



GPON OLT WEB USER MANUAL

Version V2.1

Release Date 2019-4-28

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Chapter 1 System Description

1.1 Overview

1.1.1 OLT Introduction

The Web management user manual is for the OLTs 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		8 ports GPON OLT
Chassis	Rack	1U 19 inch standard box
1000M Uplink Port	QTY	8
	Copper	8*10/100/1000M auto-negotiation
	SFP (Independent)	0*SFP
10000M Uplink Port	QTY	4
	SFP (Independent)	4*SFP+ (SFP+ is compatible with 10GE)
GPON Port	QTY	16
	Physical Interface	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.

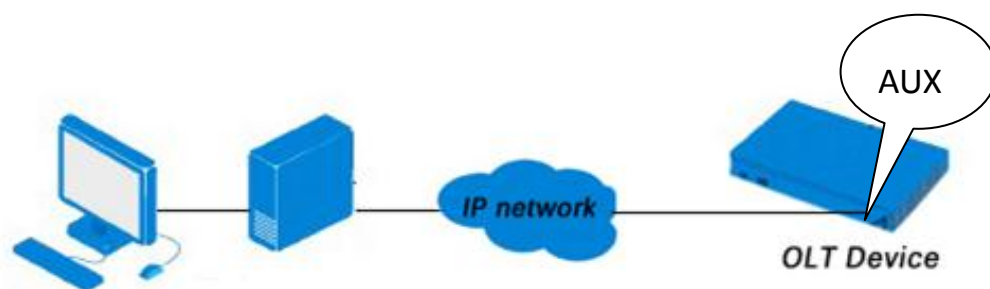
Table 1-2 Operation System requirement

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 192.168.8.200.

Please set your PC IP to 192.168.8.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 192.168.8.200;
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 "**admin**" by default.

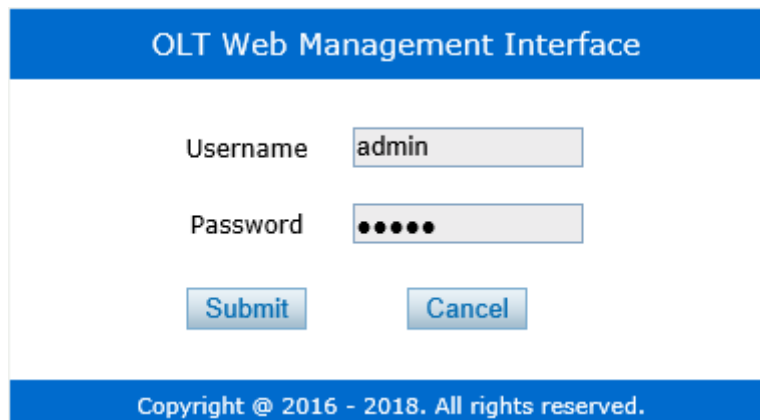


Figure 2.1-1: Login

2.2 Device Information

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

OLT Information→Device Information

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

hardware version, firmware version, MAC address and system time. The system name can be modified if need.

Device Basic Information			
System Name	gpon-olt	Serial Number	
Hardware Version	16 pons gpon olt platform	Software Version	V1.0.2
MAC Address	80:14:A8:C0:D8:A9	Temperature	41°C
System Time	2000 /1 /31 23:17:38	Running Time	0 Days 0 Hours 15 Minutes 39 Seconds
CPU Usage	23%	Memory Usage	21%
License limit	2048 ONUs	License Time	Permanent

[Submit](#) [Refresh](#)

Figure 2.2-1: Device Information

Chapter 3 OLT Configuration

This section is about the basic service of OLT configuration.

3.1 VLAN

OLT equipment switch engine is fully compliant with the IEEE802.1Q VLAN standard and has the following main features:

- Support Port-based VLAN and IEEE802.1Q VLAN.
- Support full 4K VLAN group, VID range 1~4095.

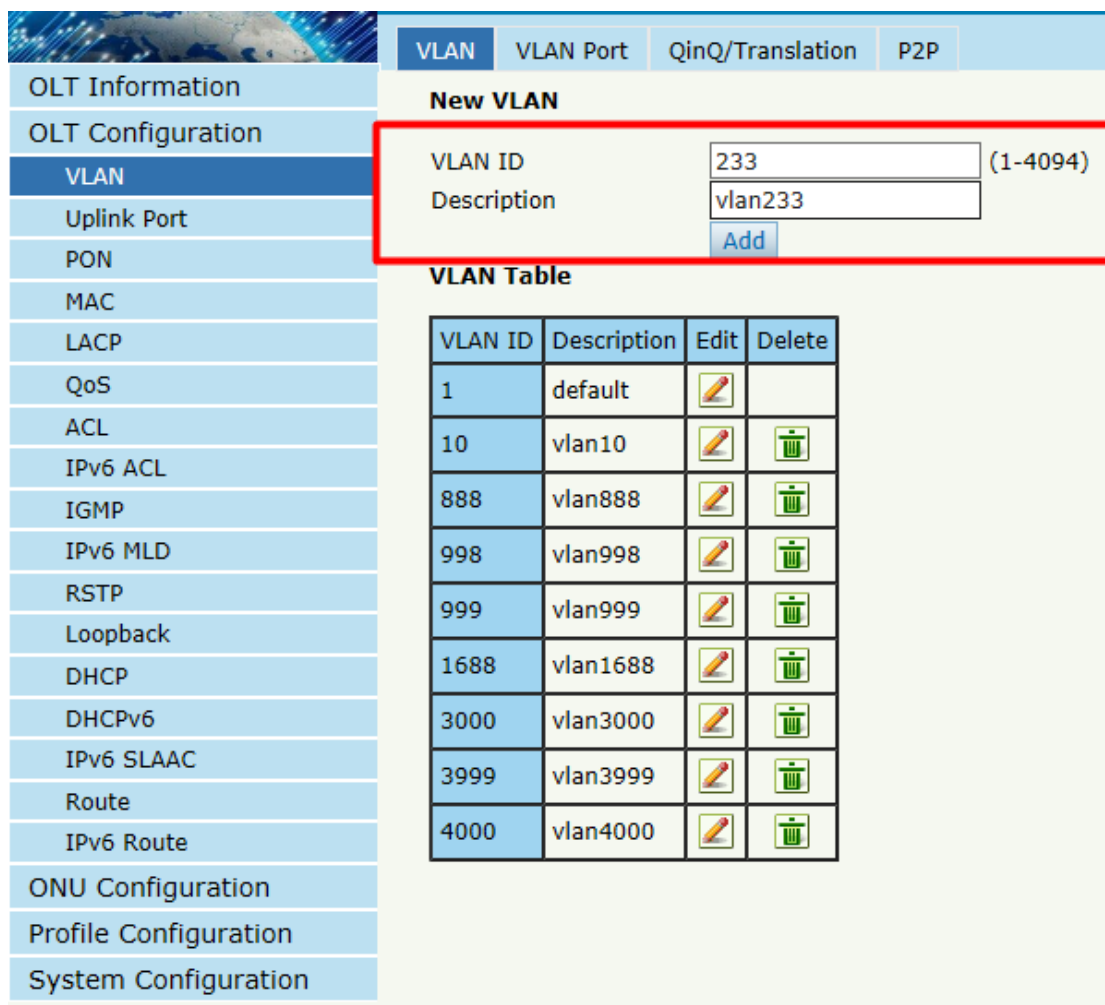
All switch ports, including uplink ports and downlink ports, support VLAN partition.

VLAN 1 is the system reserved VLAN, it includes all switch ports which are UNTAG mode.

3.1.1 Create VLAN

OLT Configuration→VLAN

In this user interface, you can create new VLAN.



VLAN | VLAN Port | QinQ/Translation | P2P

New VLAN

VLAN ID: 233 (1-4094)
 Description: vlan233
 Add

VLAN Table

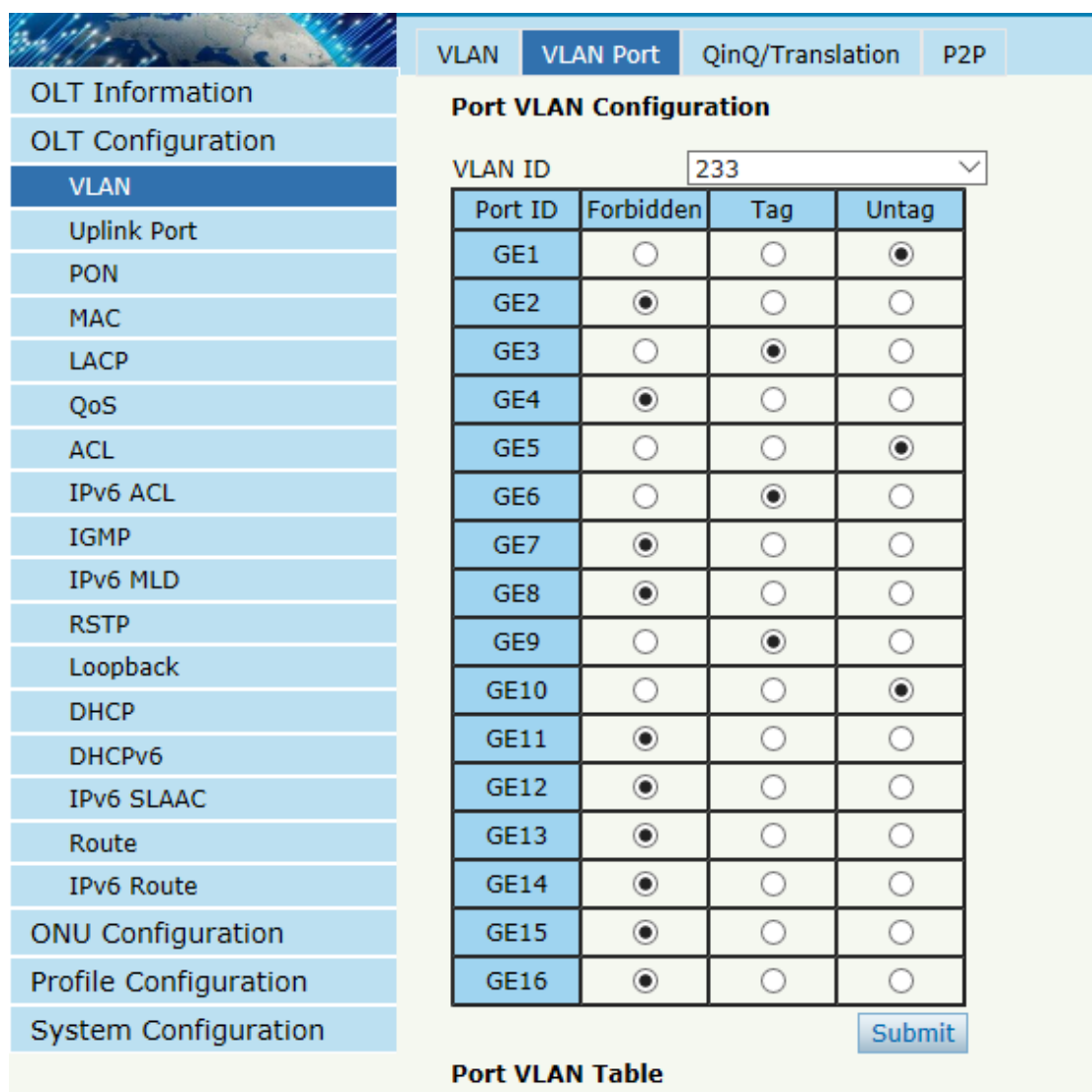
VLAN ID	Description	Edit	Delete
1	default		
10	vlan10		
888	vlan888		
998	vlan998		
999	vlan999		
1688	vlan1688		
3000	vlan3000		
3999	vlan3999		
4000	vlan4000		

Figure 3.1-1: Create New VLAN

3.1.2 VLAN Port

OLT Configuration→VLAN→VLAN Port

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



Port ID	Forbidden	Tag	Untag
GE1	☐	☐	☒
GE2	☒	☐	☐
GE3	☐	☒	☐
GE4	☒	☐	☐
GE5	☐	☐	☒
GE6	☐	☒	☐
GE7	☒	☐	☐
GE8	☒	☐	☐
GE9	☐	☒	☐
GE10	☐	☐	☒
GE11	☒	☐	☐
GE12	☒	☐	☐
GE13	☒	☐	☐
GE14	☒	☐	☐
GE15	☒	☐	☐
GE16	☒	☐	☐

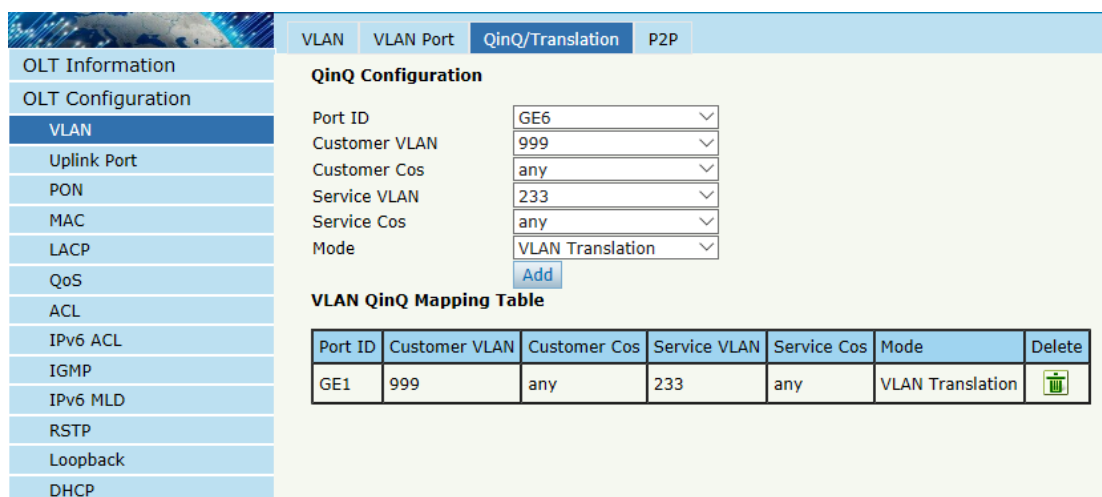
[Submit](#)

Figure 3.1-2: Add VLAN Port

3.1.3 QinQ/Translation

OLT Configuration→VLAN→QinQ/Translation

In this user interface, VLAN QinQ and VLAN translation can be configured. VLAN QinQ and translation are effective for ingress.



Qinq Configuration

Port ID:

Customer VLAN:

Customer Cos:

Service VLAN:

Service Cos:

Mode:

[Add](#)

VLAN Qinq Mapping Table

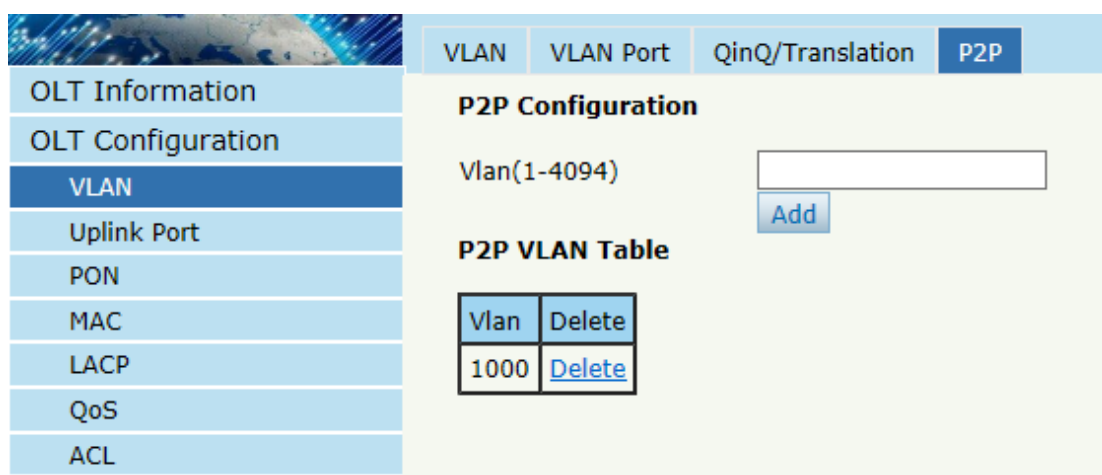
Port ID	Customer VLAN	Customer Cos	Service VLAN	Service Cos	Mode	Delete
GE1	999	any	233	any	VLAN Translation	

Figure 3.1-3: Qinq/Translation Configuration

3.1.4 P2P

OLT Configuration→VLAN→P2P

The use of P2P enables ONU to communicate with each other under PON ports.



P2P Configuration

Vlan(1-4094):

[Add](#)

P2P VLAN Table

Vlan	Delete
1000	Delete

Figure 3.1-4: P2P Configuration

3.2 Uplink Port

GE ports traffic statistics and basic configuration setting.

3.2.1 Information

OLT Configuration→Uplink Port→Information

This user interface displays traffic statistics of uplink ports.

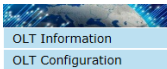
	Information	Configuration																	
	Traffic Statistics																		
	Clear Counters Refresh																		
	Port ID	Link Status	Speed	Rx Bytes	Rx Packets				Tx Bytes	Tx Packets				Collisions	Errors				
					Packets	Unicast	Broadcast	Multicast		Packets	Unicast	Broadcast	Multicast						
	MAC	GE1	Down	-	0	0	0	0	0	0	0	0	0	0	0	0			
	LACP	GE2	Down	-	0	0	0	0	0	0	0	0	0	0	0	0			
	QoS	GE3	Down	-	0	0	0	0	0	0	0	0	0	0	0	0			
	ACL	GE4	Down	-	0	0	0	0	0	0	0	0	0	0	0	0			
	IPv6 ACL	GE5	Down	-	0	0	0	0	0	0	0	0	0	0	0	0			
IGMP	GE6	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
IPv6 MLD	GE7	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
RSTP	GE8	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
Loopback	GE9	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
DHCP	GE10	Up	1000M Full	1867309702	5288884	2189914	2559025	539945	1718357518	3336155	2477902	707930	150323	0	0				
DHCPv6	GE11	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
IPv6 SLAAC	GE12	Up	1000M Full	4273288450	30683208	30145371	243944	293893	4521727387	32967058	29956070	2316045	694943	0	0				
Route	GE13	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
IPv6 Route	GE14	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
ONU Configuration	GE15	Down	-	0	0	0	0	0	0	0	0	0	0	0	0				
Profile Configuration																			
System Configuration	GE16	Up	1000M Full	200911799	2139662	64490	1943483	131689	140174987	1985620	104141	1257375	624104	0	0				

Figure3.2-1: GE Traffic Statistics

3.2.2 Configuration

OLT Configuration→Uplink Port→Information

This user interface is used to configure port related functions and characteristic parameters of uplink port, such as port attributes, PVID, flow control, rate limit, storm inhibition, port isolation and so on.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

ONU Configuration

Profile Configuration

System Configuration

Information

Configuration

GE Configuration

Submit

Reset

Port ID	Description	Admin Status	Speed	Flow Control	Isolate	PVID	Storm(0 64-100000fps)			Rate(0 64-100000kbps)		MAC Limit(0-16384)	
							Broadcast	Multicast	Unicast	Ingress	Egress		
GE1		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE2		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE3		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE4		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE5		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE6		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE7		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE8		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE9		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE10		☒	Auto	☐	☐	3000	512	0	512	0	0	0	
GE11		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE12		☒	Auto	☐	☐	3000	512	0	512	0	0	0	
GE13		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE14		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE15		☒	Auto	☐	☐	1	512	0	512	0	0	0	
GE16		☒	Auto	☐	☐	3000	512	0	512	0	0	0	

Figure3.2-2: Uplink Ports Configuration

Illustrations of each parameter:

Parameters	Illustration
Port ID	GE port has two types, fiber SFP (GE1 to GE8) and copper (GE9 to GE16).
Description	Descriptions or remarks of port.
Admin Status	Active or inactive status of port. It is Enabled by default.
Speed	Configuring Port Rate.
Flow Control	Enable or disable flow control function of uplink port to control congestion. It is disabled by default.
Isolate	Port isolation with each other.
PVID	Default VLAN ID of the port.
Broadcast	Broadcast storm inhibition.
Multicast	Multicast storm inhibition.
Unknown Unicast	Unknown unicast storm inhibition.
Ingress Rate	Port ingress rate.
Egress Rate	Port egress rate.
MAC limit	Number of MAC address can be learnt in the port.

3.3 PON

3.3.1 Information

OLT Configuration→PON→Information

This user interface is used to displays parameters of PON port, such as PON module port current temperature, Voltage, current, transmit power.

	Information	Traffic Statistics	Configuration	Range
OLT Information	Optical Transceiver			
OLT Configuration				
VLAN				
Uplink Port				
PON				
MAC				
LACP				
QoS				
ACL				
IPv6 ACL				
IGMP				
IPv6 MLD				
RSTP				
Loopback				
DHCP				
DHCPv6				
IPv6 SLAAC				
Route				
IPv6 Route				
ONU Configuration				
Profile Configuration				
System Configuration				

Port ID	Temperature(Degree)	Voltage(V)	Bias Current(mA)	Transmit Power(dBm)
PON1	47.055	3.292	14.250	7.757
PON2	0.000	0.000	0.000	0.000
PON3	0.000	0.000	0.000	0.000
PON4	0.000	0.000	0.000	0.000
PON5	0.000	0.000	0.000	0.000
PON6	0.000	0.000	0.000	0.000
PON7	0.000	0.000	0.000	0.000
PON8	0.000	0.000	0.000	0.000

Figure3.3-1: PON Information

3.3.2 Traffic Statistics

OLT Configuration→PON→Traffic Statistics

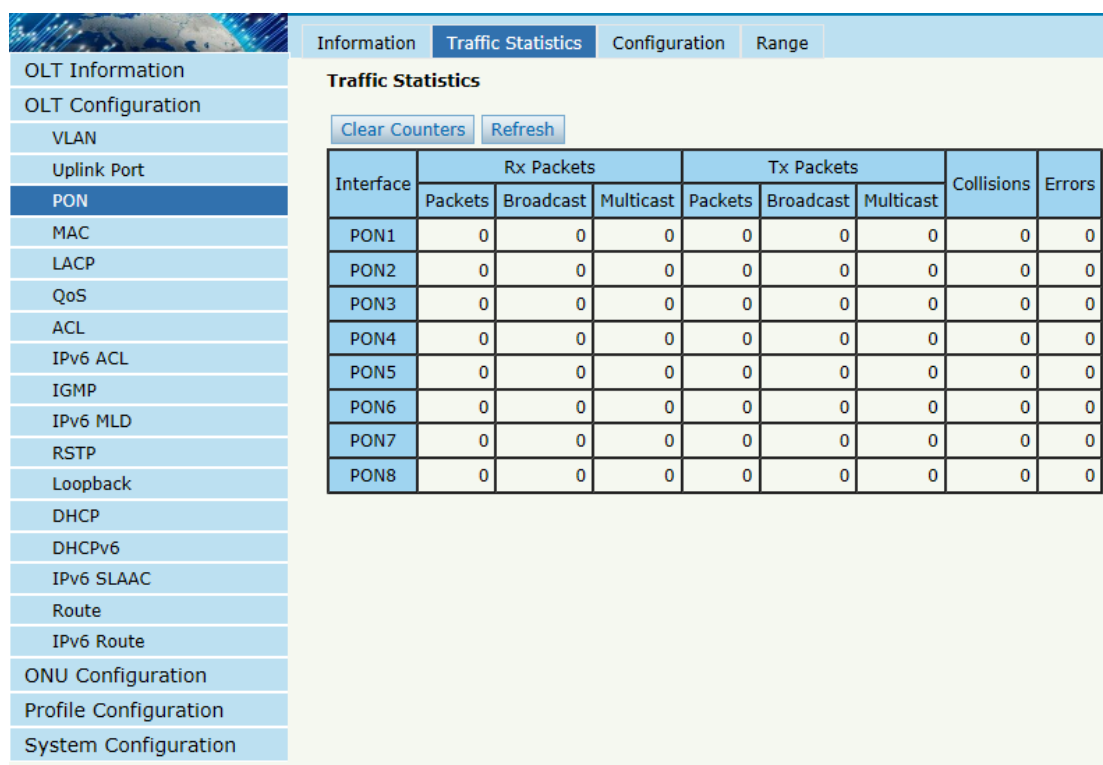
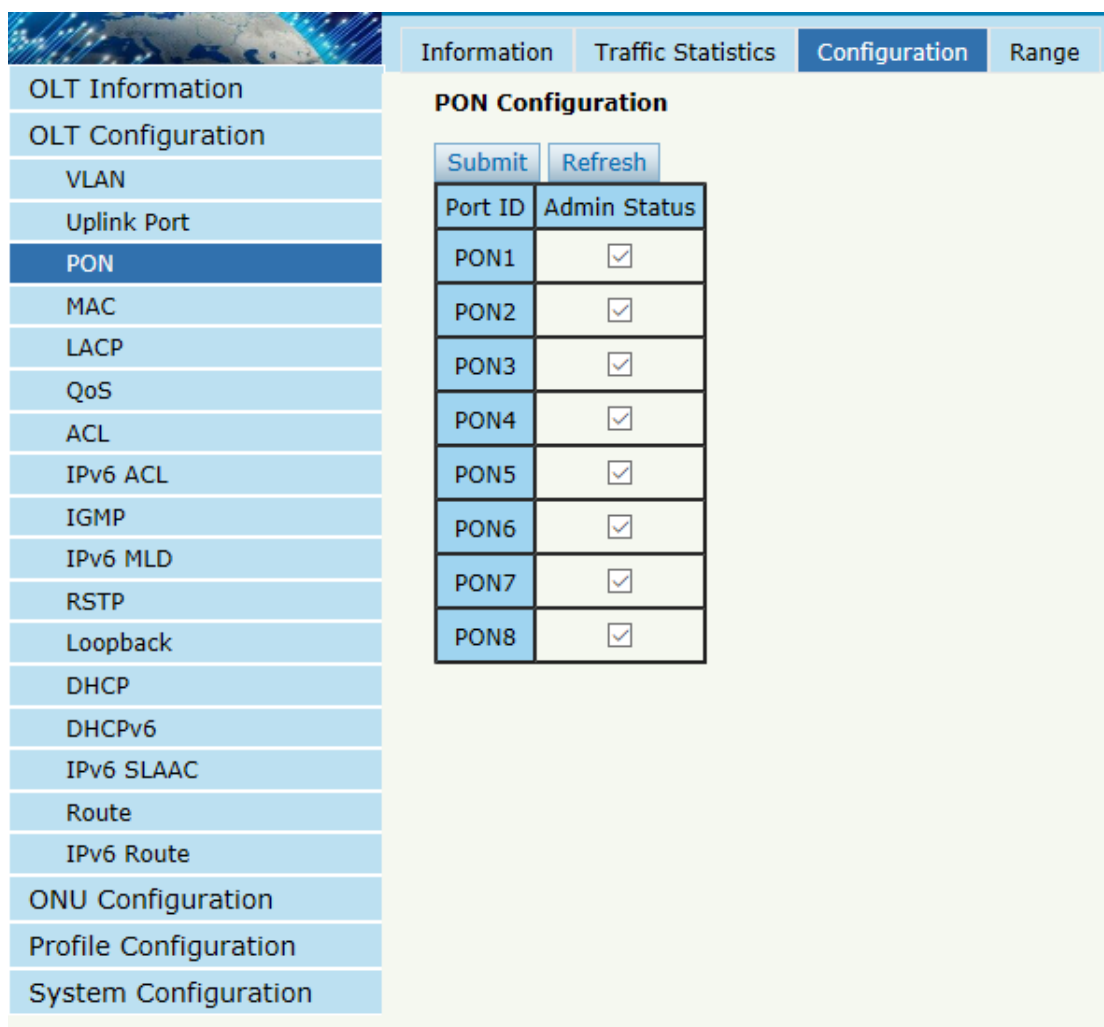


Figure3.3-2: Traffic Statistics

3.3.3 Configuration

OLT Configuration→PON→Configuration

This user interface is used to configure port status.



Port ID	Admin Status
PON1	☒
PON2	☒
PON3	☒
PON4	☒
PON5	☒
PON6	☒
PON7	☒
PON8	☒

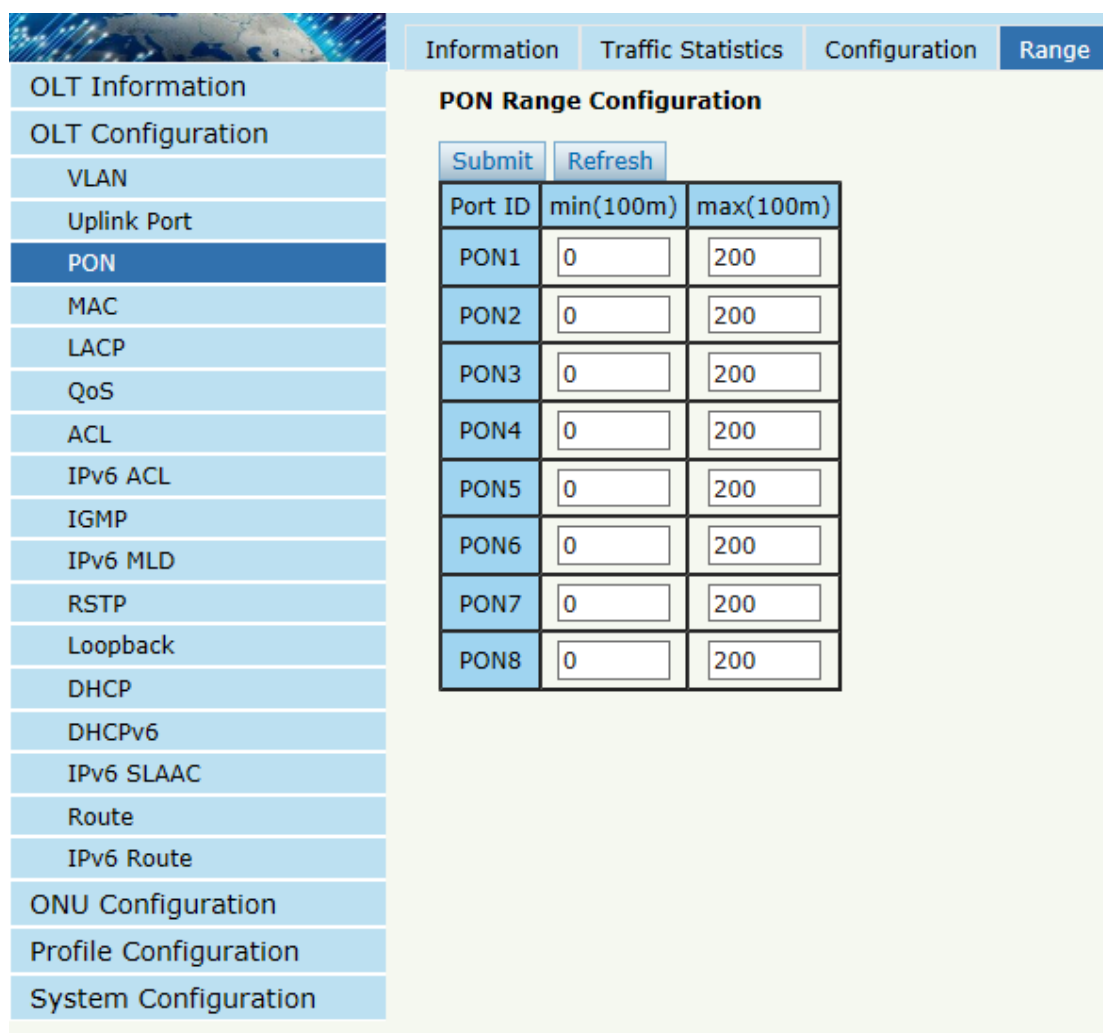
Figure3.3-3: PON configuration

3.3.4 Range

OLT Configuration→PON→Range

When ONU is more than 20km away from OLT, you need to configure PON distance range. The difference between minimum and maximum should not be more than 20km. The unit is 100m.

For example, ONU is 25km away from OLT, the minimum is 50 and the maximum is 250.



Port ID	min(100m)	max(100m)
PON1	0	200
PON2	0	200
PON3	0	200
PON4	0	200
PON5	0	200
PON6	0	200
PON7	0	200
PON8	0	200

Figure3.3-4: PON Range Configuration

3.4 MAC

In this section, you can check MAC address table of OLT, set MAC aging time and add MAC address manually.

3.4.1 MAC Table

OLT Configuration→MAC→MAC Table

This table displays MAC addresses that OLT has learnt at PON ports and GE ports.



