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# **GPON OLT USER MANUAL (WEB Management)**

**Version V2.0.1**

**TOP SECRET**

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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	14
	Copper	8*10/100/1000M auto-negotiation
	SFP (Independent)	6*SFP
10000M Uplink Port	QTY	2
	SFP (Independent)	2*SFP+ ( <b>SFP+</b> is compatible with <b>10GE</b> )
GPON Port	QTY	8
	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 PC System Requirement

Table 1-2 PC System requirement

CPU	Memory	DISK	Video Card	Operating System
Frequency	2GB	10GB	65000 color	Windows2008

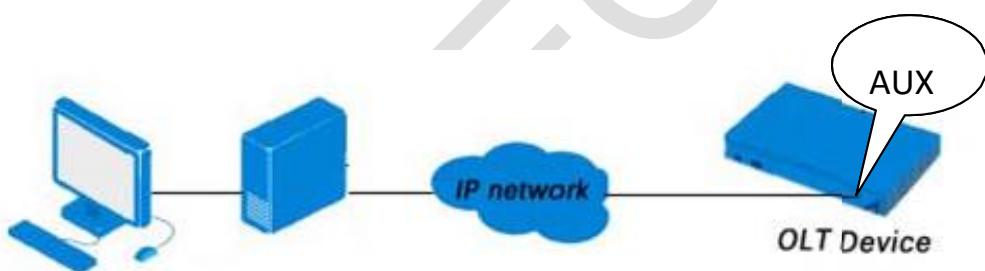
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above 2GHz	Or above	disk space	resolving capability 1024*768 and above	Windows XP Windows 7 Windows 8 Windows 10
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## 1.2 Connection

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.XXX (e.g. 192.168.8.123).



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## 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.

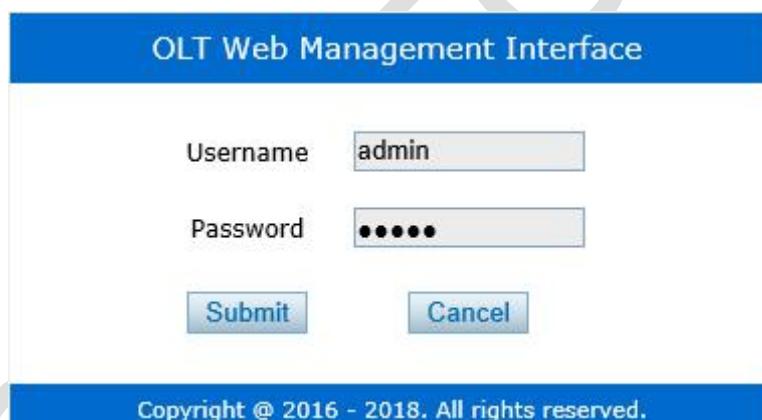


Figure 2-1: Login

### 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, serialnumber,

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



Figure 2-2: Device Information

## Chapter 3 OLT Configuration

This section is about the basic service of OLT configuration.

### 3.1 VLAN

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.

The screenshot shows the 'VLAN' configuration page of an OLT. The left sidebar lists various configuration categories: OLT Information, OLT Configuration, VLAN (which is highlighted with a red circle), Uplink Port, PON, MAC, LACP, QoS, ACL, IGMP, RSTP, DHCP, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The main content area has tabs for 'VLAN', 'VLAN Port', and 'QinQ/Translation'. Under the 'VLAN' tab, there's a 'New VLAN' section with fields for 'VLAN ID' (1-4094) and 'Description', and an 'Add' button. Below that is a 'VLAN Table' with the following data:

VLAN ID	Description	Edit	Delete
1	default		
100	vlan100		
200	vlan200		
1010	vlan1010		

### 3.1.1 Create VLAN

#### OLT Configuration>VLAN

In this user interface, can be create new VLAN.

The screenshot shows the 'VLAN' configuration page of an OLT. On the left is a sidebar with various configuration tabs: OLT Information, OLT Configuration, VLAN (which is selected), Uplink Port, PON, MAC, LACP, QoS, ACL, IGMP, RSTP, DHCP, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The main area has three tabs at the top: VLAN, VLAN Port, and QinQ/Translation. The 'VLAN' tab is active. Below it, there's a 'New VLAN' section with fields for 'VLAN ID' (set to 99) and 'Description' (set to 'vlan99'), followed by a blue 'Add' button. This section is highlighted with a pink border. Below this is a 'VLAN Table' with the following data:

VLAN ID	Description	Edit	Delete
1	default		
100	vlan100		
200	vlan200		
1010	vlan1010		

Figure 3-1: Create New VLAN

### 3.1.2 VLAN Port

#### OLT Configuration>VLAN>VLAN Port.

The screenshot shows a user interface for configuring VLAN ports. On the left is a sidebar with various OLT-related options. The main area has tabs for 'VLAN', 'VLAN Port' (which is selected), and 'QinQ/Translation'. Below the tabs is a section titled 'Port VLAN Configuration' with a dropdown menu set to '99'. A table lists 16 ports (GE1 to GE16) with columns for 'Port ID', 'Forbidden', 'Tag', and 'Untag'. The 'Untag' column contains several checked checkboxes, indicating specific port configurations.

Port ID	Forbidden	Tag	Untag
GE1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE3	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE4	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
GE5	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
GE6	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE7	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE8	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
GE9	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
GE10	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
GE11	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE12	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE13	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE14	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE15	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GE16	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Submit**

Figure 3-2: 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.

The screenshot shows the 'VLAN' configuration page. The left sidebar lists various OLT configurations. The main area has tabs for 'VLAN', 'VLAN Port', and 'QinQ/Translation'. Under 'QinQ Configuration', there are dropdowns for Port ID (GE1), Customer VLAN (99), Customer Cos (any), Service VLAN (100), Service Cos (any), and Mode (VLAN Translation). An 'Add' button is visible. Below is a 'VLAN QinQ Mapping Table' with one entry:

Port ID	Customer VLAN	Customer Cos	Service VLAN	Service Cos	Mode	Delete
GE6	99	any	100	any	VLAN Translation	

Figure 3-3: QinQ/Translation Configuration

## 3.2 Uplink Port

GE port traffic statistics and basic configuration setting.

### 3.2.1 Information

#### OLT Configuration>Uplink Port>Information

This user interface displays traffic statistics of uplink ports.

Traffic Statistics												Log	Stat	Status
Port ID	Link Status	Speed	Rx Bytes	Rx Packets				Tx Bytes	Tx Packets				Collisions	Errors
				Packets	Unicast	Broadcast	Multicast		Packets	Unicast	Broadcast	Multicast		
GE1	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE2	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE3	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE4	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE5	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE6	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE7	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE8	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE9	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE10	Down	-	4292241	50334	29673	17705	2953	4094572	60112	248	51731	8133	0	3
GE11	Down	-	1505534976	11761992	0	0	0	4187	58	0	32	26	0	0
GE12	Up	1000M Full	32217903260	266466398	266466393	0	0	31232952672	250979729	250905193	58255	16276	0	0
GE13	Down	-	1161398784	9073428	9073428	0	0	1263815518	9873915	9873163	601	151	0	0
GE14	Down	-	0	0	0	0	0	64	1	0	0	1	0	0
GE15	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE16	Down	-	0	0	0	0	0	4568247	58156	7143	45949	5064	0	0

[Clear Counters](#) [Refresh](#)

Figure3-4 : GETraffic 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.

GE Configuration												
Port ID	Description	Admin Status	Flow Control	Isolate	PVID	Storm(0 64-1000000fps)			Rate(0 32-100000kbps)		MAC Limit(0-16384)	
						Broadcast	Multicast	Unicast	Ingress	Egress		
GE1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE6		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE7		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE8		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE9		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	▼	512	0	512	0	0	
GE10		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE11		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	▼	512	0	512	0	0	
GE12		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1010	▼	512	0	512	0	0	
GE13		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	▼	512	0	512	0	0	
GE14		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE15		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	
GE16		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	▼	512	0	512	0	0	

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

Figure3-5: 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 "Enable" by default.
Flow Control	Enable or disable flow control function of uplink port to control congestion. It is "disable" 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

### 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 and the traffic statistics.

**Information Configuration**

**Optical Transceiver**

Port ID	Temperature(Degree)	Voltage(V)	Bias Current(mA)	Transmit Power(dBm)
PON1	0.000	0.000	0.000	0.000
PON2	57.242	3.377	14.880	3.557
PON3	0.000	0.000	0.000	0.000
PON4	55.969	3.344	16.282	3.631
PON5	59.453	3.346	18.082	3.693
PON6	0.000	0.000	0.000	0.000
PON7	0.000	0.000	0.000	0.000
PON8	53.551	3.343	14.346	3.737

**Traffic Statistics**

Interface	Rx Packets			Tx Packets			Collisions	Errors
	packets	Broadcast	Multicast	packets	Broadcast	Multicast		
PON	267170374	85036	1149	818451253	96059	1149	0	0

**Clear Counters Refresh**

Figure3-6: PON Information

### 3.3.2 Configuration

#### OLT Configuration>PON>Configuration

This user interface is used to configure port status

The screenshot shows a web-based network management interface for an Optical Line Terminal (OLT). The left sidebar contains a vertical menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IGMP, RSTP, DHCP, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The 'PON' item is currently selected and highlighted in blue. The main content area has a blue header bar with tabs for 'Information' and 'Configuration', with 'Configuration' being the active tab. Below the header is a section titled 'PON Configuration'. A table lists 8 PON ports (PON1 to PON8) with their 'Admin Status' set to checked (indicated by a checkmark). At the bottom of the table are two buttons: 'Submit' and 'Refresh'. The background of the main content area features a graphic of Earth with a network of glowing lines representing fiber optics.

Port ID	Admin Status
PON1	<input checked="" type="checkbox"/>
PON2	<input checked="" type="checkbox"/>
PON3	<input checked="" type="checkbox"/>
PON4	<input checked="" type="checkbox"/>
PON5	<input checked="" type="checkbox"/>
PON6	<input checked="" type="checkbox"/>
PON7	<input checked="" type="checkbox"/>
PON8	<input checked="" type="checkbox"/>

Figure3-7: PON configuration

## 3.4 MAC

In this section, you can check MAC address table of OLT, set MAC aging time and MAC limit of the ports.

