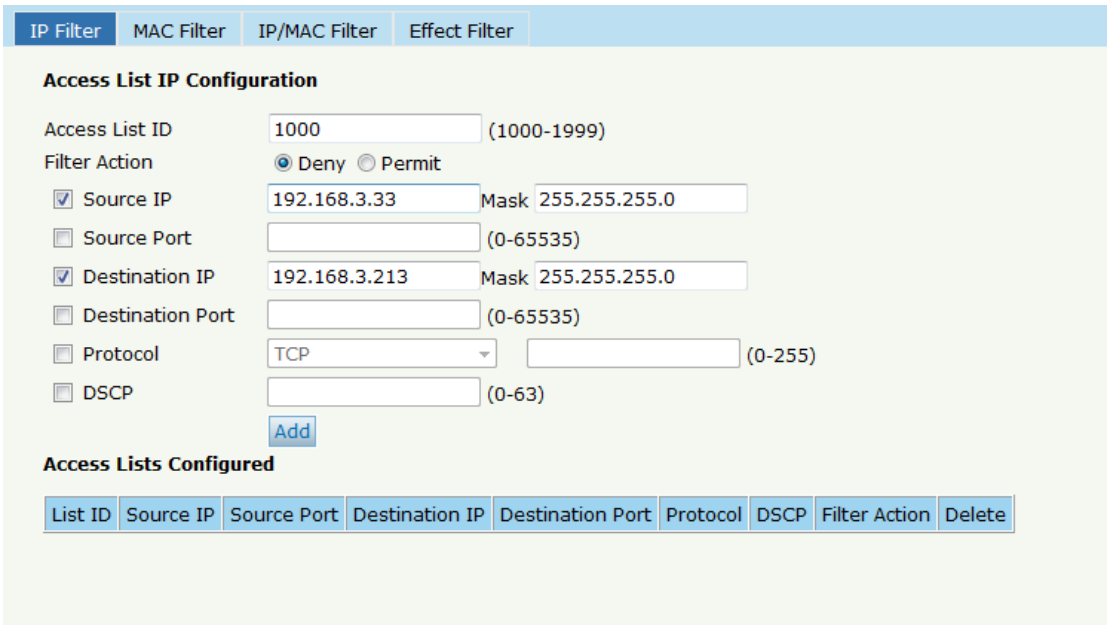


Figure 3-15: IP Filter

3.7.2 MAC Filter

The filter is based on the MAC address, including source MAC address and destination MAC address.

Select **OLT Configuration→ACL→MAC Filter** to set the configuration, as shown in Figure 3-16.

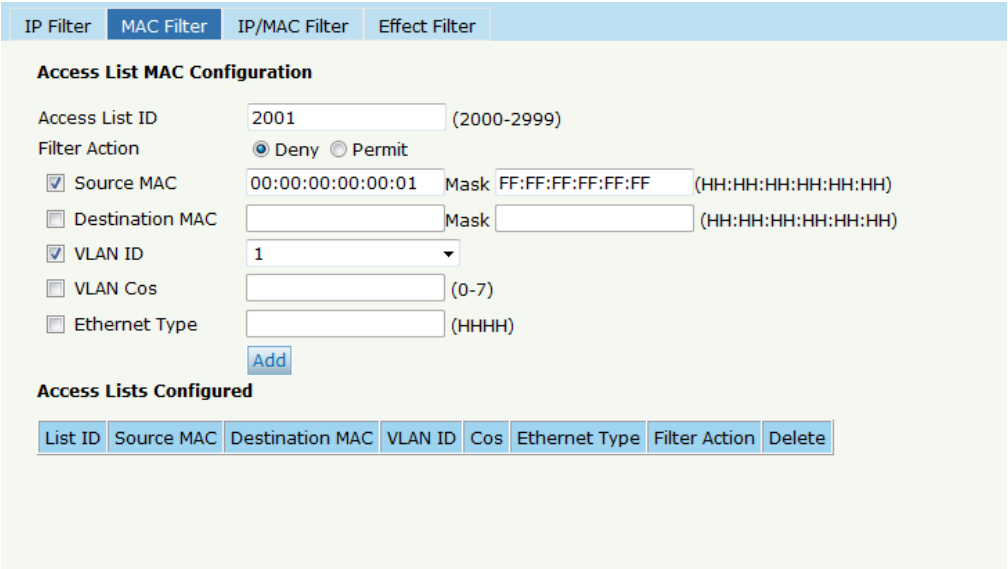


Figure 3-16: MAC Filter

3.7.3 IP/MAC Filter

This filter mix the IP address and MAC address, including source IP address and destination IP address, source MAC address and destination MAC address, VLAN, Ethernet type, protocol, TCP/UDP port, and so on.

Select **OLT Configuration→ACL→IP/MAC Filter** to set the configuration, as shown in Figure 3-17.

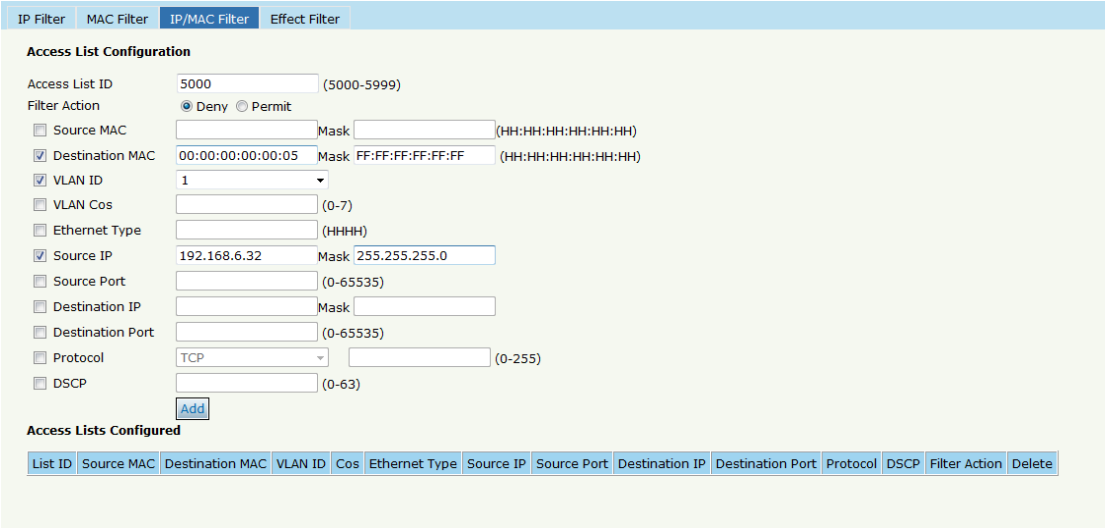


Figure 3-17 IP/MAC Filter

3.7.4 Effect Filter

Bind the access list to the ports then it can take effect. Each access list can be bound several ports.

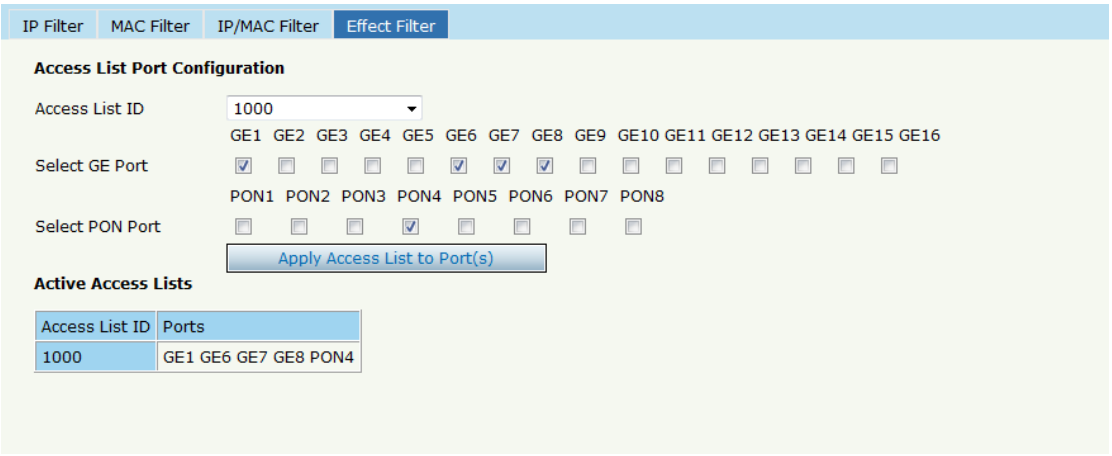


Figure 3-18: Bind Security Filter

3.8 IPv6 ACL

This part is about IPv6 securityconfiguration of OLT. IPv6 ACL can permit or deny data passing or accessing by IPv6 packets.

3.8.1 IPv6 Filter

The filter is based on the IPv6 address, including source IPv6 address and destination IPv6 address.

Select **OLT Configuration →IPv6ACL→IPv6 Filter** to set the configuration, as shown in Figure 3-19.

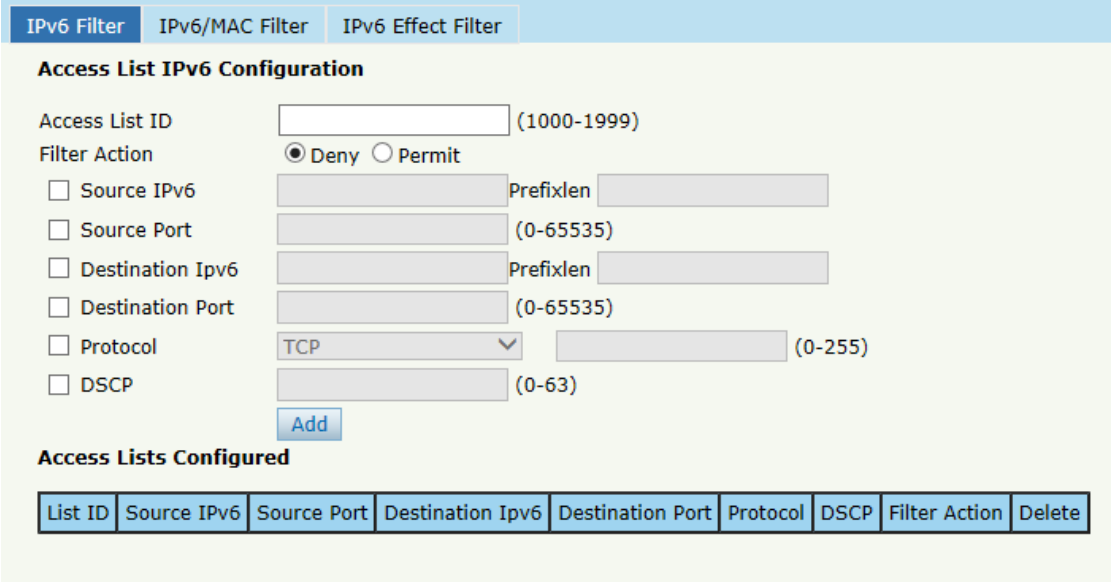


Figure 3-19: IPv6 Filter

3.8.2 IPv6/MAC Filter

This filter mixes IPv6 address, MAC address and other parameters, including source IPv6 address and destination IPv6 address, source MAC address and destination MAC address, VLAN, Ethernet type, protocol, TCP/UDP port, and so on.

Select **OLT Configuration →IPv6ACL→IPv6/MAC Filter** to set the configuration, as shown in Figure 3-20.

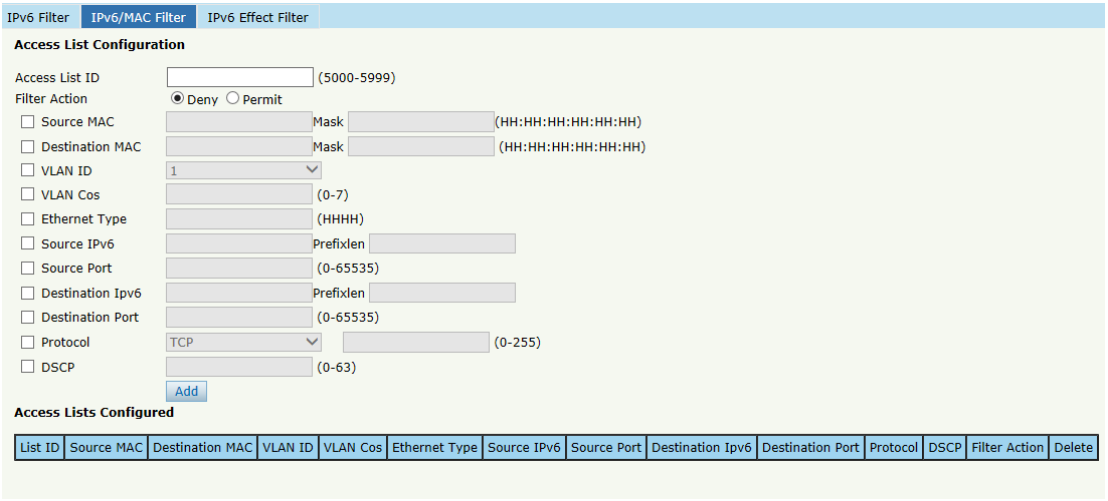


Figure 3-20: IPv6/MAC Filter

3.7.4 IPv6 Effect Filter

Bind access list to ports so that the ACL rules can take effect. Each access list can be bound to several ports.

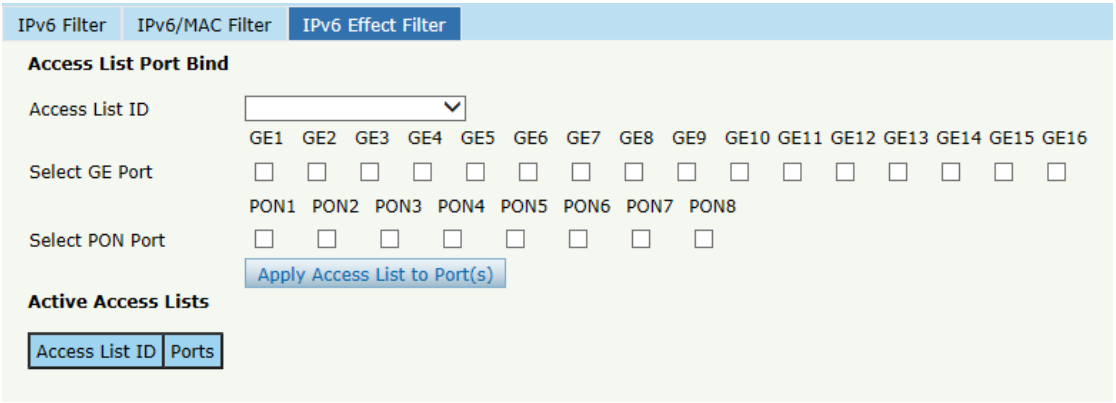


Figure 3-21: Bind IPv6 Security Filter

3.9 IGMP

3.9.1 Group Member

Show about the group member in the list.

Select **OLT Configuration→IGMP→Group Member** to display group member, as shown in Figure 3-22.

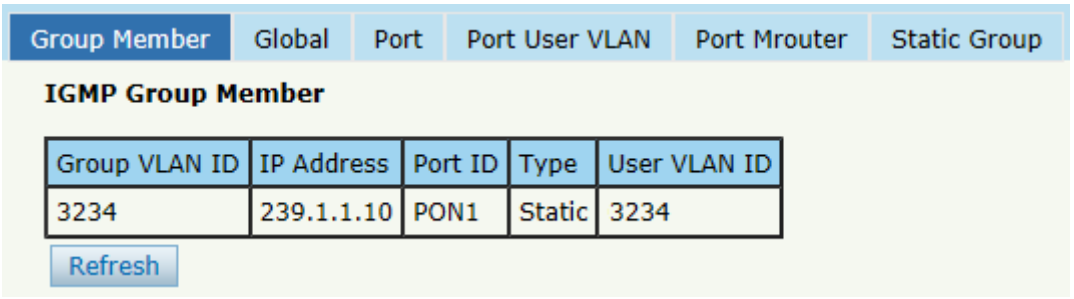


Figure 3-22: IGMP Group Member

3.9.2 Global

To enable the IGMP snooping mode, click **OLT Configuration →IGMP→Global**.

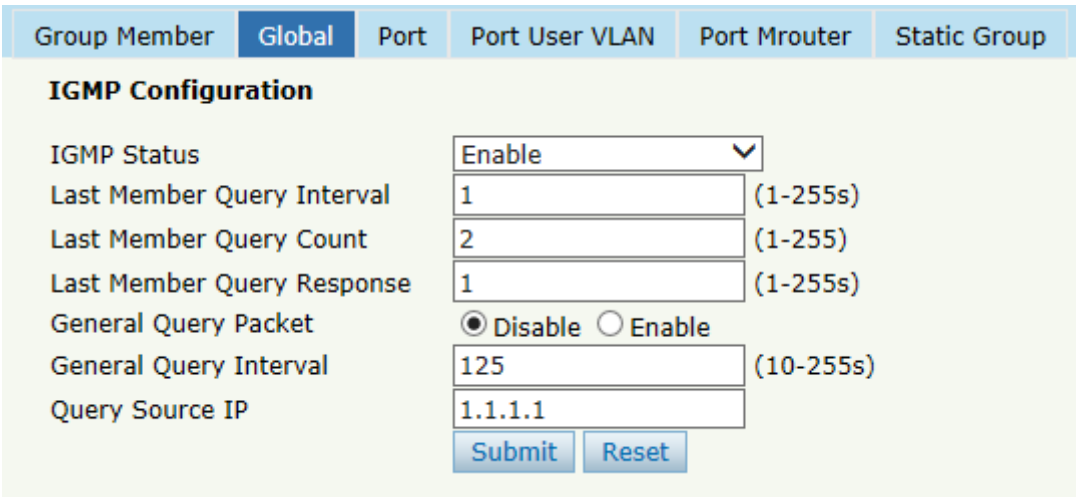


Figure 3-23: IGMP Global

3.9.3 Port

Click **OLT Configuration →IGMP→Port**.To set group limit value, enable/disable fast leave and filter.

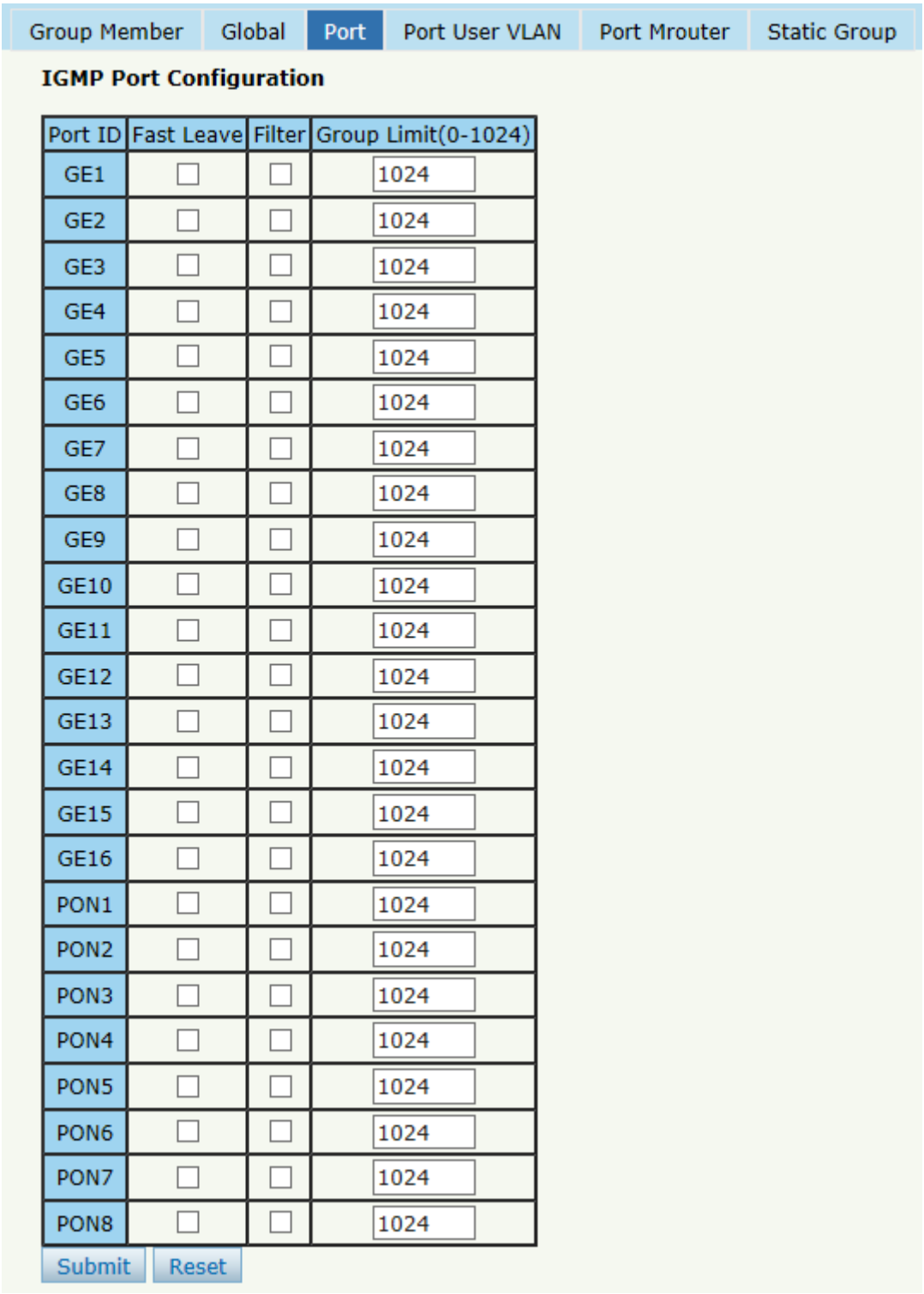


Figure 3-24: IGMP Port

3.9.4 Port User VLAN

Click **OLT Configuration →IGMP→Port User VLAN** to configure the user

VLAN and group VLAN.

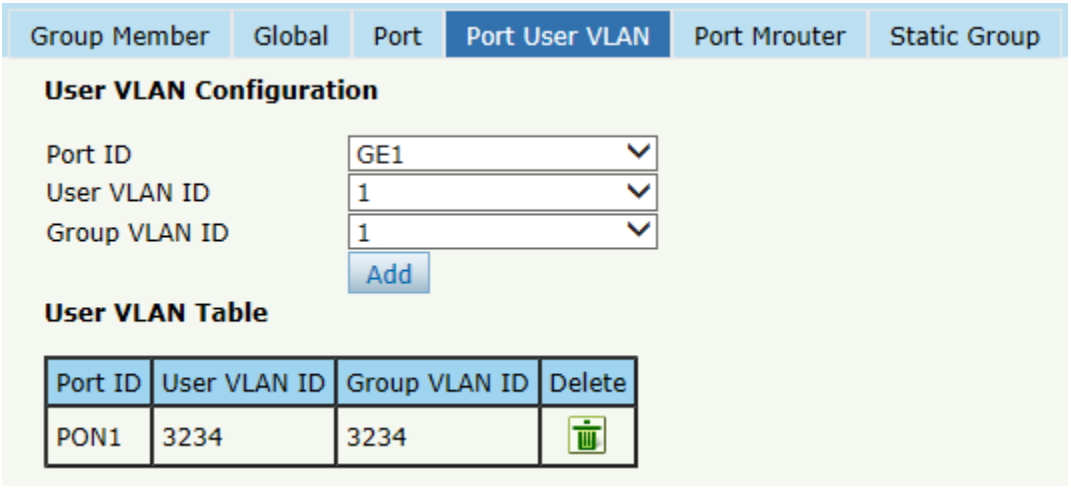


Figure 3-25: IGMP Port User VLAN

3.9.5 Port Mrouter

To add a port to the IGMP multicast routing group, click **OLT Configuration →IGMP→Port Mrouter,** as shown in Figure 3-26.

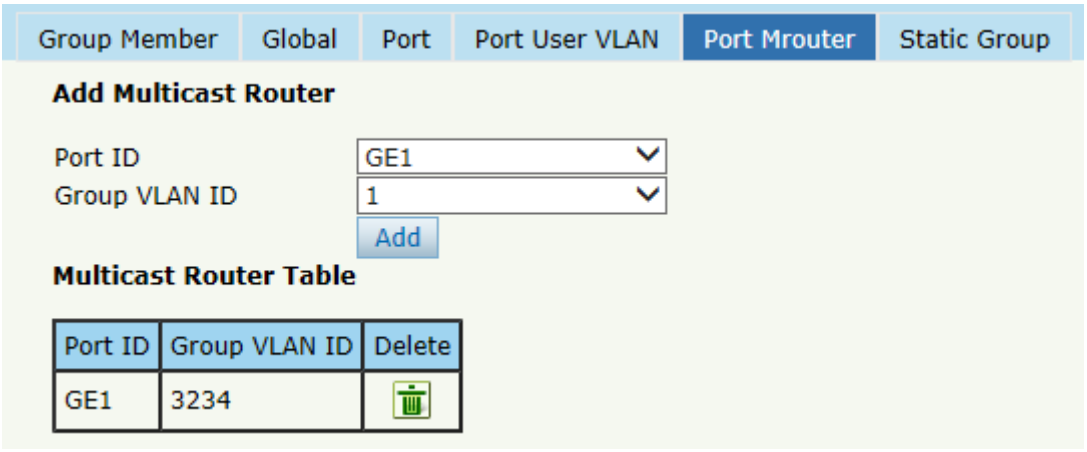


Figure 3-26: IGMP Port Mrouter

3.9.6 Static Group

Add an IGMP group manually. Always choose the PON port as the group port. Click **OLT Configuration →IGMP→Static Group,** as shown in Figure 3-27.

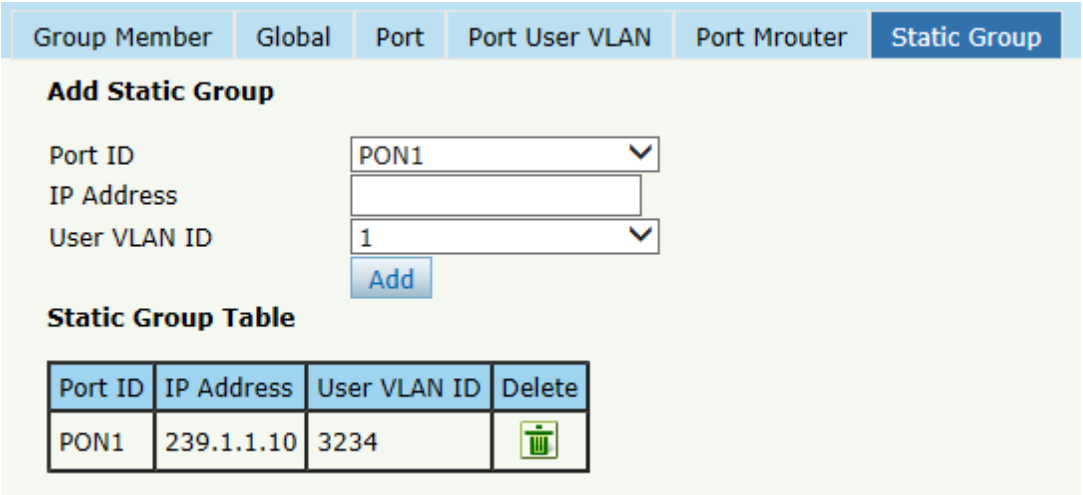


Figure 3-27: IGMP Static Group

3.10 IPv6 MLD

3.10.1 Group Member

This page displays IPv6 multicast group member ports.

Select **OLT Configuration →IPv6 MLD→Group Member** to display IPv6 group member ports, as shown in Figure 3-28.

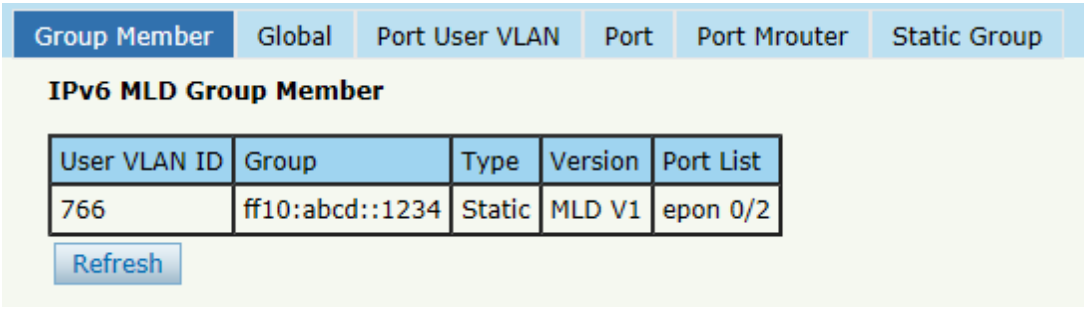


Figure 3-28: IPv6 MLD Group Member

3.10.2 Global

To enable IPv6 MLD and set IPv6 MLD related parameters, click **OLT Configuration →IPv6 MLD →Global**.

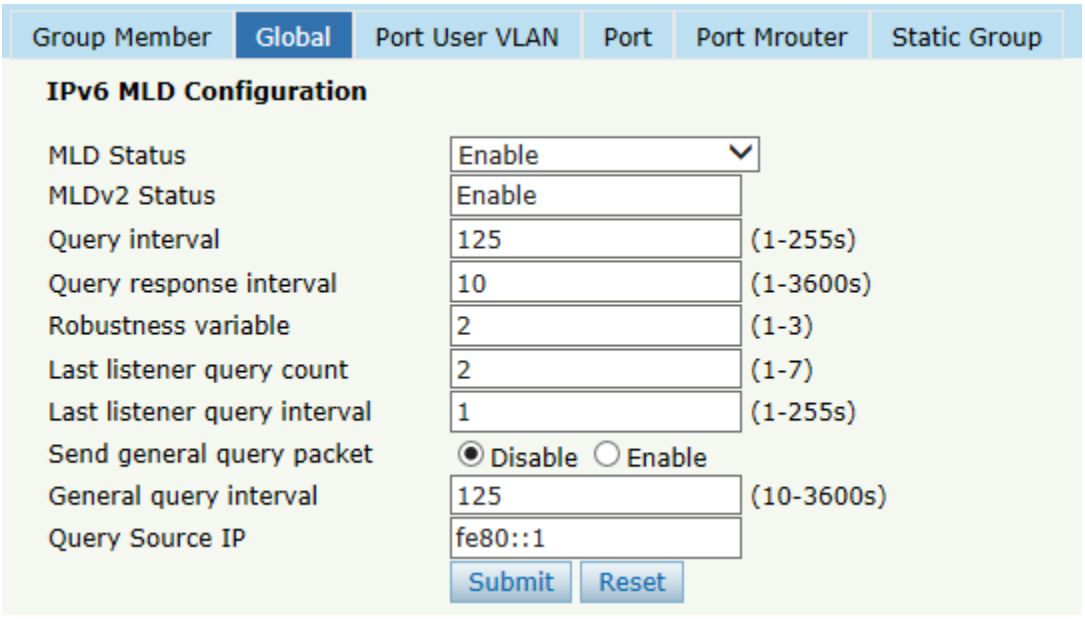


Figure 3-29: IPv6 MLD Global

3.10.3 Port User VLAN

Click **OLT Configuration →IPv6 MLD →Port User VLAN** to configure IPv6 MLD port user VLAN.

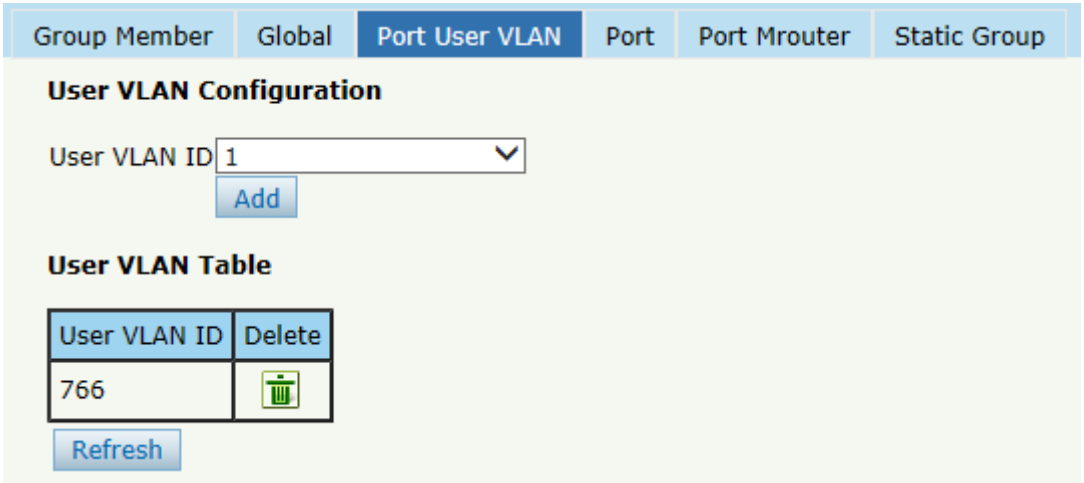


Figure 3-30: IPv6 Port User VLAN

3.10.4 Port

Toconfigure group limit value, fast leave for each port, click **OLT**

Configuration →IPv6 MLD →Port.

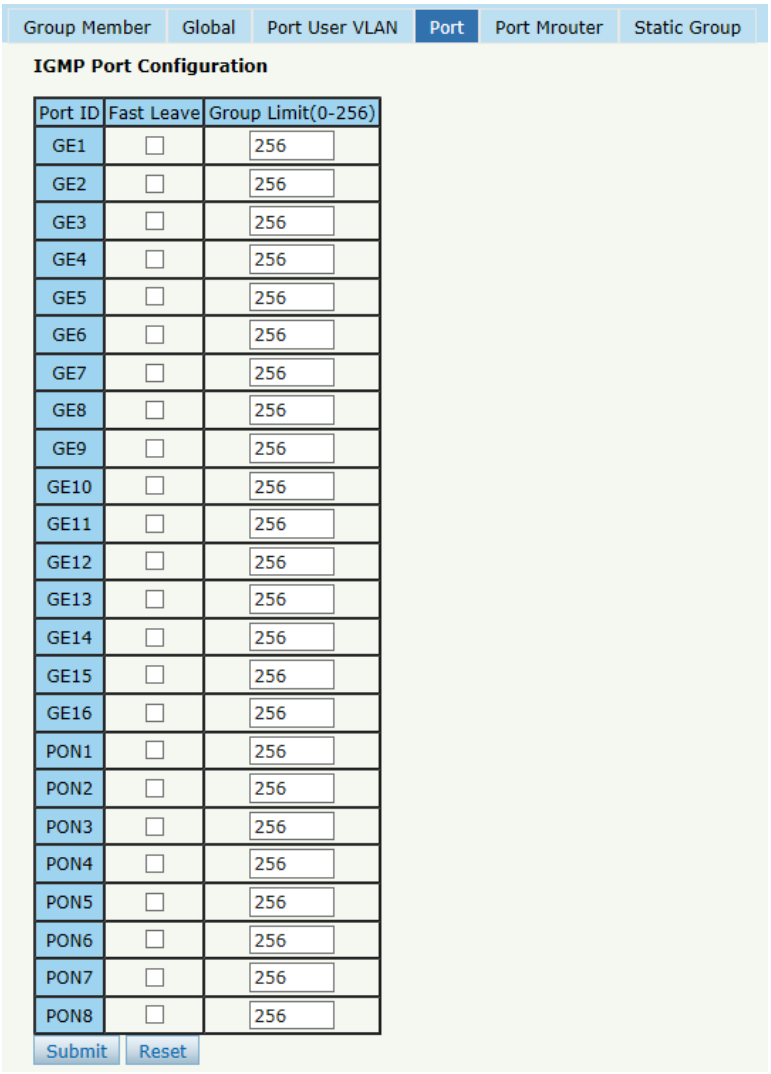


Figure 3-31: IPv6 MLD Port

3.10.5 Port Mrouter

To add a port to IPv6 multicast routing group, click **OLT Configuration →IPv6 MLD →Port Mrouter,** as shown in Figure 3-32.

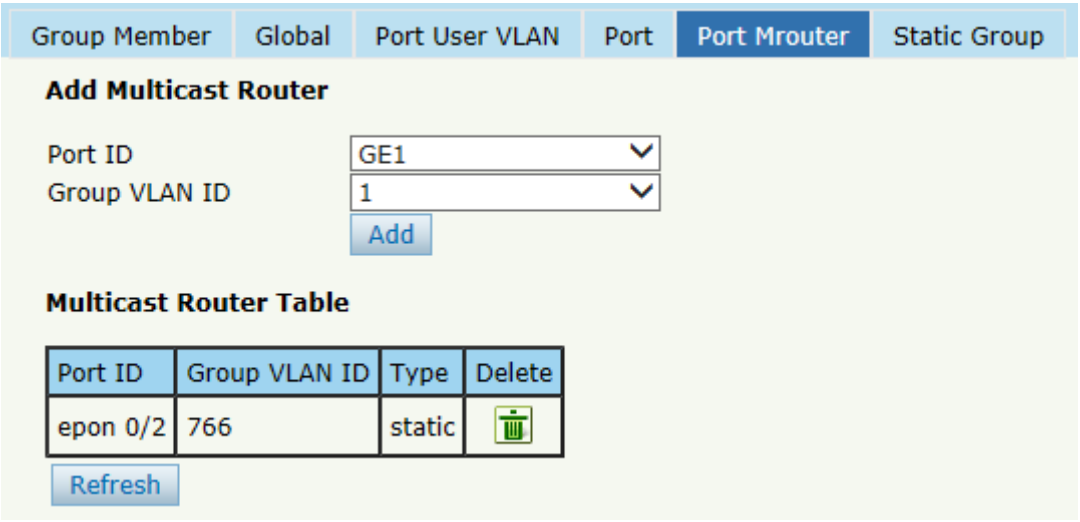


Figure 3-32: IPv6 MLD Port Mrouter

3.10.6 Static Group

Add an IPv6 multicast group manually, click **OLT Configuration →IPv6 MLD →Static Group,** as shown in Figure 3-33. Generally choose the PON port as the group member port.

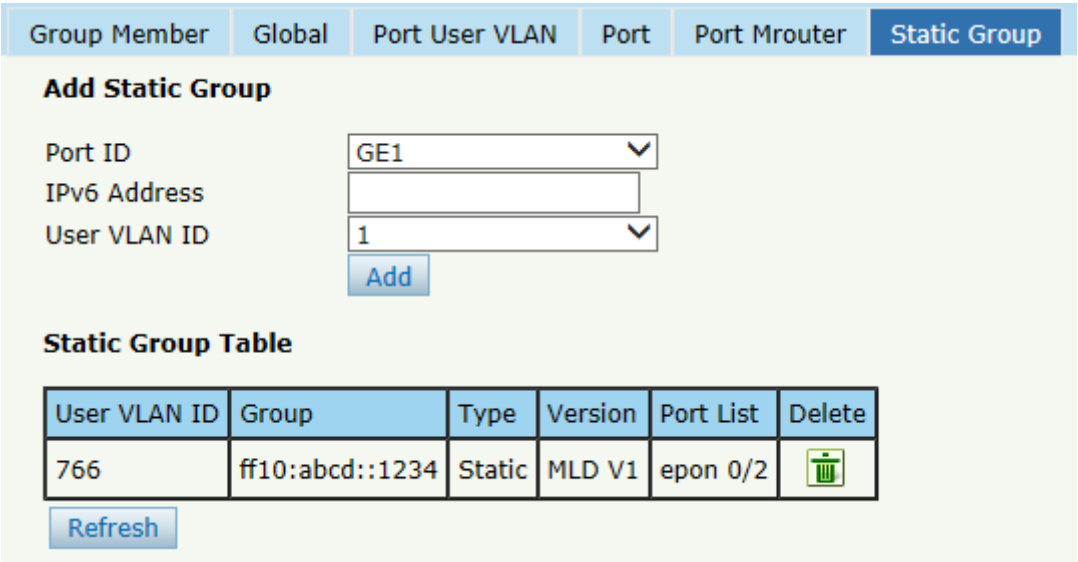


Figure 3-33: IPv6 MLD Static Group

3.11 RSTP

3.11.1 Information

The OLT is disabling RSTP by default. When enable the RSTP, the RSTP global information and port information can be shown by click **OLT Configuration→RSTP→Information**. See Figure 3-34.