- OLT Information
- OLT Configuration
- VLAN
- Uplink Port
- PON
- MAC**
- LACP
- QoS
- ACL
- IPv6 ACL
- IGMP
- IPv6 MLD
- RSTP
- Loopback
- DHCP
- DHCPv6
- IPv6 SLAAC
- Route
- IPv6 Route
- ONU Configuration
- Profile Configuration
- System Configuration

MAC Table
PON MAC Table
Configuration

MAC Address Table

Port ID

ALL

mac numbers

22

Clean

Refresh

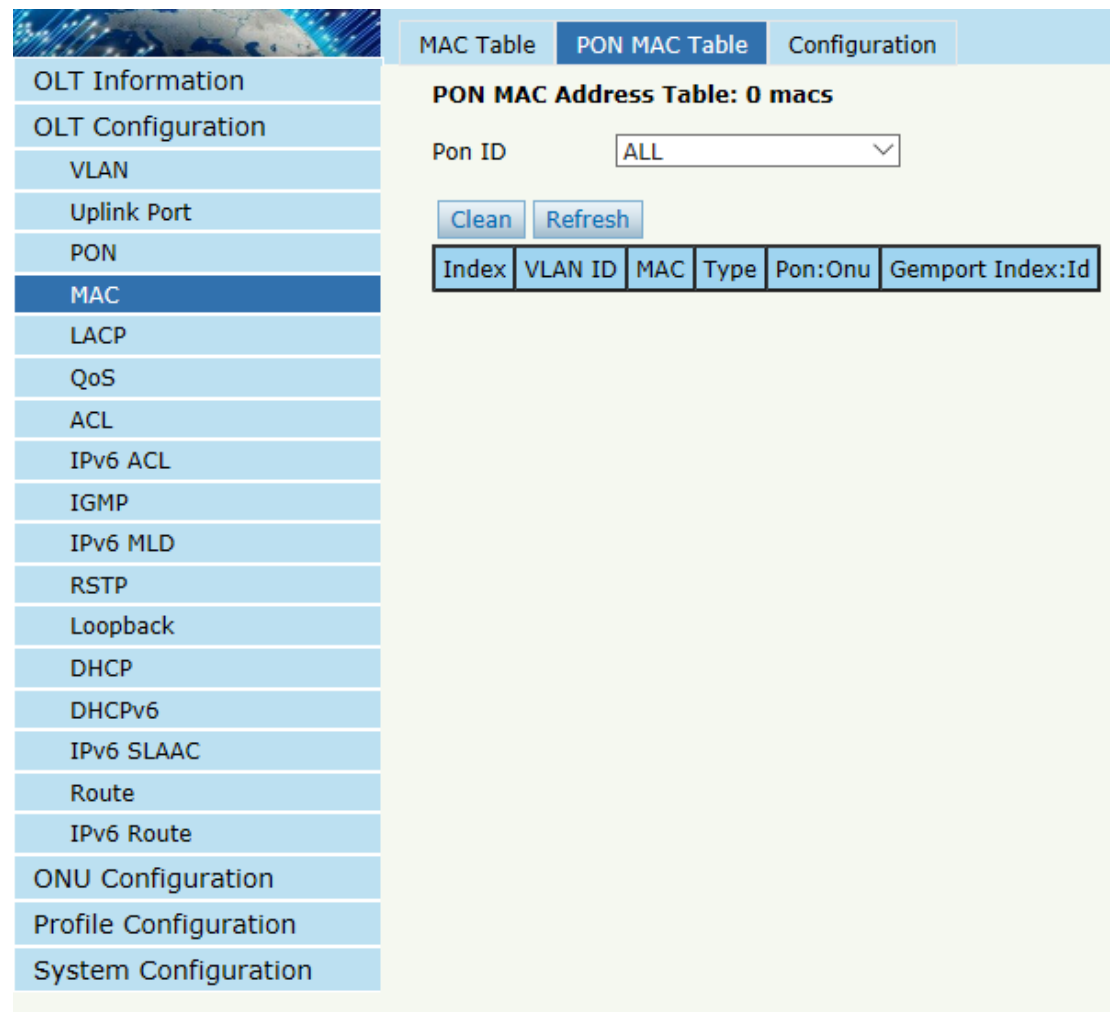
VLAN ID	MAC	Type	Physical Port
3000	94:C6:91:91:CE:EB	Dynamic	GE10
3000	F4:4D:30:F2:27:89	Dynamic	GE10
3000	80:14:A8:67:32:98	Dynamic	GE10
3000	FC:AA:14:2E:F3:D1	Dynamic	GE10
10	80:14:A8:23:D6:F7	Static	CPU
3000	F4:4D:30:9F:47:5C	Dynamic	GE10
3000	00:90:4C:06:A5:73	Dynamic	GE10
3000	80:14:A8:23:D6:F7	Static	CPU
3000	80:14:A8:C4:1E:5B	Dynamic	GE16
4000	80:14:A8:AC:26:17	Dynamic	GE12
4000	80:14:A8:23:D6:F7	Static	CPU
3000	80:14:A8:AC:26:17	Dynamic	GE12
3000	F4:4D:30:4E:45:D0	Dynamic	GE10
888	80:14:A8:C4:1E:5B	Dynamic	GE16
888	80:14:A8:23:D6:F7	Static	CPU
3000	80:14:A8:8C:FE:A7	Dynamic	GE10
3000	00:AD:BE:EF:00:01	Dynamic	GE10
3000	00:8D:5C:51:33:50	Dynamic	GE12
3000	9C:5C:8E:6F:D9:0E	Dynamic	GE10
3000	80:14:A8:67:3A:80	Dynamic	GE10
3000	80:14:A8:67:2A:5C	Dynamic	GE10
3000	00:0C:29:51:FD:03	Dynamic	GE10

Figure3.4-1: MAC Address Table

3.4.2 PON MAC Table

OLT Configuration→MAC→PON MAC Table

This table displays MAC addresses that OLT has learnt at PON ports.



The screenshot displays the GPON OLT Web User Interface. On the left is a vertical menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, **MAC** (selected), LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, RSTP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IPv6 Route, ONU Configuration, Profile Configuration, and System Configuration. The main content area has three tabs: 'MAC Table', 'PON MAC Table' (active), and 'Configuration'. Below the tabs, it says 'PON MAC Address Table: 0 macs'. There is a 'Pon ID' dropdown menu currently set to 'ALL'. Below this are 'Clean' and 'Refresh' buttons. At the bottom, there is a table header with the following columns: Index, VLAN ID, MAC, Type, Pon:Onu, and Gemport Index:Id. The table body is currently empty.

Figure3.4-2: PON MAC Table

3.4.3 Configuration

OLT Configuration→MAC→Configuration

The default MAC aging time of OLT is 300s, user can change the value between 10~1000000s. Also, user can add MAC address to the OLT manually.

Figure 3.4-1: MAC Configuration

3.5 LACP

3.5.1 Static LACP

OLT Configuration→LACP→Static LACP

To assign and configure an uplink physical interface to a channel group, select load balance for LACP function. When a traffic link can't be used suddenly, the 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.

Static LACP

Channel Group Configuration

Channel Group ID: 1

Load Balance: smac

Select GE Port:

GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8 GE9 GE10 GE11 GE12 GE13 GE14 GE15 GE16

☐ ☐ ☐ ☐ ☐ ☐ ☒ ☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Submit

Channel Group Table

Group ID	Load Balance	Ports	Delete
1	smac	GE7 GE8	

Figure 3.5-1: Create Static LACP

3.5.2 Dynamic LACP

OLT Configuration→LACP→Dynamic LACP

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.

The screenshot displays the 'Dynamic LACP' configuration page in the GPON OLT web interface. On the left is a navigation menu with various configuration options. The main area is divided into three tabs: 'Information', 'Configuration', and 'Port'. The 'Information' tab is active, showing the following sections:

- Dynamic LACP Global Information:** A table with one row containing 'System ID' and the value '0x8000, 8014.a823.d6f7'.
- Channel Group Table:** A table with three columns: 'Group ID', 'Load Balance', and 'Ports'.
- Channel Group Port Information:** A section with a 'Channel Group ID' dropdown menu set to '1'.
- Link Aggregation Information:** A table with columns for 'Port ID', 'System Priority', 'Port Priority', 'Key', 'Aport', 'Syn', 'Col', and 'Dis'.

The navigation menu on the left includes the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, Static LACP, **Dynamic LACP**, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, RSTP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IPv6 Route, ONU Configuration, Profile Configuration, and System Configuration.

Figure 3.5-2: Dynamic LACP Information

3.6 QoS

OLT Configuration→QOS

When bandwidth is not enough or there is congestion in the network, queue scheduling can make sure high priority data traffic passes through the device firstly. Traffic will map to queues according to their priorities and transmit in the queues.

OLT supports eight queues altogether. Queue scheduling mode includes strict priority (SP), weighted round robin (WRR) and hybrid mode (SP-WRR).

Strict priority scheduling guarantees high priority traffic occupy as much as bandwidth. The lower priority traffics pass though only when there is remaining bandwidth.

QoS Configuration

QoS Mode:

Weight:

Q0(1-127)	Q1(1-127)	Q2(1-127)	Q3(1-127)	Q4(0-127)	Q5(0-127)	Q6(0-127)	Q7(0-127)
1	2	3	10	100	120	127	0

Figure 3.6-1: QoS Configuration

3.7 ACL

In order to filter data packages, network equipment need to setup a series of rules for identifying what need to be filtered. Only matched with the rules the data packages can be filtered. ACL can achieve this function. Matched conditions of ACL rules can be source address, destination address, Ethernet type, VLAN, protocol port, and so on. These ACL rules also can be used in other situations, such as classification of stream in QoS. An ACL rule may contain one or several sub-rules, which have different matched conditions.

This device supports the following types of ACL.

3.7.1 IP Filter

OLT Configuration→ACL→IP Filter

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

Access List IP Configuration

Access List ID: (1000-1999)

Filter Action: ☒ Deny ☐ Permit

☐ Source IP: Mask:

☐ Source Port: (0-65535)

☐ Destination IP: Mask:

☐ Destination Port: (0-65535)

☐ Protocol: (0-255)

☐ DSCP: (0-63)

Access Lists Configured

List ID	Source IP	Source Port	Destination IP	Destination Port	Protocol	DSCP	Filter Action	Delete
1000		4/ffff		14/ffff	17/ff	14	Deny	

Figure 3.7-1: IP Filter

3.7.2 MAC Filter

OLT Configuration→ACL→MAC Filter

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

Access List MAC Configuration

Access List ID: (2000-2999)

Filter Action: ☒ Deny ☐ Permit

☐ Source MAC: Mask: (HH:HH:HH:HH:HH:HH)

☐ Destination MAC: Mask: (HH:HH:HH:HH:HH:HH)

☐ VLAN ID: (0-7)

☐ VLAN Cos: (0-7)

☐ Ethernet Type: (HHHH)

Access Lists Configured

List ID	Source MAC	Destination MAC	VLAN ID	Cos	Ethernet Type	Filter Action	Delete
---------	------------	-----------------	---------	-----	---------------	---------------	--------

Figure 3.7-2: MAC Filter

3.7.3 IP/MAC Filter

OLT Configuration→ACL→IP/MAC Filter

This filter mix the IP address and MAC address, include source MAC address and destination MAC address, source IP address and destination IP address.

Access List Configuration

Access List ID: (5000-5999)

Filter Action: ☒ Deny ☐ Permit

☐ Source MAC: Mask: (HH:HH:HH:HH:HH:HH)

☐ Destination MAC: Mask: (HH:HH:HH:HH:HH:HH)

☐ VLAN ID: (0-7)

☐ VLAN Cos: (0-7)

☐ Ethernet Type: (HHHH)

☐ Source IP: Mask: (0-65535)

☐ Destination IP: Mask: (0-65535)

☐ Source Port: (0-65535)

☐ Destination Port: (0-65535)

☐ Protocol: (0-255)

☐ DSCP: (0-63)

Access Lists Configured

List ID	Source MAC	Destination MAC	VLAN ID	Cos	Ethernet Type	Source IP	Source Port	Destination IP	Destination Port	Protocol	DSCP	Filter Action	Delete
---------	------------	-----------------	---------	-----	---------------	-----------	-------------	----------------	------------------	----------	------	---------------	--------

Figure 3.7-3: IP/MAC Filter

3.7.4 Effect Filter

OLT Configuration→ACL→Effect Filter

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

Figure 3.7-4: Bind Security Filter

3.8 IPv6 ACL

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

3.8.1 IPv6 Filter

OLT Configuration→IPv6 ACL→ IPv6 Filter

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

IPv6 Filter | IPv6/MAC Filter | IPv6 Effect Filter

Access List IPv6 Configuration

Access List ID: (1000-1999)

Filter Action: ☒ Deny ☐ Permit

☐ Source IPv6: Prefixlen:

☐ Source Port: (0-65535)

☐ Destination IPv6: Prefixlen:

☐ Destination Port: (0-65535)

☐ Protocol: TCP (0-255)

☐ DSCP: (0-63)

Access Lists Configured

List ID	Source IPv6	Source Port	Destination IPv6	Destination Port	Protocol	DSCP	Filter Action	Delete
---------	-------------	-------------	------------------	------------------	----------	------	---------------	--------

Figure 3.8-1: IPv6 Filter

3.8.2 IPv6/MAC Filter

OLT Configuration→IPv6 ACL→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.

IPv6 Filter | **IPv6/MAC Filter** | IPv6 Effect Filter

Access List Configuration

Access List ID: (5000-5999)

Filter Action: ☒ Deny ☐ Permit

☐ Source MAC: Mask: (HH:HH:HH:HH:HH:HH)

☐ Destination MAC: Mask: (HH:HH:HH:HH:HH:HH)

☐ VLAN ID: (0-7)

☐ VLAN Cos: (0-7)

☐ Ethernet Type: (HHHH)

☐ Source IPv6: Prefixlen:

☐ Source Port: (0-65535)

☐ Destination IPv6: Prefixlen:

☐ Destination Port: (0-65535)

☐ Protocol: TCP (0-255)

☐ DSCP: (0-63)

Access Lists Configured

List ID	Source MAC	Destination MAC	VLAN ID	VLAN Cos	Ethernet Type	Source IPv6	Source Port	Destination IPv6	Destination Port	Protocol	DSCP	Filter Action	Delete
---------	------------	-----------------	---------	----------	---------------	-------------	-------------	------------------	------------------	----------	------	---------------	--------

Figure 3.8-2: IPv6/MAC Filter

3.8.3 IPv6 Effect Filter

OLT Configuration → IPv6 ACL → 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.

The screenshot displays the 'IPv6 Effect Filter' configuration page. The sidebar on the left lists various OLT configuration options, with 'IPv6 ACL' selected. The main panel shows the 'Access List Port Bind' section, which includes a dropdown for 'Access List ID' and checkboxes for selecting specific GE (GE1-GE16) and PON (PON1-PON8) ports. An 'Apply Access List to Port(s)' button is located below the port selection area. The 'Active Access Lists' section at the bottom features a table with columns for 'Access List ID' and 'Ports'.

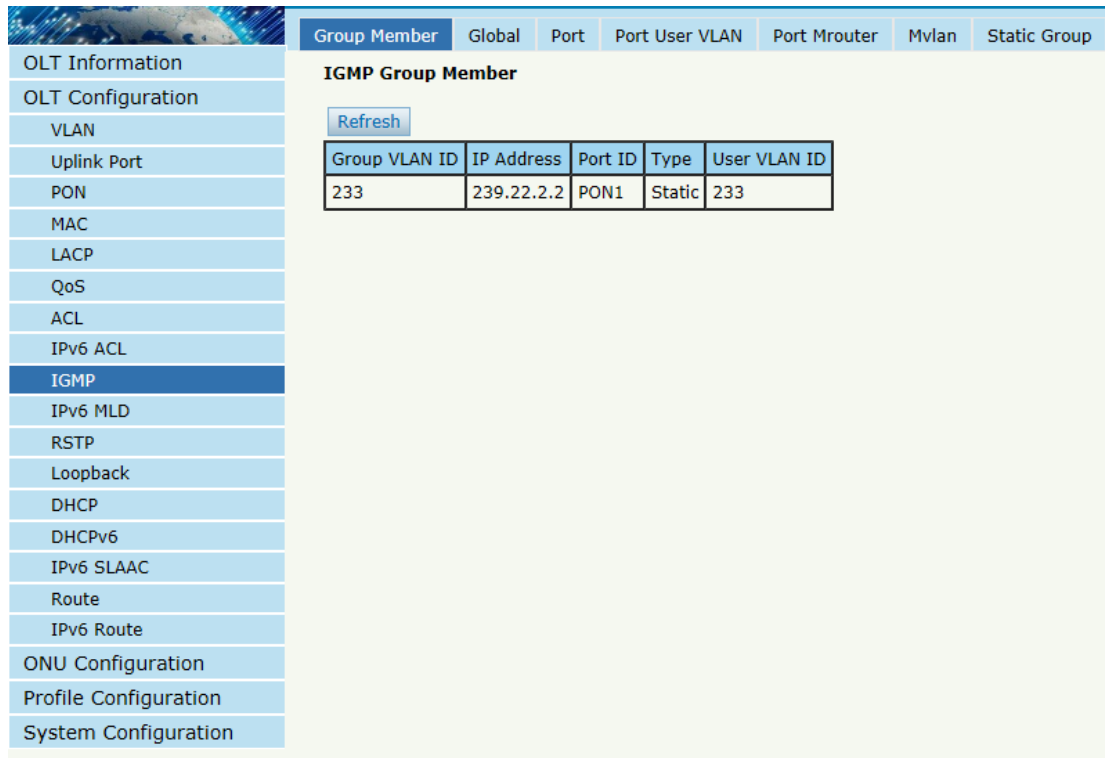
Figure 3.8-3: Bind IPv6 Security Filter

3.9 IGMP

3.9.1 Group Member

OLT Configuration → IGMP → Group Member

When there is a multicast group produced, the group will display in this table.



Group Member	Global	Port	Port User VLAN	Port Mrouter	Mvlan	Static Group
IGMP Group Member						
Refresh						
Group VLAN ID	IP Address	Port ID	Type	User VLAN ID		
233	239.22.2.2	PON1	Static	233		

Figure 3.9-1: Group Member

3.9.2 Global

OLT Configuration → IGMP → Global

IGMP basic configuration mainly contains parameters of query packet. When IGMP status is enabled, OLT works at IGMP snooping mode. IGMP snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic. The feature allows a network switch to "listen in" on the IGMP conversation between hosts and routers. By listening to these conversations, the switch maintains a map of which devices need which IP multicast streams. Multicasts may be filtered from the ports which do not need them and thus controls which ports receive specific multicast traffic. When IGMP status is disabled, OLT works at

transparent mode.

	Group Member	Global	Port	Port User VLAN	Port Mrouter	Mvlan	Static Group
OLT Information							
OLT Configuration							
VLAN							
Uplink Port							
PON							
MAC							
LACP							
QoS							
ACL							
IPv6 ACL							
IGMP							
IPv6 MLD							
RSTP							
Loopback							
DHCP							
DHCPv6							
IPv6 SLAAC							
Route							
IPv6 Route							
ONU Configuration							
Profile Configuration							
System Configuration							

IGMP Configuration	
IGMP Status	Enable
Last Member Query Interval	1 (1-255s)
Last Member Query Count	2 (1-255)
Last Member Query Response	1 (1-255s)
General Query Packet	☐ Disable ☒ Enable
General Query Interval	125 (10-255s)
Query Source IP	1.1.1.1
Submit Reset	

Figure 3.9-2: IGMP Global

3.9.3 Port

OLT Configuration → IGMP → Port

This configuration is used to set the maximum number of multicast groups, filter and fast leave mode.

	Group Member	Global	Port	Port User VLAN	Port Mrouter	Mvlan	Static Group
OLT Information							
OLT Configuration							
VLAN							
Uplink Port							
PON							
MAC							
LACP							
Static LACP							
Dynamic LACP							
QoS							
ACL							
IPv6 ACL							
IGMP							
IPv6 MLD							
RSTP							
Loopback							
DHCP							
DHCPv6							
IPv6 SLAAC							
Route							
IPv6 Route							
ONU Configuration							
Profile Configuration							
System Configuration							

Submit

Reset

Port ID	Fast Leave	Filter	Group Limit(0-1024)
GE1	☐	☐	1024
GE2	☐	☐	1024
GE3	☐	☐	1024
GE4	☐	☐	1024
GE5	☐	☐	1024
GE6	☐	☐	1024
GE7	☐	☐	1024
GE8	☐	☐	1024
GE9	☐	☐	1024
GE10	☐	☐	1024
GE11	☐	☐	1024
GE12	☐	☐	1024
GE13	☐	☐	1024
GE14	☐	☐	1024
GE15	☐	☐	1024
GE16	☐	☐	1024
PON1	☐	☐	1024
PON2	☐	☐	1024

Figure 3.9-3: IGMP Port

3.9.4 Port User VLAN

OLT Configuration → IGMP → Port User VLAN

This configuration is used to configure IGMP VLAN for OLT. Generally, PON ports should be configured, and user VLAN and group VLAN are the same. If user VLAN and group VLAN are different, multicast VLAN will be translated.

The screenshot displays the 'IGMP Port User VLAN' configuration page. On the left is a sidebar menu with options like OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP (selected), IPv6 MLD, RSTP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IPv6 Route, ONU Configuration, Profile Configuration, and System Configuration. The top navigation bar has tabs for Group Member, Global, Port, Port User VLAN (active), Port Mrouter, Mvlan, and Static Group. The main area is titled 'User VLAN Configuration' and includes three dropdown menus for Port ID (GE1), User VLAN ID (1), and Group VLAN ID (1), with an 'Add' button below them. A 'User VLAN Table' is shown with the following data:

Port ID	User VLAN ID	Group VLAN ID	Delete
PON1	233	233	

Figure 3.9-4: IGMP Port User VLAN

3.9.5 Port Mrouter

OLT Configuration → IGMP → Port Mrouter

Multicast router port is used to transmit IGMP signal messages. Generally, OLT uplink ports should be set as multicast router ports.

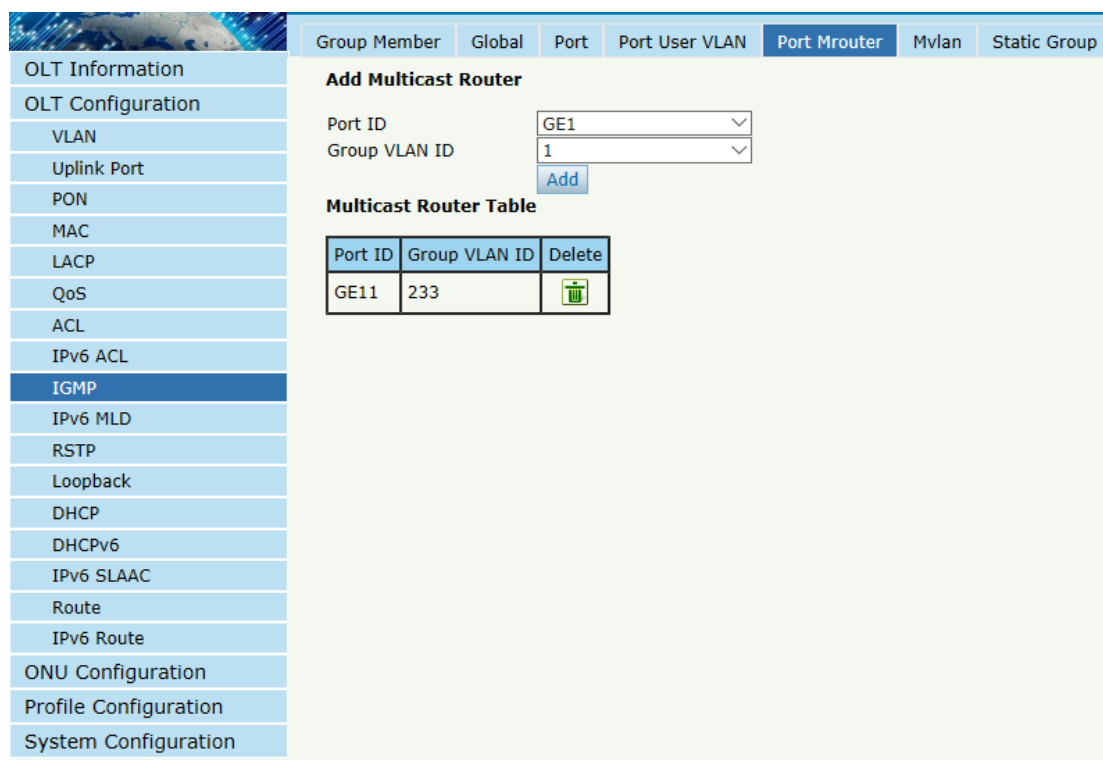


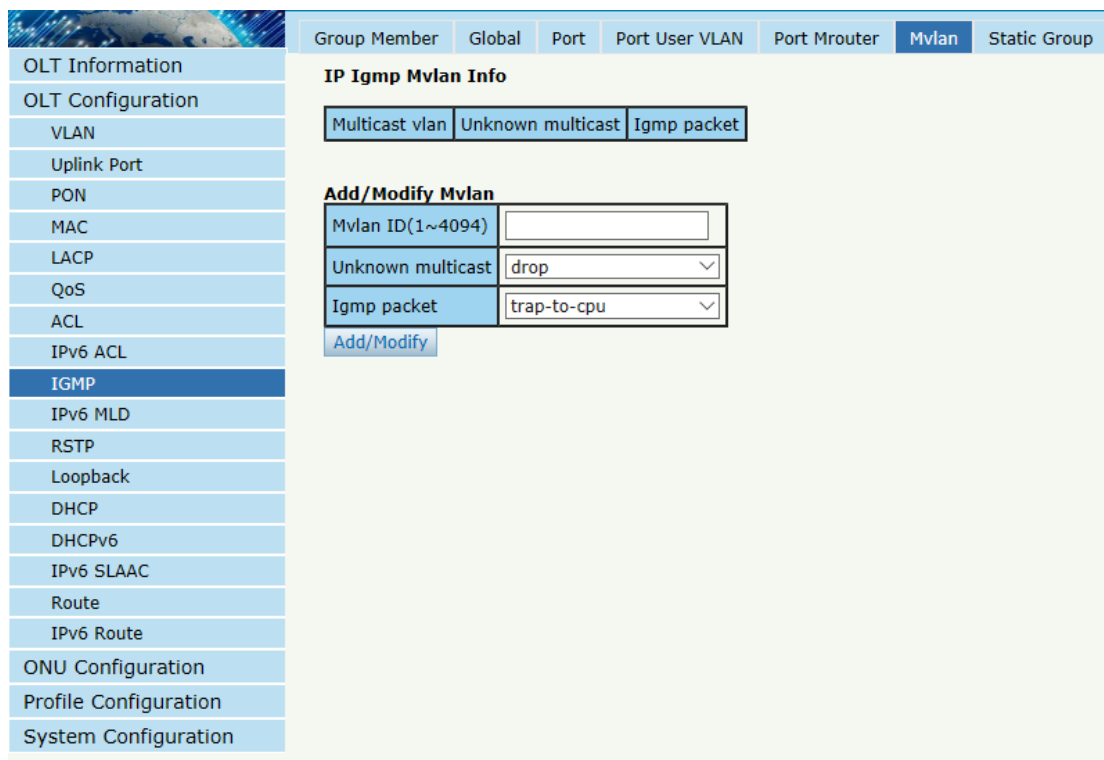
Figure 3.9-5: IGMP Port Mroute

3.9.6 Mvlan

OLT Configuration → IGMP → Mvlan

This configuration is used to configure multicast VLAN and its mode.

IGMP mode	Unknown multicast	Igmp packet
Snooping	drop	trap -to -cpu
Disable(transparent)	forward	forward



Group Member	Global	Port	Port User VLAN	Port Mrouter	Mvlan	Static Group
--------------	--------	------	----------------	--------------	-------	--------------

IP Igmp Mvlan Info

Multicast vlan	Unknown multicast	Igmp packet
----------------	-------------------	-------------

Add/Modify Mvlan

Mvlan ID(1~4094)	
Unknown multicast	drop
Igmp packet	trap-to-cpu

[Add/Modify](#)

Figure 3.9-6: IGMP MVLAN

3.9.7 Static Group

OLT Configuration → IGMP → Static Group

This configuration is used to bind multicast IP address and VLAN ID.

Port ID	IP Address	User VLAN ID	Delete
PON1	239.22.2.2	233	

Figure 3.9-7: IGMP Static Group

3.10 IPv6 MLD

3.10.1 Group Member

OLT Configuration → IPv6 MLD → Group Member

This page displays IPv6 multicast group member ports.

Group Member Global Port User VLAN Port Port Mrouter Static Group

IPv6 MLD Group Member

VLAN	Group	Type	Version	Port List
233	ff10:abcd::1234	Static	MLA V1	GE 0/1

[Refresh](#)

Figure 3.10-1: IPv6 MLD Group Member

3.10.2 Global

OLT Configuration → IPv6 MLD → Global

This page is used to enable IPv6 MLD and set IPv6 MLD related parameters.

	Group Member	Global	Port User VLAN	Port	Port Mrouter	Static Group
OLT Information	IPv6 MLD Configuration MLD Status: Enable MLDv2 Status: Disable Query interval: 125 (1-255s) Query response interval: 10 (1-3600s) Robustness variable: 2 (1-3) Last listener query count: 2 (1-7) Last listener query interval: 1 (1-255s) Send general query packet: ☐ Disable ☒ Enable General query interval: 125 (10-3600s) Query Source IP: fe80::1 Submit Reset					
OLT Configuration						
VLAN						
Uplink Port						
PON						
MAC						
LACP						
QoS						
ACL						
IPv6 ACL						
IGMP						
IPv6 MLD						
RSTP						
Loopback						
DHCP						
DHCPv6						
IPv6 SLAAC						
Route						
IPv6 Route						
ONU Configuration						
Profile Configuration						
System Configuration						

Figure 3.10-2: IPv6 MLD Global

3.10.3 Port User VLAN

OLT Configuration→IPv6 MLD→Port User VLAN

This page is used to configure IGMP VLAN for OLT.

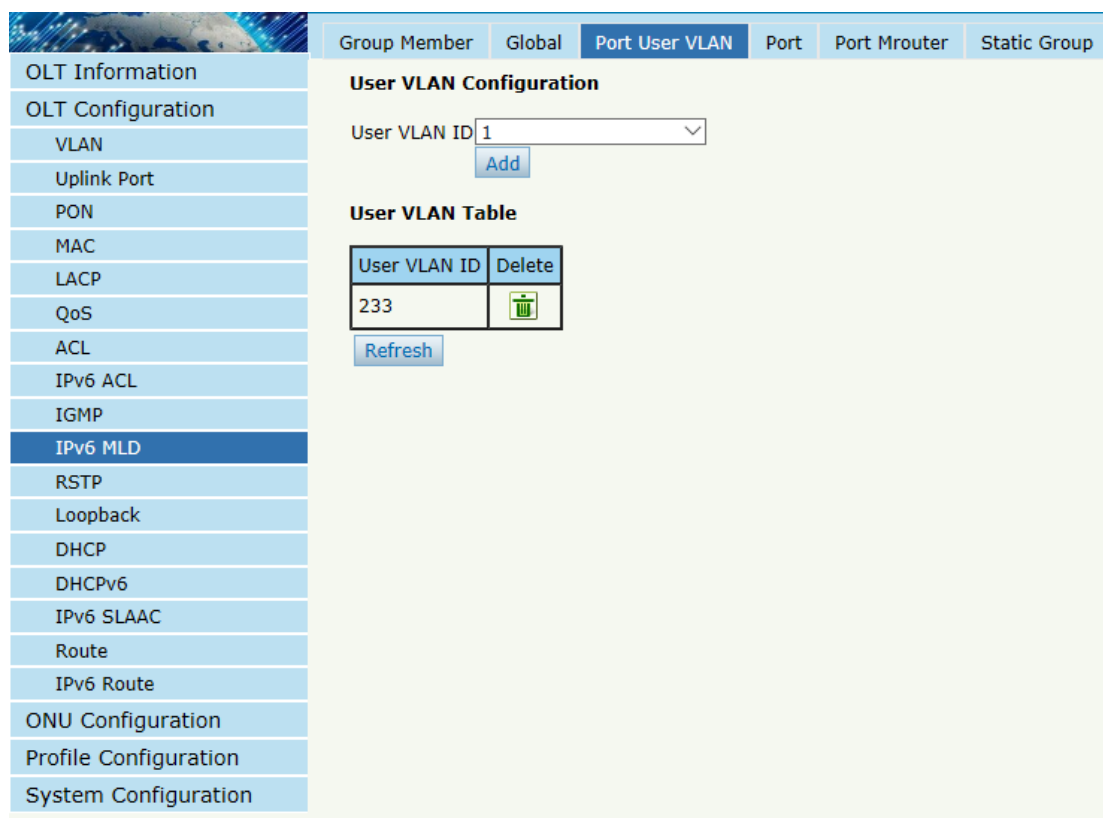


Figure 3.10-3: IPv6 Port User VLAN

3.10.4 Port

OLT Configuration → IPv6 MLD → Port

This page is used to configure group limit value, fast leave for each port.

	Group Member	Global	Port User VLAN	Port	Port Mrouter	Static Group
OLT Information						
OLT Configuration						
VLAN						
Uplink Port						
PON						
MAC						
LACP						
QoS						
ACL						
IPv6 ACL						
IGMP						
IPv6 MLD						
RSTP						
Loopback						
DHCP						
DHCPv6						
IPv6 SLAAC						
Route						
IPv6 Route						
ONU Configuration						
Profile Configuration						
System Configuration						
	Port ID	Fast Leave	Group Limit(0-256)			
	GE1	☐	256			
	GE2	☐	256			
	GE3	☐	256			
	GE4	☐	256			
	GE5	☐	256			
	GE6	☐	256			
	GE7	☐	256			
	GE8	☐	256			
	GE9	☐	256			
	GE10	☐	256			
	GE11	☐	256			
	GE12	☐	256			
	GE13	☐	256			
	GE14	☐	256			
	GE15	☐	256			
	GE16	☐	256			
	PON1	☐	256			
	PON2	☐	256			
	PON3	☐	256			
	PON4	☐	256			
	PON5	☐	256			
	PON6	☐	256			
	PON7	☐	256			
	PON8	☐	256			
	Submit	Reset				

Figure 3.10-4: IPv6 MLD Port

3.10.5 Port Mrouter

OLT Configuration → IPv6 MLD → Port Mrouter

This page is used to set a port as IPv6 multicast router port.

Group Member **Global** **Port User VLAN** **Port** **Port Mrouter** **Static Group**

OLT Information
OLT Configuration
 VLAN
 Uplink Port
 PON
 MAC
 LACP
 QoS
 ACL
 IPv6 ACL
 IGMP
IPv6 MLD
 RSTP
 Loopback
 DHCP
 DHCPv6
 IPv6 SLAAC
 Route
 IPv6 Route
 ONU Configuration
 Profile Configuration
 System Configuration

Add Multicast Router

Port ID
 Group VLAN ID

Multicast Router Table

Port ID	Group VLAN ID	Type	Delete
GE 0/1	233	static	

Figure 3.10-5: IPv6 MLD Port Mrouter

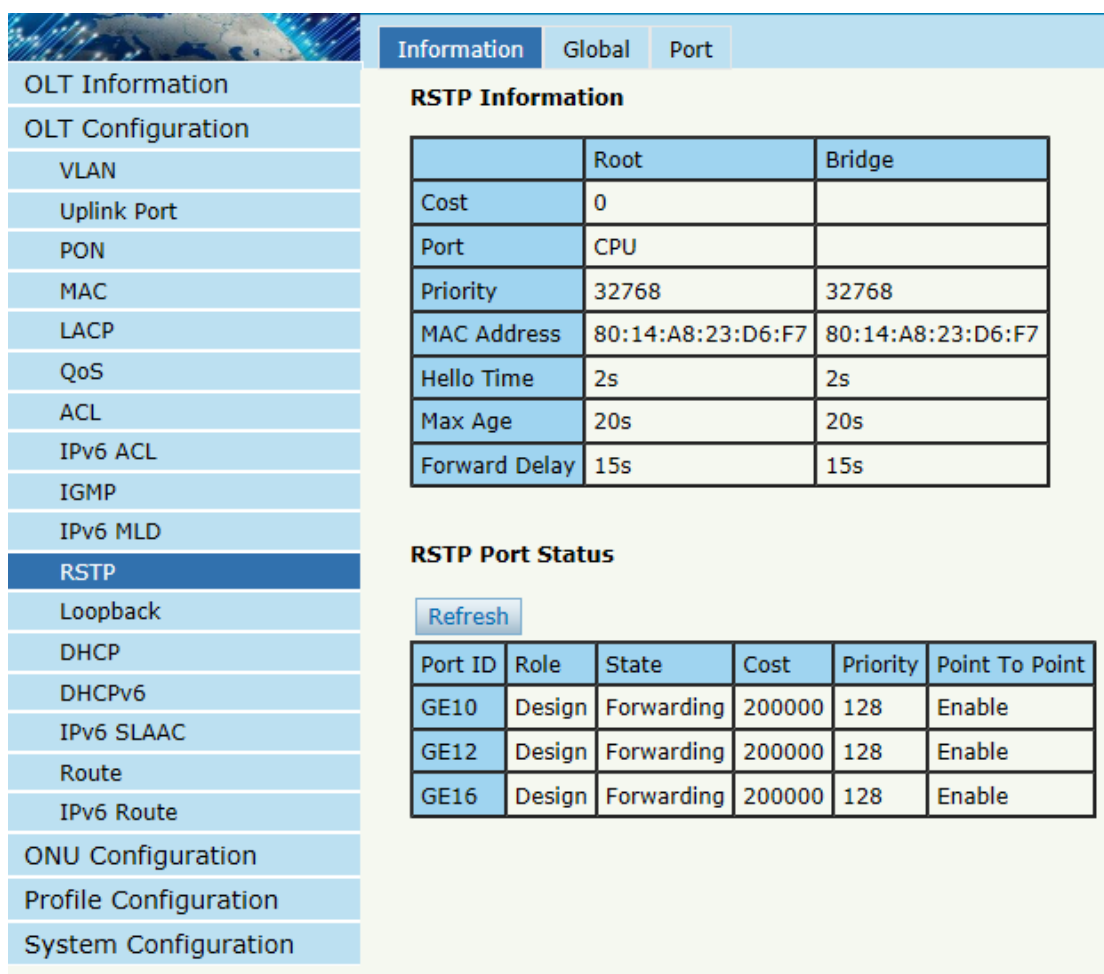
3.11 RSTP

Spanning Tree Protocol is layer2 protocol, which is used to eliminate network loop by blocking network redundant links selectively. It has the feature of link backup as well.