### 3.4.1 MAC Table

#### OLT Configuration>MAC>MAC Table

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

**OLT Information**

**OLT Configuration**

- VLAN
- Uplink Port
- PON
- MAC**
- LACP
- QoS
- ACL
- IGMP
- RSTP
- DHCP
- IP Route
- ONU Configuration
- Profile Configuration
- System Configuration

**MAC Address Table**

VLAN ID	MAC	Type	Physical Port
1010	01:00:5E:16:02:02	Static	CPU
1010	01:00:5E:00:01:01	Static	CPU
1010	00:24:21:57:AC:39	Dynamic	PON1
1010	00:E0:4C:86:70:70	Dynamic	PON1
1010	01:00:5E:01:01:01	Static	CPU

**Clean**   **Refresh**

Figure3-8: MAC Address Table

### 3.4.2 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 the MAC to the OLT manually.

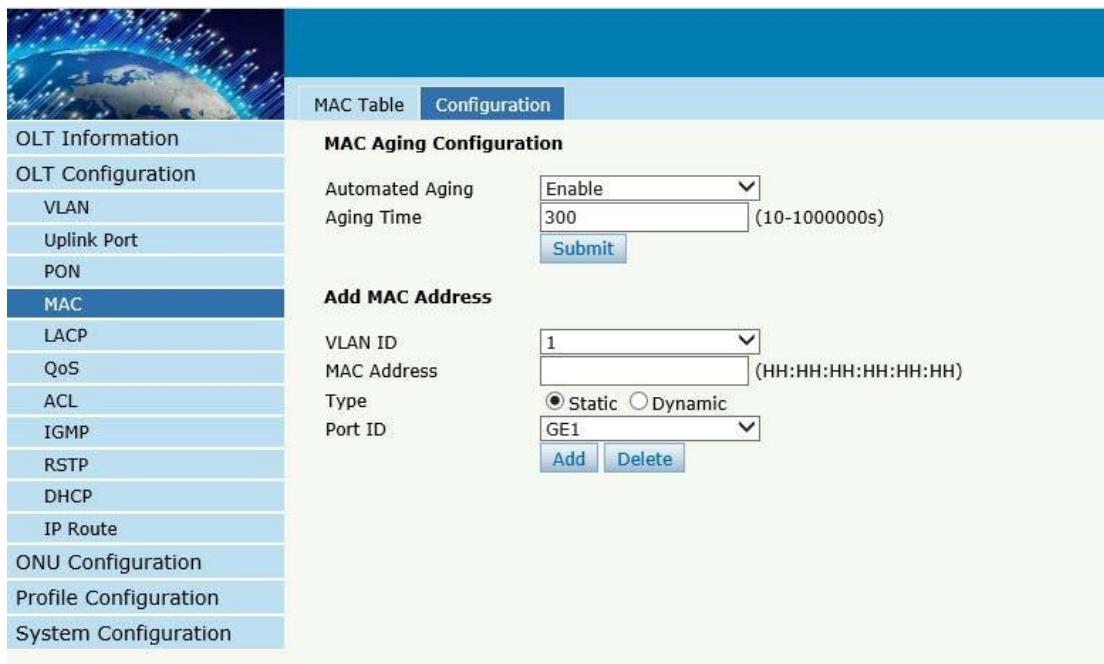


Figure 3-9:MAC Configuration

### 3.5 LACP

#### OLT Configuration€LACP€Static LACP

To assign and configure uplink physical interface to an EtherChannel.

When a traffic link can't be used suddenly, this traffic link will switch to another link automatically. The group range is from 1 to 4. Each group can add 4 ports maximally. Only GE ports can be added in the channel groups.

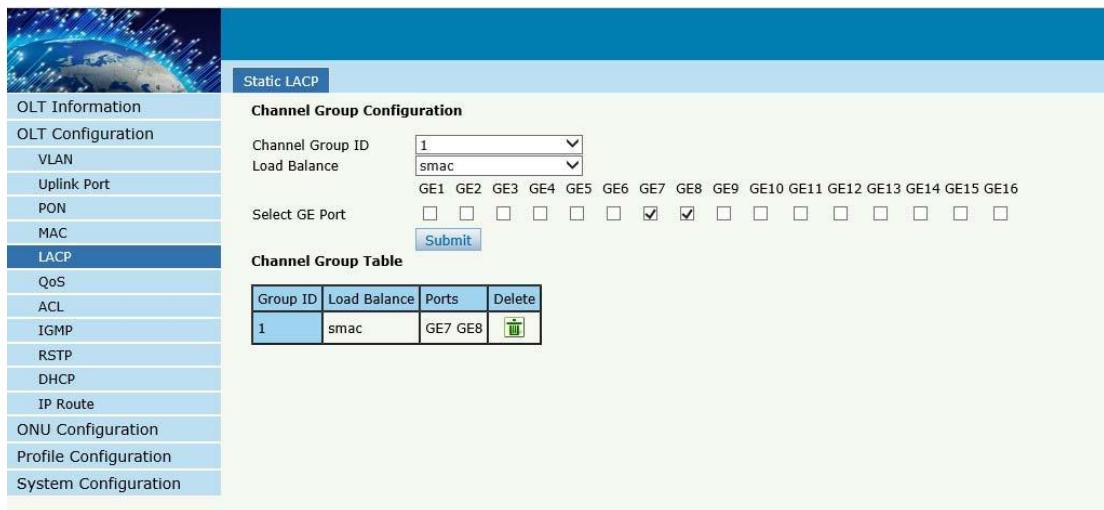


Figure 3-10: Create Static LACP

## 3.6 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.

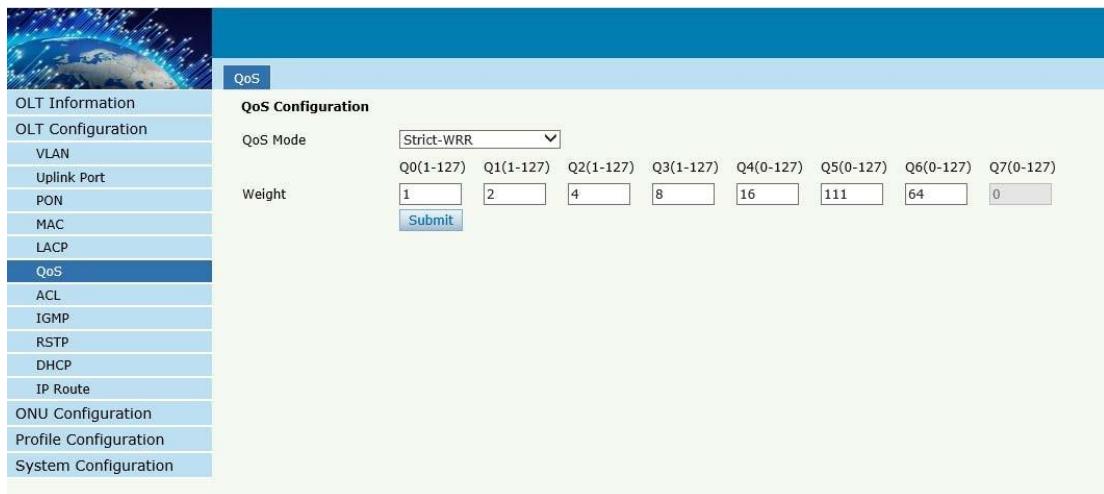


Figure 3-11: QOS Configuration

## 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

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

## OLT Configuration>ACL>IP Filter

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

Figure 3-12: IP Filter

### 3.7.2 MAC Filter

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

## OLT Configuration>ACL>MAC Filter

List ID	Source MAC	Destination MAC	VLAN ID	Cos	Ethernet Type	Filter Action	Delete
2000	4/ffff	14/ffff	1	0-7	HHHH	Permit	

Figure 3-13: MAC Filter

### 3.7.3 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.

#### OLT Configuration>ACL>IP/MAC Filter

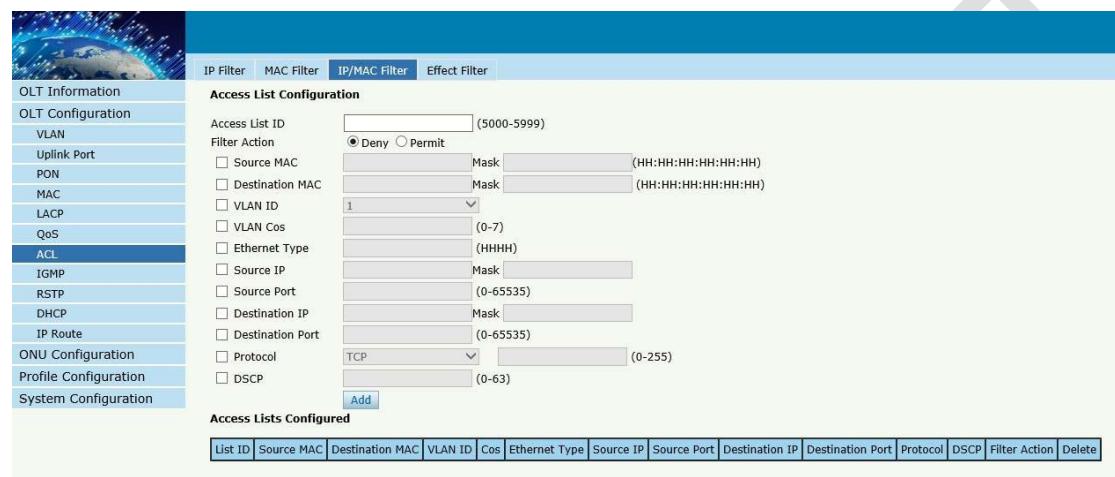


Figure 3-14 IP/MAC Filter

### 3.7.4 Effect Filter

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

#### OLT Configuration>ACL>Effect Filter

OLT Information  
OLT Configuration  
VLAN  
Uplink Port  
PON  
MAC  
LACP  
QoS  
**ACL**  
IGMP  
RSTP  
DHCP  
IP Route  
ONU Configuration  
Profile Configuration  
System Configuration

**Access List Port Configuration**

Access List ID: 1  
GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8 GE9 GE10 GE11 GE12 GE13 GE14 GE15 GE16  
Select GE Port:

[Apply Access List to Port\(s\)](#)

**Active Access Lists**

Access List ID	Ports
1	
1000	

Figure 3-15: Bind Security Filter

## 3.8 IGMP

### 3.8.1 Group Member

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

#### OLT Configuration>IGMP>Group Member

OLT Information  
OLT Configuration  
VLAN  
Uplink Port  
PON  
MAC  
LACP  
QoS  
ACL  
**IGMP**  
RSTP  
DHCP  
IP Route  
ONU Configuration  
Profile Configuration  
System Configuration

**IGMP Group Member**

Group VLAN ID	IP Address	Port ID	Type	User VLAN ID
1010	239.1.1.1	PON7	Static	1010
1010	239.22.2.2	PON7	Static	1010
1010	236.0.1.1	PON7	Static	1010

[Refresh](#)

Figure 3-16: Group Member

### 3.8.2 Global

#### OLT Configuration & IGMP&Global.

IGMP basic configuration mainly contains parameters of query packet.