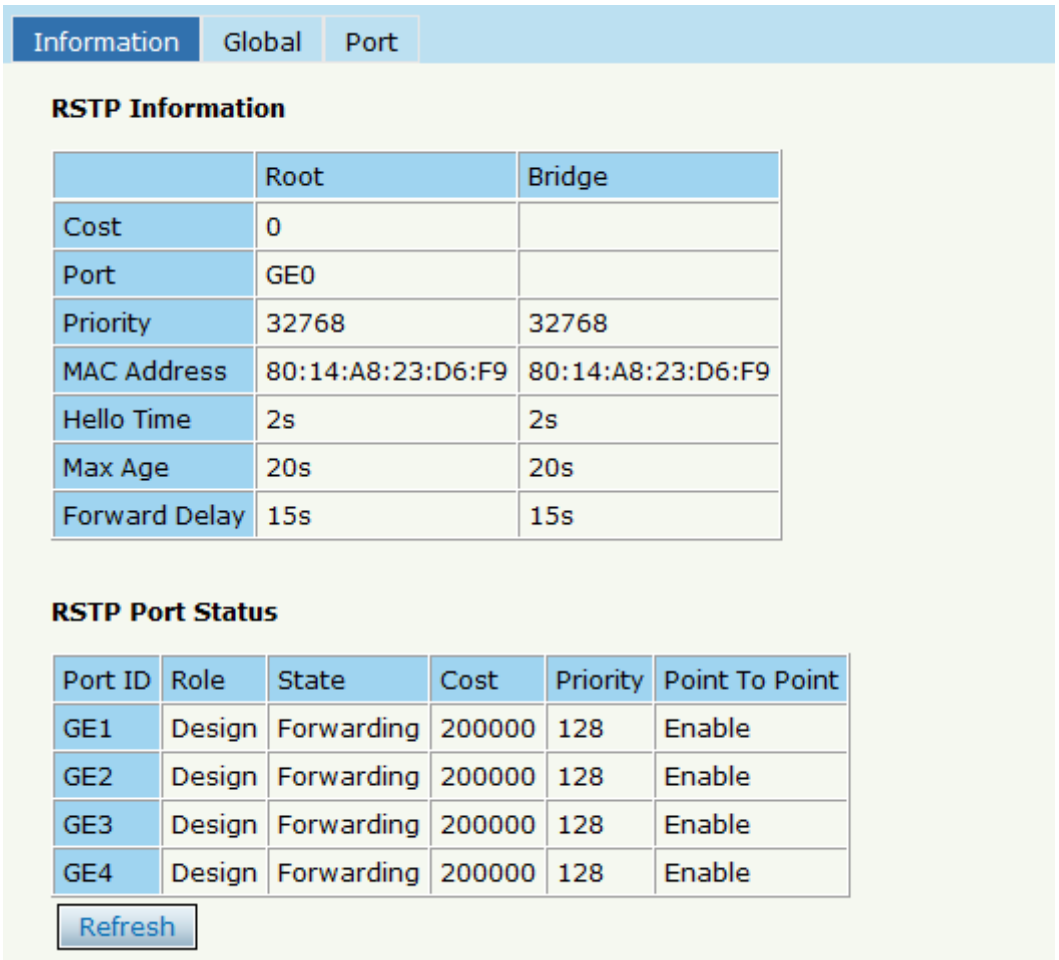


Figure 3-34: RSTP Information

3.11.2 Global

Enable the RSTP, click **OLT Configuration→RSTP→Global** to enable.

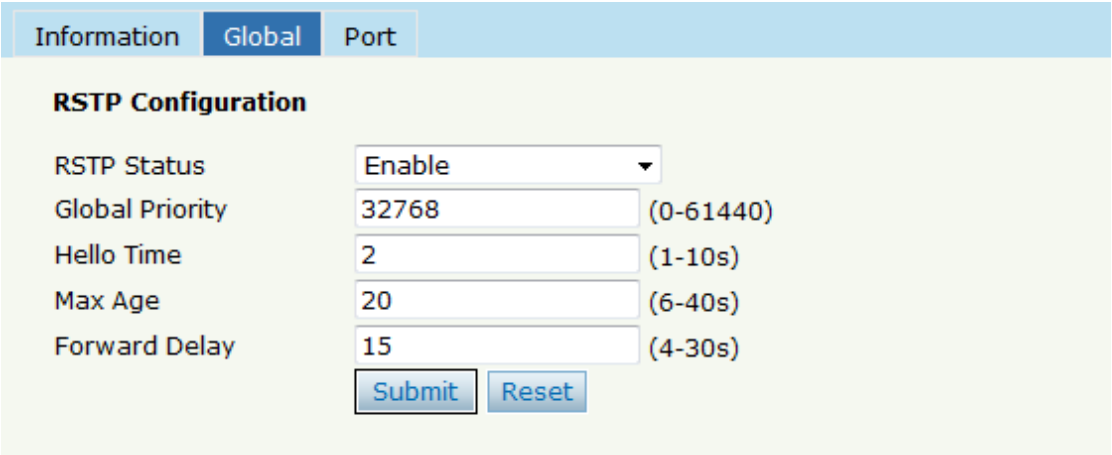


Figure 3-35: RSTP Global Setup

3.11.3 Port

The RSTP ports parameter can be set by selecting **OLT Configuration→RSTP→Port**.

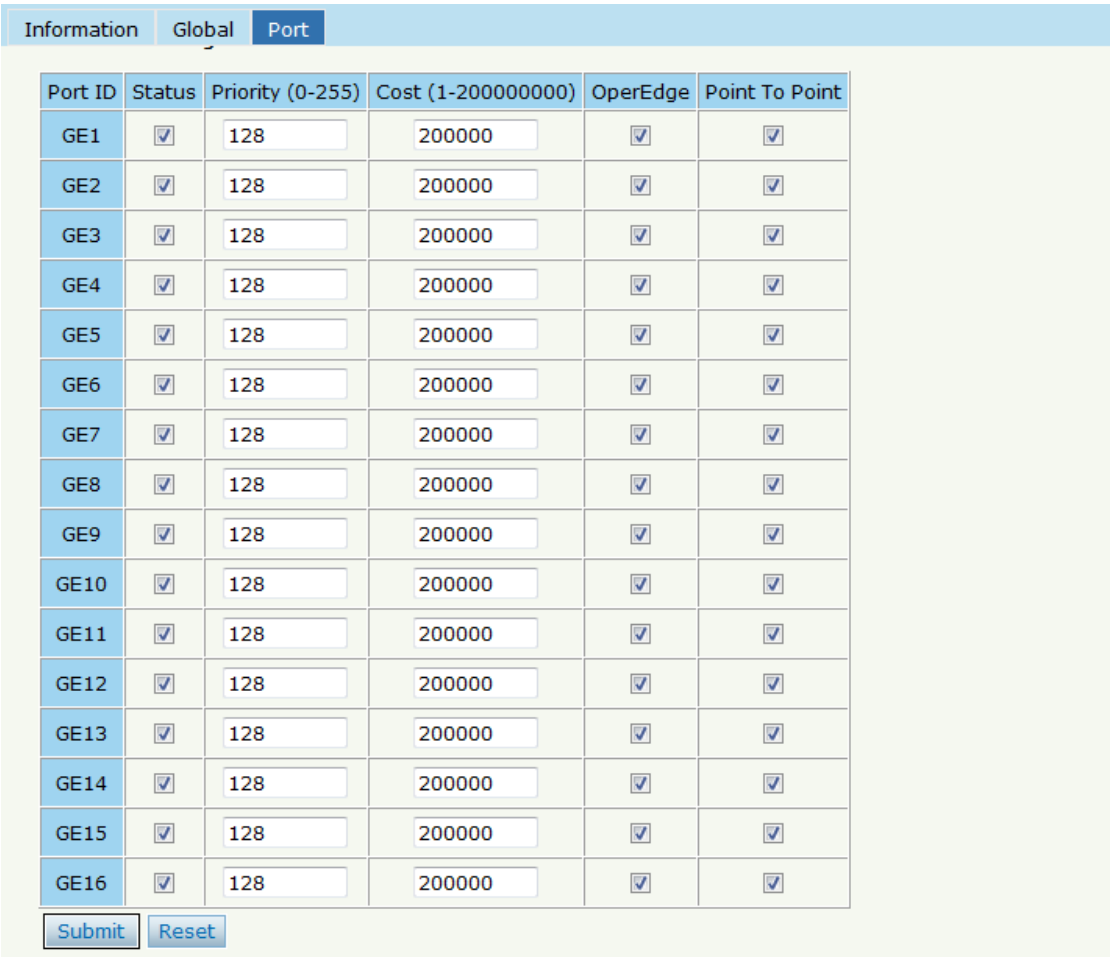


Figure 3-36: RSTP Port Setting

3.12 Loopback

3.12.1 Information

Loopback information displays current loop information.

Click**OLT Configuration →Loopback →Information** to check current loop information.

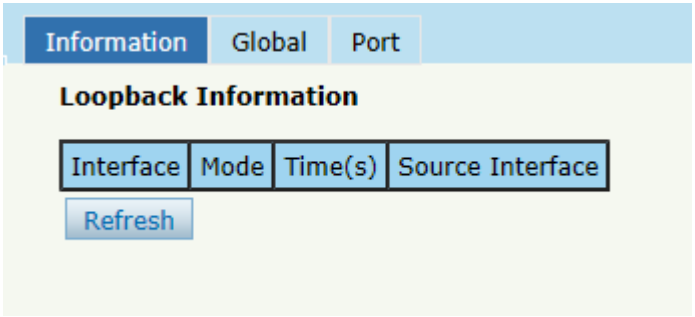


Figure 3-37: Loopback Information

3.12.2 Global

Loopback is used to detect loop in the device. When this function is enabled and a loop exists in uplink port, OLT will shutdown the port. And when a loop exists in PON port, OLT will add the ONU where the loop located to black list.

Click**OLT Configuration →Loopback →Global** to configure parameters of loopback.

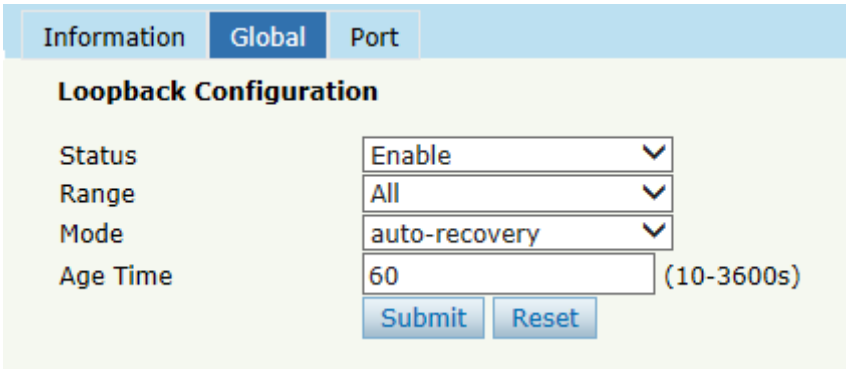


Figure 3-38: Loopback Global Configuration

3.12.3 Port

Loopback port configuration is used to specify the port range of loopback function. Loopback will take effect on the port when it is checked.

Click**OLT Configuration →Loopback →Port** to configure port status of loopback.

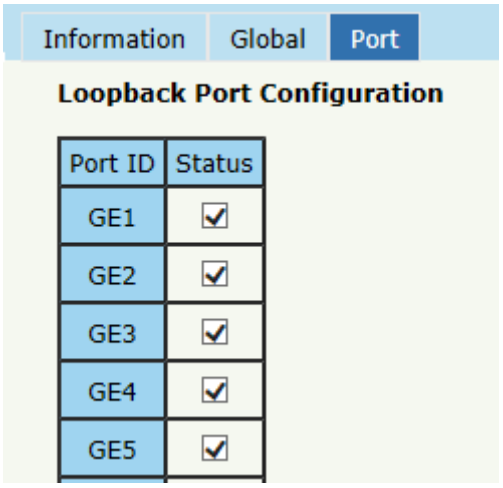


Figure 3-39: Loopback Port Configuration

3.13 DHCP

3.13.1 DHCP Server

3.13.1.1 DHCP Lease

Click **OLT Configuration → DHCP → DHCP Server → Lease**, the DHCP Server Lease will be shown as Figure3-40.

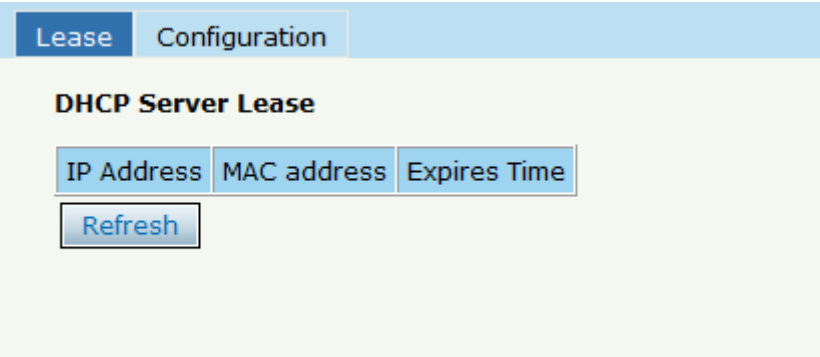


Figure 3-40: DHCP Lease

3.13.1.2 DHCP Configuration

When enable OLT DHCP server, the connecting devices will obtain an IP address. Click **OLT Configuration → DHCP → DHCP Server → Configuration** to configure the DHCP Server, shown as Figure 3-41.

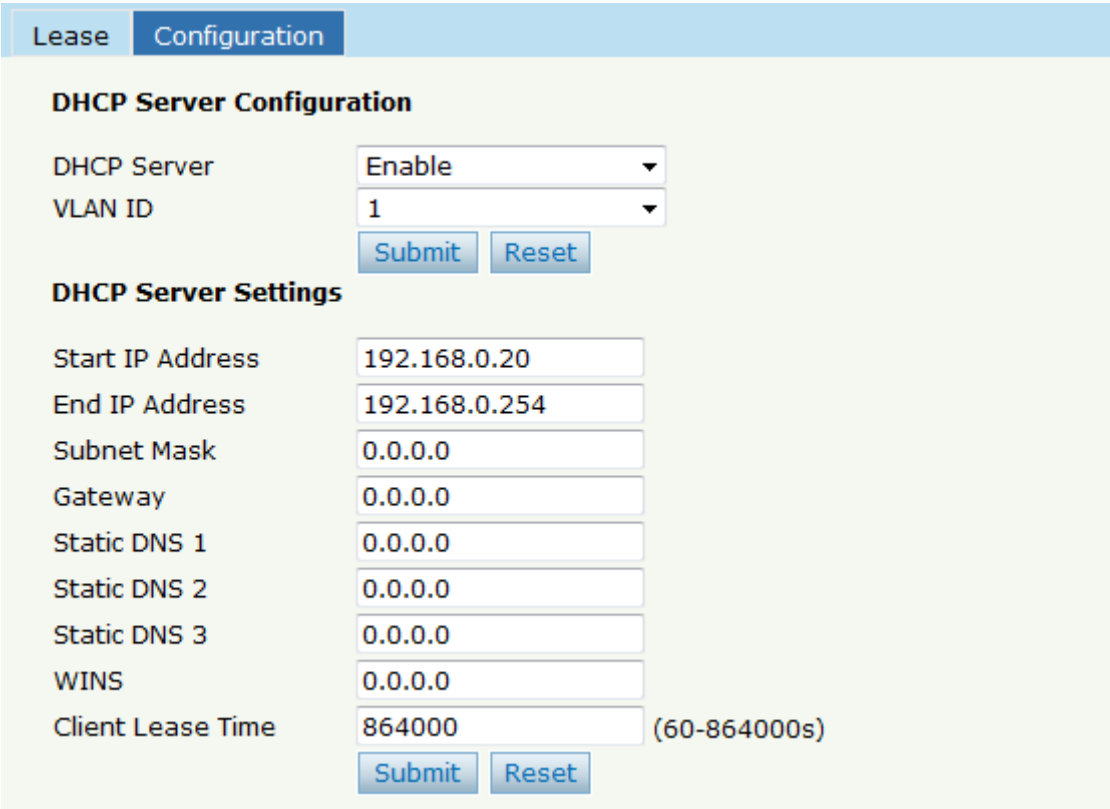


Figure 3-41: DHCP Configuration

3.13.2 DHCP Relay

When the DHCP server and the clients are not in the same subnet, DHCP relay can help the clients get the IP address from the server. IP address network segment of the relay server should be the same as the DHCP server.

Click **OLT Configuration → DHCP → DHCP Relay→ Configuration** to configure DHCP relay server.

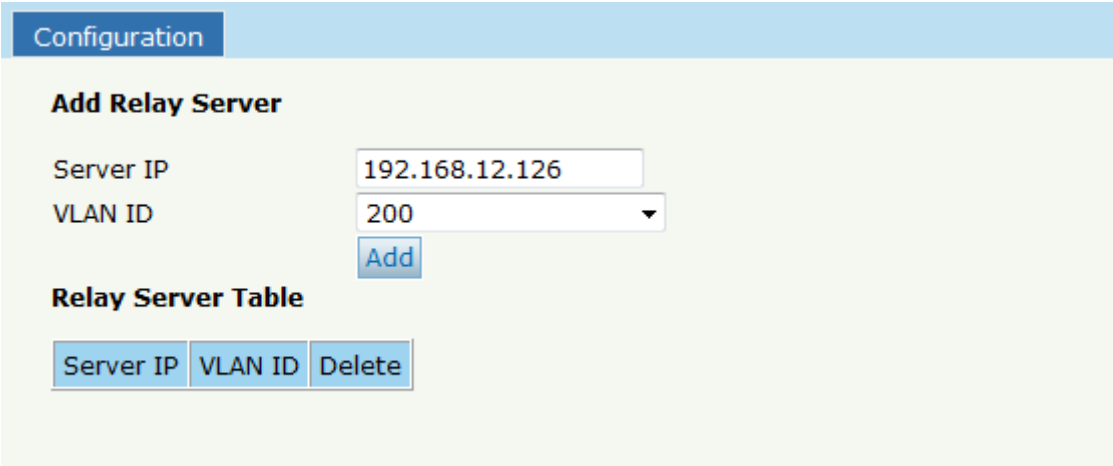


Figure 3-42: DHCP Relay Configuration

3.13.3 DHCP Snooping

3.13.3.1 Bind List

The static bind of the DHCP Snooping will be shown, Click **OLT Configuration → DHCP → DHCP Snooping → Bind List**.

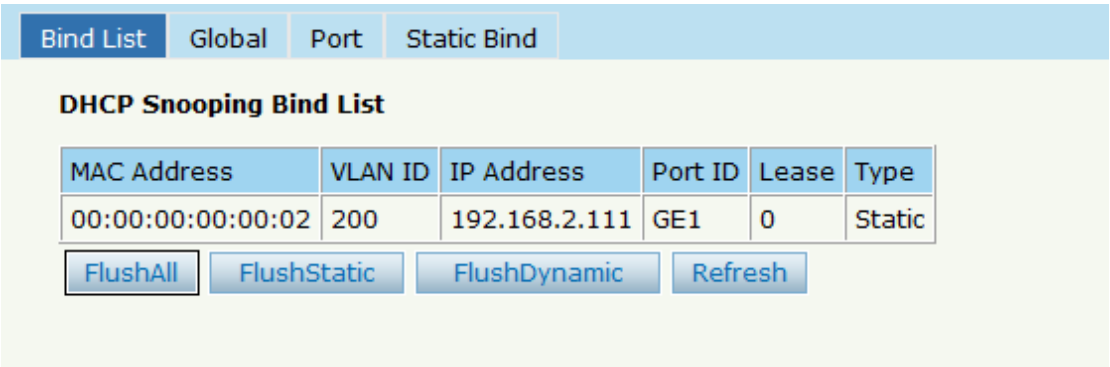


Figure 3-43: DHCP Snooping Bind List

3.13.3.2 Global

To prevent the DHCP message attacking and protect your network to geta useful IP address, it can deny the DHCP offerspackets.DHCP Snooping is used for denying the DHCP offers packets. The DHCP server

is forbidden, which cannot allocate the IP address successfully.Click **OLT Configuration → DHCP → DHCP Snooping → Global** to enable DHCP Snooping.

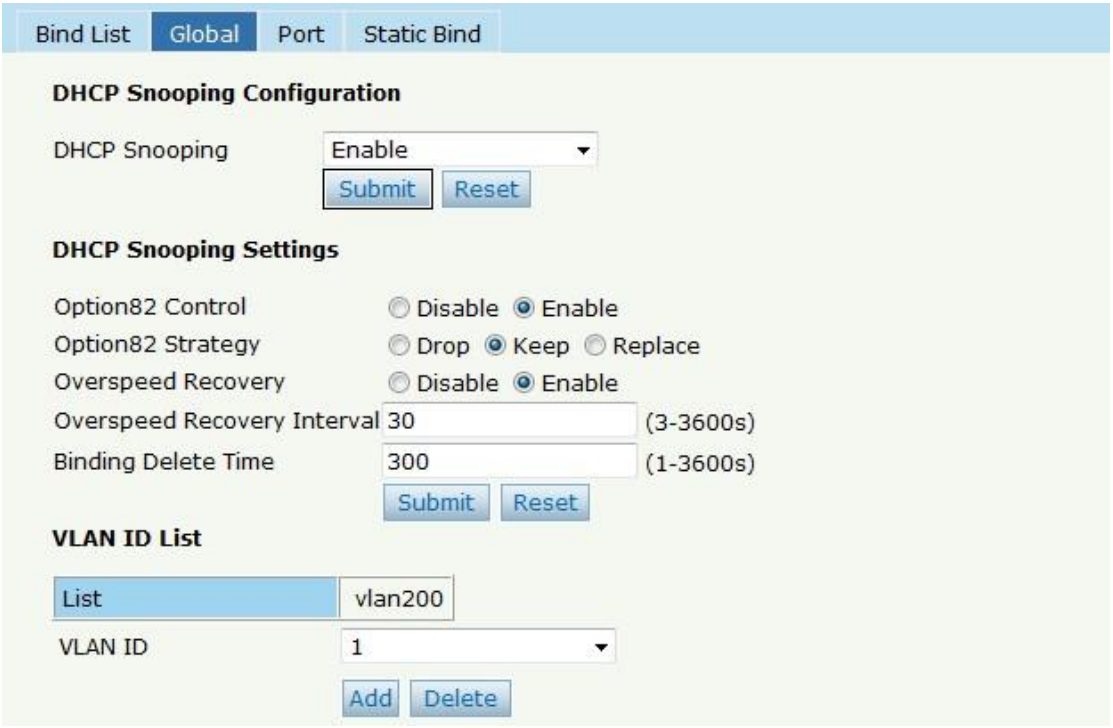


Figure 3-44: DHCP Snooping Global

3.13.3.3 Port

The DHCP snooping ports are untrust by default. Click **OLT Configuration → DHCP → DHCP Snooping → Port** to configure.

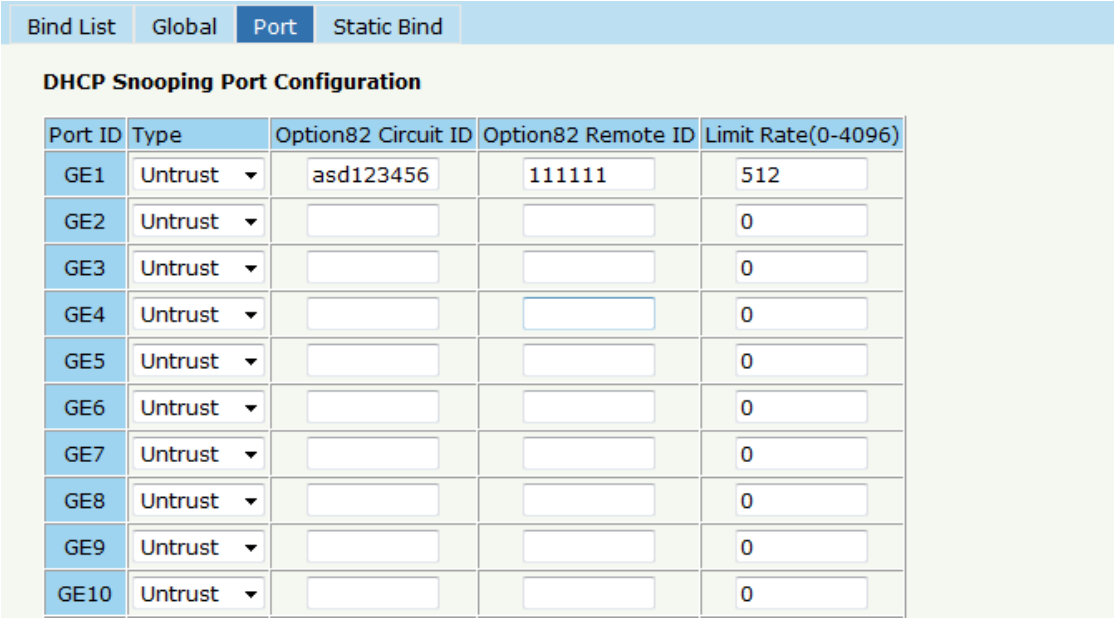


Figure 3-45: DHCP Snooping Port Setup

3.13.3.4 Static Bind

Fill in the MAC address, choose the VLAN ID, port ID and the lease time.

Click **OLT Configuration → DHCP → DHCP Snooping → Static Bind** to configure, as shown in Figure 3-46.

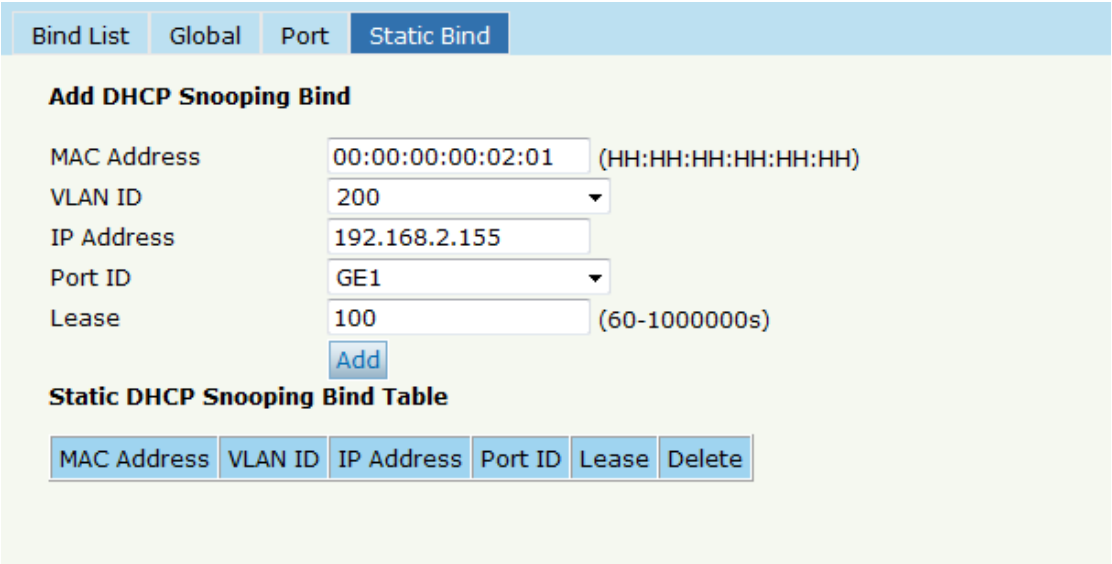


Figure 3-46: DHCP Snooping Static Bind

3.14 DHCPv6

3.14.1 DHCPv6 Server

DHCPv6 is a network protocol that used to configure IPv6 address, IPv6 prefix, DNS, domain and other network parameters for a host which operating on an IPv6 network.

3.14.1.1 Bind Information

DHCPv6 bind information displays IPv6 addresses which have been assigned to hosts.

Click **OLT Configuration → DHCPv6 → DHCPv6 Server → DHCPv6 Bind Information** to show the information.

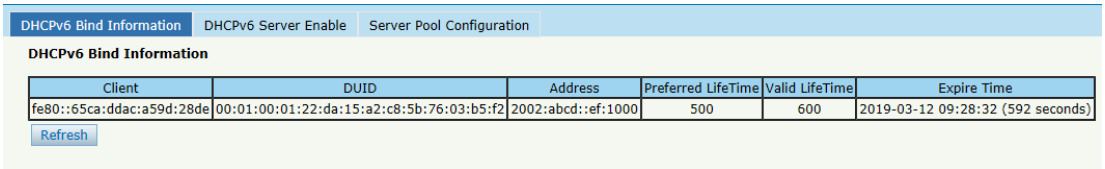


Figure 3-47: DHCPv6 Bind Information

3.14.1.2 Server Enable

Select VLAN and fill in DHCPv6 pool name, enable DHCPv6 server, then the VLAN will be added into the table. Before enabled DHCPv6 server, VLAN IP and server pool are required.

Click **OLT Configuration → DHCPv6 → DHCPv6 Server → DHCPv6 Server Enable** to configure DHCPv6 server.

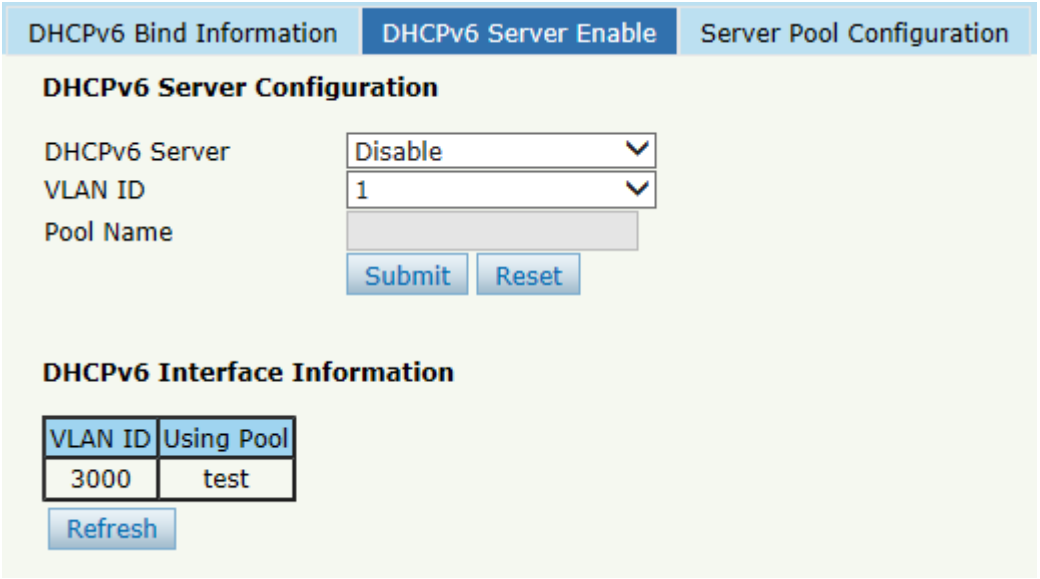


Figure 3-48: DHCPv6 Server

3.14.1.3 Pool Configuration

DHCPv6 pool specifies the range of assigned IPv6 address. Life time, DNS and domain also can be specified here for DHCPv6 client.

Click **OLT Configuration → DHCPv6 → DHCPv6 Server →Server Pool Configuration**to configure DHCPv6 address pool and other network parameters.

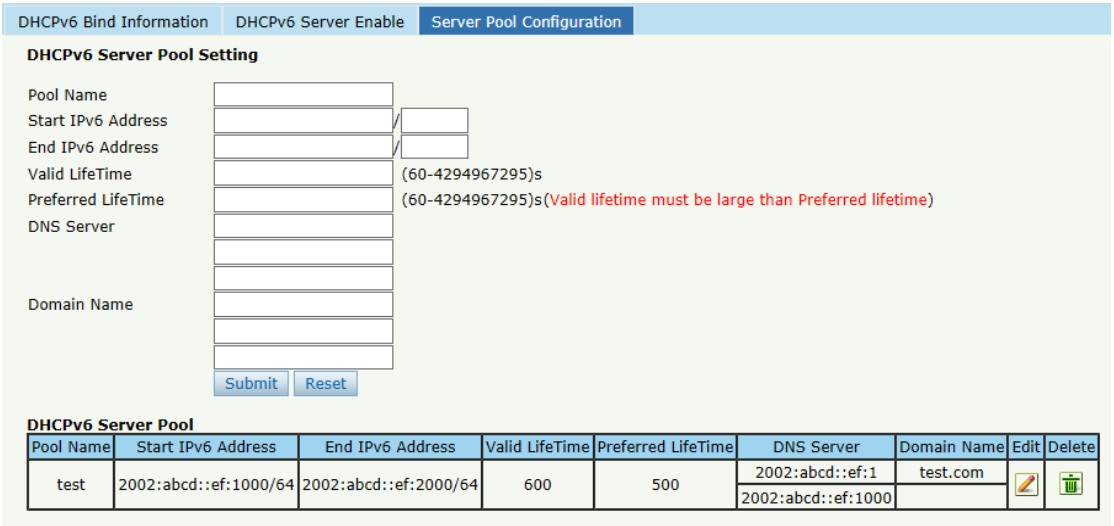


Figure 3-49: DHCPv6 Pool

3.14.2 DHCPv6 Relay

During the process of obtaining the IPv6 address/prefix and other network configuration parameters dynamically through the DHCPv6 relay, the DHCPv6 client and the DHCPv6 server are processed in the same way as when the DHCPv6 relay is not processed.

Click **OLT Configuration → DHCPv6→ DHCPv6Relay→ Configuration** to configure DHCPv6 relay server.

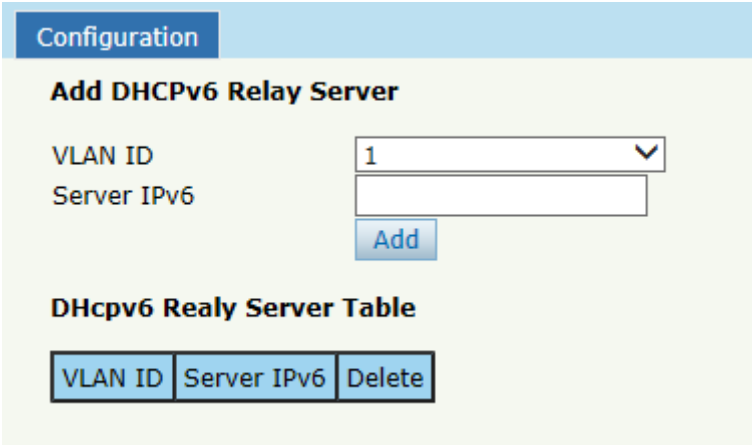


Figure 3-50: DHCPv6 Relay

3.15 IPv6 SLAAC

IPv6 network uses the ICMPv6 route discovery protocol. When an IPv6 host connects to the network for the first time, it automatically configures itaccording to the information got by route discovery/prefixdiscovery. Route discovery/prefixdiscovery is that when a host is connected to IPv6 network, it can discover local router and obtain neighbor information, prefix of current network andotherconfiguration

parameters from route advertisement (RA) packets.

3.15.1 IPv6 SLAAC

When IPv6 host use SLAAC (Stateless Address AutoConfiguration), OLT will send a route advertisement (RA) packet to it. This page is used to configure parameters of the route advertisement packet.

Click **OLT Configuration →IPv6 SLAAC→IPv6 SLAAC** to configure RA parameters.

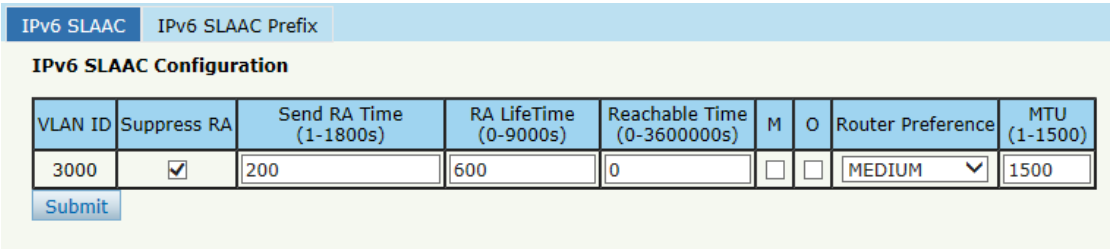


Figure 3-51: IPv6 SLAAC

3.15.2 IPv6 SLAAC Prefix

When IPv6 host uses stateless address auto configuration, OLT can provide IPv6 prefix.The host will generate an IPv6 address with the prefix.

Click **OLT Configuration →IPv6 SLAAC→IPv6 SLAAC Prefix** to configure SLAAC prefix.

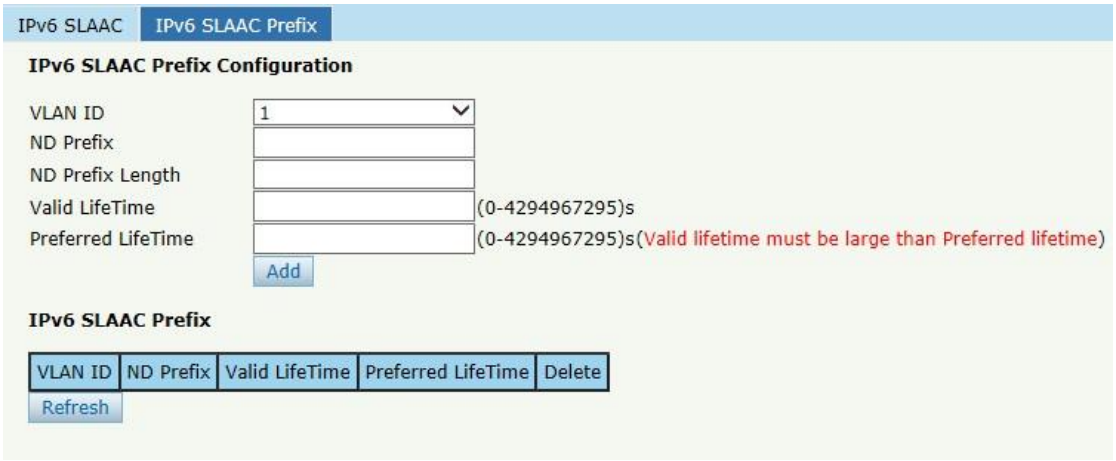


Figure 3-52: IPv6 SLAAC Prefix

3.16 Route

3.16.1 IP

3.16.1.1 VLAN IP

Select an existing VLAN and set an IP address for this VLAN, as shown in Figure 3-53.