3.11.1 Information

OLT Configuration→RSTP→Information

Global information mainly displays RSTP parameters of root bridge device.



The screenshot displays the RSTP configuration page. The left sidebar contains a list of configuration categories: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, **RSTP**, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IPv6 Route, ONU Configuration, Profile Configuration, and System Configuration. The 'RSTP' category is currently selected.

The main content area is divided into two sections: 'RSTP Information' and 'RSTP Port Status'.

RSTP Information

	Root	Bridge
Cost	0	
Port	CPU	
Priority	32768	32768
MAC Address	80:14:A8:23:D6:F7	80:14:A8:23:D6:F7
Hello Time	2s	2s
Max Age	20s	20s
Forward Delay	15s	15s

RSTP Port Status

[Refresh](#)

Port ID	Role	State	Cost	Priority	Point To Point
GE10	Design	Forwarding	200000	128	Enable
GE12	Design	Forwarding	200000	128	Enable
GE16	Design	Forwarding	200000	128	Enable

Figure 3.11-1: RSTP Information

3.11.2 Global

OLT Configuration→RSTP→Global

This configuration is used to set RSTP parameters of the device, which contains RSTP switch, priority, hello time, max age, forward delay and MAC address.

Information	Global	Port
RSTP Configuration		
RSTP Status	Enable	
Global Priority	32768	(0-61440)
Hello Time	2	(1-10s)
Max Age	20	(6-40s)
Forward Delay	15	(4-30s)
Notice: $2 * (\text{HelloTime} + 1) \leq \text{MaxAge} \leq 2 * (\text{ForwardDelay} - 1)$		
Submit Reset		

Figure 3.11-2: RSTP Global Setup

3.11.3 Port

OLT Configuration → RSTP → Port

This user interface is used to set port RSTP parameters which contain RSTP switch, priority, cost, edge port and p2p port.



OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

ONU Configuration

Profile Configuration

System Configuration

Information Global **Port**

RSTP Port Configuration

Submit Reset

Port ID	Status	Priority (0-255)	Cost (1-200000000)	OperEdge	Point To Point
GE1	☒	128	200000	☒	☒
GE2	☒	128	200000	☒	☒
GE3	☒	128	200000	☒	☒
GE4	☒	128	200000	☒	☒
GE5	☒	128	200000	☒	☒
GE6	☒	128	200000	☒	☒
GE7	☒	128	200000	☒	☒
GE8	☒	128	200000	☒	☒
GE9	☒	128	200000	☒	☒
GE10	☒	128	200000	☒	☒
GE11	☒	128	200000	☒	☒
GE12	☒	128	200000	☒	☒
GE13	☒	128	200000	☒	☒
GE14	☒	128	200000	☒	☒
GE15	☒	128	200000	☒	☒
GE16	☒	128	200000	☒	☒

Figure 3.11-3: RSTP Port Settings

3.12 Loopback

Loopback can detect loop ports and process loop ports.

3.12.1 Information

OLT Configuration→Loopback→Information

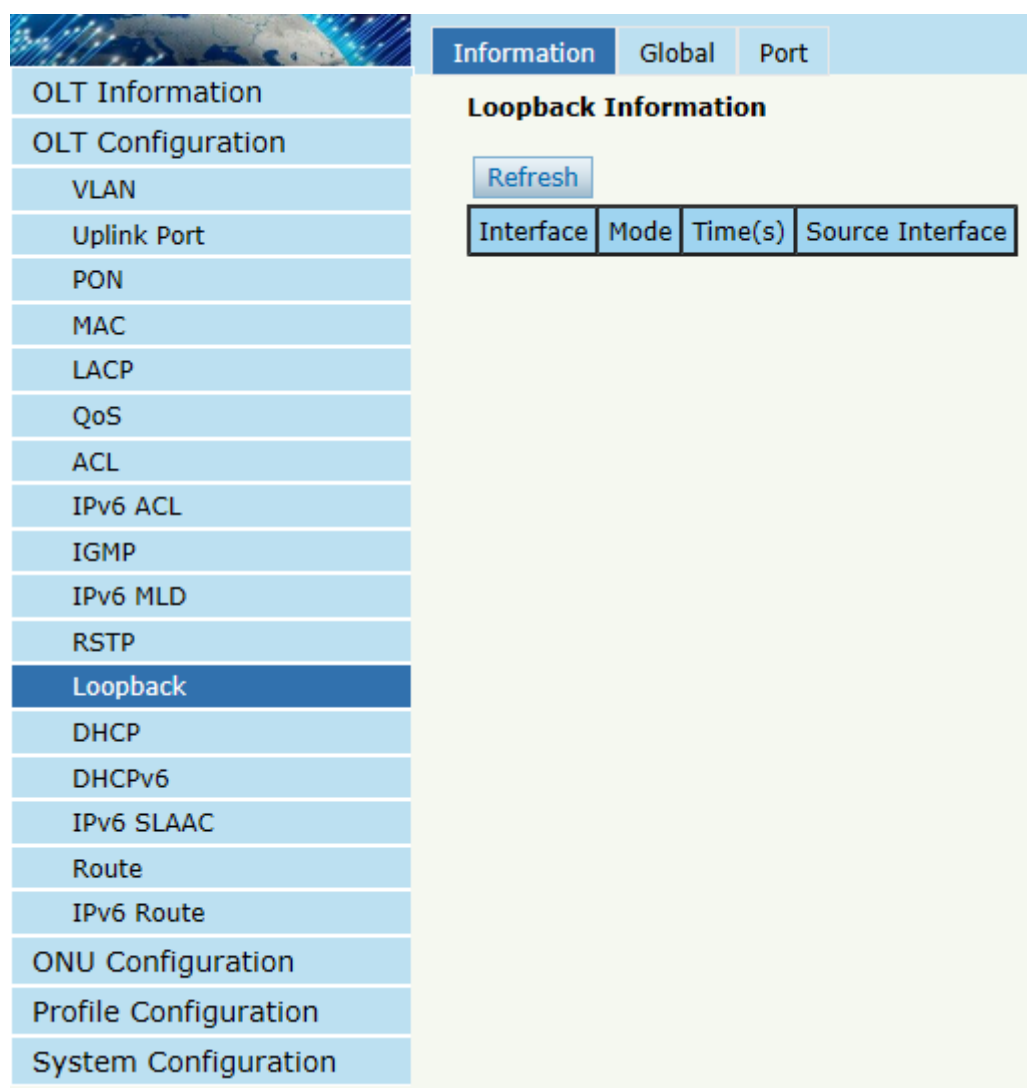


Figure 3.12-1: Loopback Information

3.12.2 Global

OLT Configuration→Loopback→Global

This page is used to enable or disable loopback detect and configure loopback mode, age time.

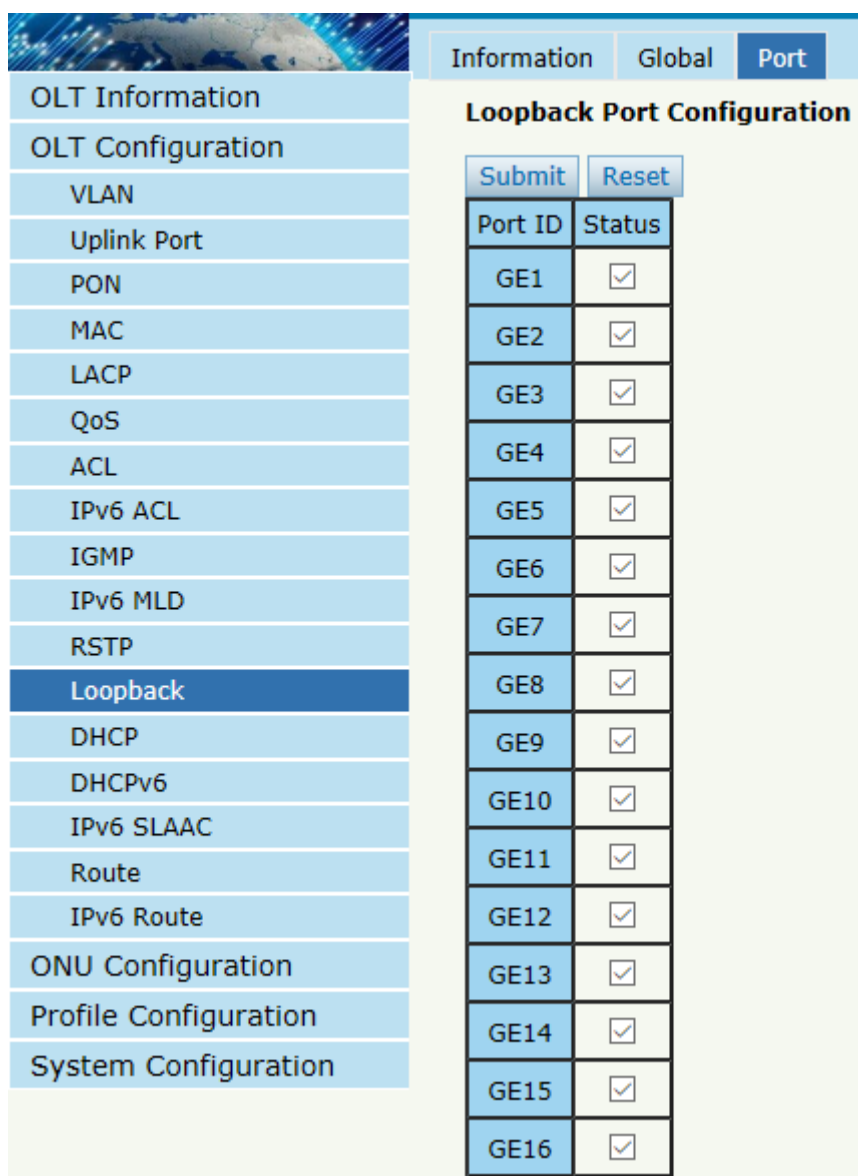
Information	Global	Port
Loopback Configuration		
Status	Enable	
Mode	auto-recovery	
Age Time	60	(30-3600s)
Submit Reset		

Figure 3.12-2: Loopback Global

3.12.3 Port

OLT Configuration→Loopback→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.



The screenshot displays the 'Loopback Port Configuration' page in the GPON OLT Web User Manual. The left sidebar contains a list of configuration categories, with 'Loopback' highlighted. The main content area features a table with 16 rows, each representing a port (GE1 to GE16). Each row has a 'Port ID' column and a 'Status' column with a checked checkbox. Above the table are 'Submit' and 'Reset' buttons. The page title 'Loopback Port Configuration' is centered at the top of the main area.

Port ID	Status
GE1	☒
GE2	☒
GE3	☒
GE4	☒
GE5	☒
GE6	☒
GE7	☒
GE8	☒
GE9	☒
GE10	☒
GE11	☒
GE12	☒
GE13	☒
GE14	☒
GE15	☒
GE16	☒

Figure 3.12-3: Loopback Port

3.13 DHCP

OLT can support the following DHCP functions.

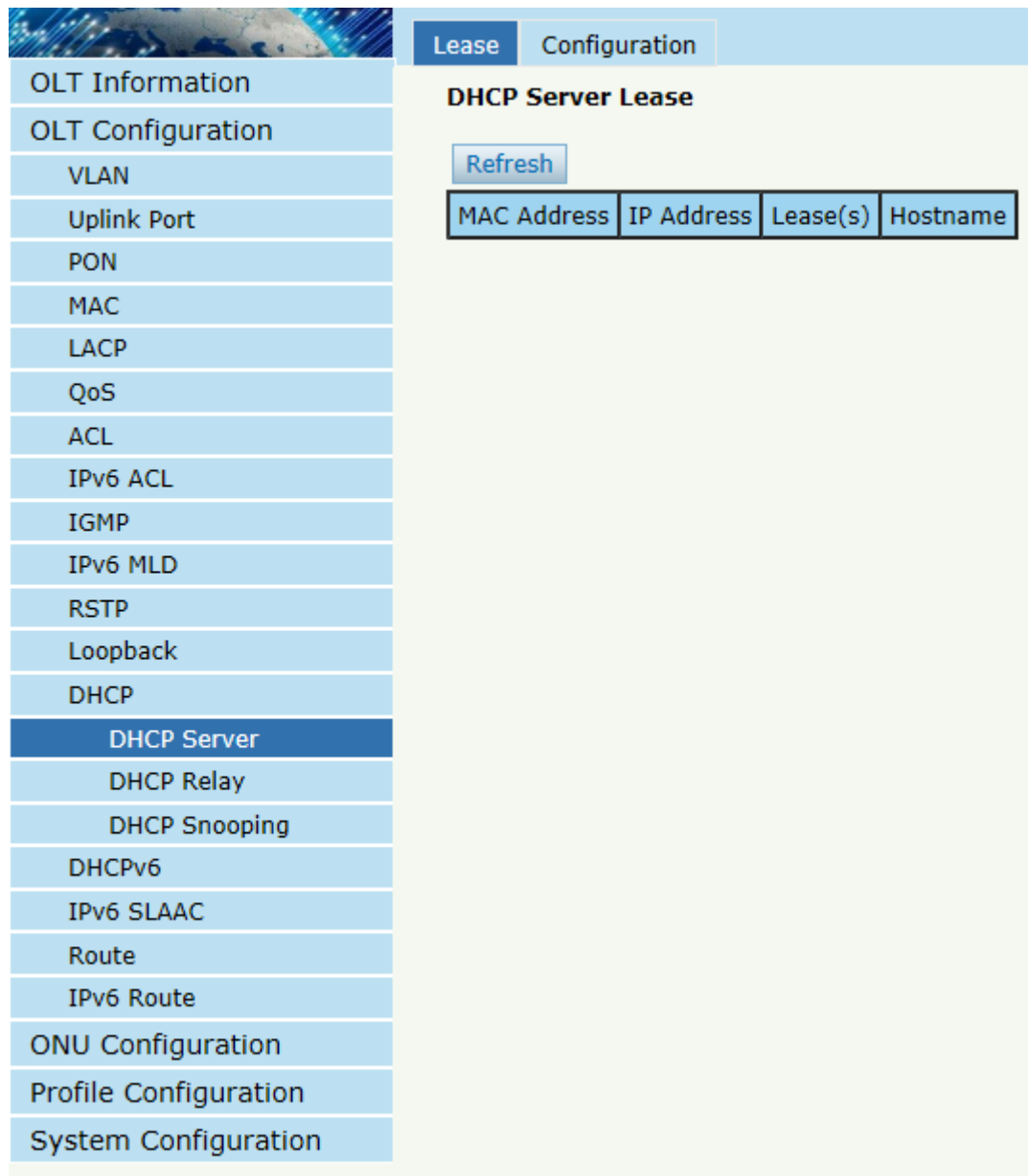
- DHCP Server
- DHCP Relay
- DHCP Snooping

3.13.1 DHCP Server

3.13.1.1 DHCP Lease

OLT Configuration→DHCP→DHCP Server→Lease

This table displays the MAC addresses, host name and IP addresses, lease time assigned to them.



MAC Address	IP Address	Lease(s)	Hostname
-------------	------------	----------	----------

Figure 3.13-1: DHCP Lease

3.13.1.2 DHCP Configuration

OLT Configuration→DHCP→DHCP Server→Configuration

Sometimes the devices need dynamic IP addresses, but there is no special DHCP server in network. These configurations can solve the problem. OLT will be a DHCP server in network and assign IP addresses to other devices.

Before enabling DHCP server, you must configure IP address for the VLAN.

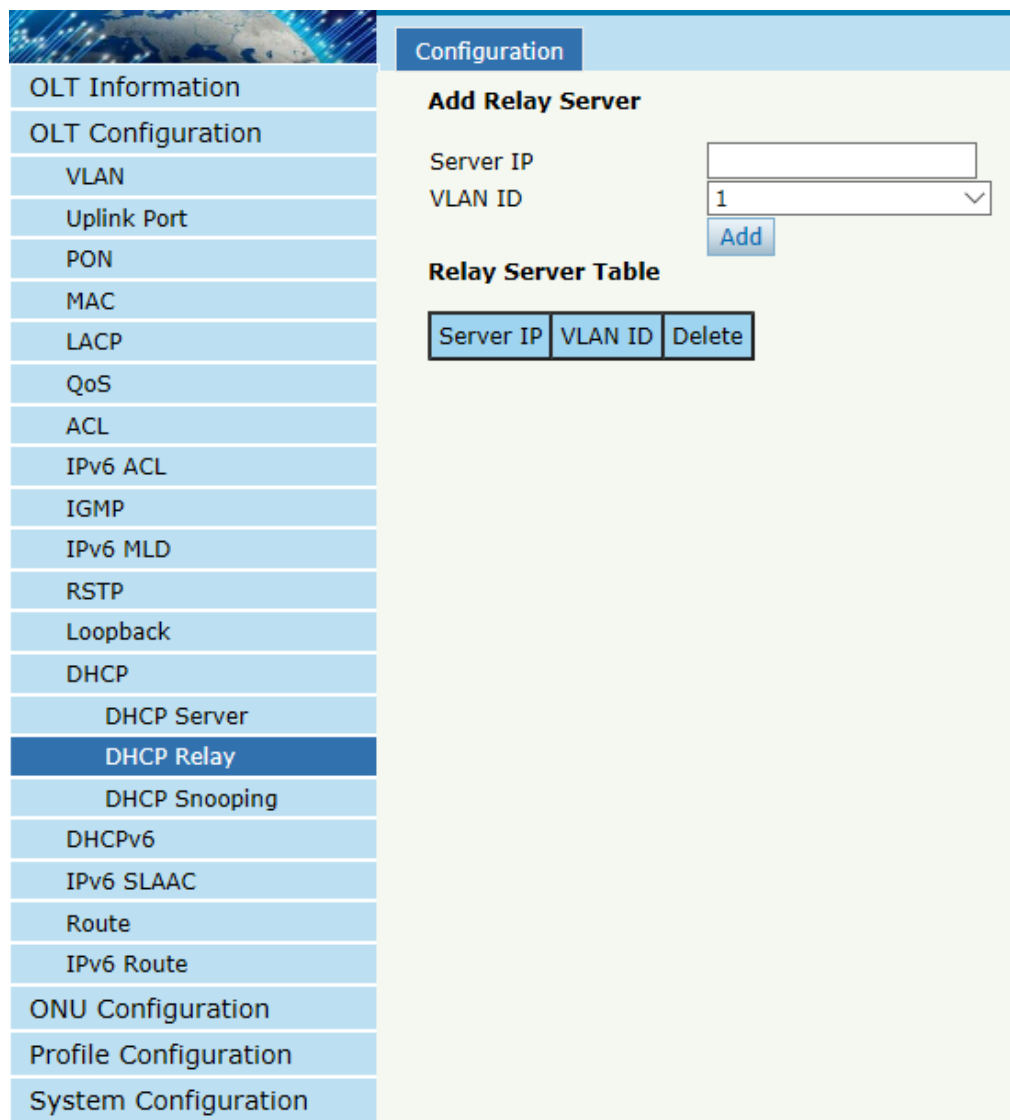
Lease		Configuration
DHCP Server Configuration		
DHCP Server	Enable	
VLAN ID	1	
	Submit	Reset
DHCP Server Settings		
Start IP Address	192.168.0.20	
End IP Address	192.168.0.254	
Subnet Mask	0.0.0.0	
Gateway	0.0.0.0	
Static DNS 1	0.0.0.0	
Static DNS 2	0.0.0.0	
Static DNS 3	0.0.0.0	
WINS	0.0.0.0	
Client Lease Time	864000	(60-864000s)
	Submit	Reset

Figure 3.13-2: DHCP Configuration

3.13.2 DHCP Relay

OLT Configuration→DHCP→DHCP Relay

Because the DHCP service exists in one broadcast domain, the server and the client are usually in the same network segment. DHCP relay can solve the issue that DHCP server and client do not exist in the same network segment.



Configuration

Add Relay Server

Server IP

VLAN ID

Relay Server Table

Server IP	VLAN ID	Delete
-----------	---------	--------

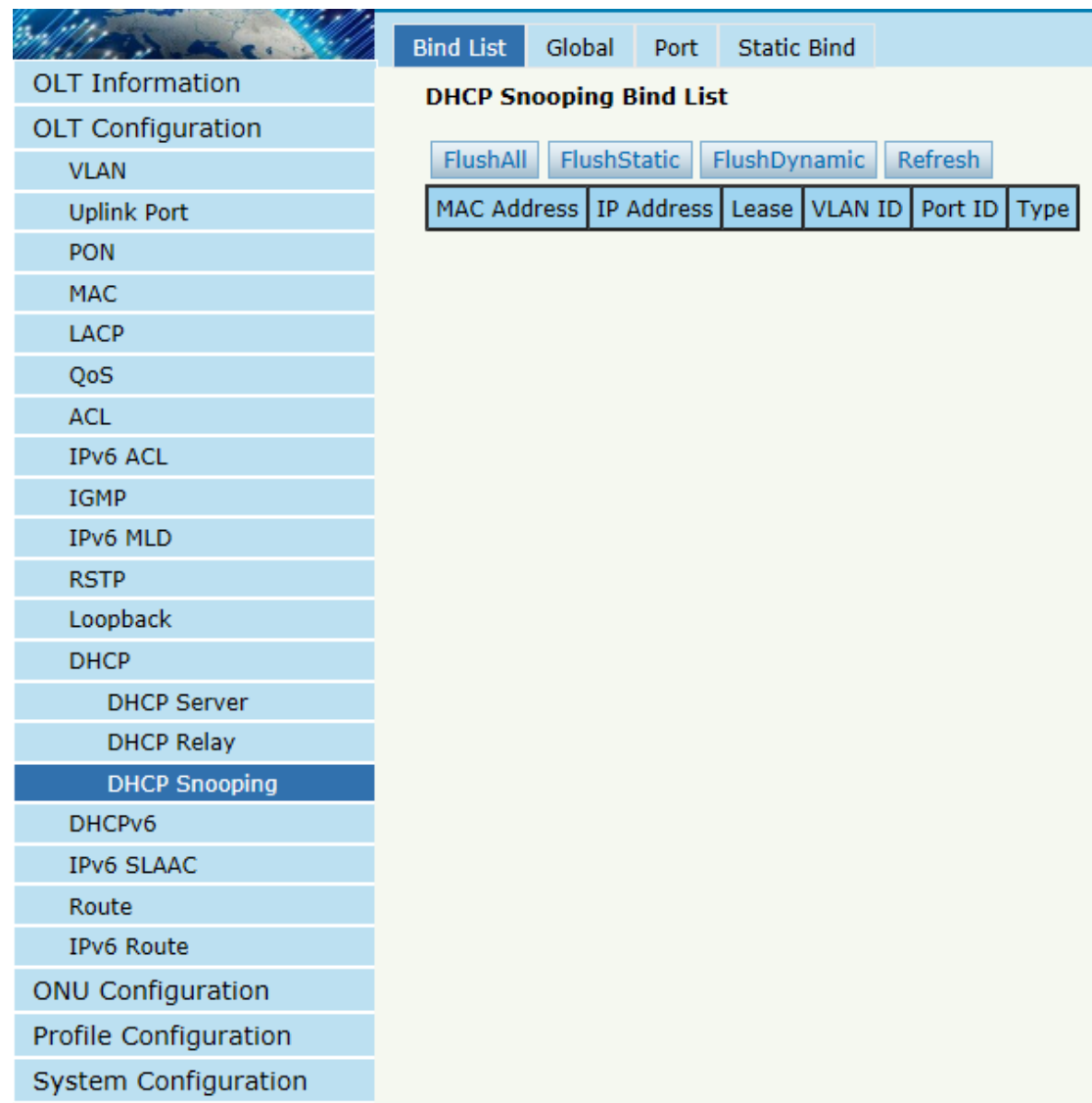
Figure 3.13-3: DHCP Relay Configuration

3.13.3 DHCP Snooping

3.13.3.1 Bind List

OLT Configuration→DHCP→DHCP Snooping→Bind List

The static bind of the DHCP Snooping will be shown in the table.



The screenshot displays the 'DHCP Snooping Bind List' configuration page. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, RSTP, Loopback, DHCP, DHCP Server, DHCP Relay, **DHCP Snooping**, DHCPv6, IPv6 SLAAC, Route, IPv6 Route, ONU Configuration, Profile Configuration, and System Configuration. The 'DHCP Snooping' item is highlighted. The main content area has a top navigation bar with 'Bind List', 'Global', 'Port', and 'Static Bind' tabs. The 'Bind List' tab is active. Below the tabs, there is a title 'DHCP Snooping Bind List' and four buttons: 'FlushAll', 'FlushStatic', 'FlushDynamic', and 'Refresh'. Below the buttons is a table with the following columns: MAC Address, IP Address, Lease, VLAN ID, Port ID, and Type. The table is currently empty.

Figure 3.13-4: DHCP Snooping Bind List

3.13.3.2 Global

OLT Configuration→DHCP→DHCP Snooping→Global

DHCP Snooping is used to prevent the DHCP message attacking and guarantee network to get a correct IP address.

DHCP snooping global configuration mainly contains option 82 settings, DHCP traffic rate limit and snooping VLAN.

The screenshot displays the DHCP Snooping Global configuration interface. On the left is a navigation menu with various configuration options, including OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, RSTP, Loopback, DHCP, DHCP Server, DHCP Relay, DHCP Snooping (highlighted), DHCPv6, IPv6 SLAAC, Route, IPv6 Route, ONU Configuration, Profile Configuration, and System Configuration.

The main configuration area is titled "DHCP Snooping Configuration" and includes the following elements:

- Bind List** tabs: Global (selected), Port, Static Bind.
- DHCP Snooping Configuration**: A dropdown menu set to "Enable", with "Submit" and "Reset" buttons.
- DHCP Snooping Settings**:
 - Option82 Control: Radio buttons for Disable (selected) and Enable.
 - Option82 Strategy: Radio buttons for Drop, Keep (selected), Replace, and Merge.
 - Overspeed Recovery: Radio buttons for Disable and Enable (selected).
 - Overspeed Recovery Interval: A text input field with "30" and a range "(3-3600s)".
 - Binding Delete Time: A text input field with "300" and a range "(1-3600s)".
 - "Submit" and "Reset" buttons.
- VLAN ID List**:
 - A table with a header "List" and one row containing the value "1".
 - A "VLAN ID" dropdown menu currently showing "1".
 - "Add" and "Delete" buttons.

Figure 3.13-5: DHCP Snooping Global

3.13.3.3 Port

OLT Configuration→DHCP→DHCP Snooping→Port

This user interface is used to configure DHCP snooping parameters of ports which contain port type, option 82 parameters and rate limit.

All the ports are untrust ports by default. Option82 parameters, “Option 82 Circuit ID” and “Option 82 Remote ID”, are effective for untrust ports.

“Limit Rate” is the ports’ max speed of receiving DHCP packets.

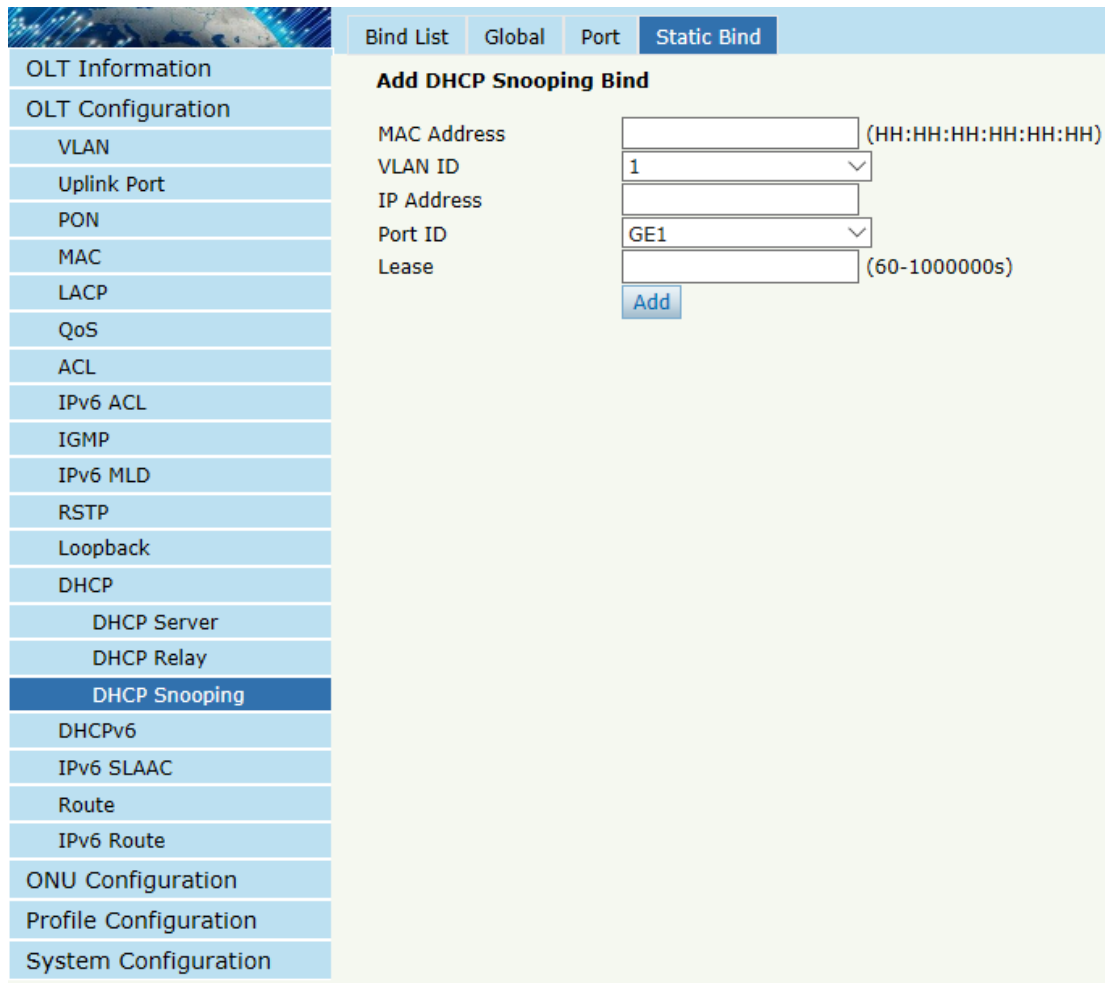
Port ID	Type	Option82 Circuit ID	Option82 Remote ID	Limit Rate(0-4096pps)
GE1	Untrust			0
GE2	Untrust			0
GE3	Untrust			0
GE4	Untrust			0
GE5	Untrust			0
GE6	Untrust			0
GE7	Untrust			0
GE8	Untrust			0
GE9	Untrust			0
GE10	Untrust			0
GE11	Untrust			0
GE12	Untrust			0
GE13	Untrust			0
GE14	Untrust			0
GE15	Untrust			0
GE16	Untrust			0
PON	Untrust			0

Figure 3.13-6: DHCP Snooping Port Setup

3.13.3.4 Static Bind

OLT Configuration→DHCP→DHCP Snooping→Static Bind

DHCP snooping binding is useful when a host needs a fixed IP address assigned by DHCP server from the specific port.



Bind List	Global	Port	Static Bind
Add DHCP Snooping Bind			
MAC Address	(HH:HH:HH:HH:HH:HH)		
VLAN ID	1		
IP Address			
Port ID	GE1		
Lease	(60-1000000s)		
Add			

Figure 3.13-7: 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 DHCPv6 Bind Information

OLT Configuration → DHCPv6 → DHCPv6 Server → DHCPv6 Bind Information

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



Figure 3.14-1: DHCPv6 Bind Information

3.14.1.2 DHCPv6 Server Enable

OLT Configuration → DHCPv6 → DHCPv6 Server → DHCPv6 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 IPv6 address and server pool are required.