When IGMP status is checked, 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 disable, OLT works at transparent mode.

The screenshot shows the 'OLT Configuration' section of the management interface. On the left, a vertical menu lists various configuration categories: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, **IGMP**, RSTP, DHCP, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The 'IGMP' option is currently selected. The main panel has a header with tabs: Group Member, **Global**, Port, Port User VLAN, Port Mrouter, Mvlan, and Static Group. Below this, the 'IGMP Configuration' section is displayed, containing the following settings:

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	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
General Query Interval	10 (10-255s)
Query Source IP	2.2.2.2

At the bottom right of the configuration area are 'Submit' and 'Reset' buttons.

Figure 3-17: IGMP Global

### 3.8.3 Port

#### OLT Configuration > IGMP > Port

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

Port ID	Fast Leave	Filter	Group Limit(0-1024)
GE1	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE2	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE3	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE4	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE5	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE6	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE7	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE8	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE9	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE10	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE11	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE12	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE13	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE14	<input type="checkbox"/>	<input type="checkbox"/>	1024
GE15	<input type="checkbox"/>	<input type="checkbox"/>	1024

Figure 3-18: IGMP Port

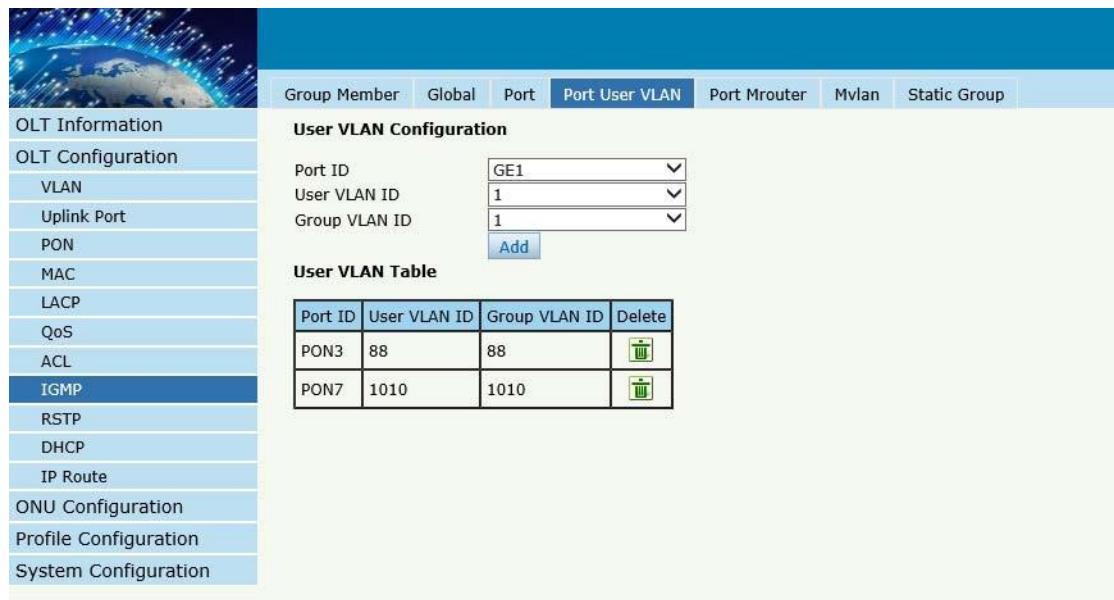
### 3.8.4 Port User VLAN

#### 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

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will be translated.



The screenshot shows a network management interface for configuring User VLANs. On the left is a sidebar with various OLT-related options. The main area has tabs at the top: Group Member, Global, Port, Port User VLAN (which is selected), Port Mrouter, Mvlan, and Static Group. Under the Port User VLAN tab, there's a section for 'User VLAN Configuration' with dropdown menus for Port ID (GE1), User VLAN ID (1), and Group VLAN ID (1), followed by an 'Add' button. Below this is a 'User VLAN Table' containing two rows of data:

Port ID	User VLAN ID	Group VLAN ID	Delete
PON3	88	88	[Delete]
PON7	1010	1010	[Delete]

Figure 3-19: IGMP Port User VLAN

### 3.8.5 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.

The screenshot shows the 'IGMP' section of the OLT Configuration interface. On the left, a sidebar lists various configuration options like OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IGMP, RSTP, DHCP, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The 'IGMP' option is currently selected and highlighted in blue. The main panel is titled 'Add Multicast Router' and contains fields for 'Port ID' (set to 'GE1') and 'Group VLAN ID' (set to '1'). Below this is a table titled 'Multicast Router Table' with two entries: one for port 'GE12' with group VLAN ID '88' and another for port 'GE3' with group VLAN ID '200'. Each entry includes a 'Delete' button.

Figure 3-20: IGMP Port Mroute

### 3.8.6 Mvlan

#### OLT Configuration → IGMP → Mvlan

This configuration is used to configure Mvlan and its mode.

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

Figure 3-21: IGMP MVLAN

### 3.8.7 Static Group

#### OLT Configuration → IGMP → Static Group

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

Figure 3-22: IGMP Static Group

## 3.9 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.

### 3.9.1 Information

#### OLT Configuration>RSTP>Information

Global information mainly displays RSTP parameters of root bridge device.

The screenshot shows a web-based network management interface. On the left, there's a vertical sidebar with various configuration tabs: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IGMP, RSTP (which is highlighted in blue), DHCP, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The main content area has a blue header bar with tabs for Information, Global, and Port. Below this is a section titled "RSTP Information" containing a table with two columns: Root and Bridge. The table includes fields for Cost (0), Port (CPU), Priority (32768), MAC Address (80:14:A8:75:83:AD / 80:14:A8:75:83:AD), Hello Time (2s), Max Age (20s), and Forward Delay (15s). At the bottom of this section is another table titled "RSTP Port Status" with columns for Port ID, Role, State, Cost, Priority, and Point To Point. One row is shown with values: GE12, Design, Forwarding, 200000, 128, and Enable. A "Refresh" button is located at the bottom of the "RSTP Port Status" table.

	Root	Bridge
Cost	0	
Port	CPU	
Priority	32768	32768
MAC Address	80:14:A8:75:83:AD	80:14:A8:75:83:AD
Hello Time	2s	2s
Max Age	20s	20s
Forward Delay	15s	15s

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

Figure 3-23:RSTP Information

### 3.9.2 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.

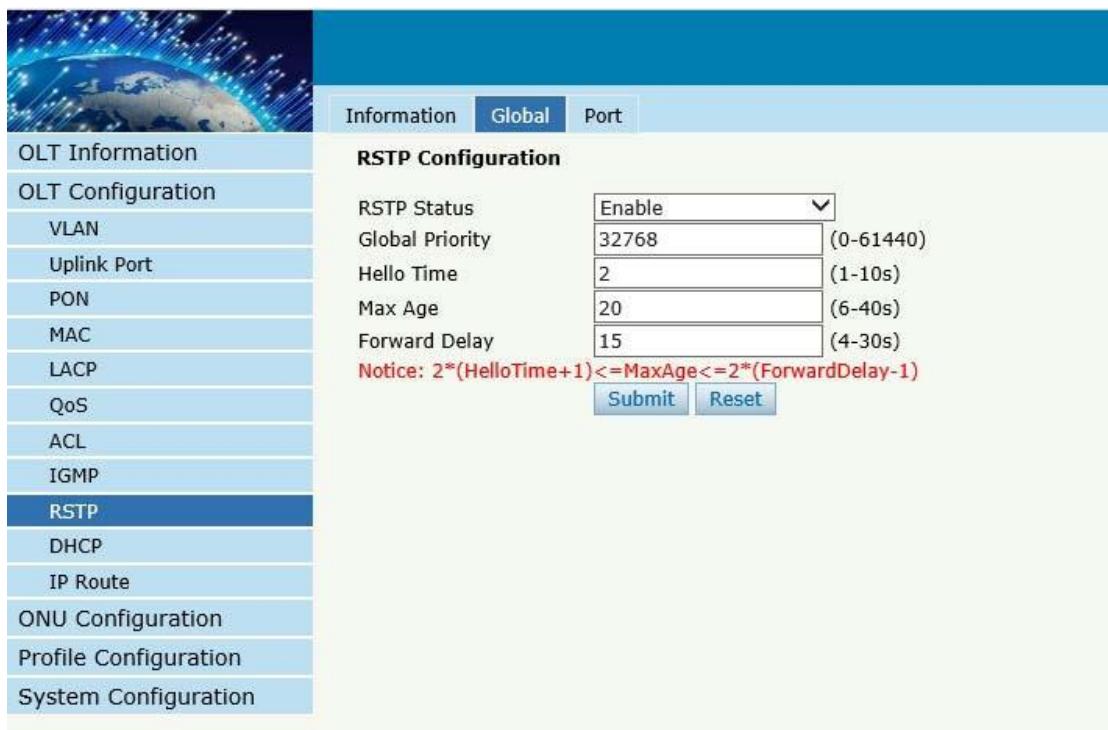


Figure 3-24: RSTP Global Setup

### 3.9.3 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.

The screenshot shows a network configuration interface with a sidebar menu on the left and a main configuration table on the right.