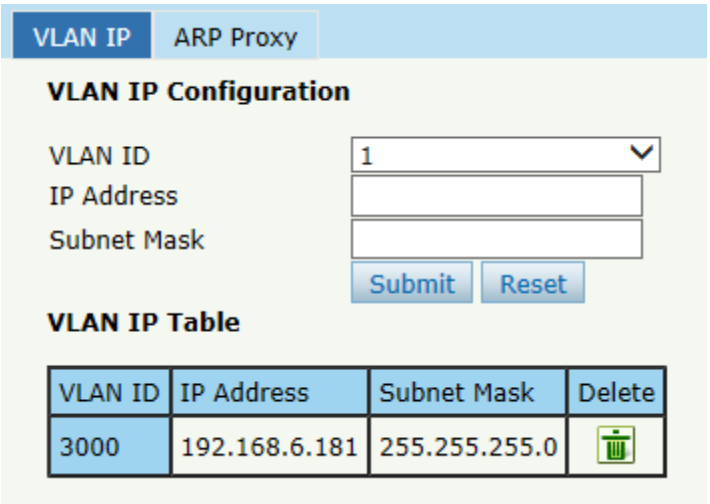


Figure 3-53: VLAN IP

3.16.1.2 ARP Proxy

When serves as an ARP proxy, the OLT processes the ARP request

message via configuring the VLAN as the layer 3 interface. The VLAN IDconfiguration value ranges is from 1 to 4085.

First, configure the VLAN IP.

Then enable the ARP proxy.

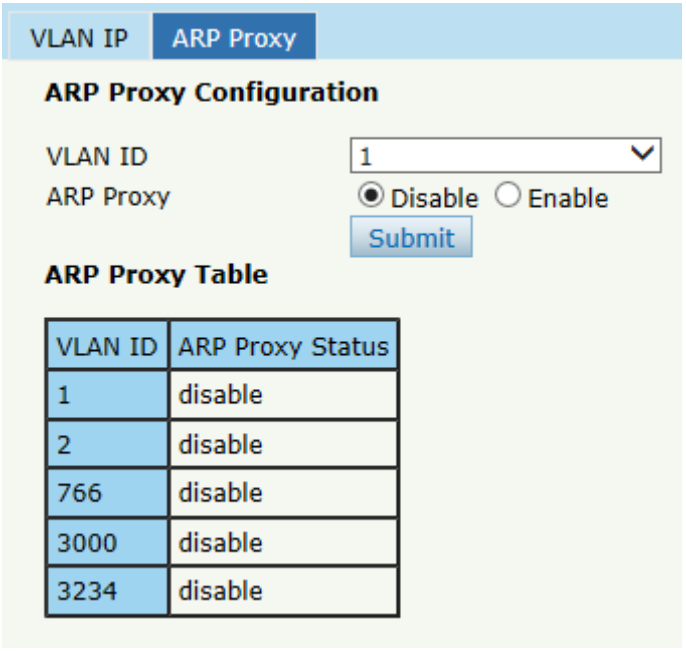


Figure 3-54: ARP Proxy

3.16.2 Static Route

OLT supports static route L3 function. Click **Static Route** to configure, as shown in Figure 3-55.

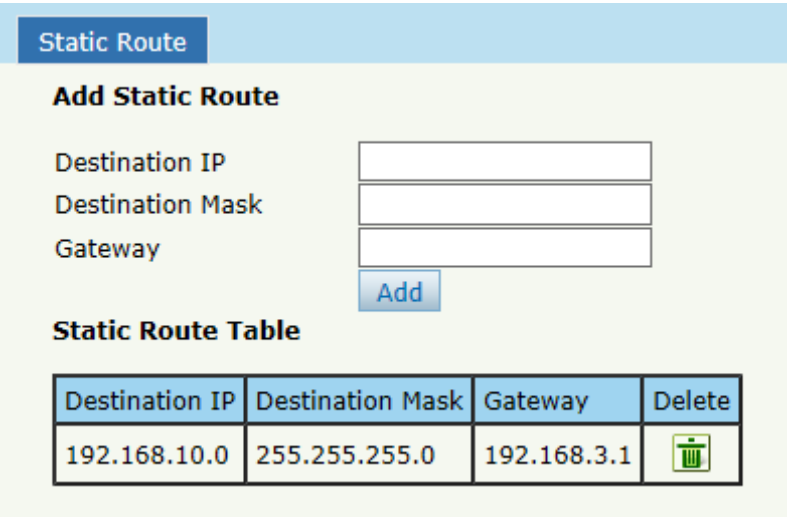


Figure 3-55: Static Route

3.16.3 RIP

RIP (Routing Information Protocol) is a simple internal gateway protocol, which is based on the D-V algorithm and uses hop count to represent metric. The hop count is the number of routers that a datagram must pass through. RIP only support maximum 15 hops; hence it is fit for a small network.

3.16.3.1 RIP Information

This page displays RIP information.

Click **OLT Configuration → Route → RIP→ RIP Information** to check RIP route table and routing information sources.

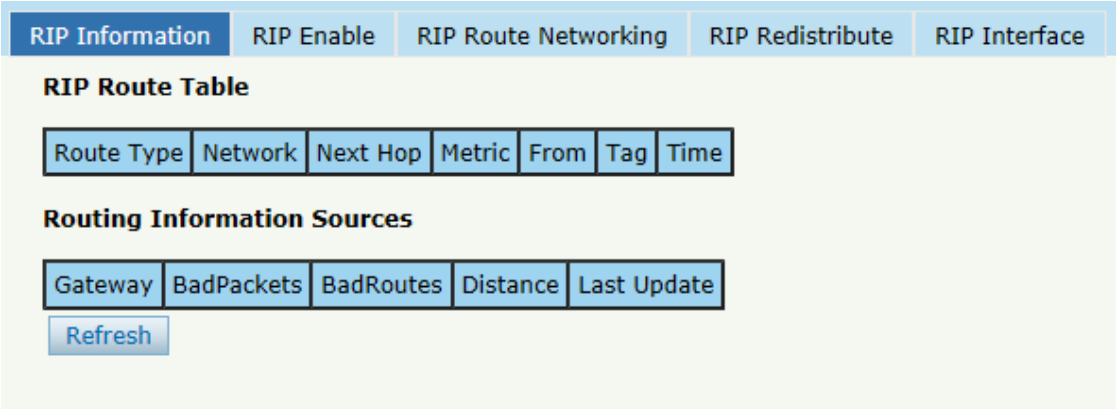


Figure 3-56: RIP Information

3.16.3.2 RIP Enable

Enable RIP protocol and configure RIP parameters.

Click **OLT Configuration → Route → RIP→ RIP Enable** to configure RIP basic parameters.

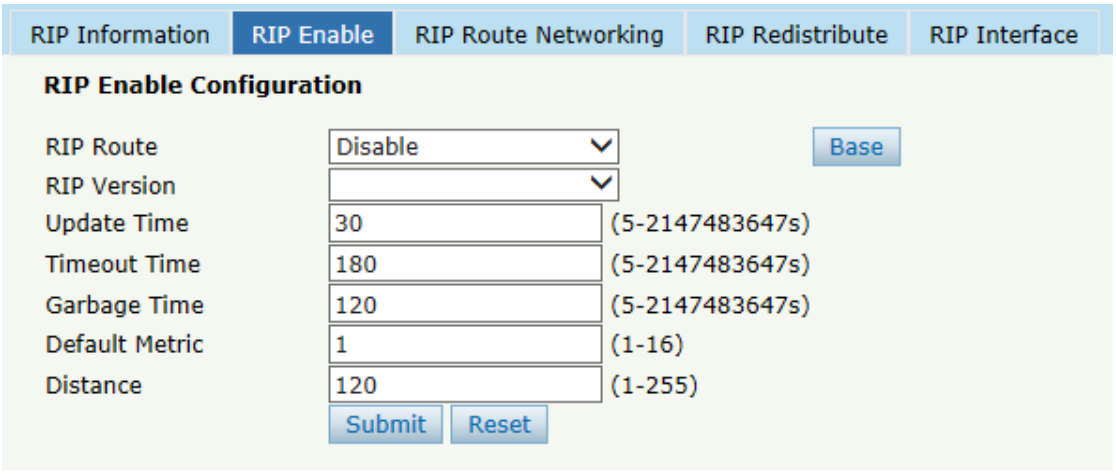


Figure 3-57: RIP Enable

3.16.3.3 RIP Route Networking

This page is used to add RIP route networking. VLAN IP address must be set before adding the VLAN to RIP route networking table.

Click **OLT Configuration → Route → RIP→ RIP Route Networking** to add

the VLAN to RIP route networking table.

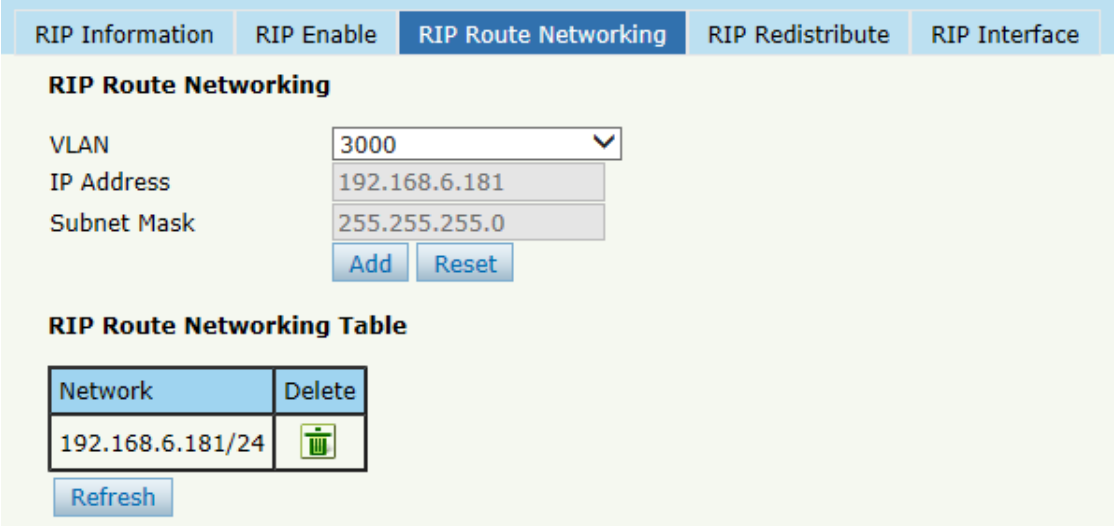


Figure 3-58: RIP Route Networking

3.16.3.4 RIP Redistribute

This page is used to enable or disable route redistribute and choose redistribute mode.

Click **OLT Configuration → Route → RIP→ RIP Redistribute** to configure RIP redistribute.

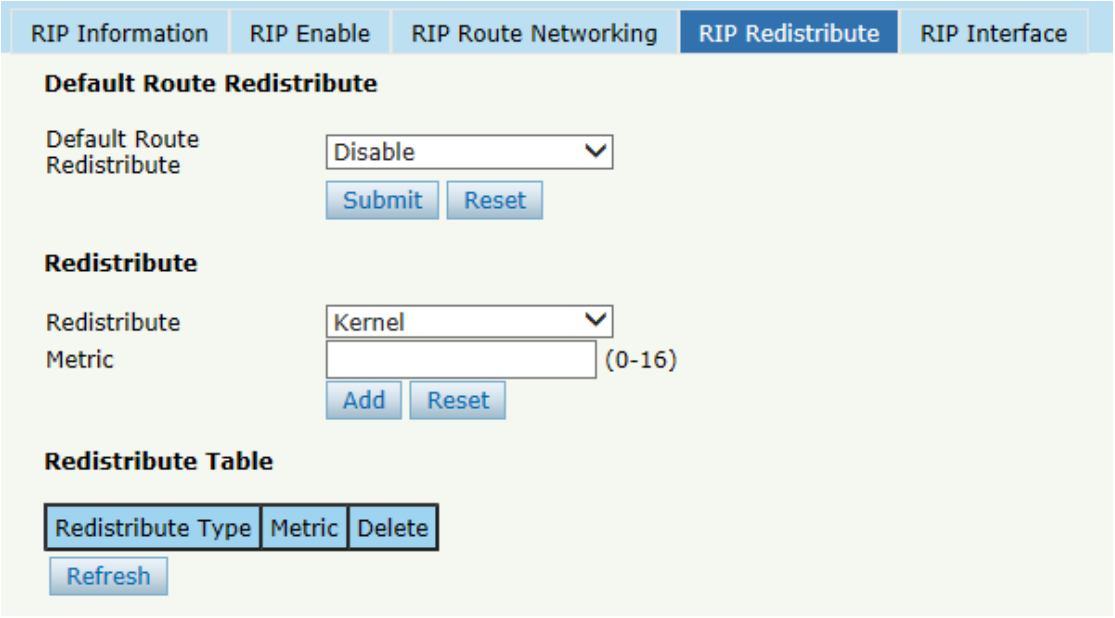


Figure 3-59: RIP Redistribute

3.16.3.5 RIP Interface

This page is used to configure RIP interface and its authentication type. VLAN IP address must be set beforeconfiguring RIP interface. And auth chain should be set on page **Key Chain**, refer to section 3.16.5.

Click **OLT Configuration → Route → RIP→ RIP Interface** to configure RIP interface parameters.

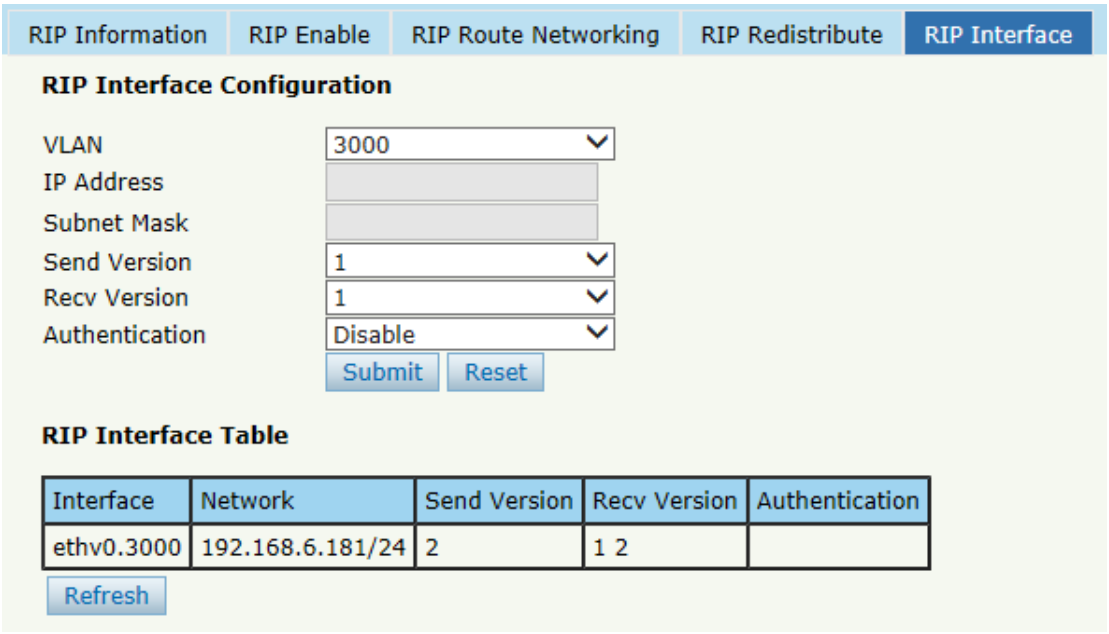


Figure 3-60: RIP Interface

3.16.4 OSPF

OSPF (Open Shortest Path First) is an internal gateway protocol based on link state routing protocol.This protocol uses the Dijkstra algorithm to calculate the shortest path to each network, and performs the algorithm to quickly converge to the new loop-free topology when detecting changes in the link (such as link failure).

3.16.4.1 OSPF Information

This page displays OSPF information, including neighbor information and OSPF routing information.

Click **OLT Configuration → Route → OSPF→ OSPF Information** to check OSPF information.

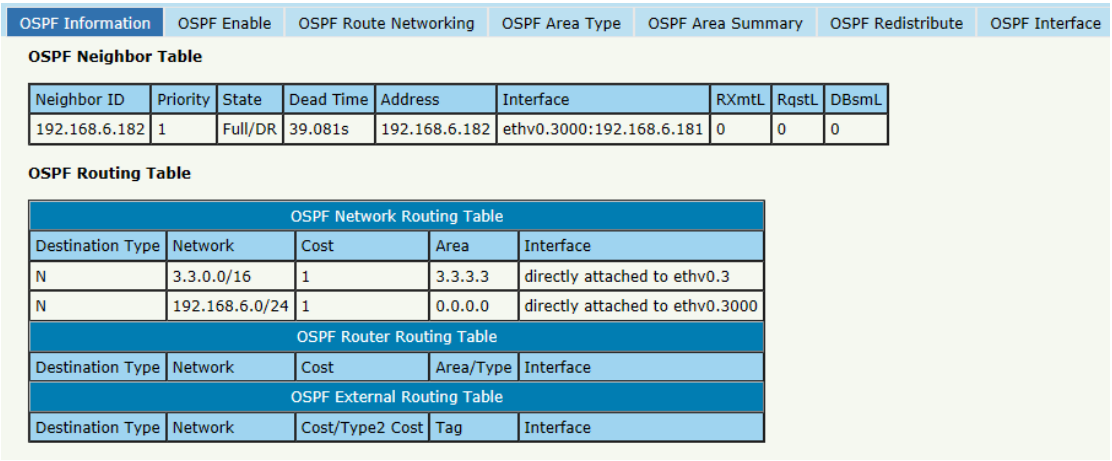


Figure 3-61: OSPF Information

3.16.4.2 OSPF Enable

This page is used to enable OSPF. Fill in route ID and let it blank, enable OSPF. OLT will use the biggest IP address as route ID if it's blank.

Click **OLT Configuration → Route → OSPF→ OSPF Enable** to enable OSPF.

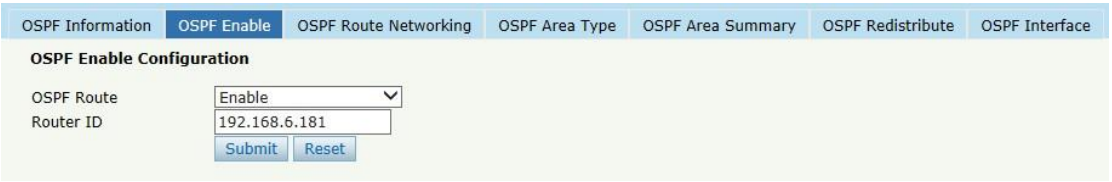


Figure 3-62: OSPF Enable

3.16.4.3 OSPF Route networking

This page is used to configure area number for VLAN where OSPF protocol is operating.

Click **OLT Configuration → Route → OSPF→ OSPF Route Networking** to configure area number.

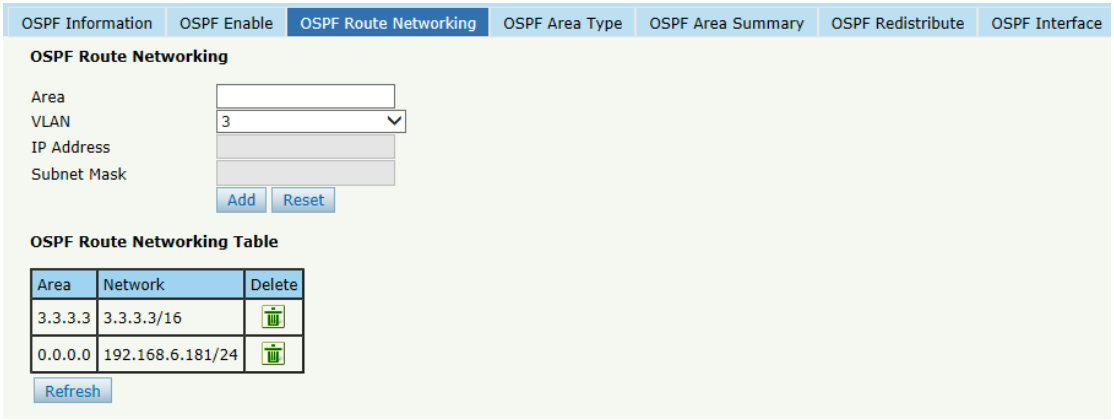


Figure 3-63: OSPF Route Networking

3.16.4.4 OSPF Area Type

This page is used to configure area type. Backbone area will not display on this page.

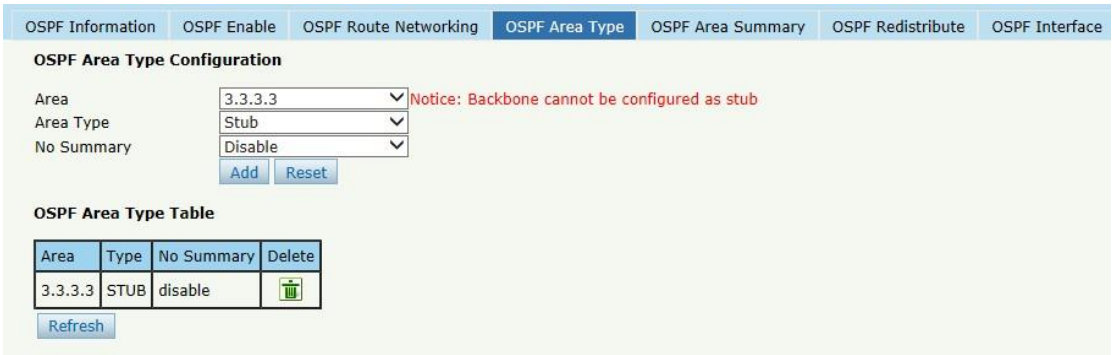


Figure 3-64: OSPF Area Type

3.16.4.5 OSPF Area Summary

This page is used to configure area IP address summary.

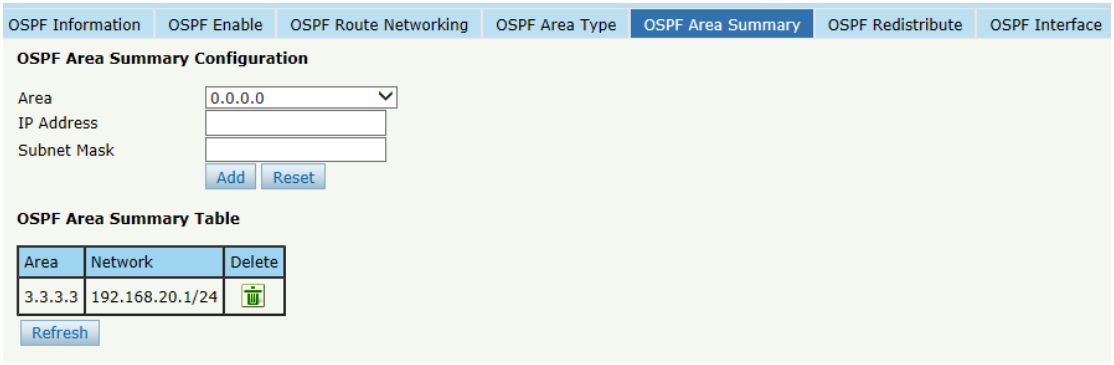


Figure 3-65: OSPF Area Summary

3.16.4.6 OSPF Redistribute

The router can use route redistribution to broadcast the OSPF routing it learns through another routing protocol so that several routing protocols can cooperate with each other in a network.

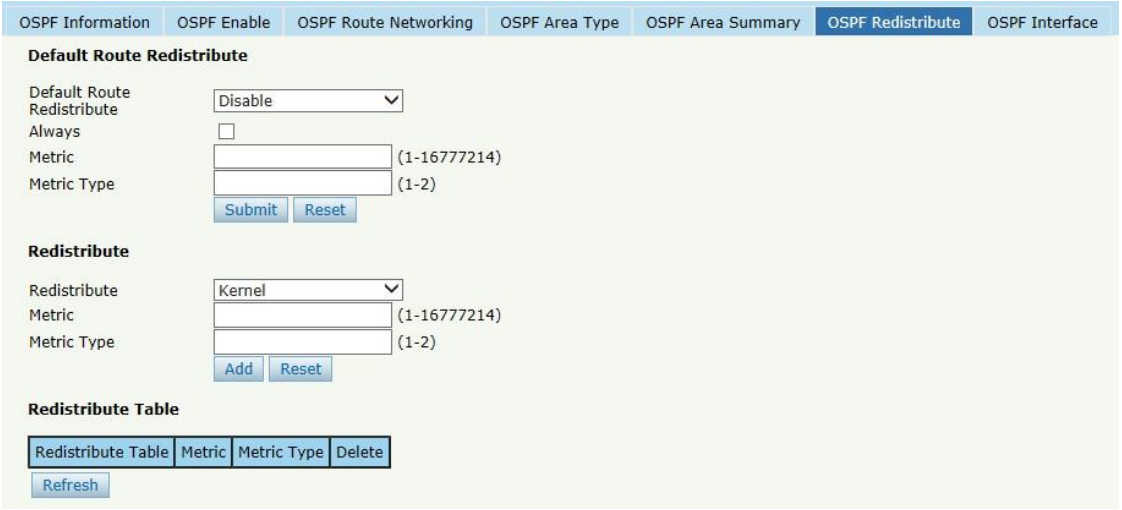


Figure 3-66: OSPF Redistribute

3.16.4.7 OSPF Interface

This page is used to OSPF interface parameters such as cost, time,

priority, authentication, and so on.

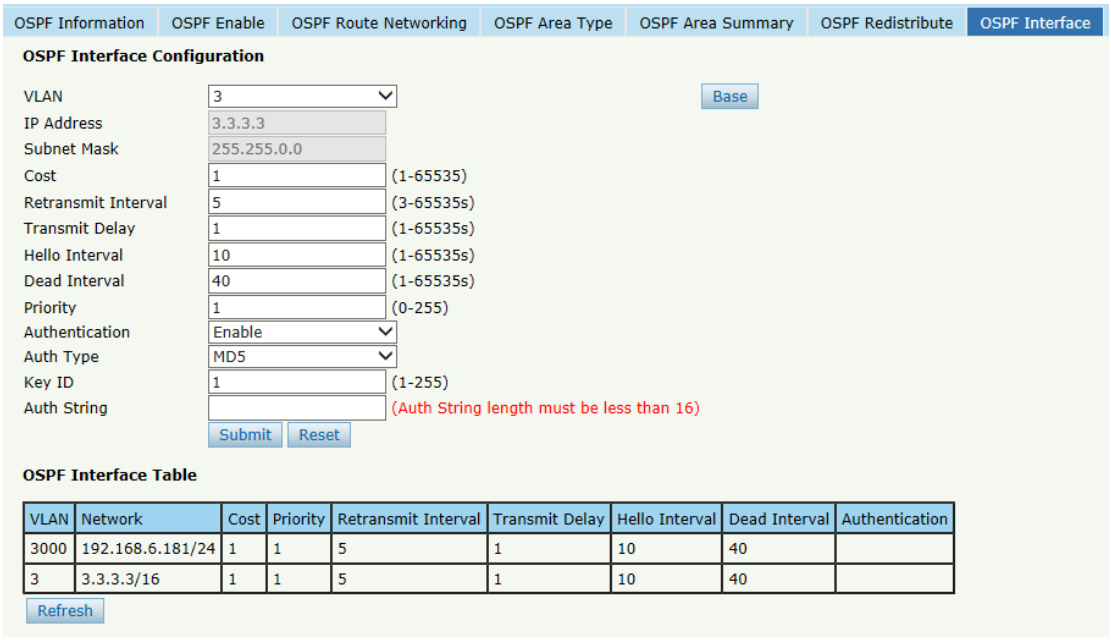


Figure 3-67: OSPF Interface

3.16.5 Key Chain

Key management is a method of controlling the authentication key used by routing protocols. The authentication key is available for EIGRP and RIP version 2. To manage the authentication key needs a key chain. Each key has its own key identifier, which is stored locally. The combination of the key identifier and the interface associated with the message uniquely identifies the authentication algorithm and MD5authentication key in use.

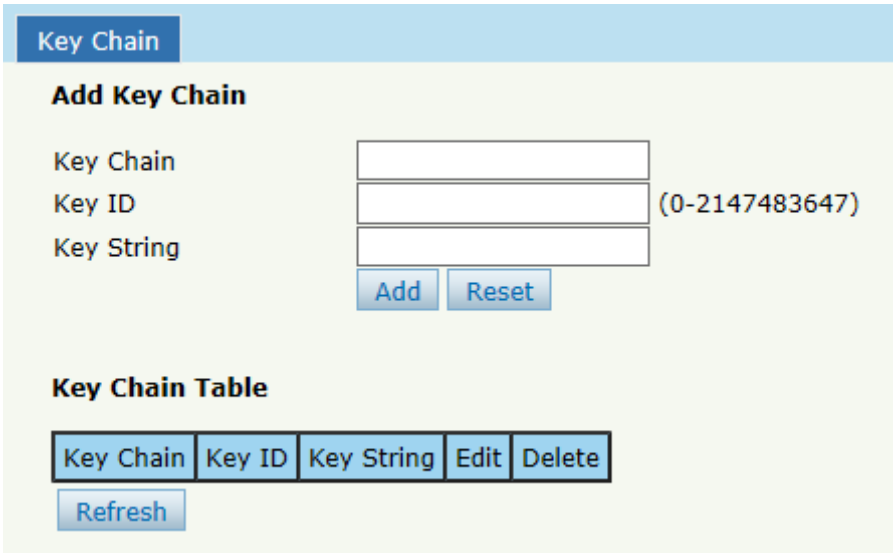


Figure 3-68: Key Chain

3.16.6 Route Table

This page displays routing items of OLT.

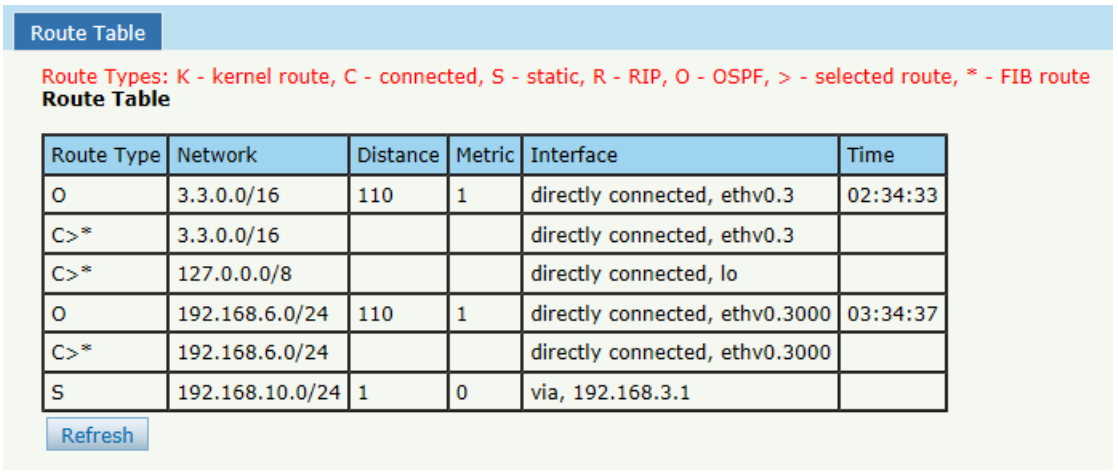


Figure 3-69: Route Table

3.17 IPv6 Route

3.17.1 VLAN IPv6

Configure IPv6 address for VLAN that has been created.

Click **OLT Configuration →IPv6 Route →IPv6 →VLAN IPv6**, select an

existing VLAN and set an IPv6 address for it.The IPv6 address can be used for inband management.

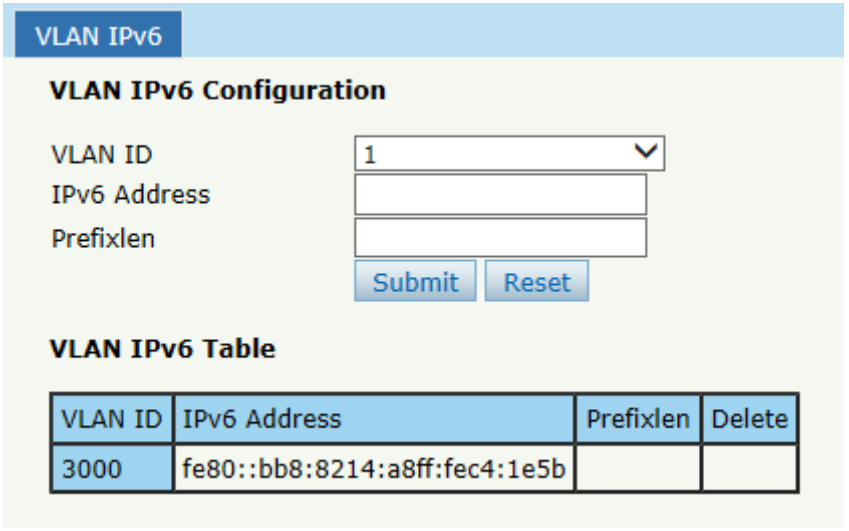


Figure 3-70: VLAN IPv6

3.17.2 IPv6 Static Route

Static route is added manually. It will not change even the situation and network topology has been changed.

Click **OLT Configuration→IPv6 Route→ IPv6 Static Route**,and add IPv6 static route item one by one.

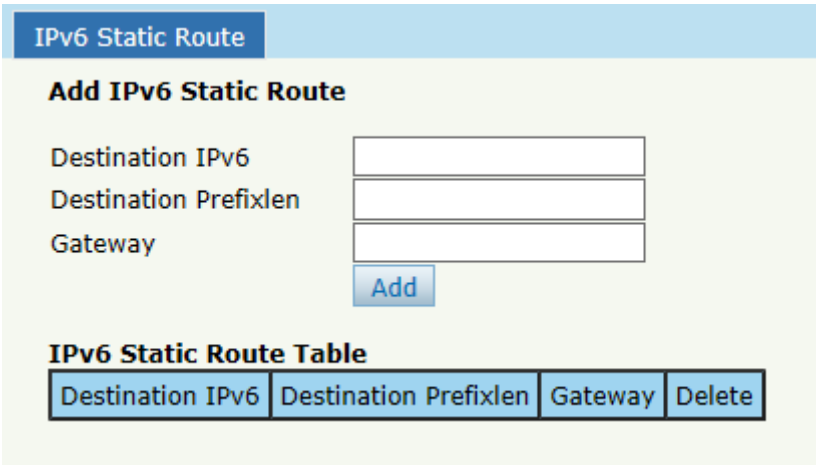


Figure 3-71: IPv6 Static Route

3.17.3 IPv6 Route Table

This table displays all IPv6 route items of the device, including static route and dynamic route.

Click **OLT Configuration→IPv6 Route→ IPv6 Route Table** to display all IPv6 route items.

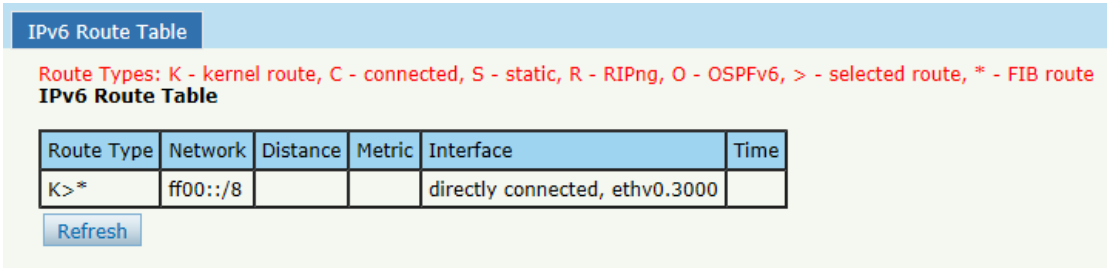


Figure 3-72: IPv6 Route Table

Chapter 4 ONU Configuration

This chapter is about the ONU management by OLT.

4.1 ONU List

This page shows about the ONU authentication list, search the ONU by MAC.

Click **ONU Configuration→ONU List,** shown as Figure 4-1.

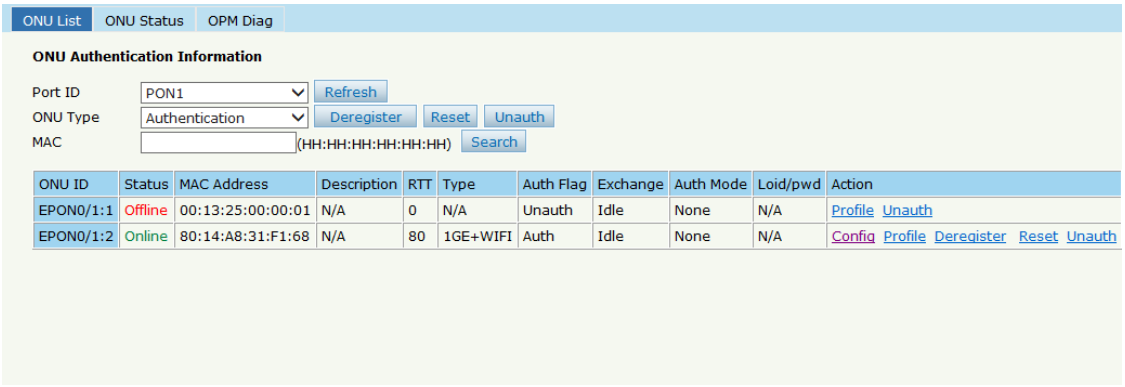


Figure 4-1: ONU List

4.1.1 Config

Click **ONU List→Config,** shown as Figure 4-2.

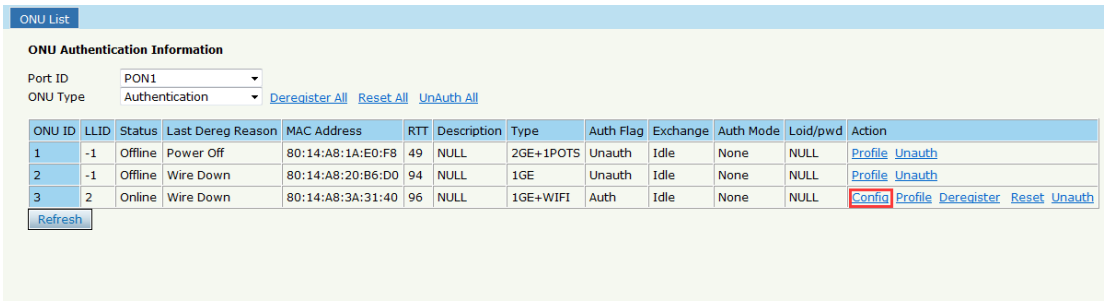


Figure 4-2: Configure ONU

4.1.1.1 Information

Click **ONU List→Config→Information**, show the ONU information.

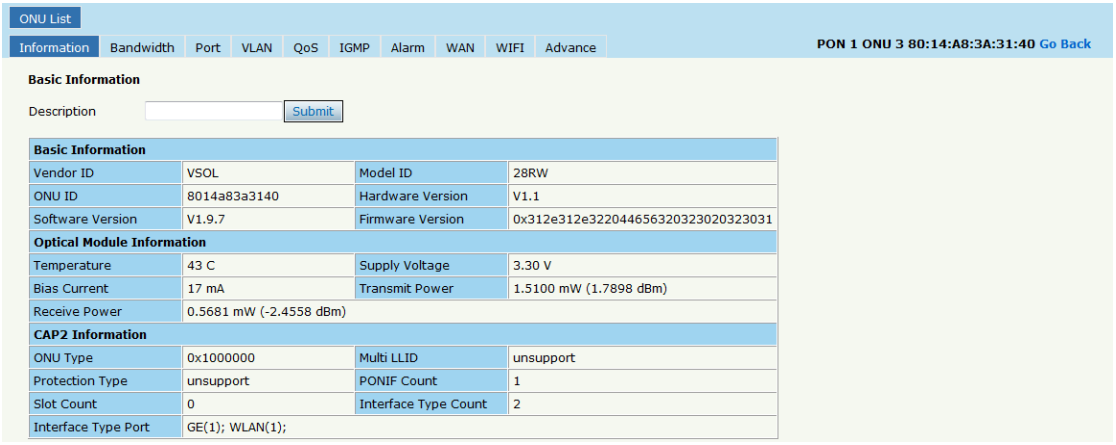


Figure 4-3: ONU Information

4.1.1.2 Bandwidth

Click **ONU List→Config→Bandwidth** to configure ONU upstream and downstream bandwidth.