DHCPv6 Bind Information			DHCPv6 Server Enable	Server Pool Configuration				
DHCPv6 Server Configuration DHCPv6 Server: Disable VLAN ID: 1 Pool Name: Submit Reset								
DHCPv6 Interface Information <table border="1"> <thead> <tr> <th>VLAN ID</th> <th>Using Pool</th> </tr> </thead> <tbody> <tr> <td>3000</td> <td>test</td> </tr> </tbody> </table> Refresh					VLAN ID	Using Pool	3000	test
VLAN ID	Using Pool							
3000	test							

Figure 3.14-2: DHCPv6 Server

3.14.1.3 Server Pool Configuration

OLT Configuration → DHCPv6 → DHCPv6 Server → Server Pool Configuration

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

DHCPv6 Server Pool Setting

Pool Name:

Start IPv6 Address:

End IPv6 Address:

Valid LifeTime: (60-4294967295)s

Preferred LifeTime: (60-4294967295)s (Valid lifetime must be large than Preferred lifetime)

DNS Server:

Domain Name:

DHCPv6 Server Pool

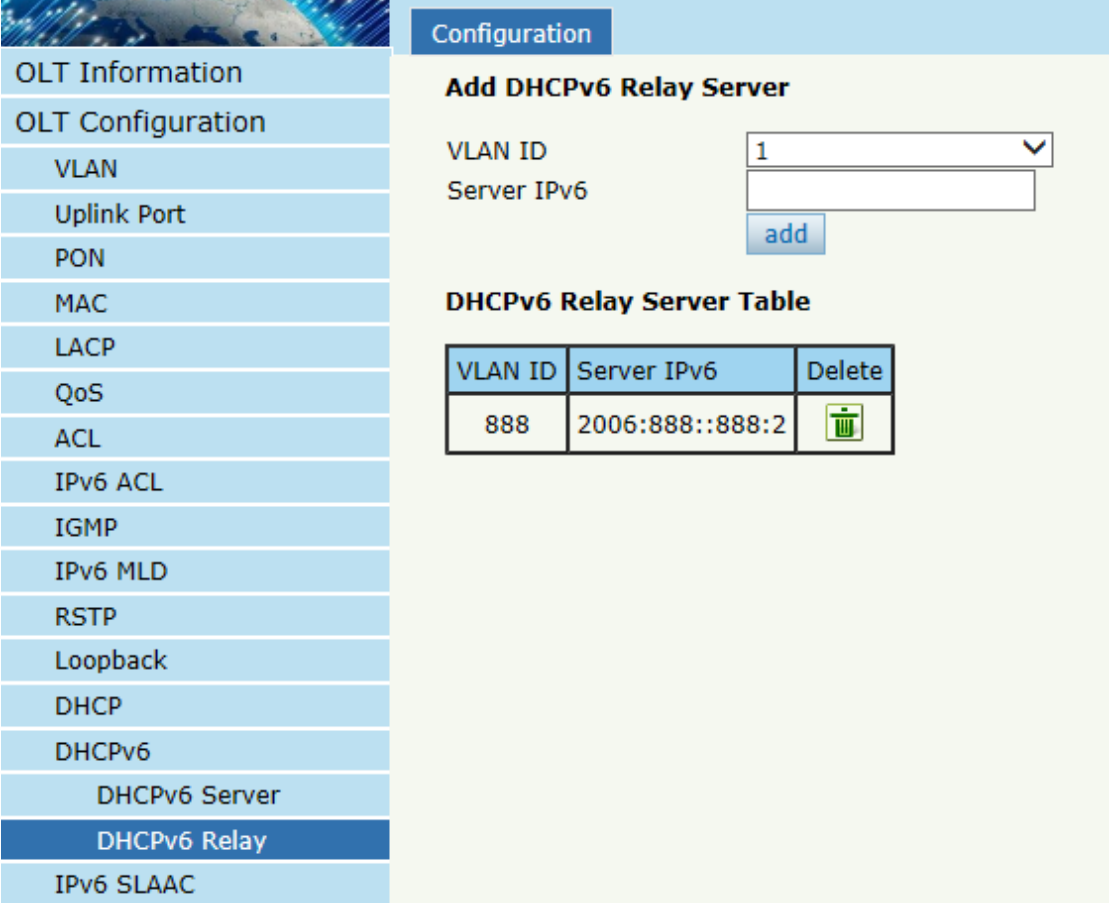
Pool Name	Start IPv6 Address	End IPv6 Address	Valid LifeTime	Preferred LifeTime	DNS Server	Domain Name	Edit	Delete
test	2222:abcd::ef:1111/64	2222:abcd::ef:3333/64	600	500	2222:abcd::ef:1111	test.com		
					2222:abcd::ef:1			

Figure 3.14-3: DHCPv6 Pool

3.14.2 DHCPv6 Relay

OLT Configuration → DHCPv6 → DHCPv6 Relay → Configuration

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.



OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

DHCPv6 Server

DHCPv6 Relay

IPv6 SLAAC

Configuration

Add DHCPv6 Relay Server

VLAN ID

1

Server IPv6

add

DHCPv6 Relay Server Table

VLAN ID	Server IPv6	Delete
888	2006:888::888:2	

Figure 3.14-4: DHCPv6 Relay

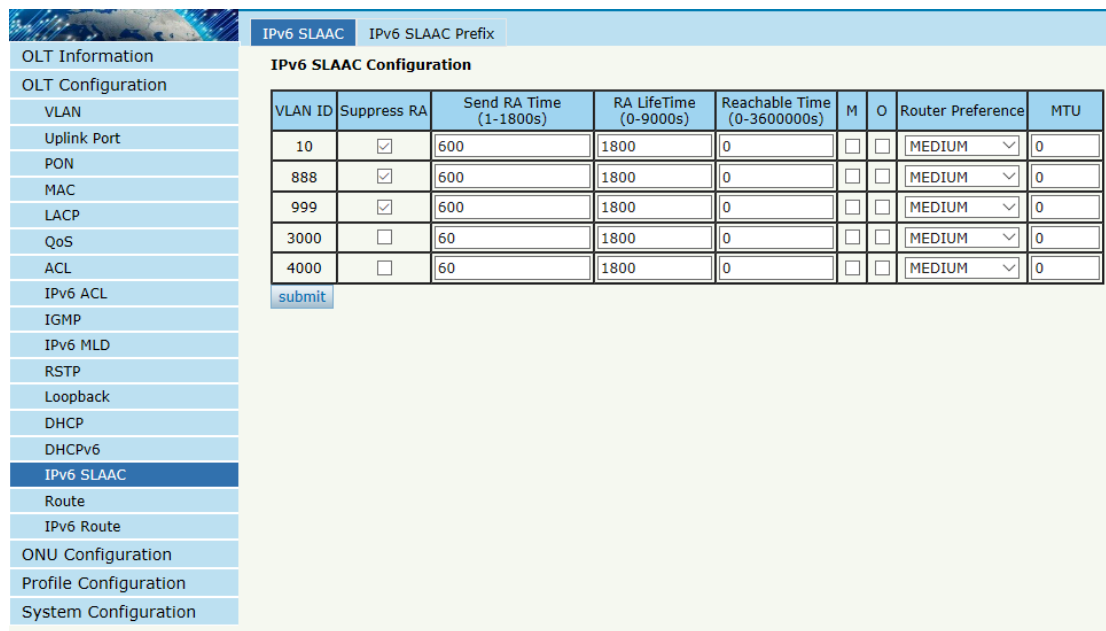
3.15 IPv6 SLAAC

IPv6 network uses the ICMPv6 route discovery protocol. When an IPv6 host connects to the network for the first time, it automatically configures it according to the information got by route discovery/prefix discovery. Route discovery/prefix discovery is that when a host is connected to IPv6 network, it can discover local router and obtain neighbor information, prefix of current network and other configuration parameters from route advertisement (RA) packets.

3.15.1 IPv6 SLAAC

OLT Configuration → IPv6 SLAAC → 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.



The screenshot shows the 'IPv6 SLAAC Configuration' page. On the left is a sidebar with navigation links. The main area contains a table for configuring RA parameters for different VLANs.

VLAN ID	Suppress RA	Send RA Time (1-1800s)	RA LifeTime (0-9000s)	Reachable Time (0-3600000s)	M	O	Router Preference	MTU
10	☒	600	1800	0	☐	☐	MEDIUM	0
888	☒	600	1800	0	☐	☐	MEDIUM	0
999	☒	600	1800	0	☐	☐	MEDIUM	0
3000	☐	60	1800	0	☐	☐	MEDIUM	0
4000	☐	60	1800	0	☐	☐	MEDIUM	0

Below the table is a 'submit' button.

Figure 3.15-1: IPv6 SLAAC

3.15.2 IPv6 SLAAC Prefix

OLT Configuration → IPv6 SLAAC → 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.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

ONU Configuration

Profile Configuration

System Configuration

IPv6 SLAAC

IPv6 SLAAC Prefix

IPv6 SLAAC Prefix Configuration

VLAN ID

1

ND Prefix

ND Prefixlen

Valid Lifetime

Preferred Lifetime

Add

IPv6 SLAAC Prefix

VLAN ID	ND Prefix	Valid LifeTime	Preference Time	Delete
---------	-----------	----------------	-----------------	--------

Refresh

Figure 3.15-2: IPv6 SLAAC Prefix

3.16 Route

3.16.1 IP

3.16.1.1 VLAN IP

OLT Configuration→Route→IP→VLAN IP

This configuration is used to configure IP address for VLAN. When the VLAN is added to a port, you can access OLT by the IP address from the port.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

VLAN IP

ARP Proxy

VLAN IP Configuration

VLAN ID

1

IP Address

Subnet Mask

Submit

Reset

VLAN IP Table

VLAN ID	IP Address	Subnet Mask	Delete
3000	192.168.6.182	255.255.255.0	

Figure 3.16-1: VLAN IP

3.16.1.2 ARP Proxy

ARP Proxy is a technique by which a device on a given network answers the ARP queries for a network address that is not on that network. The ARP Proxy is aware of the location of the traffic's destination, and offers its own MAC address as (ostensibly final) destination. The "captured" traffic is then typically routed by the Proxy to the intended destination via another interface or via a tunnel.

The process which results in the node responding with its own MAC

address to an ARP request for a different IP address for proxying purposes is sometimes referred to as 'publishing'.

OLT Configuration→Route→IP→ARP Proxy

VLAN ID	ARP Proxy Status
1	disable
2	disable
888	disable
3000	disable
4000	disable

Figure 3.16-2: ARP proxy configuration

3.16.2 Static Route

Static route is a form of routing that a router uses a manually-configured routing entry. In many cases, static routes are manually configured by a network administrator. Unlike dynamic routing, static routes are fixed and do not change if the network is changed or reconfigured.

The OLT only supports static route. After configured VLAN IP address, add static routes to make the network on the different network segment communicate with each other.

OLT Configuration→Route→Static Route

Static Route

Add Static Route

Destination IP

Destination Mask

Gateway

Static Route Table

Destination IP	Destination Mask	Gateway	Delete
0.0.0.0	0.0.0.0	192.168.6.1	

Figure 3.16-3: 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

OLT Configuration → Route → RIP → RIP Information

This page displays RIP information.

The screenshot displays the 'RIP Information' page in the OLT web interface. On the left is a navigation menu with 'RIP' selected. The main area shows the 'RIP Route Table' and 'Routing Information Sources' sections, both with empty table headers. A 'refresh' button is present below the sources table.

Figure 3.16-4: RIP Information

3.16.3.2 RIP Enable

OLT Configuration → Route → RIP → RIP Enable

Enable RIP protocol and configure RIP parameters.

	RIP Information	RIP Enable	RIP Route Networking	RIP Redistribute	RIP Interface
OLT Information					
OLT Configuration					
VLAN					
Uplink Port					
PON					
MAC					
LACP					
QoS					
ACL					
IPv6 ACL					
IGMP					
IPv6 MLD					
RSTP					
Loopback					
DHCP					
DHCPv6					
IPv6 SLAAC					
Route					
IP					
Static Route					
RIP					
OSPF					

RIP Enable Configuration		
RIP Route	Disable	Bases
RIP Version		
Update Time	30	(5-2147483647s)
Timeout Time	180	(5-2147483647s)
Garbage Time	120	(5-2147483647s)
Default Metric	1	(1-16)
Distance	120	(1-255)
submit reset		

Figure 3.16-5: RIP Enable

3.16.3.3 RIP Route Networking

OLT Configuration → Route → RIP → 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.

The screenshot displays the 'RIP Route Networking' configuration page in the GPON OLT web interface. On the left, a navigation menu lists various configuration options, with 'RIP' currently selected. The main content area features five tabs: 'RIP Information', 'RIP Enable', 'RIP Route Networking' (the active tab), 'RIP Redistribute', and 'RIP Interface'. Under the active tab, the 'RIP Route Networking' section includes a 'VLAN' dropdown menu set to '3000', and input fields for 'IP Address' and 'Subnet Mask'. Below these fields are 'add' and 'reset' buttons. The 'RIP Route Networking Table' section contains a table with two columns, 'Network' and 'Delete', and a 'refresh' button below it.

Figure 3.16-6: RIP Route Networking

3.16.3.4 RIP Redistribute

OLT Configuration → Route → RIP → RIP Redistribute.

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

The screenshot displays the 'RIP Redistribute' configuration page. On the left, a navigation menu lists various OLT configuration options, with 'RIP' currently selected. The main configuration area is divided into five tabs: 'RIP Information', 'RIP Enable', 'RIP Route Networking', 'RIP Redistribute' (the active tab), and 'RIP Interface'. Under the active tab, there are three main sections: 'Default Route Redistribute' with a dropdown set to 'Disable' and 'submit/reset' buttons; 'Redistribute' with a dropdown set to 'Kernel', a metric input field (0-16), and 'add/reset' buttons; and 'Redistribute Table' which contains a table with columns 'Redistribute Type', 'Metric', and 'Delete', and a 'refresh' button below it.

Figure 3.16-7: RIP Redistribute

3.16.3.5 RIP Interface

OLT Configuration → Route → RIP → RIP Interface

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

The screenshot displays the 'RIP Interface' configuration page. On the left is a sidebar with a tree view containing the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, RSTP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IP, Static Route, **RIP**, and OSPF. The 'RIP' item is selected and highlighted in blue.

The main content area has a top navigation bar with five tabs: 'RIP Information', 'RIP Enable', 'RIP Route Networking', 'RIP Redistribute', and 'RIP Interface'. The 'RIP Interface' tab is active and highlighted in blue.

Below the tabs, the 'RIP Interface Configuration' section contains the following fields:

- VLAN: A dropdown menu.
- IP Address: A text input field.
- Subnet Mask: A text input field.
- Send Version: A dropdown menu with '1' selected.
- Recv Version: A dropdown menu with '1' selected.
- Authentication: A dropdown menu with 'Disable' selected.

At the bottom of this section are two buttons: 'submit' and 'reset'.

Below the configuration fields is the 'RIP Interface Table' section, which contains a table with the following headers: 'Interface', 'Network', 'Send Version', 'Recv Version', and 'Authentication'. Below the table is a 'refresh' button.

Figure 3.16-8: 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

OLT Configuration → Route → OSPF → OSPF Information

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

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

OSPF Information

OSPF Enable

OSPF Route Networking

OSPF Area Type

OSPF Area Summary

OSPF Redistribute

OSPF Interface

Neighbor ID

Priority

State

Dead Time

Address

Interface

RXmtL

RqstL

DBsmL

OSPF Routing Table

OSPF Network Routing Table

Destination Type	Network	Cost	Area	Interface
N	192.168.6.0/24	1	0.0.0.0	directly attached to ethv0.3000

OSPF Router Routing Table

Destination Type	Network	Cost	Area/Type	Interface

OSPF External Routing Table

Destination Type	Network	Cost/Type2 Cost	Tag	Interface

Figure3.16-9: OSPF Information

3.16.4.2 OSPF Enable

OLT Configuration → Route → OSPF → 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.

	OSPF Information	OSPF Enable	OSPF Route Networking	OSPF Area Type	OSPF Area Summary	OSPF Redistribute	OSPF Interface
OLT Information	OSPF Enable Configuration						
OLT Configuration	OSPF Route: Enable						
VLAN	Router ID: 192.168.6.182						
Uplink Port	submit reset						
PON							
MAC							
LACP							
QoS							
ACL							
IPv6 ACL							
IGMP							
IPv6 MLD							
RSTP							
Loopback							
DHCP							
DHCPv6							
IPv6 SLAAC							
Route							
IP							
Static Route							
RIP							
OSPF							

Figure 3.16-10: OSPF Enable

3.16.4.3 OSPF Route Networking

OLT Configuration → Route → OSPF → OSPF Route Networking

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

The screenshot shows the OSPF Route Networking configuration page. On the left is a navigation menu with options like OLT Information, VLAN, Uplink Port, and OSPF. The main area has tabs for OSPF Information, OSPF Enable, OSPF Route Networking (selected), OSPF Area Type, OSPF Area Summary, OSPF Redistribute, and OSPF Interface.

OSPF Route Networking

Area:

VLAN:

IP Address:

Subnet Mask:

OSPF Route Networking Table

Area	Network	Delete
0.0.0.0	192.168.6.182/24	delete

Figure 3.16-11: OSPF Route Networking

3.16.4.4 OSPF Area Type

OLT Configuration → Route → OSPF → OSPF Area Type

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

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

OSPF Information OSPF Enable OSPF Route Networking **OSPF Area Type** OSPF Area Summary OSPF Redistribute OSPF Interface

OSPF Area Type Configuration

Area

Area Type

No Summary

OSPF Area Type Table

Area	Type	No Summary	Delete
refresh			

Figure 3.16-12: OSPF Area Type

3.16.4.5 OSPF Area Summary

OLT Configuration → Route → OSPF → OSPF Area Summary

This page is used to configure area IP address summary.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

OSPF Information OSPF Enable OSPF Route Networking OSPF Area Type **OSPF Area Summary** OSPF Redistribute OSPF Interface

OSPF Area Summary Configuration

Area

IP Address

Subnet Mask

OSPF Area Summary Table

Area	Network	Delete
refresh		

Figure 3.16-13: 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.

OLT Configuration → Route → OSPF → OSPF Redistribute

Default Route Redistribute

Default Route Redistribute:

Always: ☐

Metric:

Metric Type:

Redistribute

Redistribute:

Metric:

Metric Type:

Redistribute Table

Redistribute Table	Metric	Metric Type	Delete

Figure 3.16-14: OSPF Redistribute

3.16.4.7 OSPF Interface

OLT Configuration → Route → OSPF → OSPF Interface

This page is used to OSPF interface parameters such as cost, time, priority, authentication, and so on.

OSPF Interface Configuration

VLAN:

IP Address:

Subnet Mask:

Authentication:

OSPF Interface Table

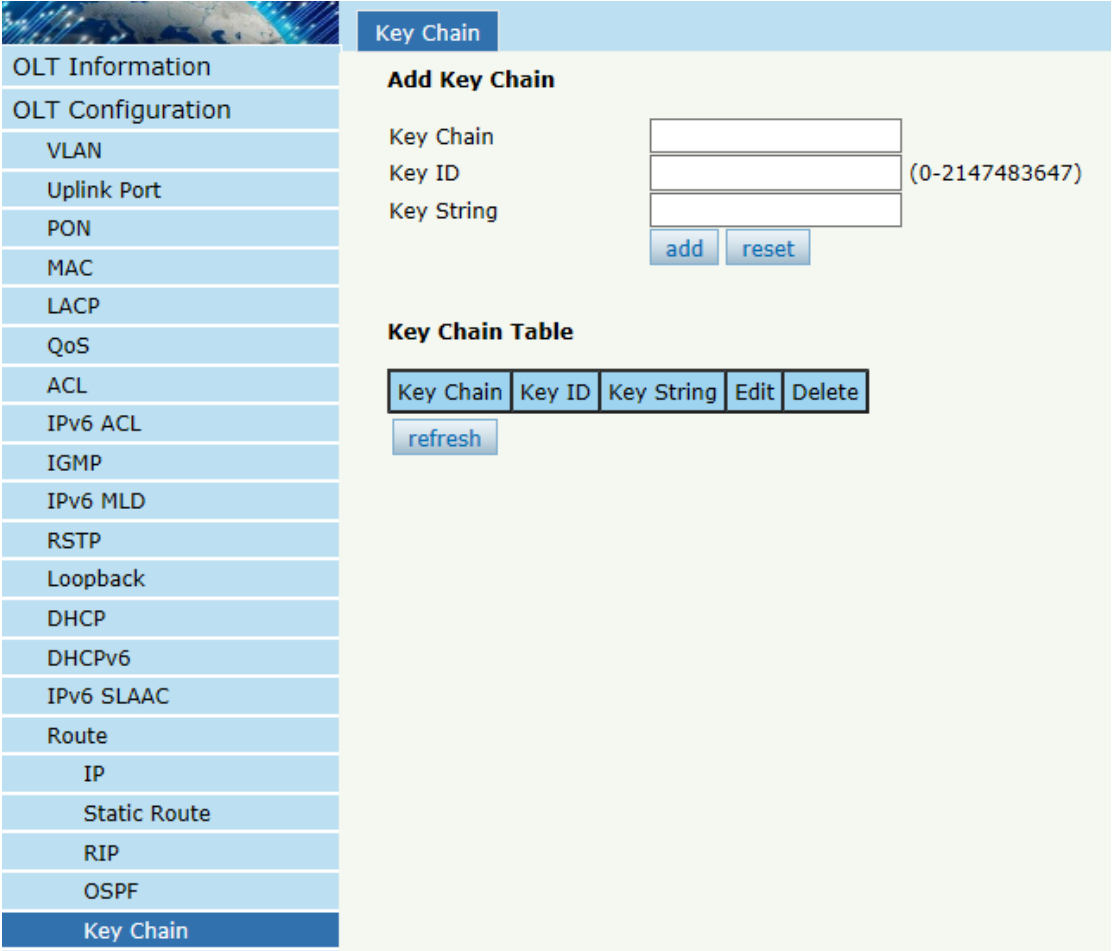
VLAN	Network	Cost	Priority	Retransmit Interval	Transmit Delay	Hello Interval	Dead Interval	Authentication
3000	192.168.6.182/24	1	1	5	1	10	40	

Figure 3.16-15: 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 MD5 authentication key in use.

OLT Configuration → Route → Key Chain



Key Chain

Add Key Chain

Key Chain

Key ID (0-2147483647)

Key String

Key Chain Table

Key Chain	Key ID	Key String	Edit	Delete
refresh				

Figure 3.16-16: Key Chain

3.16.6 Route Table

OLT Configuration → Route → Route Table

This page displays routing items of OLT.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

Key Chain

Route Table

Route Table

Route Types: K - kernel route, C - connected, S - static, R - RIP, O - OSPF, > - selected route, * - FIB route

Route Table

Route Type	Network	Distance	Metric	Interface	Time
S>*	0.0.0.0/0	1	0	via 192.168.6.1, ethv0.3000	
O	192.168.6.0/24	110	1	directly connected, ethv0.3000	00:05:57
C>*	192.168.6.0/24			directly connected, ethv0.3000	

refresh

Figure 3.16-17: Route Table

3.17 IPv6 Route

3.17.1 IPv6

OLT Configuration → IPv6 Route → IPv6 → VLAN IPv6

Configure IPv6 address for VLAN that has been created.



OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

RSTP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

IPv6

IPv6 Static Route

IPv6 Route Table

ONU Configuration

Profile Configuration

System Configuration

VLAN IPv6

VLAN IPv6 Configuration

VLAN ID

1

IPv6 Address

Prefixlen

submit

reset

VLAN IPv6 Table

VLAN ID	IPv6 Address	Prefixlen	Delete
10	fe80::a:8214:a8ff:fe23:d6f7		
	2222:1234::1	64	
888	fe80::378:8214:a8ff:fe23:d6f7		
	2206:abcd:888::888:2	64	
999	fe80::3e7:8214:a8ff:fe23:d6f7		
3000	fe80::bb8:8214:a8ff:fe23:d6f7		
	2206:abcd:ef::30:3	64	
4000	fe80::fa0:8214:a8ff:fe23:d6f7		
	2206:abcd:4000::40:3	64	

Figure 3.17-1: VLAN IPv6

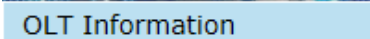
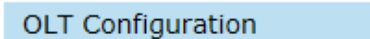
3.17.2 IPv6 Static Route

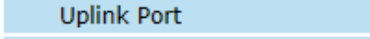
Static route is added manually. It will not change even the situation and network topology has been changed.

OLT Configuration → IPv6 Route → IPv6 Static Route

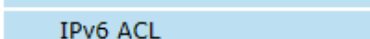
Add IPv6 static route item one by one.

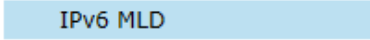


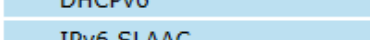
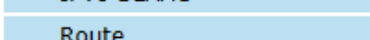
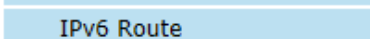
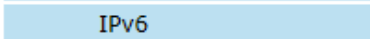


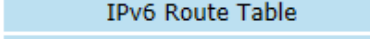
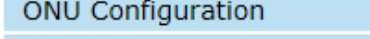
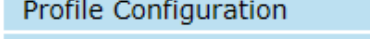
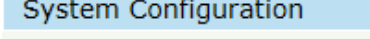








IPv6 Static Route

Add IPv6 Static Route

Destination IPv6

Destination Prefixlen

Gateway

IPv6 Static Route Table

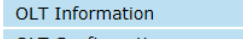
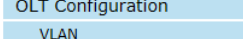
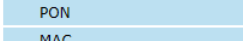
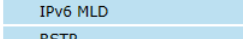
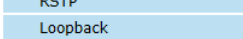
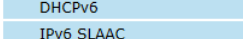
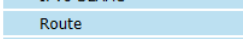
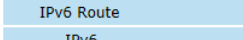
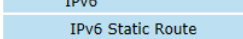
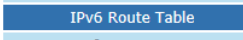
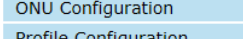
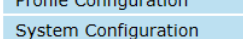
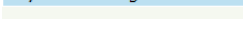
Destination IPv6	Destination Prefixlen	Gateway	Delete
------------------	-----------------------	---------	--------

Figure 3.17-2: IPv6 Static Route

3.17.3 IPv6 Route Table

OLT Configuration → IPv6 Route → IPv6 Route Table

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

 OLT Information
 OLT Configuration
 VLAN
 Uplink Port
 PON
 MAC
 LACP
 QoS
 ACL
 IPv6 ACL
 IGMP
 IPv6 MLD
 RSTP
 Loopback
 DHCP
 DHCPv6
 IPv6 SLAAC
 Route
 IPv6 Route
 IPv6
 IPv6 Static Route
 **IPv6 Route Table**
 ONU Configuration
 Profile Configuration
 System Configuration

IPv6 Route Table

Route Types: K - kernel route, C - connected, S - static, R - RIPng, O - OSPFv6, > - selected route, * - FIB route

IPv6 Route Table

Route Type	Network	Distance	Metric	Interface	Time
C>*	::/1			directly connected, ethv0.10	
C>*	2206:abcd:ef::/64			directly connected, ethv0.3000	
C>*	2206:abcd:888::/64			directly connected, ethv0.888	
C>*	2206:abcd:4000::/64			directly connected, ethv0.4000	
C>*	2222:1234::/64			directly connected, ethv0.10	
K>*	ff00::/8			directly connected, ethv0.888	

Refresh

Figure 3.17-3: IPv6 Route Table

Chapter 4 ONU Configuration

This chapter is about the ONU management by OLT.

4.1 ONU AuthList

4.1.1 ONU List

ONU Configuration→ONU AuthList→ONU List

Select PON port ID, all ONUs will be displayed in this interface. You can check ONU using profile, Registration mode and do some operations to every ONU.

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

Profile Configuration

System Configuration

ONU List

ONU Status

ONU Optical Info

ONU Manual Add

ONU Whitelist

ONU Authentication Info

Port ID

PON1

Search Mode

All

Search Info

Search

Delete All

Delete Offline

Refresh

ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:3	Online	GPON0/1:3	H113	default	Sn	GPON0093A921	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:4	Offline	GPON0/1:4	unknown	default	Sn	RTKG11111111	Config Deactivate Delete Modify Optical Info Detail Info Reboot

Figure 4.1-1: ONU List

4.1.1.1 Config

ONU Configuration→ONU AuthList→ONU List→Config

Configure ONU parameter information which you selected.

ONU Authentication Info

Port ID:

Search Mode:

Search Info:

ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:3	Offline	GPON0/1:3	unknown	default	Sn	GPON0093A921	Config Deactivate Delete Modify Optical Info Detail Info Reboot

Figure 4.1-2: Configure ONU

4.1.1.1.1 Tcont

ONU Configuration→ONU AuthList→ONU List→Config→Tcont

Create tcont ID and bind DBA profile. Tcont name is optional.

ONU Tcont Info (PON:1 ONU:1)

Tcont ID	Name	DBA Profile	Action
1	tcont_1	default1	Delete
2	tcont_2	default1	Delete

Add ONU Tcont

Tcont ID:

Tcont Name:

DBA Profile Name:

Figure 4.1-3: Create Tcont

4.1.1.1.2 Gemport

ONU Configuration→ONU AuthList→ONU List→Config→Gemport

Create gemport ID and bind tcont ID.

ONU Gemport Info (PON:1 ONU:1)

Gemport ID	Name	Tcont	Cos	Upstream	Downstream	State	UpQueueMapId	DownQueueMapId	Action
1	gem_1	1	N/A	default	default	Enable	N/A	N/A	Delete
2	gem_2	2	N/A	default	default	Enable	N/A	N/A	Delete

Add ONU Gemport

Gemport ID:

TcontID:

Gemport Name:

Cos: (0-7)

Upstream Traffic:

Downstream Traffic:

UpQueueMapId: (0-3)

DownQueueMapId: (0-7)

State:

Figure 4.1-4: Create gemport

4.1.1.1.3 Service

ONU Configuration→ONU AuthList→ONU List→Config→Service

Create a service, set the VLAN and VLAN mode and bind one gemport ID.

Figure 4.1-5: Create service

4.1.1.1.4 Service Port

ONU Configuration→ONU AuthList→ONU List→Config→Service Port

Create a service port, set the user VLAN and translate VLAN and bind one gemport ID. If don't need VLAN translation, just set translate VLAN the same as user VLAN.

Figure 4.1-6: Create service port

4.1.1.1.5 PortVlan

ONU Configuration → ONU AuthList → ONU List → Config → PortVlan

Set the VLAN mode of the ONU's port. For HGU, need to configure veip 1 transparent; for SFU, configure Ethernet port directly.

Port Name	Mode	Vlan	Vlan Pri(tag)	Default Vlan(hybrid)	Default Pri(hybrid)	CVlan(translate)	CVlan Pri(translate)	SVlan(translate)	SVlan Pri(translate)	Action
veip_1	Transparent	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Delete

Add ONU PortVlan

Mode:

Port Type:

Port Id:

[Commit](#)

Figure 4.1-7: Configure port VLAN mode

4.1.1.1.6 Multicast

ONU Configuration → ONU AuthList → ONU List → Config → Multicast

Set the Multicast VLAN of ONU and the Multicast VLAN mode of ONU's port.

Multicast vlan

ONU ID	Vlan List	Action
1	N/A	Delete All

(100,103 or 105-108)

[Add](#) [Del](#)

Multicast vlan tag strip

Vlan Mode:

[Add](#)

Figure 4.1-8: Configure multicast VLAN

4.1.1.1.7 Port

ONU Configuration→ONU AuthList→ONU List→Config→Port

Set attribute of ONU LAN port.

Figure 4.1-9: ONU port attribute

4.1.1.1.8 Iphost

ONU Configuration→ONU AuthList→ONU List→Config→Iphost

Create Iphost for ONU wan connection. It is used for ONU management.

Figure 4.1-10: Configure IPhost

4.1.1.1.9 WAN

ONU Configuration→ONU AuthList→ONU List→Config→WAN

ONU WAN connection is configured by private OMCI between OLT and ONU. When the connected ONU supports this function, the option "WAN" can be shown on this page.

WAN Connect Table

Index	Mode	Service Mode	Status	Configuration Information
1	route	tr069	Connected	QOS:disable,Nat:disable, Static IP:192.168.6.179,Mask:255.255.255.0,Gateway:192.168.6.1,DNS Master:202.96.128.86,DNS Slave:8.8.8.8vlan id 3000 pri 0 Bind:lan1 ssid1
2	route	internet	Disconnected	QOS:disable,Nat:enable, Static IP:0.0.0.0,Mask:0.0.0.0,Gateway:0.0.0.0,DNS Master:0.0.0.0,DNS Slave:0.0.0.0vlan id 4000 pri 255 Bind:lan2

WAN Connect Parameter Configuration

WAN Index:
 WAN Connect Mode:
 VLAN Mode:
 QoS Enable:
 Service Mode:
 Port Binding: ☐ Lan1 ☐ Lan2 ☐ SSID1 ☐ SSID2 ☐ SSID3 ☐ SSID4

WAN Connect running-config

Index	onu running-config	Delete
1	Connect Type:route,Service Mode:internet,Nat:enable, Static IP:192.168.6.179,Mask:255.255.255.0,Gateway:192.168.6.1,DNS Master:202.96.128.86,DNS Slave:8.8.8.8vlan id 3000 pri 0 Bind:lan1 ssid1	Delete

Figure 4.1-11: Configure WAN

4.1.1.1.10 DHCP Server

ONU Configuration→ONU AuthList→ONU List→Config→DHCP Server

ONU LAN and DHCP server are configured by private OMCI between OLT and ONU. When the connected ONU supports this function, the option "DHCP Server" can be shown on this page.

DHCP Server Configuration

LAN IP Address:
 LAN Subnet Mask:
 DHCP Server:
 Lease Time: (0-4294967295)
 Beginning IP Address:
 Ending IP Address:
 Pool Type:
 Master DNS:
 Slave DNS:
 Gateway:

Figure 4.1-12: ONU DHCP Server

4.1.1.1.11 Bind Mode

ONU Configuration→ONU AuthList→ONU List→Config→BIND Mode

ONU LAN bind mode is configured by private OMCI between OLT and

ONU. When the connected ONU supports this function, the option "Bind Mode" can be shown on this page.

Figure 4.1-13: LAN Bind Mode Configuration

4.1.1.1.12 WIFI

ONU Configuration→ONU AuthList→ONU List→Config→WIFI

ONU WIFI is configured by private OMCI between OLT and ONU. When the connected ONU supports this function, the option "WIFI" can be shown on this page.

Figure 4.1-14: WIFI Configuration

4.1.1.1.13 VOIP

ONU Configuration→ONU AuthList→ONU List→Config→VOIP

This page shows WAN information of VOIP service, including IP address and VLAN. You can also operate VOIP module on this page. When the connected ONU supports VOIP, the option "VOIP" can be shown on this

page.

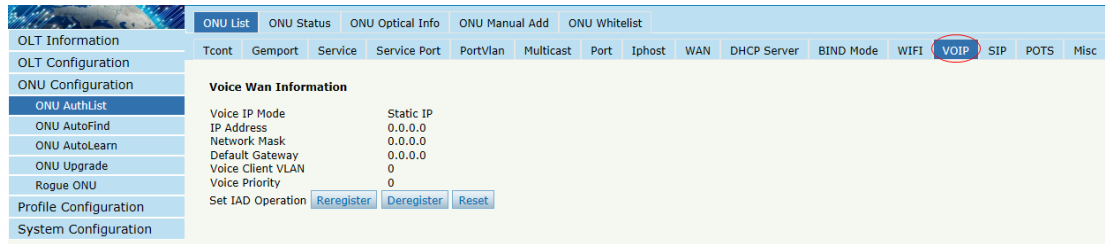


Figure 4.1-15: Voice Wan Information

4.1.1.1.14 SIP

ONU Configuration→ONU AuthList→ONU List→Config→SIP

ONU VoIP SIP parameter can be configured on this page, including SIP server, proxy server, digit map and so on. When the connected ONU supports VOIP, the option "SIP" can be shown on this page.