**Left Sidebar (OLT Information):**

- OLT Information
- OLT Configuration
  - VLAN
  - Uplink Port
  - PON
  - MAC
  - LACP
  - QoS
  - ACL
  - IGMP
  - RSTP** (highlighted)
  - DHCP
  - IP Route
  - ONU Configuration
  - Profile Configuration
  - System Configuration

**Main Content Area:**

**Information Global Port** (Port tab selected)

**RSTP Port Configuration**

Port ID	Status	Priority (0-255)	Cost (1-200000000)	OperEdge	Point To Point
GE1	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE2	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE3	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE4	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE5	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE6	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE7	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE8	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE9	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE10	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE11	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE12	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE13	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE14	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE15	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GE16	<input checked="" type="checkbox"/>	128	200000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Buttons:** Submit, Reset

Figure 3-25: RSTP Port Setting

### 3.10 DHCP

OLT can support the following DHCP functions.

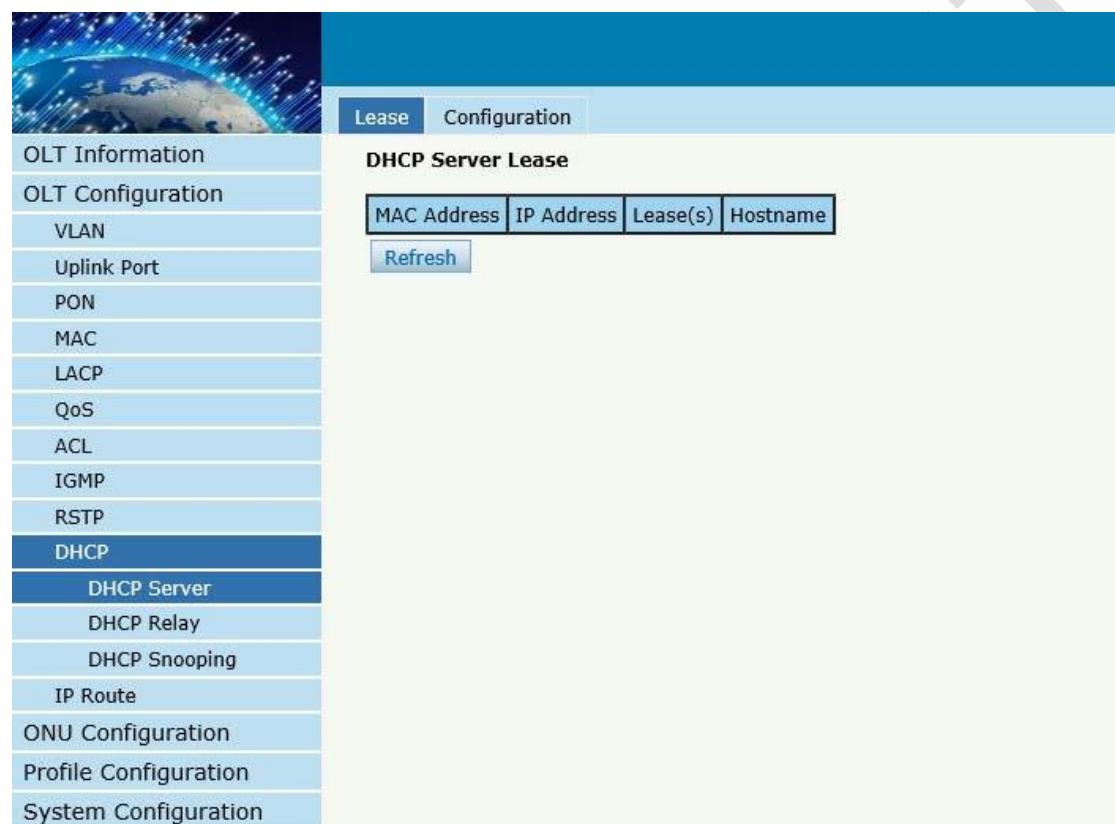
- DHCP Server
- DHCP Relay
- DHCP Snooping

### 3.10.1 DHCP Server

#### 3.10.1.1 DHCP Lease

##### OLT Configuration>DHCP>DHCP Server>Lease

This table displays IP addresses assigned and their MAC addresses, lease time.



The screenshot shows a web-based network management interface for an Optical Line Terminal (OLT). The left sidebar contains a vertical list of configuration categories: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IGMP, RSTP, DHCP, DHCP Server (which is selected), DHCP Relay, DHCP Snooping, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The main content area has a blue header bar with tabs for 'Lease' and 'Configuration'. Below the header is a section titled 'DHCP Server Lease' with a table header row containing 'MAC Address', 'IP Address', 'Lease(s)', and 'Hostname'. A 'Refresh' button is located below the table. The main body of the page is currently empty, indicating no leases have been assigned.

Figure 3-26: DHCP Lease

#### 3.10.1.2 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.

The screenshot shows the 'DHCP Server Configuration' section of the OLT Configuration interface. On the left, there is a vertical navigation menu with options like OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IGMP, RSTP, DHCP, DHCP Server (which is selected), DHCP Relay, DHCP Snooping, IP Route, ONU Configuration, Profile Configuration, and System Configuration. The main panel has tabs for 'Lease' and 'Configuration', with 'Configuration' selected. Under 'DHCP Server Configuration', there are dropdown menus for 'Enable' (set to 'Enable') and 'VLAN ID' (set to '1'). Below these are two buttons: 'Submit' and 'Reset'. The 'DHCP Server Settings' section contains input fields for 'Start IP Address' (192.168.87.33), 'End IP Address' (192.168.87.254), 'Subnet Mask' (255.255.255.0), '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), and 'Client Lease Time' (864000, with a note '(60-864000s)'). There are also 'Submit' and 'Reset' buttons for this section.