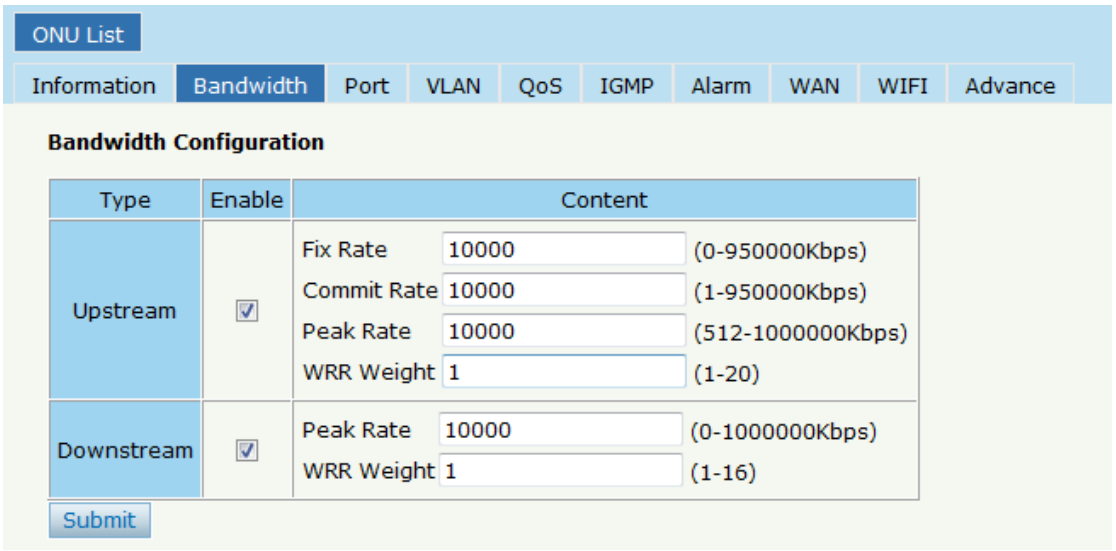


Figure 4-4: ONU Bandwidth

4.1.1.3 Port

The ONU port basic configure switch can be operated. And this page can configure the ONU port bandwidth.

Click **ONU List→Config→Port,** shown as Figure 4-5

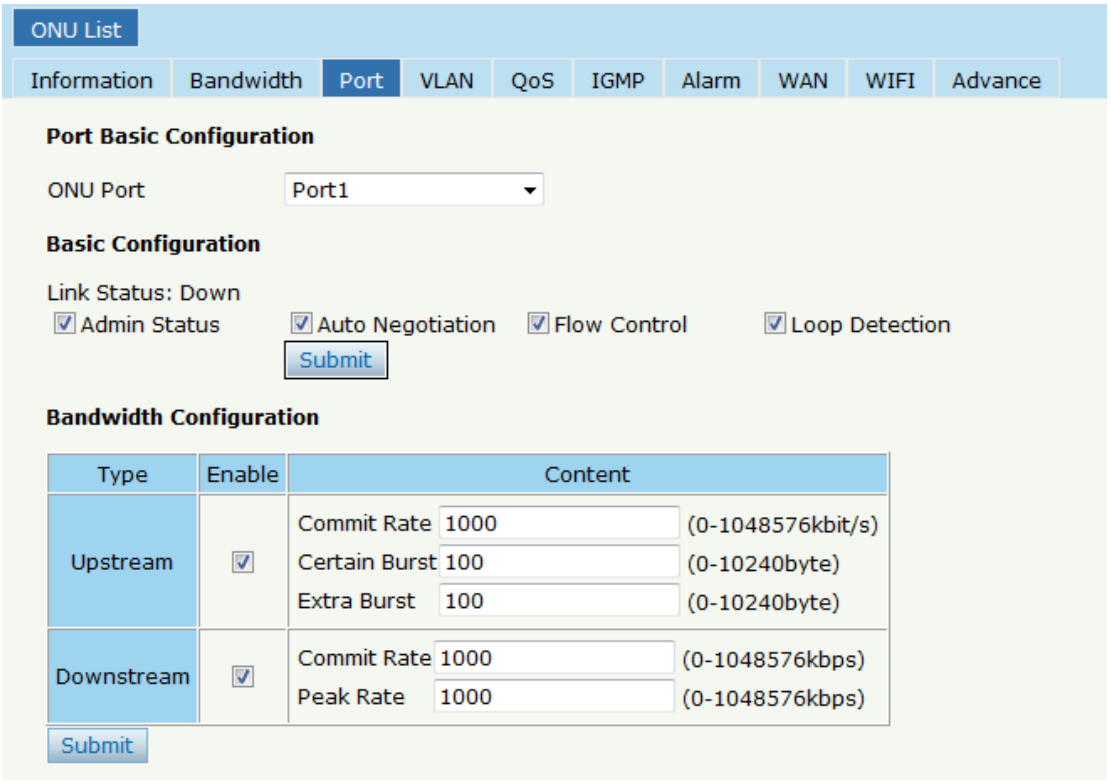


Figure 4-5: ONU Port Configuration

4.1.1.4 VLAN

ONU port default VLAN mode is transparent, the VLAN mode can be changed to tag mode, translation mode, aggregation mode, trunk mode.

Click **ONU List→Config→VLAN,** shown as Figure 4-6.

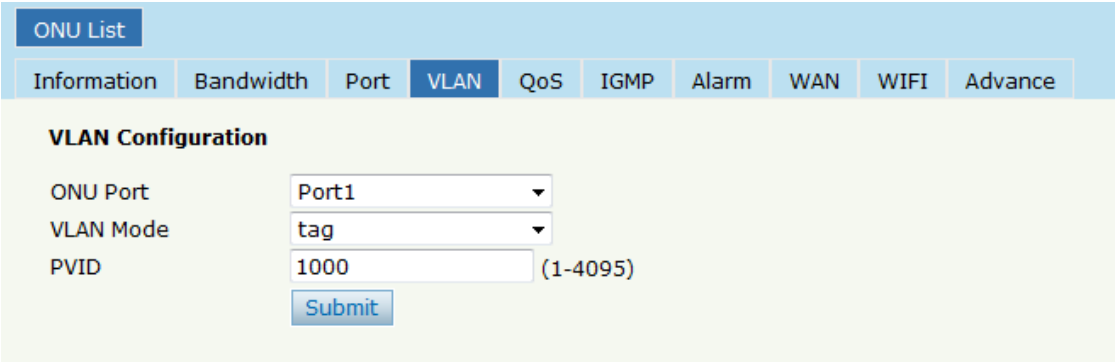


Figure 4-6: ONU Port VLAN

4.1.1.5 QoS

The QoS take effect with ONU port. Click **ONU List→Config→QoS,** shown as Figure 4-7.

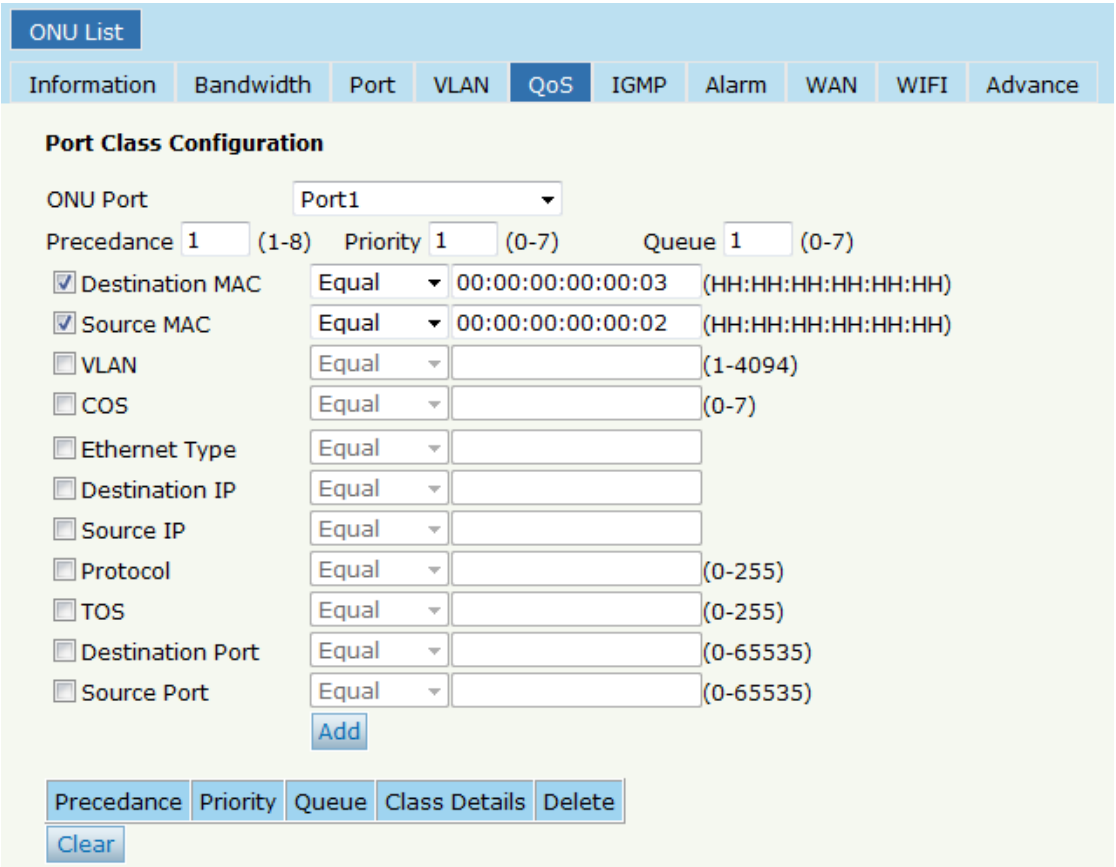


Figure 4-7: QoS Configuration

4.1.1.6 IGMP

Configure the ONU IGMP mode(Snooping or CTC Control),and the IGMP VLAN mode.

Click **ONU List→Config→IGMP,** shown as Figure 4-8.

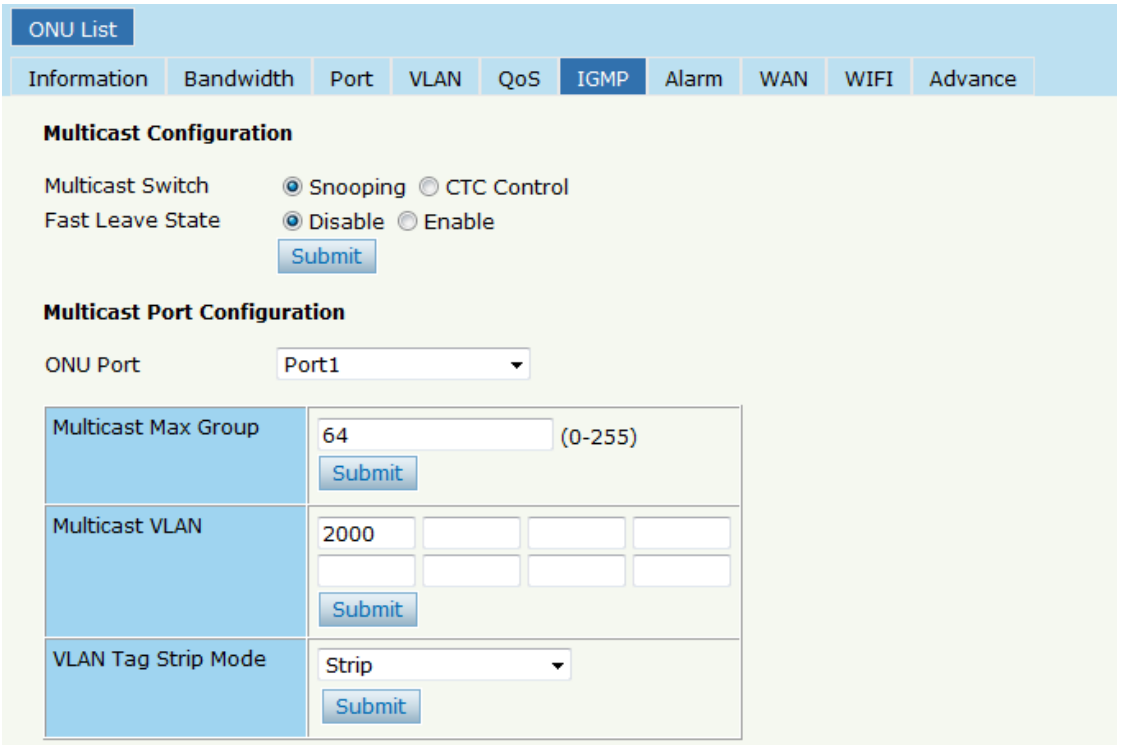


Figure 4-8: IGMP Configuration

4.1.1.7 Alarm

Show the ONU alarm status and threshold. Click **ONU List → Config → IGMP ,** shown as Figure 4-9.

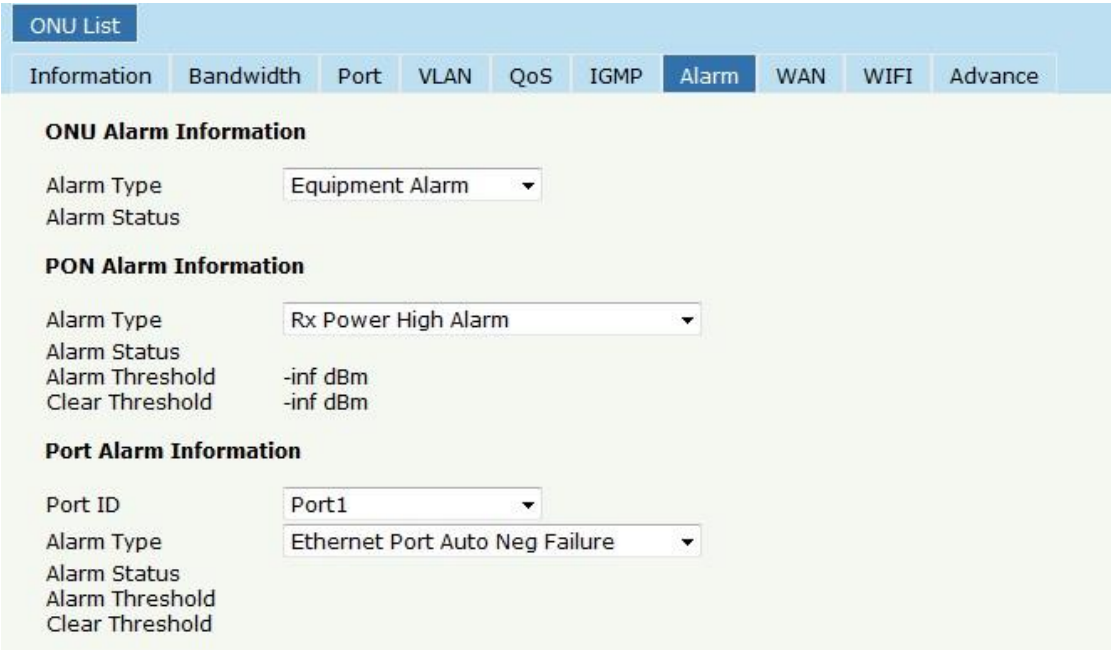


Figure 4-9: ONU Alarm

4.1.1.8 WAN

This is the private OAM between OLT and ONU. When the connected ONU support this function, the option "WAN" can be show in this page.

Click **ONU List → Config →WAN ,** fill in the parameter, click "**Add**" then click "Submit" it will take effect, shown as Figure 4-10.

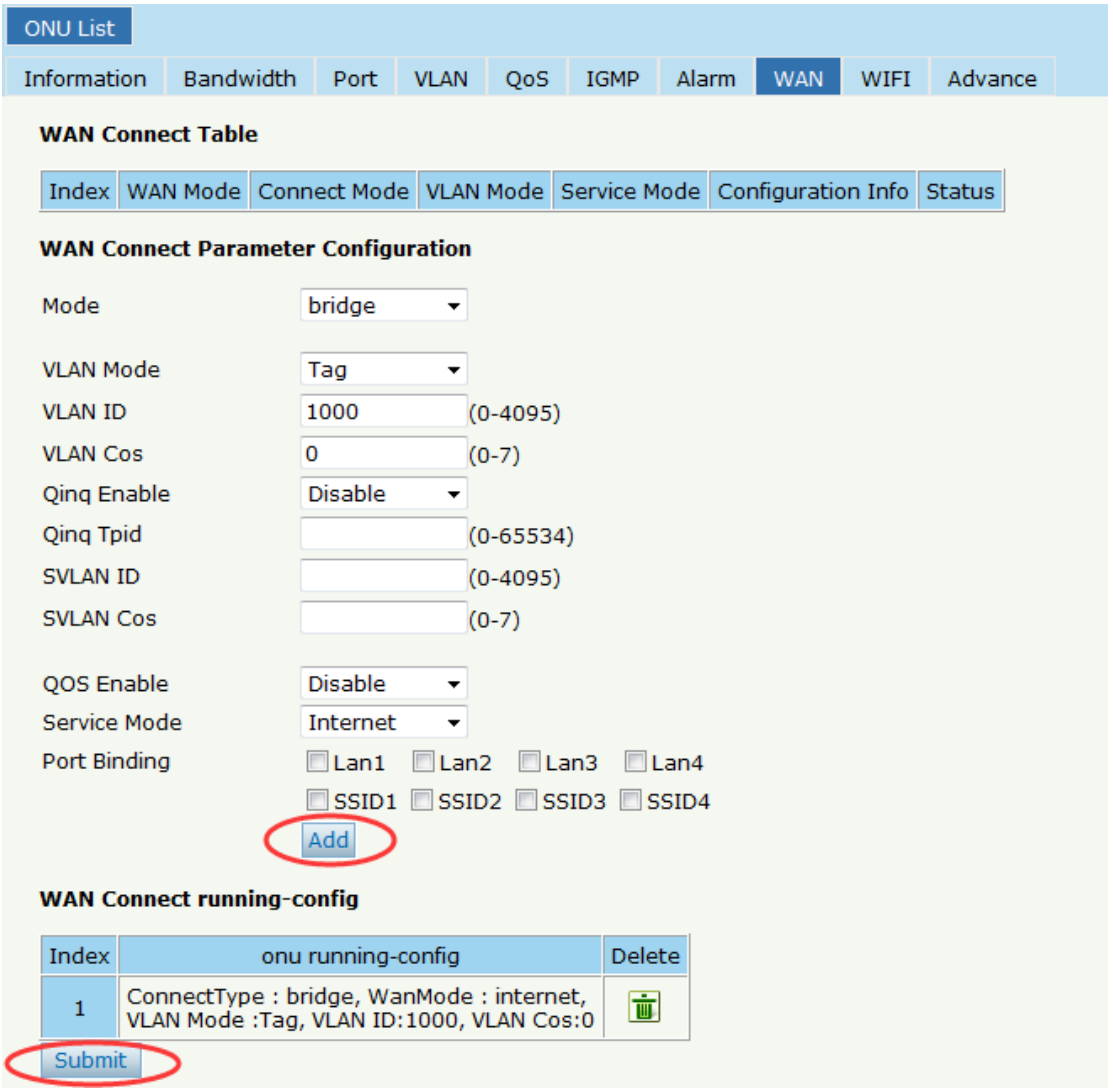


Figure 4-10: WAN Connection

4.1.1.9 WIFI

This is the private OAM between OLT and ONU. When the connected ONU support this function, the option "WIFI" can be show in this page.

Click **ONU List → Config →WIFI,** the SSID and the password can be set, shown as Figure 4-11.

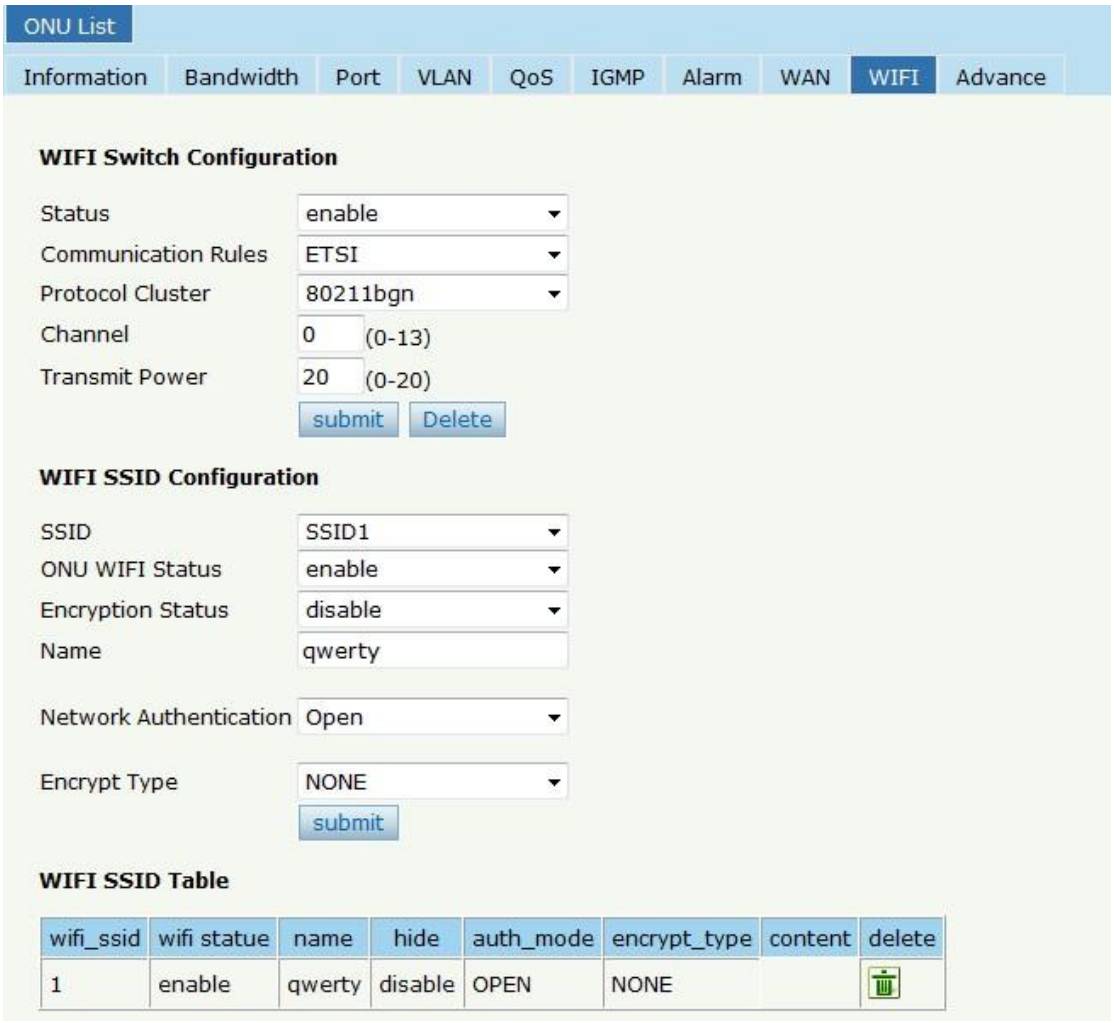


Figure 4-11: WIFI Setting

4.1.1.10 DHCP Server

This is the private OAM between OLT and ONU. When the connected ONU support this function, the option "DHCP Server" can be show in this page.

Click **ONU List → Config →DHCP Server,** the ONU Lan port DHCP server can be changed, shown as Figure 4-12.

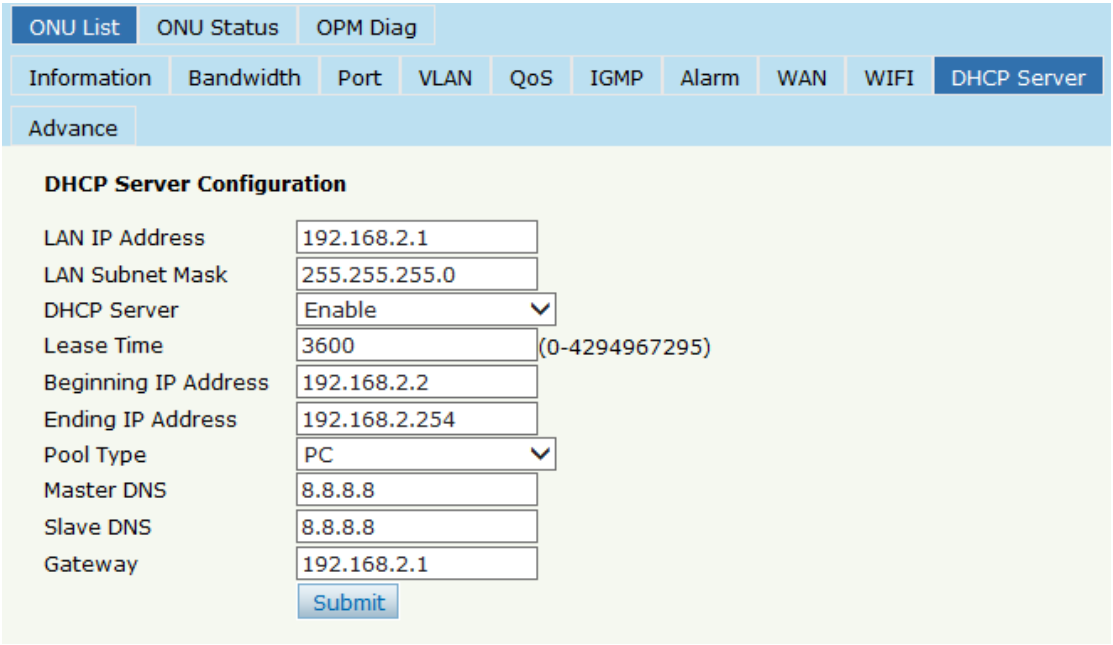


Figure 4-12: DHCP Server Setting

4.1.1.11 Advance

ONU management IP and ONU MAC aging time can be set. The ONU which support management IP and MAC aging time can take effect. Click **ONU List → Config →Advance,** shown as Figure 4-13.

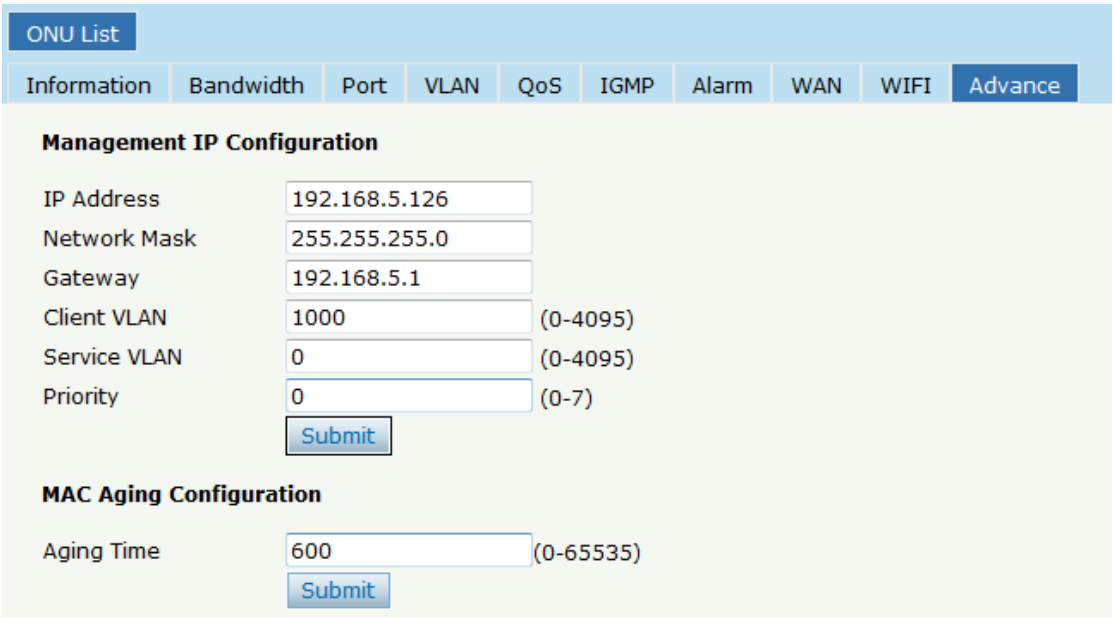


Figure 4-13: Advance

4.1.1.12 VoIP

VoIP ONU can set the VoIP global parameter.

ONU List → Config →VoIP, shown as Figure 4-14.

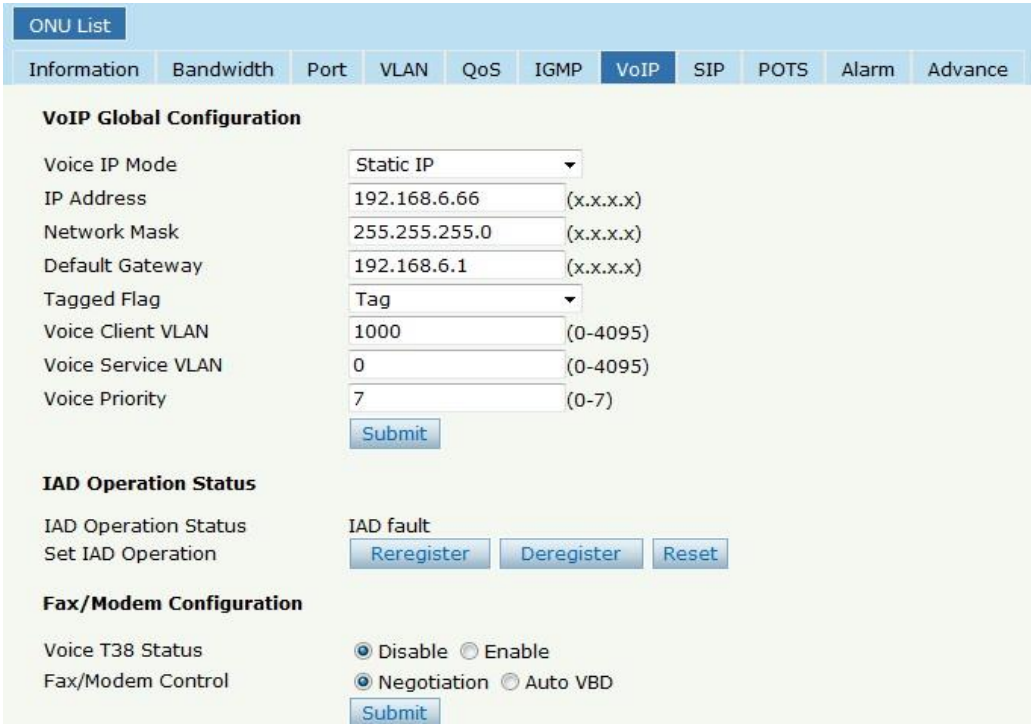


Figure 4-14: VoIP Global

4.1.1.13 SIP

VoIP ONU SIP parameter can be set in this page.

ONU List → Config →SIP, shown as Figure 4-15.

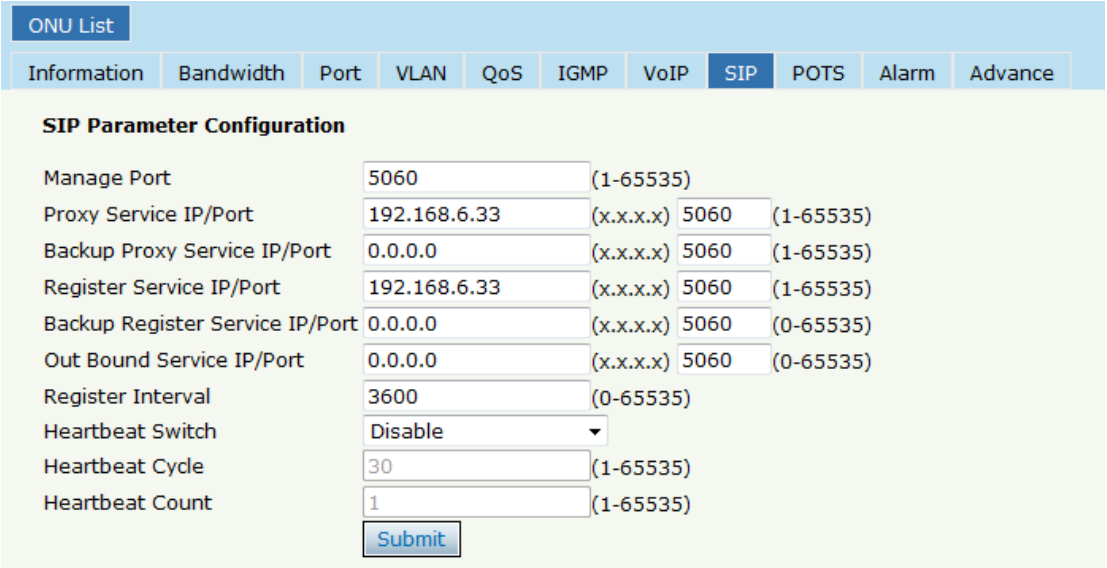


Figure 4-15: SIP Parameter

4.1.1.14 POTS

VoIP ONU POTS account and password set in this page, the length can't be more than 16 bits.

ONU List → Config →POTS, shown as Figure 4-16.

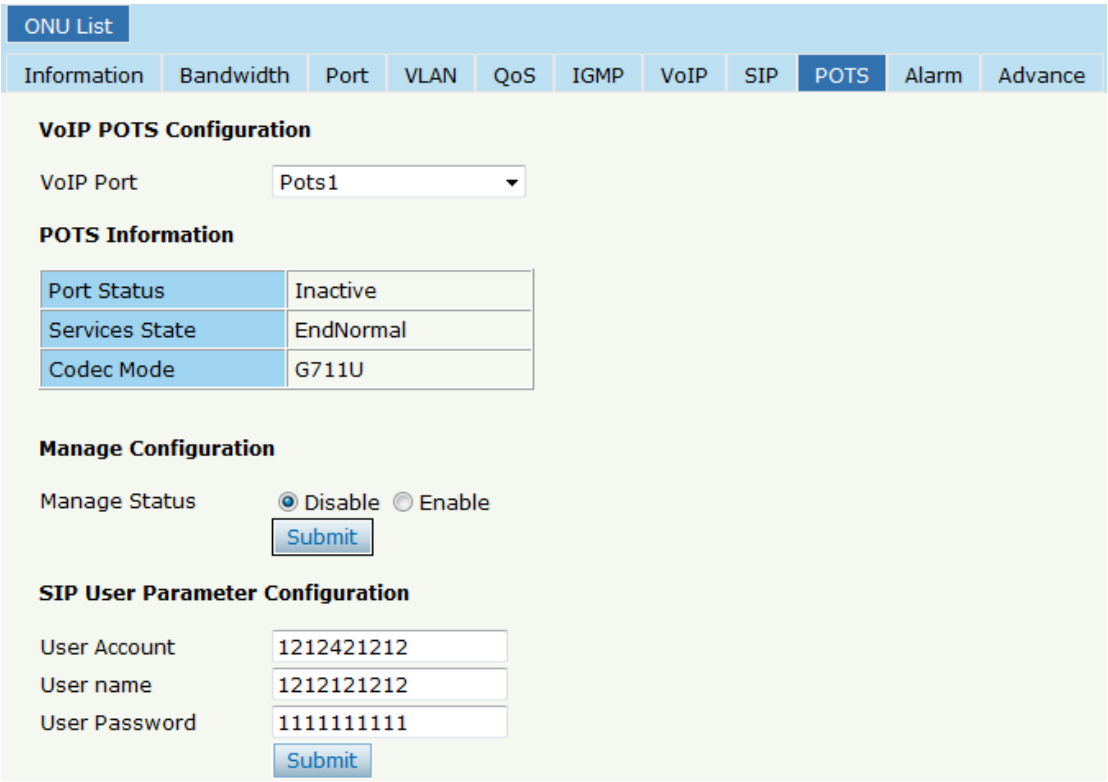


Figure 4-16: POTS Setting

4.1.2 Profile

All the profile are shown in this page, choose the suitable profile binding the ONU. Click **ONU Configuration→ONU List→Profile,** shown as Figure 4-17.

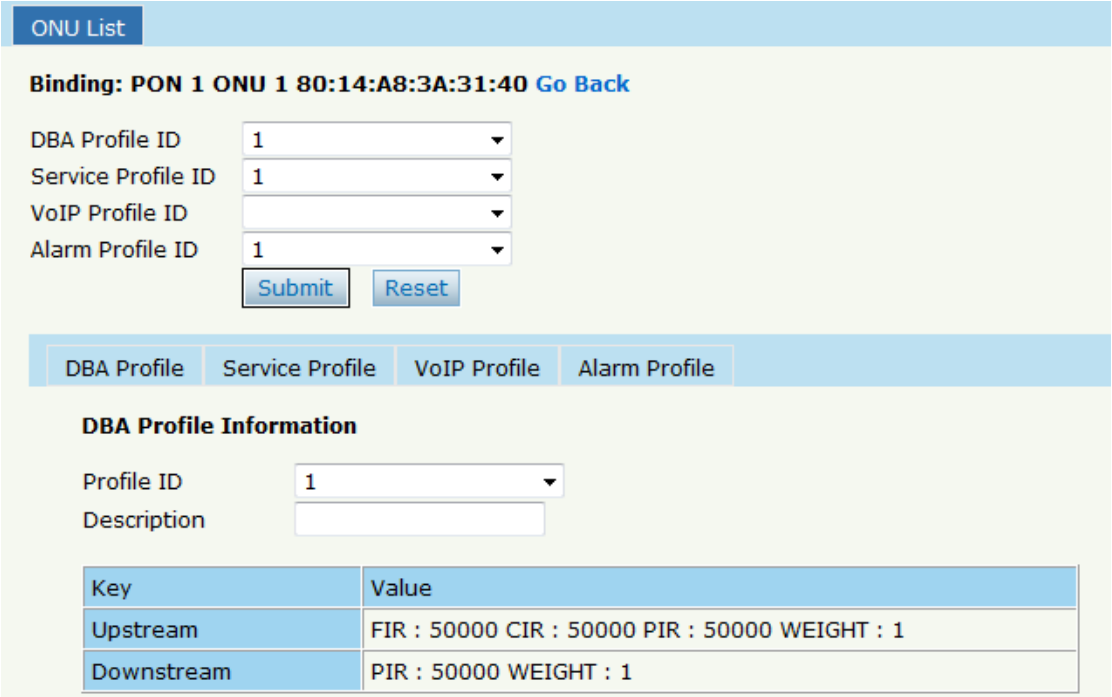


Figure 4-17: Profile Bind

4.1.3 Deregister Reset Unauth

Single ONU can be operated deregister, reset(reboot), unauth. And the same PON ONU can be operated batch. Click **ONU Configuration→ONU List,** shown as Figure 4-18.

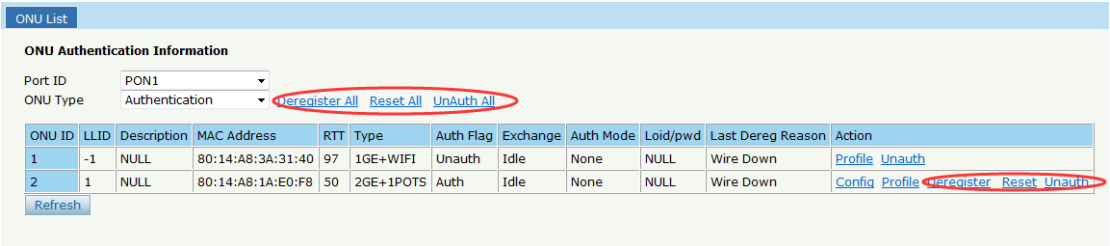


Figure 4-18: Deregister Reset Unauth Setting

4.1.4 ONU Status

Showing about the ONU information of the activity. User can check "Last Register Time" ,"Last Deregister Reason", "Active Time" for each ONU.