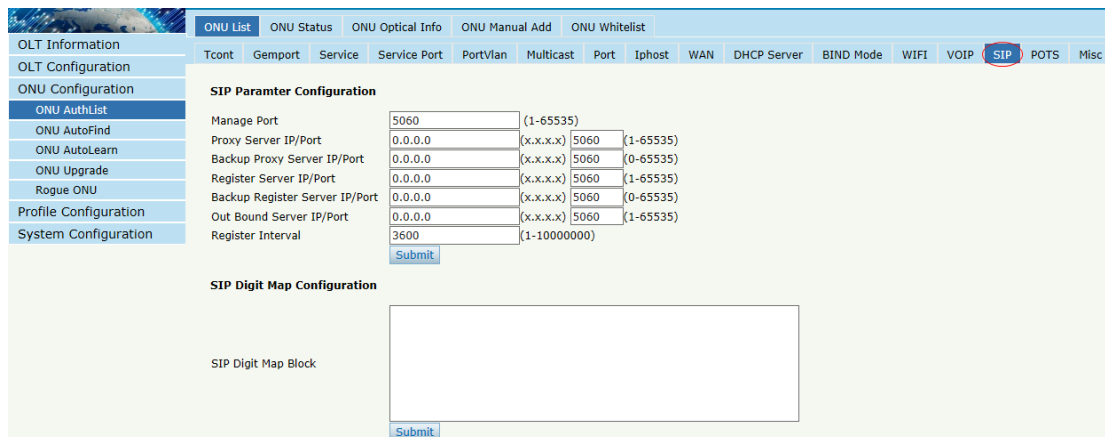


Figure 4.1-16: SIP Parameter

4.1.1.1.15 POTS

ONU Configuration→ONU AuthList→ONU List→Config→POTS

ONU VoIP POTS account, password and other VOIP parameters of POTS can be configured on this page; the length of SIP account can't be more than 16 bits. When the connected ONU supports VOIP, the option

"POTS" can be shown on this page.

The screenshot shows the 'POTS' configuration page in the GPON OLT Web User Interface. The sidebar on the left lists various configuration categories. The main area has tabs for 'ONU List', 'ONU Status', 'ONU Optical Info', 'ONU Manual Add', and 'ONU Whitelist'. Below these are sub-tabs for 'Tcont', 'Gempport', 'Service', 'Service Port', 'PortVlan', 'Multicast', 'Port', 'Iphost', 'WAN', 'DHCP Server', 'BIND Mode', 'WIFI', 'VOIP', 'SIP', 'POTS', and 'Misc'. The 'POTS' tab is active. It contains a 'VoIP Port' dropdown set to 'Pots1'. The 'POTS Information' section shows 'Port Status' as 'Inactive'. The 'SIP User Parameter Configuration' section has radio buttons for 'Account active' (selected 'Disable'), and input fields for 'User Account', 'User name', and 'User Password'. The 'Advanced Parameter Configuration' section has dropdowns for 'VAD' (Disable), 'Echo cancel' (Enable), 'Input gain(dB)' (0), 'Output gain(dB)' (0), and 'Dtmf mode' (Transparent). Each section has a 'Submit' button.

Figure 4.1-17: POTS Configuration

4.1.1.1.16 Misc

ONU Configuration→ONU AuthList→ONU List→Config→Misc

Misc includes other features of ONU which are configured by private OMCI.

The screenshot shows the 'Misc' configuration page in the GPON OLT Web User Interface. The sidebar on the left lists various configuration categories. The main area has tabs for 'ONU List', 'ONU Status', 'ONU Optical Info', 'ONU Manual Add', and 'ONU Whitelist'. Below these are sub-tabs for 'Tcont', 'Gempport', 'Service', 'Service Port', 'PortVlan', 'Multicast', 'Port', 'Iphost', 'WAN', 'DHCP Server', 'BIND Mode', 'WIFI', 'VOIP', 'SIP', 'POTS', and 'Misc'. The 'Misc' tab is active. It contains a 'Misc Control Operation' section with buttons for 'Save configuration', 'Restore default', and checkboxes for 'IGMP configuration', 'STP configuration', and 'Port isolate'. Below this is the 'Speed Limit Configuration' section with input fields for 'Upstream limit' and 'DownStream limit'. The 'Mac Table Configuration' section has input fields for 'mac age time', 'Pon mac limit', and 'Lan mac limit'. The 'Mac Address Table' section has a 'Clean' button. Each section has a 'Submit' button.

Figure 4.1-18: Misc Configuration

4.1.1.2 Deactivate

ONU Configuration→ONU AuthList→ONU List→Deactivate

(Activate)

Deactivate ONU which you selected, the ONU will be disabled and the registration failed. Activate selected ONU, this ONU will register successfully.

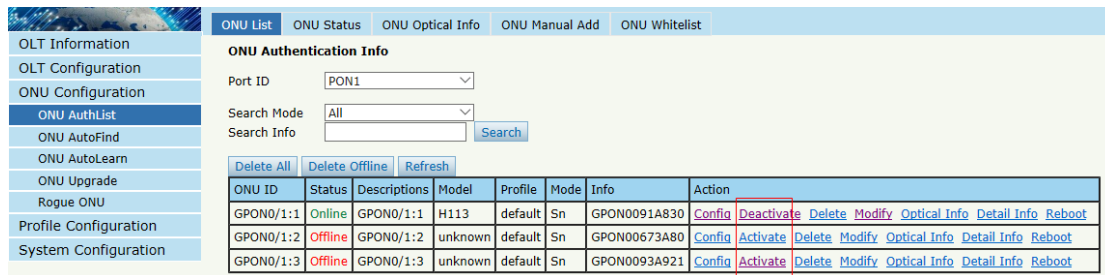


Figure 4.1-19: Deactivate/Activate ONU

4.1.1.3 Delete

ONU Configuration→ONU AuthList→ONU List→Delete

Delete ONU which you selected, the ONU will be deleted and the registration failed. All the configurations related this ONU will be deleted as well.

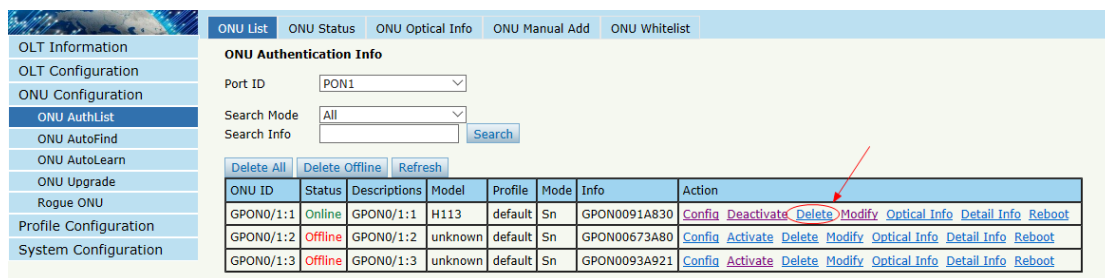


Figure 4.1-20: Delete ONU

4.1.1.4 Modify

ONU Configuration→ONU AuthList→ONU List→Modify

This is used to modify ONU authentication mode.

ONU Authentication Info

Port ID:

Search Mode:

ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Activate Delete Modify Optical Info Detail Info Reboot
GPON0/1:3	Offline	GPON0/1:3	unknown	default	Sn	GPON0093A921	Config Activate Delete Modify Optical Info Detail Info Reboot

ONU Modify(PON:1 ONU1)

Auth Mode	Sn
ONU Sn	

Figure 4.1-21: Modify ONU Authentication mode

4.1.1.5 Optical Info

ONU Configuration→ONU AuthList→ONU List→Optical Info

Check the Optical Information of ONU PON module which you selected.

ONU Authentication Info

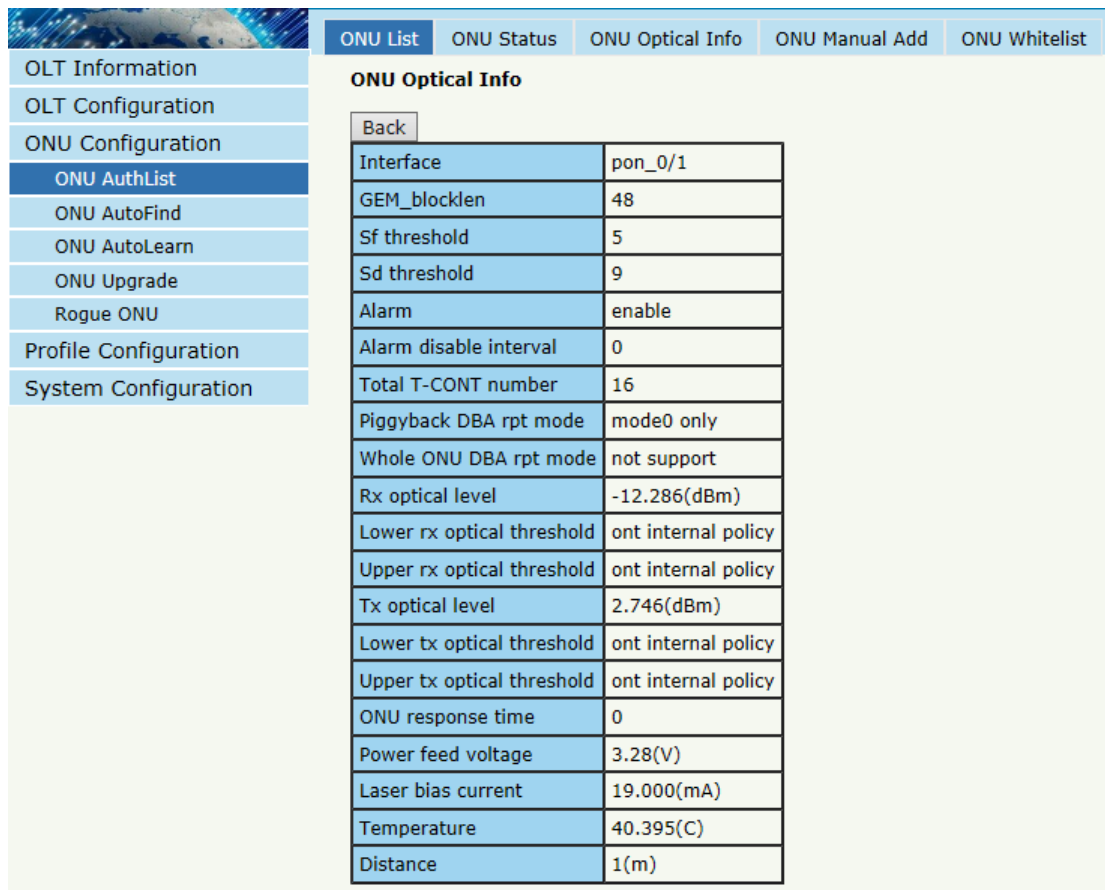
Port ID:

Search Mode:

ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Activate Delete Modify Optical Info Detail Info Reboot
GPON0/1:3	Offline	GPON0/1:3	unknown	default	Sn	GPON0093A921	Config Activate Delete Modify Optical Info Detail Info Reboot

ONU Modify(PON:1 ONU1)

Auth Mode	Sn
ONU Sn	



ONU Optical Info

[Back](#)

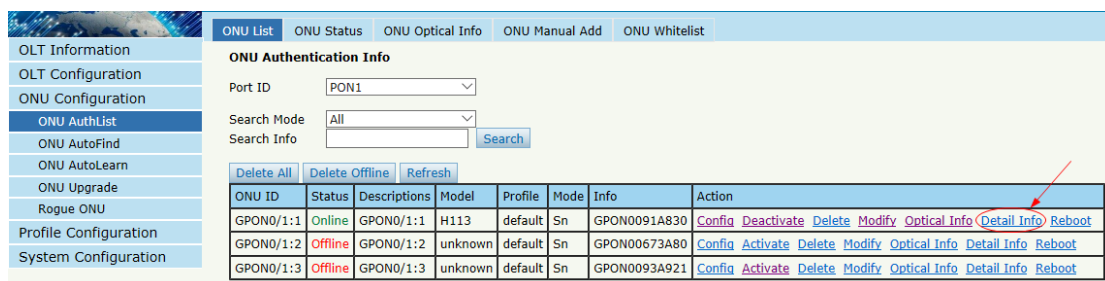
Interface	pon_0/1
GEM_blocklen	48
Sf threshold	5
Sd threshold	9
Alarm	enable
Alarm disable interval	0
Total T-CONT number	16
Piggyback DBA rpt mode	mode0 only
Whole ONU DBA rpt mode	not support
Rx optical level	-12.286(dBm)
Lower rx optical threshold	ont internal policy
Upper rx optical threshold	ont internal policy
Tx optical level	2.746(dBm)
Lower tx optical threshold	ont internal policy
Upper tx optical threshold	ont internal policy
ONU response time	0
Power feed voltage	3.28(V)
Laser bias current	19.000(mA)
Temperature	40.395(C)
Distance	1(m)

Figure 4.1-22: Optical info of ONU

4.1.1.6 Detail Info

ONU Configuration→ONU AuthList→ONU List→Detail Info

Check the Detail Info of ONU which you selected.



ONU Authentication Info

Port ID:

Search Mode:

Search Info: [Search](#)

[Delete All](#) [Delete Offline](#) [Refresh](#)

ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Activate Delete Modify Optical Info Detail Info Reboot
GPON0/1:3	Offline	GPON0/1:3	unknown	default	Sn	GPON0093A921	Config Activate Delete Modify Optical Info Detail Info Reboot

ONU List	ONU Status	ONU Optical Info	ONU Manual Add	ONU Whitelist																																																																																																		
OLT Information OLT Configuration ONU Configuration ONU AuthList ONU AutoFind ONU AutoLearn ONU Upgrade Rogue ONU Profile Configuration System Configuration	Detail Information Submit Back <table border="1"> <tr><td>Description</td><td>GPON0/1:1</td></tr> <tr><td>Main software version</td><td>1.0.08</td></tr> <tr><td>Standby software version</td><td>1.0.06</td></tr> <tr><td>Vendor ID:</td><td>MONU</td></tr> <tr><td>Version:</td><td>STD-ONU</td></tr> <tr><td>SN:</td><td>GPON0091a830</td></tr> <tr><td>Admin status:</td><td>unlock</td></tr> <tr><td>Battery monitor:</td><td>false</td></tr> <tr><td>Security mode:</td><td>aes</td></tr> <tr><td>Product code:</td><td>0</td></tr> <tr><td>Total priority queue num:</td><td>64</td></tr> <tr><td>Total traffic schedule num:</td><td>16</td></tr> <tr><td>Traffic management option:</td><td>priority-rate-controlled</td></tr> <tr><td>Operate status:</td><td>enable</td></tr> <tr><td>Equipment ID:</td><td>MONUH113</td></tr> <tr><td>OMCC Version:</td><td>128</td></tr> <tr><td>Security capability:</td><td>aes</td></tr> <tr><td>Model:</td><td>MONUH113</td></tr> <tr><td>Survival time:</td><td>N/A</td></tr> <tr><td>TotalGemPortNum:</td><td>64</td></tr> <tr><td>SysUpTime:</td><td>14896.00 s</td></tr> <tr><td>Region code:</td><td>N/A</td></tr> <tr><td>Product SN:</td><td>N/A</td></tr> <tr><td>Chip info:</td><td>0</td></tr> </table> Device Capability <table border="1"> <tr><td>TCONT number:</td><td>16</td></tr> <tr><td>GEM port number:</td><td>64</td></tr> <tr><td>Total priority queue number:</td><td>54</td></tr> <tr><td>up priority queue number:</td><td>30</td></tr> <tr><td>Down priority queue number:</td><td>24</td></tr> <tr><td>Traffic scheduler number:</td><td>16</td></tr> <tr><td>Traffic management option:</td><td>priority&rate controlled</td></tr> <tr><td>Total UNI number:</td><td>5</td></tr> <tr><td>Ethernet UNI number:</td><td>2</td></tr> <tr><td>10GE number:</td><td>0</td></tr> <tr><td>GE number:</td><td>1</td></tr> <tr><td>FE number:</td><td>1</td></tr> <tr><td>CES UNI number:</td><td>0</td></tr> <tr><td>POTS UNI number:</td><td>1</td></tr> <tr><td>Video UNI number:</td><td>0</td></tr> <tr><td>WIFI UNI number:</td><td>1</td></tr> <tr><td>XDSL UNI number:</td><td>0</td></tr> <tr><td>IP host number:</td><td>3</td></tr> <tr><td>IPv6 host number:</td><td>0</td></tr> <tr><td>VEIP number:</td><td>1</td></tr> <tr><td>Operation Id:</td><td>N/A</td></tr> <tr><td>CTC spc version:</td><td>CTC V2.0</td></tr> <tr><td>CUC spc version:</td><td>N/A</td></tr> <tr><td>ONU type:</td><td>HGU</td></tr> <tr><td>Tx power supply control:</td><td>Tx Rx power control independently</td></tr> </table>				Description	GPON0/1:1	Main software version	1.0.08	Standby software version	1.0.06	Vendor ID:	MONU	Version:	STD-ONU	SN:	GPON0091a830	Admin status:	unlock	Battery monitor:	false	Security mode:	aes	Product code:	0	Total priority queue num:	64	Total traffic schedule num:	16	Traffic management option:	priority-rate-controlled	Operate status:	enable	Equipment ID:	MONUH113	OMCC Version:	128	Security capability:	aes	Model:	MONUH113	Survival time:	N/A	TotalGemPortNum:	64	SysUpTime:	14896.00 s	Region code:	N/A	Product SN:	N/A	Chip info:	0	TCONT number:	16	GEM port number:	64	Total priority queue number:	54	up priority queue number:	30	Down priority queue number:	24	Traffic scheduler number:	16	Traffic management option:	priority&rate controlled	Total UNI number:	5	Ethernet UNI number:	2	10GE number:	0	GE number:	1	FE number:	1	CES UNI number:	0	POTS UNI number:	1	Video UNI number:	0	WIFI UNI number:	1	XDSL UNI number:	0	IP host number:	3	IPv6 host number:	0	VEIP number:	1	Operation Id:	N/A	CTC spc version:	CTC V2.0	CUC spc version:	N/A	ONU type:	HGU	Tx power supply control:	Tx Rx power control independently
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Traffic management option:	priority-rate-controlled																																																																																																					
Operate status:	enable																																																																																																					
Equipment ID:	MONUH113																																																																																																					
OMCC Version:	128																																																																																																					
Security capability:	aes																																																																																																					
Model:	MONUH113																																																																																																					
Survival time:	N/A																																																																																																					
TotalGemPortNum:	64																																																																																																					
SysUpTime:	14896.00 s																																																																																																					
Region code:	N/A																																																																																																					
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Chip info:	0																																																																																																					
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Traffic management option:	priority&rate controlled																																																																																																					
Total UNI number:	5																																																																																																					
Ethernet UNI number:	2																																																																																																					
10GE number:	0																																																																																																					
GE number:	1																																																																																																					
FE number:	1																																																																																																					
CES UNI number:	0																																																																																																					
POTS UNI number:	1																																																																																																					
Video UNI number:	0																																																																																																					
WIFI UNI number:	1																																																																																																					
XDSL UNI number:	0																																																																																																					
IP host number:	3																																																																																																					
IPv6 host number:	0																																																																																																					
VEIP number:	1																																																																																																					
Operation Id:	N/A																																																																																																					
CTC spc version:	CTC V2.0																																																																																																					
CUC spc version:	N/A																																																																																																					
ONU type:	HGU																																																																																																					
Tx power supply control:	Tx Rx power control independently																																																																																																					

Figure 4.1-23: Detail info of ONU

4.1.1.7 Reboot

ONU Configuration→ONU AuthList→ONU List→Reboot

Reboot ONU which you selected.

ONU List	ONU Status	ONU Optical Info	ONU Manual Add	ONU Whitelist																																
OLT Information OLT Configuration ONU Configuration ONU AuthList ONU AutoFind ONU AutoLearn ONU Upgrade Rogue ONU Profile Configuration System Configuration	ONU Authentication Info Port ID PON1 Search Mode All Search Info Search Delete All Delete Offline Refresh <table border="1"> <thead> <tr> <th>ONU ID</th> <th>Status</th> <th>Descriptions</th> <th>Model</th> <th>Profile</th> <th>Mode</th> <th>Info</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>GPON0/1:1</td> <td>Online</td> <td>GPON0/1:1</td> <td>H113</td> <td>default</td> <td>Sn</td> <td>GPON0091A830</td> <td>Config Deactivate Delete Modify Optical Info Detail Info Reboot</td> </tr> <tr> <td>GPON0/1:2</td> <td>Offline</td> <td>GPON0/1:2</td> <td>unknown</td> <td>default</td> <td>Sn</td> <td>GPON00673A80</td> <td>Config Activate Delete Modify Optical Info Detail Info Reboot</td> </tr> <tr> <td>GPON0/1:3</td> <td>Offline</td> <td>GPON0/1:3</td> <td>unknown</td> <td>default</td> <td>Sn</td> <td>GPON0093A921</td> <td>Config Activate Delete Modify Optical Info Detail Info Reboot</td> </tr> </tbody> </table>				ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action	GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot	GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Activate Delete Modify Optical Info Detail Info Reboot	GPON0/1:3	Offline	GPON0/1:3	unknown	default	Sn	GPON0093A921	Config Activate Delete Modify Optical Info Detail Info Reboot
ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action																													
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot																													
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Activate Delete Modify Optical Info Detail Info Reboot																													
GPON0/1:3	Offline	GPON0/1:3	unknown	default	Sn	GPON0093A921	Config Activate Delete Modify Optical Info Detail Info Reboot																													

Figure 4.1-24: Reboot ONU

4.1.2 ONU Status

ONU Configuration→ONU AuthList→ONU Status

This pages shows the ONU information of the activity. User can check

"Last Register Time", "Last Deregister Reason" and "Active Time" of each ONU.

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

Profile Configuration

System Configuration

ONU List

ONU Status

ONU Optical Info

ONU Manual Add

ONU Whitelist

ONU Status Info

Port ID

PON1

Refresh

ONU ID	Admin State	OMCC State	Phase State	Last Register Time	Last Deregister Time	Last Deregister Reason	Alive Time
GPON0/1:1	Enable	Enable	working	2019:04:09 6:39:46	2019:04:09 6:28:28	Manual Deactivate	00:19:37
GPON0/1:2	Disable	Disable	Offline	N/A	2019:04:09 6:27:36	Manual Deactivate	17964 06:27:45
GPON0/1:3	Disable	Disable	Offline	2019:04:08 8:28:36	2019:04:09 6:29:24	Manual Deactivate	22:00:49

Figure 4.1-25: ONU Status

4.1.3 ONU Optical Info

ONU Configuration→ONU AuthList→ONU Optical Info

This page displays ONU Rx and Tx power. A batch of ONU optical power information can be shown in a list. Clearly to check the register power when register issue happens.



OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

Profile Configuration

System Configuration

ONU List

ONU Status

ONU Optical Info

ONU Manual Add

ONU Whitelist

ONU Status Info

Port ID

PON1

ONU Group

ONU 1-64

Refresh

ONU ID	RX Power	TX Power
GPON0/1:1	-12.270(dbm)	2.712(dbm)
GPON0/1:2	N/A	N/A
GPON0/1:3	N/A	N/A

Figure 4.1-26: ONU Optical Info

4.1.4 ONU Manual Add

ONU Configuration→ONU AuthList→ONU Manual Add

You can manually add ONU to a selected PON port. ONU will appear in

the ONU list after you added.

Figure 4.1-27: Add ONU Manually

4.1.5 ONU Whitelist

ONU Configuration→ONU AuthList→ONU Whitelist

You can set up whitelist on this page.

Whitelist can limit illegal ONU to register. Only the GPON SN in the whitelist can register, but only effective for the ONU which has not been added to OLT.

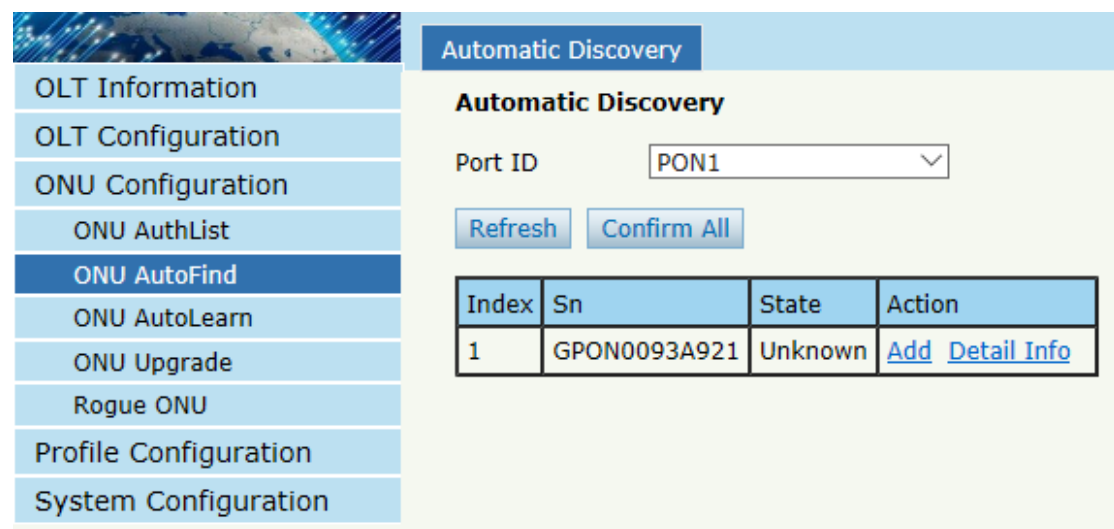
Figure 4.1-28: ONU Whitelist

4.2 ONU AutoFind

ONU Configuration→ONU AutoFind

After selecting PON port number, all ONUs which are authenticated failed or not authenticated will be displayed in this interface. You can check the serial number of ONUs.

More information will be shown under the ONU Detail menu.



Automatic Discovery

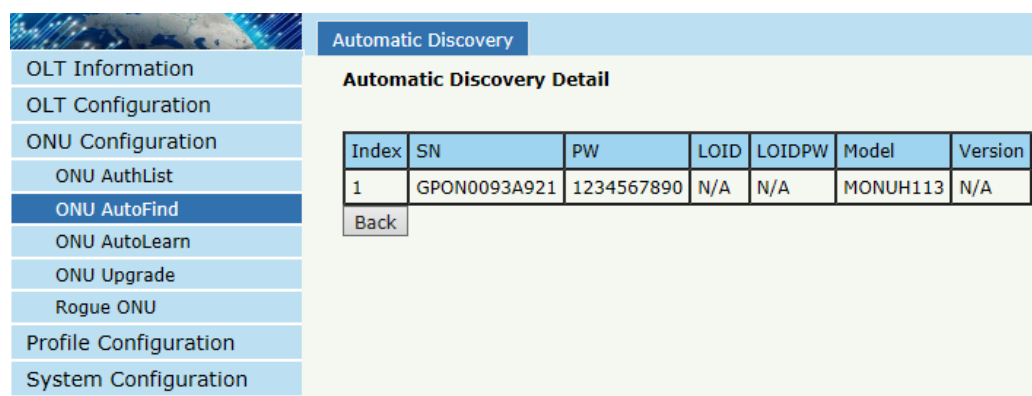
Automatic Discovery

Port ID:

[Refresh](#) [Confirm All](#)

Index	Sn	State	Action
1	GPON0093A921	Unknown	Add Detail Info

Figure4.2-1: Automatic Discovery



Automatic Discovery

Automatic Discovery Detail

Index	SN	PW	LOID	LOIDPW	Model	Version
1	GPON0093A921	1234567890	N/A	N/A	MONUH113	N/A

[Back](#)

Figure 4.2-2: Detail info

4.3 ONU AutoLearn

4.3.1 ONU AutoLearn

Configuration→AutoLearn→ONU AutoLearn

ONU can be authenticated automatically after enabling PON port automatic learning.

PON ID	Enable	Line profile	Srv profile	Alarm profile	Pri profile	Plug and Play
PON1	Enable	N/A	N/A	N/A	N/A	Enable
PON2	Enable	N/A	N/A	N/A	N/A	Enable
PON3	Enable	N/A	N/A	N/A	N/A	Enable
PON4	Enable	N/A	N/A	N/A	N/A	Enable
PON5	Enable	N/A	N/A	N/A	N/A	Enable
PON6	Enable	N/A	N/A	N/A	N/A	Enable
PON7	Enable	N/A	N/A	N/A	N/A	Enable
PON8	Enable	N/A	N/A	N/A	N/A	Enable

Figure 4.3-1: Automatic learn

4.3.2 ONU AutoBind

Configuration→AutoLearn→ONU AutoBind

Input the Equipment ID and bind the profile you need

Note: you must create profile first.

Equipment ID	ONU Profile	Line Profile	Service Profile	Alarm Profile	Pri Profile	Action
--------------	-------------	--------------	-----------------	---------------	-------------	--------

Add ONU Auto Bind

Equipment ID:

ONU Profile:

Add Refresh

Figure 4.3-2: Bind profile

4.4 ONU Upgrade

ONU firmware can be upgraded by OLT. OLT supports manual upgrade and automatic upgrade.

4.4.1 UpLoad Image

Configuration→ONU Upgrade→ONU Image

Upload ONU firmware image which you need, the image will upload to OLT's RAM.

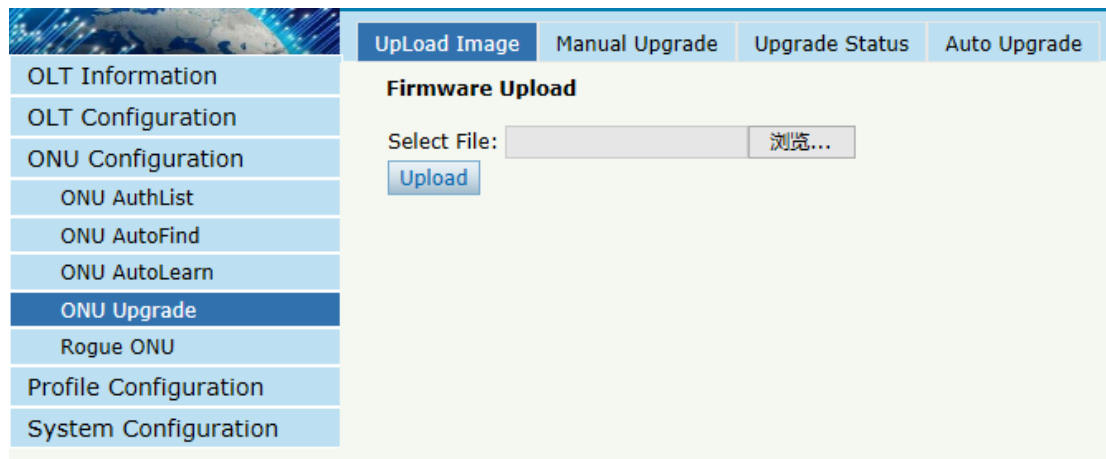


Figure 4.4-1: Upload image

4.4.2 Manual Upgrade

Configuration→ONU Upgrade→Manual Upgrade

Select the ONU image and the ONU that need upgrade, click commit button to start upgrading. You can upgrade the ONU under one PON port everytime.

	UpLoad Image	Manual Upgrade	Upgrade Status	Auto Upgrade												
OLT Information	Select ONU Firmware <table border="1"> <thead> <tr> <th>Firmware Name</th> <th>Select</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td colspan="3"> </td> </tr> </tbody> </table> Upgrade ONU Firmware <table border="1"> <tr> <td>PON ID</td> <td>PON1</td> </tr> <tr> <td>ONU ID</td> <td>1,3,5-8</td> </tr> <tr> <td>Upgrade Mode</td> <td>Mix</td> </tr> </table> Commit				Firmware Name	Select	Action				PON ID	PON1	ONU ID	1,3,5-8	Upgrade Mode	Mix
Firmware Name					Select	Action										
PON ID					PON1											
ONU ID					1,3,5-8											
Upgrade Mode					Mix											
OLT Configuration																
ONU Configuration																
ONU AuthList																
ONU AutoFind																
ONU AutoLearn																
ONU Upgrade																
Rogue ONU																
Profile Configuration																
System Configuration																

Figure 4.4-2: Manual Upgrade

4.4.3 Upgrade Status

Configuration→ONU Upgrade→Upgrade Status

When ONU is upgrading, the upgrading status will be shown on this page.

	UpLoad Image	Manual Upgrade	Upgrade Status	Auto Upgrade																				
OLT Information	Upgrade Info <table border="1"> <thead> <tr> <th>Selected</th> <th>PON 0 ONU</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>File</td> <td> </td> <td>Abort</td> </tr> </tbody> </table> Upgrade Progress Refresh <table border="1"> <thead> <tr> <th>PON</th> <th>ONU</th> <th>Action</th> <th>Status</th> <th>Process</th> <th>Fail Reason</th> <th>Commit Time</th> </tr> </thead> <tbody> <tr> <td colspan="7"> </td> </tr> </tbody> </table>				Selected	PON 0 ONU	Action	File		Abort	PON	ONU	Action	Status	Process	Fail Reason	Commit Time							
Selected					PON 0 ONU	Action																		
File						Abort																		
PON					ONU	Action	Status	Process	Fail Reason	Commit Time														
OLT Configuration																								
ONU Configuration																								
ONU AuthList																								
ONU AutoFind																								
ONU AutoLearn																								
ONU Upgrade																								
Rogue ONU																								
Profile Configuration																								
System Configuration																								

Figure 4.4-3: ONU Upgrade Status

4.4.4 Auto Upgrade

Configuration→ONU Upgrade→Auto Upgrade

After uploaded the ONU firmware image, configured automatic upgrade

conditions, once the ONU which has the same equipment ID and different software version come online, they will be upgraded automatically.

Each ONU has its own equipment ID, which you can check in ONU detail info. Software version is the firmware image version which has uploaded to the OLT.

PON	ONU	Action	Status	Process	Fail Reason	Commit Time

Figure 4.4-4: Auto Upgrade

4.5 Rogue ONU

ONU Configuration→Rogue ONU

After enabled rogue ONU detect, if there is a rogue ONU trying to register, it will appear in the list.



- OLT Information
- OLT Configuration
- ONU Configuration
 - ONU AuthList
 - ONU AutoFind
 - ONU AutoLearn
 - ONU Upgrade
 - Rogue ONU**
- Profile Configuration
- System Configuration

Rogue ONU configuration

Rogue ONU Detect Configuration

Detect state	Locate state	Auto shutdown	Control mode
disable	N/A	N/A	private

Change Configuration

Commit

Detect state	Enable
Locate state	Enable
Auto shutdown	Enable
Control mode	private

Rogue ONU List

PON	ONU	Keywords	Time	State
-----	-----	----------	------	-------

Figure 4.5-1: Rogue ONU detect

Chapter 5 Profile Configuration

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

5.1 ONU Profile

The ONU profile is used for ONU authorization, and each ONU must specify only one ONU profile when authorization. The ONU profile specifies the capability of this ONU.

5.1.1 Information

Profile Configuration→ONU profile→Information

The table displays ONU profile list. You can also do some operations, such as delete and check details info.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

Bind Profile

System Configuration

Information

Add Profile

ONU Profiles

Refresh

Profile ID	Profile Name	Max Tcont	Max GemPort	Max Veip	Action
0	default	255	255	1	Details

Figure 5.1-1: ONU profile list

5.1.2 Add profile

Create a new ONU profile what you need. Generally, ONU has two different modes.