Figure 3-27: DHCP Configuration

### 3.10.2 DHCP Relay

#### 3.10.2.1 DHCP Relay Configuration

##### 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.

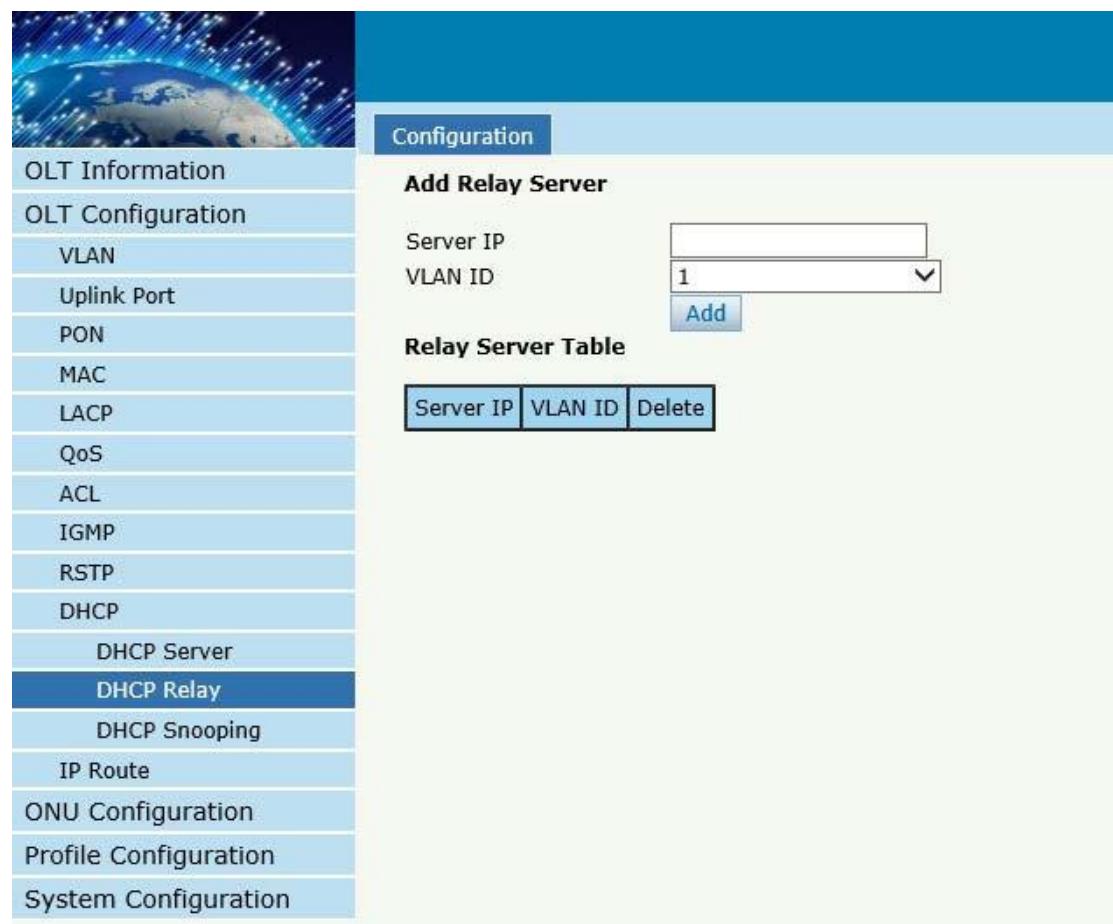


Figure 3-28:DHCP Relay Configuration

### 3.10.3 DHCP Snooping

#### 3.10.3.1 DHCP Snooping Bind List

#### OLT Configuration → DHCP → DHCP Snooping → Bind List

The static bind of the DHCP Snooping will be shown ,

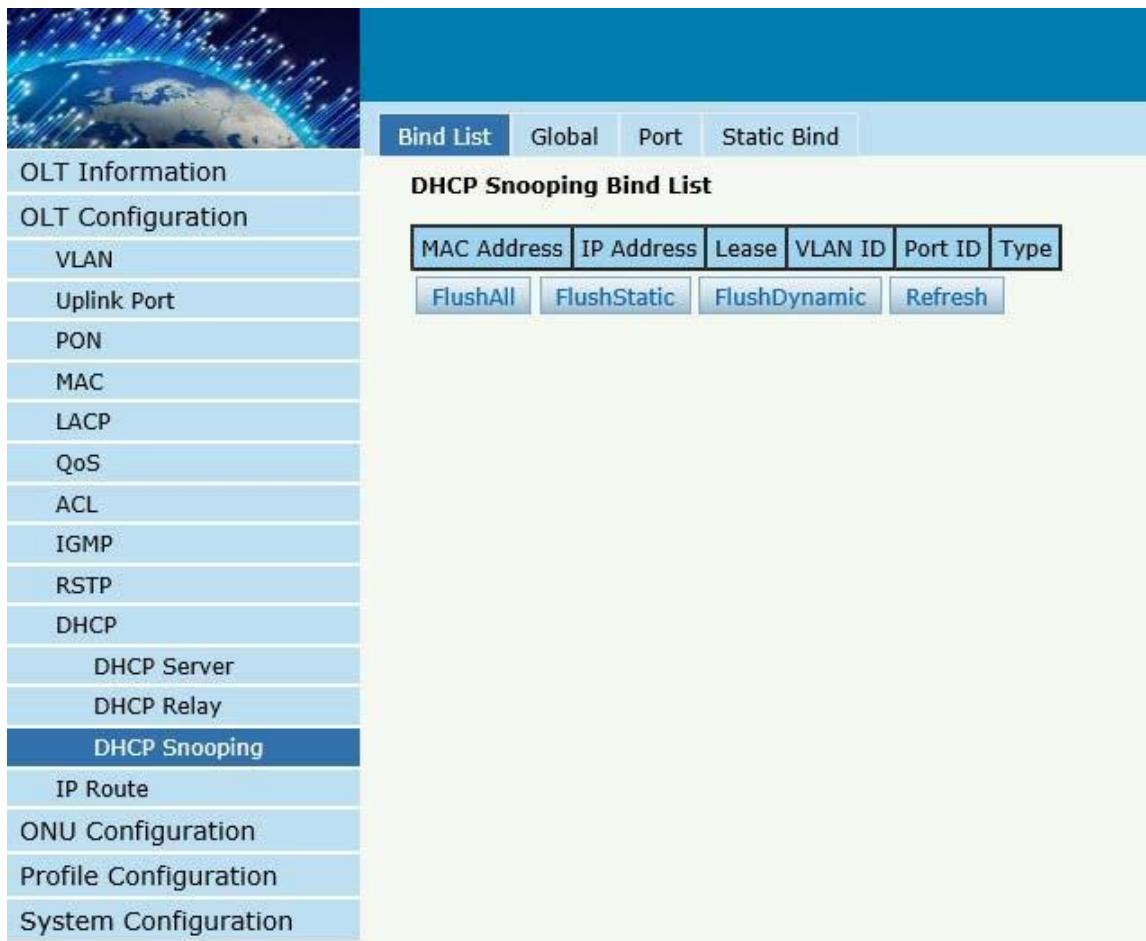


Figure 3-29: DHCP Snooping Bind List

### 3.10.3.2 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.

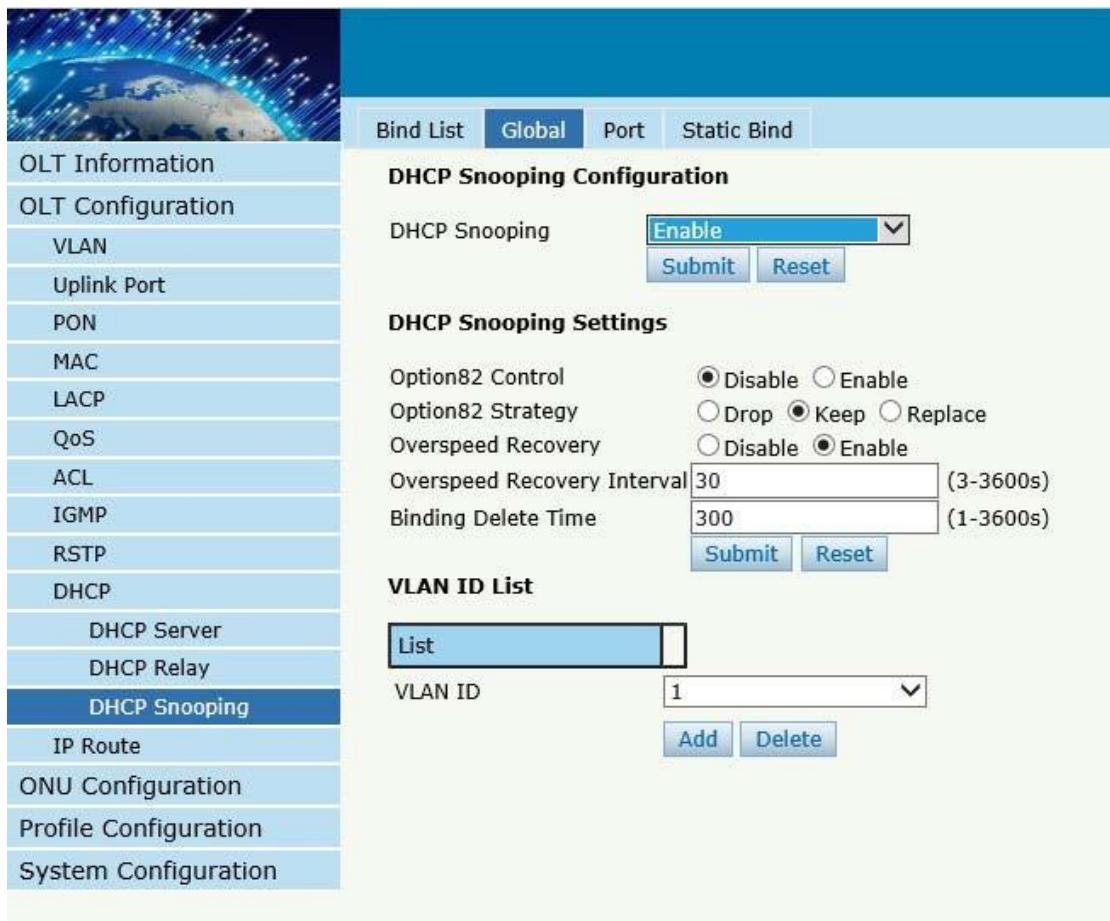


Figure 3-30: DHCP Snooping Global

### 3.10.3.3 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 3-31:DHCP Snooping Port Setup

### 3.10.3.4 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.

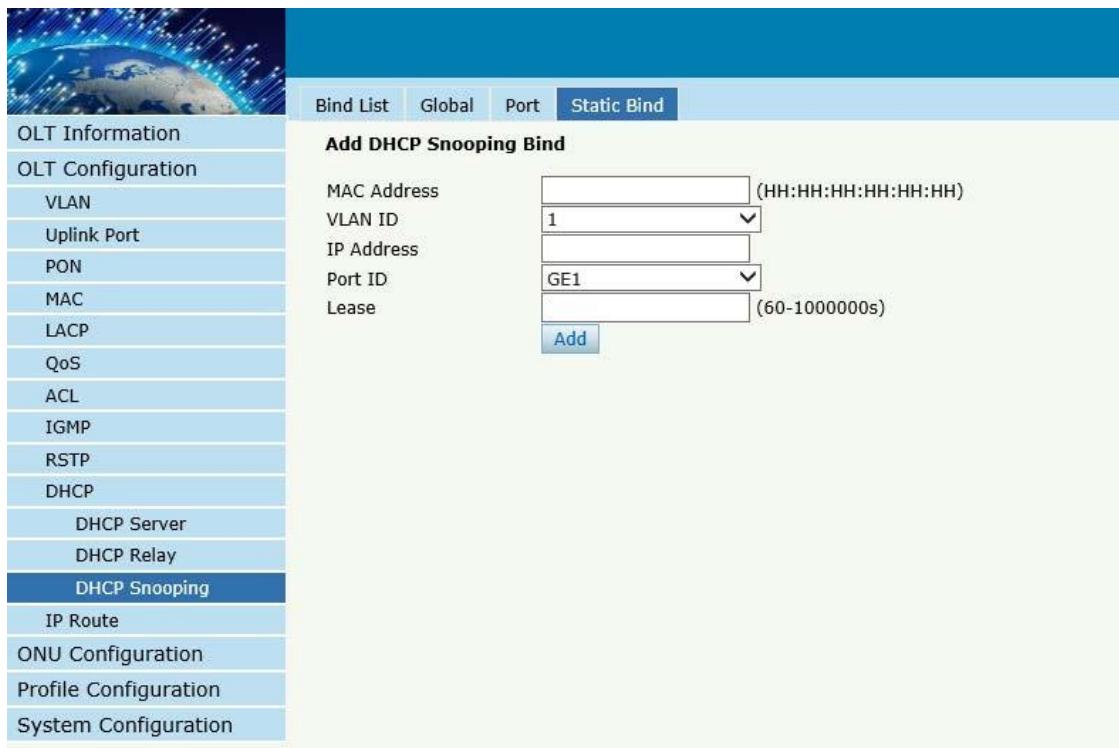


Figure 3-32 DHCP Snooping Static Bind

## 3.11 IP Route

### 3.11.1 VLAN IP

#### OLT Configuration>IP Route>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.

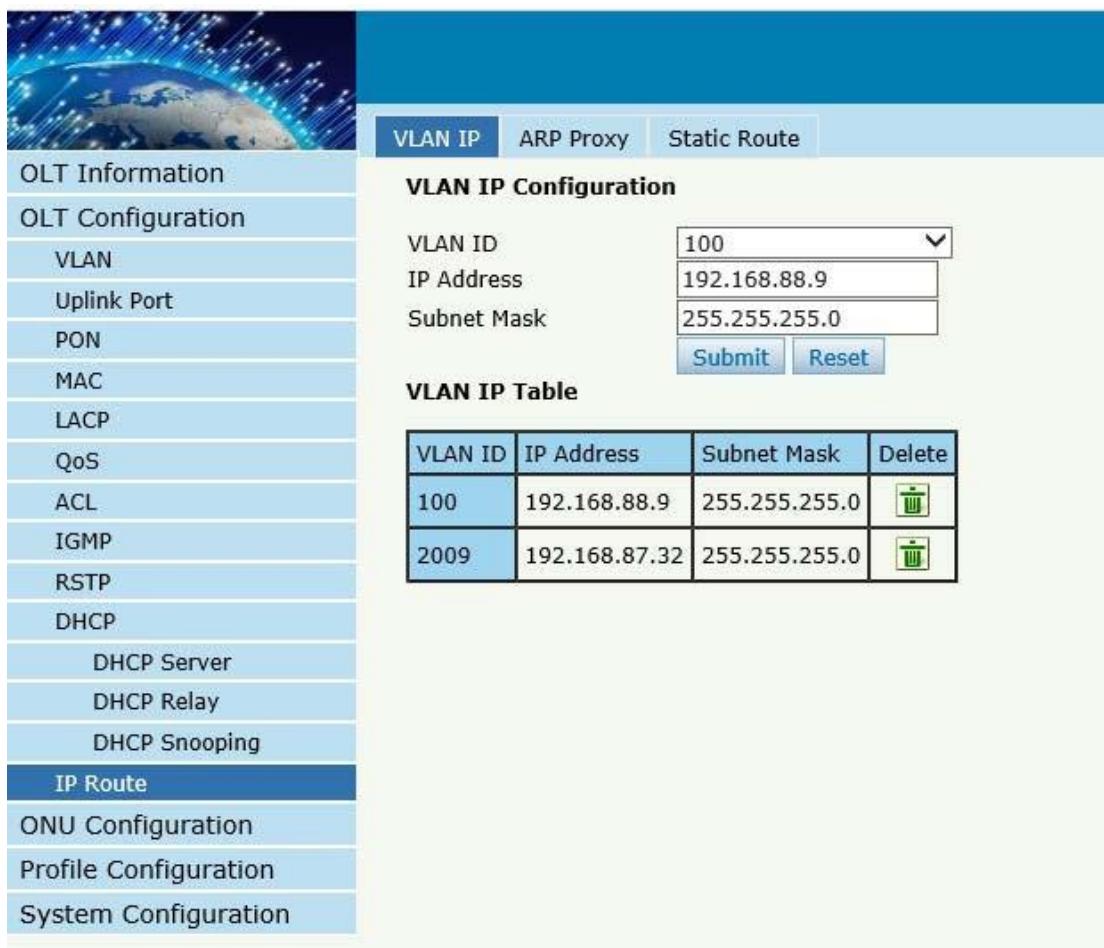


Figure 3-33: VLAN IP

### 3.11.2 ARP Proxy

#### OLT Configuration€IP Route€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'.

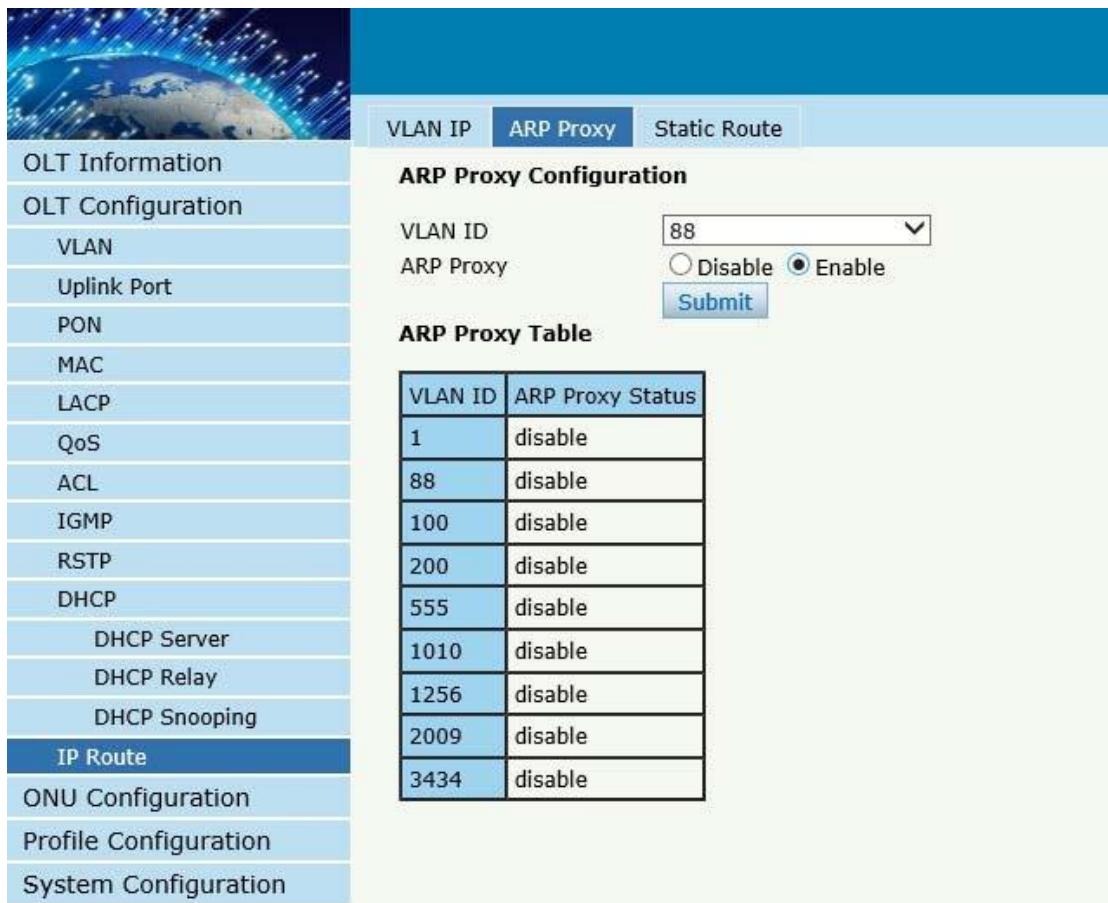


Figure 3-34: ARP proxy configuration

### 3.11.3 Static Route

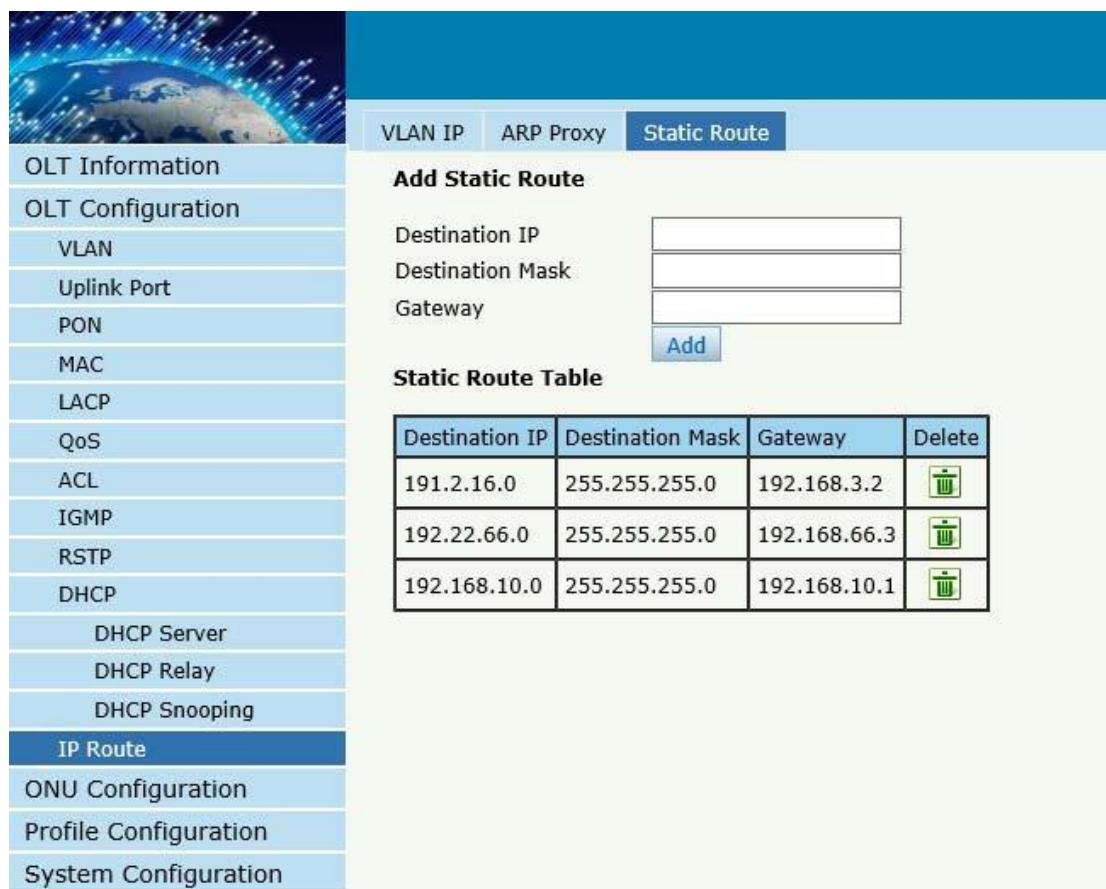
#### OLT Configuration → IP Route → Static Route

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,

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add static routes to make the network on the different network segment communicate with each other.



The screenshot shows a network configuration interface with a sidebar on the left and a main content area on the right.

**Left Sidebar:**

- OLT Information
- OLT Configuration
- VLAN
- Uplink Port
- PON
- MAC
- LACP
- QoS
- ACL
- IGMP
- RSTP
- DHCP
- DHCP Server
- DHCP Relay