Click **ONU Configuration→ONU List→ONU Status,** shown as Figure 4-19.

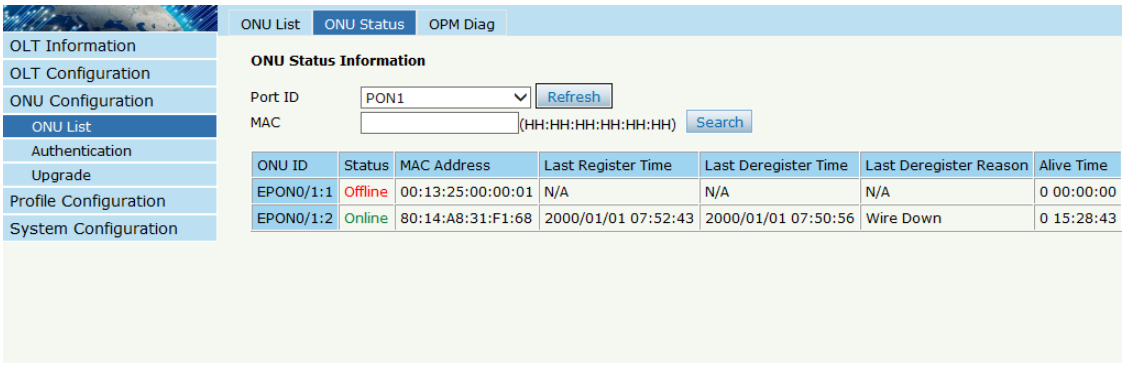


Figure 4-19: ONU Status

4.1.5 OPM Diag

Check the ONU RX power, a batch of ONU RX power information can be shown in a list. Clearly to check the register power, when register issue happen. Click **ONU Configuration→ONU List→OPM Diag,** shown as Figure 4-20.

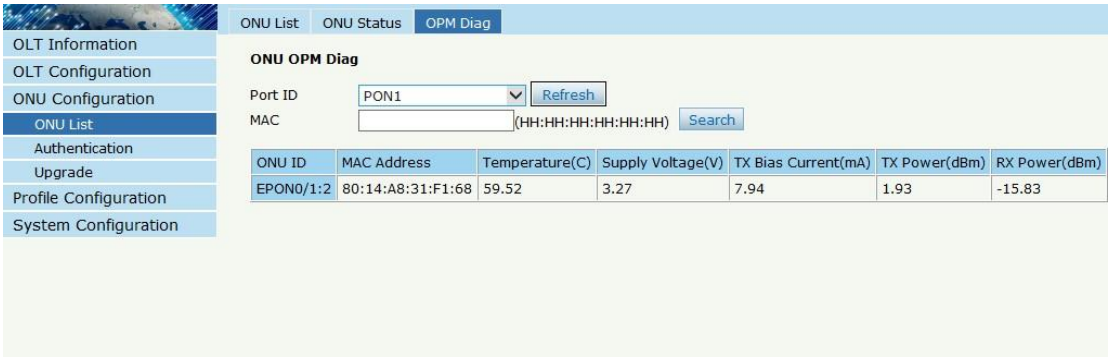


Figure 4-20: OPM Diag

4.2 Authentication

4.2.1 Authentication Mode

Authentication mode is basic on PON, it is "Disable" mode by default. There are 4 modes of the ONU authentication: Disable mode, MAC mode, LOID mode and Hybrid mode. Click **ONU**

Configuration→Authentication→ Authentication Mode, shown as Figure 4-21

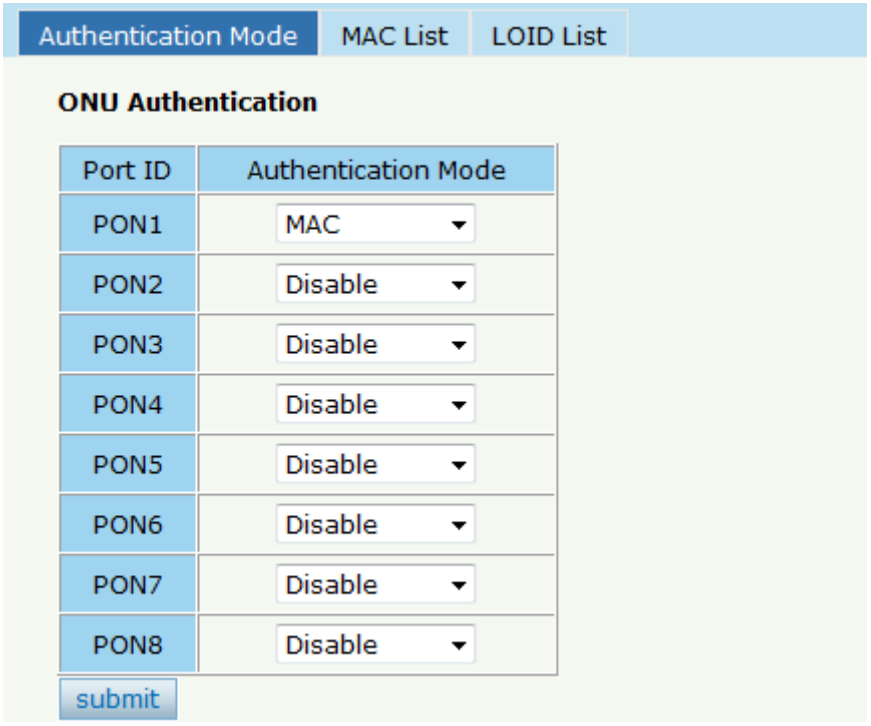


Figure 4-21: Authentication Mode

4.2.2 MAC list

When the ONU authentication mode is MAC mode, only ONUs with their MAC on the white list can register to the OLT. The black MAC list ONU cannot register whatever the mode.

Click **ONU Configuration→Authentication→MAC List,** shown as Figure 4-22.

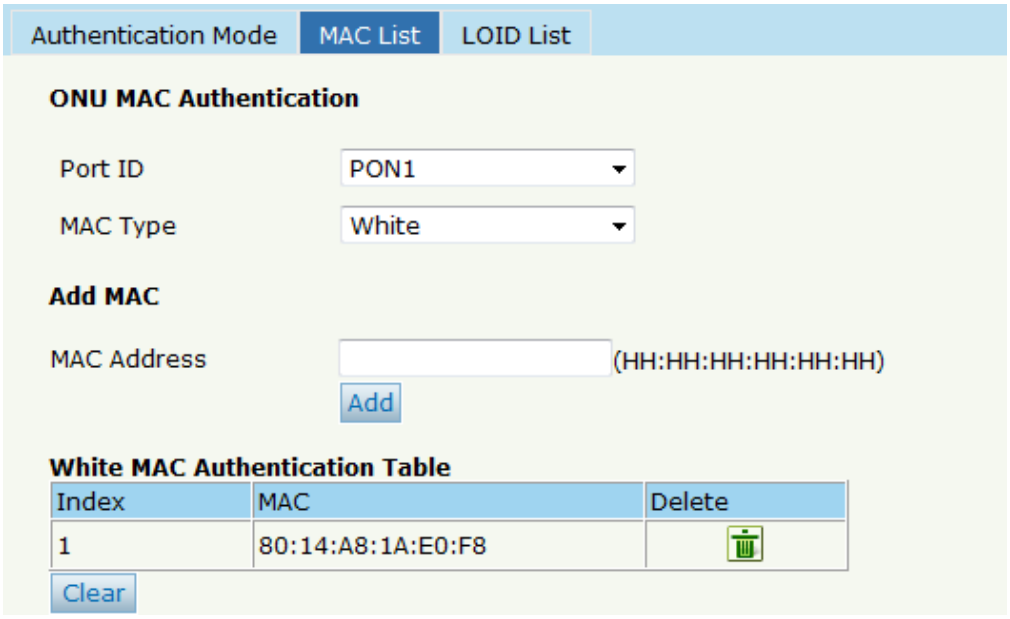


Figure 4-22: MAC List

4.2.3 LOID List

When the authentication mode is LOID, only the ONUs on the LOID list can register to the OLT. Click **ONU Configuration→Authentication→LOID List,** shown as Figure 4-23..

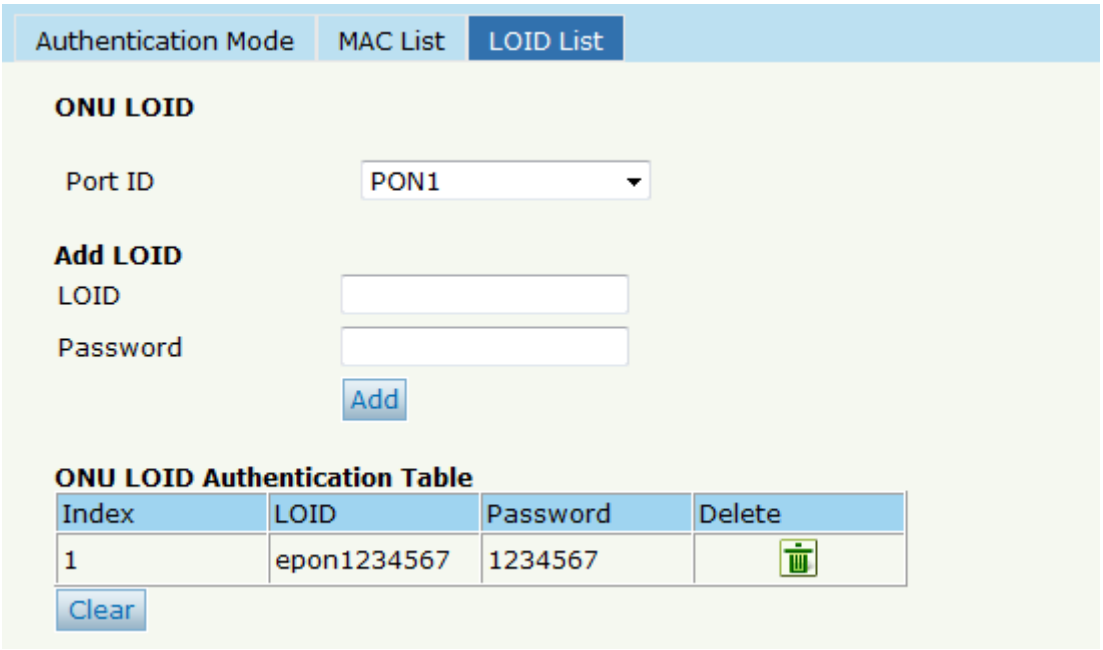


Figure 4-23: LOID List

4.3 Upgrade

ONU upgrade by OLT

4.3.1 Upgrade Status

When ONU is upgrading, the list will be shown in this page.

Click **ONU Configuration→Upgrade→Upgrade Status,** shown as Figure 4-24.

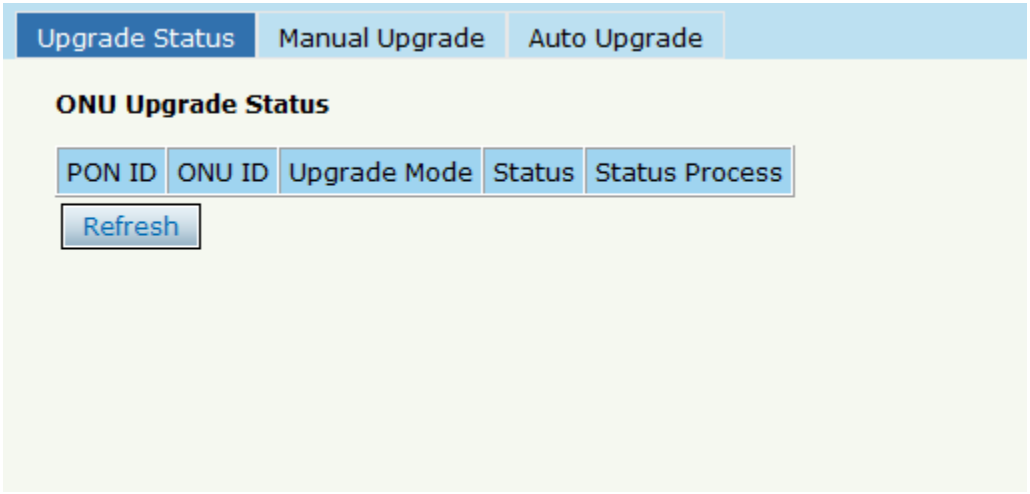


Figure 4-24: ONU Upgrade Status

4.3.2 Manual Upgrade

Choose the ONU which need to upgrade, select the ONU(fill in the ONU ID),browse the firmware ,click upgrade will be OK.

Click **ONU Configuration→Upgrade→Manual Upgrade,** shown as Figure 4-25.

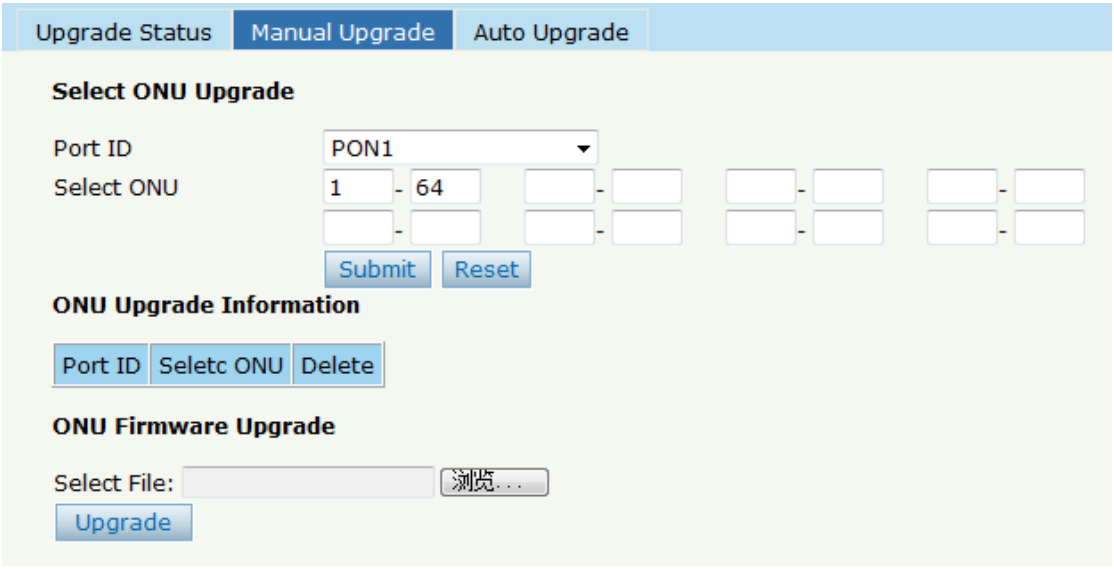


Figure 4-25: Manual Upgrade

4.3.3 Auto Upgrade

The ONU firmware will be saved in the OLT first, when the ONU come online, it will auto upgrade the firmware.

Click **ONU Configuration→Upgrade→Auto Upgrade,** shown as Figure 4-26.

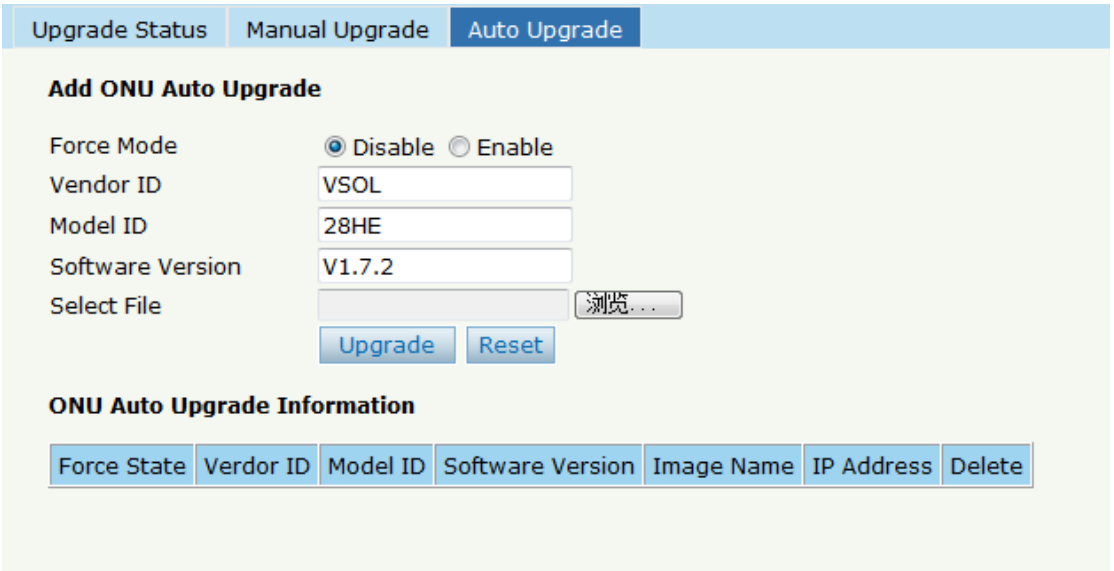


Figure 4-26: Auto Upgrade

Chapter 5 Profile Configuration

This chapter is about the ONU profile configuration. It is designed for batch ONU management by OLT.

5.1 DBA Profile

All the ONU will be bound an default DBA profile. When the user bind manually, the new template will take effect.

5.1.1 Add/Commit

Add a DBA profile first, Click **Profile Configuration→DBA Profile → Add/Commit,** shown as Figure 5-1.

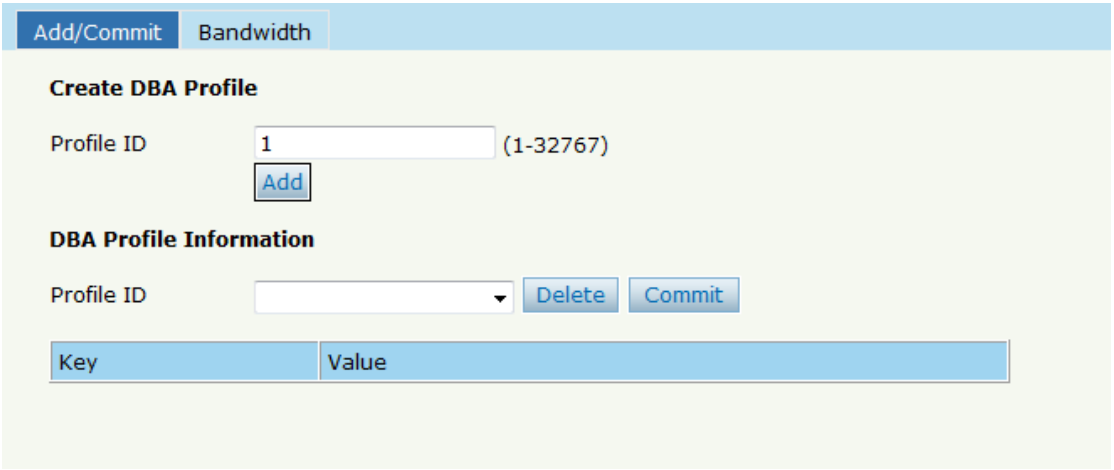


Figure 5-1: Add/Commit DBA Profile

5.1.2 Bandwidth

Select the DBA profile ID, configure the content of DBA. Click **Profile Configuration→DBA Profile → Add/Bandwidth,** shown as Figure 5-2.

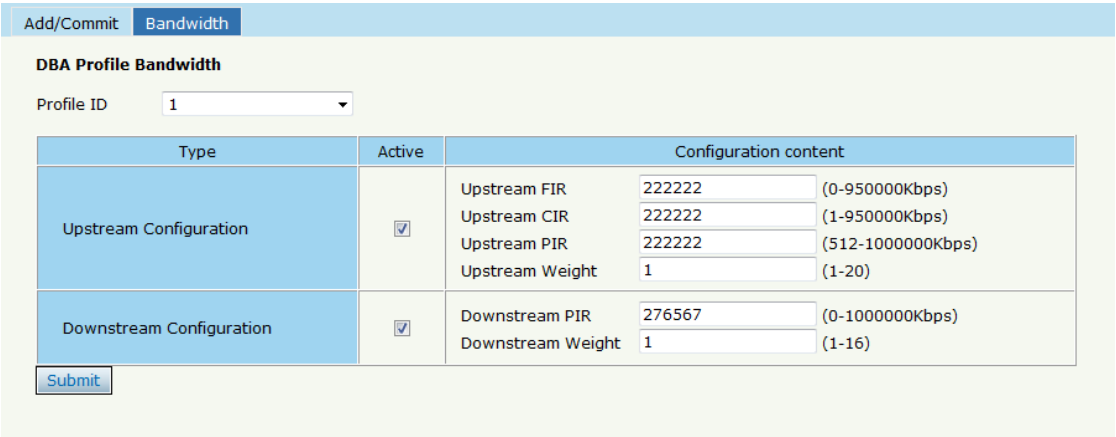


Figure 5-2: Bandwidth Content

5.2 Service Profile

The ONU service configuration can be set as a profile.

5.2.1 Add/Commit

Add a service profile ID first, Click **Profile Configuration→Service Profile → Add/Commit,** shown as Figure 5-3.

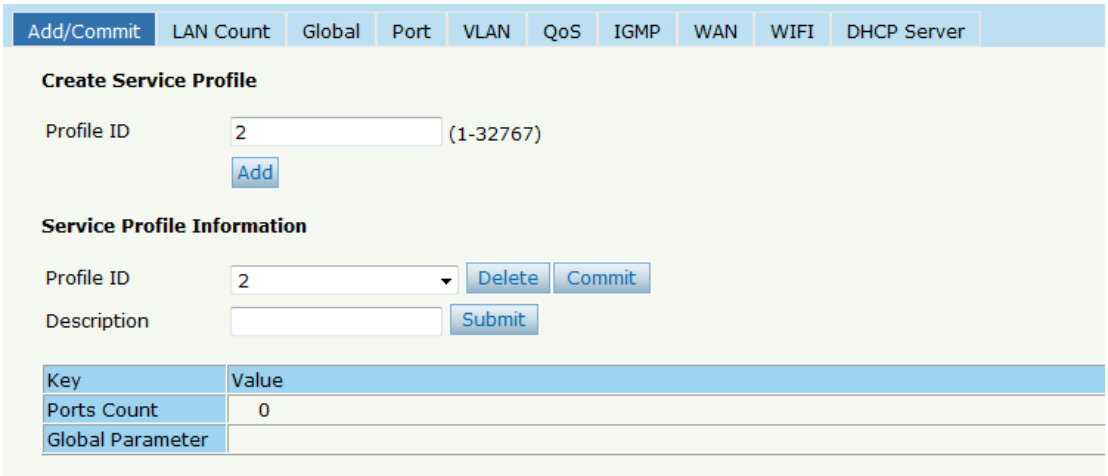


Figure 5-3: Add/Commit Service Profile

5.2.2 Content

The server profile configuration contain **LAN Conut, Global(MAC Age time), Port, VLAN, QoS, IGMP, WAN , WIFI, DHCP Server** etc.

Click **Profile Configuration→Service Profile**

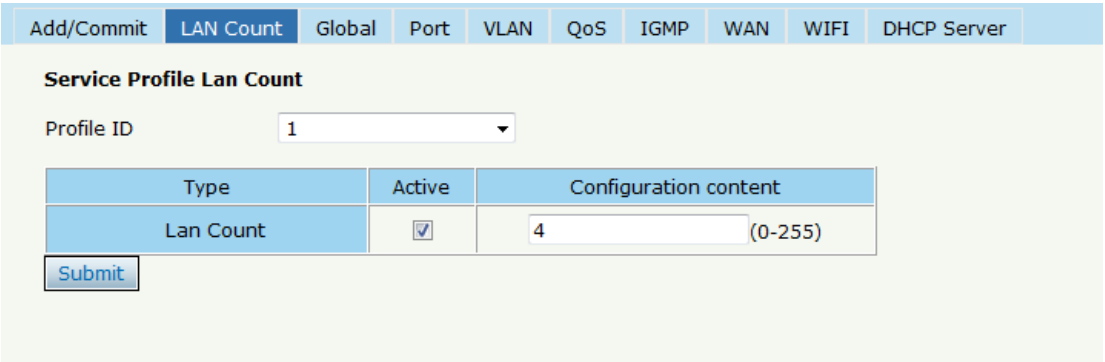


Figure 5-4: LAN Count

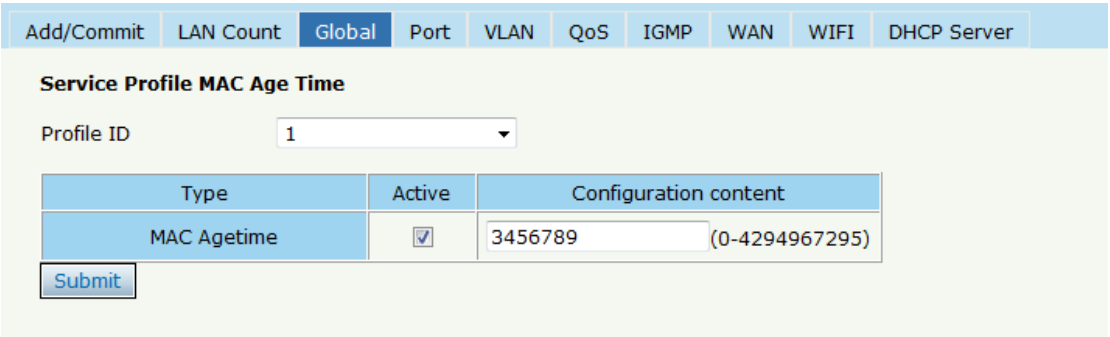


Figure 5-5: Global

5.3 VoIP Profile

The VoIP ONU can use this profile.

5.3.1 Add/Commit

Add a VoIP profile ID first, Click **Profile Configuration→VoIP Profile → Add/Commit,** shown as Figure 5-6.

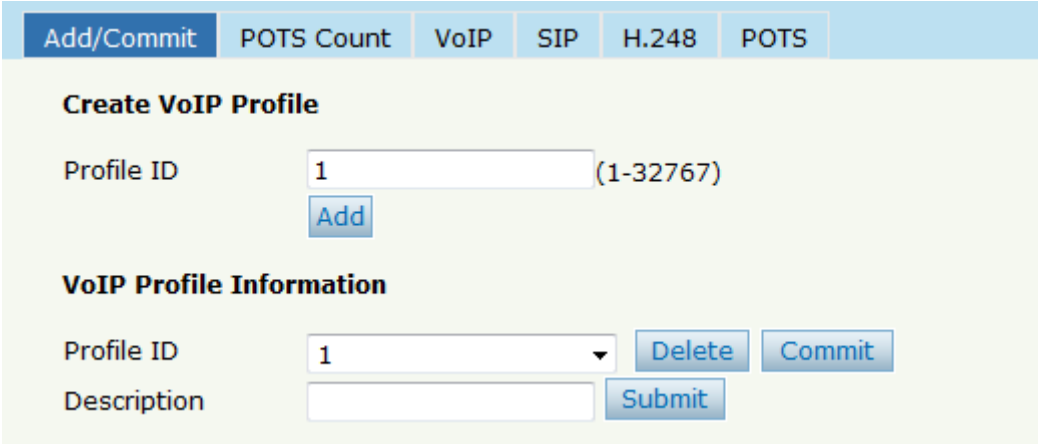


Figure 5-6: Add/Commit VoIP Profile

5.3.2 Content

The VoIP profile configuration contain **POTS Count, VoIP, SIP, H.248, POTS** etc. Click **Profile Configuration→VoIP Profile.**

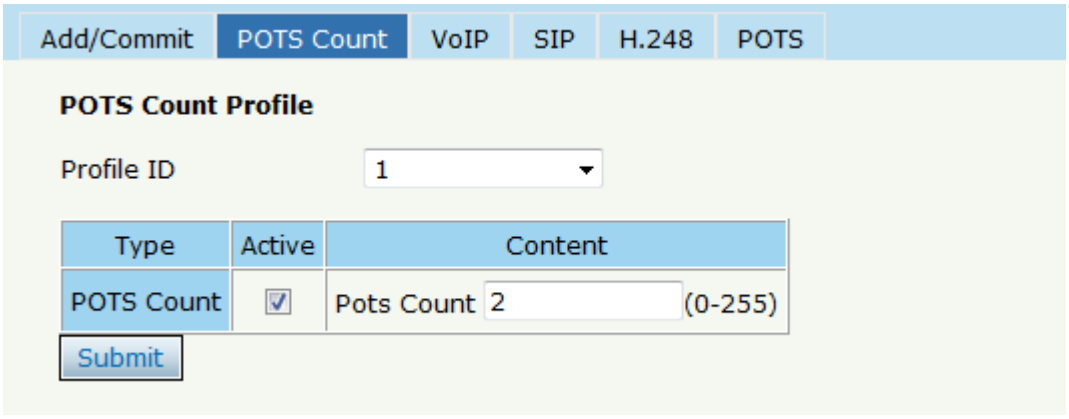


Figure 5-7: POTS Count

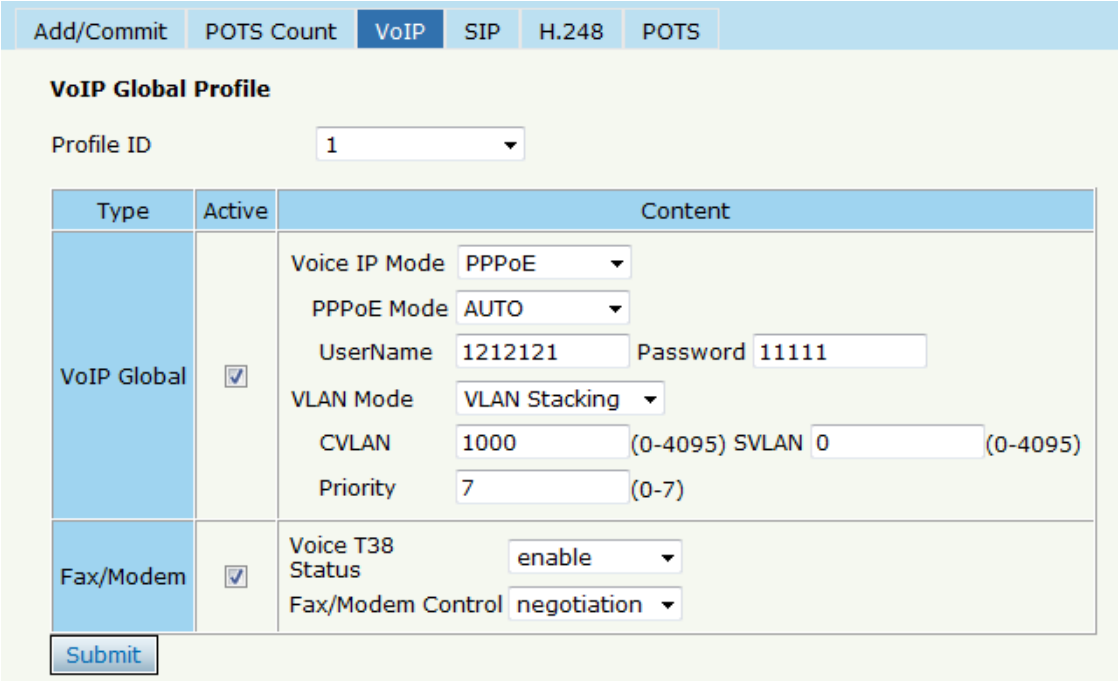


Figure 5-8: VoIP

5.4 Alarm Profile

5.4.1 Add/Commit

Add a alarm profile ID first, Click **Profile Configuration→Alarm Profile →**

Add/Commit, shown as Figure 5-9.

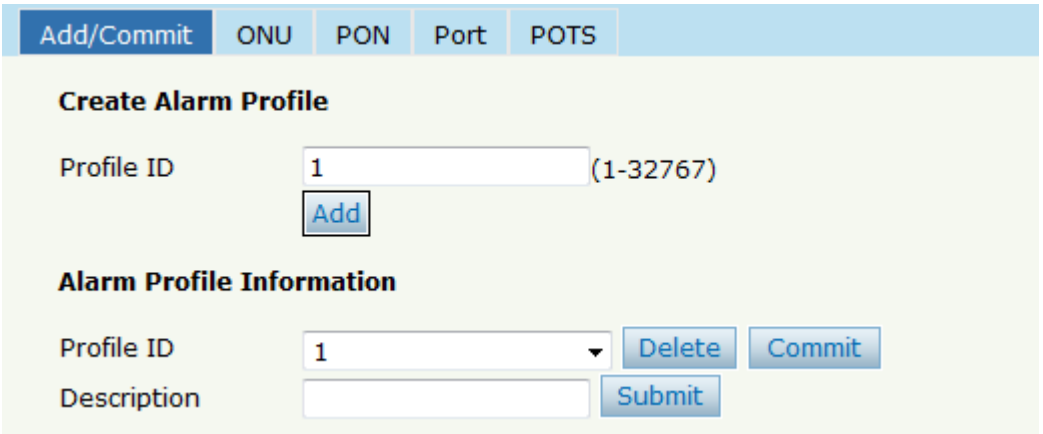


Figure 5-9: Add/Commit Alarm Profile

5.4.2 Content

The alarm profile contains **ONU global threshold alarm, PON alarm, Port alarm, POTS alarm, etc.**Click **Profile Configuration→Alarm Profile.**

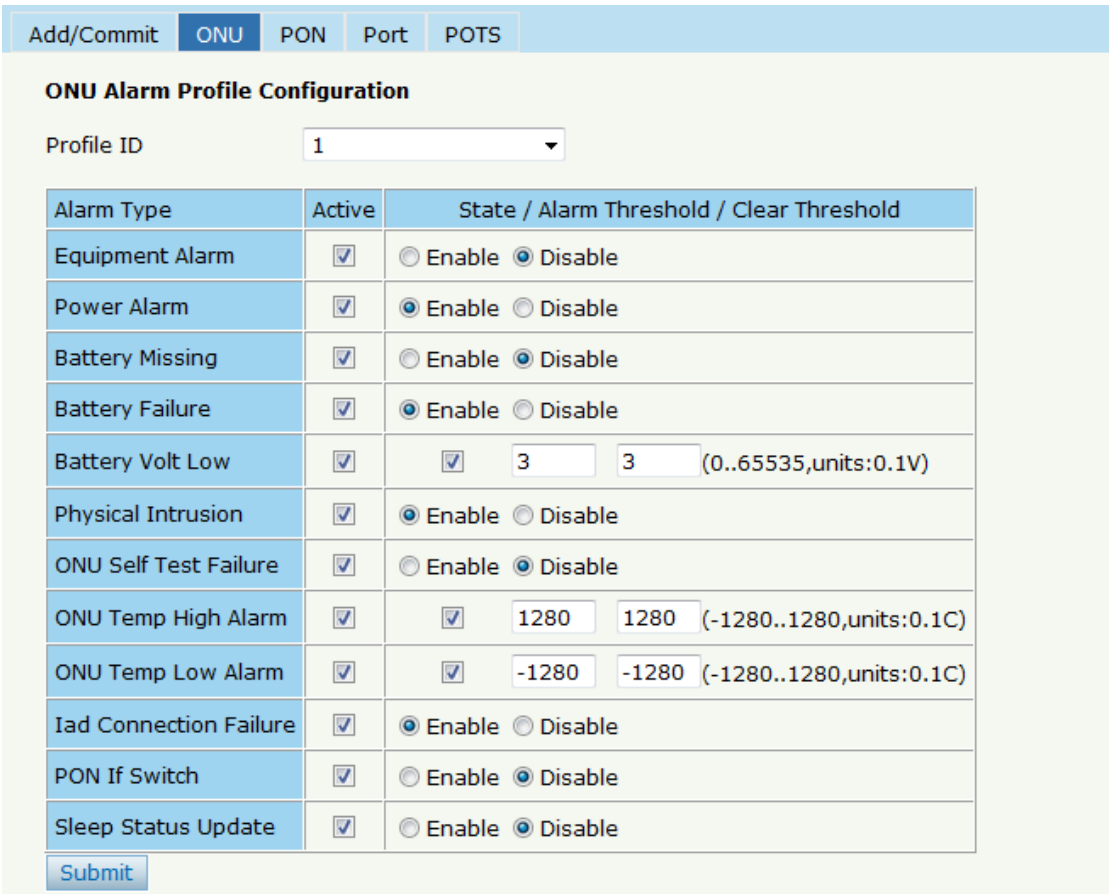


Figure 5-10: ONU Global Alarm

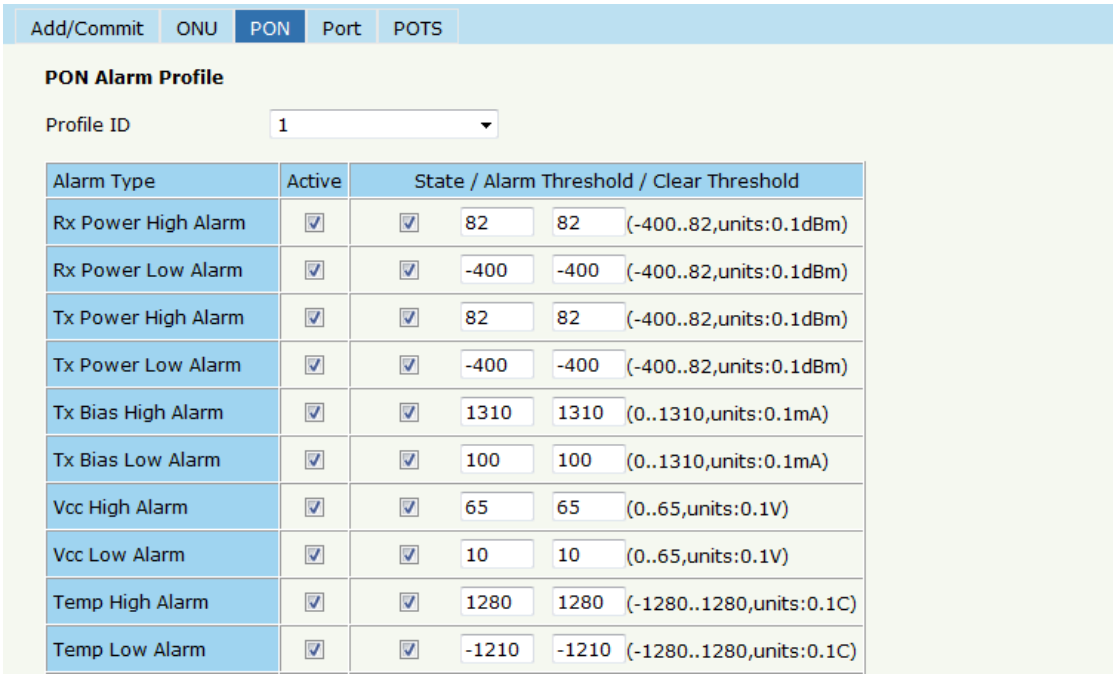


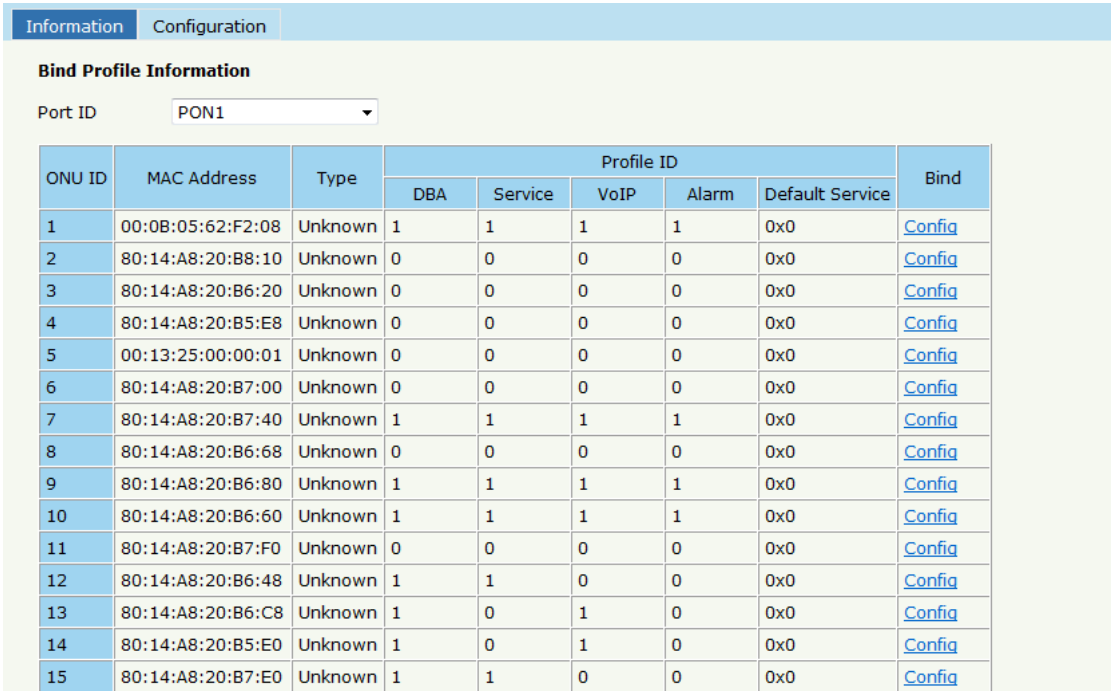
Figure 5-11: PON Alarm

5.5 Bind Profile

The DBA profile, server profile, VoIP profile, alarm profile can be bound to the ONU.