SFU mode (only using bridge mode):

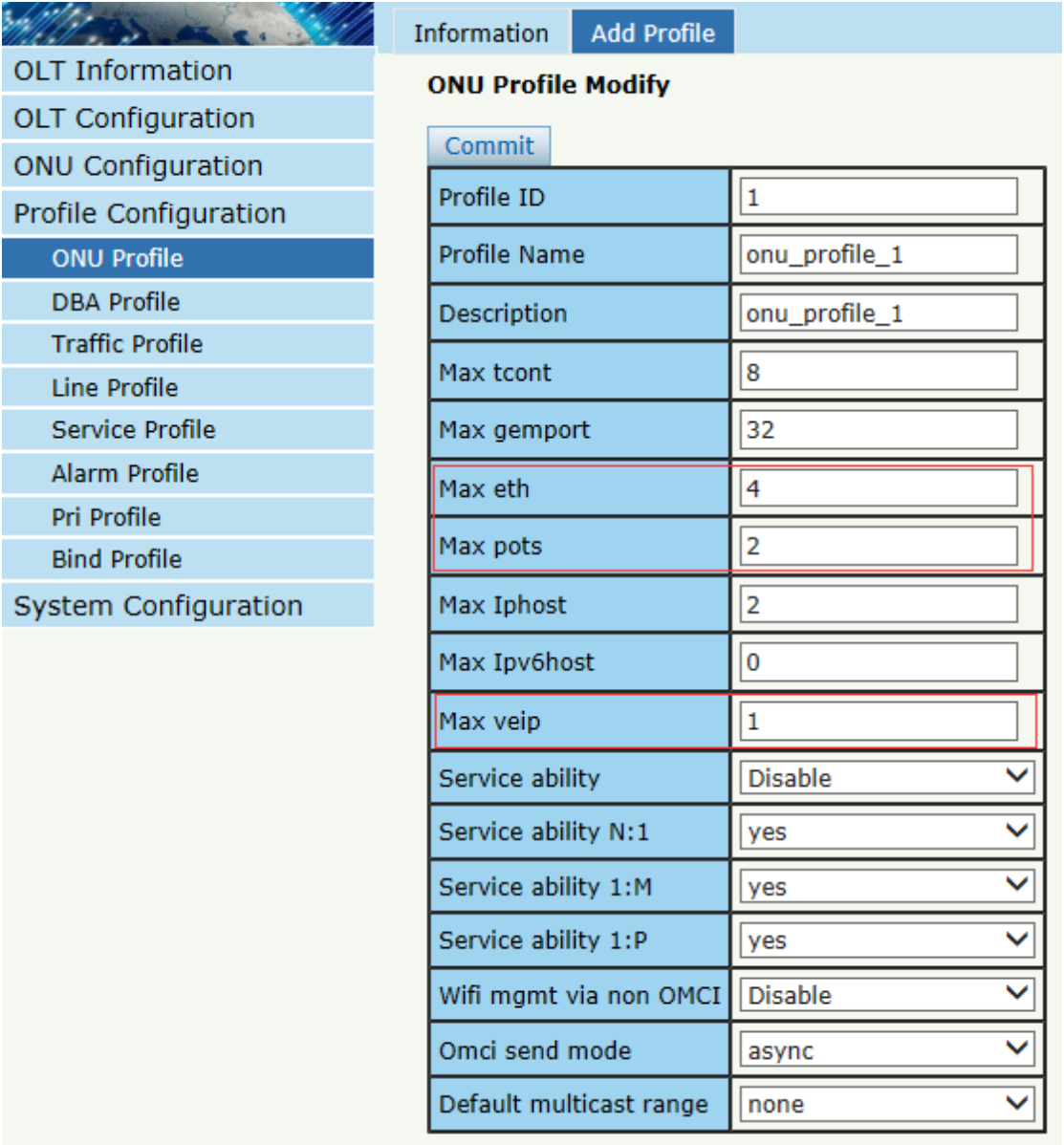
Usually, only need to set correct eth port and POTS port number of ONU, others can be kept default.

Information	Add Profile																																		
OLT Information	ONU Profile Modify Commit <table border="1"> <tr> <td>Profile ID</td> <td>1</td> </tr> <tr> <td>Profile Name</td> <td>onu_profile_1</td> </tr> <tr> <td>Description</td> <td>onu_profile_1</td> </tr> <tr> <td>Max tcont</td> <td>8</td> </tr> <tr> <td>Max gemport</td> <td>32</td> </tr> <tr> <td>Max eth</td> <td>1</td> </tr> <tr> <td>Max pots</td> <td>0</td> </tr> <tr> <td>Max Iphost</td> <td>2</td> </tr> <tr> <td>Max Ipv6host</td> <td>0</td> </tr> <tr> <td>Max veip</td> <td>0</td> </tr> <tr> <td>Service ability</td> <td>Disable</td> </tr> <tr> <td>Service ability N:1</td> <td>yes</td> </tr> <tr> <td>Service ability 1:M</td> <td>yes</td> </tr> <tr> <td>Service ability 1:P</td> <td>yes</td> </tr> <tr> <td>Wifi mgmt via non OMCI</td> <td>Disable</td> </tr> <tr> <td>Omci send mode</td> <td>async</td> </tr> <tr> <td>Default multicast range</td> <td>none</td> </tr> </table>	Profile ID	1	Profile Name	onu_profile_1	Description	onu_profile_1	Max tcont	8	Max gemport	32	Max eth	1	Max pots	0	Max Iphost	2	Max Ipv6host	0	Max veip	0	Service ability	Disable	Service ability N:1	yes	Service ability 1:M	yes	Service ability 1:P	yes	Wifi mgmt via non OMCI	Disable	Omci send mode	async	Default multicast range	none
Profile ID		1																																	
Profile Name		onu_profile_1																																	
Description		onu_profile_1																																	
Max tcont		8																																	
Max gemport		32																																	
Max eth		1																																	
Max pots		0																																	
Max Iphost		2																																	
Max Ipv6host		0																																	
Max veip		0																																	
Service ability		Disable																																	
Service ability N:1		yes																																	
Service ability 1:M		yes																																	
Service ability 1:P		yes																																	
Wifi mgmt via non OMCI		Disable																																	
Omci send mode		async																																	
Default multicast range		none																																	
OLT Configuration																																			
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DBA Profile																																			
Traffic Profile																																			
Line Profile																																			
Service Profile																																			
Alarm Profile																																			
Pri Profile																																			
Bind Profile																																			
System Configuration																																			

Figure 5.1-2: Add SFU profile

HGU mode (with the routing wan connection mode):

For HGU mode, need to set correct eth port and POTS port number and set veip to be 1, keep others default.



Information		Add Profile
OLT Information OLT Configuration ONU Configuration Profile Configuration ONU Profile DBA Profile Traffic Profile Line Profile Service Profile Alarm Profile Pri Profile Bind Profile System Configuration		
ONU Profile Modify		
Commit		
Profile ID	1	
Profile Name	onu_profile_1	
Description	onu_profile_1	
Max tcont	8	
Max gemport	32	
Max eth	4	
Max pots	2	
Max Iphost	2	
Max Ipv6host	0	
Max veip	1	
Service ability	Disable	
Service ability N:1	yes	
Service ability 1:M	yes	
Service ability 1:P	yes	
Wifi mgmt via non OMCI	Disable	
Omci send mode	async	
Default multicast range	none	

Figure 5.1-3: Add HGU profile

5.2 DBA Profile

DBA is a bandwidth allocation strategy that changes uplink bandwidth assigned to each T-CONT in real time according to the instant service

status of each ONU. There are five BW types supported and make sure that fixed $\leq$ assured $\leq$ max.

5.2.1 DBA profiles

Profile Configuration → DBA Profile → DBA Profiles

The table displays DBA profile list. You can also do some operations, such as delete and modify.



OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

Bind Profile

System Configuration

DBA Profiles

Add Profile

DBA Profiles

Refresh

Profile ID	Profile Name	Profile Type	Fixed(Kbps)	Assured(Kbps)	Maximum(Kbps)	Action
0	default	1	10000			
511	default1	3		1024	1024000	Delete Modify

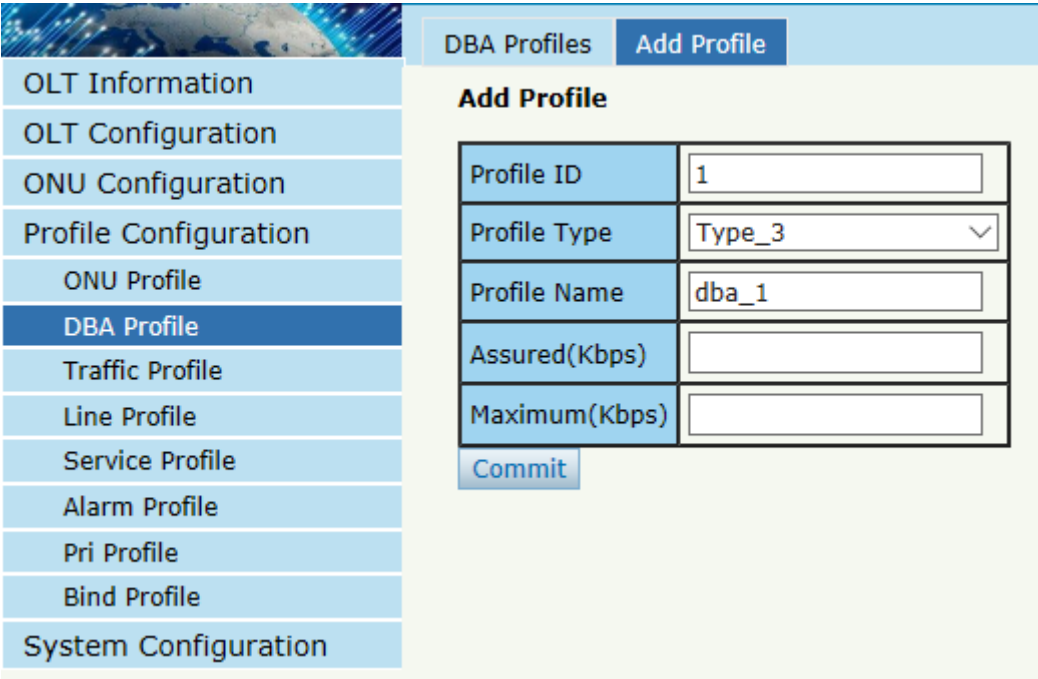
Figure 5.2-1: DBA profile list

5.2.2 Add profile

Profile Configuration → DBA Profile → Add profile

There are five types of DBA profile. In general, we use type3.

BW Type	Delay Sensitive	Applicable T-CONT types				
		Type 1	Type 2	Type 3	Type 4	Type 5
Fixed	Yes	X				X
Assured	No		X	X		X
Non-Assured	No			X		X
Best Effort	No				X	X
Max.	No			X	X	X



The screenshot shows the 'DBA Profiles' section of the web interface. On the left is a navigation menu with options: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, ONU Profile, **DBA Profile**, Traffic Profile, Line Profile, Service Profile, Alarm Profile, Pri Profile, Bind Profile, and System Configuration. The main area is titled 'Add Profile' and contains a form with the following fields:

Profile ID	1
Profile Type	Type_3
Profile Name	dba_1
Assured(Kbps)	
Maximum(Kbps)	

Below the form is a 'Commit' button.

Figure 5.2-2: Add a DBA profile

5.3 Traffic Profile

Traffic profile is used by gemport to specify the upstream/downstream bandwidth.

5.3.1 Traffic profiles

Profile Configuration → Traffic Profile → Traffic Profiles

The table displays Traffic profile list. You can also do some operation, such as delete and modify.



OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

Bind Profile

System Configuration

Traffic Profiles

Add Profile

Traffic Profiles

Refresh

Profile ID	Profile Name	SIR(Kbps)	PIR(Kbps)	CBS(Kbytes)	PBS(Kbytes)	Action
0	default	10000000	10000000	default	default	N/A

Figure 5.3-1: Traffic Profile list

5.3.2 Add profile

Profile Configuration → Traffic Profile → Add Profile

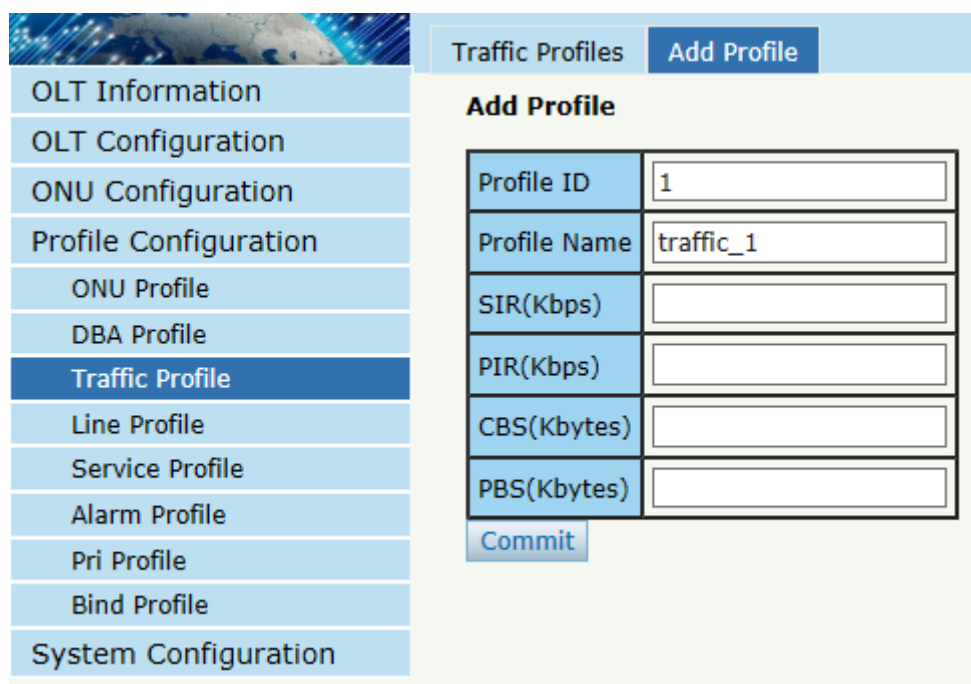
Configure gemport to specify the upstream/downstream bandwidth.

SIR: Committed Information Rate

PIR: Peak Information Rate

CBS: Committed Burst Size

PBS: Peak Burst Size



Traffic Profiles		Add Profile
Add Profile		
Profile ID	1	
Profile Name	traffic_1	
SIR(Kbps)		
PIR(Kbps)		
CBS(Kbytes)		
PBS(Kbytes)		
Commit		

Figure 5.3-2: Add a traffic Profile

5.4 Line Profile

Line profile is used to configure the ANI side services of ONU such as t-cont, gem-port, service-port, and so on.

5.4.1 Line profile

Profile Configuration → Line Profile → Line Profile

The table displays Line profile list. You can also do some operations, such as delete and modify.

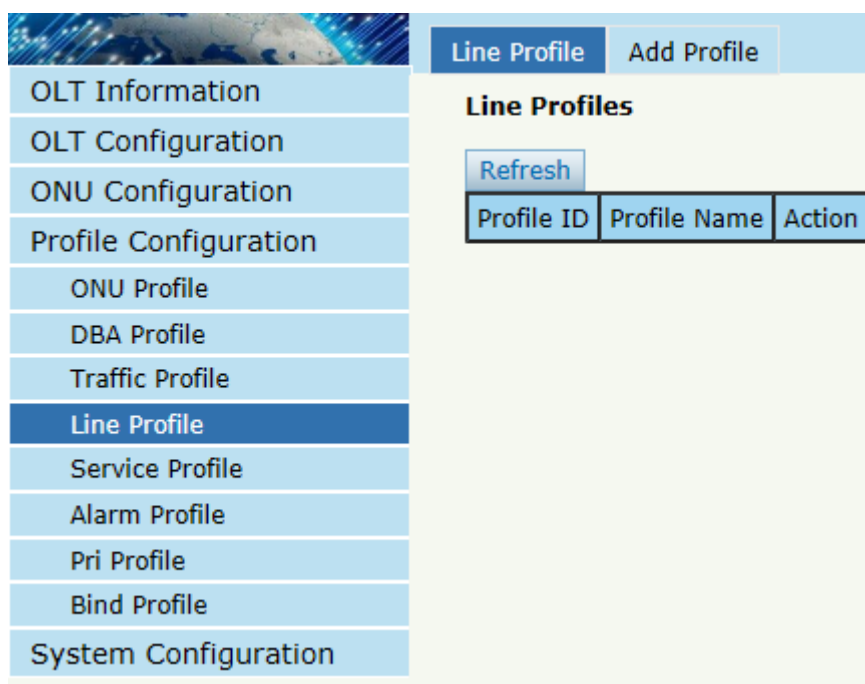


Figure 5.4-1: Line Profile list

5.4.2 Add profile

Profile Configuration→Line profile→Add profile

Create a new line profile.

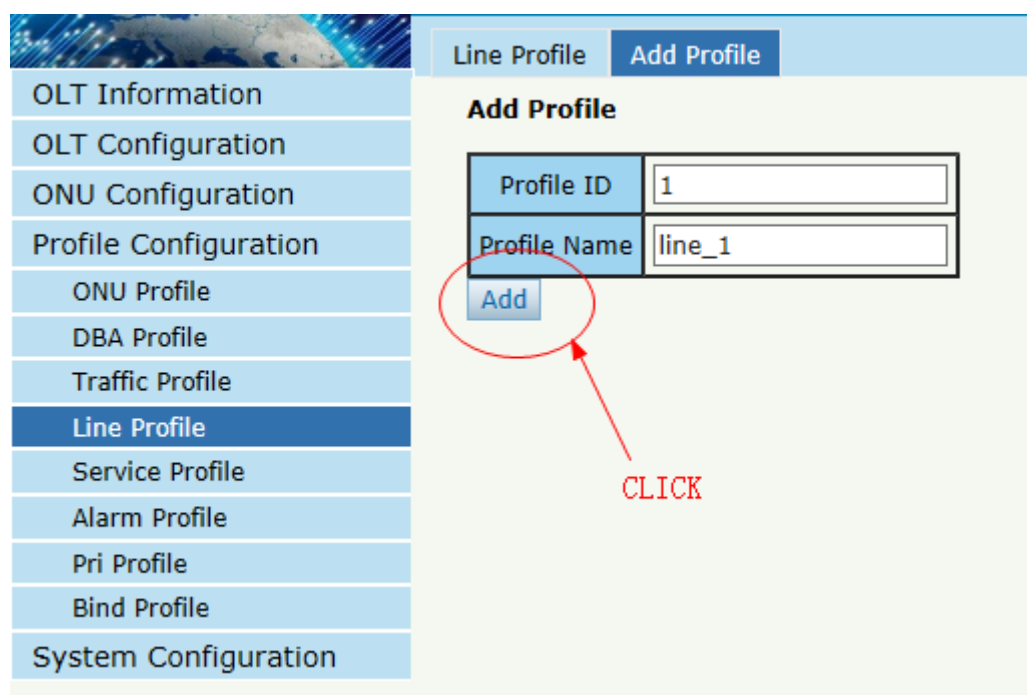


Figure 5.4-2: Add Line Profile

Modify the line profile parameters.

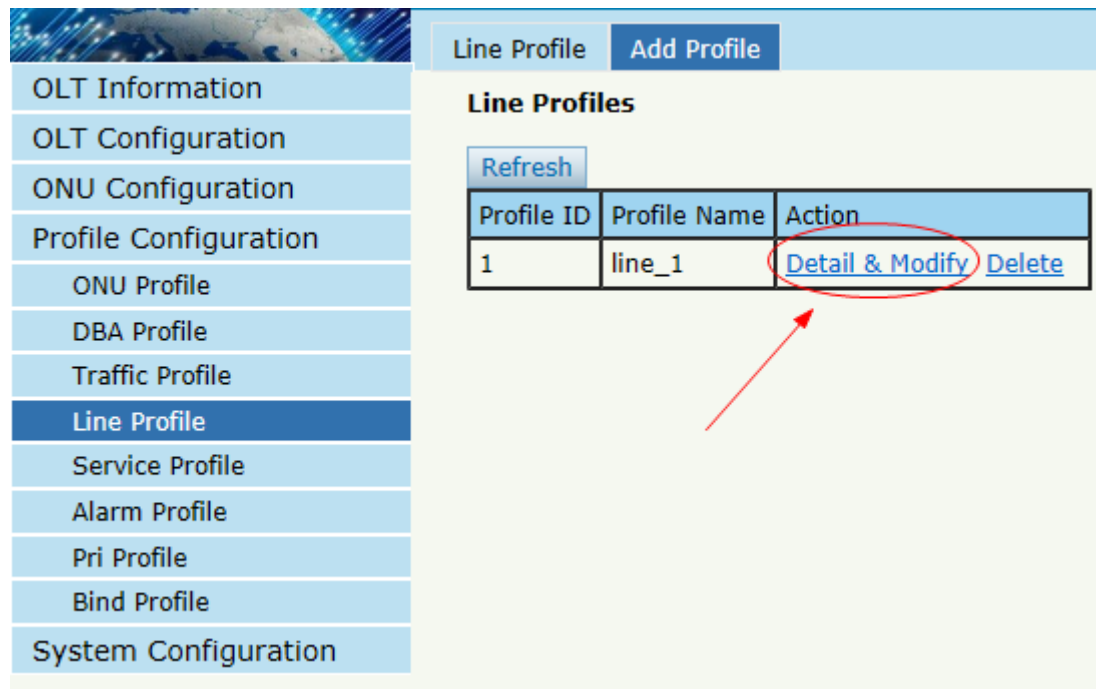


Figure 5.4-3: Modify Line Profile

5.4.2.1 Tcont

Add tcont ID and bind DBA profile.

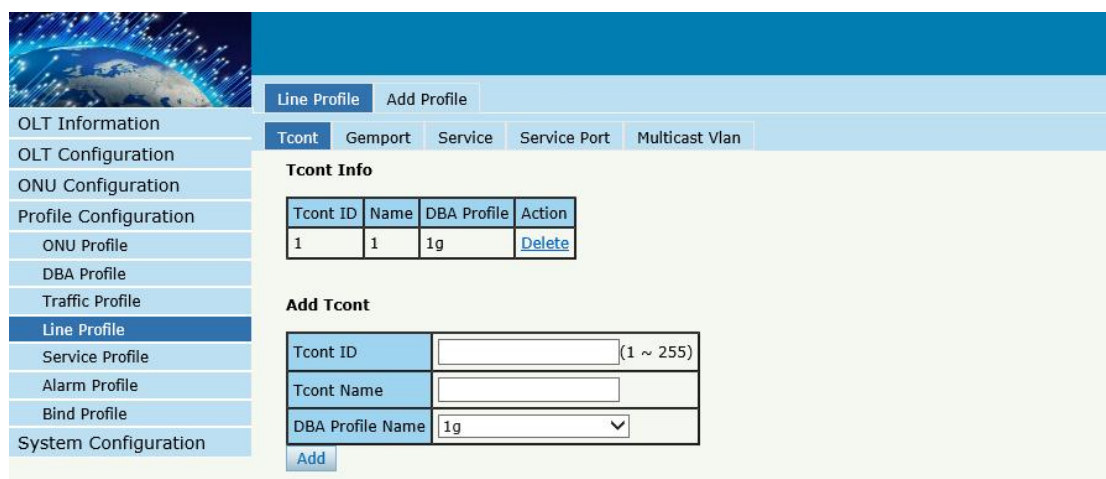


Figure 5.4-4: Add Tcont

5.4.2.2 Gempport

Add gempport ID and bind tcont ID.

Line Profile Add Profile

Tcont **Gempport** Service Service Port Multicast Vlan

Gempport Info

Gempport ID	Name	Tcont	Cos	Upstream	Downstream	State	UpQueueMapId	DownQueueMapId	Action
1	default	1	N/A	default	default	Enable	N/A	N/A	Delete

Add Gempport

Gempport ID		(1~255)
Tcont ID	1	▼
Gempport Name	default	
Cos	N/A	(0-7)
Upstream Traffic	default	▼
Downstream Traffic	default	▼
UpQueueMapId	N/A	(0-3)
DownQueueMapId	N/A	(0-7)
State	Enable	▼

[Add](#)

Figure 5.4-5: Add Gempport

5.4.2.3 Service

Add service, set the VLAN mode and VLAN ID and bind one gempport ID.



The screenshot shows the GPON OLT Web User Interface. On the left is a navigation menu with categories: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, and System Configuration. Under Profile Configuration, 'Line Profile' is selected. The main content area has tabs for 'Line Profile' and 'Add Profile'. The 'Line Profile' tab is active, showing sub-tabs: 'Tcont', 'Gemport', 'Service', 'Service Port', and 'Multicast Vlan'. The 'Service' sub-tab is selected, displaying 'Service Info' and 'Add Service' sections.

Service Info

Service Name	Gemport	Vlan Mode	Vlan List	Cos List	Port	Action
1	1	Tag	1010	N/A	N/A	Delete

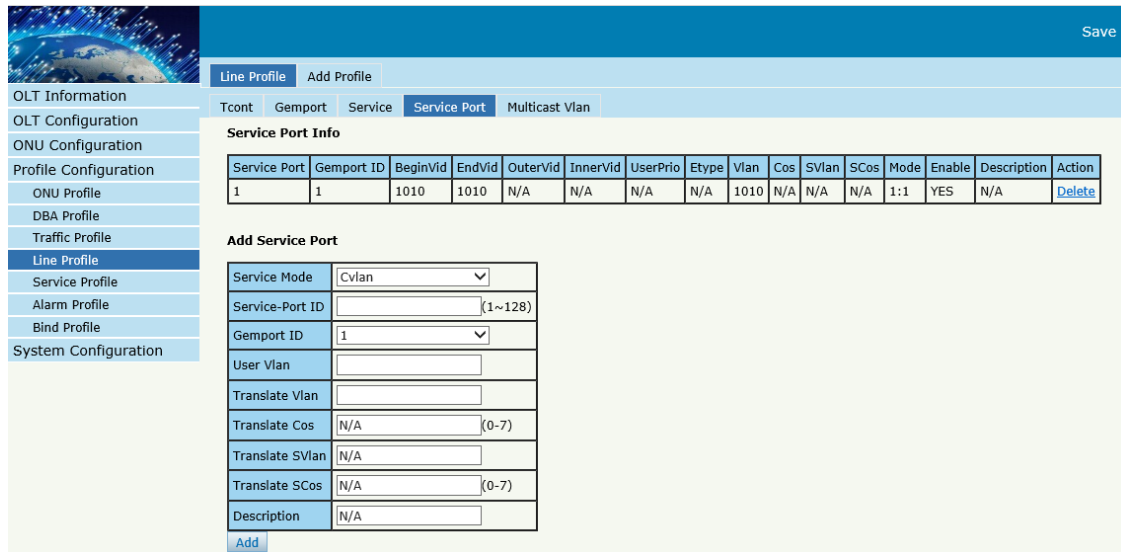
Add Service

Service Name	1					
Gemport ID	1 ▼					
Vlan Mode	Tag ▼					
Vlan List	1010 (X,X or X-X;0 for all)					
Cos List	N/A (X,X or X-X;)					
Port Type	N/A ▼					
Add						

Figure 5.4-6: Add Service

5.4.2.4 Service Port

Create a service port, set the user VLAN and translate VLAN and bind one gemport ID. If don't need VLAN translation, just set translate VLAN the same as user VLAN.



Save

Line Profile Add Profile

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Bind Profile

System Configuration

Tcont Gemport Service Service Port Multicast Vlan

Service Port Info

Service Port	Gemport ID	BeginVid	EndVid	OuterVid	InnerVid	UserPrio	Etype	Vlan	Cos	SVlan	SCos	Mode	Enable	Description	Action
1	1	1010	1010	N/A	N/A	N/A	N/A	1010	N/A	N/A	N/A	1:1	YES	N/A	Delete

Add Service Port

Service Mode

Service-Port ID (1~128)

Gemport ID

User Vlan

Translate Vlan

Translate Cos (0-7)

Translate SVlan

Translate SCos (0-7)

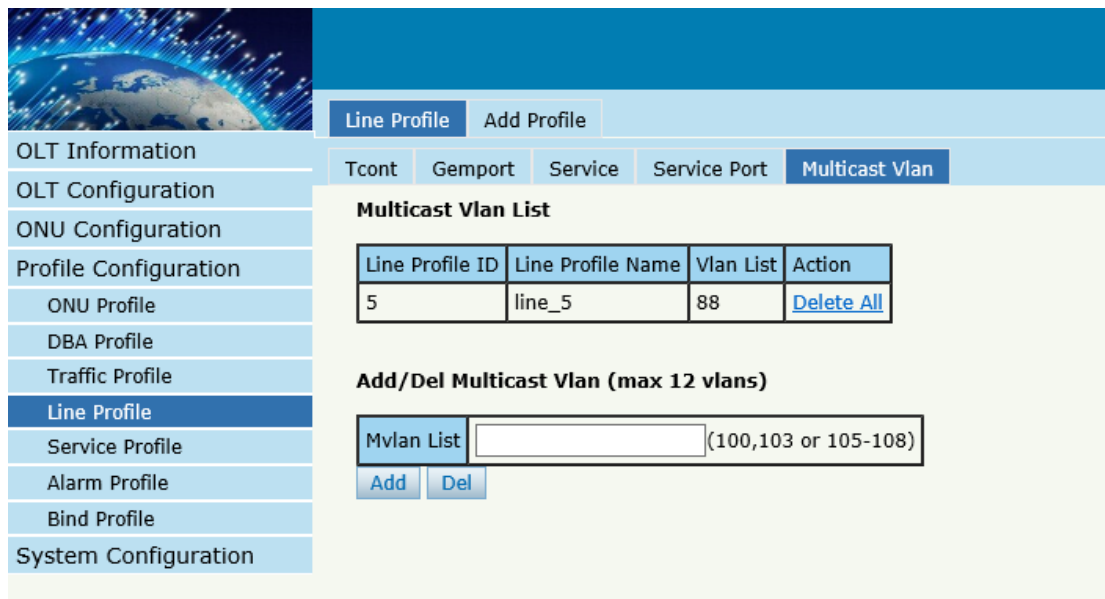
Description

[Add](#)

Figure 5.4-7: Add Service Port

5.4.2.5 Multicast Vlan

Set the Multicast VLAN of ONU.



Line Profile Add Profile

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Bind Profile

System Configuration

Tcont Gemport Service Service Port Multicast Vlan

Multicast Vlan List

Line Profile ID	Line Profile Name	Vlan List	Action
5	line_5	88	Delete All

Add/Del Multicast Vlan (max 12 vlans)

Mvlan List (100,103 or 105-108)

[Add](#) [Del](#)

Figure 5.4-8: Configure Multicast VLAN

5.5 Service Profile

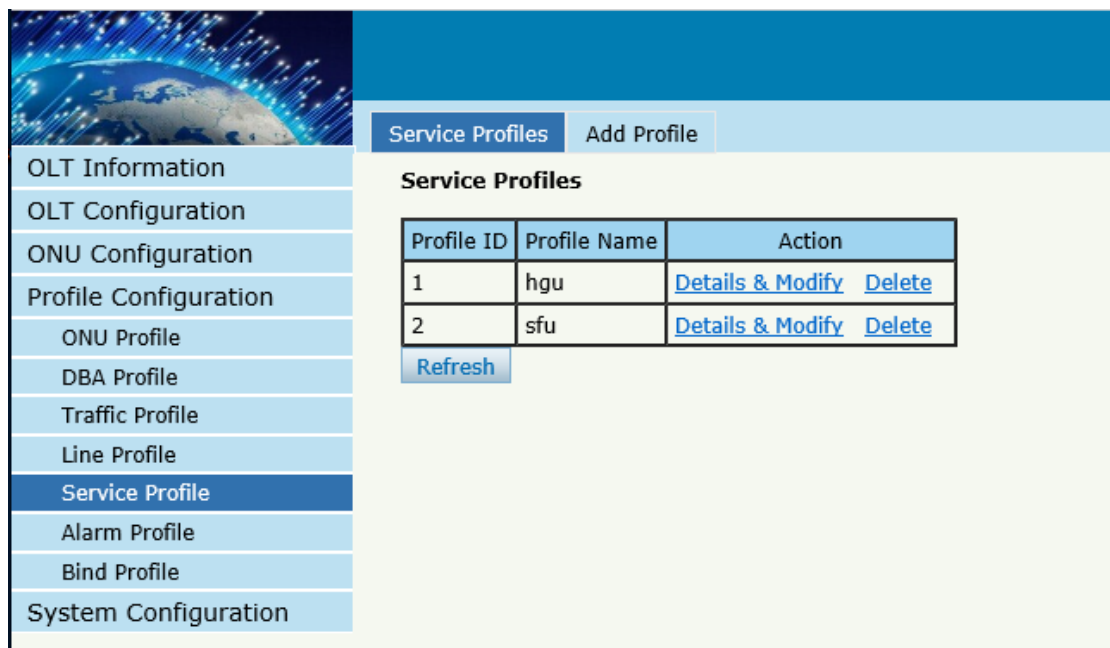
Service profile is used to configure the UNI side services of onu, such as

Ethernet port, wifi, veip, and so on.

5.5.1 Service profile

Profile Configuration → Service Profile → Service Profile

The table displays service profile list. You can also do some operations, such as delete and modify.



The screenshot displays the 'Service Profiles' section of the GPON OLT Web User Interface. On the left, a navigation menu lists various configuration options, with 'Service Profile' currently selected. The main area features a table titled 'Service Profiles' containing two entries. Each entry includes a 'Profile ID', a 'Profile Name', and an 'Action' column with links for 'Details & Modify' and 'Delete'. A 'Refresh' button is positioned below the table.

Profile ID	Profile Name	Action
1	hgu	Details & Modify Delete
2	sfu	Details & Modify Delete

[Refresh](#)

Figure 5.5-1: Service Profile List

5.5.2 Add profile

Profile Configuration → Service Profile → Add Profile

Add a new service profile.

Service Profiles **Add Profile**

Add Profile

Profile ID	3
Profile Name	srv_3

Add

Figure 5.5-2: Add Service profile

Service Profiles **Add Profile**

Service Profiles

Profile ID	Profile Name	Action
1	hgu	Details & Modify Delete
2	sfu	Details & Modify Delete
3	srv_3	Details & Modify Delete

Refresh

Figure 5.5-3: Modify Service Profile

5.5.2.1 PortVlan

Set the VLAN mode of the ONU's port. For HGU, need to configure veip 1 transparent; for SFU, configure Ethernet port directly.