- DHCP Snooping
- IP Route** (selected)
- ONU Configuration
- Profile Configuration
- System Configuration

**Main Content Area:**

Top navigation bar: VLAN IP | ARP Proxy | **Static Route**

**Add Static Route**

Form fields:  
Destination IP:   
Destination Mask:   
Gateway:

**Static Route Table**

Destination IP	Destination Mask	Gateway	Delete
191.2.16.0	255.255.255.0	192.168.3.2	
192.22.66.0	255.255.255.0	192.168.66.3	
192.168.10.0	255.255.255.0	192.168.10.1	

Figure 3-35: Static Route

## Chapter 4 ONU Configuration

This chapter is about the ONU management by OLT.

### 4.1 ONU AuthList

#### 4.1.1 ONU Status

##### ONU Configuration>ONU AuthList>ONU Status

Select PON port ID, all ONUs will be displayed in this interface.

You can check ONU Admin state、OMCC state and phase state.

If the phase state is working ,this ONU is registered successfully

The screenshot shows a web-based network management interface. On the left is a vertical sidebar with a globe icon and a list of navigation items: OLT Information, OLT Configuration, ONU Configuration, **ONU AuthList**, ONU AutoFind, ONU AutoLearn, ONU Upgrade, Rogue ONU, Profile Configuration, and System Configuration. The 'ONU AuthList' item is currently selected. The main content area has a blue header bar with tabs: ONU Status (which is active), ONU List, and ONU Manual Add. Below the header is a section titled 'ONU Status Info' with a dropdown menu labeled 'Port ID' set to 'PON2'. A large table follows, with columns: ONU ID, Admin State, OMCC State, and Phase State. The table contains 12 rows, each corresponding to a GPON port from 2:1 to 2:11. All entries show 'Enable' for Admin State and 'Disable' for OMCC State. The Phase State column shows values: 'working' for ports 2:1, 2:2, and 2:4; 'Offline' for ports 2:3, 2:5, 2:7, 2:8, 2:9, 2:10, and 2:11. At the bottom of the table is a blue 'Refresh' button.