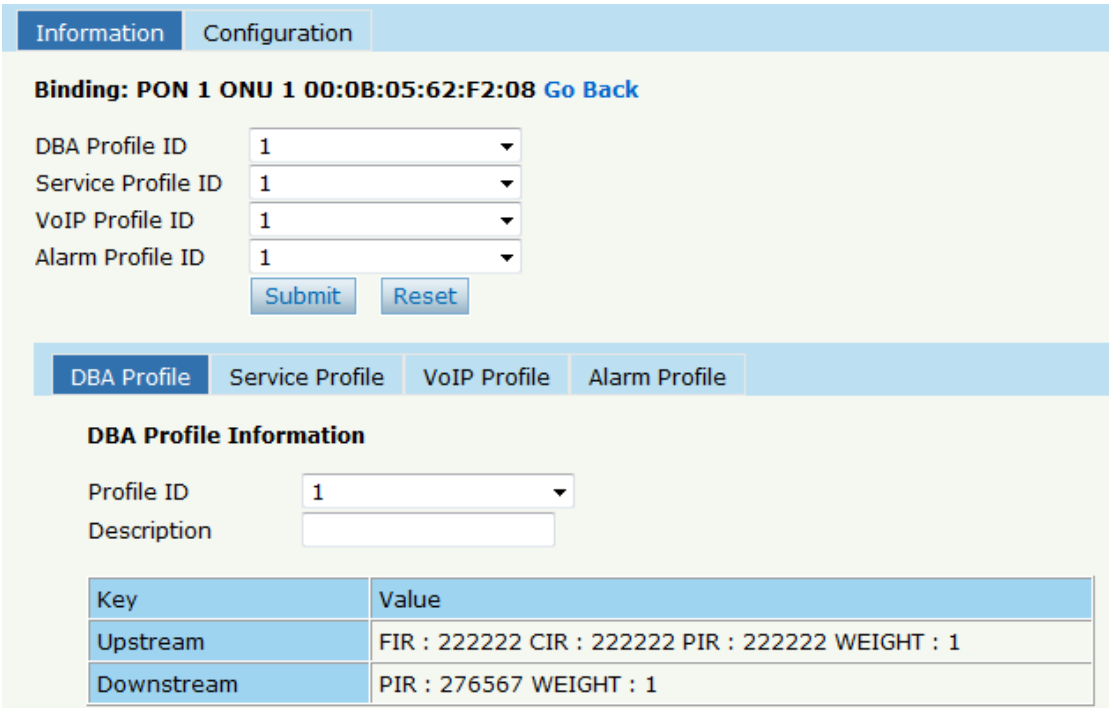
5.5.1 Information

In this page, the ONU profile bind list will be shown, and configure the ONU profile by click the "Config", Click **Profile Configuration→Bind Profile→Information.**



ONU ID	MAC Address	Type	Profile ID					Bind
			DBA	Service	VoIP	Alarm	Default Service	
1	00:0B:05:62:F2:08	Unknown	1	1	1	1	0x0	Config
2	80:14:A8:20:B8:10	Unknown	0	0	0	0	0x0	Config
3	80:14:A8:20:B6:20	Unknown	0	0	0	0	0x0	Config
4	80:14:A8:20:B5:E8	Unknown	0	0	0	0	0x0	Config
5	00:13:25:00:00:01	Unknown	0	0	0	0	0x0	Config
6	80:14:A8:20:B7:00	Unknown	0	0	0	0	0x0	Config
7	80:14:A8:20:B7:40	Unknown	1	1	1	1	0x0	Config
8	80:14:A8:20:B6:68	Unknown	0	0	0	0	0x0	Config
9	80:14:A8:20:B6:80	Unknown	1	1	1	1	0x0	Config
10	80:14:A8:20:B6:60	Unknown	1	1	1	1	0x0	Config
11	80:14:A8:20:B7:F0	Unknown	0	0	0	0	0x0	Config
12	80:14:A8:20:B6:48	Unknown	1	1	0	0	0x0	Config
13	80:14:A8:20:B6:C8	Unknown	1	0	1	0	0x0	Config
14	80:14:A8:20:B5:E0	Unknown	1	0	1	0	0x0	Config
15	80:14:A8:20:B7:E0	Unknown	1	1	0	0	0x0	Config

Figure 5-12: Bind Profile Information



Key	Value
Upstream	FIR : 222222 CIR : 222222 PIR : 222222 WEIGHT : 1
Downstream	PIR : 276567 WEIGHT : 1

Figure 5-13: Config

5.5.2 Configuration

In this page, the ONU list about the profile binding will be show, batch to bind the profile can be allowed. Click **Profile Configuration→Bind**

Profile→Configuration.

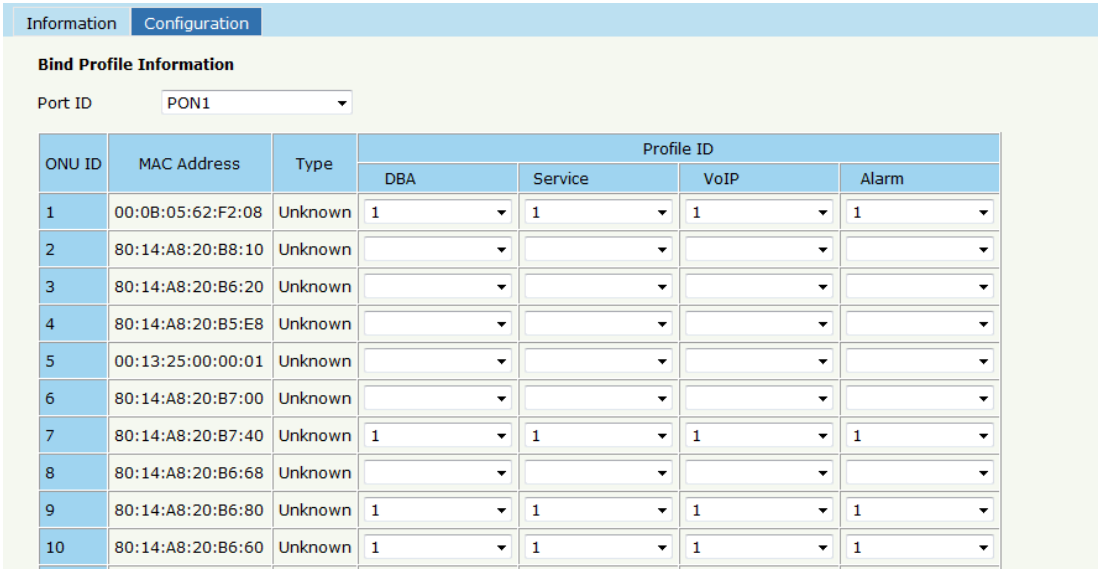


Figure 5-14: Bind Profile Configuration

Chapter 6 System Configuration

This chapter is about the global management of OLT.

6.1 System Log

6.1.1 System Log

Click **System Configuration→System Log** to view system event and alarm information.

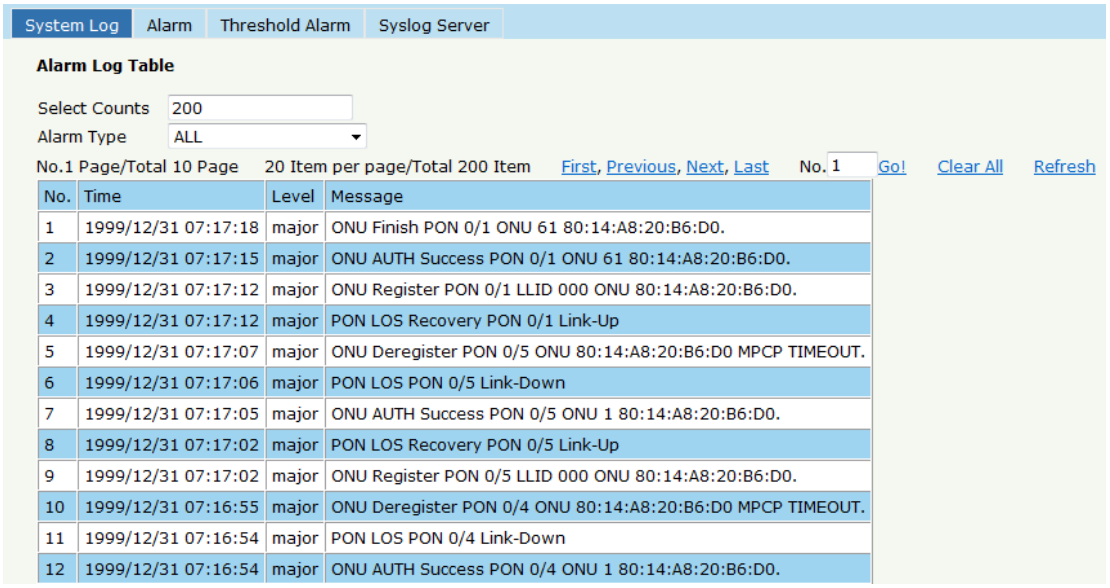


Figure 6-1: System Log

The events and alarms levels are listed in Table 6-1.

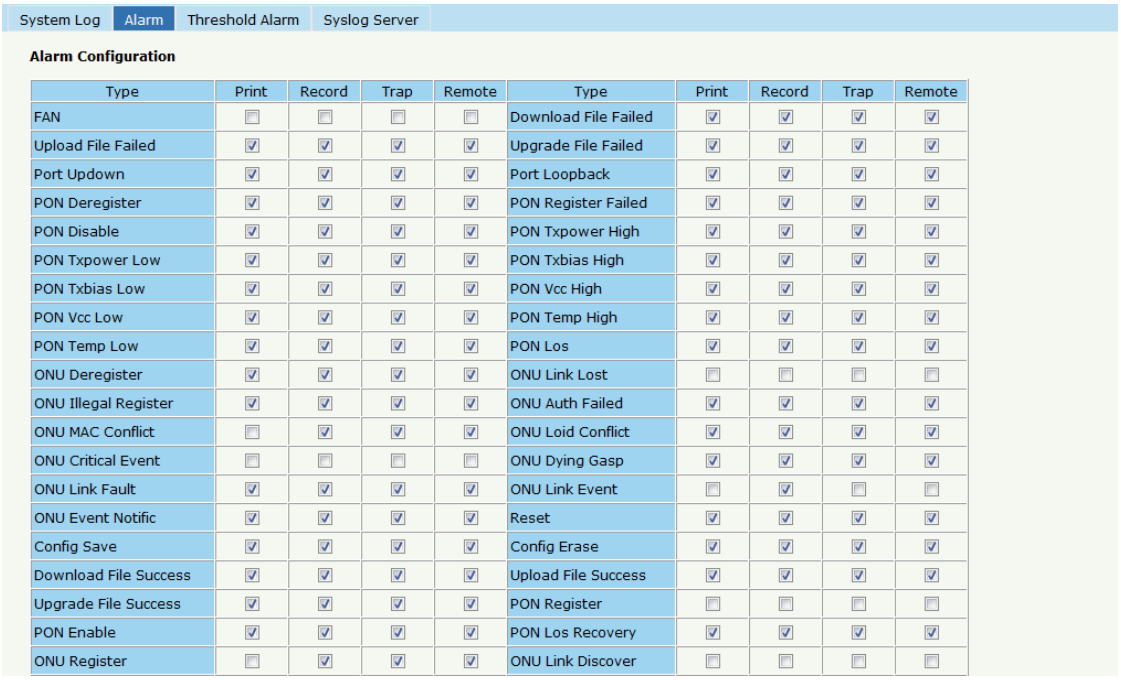
Table 6-1 Event and Alarm level

ITEM	DESCRIPTION	LEVEL	ITEM	DESCRIPTION	LEVEL
ALARM	OLT Port Updown	warning	EVENT	System Config Save	warning
	OLT Port Loopback	warning		System Config Erase	warning
	OLT Temp High	major		Download File Success	major
	OLT Temp Low	major		Upload File Success	major
	OLT CPU Usage High	major		Upgrade File Success	major
	OLT MEM Usage High	major		PON Register	critical
	OLT FAN	major		PON Enable	major

	Download File Failed	major		PON LOS Recovery	major
	Upload File Failed	major		ONU is Registering	major
	Upgrade File Failed	major		ONU Link Discover	major
	PON Disable	major		ONU AUTH Success	major
	PON TX Power High	major		ONU DEAUTH Success	major
	PON TX Power Low	major		ONU Upgrade Over	major
	PON TX Bias High	major		ONU finish the register and AUTH	major
	PON TX Bias Low	major		System Reset	critical
	PON VCC High	major			
	PON VCC Low	major			
	PON Temp High	major			
	PON Temp Low	major			
	PON LOS	major			
	ONU Deregister	major			
	ONU Link LOST	major			
	ONU Illegal Register	major			
	ONU AUTH Failed	major			
	ONU MAC Conflict	major			
	ONU LOID Conflict	major			
	ONU Critical Event	major			
	Dying Gasp	major			
	ONU Link Fault	major			
	ONU Link Event	major			
	ONU Event Notific	major			
	ONU Laser Always On	major			
	PON Deregister	critical			
	PON Register Failed	critical			

6.1.2 Alarm

It contains all the alarms of OLT. User can choose the different alarms to "**Print**", "**Record**", "**Trap**" and "**Remote**". Click **System Configuration →System Log →Alarm.**



Type	Print	Record	Trap	Remote	Type	Print	Record	Trap	Remote
FAN	☐	☐	☐	☐	Download File Failed	☑	☑	☑	☑
Upload File Failed	☑	☑	☑	☑	Upgrade File Failed	☑	☑	☑	☑
Port Updown	☑	☑	☑	☑	Port Loopback	☑	☑	☑	☑
PON Deregister	☑	☑	☑	☑	PON Register Failed	☑	☑	☑	☑
PON Disable	☑	☑	☑	☑	PON Txpower High	☑	☑	☑	☑
PON Txpower Low	☑	☑	☑	☑	PON Txbias High	☑	☑	☑	☑
PON Txbias Low	☑	☑	☑	☑	PON Vcc High	☑	☑	☑	☑
PON Vcc Low	☑	☑	☑	☑	PON Temp High	☑	☑	☑	☑
PON Temp Low	☑	☑	☑	☑	PON Los	☑	☑	☑	☑
ONU Deregister	☑	☑	☑	☑	ONU Link Lost	☐	☐	☐	☐
ONU Illegal Register	☑	☑	☑	☑	ONU Auth Failed	☑	☑	☑	☑
ONU MAC Conflict	☐	☑	☑	☑	ONU Loid Conflict	☑	☑	☑	☑
ONU Critical Event	☐	☐	☐	☐	ONU Dying Gasp	☑	☑	☑	☑
ONU Link Fault	☑	☑	☑	☑	ONU Link Event	☐	☑	☐	☐
ONU Event Notific	☑	☑	☑	☑	Reset	☑	☑	☑	☑
Config Save	☑	☑	☑	☑	Config Erase	☑	☑	☑	☑
Download File Success	☑	☑	☑	☑	Upload File Success	☑	☑	☑	☑
Upgrade File Success	☑	☑	☑	☑	PON Register	☐	☐	☐	☐
PON Enable	☑	☑	☑	☑	PON Los Recovery	☑	☑	☑	☑
ONU Register	☐	☑	☑	☑	ONU Link Discover	☐	☐	☐	☐

Figure 6-2: Alarm

6.1.3 Threshold Alarm

Configure the temperature threshold, CPU-usage threshold and memory-usage threshold, PON optical threshold. Click **System Configuration →System Log →ThresholdAlarm.**

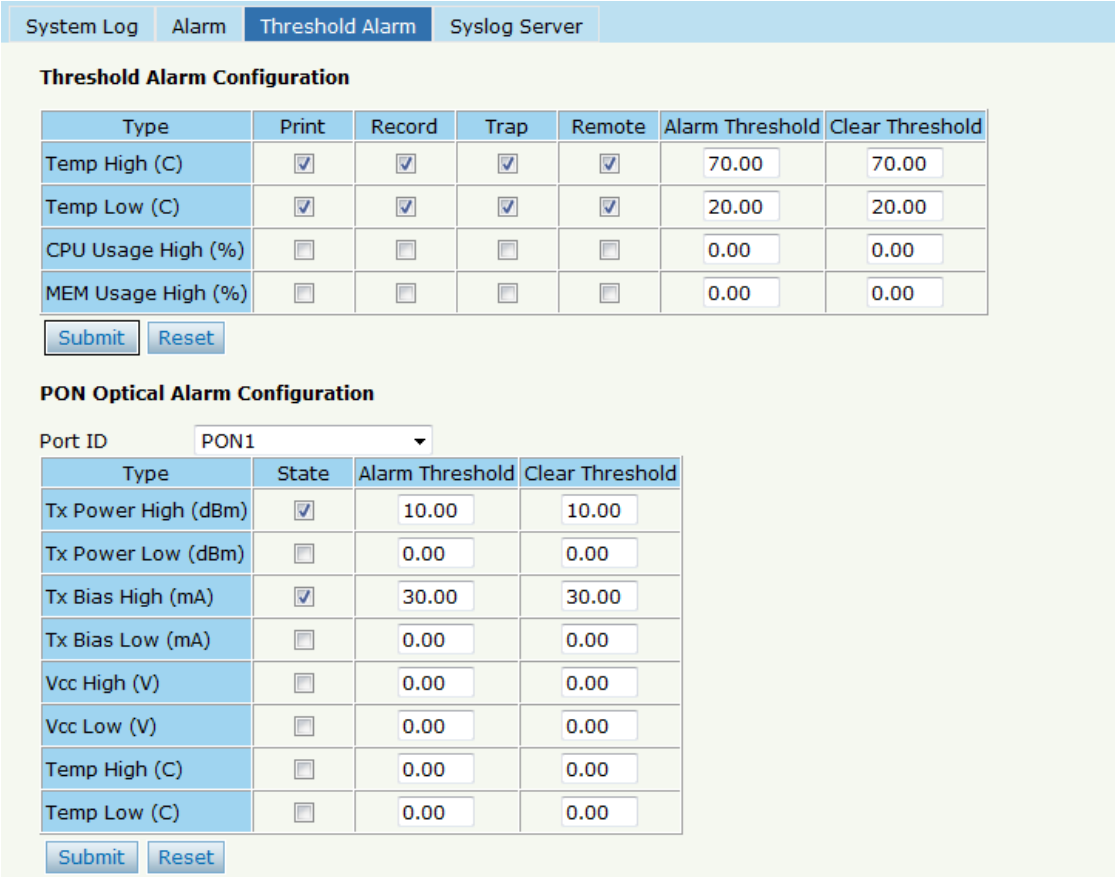


Figure 6-3: Threshold Alarm

6.1.4 Syslog Server

Configure the server of OLT remote system logs. Click **System Configuration→System Log →Syslog Server.**

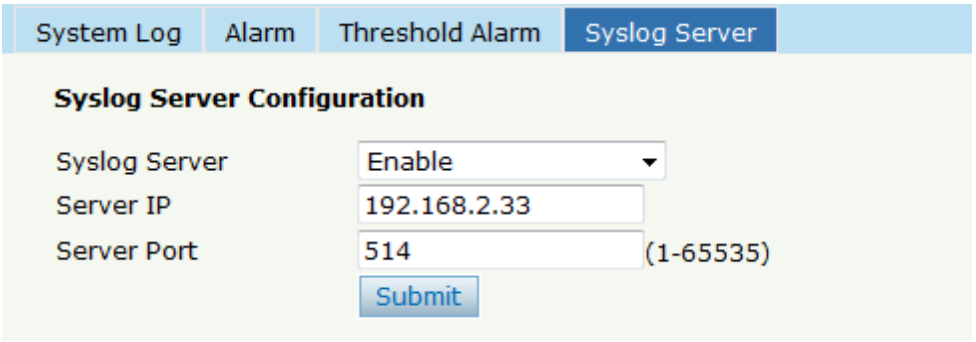


Figure 6-4: Syslog Server

6.2 Device Management

6.2.1 Firmware Upgrade

You can upgrade the OLT firmware by WEB, do not need TFTP server. After finish upgrading, it will ask if you want to reboot OLT. It need to reboot after upgrade then take effect. Click **System Configuration→Device Management →Firmware Upgrade.**

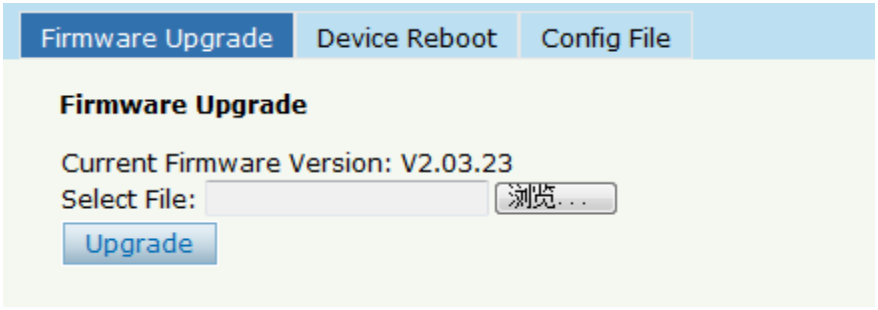


Figure 6-5: Firmware Upgrade

6.2.2 Device Reboot

Click **System Configuration→Device Management →Device Reboot**, it will reboot the entire system.(Please save the configuration first)

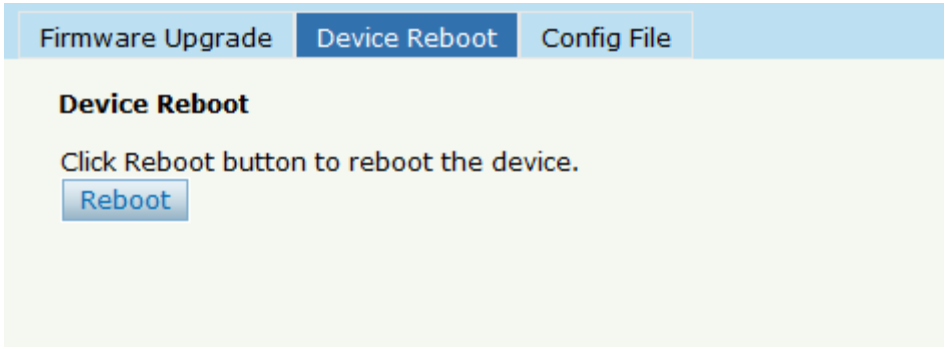


Figure 6-6: Device Reboot

6.2.3 Config File

Click **System Configuration→Device Management → Config File**, you can backup configuration, restore configuration, restore factory defaults and save configuration.

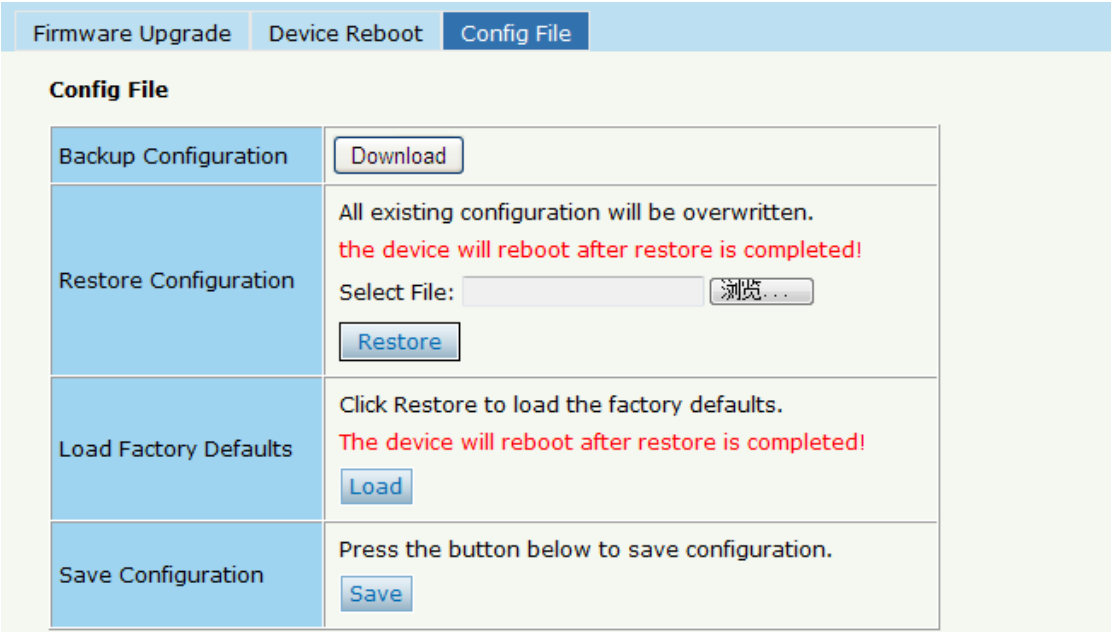


Figure 6-7: Config File

6.3 User Management

Two kinds of users have been defined, Normal and Admin. There are limitations to normal user, and admin user has no limits to full function of OLT. The default account member is **Admin** level.

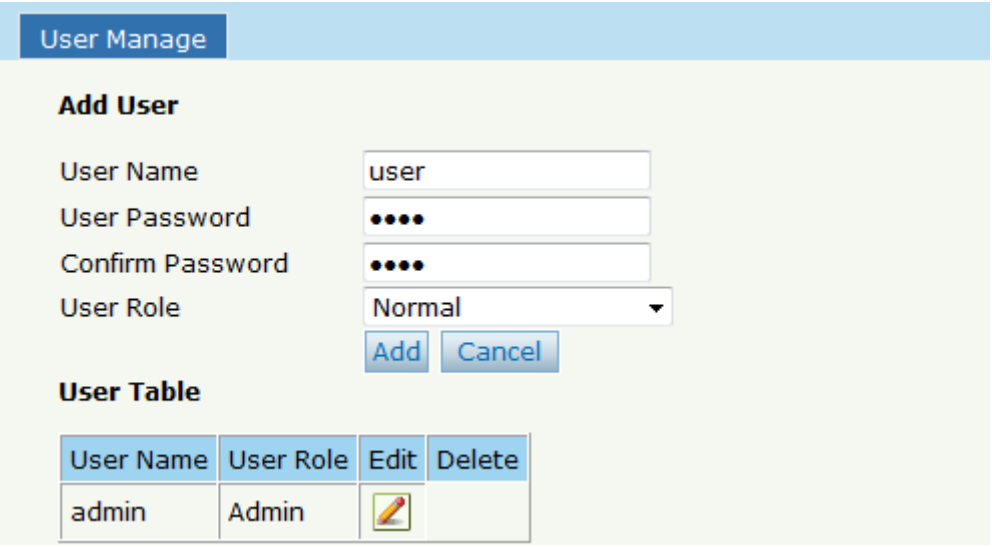


Figure 6-8: User Manage

6.4 SNMP

6.4.1 SNMP V1/V2

The EPON OLT supports SNMP v1/v2,click **System Configuration** → **SNMP** →**SNMP V1/V2** to configure.

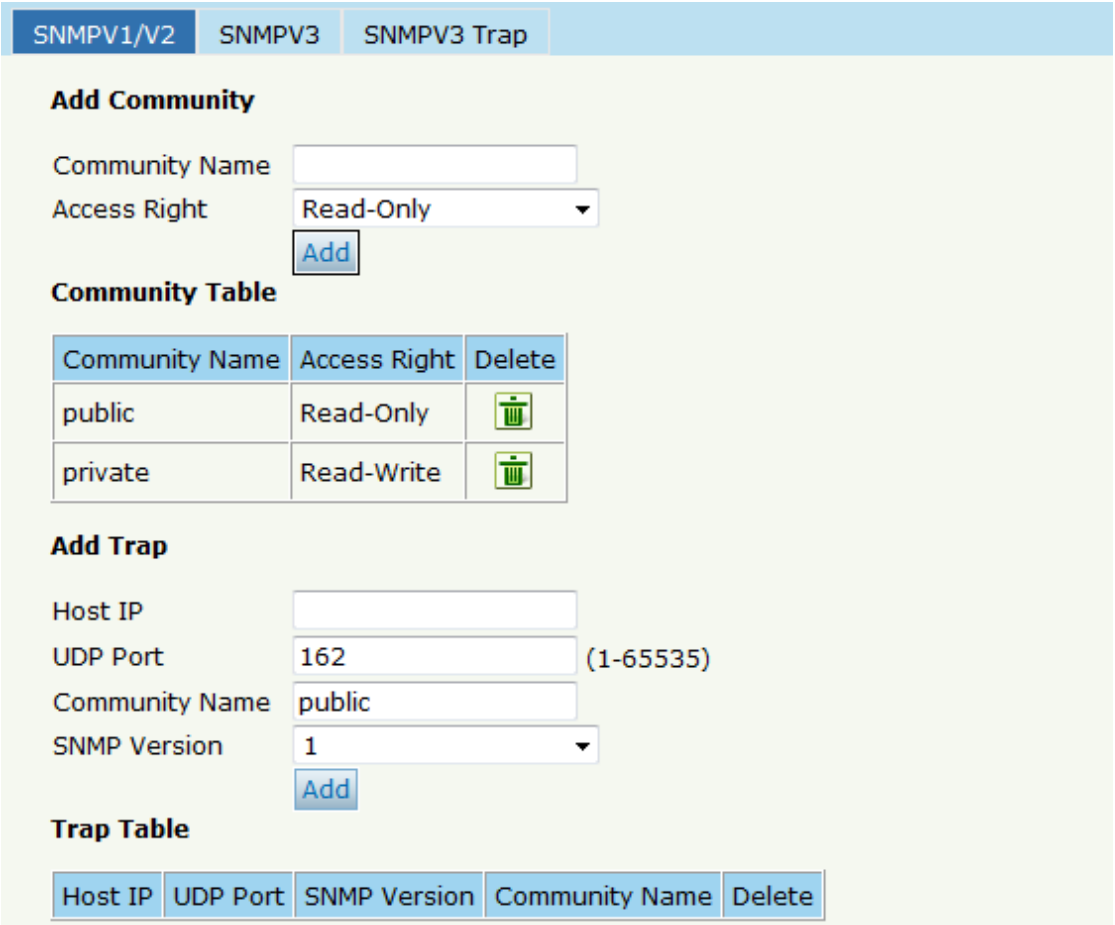


Figure 6-9: SNMP V1/V2

6.4.2 SNMP V3

The EPON OLT also supports SNMP V3, click **System Configuration** → **SNMP** →**SNMP V3,** as shown in Figure 6-10.

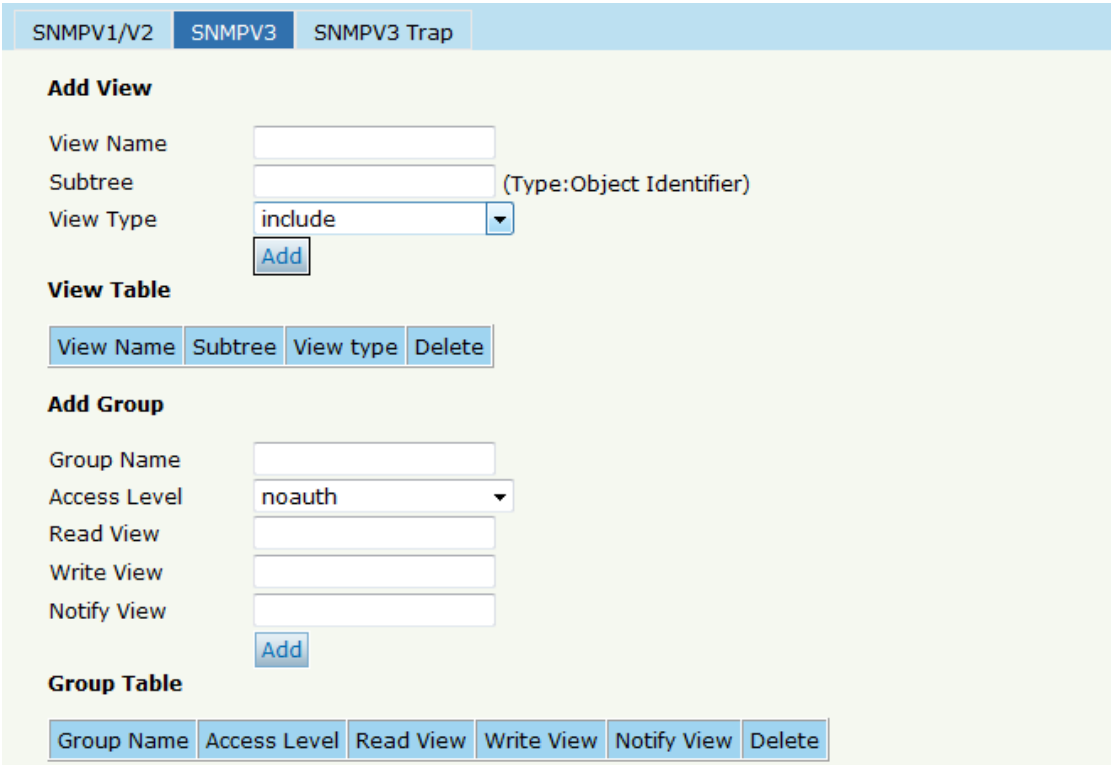


Figure 6-10: SNMP V3

6.4.3 SMNP V3 Trap

Configure or remove the Trap messages of the target host IP address.

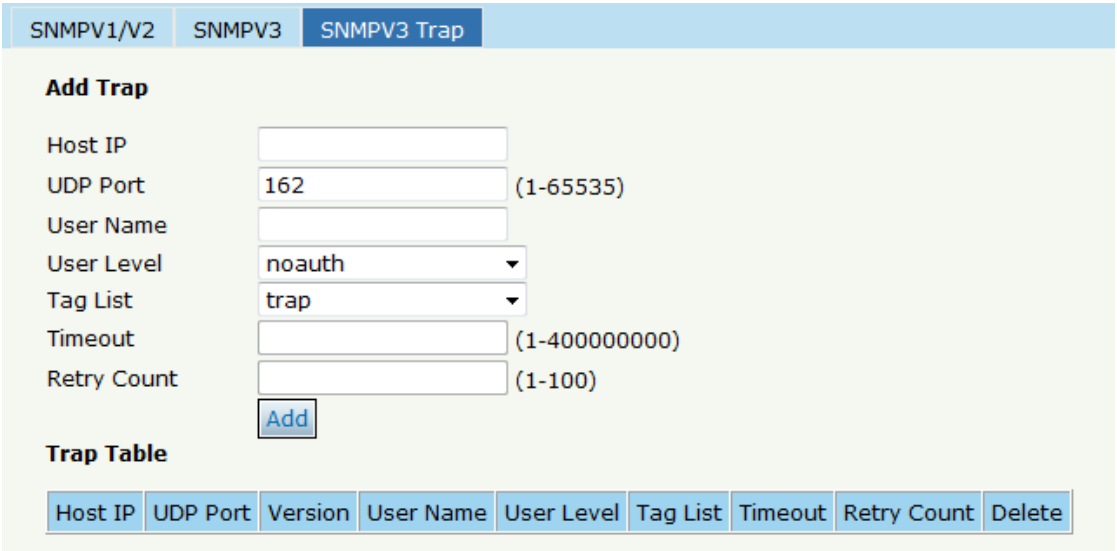


Figure 6-11: SNMP V3 Trap

6.5 AUX IP

AUX port is out band management port. The IP address is out band management IP, default IP address is 192.168.8.100. User can change it if need. Click **System Configuration → AUX IP**

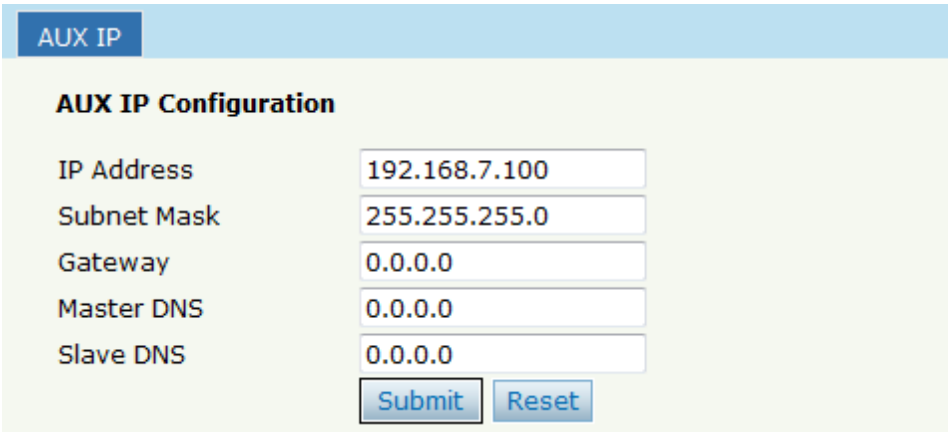


Figure 6-12: AUX IP

6.6 System Time

6.6.1 RTC

Click **System Configuration → System Time→RTC** .The default system time is the OLT firmware release time.