Service Profiles **Add Profile**

PortVlan Multicast Vlan Strip Iphost Config

PortVlan Info(Service Profile:3)

Port Name	Mode	Vlan	Vlan Pri(tag)	Default Vlan(hybrid)	Default Pri(hybrid)	CVlan(translate)	CVlan Pri(translate)	SVlan(translate)	SVlan Pri(translate)	Action
eth_0/1	Transparent	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Delete

Add PortVlan

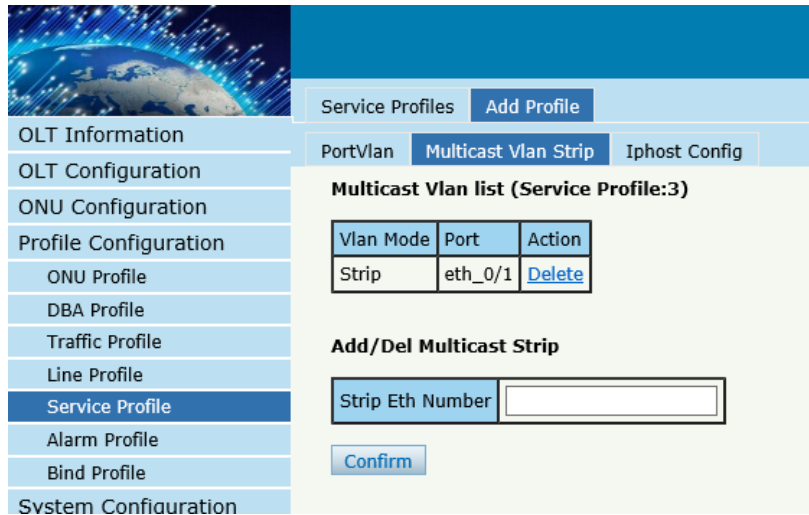
Mode	Transparent
Port Type	Eth
Port ID	

Commit

Figure 5.5-4: Port VLAN mode

5.5.2.2 Multicast Vlan Strip

Set the multicast VLAN mode of ONU's port.



Service Profiles [Add Profile](#)

PortVlan **Multicast Vlan Strip** Iphost Config

Multicast Vlan list (Service Profile:3)

Vlan Mode	Port	Action
Strip	eth_0/1	Delete

Add/Del Multicast Strip

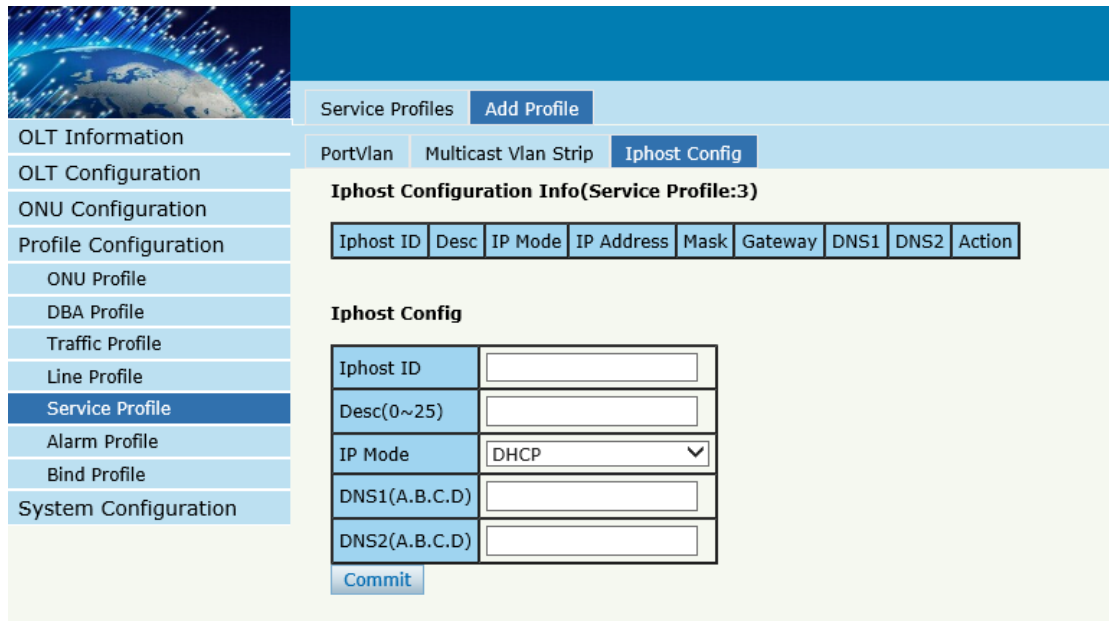
Strip Eth Number

[Confirm](#)

Figure 5.5-5: Port Multicast VLAN Mode

5.5.2.3 Iphost Config

Add Iphost for ONU wan connection. IPhost is used for ONU management.



Service Profiles **Add Profile**

PortVlan Multicast Vlan Strip **Iphost Config**

Iphost Configuration Info(Service Profile:3)

Iphost ID	Desc	IP Mode	IP Address	Mask	Gateway	DNS1	DNS2	Action												
Iphost Config <table border="1"> <tr> <td>Iphost ID</td> <td> </td> </tr> <tr> <td>Desc(0~25)</td> <td> </td> </tr> <tr> <td>IP Mode</td> <td>DHCP</td> </tr> <tr> <td>DNS1(A.B.C.D)</td> <td> </td> </tr> <tr> <td>DNS2(A.B.C.D)</td> <td> </td> </tr> <tr> <td colspan="2">Commit</td> </tr> </table>									Iphost ID		Desc(0~25)		IP Mode	DHCP	DNS1(A.B.C.D)		DNS2(A.B.C.D)		Commit	
Iphost ID																				
Desc(0~25)																				
IP Mode	DHCP																			
DNS1(A.B.C.D)																				
DNS2(A.B.C.D)																				
Commit																				

Figure 5.5-6: Add IPhost

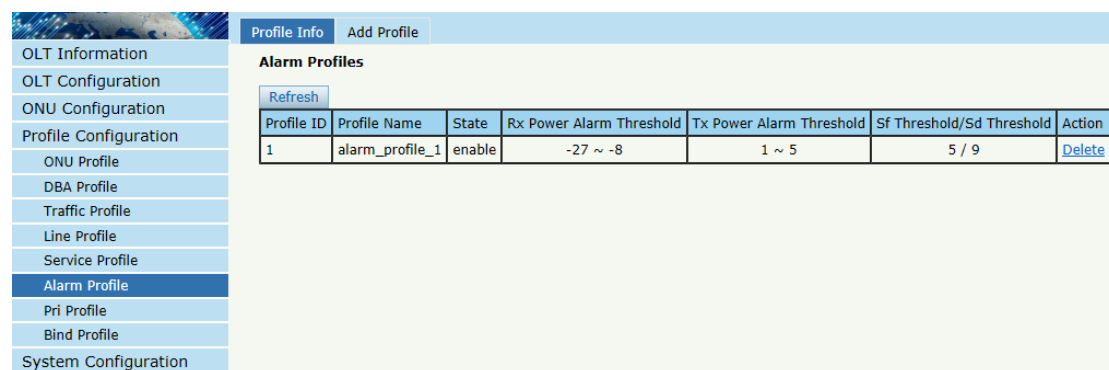
5.6 Alarm Profile

Alarm profile is used to configure the parameters of ONU alarm.

5.6.1 Profile Info

Profile Configuration → Alarm Profile → profile info

The table displays alarm profile list.



Profile Info **Add Profile**

Alarm Profiles

[Refresh](#)

Profile ID	Profile Name	State	Rx Power Alarm Threshold	Tx Power Alarm Threshold	Sf Threshold/Sd Threshold	Action
1	alarm_profile_1	enable	-27 ~ -8	1 ~ 5	5 / 9	Delete

Figure 5.6-1: Alarm Profile List

5.6.2 Add Profile

Profile Configuration→Alarm Profile →Add profile

Add new alarm profile, set the threshold of alarm generation.

Profile Info		Add Profile
Create Alarm Profile		
Alarm Name	alarm_profile_2	
Alarm State	Enable ▼	
Rx Low Power	-27	(-27 ~ -8)
Rx High Power	-8	(-27 ~ -8)
Tx Low Power	1	(1 ~ 5)
Tx High Power	5	(1 ~ 5)
Sf Threshold	5	(3 ~ 8)
Sd Threshold	9	(4 ~ 10)
Commit		

Figure 5.6-2: Add Alarm Profile

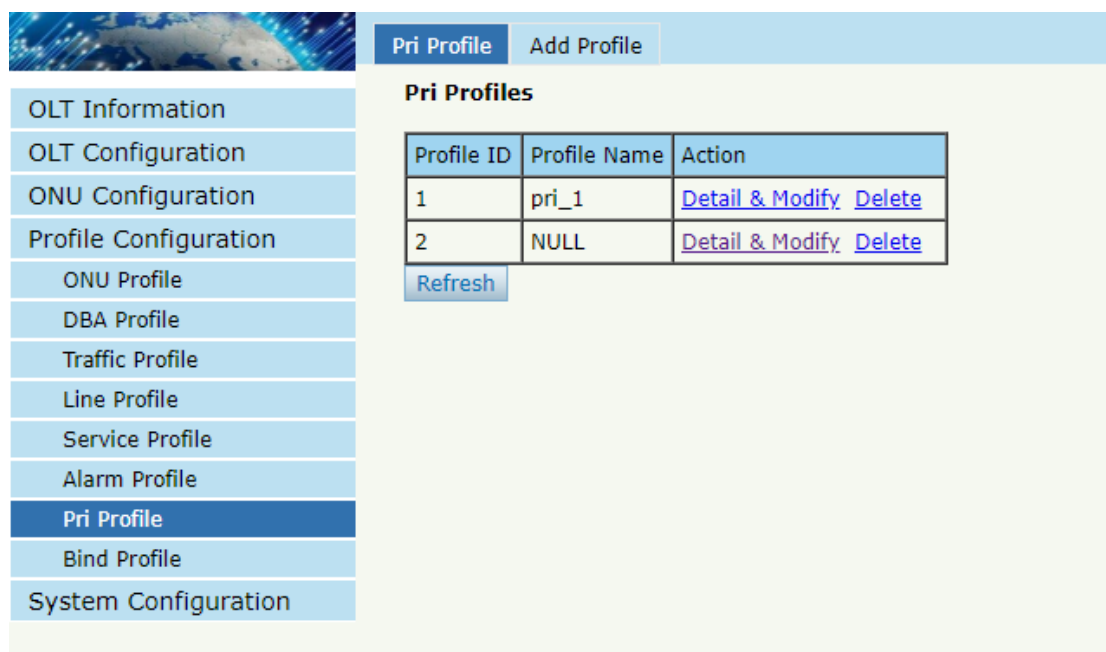
5.7 Pri Profile

Pri Profile is the profile which the parameters are configured by private OMCI, including WAN, SIP, WIFI, CATV, DHCP Server, and so on.

5.7.1 Pri Profile

Profile Configuration→Pri Profile

The table displays private profile list. You can also do some operations, such as delete and modify.



Pri Profile **Add Profile**

Pri Profiles

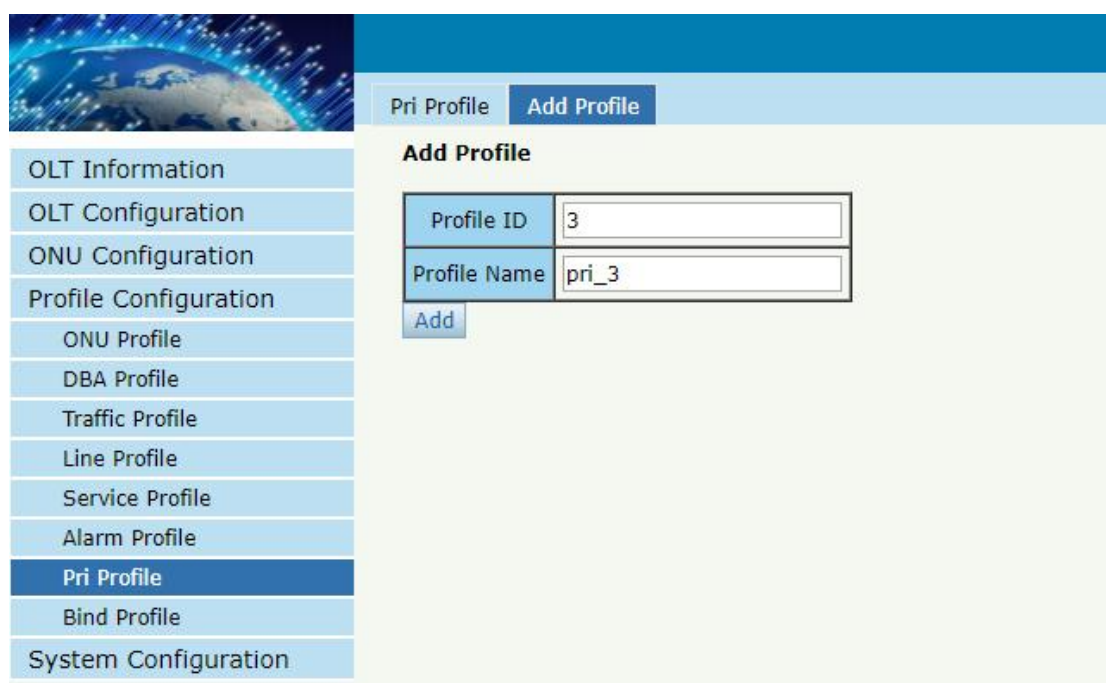
Profile ID	Profile Name	Action
1	pri_1	Detail & Modify Delete
2	NULL	Detail & Modify Delete

[Refresh](#)

Figure 5.7-1: Pri Profile

5.7.2 Add Profile

Profile Configuration → Pri Profile → Add profile



Pri Profile **Add Profile**

Add Profile

Profile ID	3
Profile Name	pri_3

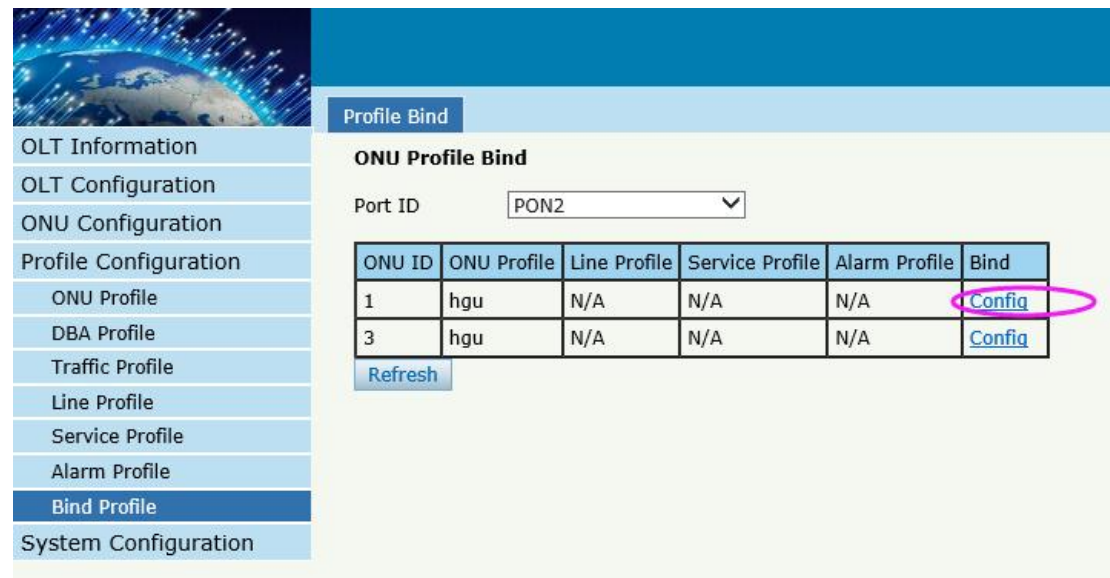
[Add](#)

Figure 5.7-2: Add Private Profile

5.8 Bind Profile

After profile is configured, it is necessary to bind it to ONU.

Profile Configuration→Bind Profile



Profile Bind

ONU Profile Bind

Port ID:

ONU ID	ONU Profile	Line Profile	Service Profile	Alarm Profile	Bind
1	hgu	N/A	N/A	N/A	Config
3	hgu	N/A	N/A	N/A	Config

[Refresh](#)

Figure 5.8-1: Bind profile



Profile Bind

ONU Profile Binding Configuration. (PON:2 ONU:1)

ONU ID	Line Profile	Service Profile	Alarm Profile
1	10m	hgu	alarm1

[Commit](#)

Figure 5.8-2: Select Profile

Chapter 6 System Configuration

This chapter is about the global management of OLT.

6.1 System Log

6.1.1 System Log

System Configuration→System Log

This page displays OLT system alarms and events.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

System Configuration

System Log

Device Management

User Management

SNMP

AUX IP

DNS

System Time

FAN

Mirror

Login Management

Net Work Security

SSH

System Log

Alarm

Threshold Alarm

Syslog Server

Syslog Server IPv6

Alarm Log Table

Select Counts

200

Alarm Type

ALL

No.1 Page/Total 2 Page

20 Item per page/Total 24 Item

[First](#),
 [Previous](#),
 [Next](#),
 [Last](#)

No.1

Go!

[Clear All](#)

[Refresh](#)

No.	Time	Level	Message
1	2019/03/09 08:58:43	warning	OLT Port Updown Uplink-port 0/10 Up
2	2019/03/09 08:58:38	warning	OLT Port Updown Uplink-port 0/10 Down
3	2019/03/09 08:57:09	warning	System Config Save save config by command
4	2019/03/09 08:56:37	warning	OLT Port Updown Uplink-port 0/10 Up
5	2019/03/09 08:56:16	warning	OLT Port Updown Uplink-port 0/10 Down
6	2019/03/09 08:53:16	warning	OLT Port Updown Uplink-port 0/10 Up
7	2019/03/09 08:53:02	warning	OLT Port Updown Uplink-port 0/10 Down
8	2019/03/09 08:52:52	warning	OLT Port Updown Uplink-port 0/10 Up
9	2019/03/09 08:52:49	warning	OLT Port Updown Uplink-port 0/10 Down
10	2019/03/09 08:52:32	warning	OLT Port Updown Uplink-port 0/10 Up
11	2019/03/09 08:52:29	warning	OLT Port Updown Uplink-port 0/10 Down
12	2019/03/09 08:52:21	warning	System Config Save save config by command
13	2019/03/09 08:52:14	warning	OLT Port Updown PON 0/1 ONU 3 sn GPON0093A921 LAN1 LINK DOWN
14	2019/03/09 08:52:14	warning	OLT Port Updown PON 0/1 ONU 3 sn GPON0093A921 LAN2 LINK DOWN
15	2019/03/09 08:52:14	major	ONU Online PON 0/1 ONU 3 sn GPON0093A921
16	2019/03/09 08:52:12	warning	System Config Save save config by command
17	2019/03/09 08:52:06	warning	OLT Port Updown PON 0/1 ONU 1 sn GPON0091A830 LAN1 LINK DOWN
18	2019/03/09 08:52:06	warning	OLT Port Updown PON 0/1 ONU 1 sn GPON0091A830 LAN2 LINK DOWN
19	2019/03/09 08:52:06	major	ONU Online PON 0/1 ONU 1 sn GPON0091A830
20	2019/03/09 08:52:06	warning	OLT Port Updown PON 0/1 Up

Figure 6.1-1: System Log

6.1.2 Alarm

System Configuration →System Log →Alarm

It contains all the alarms of OLT. User can choose the different alarms to

"Print", "Record", "Trap" and "Remote".

System Log **Alarm** Threshold Alarm Syslog Server Syslog Server IPv6

Alarm Configuration

[Submit](#) [Reset](#)

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	☐	☐	☐	☐
ONU Auth Success	☒	☒	☒	☒	ONU Deauth Success	☐	☒	☒	☒
ONU PON Rxpower High	☐	☐	☐	☐	ONU PON Rxpower-low	☐	☐	☐	☐
ONU PON Txpower High	☐	☐	☐	☐	ONU PON Txpower Low	☐	☐	☐	☐
ONU PON Txbias High	☒	☒	☒	☒	ONU PON Txbias Low	☒	☒	☒	☒

Figure 6.1-2: Alarm

options	Illustration
Print	Alarm and event show in console and telnet, but not show in syslog, EMS and remote log server.
Record	Alarm and event show in syslog, but not show in console, telnet, EMS and remote log server.
Trap	Alarm and event show in EMS, but not show in console, telnet, syslog and remote log server.
Remote	Alarm and event show in remote log server, but not show in console, telnet, syslog and EMS.

6.1.3 Threshold Alarm

System Configuration → System Log → Threshold Alarm

This page is used to configure OLT temperature threshold, CPU-usage threshold and memory- usage threshold, PON optical threshold.

Threshold Alarm Configuration

Type	Print	Record	Trap	Remote	Alarm Threshold	Clear Threshold
Temp High (°C)	☐	☐	☐	☐	0.00	0.00
Temp Low (°C)	☐	☐	☐	☐	0.00	0.00
CPU Usage High (%)	☐	☐	☐	☐	0.00	0.00
MEM Usage High (%)	☐	☐	☐	☐	0.00	0.00

Submit Reset

PON Optical Alarm Configuration

Port ID: PON1

Type	State	Alarm Threshold	Clear Threshold
Tx Power High (dBm)	☐	0.00	0.00
Tx Power Low (dBm)	☐	0.00	0.00
Tx Bias High (mA)	☐	0.00	0.00
Tx Bias Low (mA)	☐	0.00	0.00
Vcc High (V)	☐	0.00	0.00
Vcc Low (V)	☐	0.00	0.00
Temp High (°C)	☐	0.00	0.00
Temp Low (°C)	☐	0.00	0.00

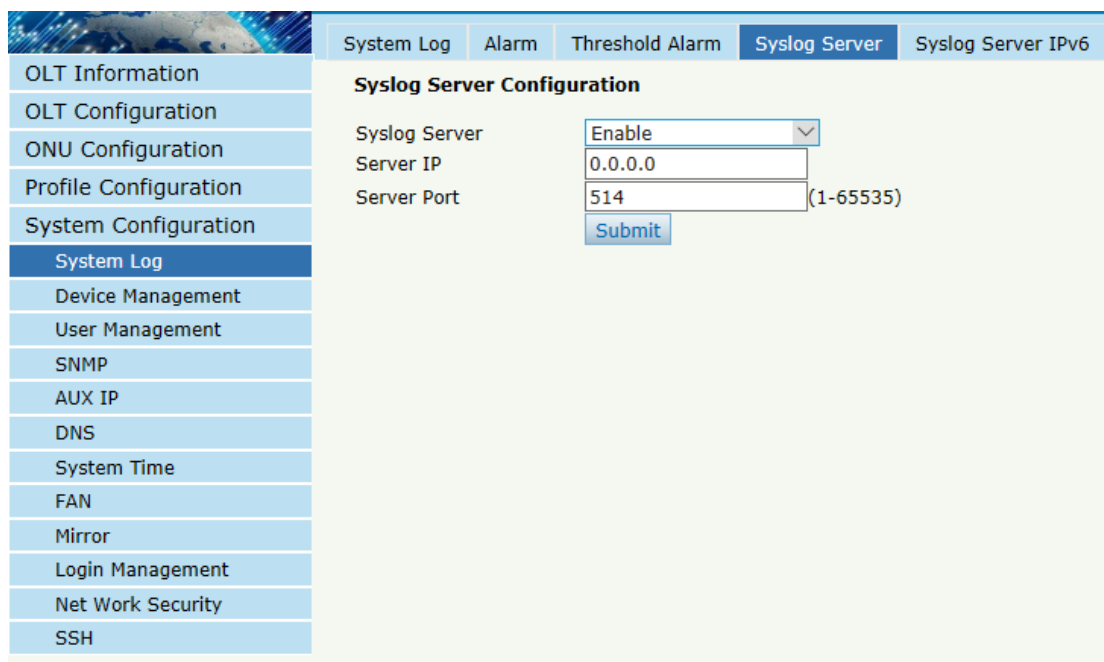
Submit Reset

Figure 6.1-3: Threshold Alarm

6.1.4 Syslog Server

System Configuration → System Log → Syslog Server

This page is used to configure remote IPv4 server of OLT system log.



	System Log	Alarm	Threshold Alarm	Syslog Server	Syslog Server IPv6
OLT Information					
OLT Configuration					
ONU Configuration					
Profile Configuration					
System Configuration					
System Log					
Device Management					
User Management					
SNMP					
AUX IP					
DNS					
System Time					
FAN					
Mirror					
Login Management					
Net Work Security					
SSH					

Syslog Server Configuration

Syslog Server:

Server IP:

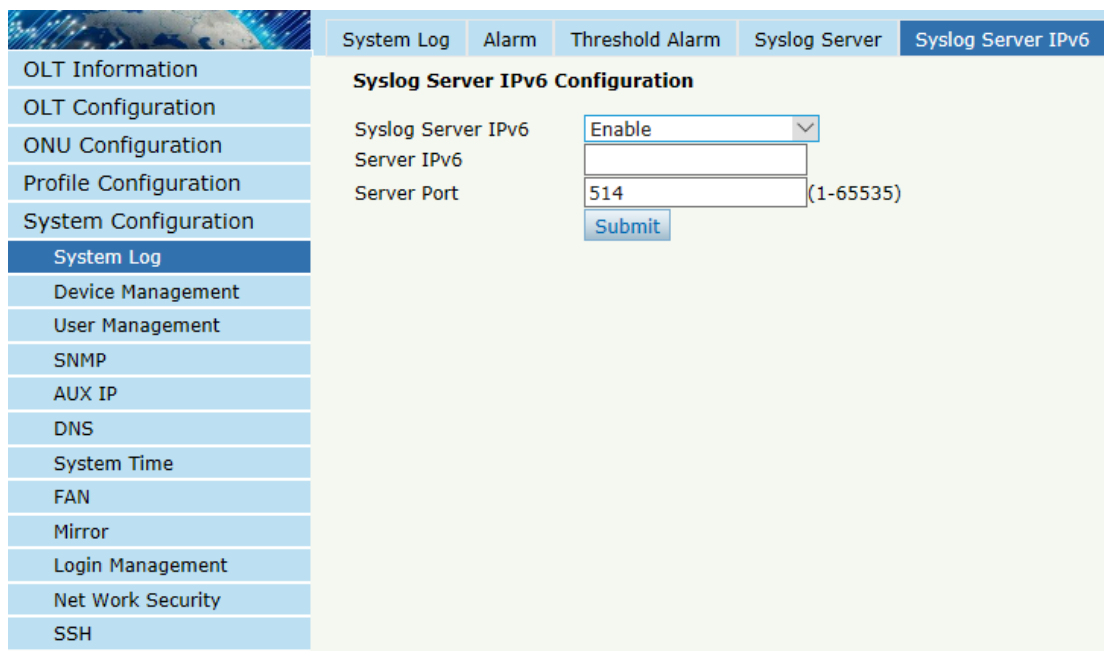
Server Port: (1-65535)

Figure 6.1-4: Syslog Server

6.1.5 Syslog Server IPv6

System Configuration → System Log → Syslog Server IPv6

This page is used to configure remote IPv6 server of OLT system log.



	System Log	Alarm	Threshold Alarm	Syslog Server	Syslog Server IPv6
OLT Information					
OLT Configuration					
ONU Configuration					
Profile Configuration					
System Configuration					
System Log					
Device Management					
User Management					
SNMP					
AUX IP					
DNS					
System Time					
FAN					
Mirror					
Login Management					
Net Work Security					
SSH					

Syslog Server IPv6 Configuration

Syslog Server IPv6:

Server IPv6:

Server Port: (1-65535)

Figure 6.1-5: Syslog Server IPv6

6.2 Device Management

6.2.1 Firmware Upgrade

System Configuration→Device Management →Firmware Upgrade

You can upgrade the OLT firmware on this page. OLT will reboot automatically with the new firmware after upgraded.

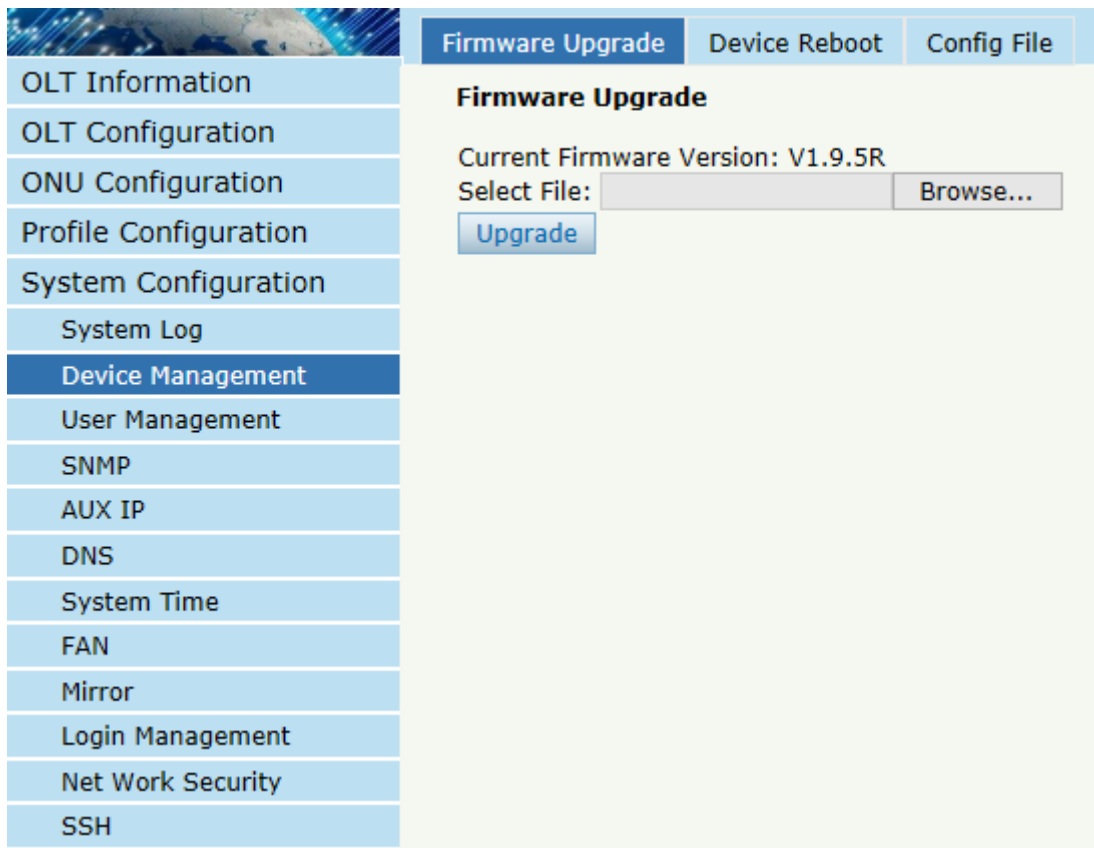


Figure 6.2-1: Firmware Upgrade

6.2.2 Device Reboot

System Configuration→Device Management →Device Reboot

You can reboot the entire system on this page. Please do save the configuration before reboot.

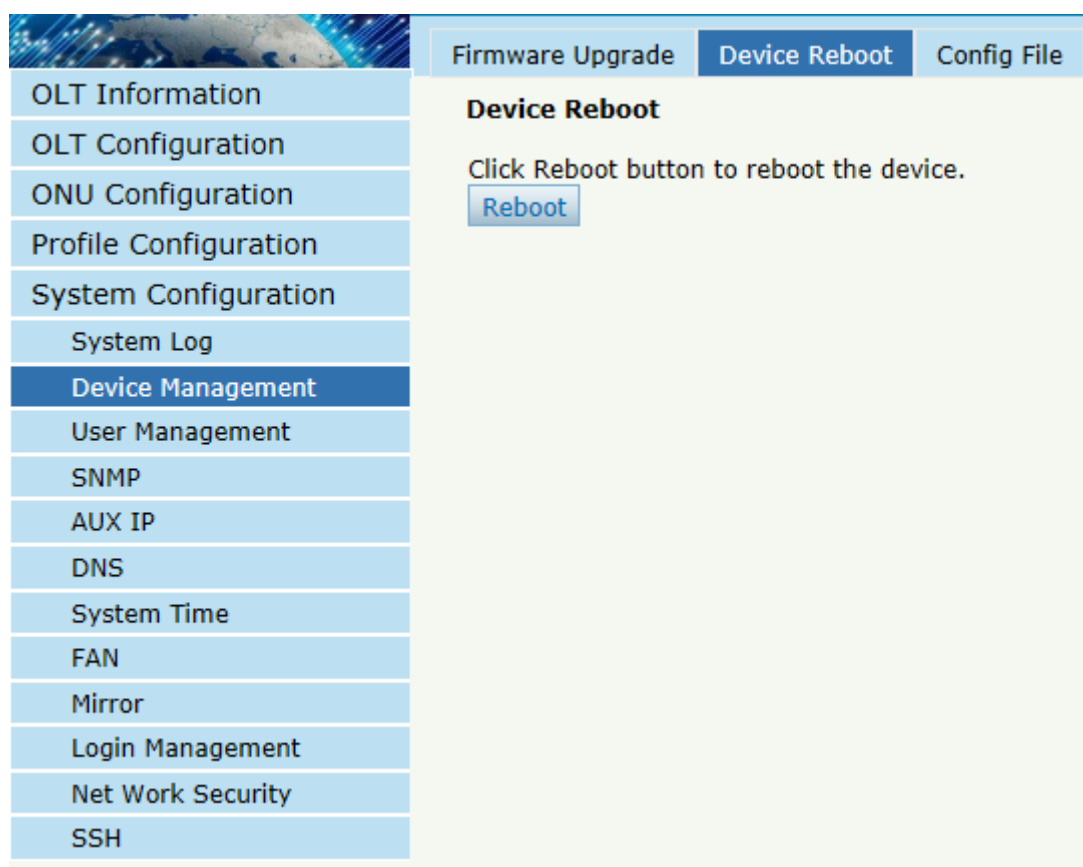


Figure 6.2-2: Device Reboot

6.2.3 Config File

System Configuration→Device Management →Config File

You can backup configuration, restore configuration, restore factory defaults and save configuration on this page.