ONU ID	Admin State	OMCC State	Phase State
GPON0/2:1	Enable	Enable	working
GPON0/2:2	Enable	Enable	working
GPON0/2:3	Enable	Disable	Offline
GPON0/2:4	Enable	Disable	Offline
GPON0/2:5	Enable	Disable	Offline
GPON0/2:7	Enable	Disable	Offline
GPON0/2:8	Enable	Disable	Offline
GPON0/2:9	Enable	Disable	Offline
GPON0/2:10	Enable	Disable	Offline
GPON0/2:11	Enable	Disable	Offline

Figure 4-1 ONU Status

## 4.1.2 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.

ONU ID	ONU Profile	Auth Mode	Auth Info	Action
GPONO/2:1	hgu	Sn	RTKG111170B0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:2	hgu	Sn	RTKG00007070	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:3	hgu	Sn	RTKG00007060	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:4	hgu	Sn	RTKG11117160	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:5	hgu	Sn	RTKG111170F0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:7	sfu	Sn	RTKG111170C0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:8	hgu	Sn	RTKG11117100	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:9	hgu	Sn	RTKG11117120	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:10	hgu	Sn	RTKG000072C0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPONO/2:11	hgu	Sn	RTKG11117210	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>

Figure 4-2 ONU List

### 4.1.2.1 Delete

### ONU Configuration>ONU AuthList>ONU List

Delete ONU which you selected, the ONU will be deleted and the registration failed

ONU ID	ONU Profile	Auth Mode	Auth Info	Action
GPON0/2:1	hgu	Sn	RTKG111170B0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:2	hgu	Sn	RTKG00007070	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:3	hgu	Sn	RTKG00007060	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:4	hgu	Sn	RTKG11117160	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:5	hgu	Sn	RTKG111170F0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:7	sfu	Sn	RTKG111170C0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:8	hgu	Sn	RTKG11117100	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>

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

Figure 4-3Delete ONU

#### 4.1.2.2 Config

##### ONU Configuration€ONU AuthList€ONU List

Configure ONU parameter informationwhich you selected,

ONU ID	ONU Profile	Auth Mode	Auth Info	Action
GPON0/2:1	hgu	Sn	RTKG111170B0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:2	hgu	Sn	RTKG00007070	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:3	hgu	Sn	RTKG00007060	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:4	hgu	Sn	RTKG11117160	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:5	hgu	Sn	RTKG111170F0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:7	sfu	Sn	RTKG111170C0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:8	hgu	Sn	RTKG11117100	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>

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

Figure 4-4 Configure ONU

## Create a tcont ID and bind DBA templates

Tcont ID	Name	DBA Profile	Action
1	tcont_1	1g	<a href="#">Delete</a>

Add ONT Tcont

Tcont ID	1
DBA Profile Name	1g

[Commit](#)

Figure 4-5 Create Tcont

## Create a gempport ID and bind tcont ID

Gempport ID	Name	Tcont	Cos	Upstream	Downstream	State	UpQueueMapId	DownQueueMapId	Action
1	default	1	N/A	default	default	Enable	N/A	N/A	<a href="#">Delete</a>

Add ONT Gempport

Gempport ID	2
TcontID	1
Gempport Name	gem_2
Cos	N/A (0-7)
Upstream Traffic	default
Downstream Traffic	default
UpQueueMapId	N/A (0-3)
DownQueueMapId	N/A (0-7)
State	Enable

[Commit](#)

Figure 4-6 Create gempport

## Create a service , Set the VLAN and VLAN mode and let it bind one gempport ID.

Figure 4-7 Create service

Create a service port, Set the user VLAN and translate VLAN and let it bind one gempport ID.

Figure 4-8 create service port

Set the VLAN mode of the ONU's port.