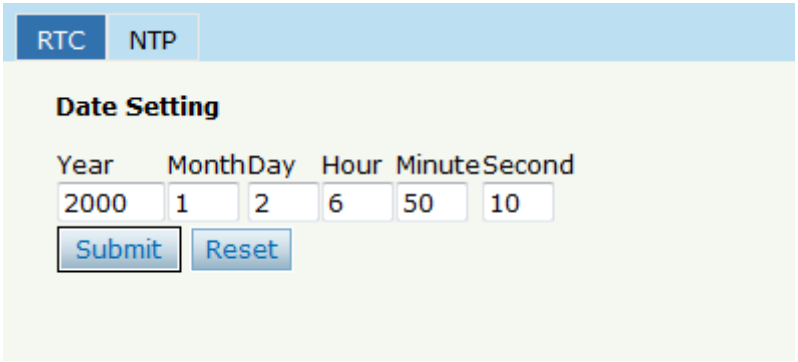


Figure 6-13: RTC Configuration

6.6.2 NTP

Synchronize the time to the NTP server. Click **System Configuration →**

System Time→NTP

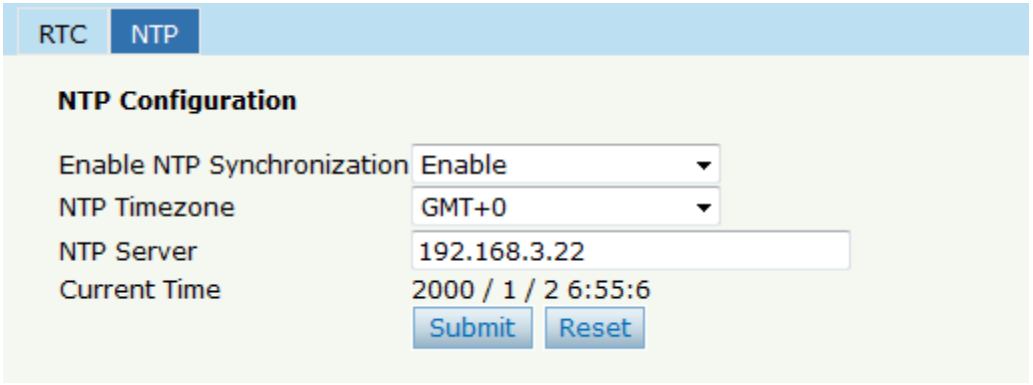


Figure 6-14: NTP Configuration

6.7 FAN

The fans can be controlled to turn on/off, or turn on automatically.

Click **System Configuration → FAN**.

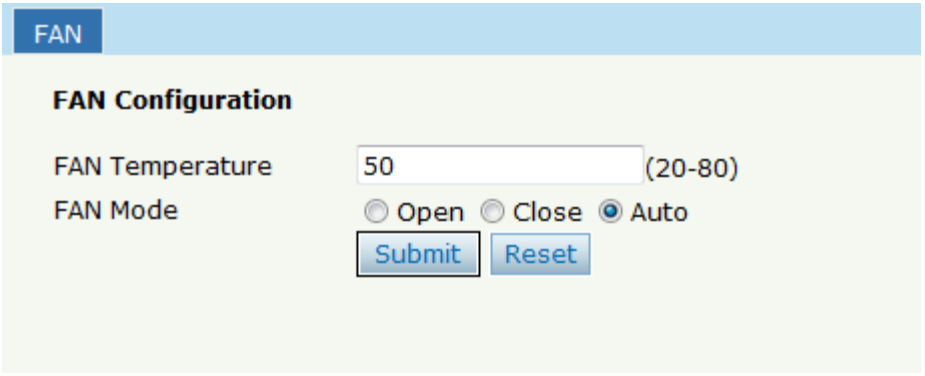


Figure 6-15: FAN Configuration

6.8 Mirror

Each monitor session can be set with one destination port and up to 8 source ports. Click **System Configuration → Mirror.**

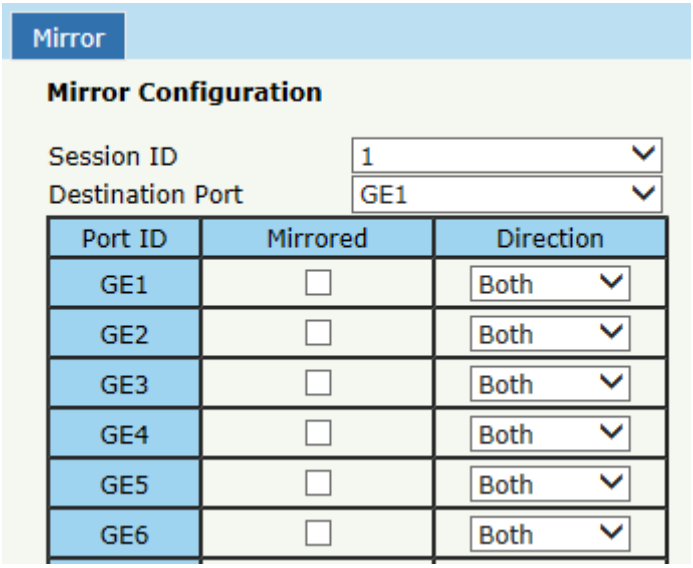


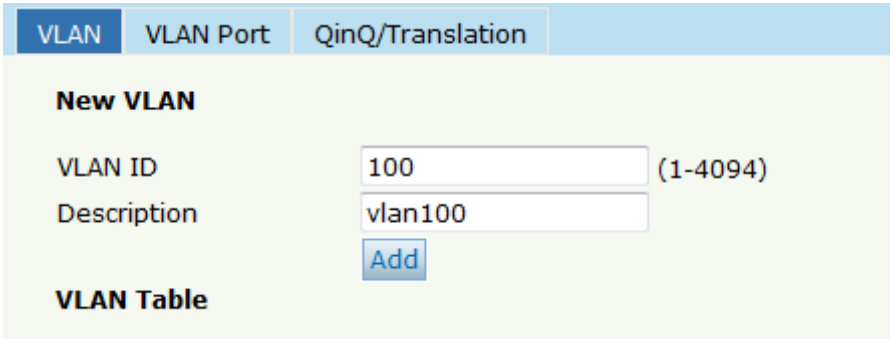
Figure 6-16: Mirror

Chapter 7 Configuration Examples

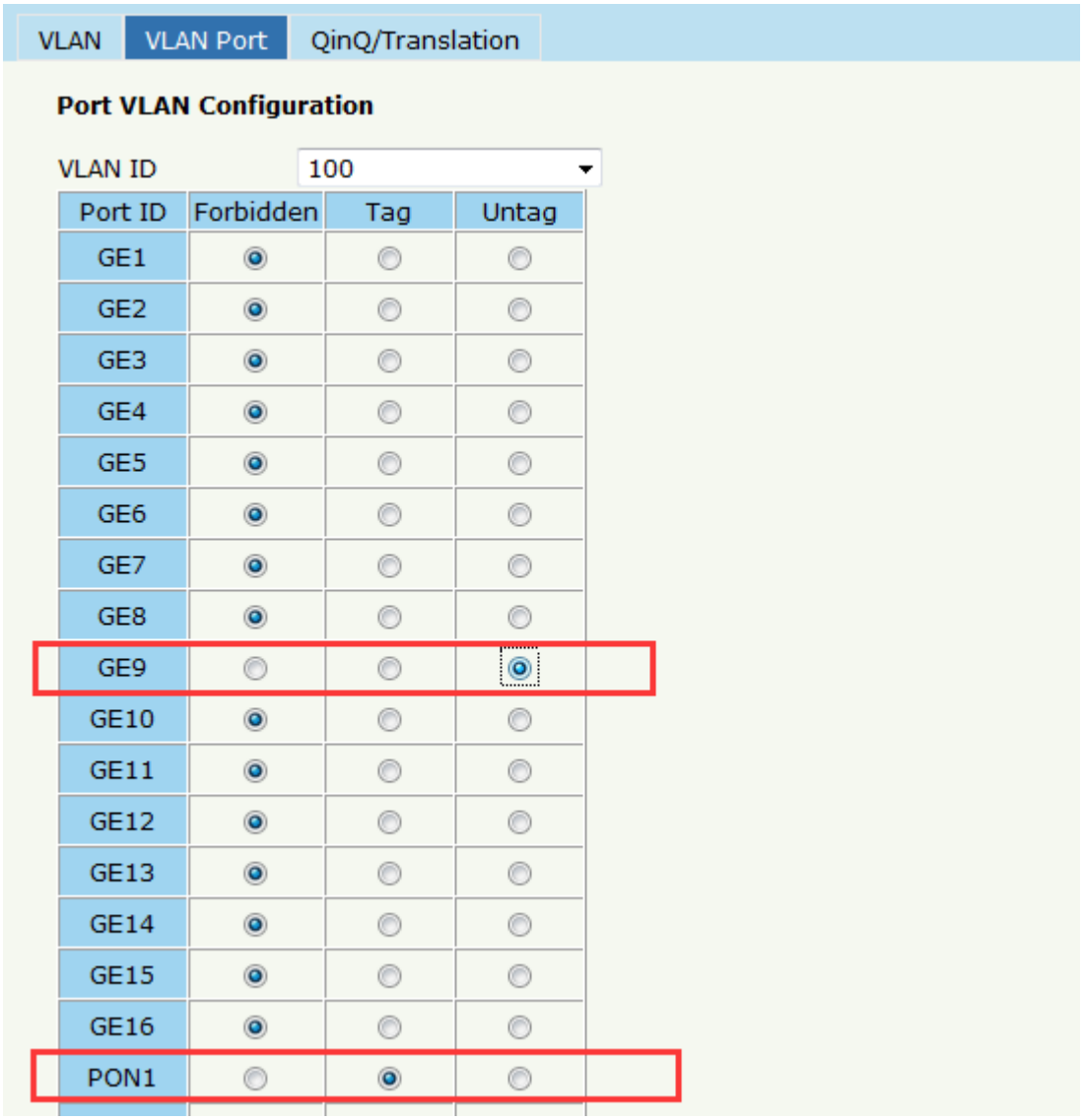
7.1 Internet Service with VLAN 100

a. OLT configuration

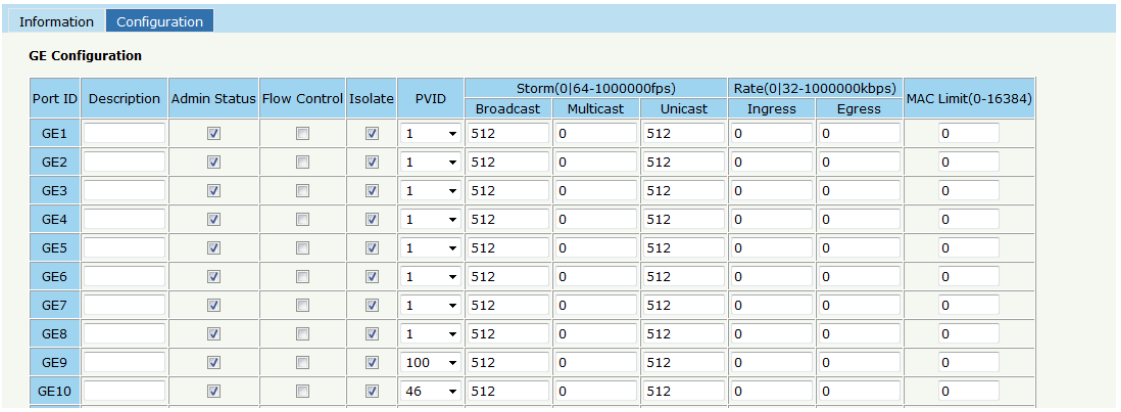
Step 1: Create a new VLAN.



Step 2: Add the VLAN to GE port and PON port.

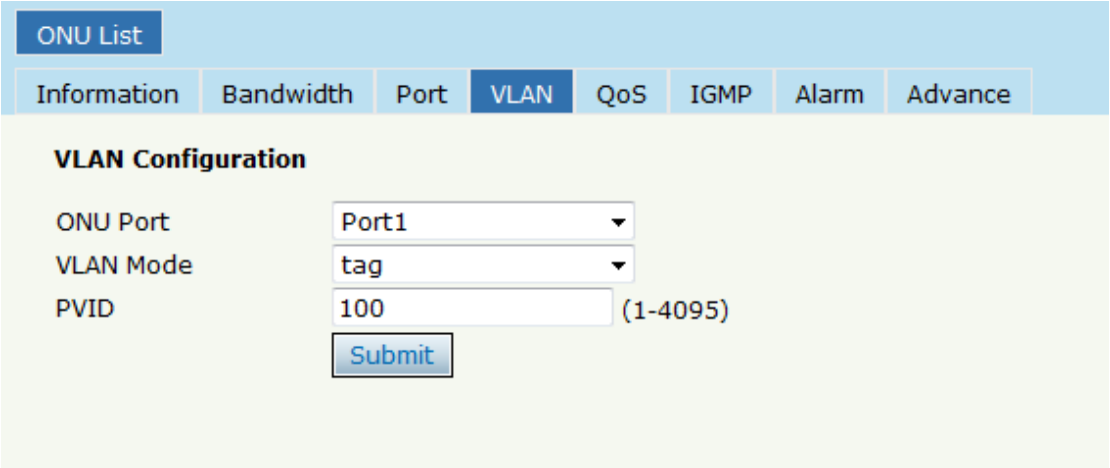


Step 3: Configure the default VLAN ID (PVID) in untag port.



b. ONU configuration

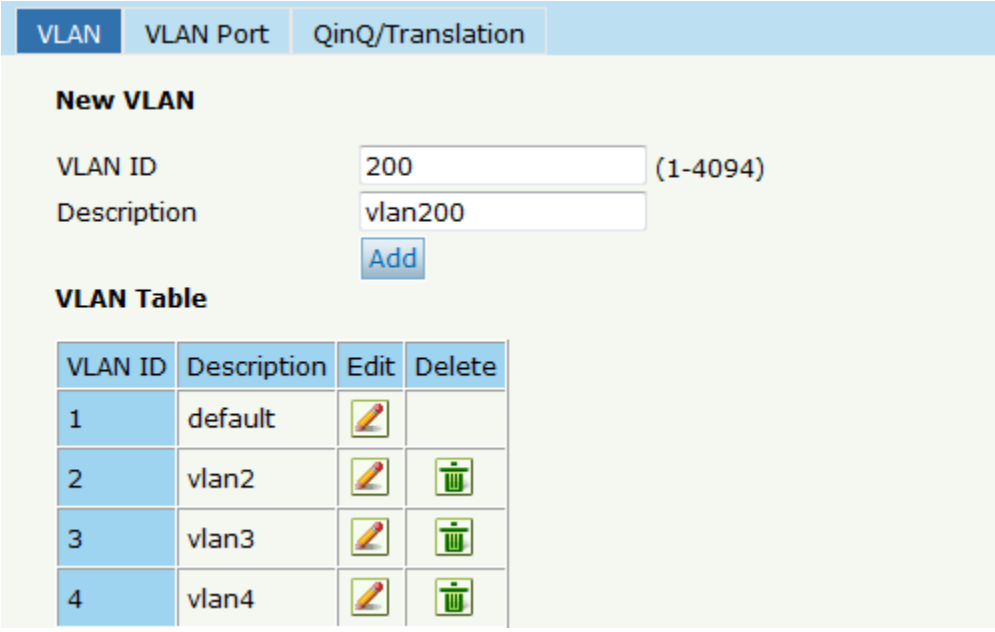
Step 4: Choose the VLAN mode and set the PVID value.



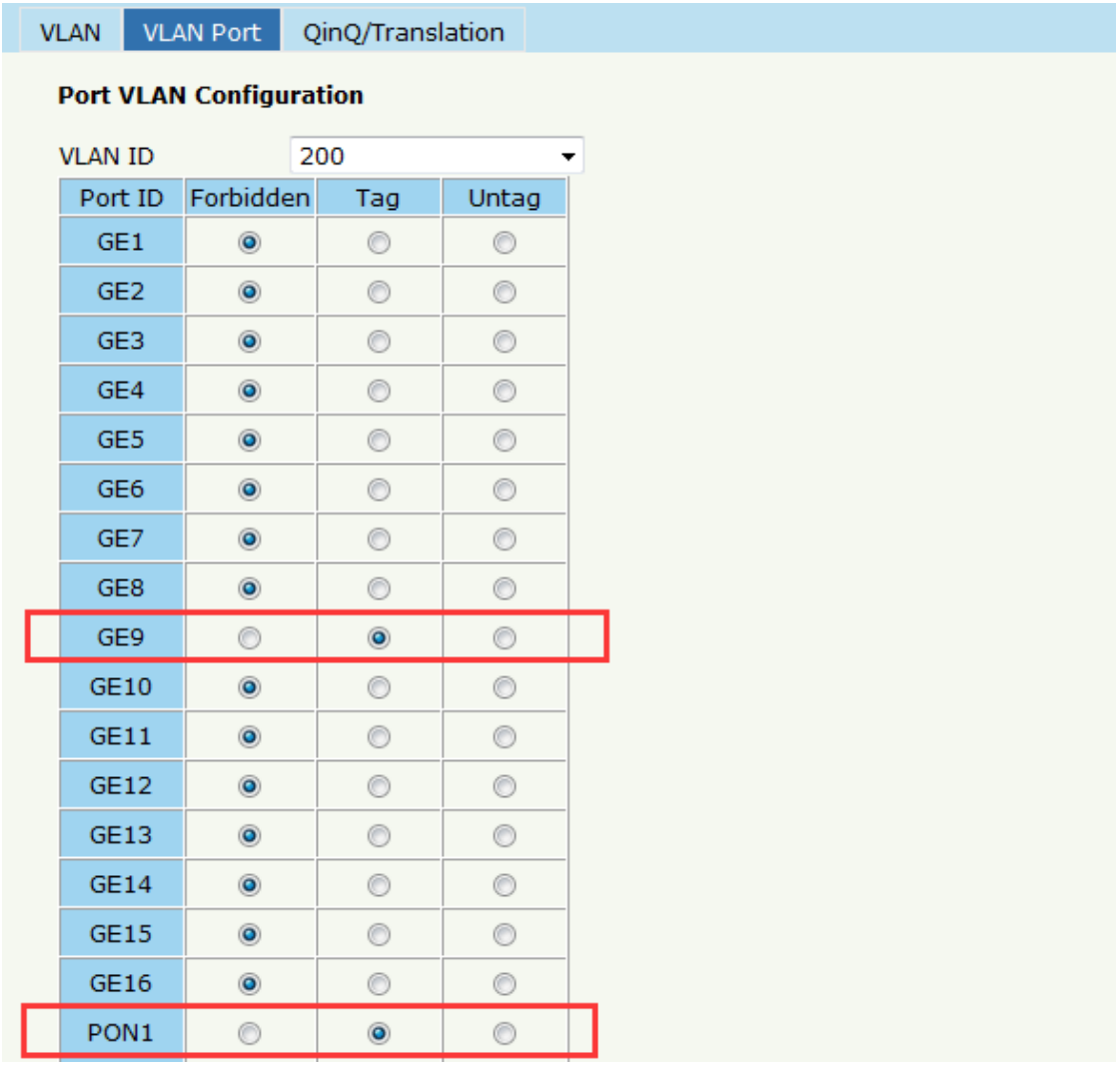
7.2 IPTV Service with VLAN 200

a. OLT configuration

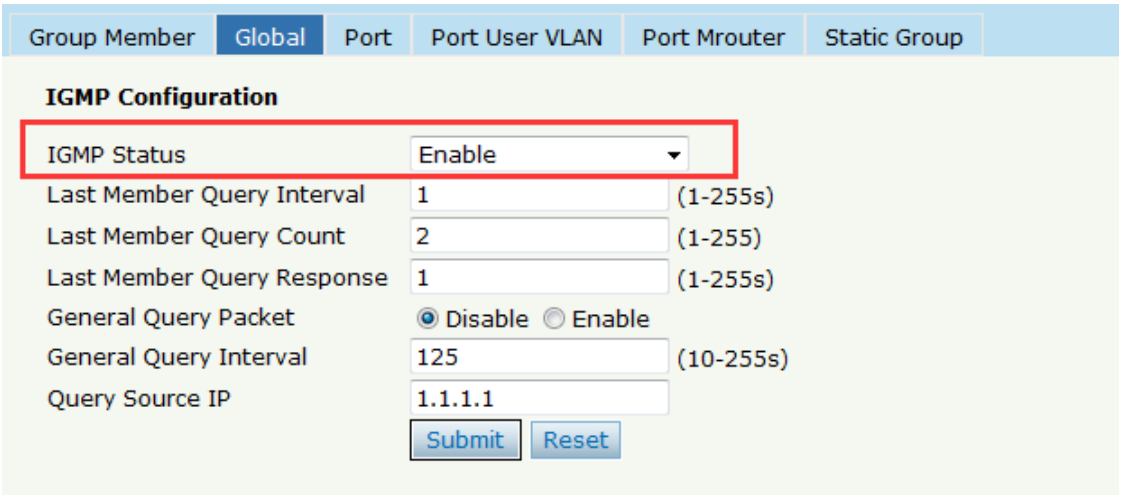
Step 1: Create a new VLAN.



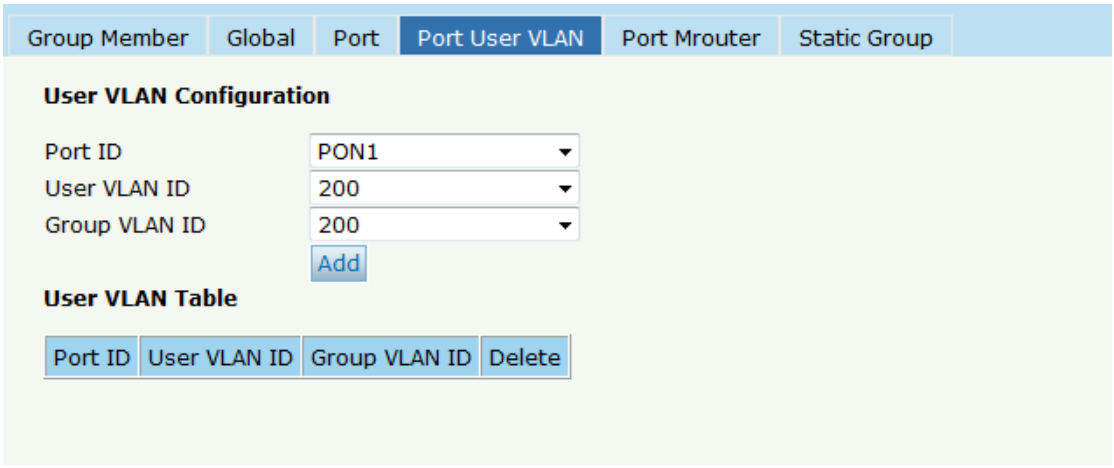
Step 2:Add the VLAN to GE port and PON port.



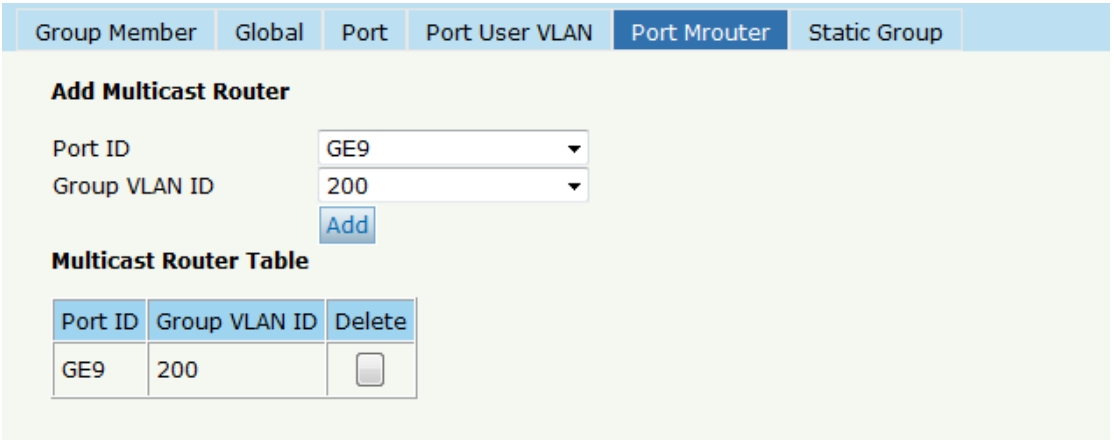
Step 3: Enable the IGMP status.



Step 4: Add the IGMP user VLAN and group VLAN

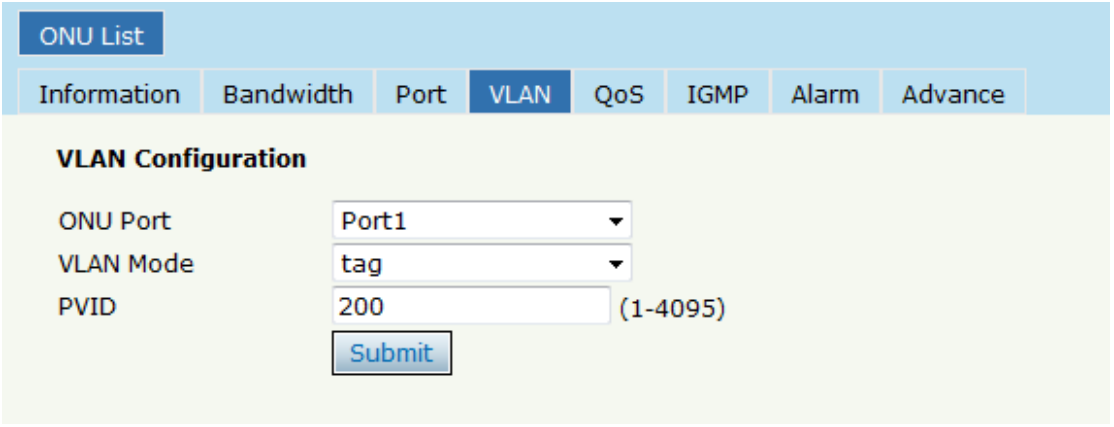


Step 5: Add the M-router in GE port

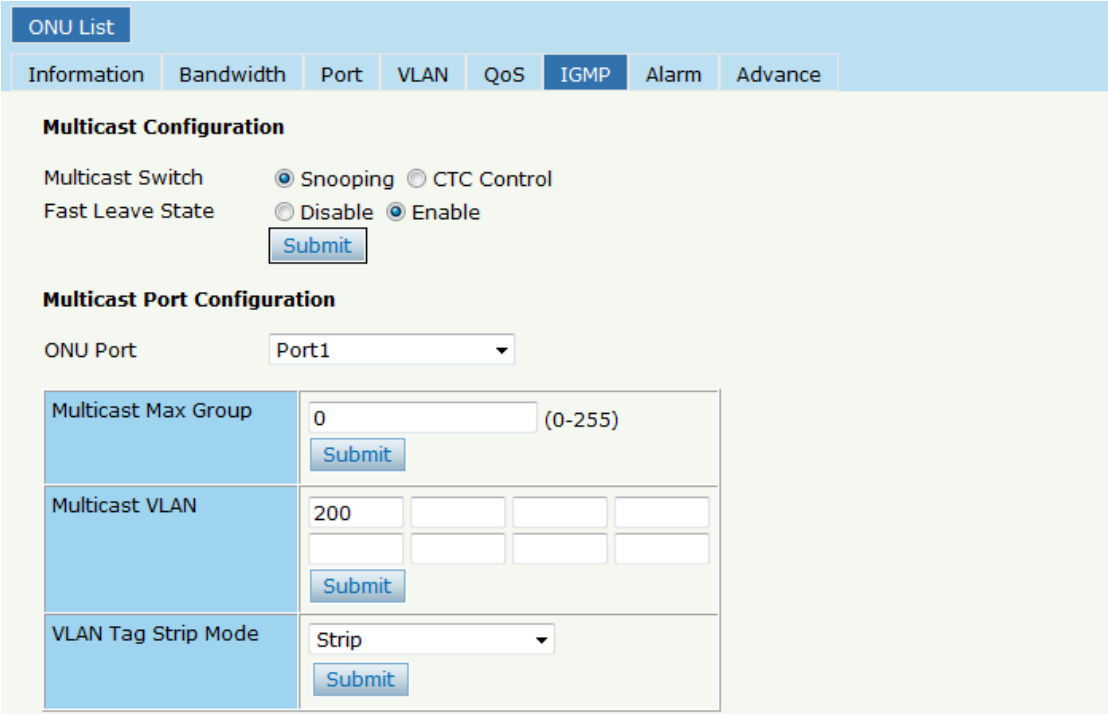


b. ONU configuration

Step 6: Choose the VLAN mode and set the PVID value.



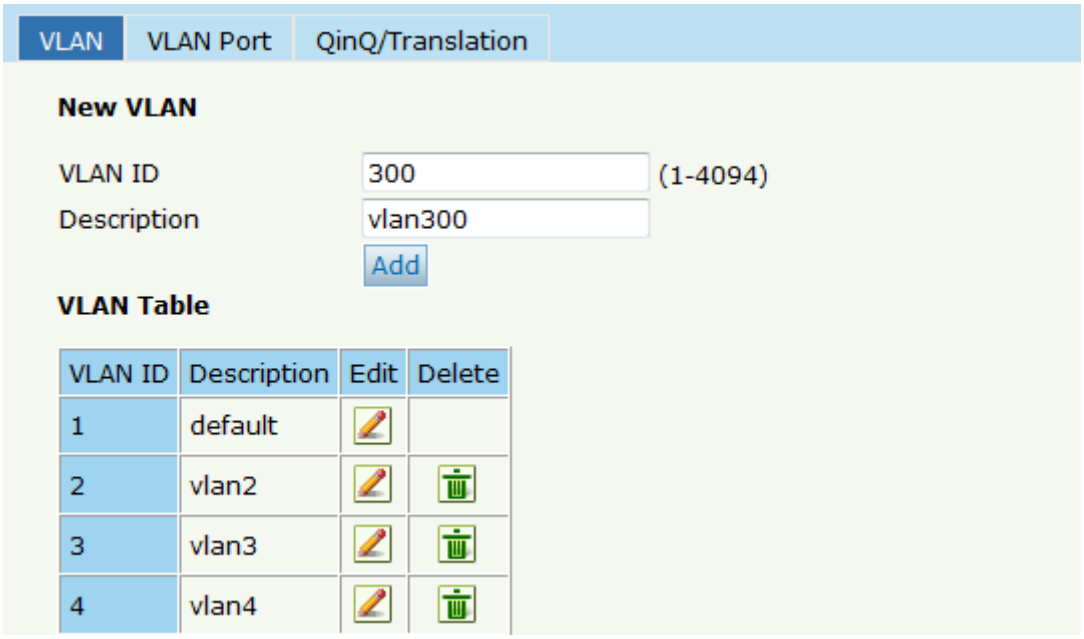
Step 7: Configuration multicast VLAN



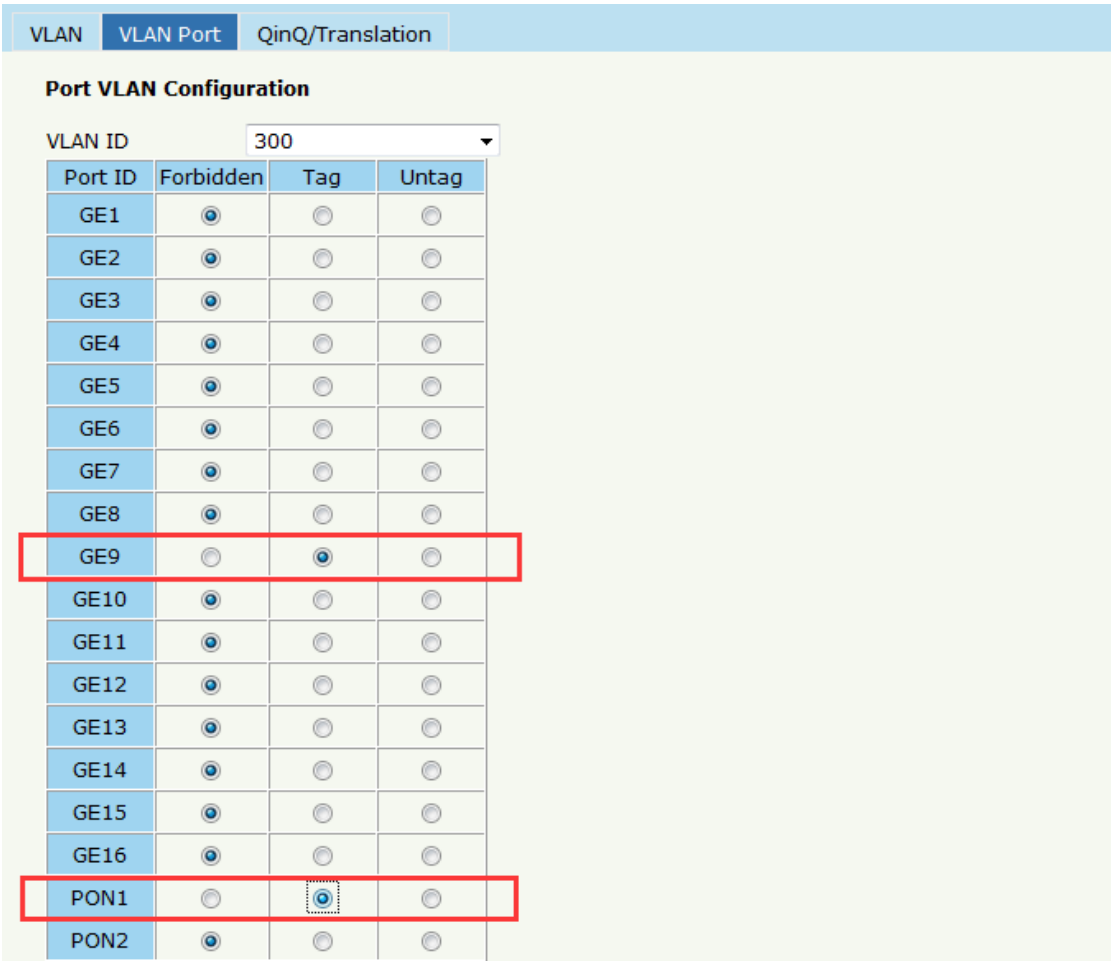
7.3 VoIP Service with VLAN 300

a. OLT Configuration

Step 1: Create a new VLAN

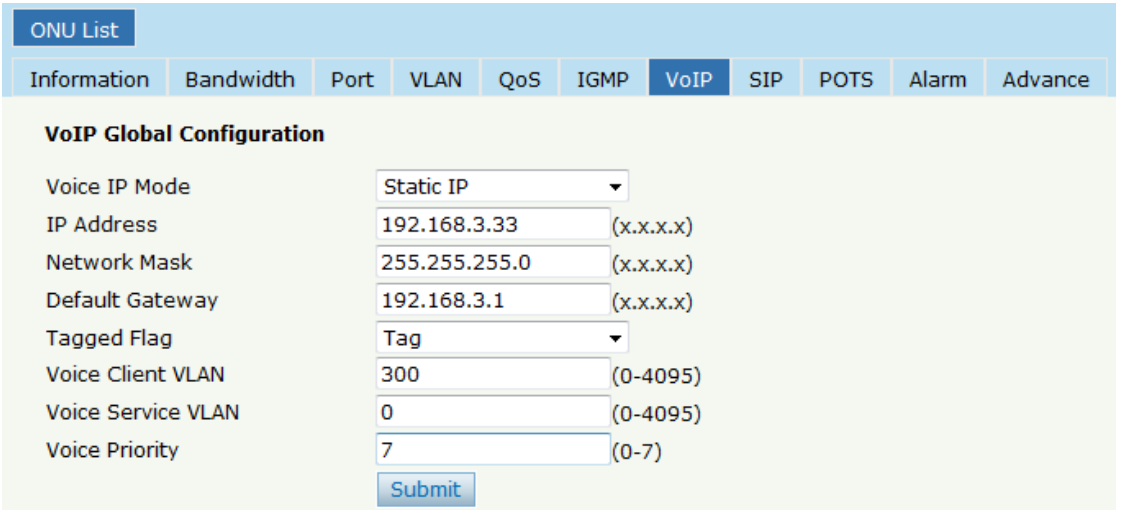


Step 2: Add the VLAN to GE port and PON port.

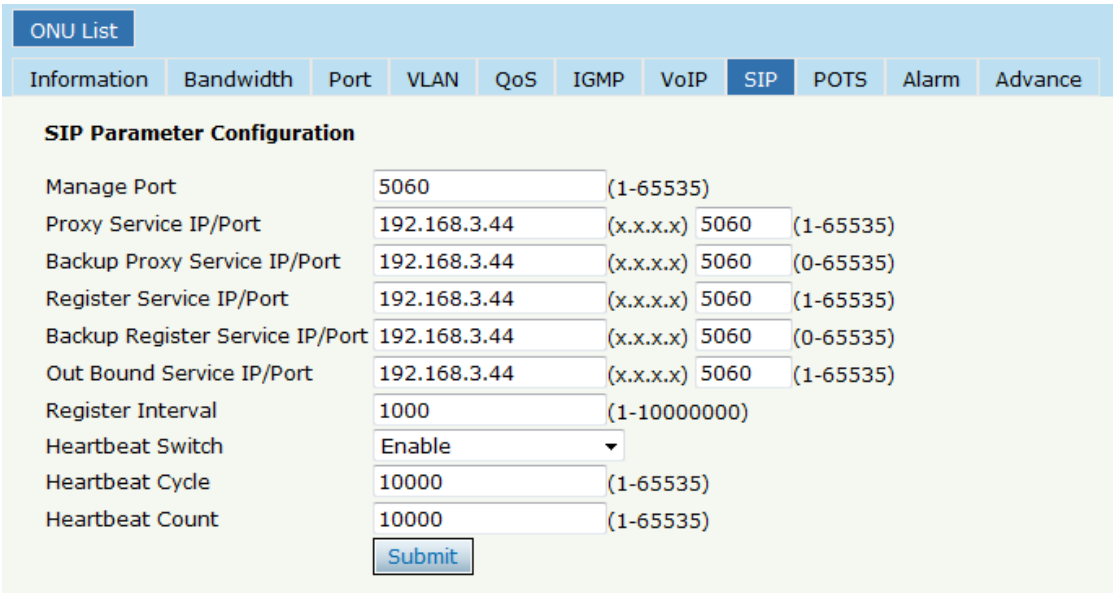


b. ONU Configuration

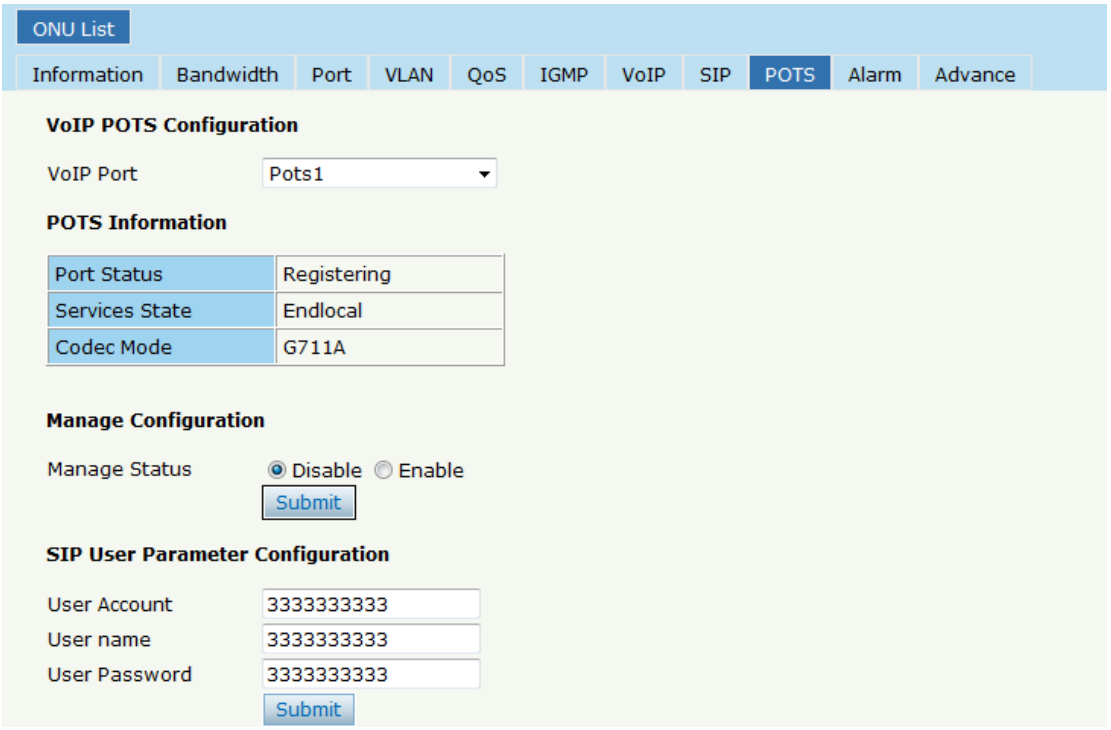
Step 3: Configure the VoIP global parameter



Step 4: Setup the SIP configuration



Step 5: Fill in the user account and password



7.4 DHCPv6 Configuration

Here is an example shows how to configure DHCPv6.