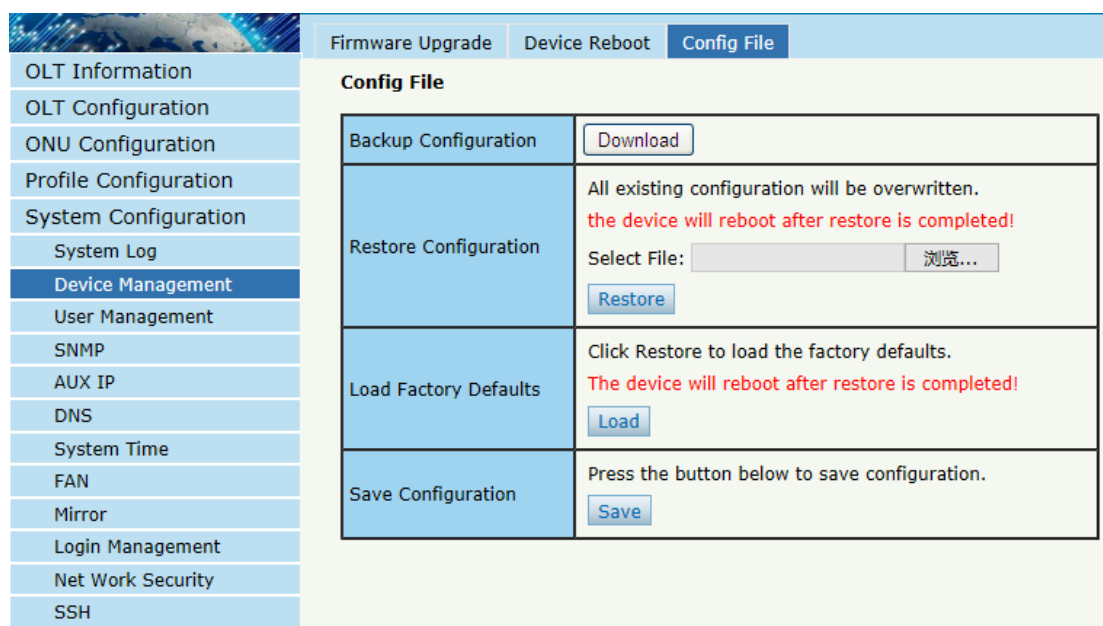


Figure 6.2-3: File Configuration

6.3 User Management

System Configuration→User management

Two types of user 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.

User Name	User Role	Edit	Delete
admin	Admin		

Figure6.3-1: User Manage

6.4 SNMP

6.4.1 SNMP V1/V2

System Configuration → SNMP →SNMP V1/V2

This page is used to configure SNMP parameters of version 1 and version 2 for OLT management.

SNMPV1/V2 **SNMPV3** **SNMPV3 Trap**

Add Community

Community Name

Access Right

Community Table

Community Name	Access Right	Delete
public	Read-Only	
private	Read-Write	

Add Trap

Host IP

UDP Port (1-65535)

Community Name

SNMP Version

Trap Table

Host IP	UDP Port	SNMP Version	Community Name	Delete
---------	----------	--------------	----------------	--------

Figure6.4-1: SNMP V1/V2

6.4.2 SNMP V3

System Configuration → SNMP → SNMP V3

This page is used to configure SNMP parameters of version 3 for OLT management.

SNMPV1/V2 **SNMPV3** SNMPV3 Trap

Add View

View Name

Subtree (Type:Object Identifier)

View Type

View Table

View Name	Subtree	View Type	Delete
-----------	---------	-----------	--------

Add Group

Group Name

Access Level

Read View

Write View

Notify View

Group Table

Group Name	Access Level	Read View	Write View	Notify View	Delete
------------	--------------	-----------	------------	-------------	--------

Add User

User Name

Group Name

Auth Type

Auth Password

Private Type

Private Password

User Table

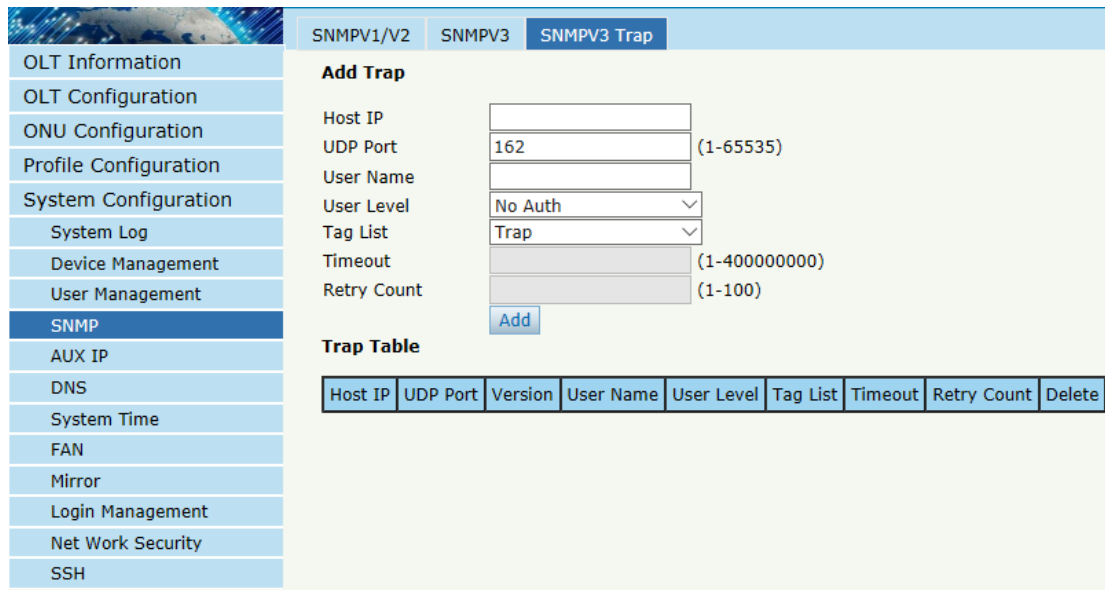
User Name	Group Name	Auth Type	Private Type	Delete
-----------	------------	-----------	--------------	--------

Figure6.4-2: SNMP V3

6.4.3 SMNP V3 Trap

System Configuration → SNMP →SNMP V3 Trap

Configure the target host IP address of trap messages.



The screenshot shows the 'SNMPV3 Trap' configuration page. The left sidebar contains the following navigation links: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration (highlighted), System Log, Device Management, User Management, SNMP (highlighted), AUX IP, DNS, System Time, FAN, Mirror, Login Management, Net Work Security, and SSH.

The main content area has three tabs: SNMPV1/V2, SNMPV3, and SNMPV3 Trap (selected). Below the tabs is the 'Add Trap' section with the following fields:

- Host IP:
- UDP Port: (1-65535)
- User Name:
- User Level: (dropdown)
- Tag List: (dropdown)
- Timeout: (1-400000000)
- Retry Count: (1-100)

Below the fields is an 'Add' button. Underneath is the 'Trap Table' section, which contains a table with the following columns: Host IP, UDP Port, Version, User Name, User Level, Tag List, Timeout, Retry Count, and Delete.

Host IP	UDP Port	Version	User Name	User Level	Tag List	Timeout	Retry Count	Delete

Figure 6.4-3: SNMP V3 Trap

6.5 AUX IP

6.5.1 AUX IP

System Configuration → AUX IP → AUX IP

AUX port is out band management port. The IP address of aux port is out band management IP. Default IPv4 address is 192.168.8.200.



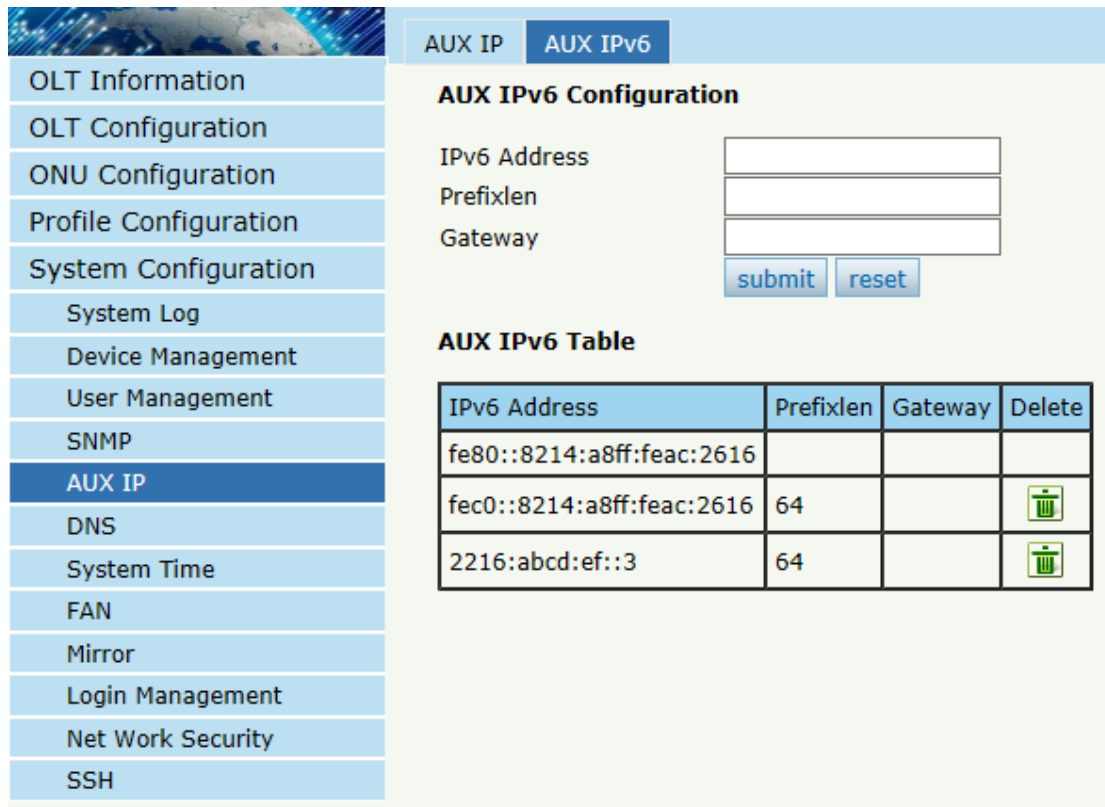
AUX IP Configuration	
IP Address	192.168.8.200
Subnet Mask	255.255.255.0
Gateway	0.0.0.0
Submit Reset	

Figure 6.5-1: AUX IP

6.5.2 AUX IPv6

System Configuration → AUX IP → AUX IPv6

AUX port is out band management port. The IP address of aux port is out band management IP. By default, there is a link local address.



AUX IP

AUX IPv6

AUX IPv6 Configuration

IPv6 Address

Prefixlen

Gateway

submit

reset

AUX IPv6 Table

IPv6 Address	Prefixlen	Gateway	Delete
fe80::8214:a8ff:feac:2616			
fec0::8214:a8ff:feac:2616	64		
2216:abcd:ef::3	64		

Figure 6.5-2: AUX IPv6

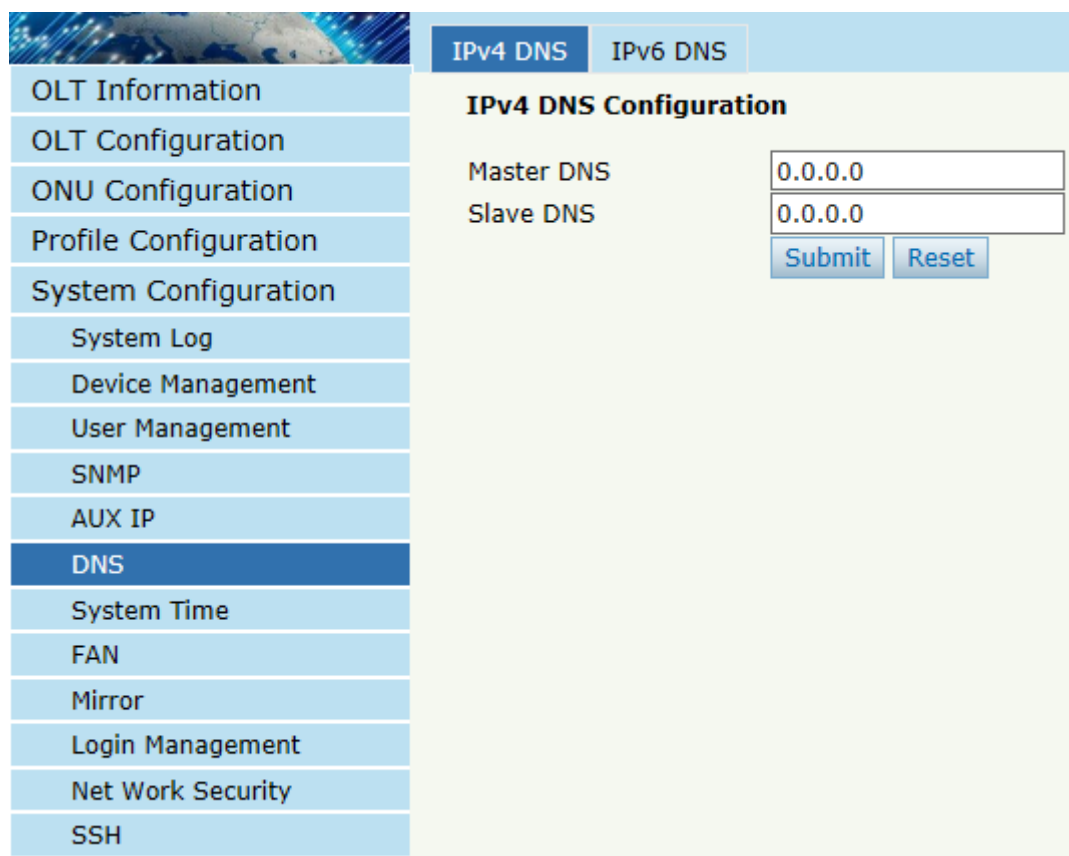
6.6 DNS

DNS is used for domain name resolution. When OLT need to visit a site or a destination by domain, take NTP server for example, DNS is required.

6.6.1 IPv4 DNS

System Configuration → DNS → IPv4 DNS

This page is used to configure IPv4 DNS.



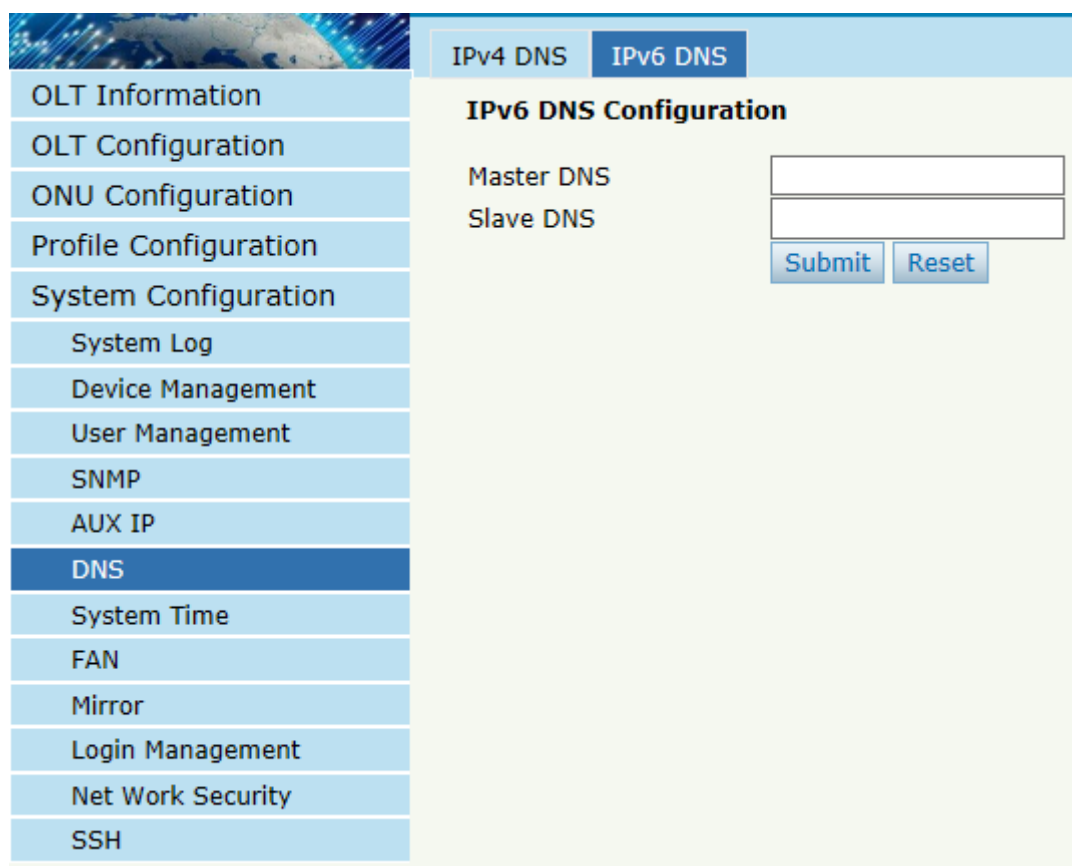
IPv4 DNS		IPv6 DNS
IPv4 DNS Configuration		
Master DNS	0.0.0.0	
Slave DNS	0.0.0.0	
	Submit	Reset

Figure 6.6-1: IPv4 DNS

6.6.2 IPv6 DNS

System Configuration → DNS → IPv6 DNS

This page is used to configure IPv6 DNS.



The screenshot displays the GPON OLT Web User Interface. On the left is a vertical menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log, Device Management, User Management, SNMP, AUX IP, DNS (highlighted in dark blue), System Time, FAN, Mirror, Login Management, Net Work Security, and SSH. The main content area has two tabs at the top: 'IPv4 DNS' and 'IPv6 DNS'. The 'IPv6 DNS' tab is active, showing the 'IPv6 DNS Configuration' section. This section contains two input fields labeled 'Master DNS' and 'Slave DNS', and two buttons labeled 'Submit' and 'Reset'.

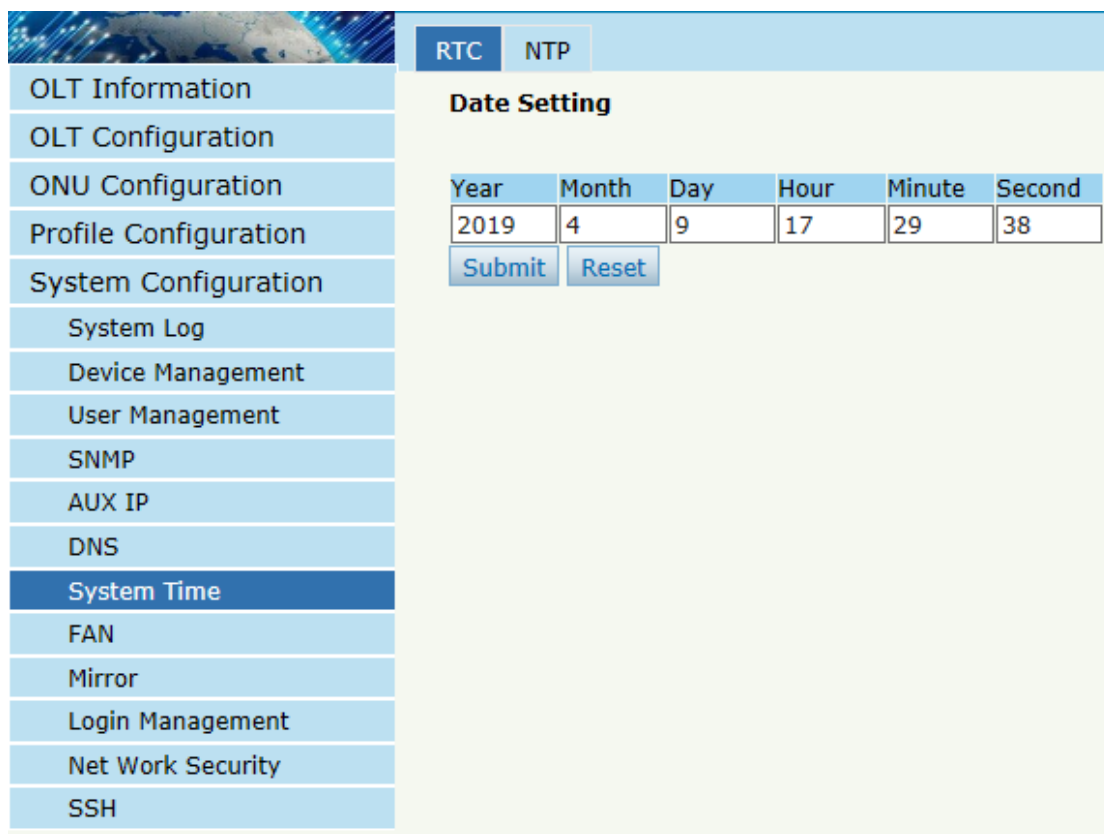
Figure 6.6-2: IPv6 DNS

6.7 System Time

6.7.1 RTC

System Configuration → System Time→RTC

This page is used to set OLT system time. RTC stands for Real-Time Clock, it provides clock signal to the system. There is no battery inside OLT, so the time will not be saved after powered off.



Year	Month	Day	Hour	Minute	Second
2019	4	9	17	29	38

Submit Reset

Figure 6.7-1: RTC Setting

6.7.2 NTP

System Configuration → System Time→NTP

This page is used to configure NTP server. OLT will synchronize time with the NTP server at a given time.

RTC NTP

NTP Configuration

Enable NTP Synchronization

NTP Timezone

NTP Server

Current Time 2019 / 4 / 9 17:29:57

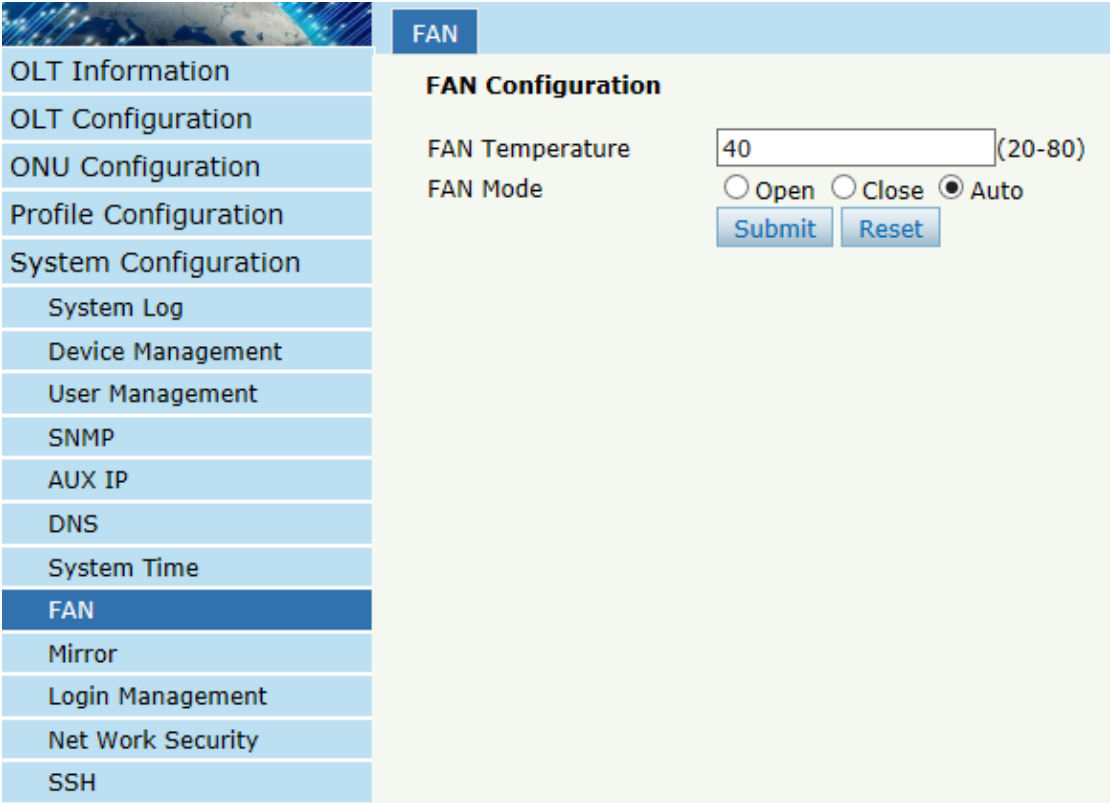
Figure 6.7-2: NTP Configuration

6.8 FAN

System Configuration → FAN

The fans can be turned on and turned off manually; and also can be turned on and off automatically according to the temperature of OLT main chip.

This configuration will not be saved after reboot.



FAN

FAN Configuration

FAN Temperature (20-80)

FAN Mode ☐ Open ☐ Close ☒ Auto

Figure 6.8-1: FAN Configuration

6.9 Mirror

System Configuration → Mirror

Port mirror is usually used for troubleshooting. Each monitor session can be set with one destination port and up to 8 source ports.



OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

System Configuration

System Log

Device Management

User Management

SNMP

AUX IP

DNS

System Time

FAN

Mirror

Login Management

Net Work Security

SSH

Mirror

Mirror Configuration

Session ID

1

Destination Port

GE10

Port ID	Mirrored	Direction
GE1	☐	Both
GE2	☐	Both
GE3	☐	Both
GE4	☐	Both
GE5	☐	Both
GE6	☐	Both
GE7	☐	Both
GE8	☐	Both
GE9	☐	Both
GE10	☐	Both
GE11	☐	Both
GE12	☐	Both
GE13	☐	Both
GE14	☐	Both
GE15	☐	Both
GE16	☐	Both
PON	☒	Both

Submit

Mirror Table

Session ID	Destination Port	Source Port	Type	Delete
1	GE10	PON	Both	Clean

Figure 6.9-1: Mirror Configuration

6.10 Login Management

6.10.1 Login Access List

System Configuration → Login Management → Login Access List

This page is used to configure access rights for management. You can

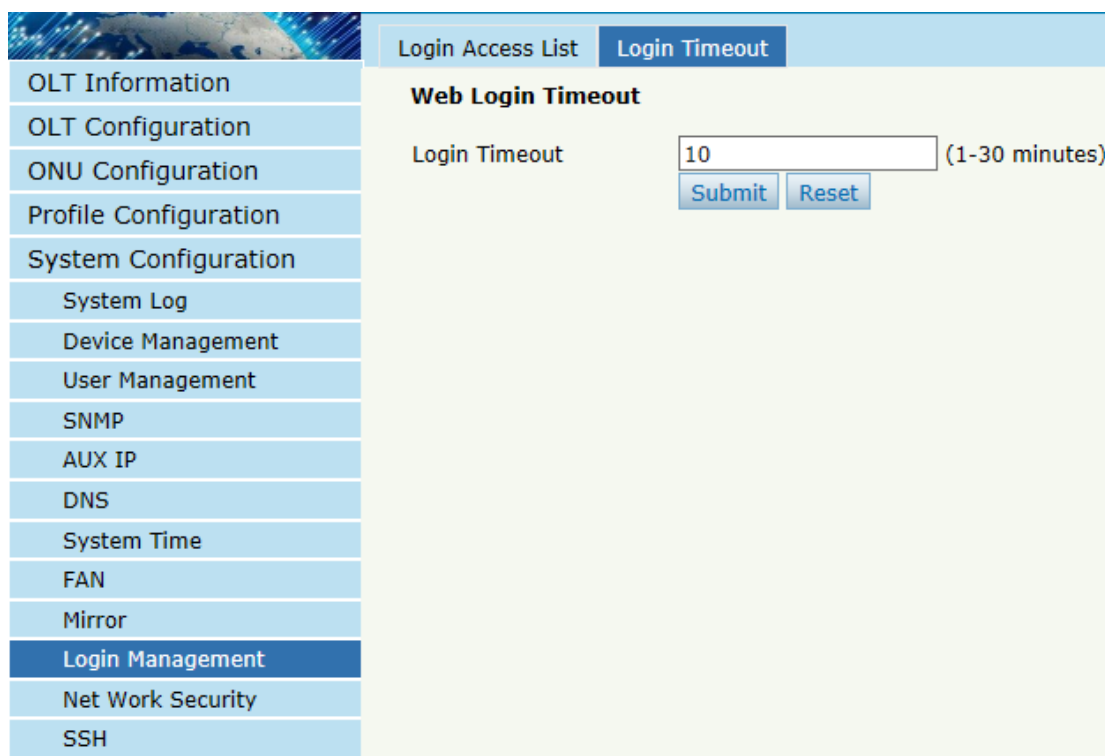
configure access rights for telnet, web, SNMP, SSH according to source IP address.

Figure 6.10-1: Login Access List Configuration

6.10.2 Login Timeout

System Configuration → Login Management → Login Timeout

This page is used to set web timeout.



The screenshot displays the GPON OLT Web User Interface. On the left is a vertical navigation menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log, Device Management, User Management, SNMP, AUX IP, DNS, System Time, FAN, Mirror, Login Management (highlighted in dark blue), Net Work Security, and SSH. The main content area has a light blue header with two tabs: 'Login Access List' and 'Login Timeout' (which is active). Below the header, the section is titled 'Web Login Timeout'. It contains a 'Login Timeout' label, a text input field with the value '10', and a note '(1-30 minutes)'. Below the input field are two buttons: 'Submit' and 'Reset'.

Figure 6.10-2: Login Timeout Configuration

6.11 Net Work Security

System Configuration → Net Work Security

This page is used to set up OLT's network security level.

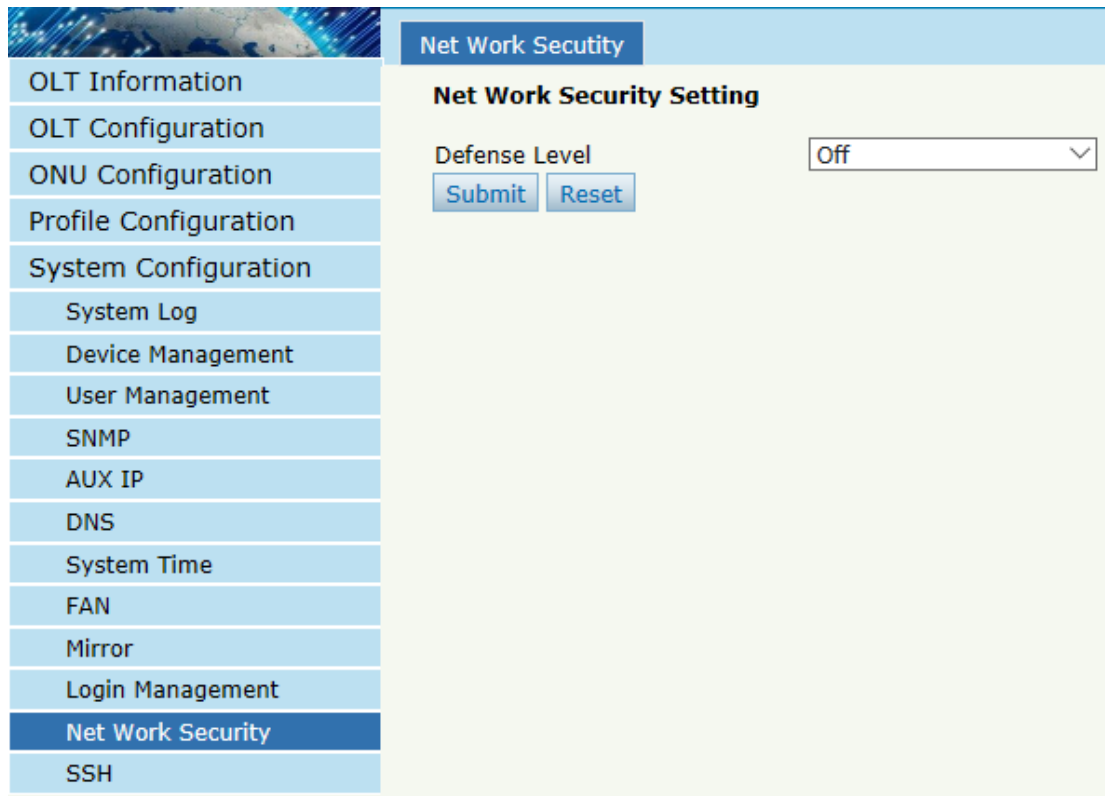


Figure 6.11-1: Net Work Security Setting

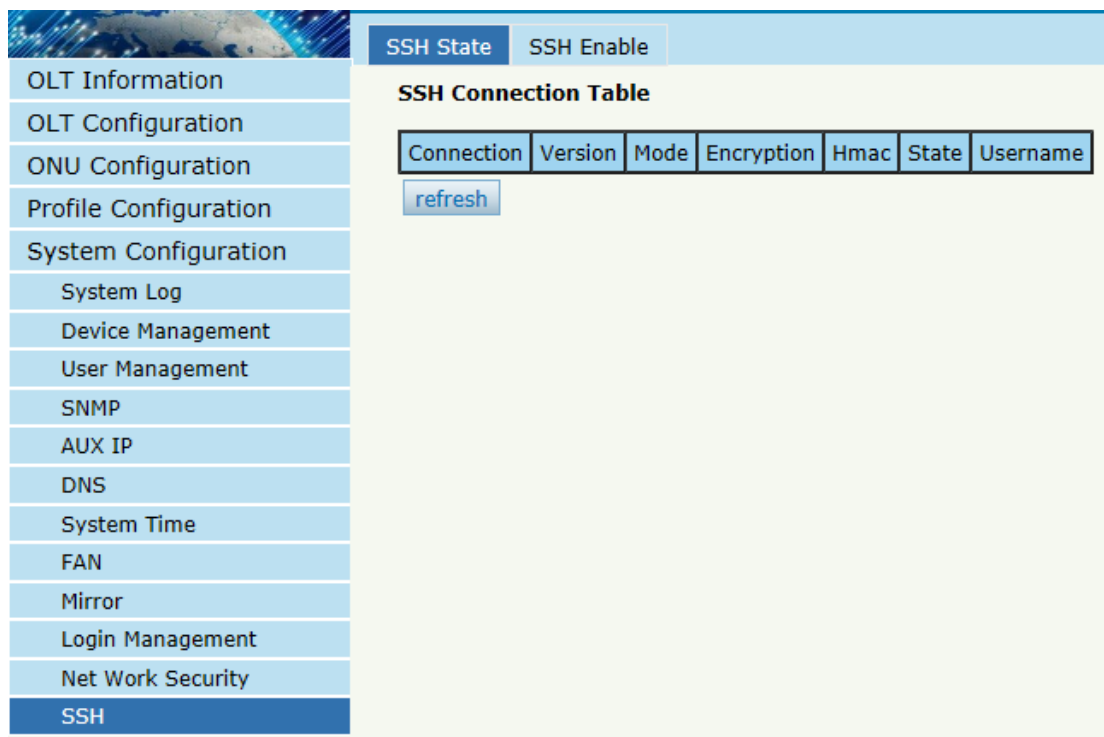
6.12 SSH

SSH (Secure Shell) is a reliable protocol that provides security for remote login sessions and other network services. The SSH protocol can effectively prevent information leakage during remote management.

6.12.1 SSH State

System Configuration → SSH → SSH State

This page displays current connections that have established by SSH protocol.



SSH State SSH Enable

SSH Connection Table

Connection	Version	Mode	Encryption	Hmac	State	Username
------------	---------	------	------------	------	-------	----------

[refresh](#)

Figure 6.12-1: SSH State

6.12.2 SSH Enable

System Configuration → SSH → SSH Enable

This page is used to configure SSH protocol related parameters.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

System Configuration

System Log

Device Management

User Management

SNMP

AUX IP

DNS

System Time

FAN

Mirror

Login Management

Network Security

SSH

SSH State

SSH Enable

SSH Global Configuration

SSH Status

Disable

▼

SSH Version

2

▼

Auth Retries

6

(0-6)

Timeout

120

(1-120)

Modulus

2048

(1024-16384)

submit

reset

SSH Key Table

Key type	Encryption algorithm	Key Data
----------	----------------------	----------

refresh

Figure 6.12-1: SSH Global Configuration

Thank you!