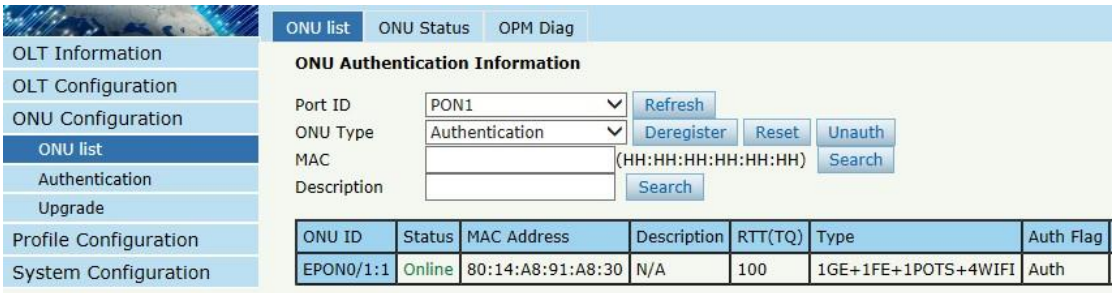
DHCPv6 server: OLT

DHCPv6 client: HGU

VLAN: 3000

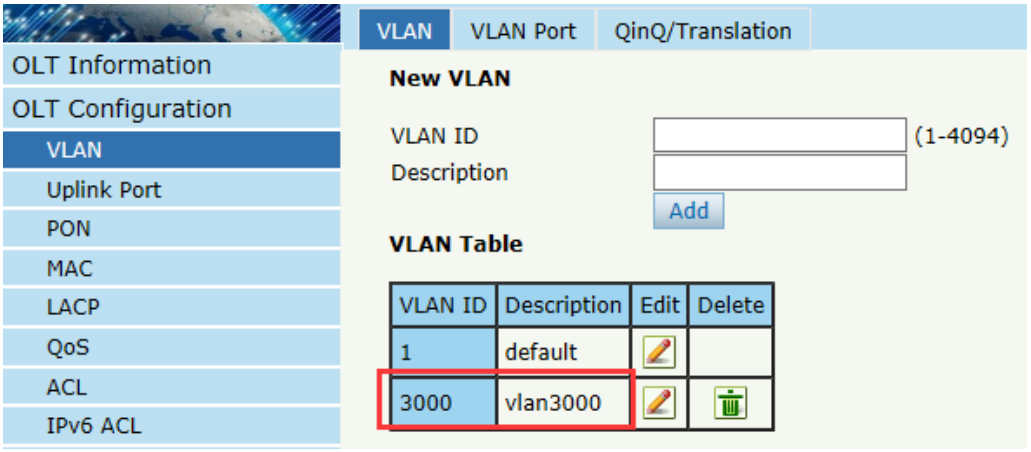
1. Authenticate ONU.

The HGU is connecting to PON 1. It will show online after being authenticated.



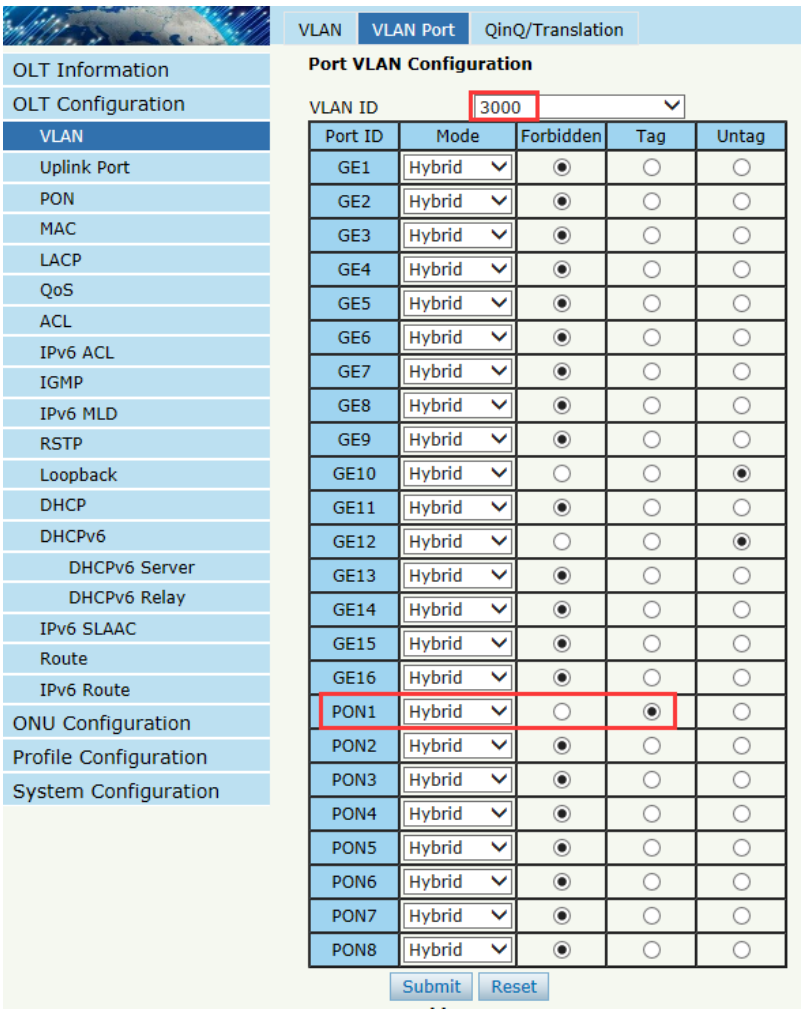
2. Create VLAN.

Create a new VLAN for DHCPv6.



3. Add VLAN to ports

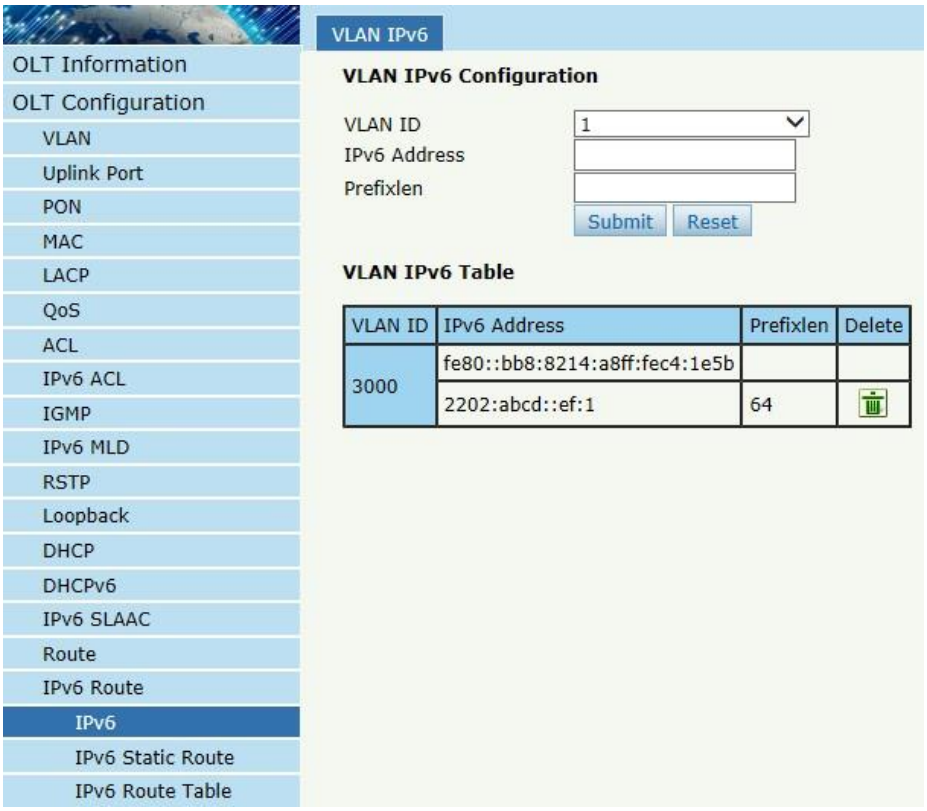
Add the VLAN to PON 1, which the HGU is connecting to.



4. Configure VLAN IPv6 address.

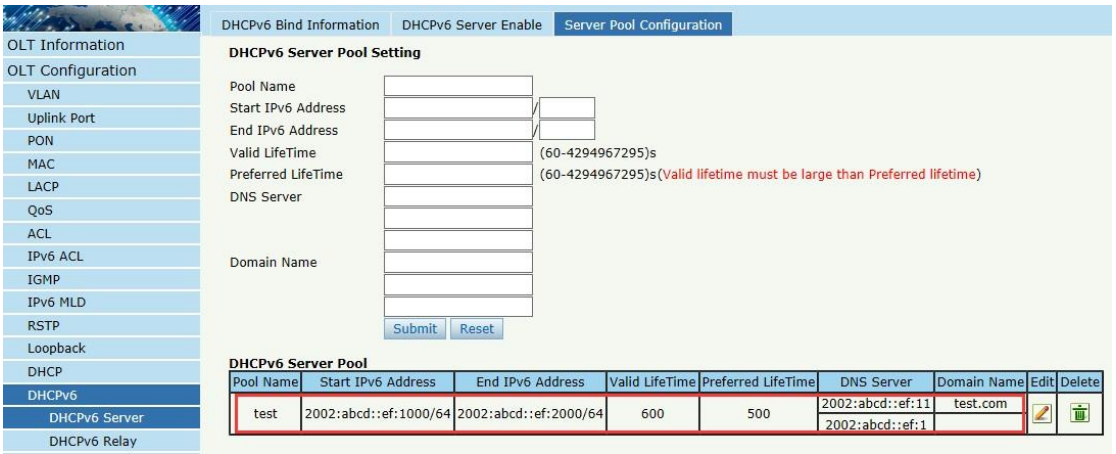
IPv6 address must be there so that DHCPv6 in this VLAN can be enabled.

The IPv6 address can be link local address or global unicast address.

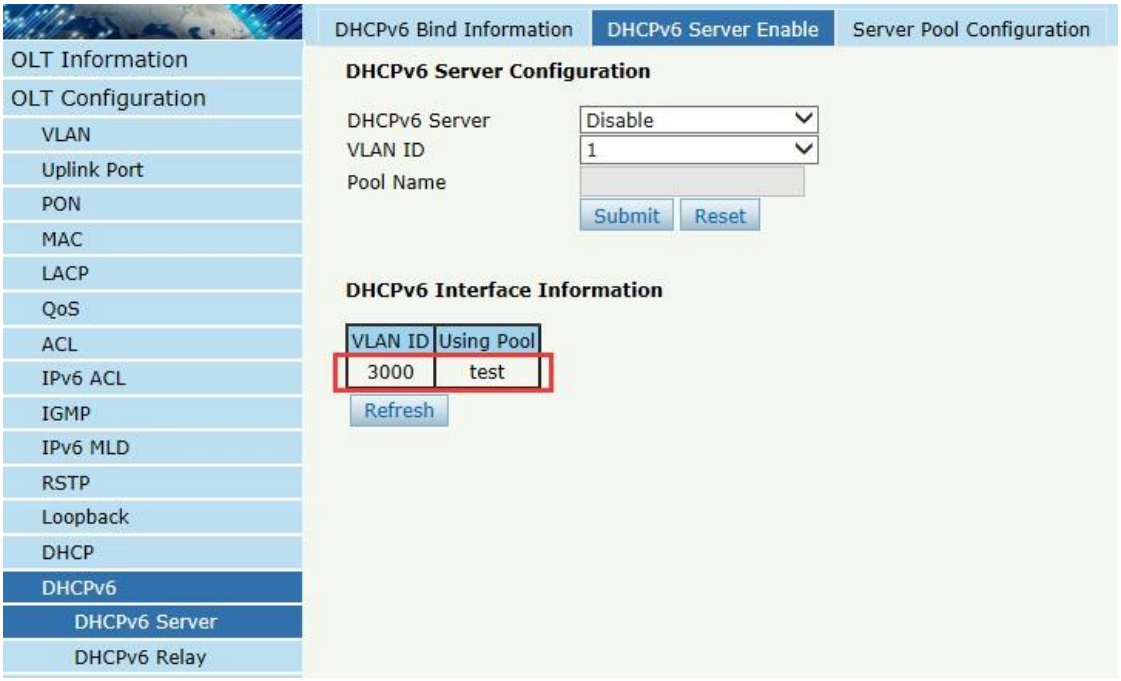


5. Configure DHCPv6 pool.

Configure DHCPv6 address pool and other network parameters, such as life time, DNS server and domain.

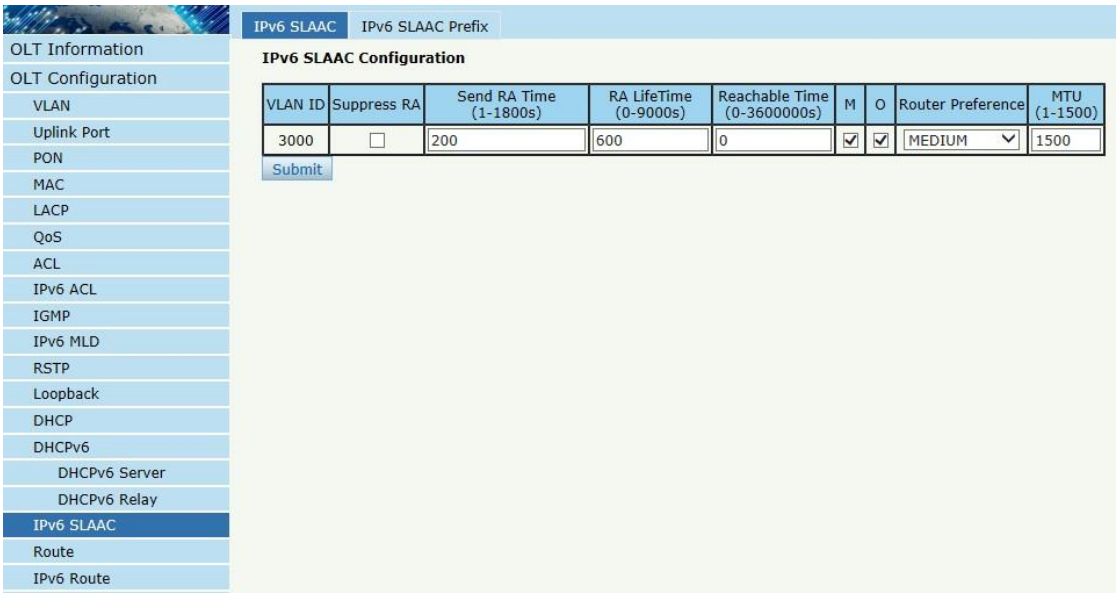


6. Enable DHCPv6 server.



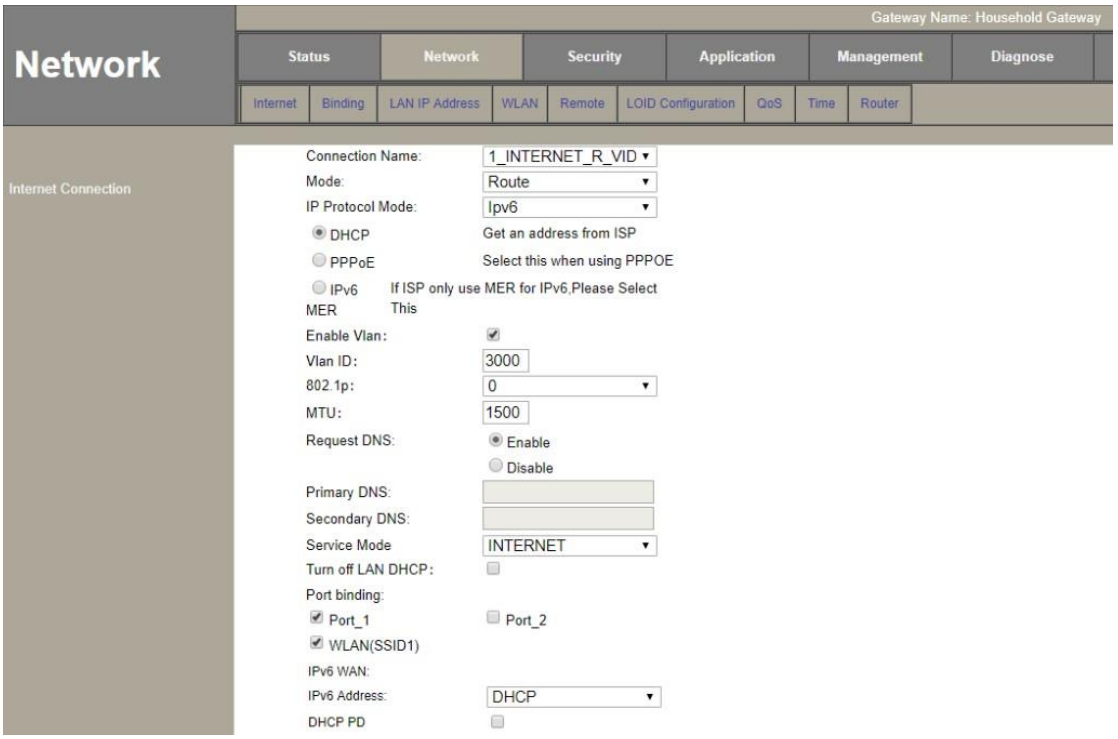
7. Configure RA parameters.

Disable Suppress RA and M/O field should be checked, which means clients use DHCPv6 to get IPv6 address.



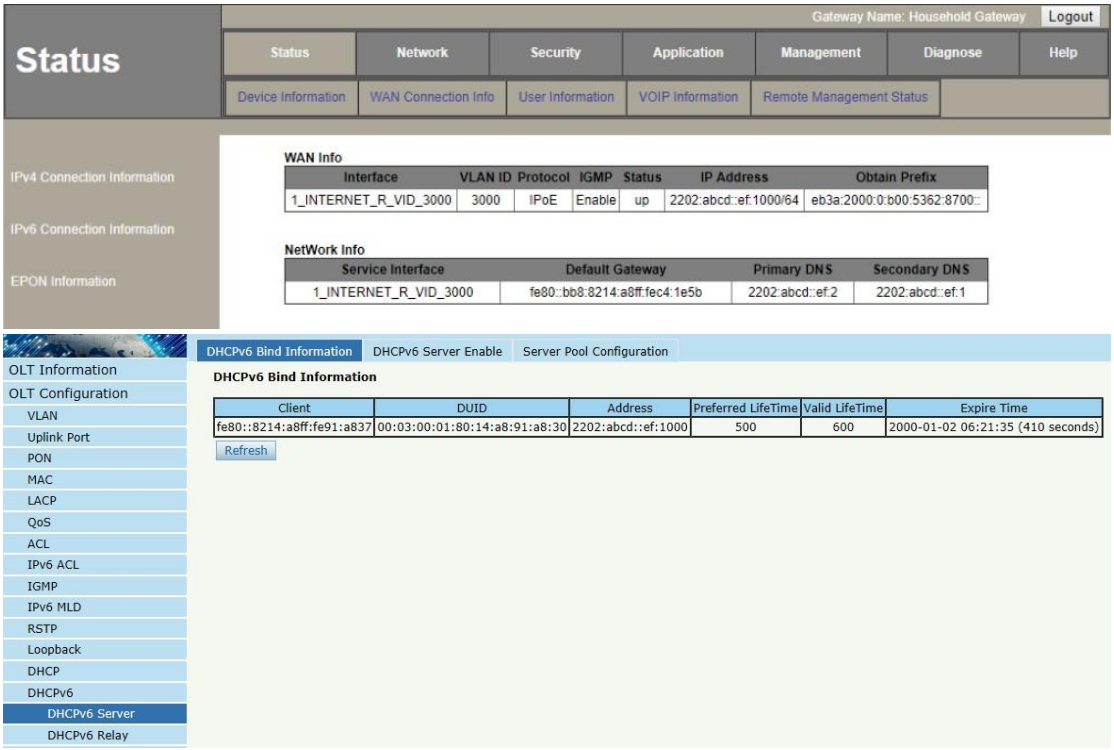
8. Configure ONU IPv6 WAN.

Create an IPv6 WAN connection with correct VLAN.



9. ONU abtains IPv6 address.

ONU will obtain IPv6 address from DHCPv6 server.

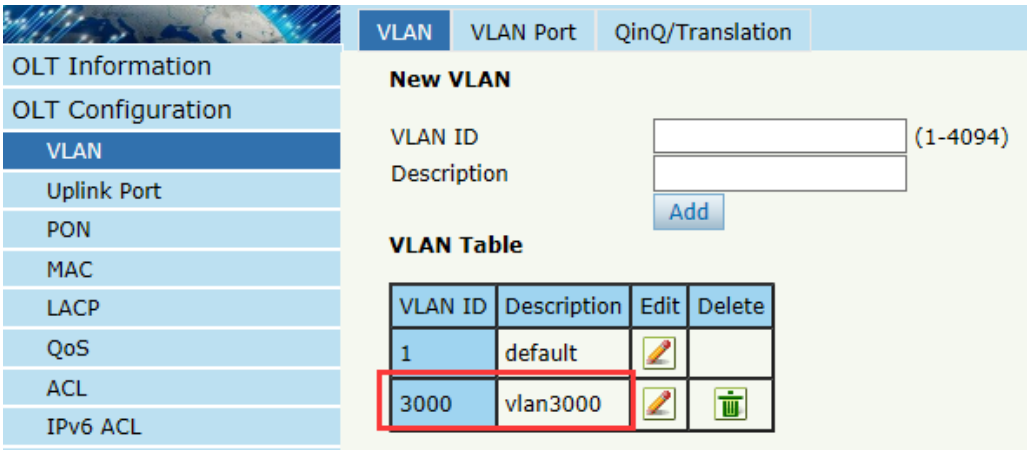


7.5 IPv6 SLAAC Configuration

A computer is connected to OLT uplink port GE10, and the computer obtains IPv6 address by SLAAC.

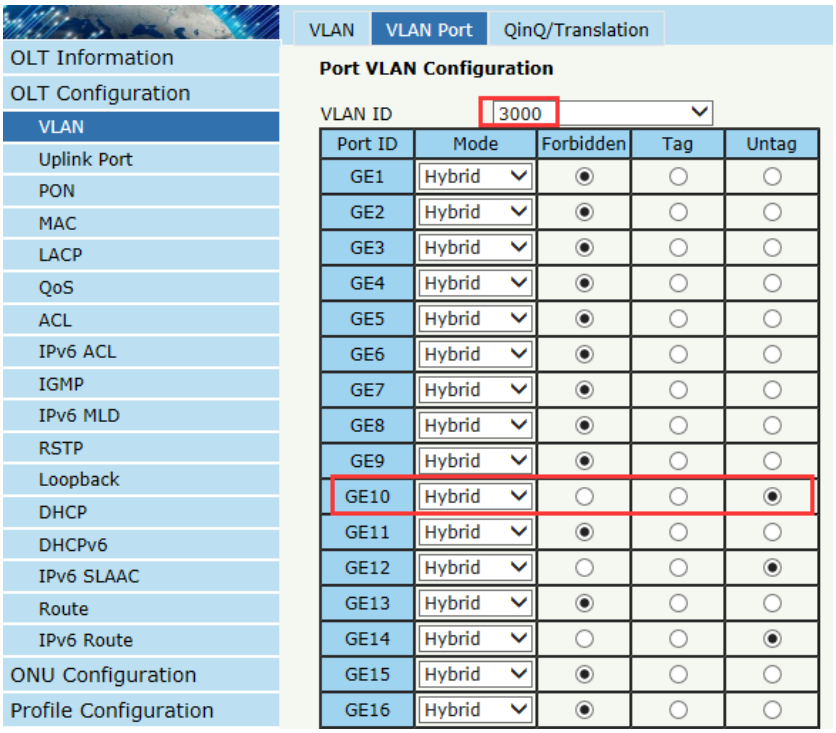
1. Create VLAN.

Create a new VLAN for IPv6 SLAAC.

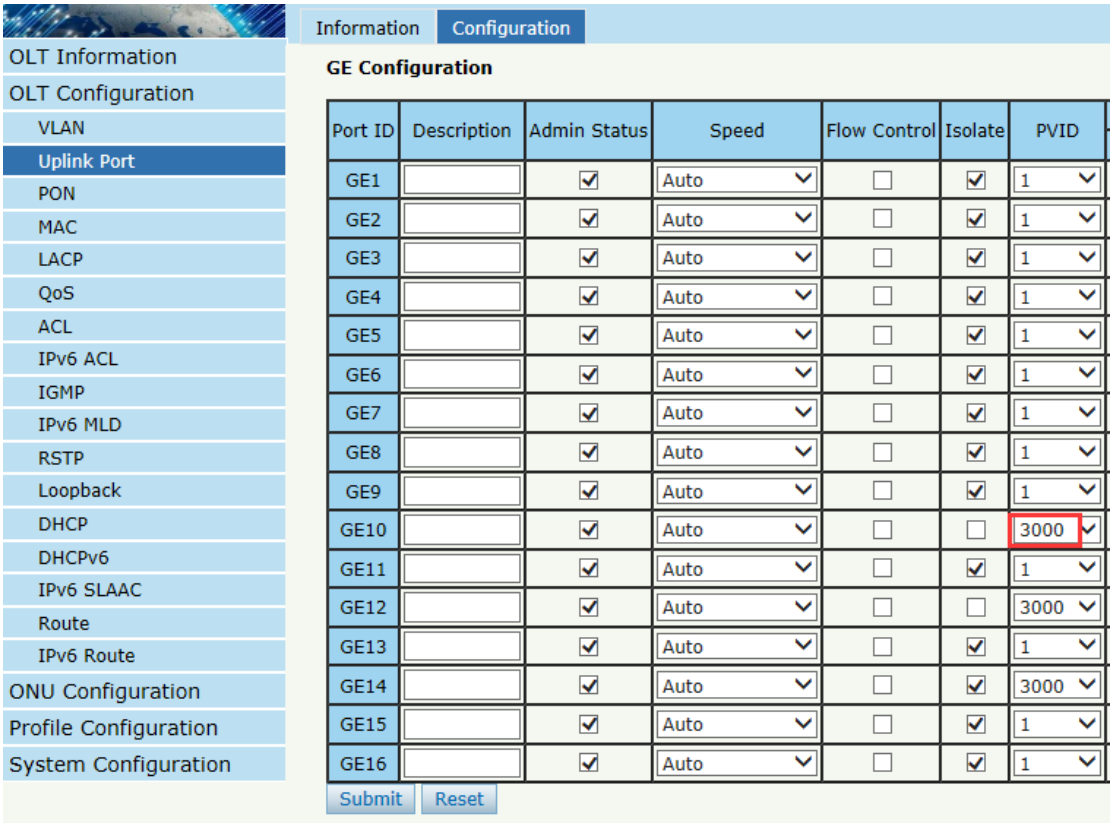


2. Add VLAN to ports

Add the VLAN to port 10, which the PC or other devices are connecting to.



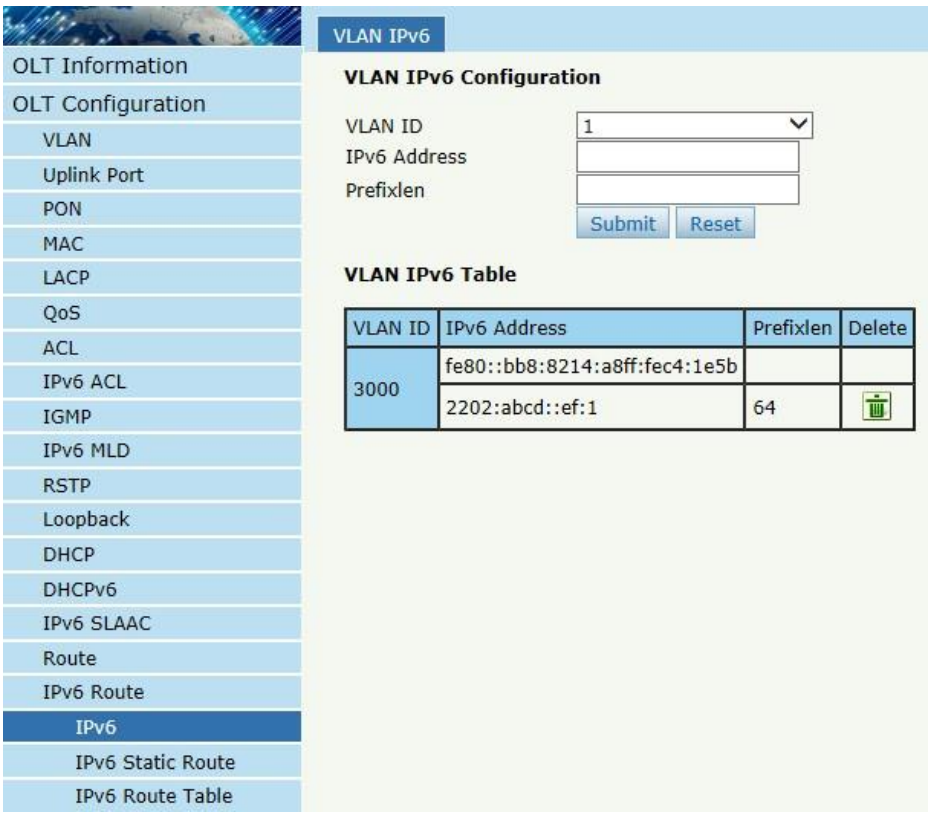
3. Configure PVID of the port.



4. Configure VLAN IPv6 address.

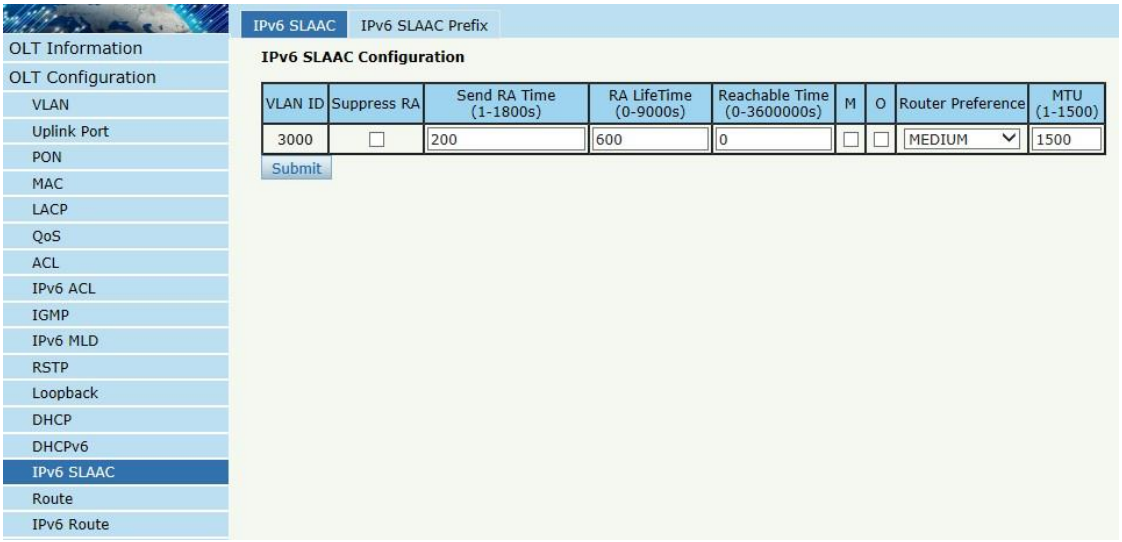
IPv6 address must be there so that SLAAC in this VLAN can be available.

The IPv6 address can be link local address or global unicast address.



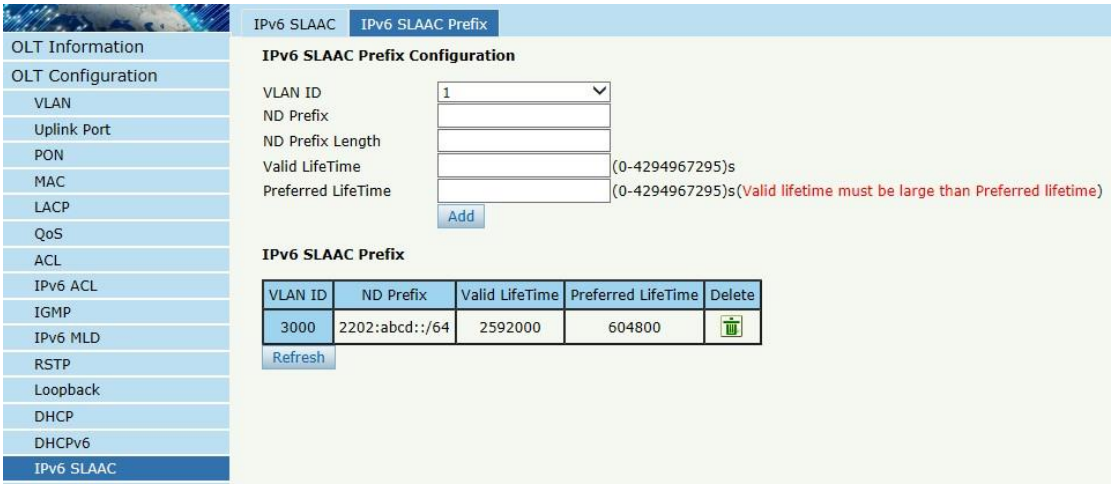
5. Configure RA parameters.

Disable Suppress RA and M/O field should be unchecked, which means clients use SLAAC to get IPv6 address.

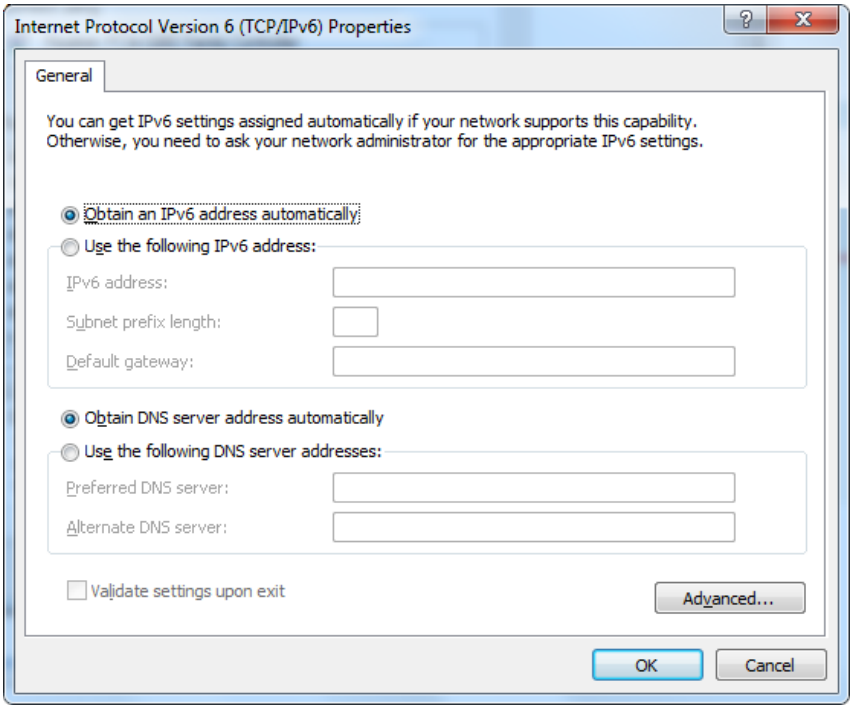


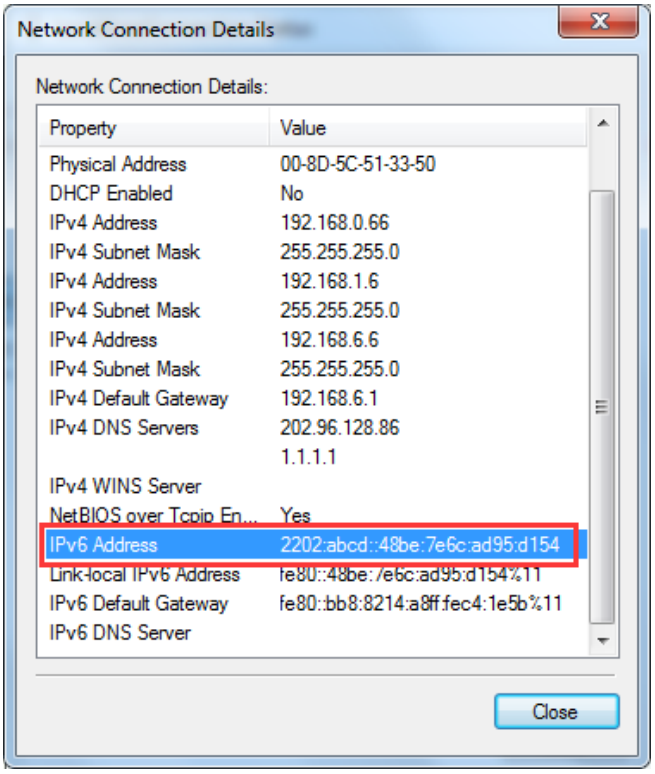
6. Configure SLAAC prefix.

Once IPv6 address of VLAN is added, the SLAAC prefix will generate automatically.



7. Connect the computer to OLT uplink GE10, choose Obtain an IPv6 Address automatically. The computer will obtain an IPv6 address by SLAAC.


Internet Protocol Version 6 (TCP/IPv6) Properties
General
You can get IPv6 settings assigned automatically if your network supports this capability.
Otherwise, you need to ask your network administrator for the appropriate IPv6 settings.
Obtain an IPv6 address automatically
Use the following IPv6 address:
IPv6 address:
Subnet prefix length:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel


Network Connection Details
Network Connection Details:
Property
Value
Physical Address
00-8D-5C-51-33-50
DHCP Enabled
No
IPv4 Address
192.168.0.66
IPv4 Subnet Mask
255.255.255.0
IPv4 Address
192.168.1.6
IPv4 Subnet Mask
255.255.255.0
IPv4 Address
192.168.6.6
IPv4 Subnet Mask
255.255.255.0
IPv4 Default Gateway
192.168.6.1
IPv4 DNS Servers
202.96.128.86
1.1.1.1
IPv4 WINS Server
NetBIOS over Tcpip En...
Yes
IPv6 Address
2202:abcd::48be:7e6c:ad95:d154
Link-local IPv6 Address
fe80::48be:7e6c:ad95:d154%11
IPv6 Default Gateway
fe80::bb8:8214:a8ff:fec4:1e5b%11
IPv6 DNS Server
Close

Thank you!