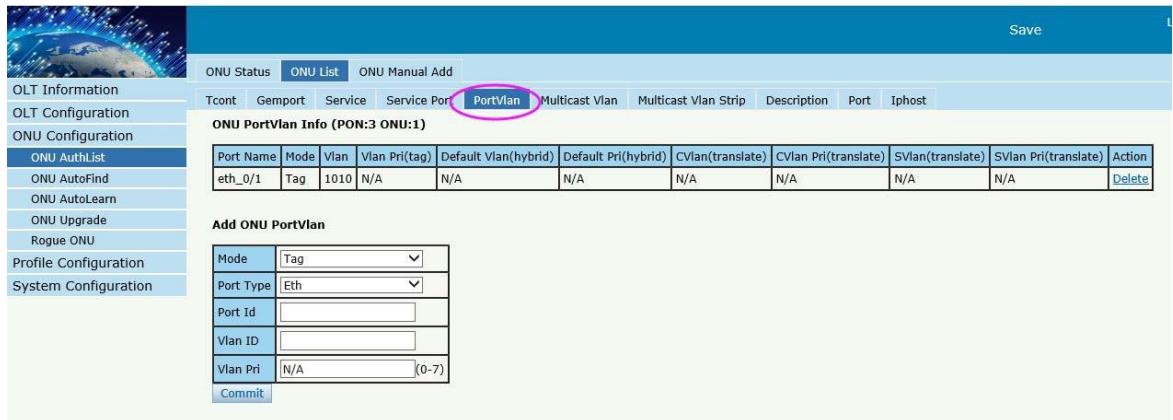


Figure 4-9 configure port VLAN mode

### Set the Multicast VLAN of ONU

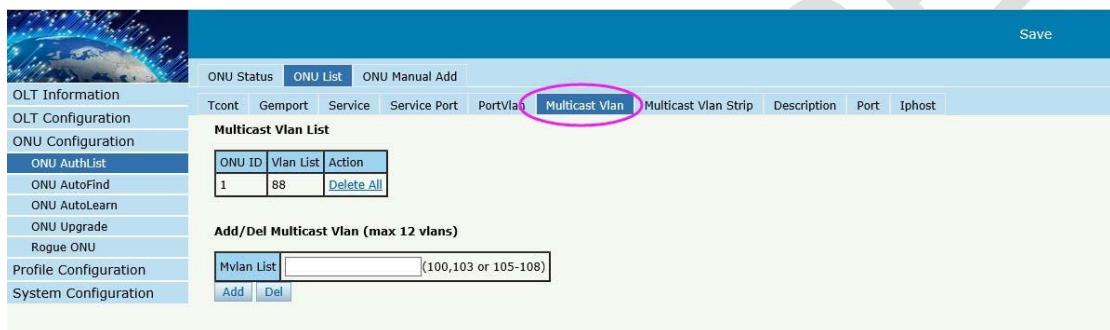


Figure 4-10 configure multicast VLAN

### Set the Multicast VLAN mode of ONU's port

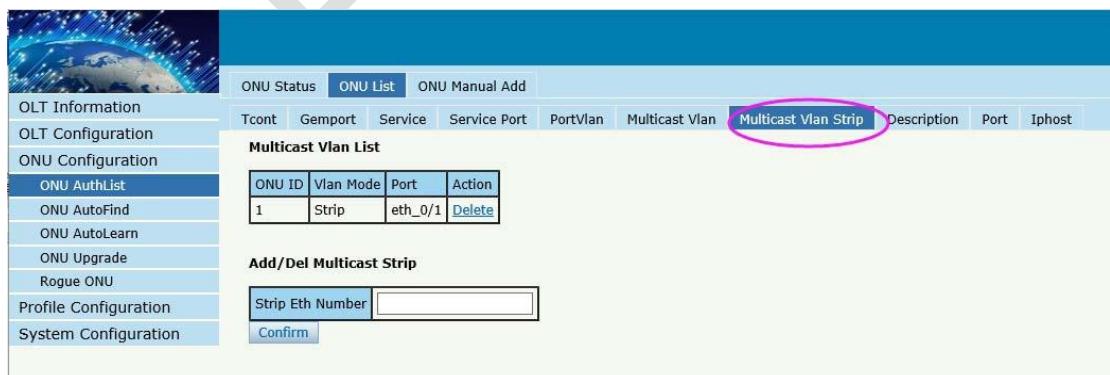


Figure 4-11 configure multicast VLAN mode

## Description for ONU

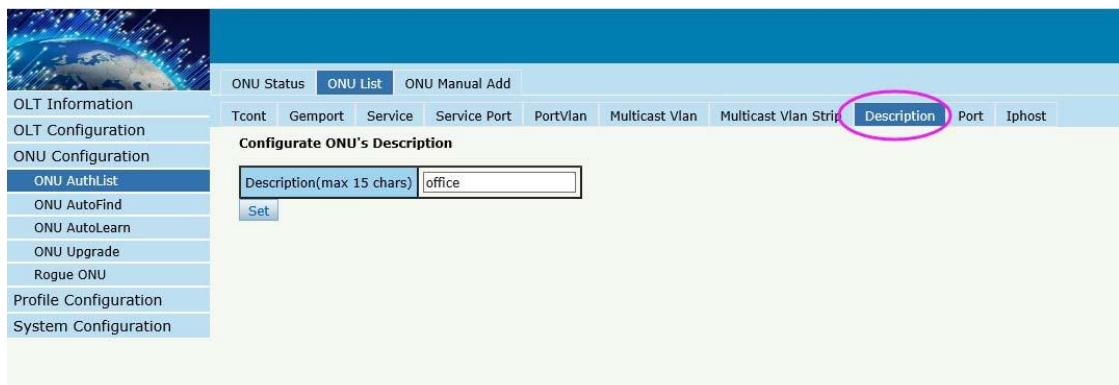


Figure 4-12 ONU's description

## Port Basic State of ONU

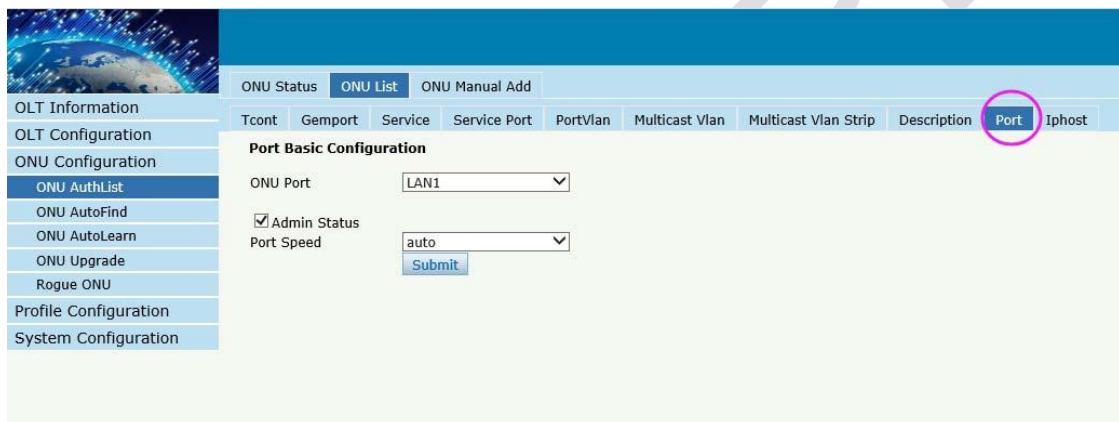


Figure 4-13 ONU's port state

## Create Iphost for ONU wan connection.

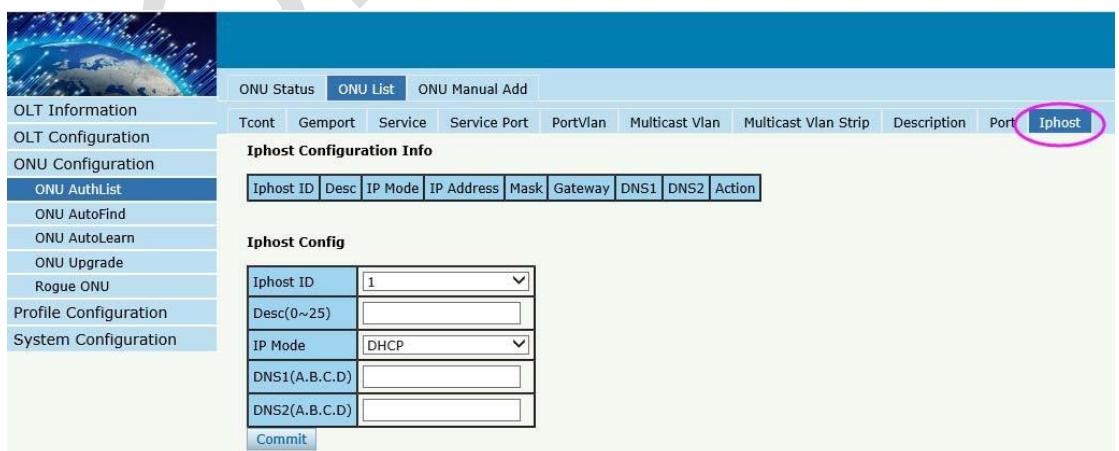


Figure 4-14 configure IPhost

#### 4.1.2.3 Modify

##### ONU Configuration>ONU AuthList>ONU List

Modify SN or LOID of ONU which you selected,

The screenshot shows a web-based network management interface. On the left, there's a vertical sidebar with options like OLT Information, OLT Configuration, ONU Configuration, ONU AuthList (which is highlighted in blue), ONU AutoFind, ONU AutoLearn, ONU Upgrade, Rogue ONU, Profile Configuration, and System Configuration. The main area has tabs for ONU Status, ONU List (selected), and ONU Manual Add. Under ONU Authentication Info, a dropdown shows Port ID PON2. A table lists eight ONUs (GPON0/2:1 to GPON0/2:8) with columns for ONU ID, ONU Profile, Auth Mode, Auth Info, and Action. The 'Action' column contains links for Delete, Config, Modify, Optical Info, Detail Info, and Reboot. A pink arrow points to the 'Modify' link for the first ONU entry. Below the table are 'Delete All' and 'Refresh' buttons. A modal window titled 'ONU Modify(PON:2 ONU1)' is open, showing fields for Auth Mode (set to Sn) and ONU Sn, with a 'Submit' button at the bottom.

Figure 4-15 Modify ONU Registration mode

#### 4.1.2.4 Optical Info

##### ONU Configuration>ONU AuthList>ONU List

Check the Optical Info of ONU which you selected,

ONU Status   ONU List   ONU Manual Add

**ONU Authentication Info**

Port ID: PON2

ONU ID	ONU Profile	Auth Mode	Auth Info	Action
GPON0/2:1	hgu	Sn	RTKG111170B0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:2	hgu	Sn	RTKG00007070	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:3	hgu	Sn	RTKG00007060	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:4	hgu	Sn	RTKG11117160	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:5	hgu	Sn	RTKG111170F0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:7	sfu	Sn	RTKG111170C0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:8	hgu	Sn	RTKG11117100	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>

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

**ONU Optical Info**

Interface	pon_0/1
GEM_blocklen	48
Sf threshold	5
Sd threshold	9
Alarm	enable
Alarm disable interval	0
Total T-CONT number	31
Piggyback DBA rpt mode	mode0 only
Whole ONU DBA rpt mode	not support
Rx optical level	-19.102(dBm)
Lower rx optical threshold	ont internal policy
Upper rx optical threshold	ont internal policy
Tx optical level	2.546(dBm)
Lower tx optical threshold	ont internal policy
Upper tx optical threshold	ont internal policy
ONU response time	0
Power feed voltage	3.32(V)
Laser bias current	14.900(mA)
Temperature	46.758(C)

[Back](#)

Figure 4-16 Optical info of ONU

#### 4.1.2.5 Detail Info

#### ONU Configuration€ONU AuthList€ONU List

Check the Detail Info of ONU which you selected,

The screenshot shows a web-based network management interface. On the left, there's a sidebar with links: OLT Information, OLT Configuration, ONU Configuration, ONU AuthList (which is highlighted in blue), ONU AutoFind, ONU AutoLearn, ONU Upgrade, Rogue ONU, Profile Configuration, and System Configuration. The main content area has tabs at the top: ONU Status, ONU List (which is highlighted in blue), and ONU Manual Add. Below that, it says 'ONU Authentication Info' and shows a dropdown menu set to 'PON2'. The main part is a table with columns: ONU ID, ONU Profile, Auth Mode, Auth Info, and Action. The table contains eight rows of data. The last column, 'Action', includes links for Delete, Config, Modify, Optical Info, Detail Info, and Reboot. The first row's 'Detail Info' link is circled in pink, and a pink arrow points from the text above to this circle. At the bottom of the table are buttons for 'Delete All' and 'Refresh'.

ONU ID	ONU Profile	Auth Mode	Auth Info	Action
GPON0/2:1	hgu	Sn	RTKG111170B0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:2	hgu	Sn	RTKG00007070	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:3	hgu	Sn	RTKG00007060	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:4	hgu	Sn	RTKG11117160	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:5	hgu	Sn	RTKG111170F0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:7	sfu	Sn	RTKG111170C0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:8	hgu	Sn	RTKG11117100	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>

ONU Detail Info	
Description	N/A
Vendor ID:	RTKG
Version:	RTL960x
SN:	RTKG111170b0
Admin status:	unlock
Battery monitor:	false
Security mode:	aes
Product code:	0
Total priority queue num:	127
Total traffic schedule num:	31
Traffic management option:	priority-rate-controlled
Operate status:	enable
Equipment ID:	IGD
OMCC Version:	128
Security capability:	aes
Model:	IGD
Survival time:	N/A
TotalGemPortNum:	127
SysUpTime:	87763.00 s
Region code:	N/A
Product SN:	N/A
Chip info:	0

Figure 4-17 Detail info of ONU

#### 4.1.2.6 Reoot

#### ONU Configuration€ONU AuthList€ONU List

Reboot ONUwhich you selected,

ONU ID	ONU Profile	Auth Mode	Auth Info	Action
GPON0/2:1	hgu	Sn	RTKG111170B0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:2	hgu	Sn	RTKG00007070	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:3	hgu	Sn	RTKG00007060	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:4	hgu	Sn	RTKG11117160	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:5	hgu	Sn	RTKG111170F0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:7	sfu	Sn	RTKG111170C0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:8	hgu	Sn	RTKG11117100	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>

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

Figure 4-18 reboot ONU

#### 4.1.3 ONU Manual Add

##### ONU Configuration → ONU AuthList → ONU Manual Add

You can manually add a ONU to your chosen PON port. ONU will appear on the ONU list after you operated.

PON Port	PON2
ONU ID	3
Auth Mode	Sn
ONU Sn	GPON00001234
ONU Profile	hgu

[Submit](#)

Figure 4-19 manually add a ONU

ONU Status	ONU List	ONU Manual Add		
<b>ONU Authentication Info</b>				
Port ID	PON2			
ONU ID	ONU Profile	Auth Mode	Auth Info	Action
GPON0/2:1	hgu	Sn	RTKG111170B0	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/2:3	hgu	Sn	GPON00001234	<a href="#">Delete</a> <a href="#">Config</a> <a href="#">Modify</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
<a href="#">Delete All</a>	<a href="#">Refresh</a>			

Figure 4-19 ONU info

## 4.2 ONU AutoFind

### Configuration>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 show under the ONU Detail menu.



Automatic Discovery			
Automatic Discovery			
Port ID	PON2		
ONU ID	Sn	State	Action
GPON0/2:1	RTKG111170B0	Unknown	<a href="#">Add</a> <a href="#">Detail Info</a>
GPON0/2:2	RTKG00007070	Unknown	<a href="#">Add</a> <a href="#">Detail Info</a>
<a href="#">Refresh</a>			

Figure 4-20 Authentication Mode

Automatic Discovery Detail						
ONU ID	SN	PW	LOID	LOIDPW	Model	Version
1	RTKG111170B0	1234567890	admin	admin	IGD	N/A
2	RTKG00007070	1234567890	bjhj	nkjnk	IGD	N/A
<a href="#">Back</a>						

Figure 4-21 Detail info

## 4.3 ONU AutoLearn

### 4.3.1 ONU AutoLearn

#### Configuration>AutoLearn>ONU AutoLearn

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

PON ID	Enable	Default ONU Profile
PON1	Disable	hgu
PON2	Disable	hgu
PON3	Disable	hgu
PON4	Enable	sfu
PON5	Enable	sfu
PON6	Disable	hgu
PON7	Disable	hgu
PON8	Disable	hgu

Figure 4-22 Automatic learn

### 4.3.2 ONU AutoBind

#### Configuration>AutoLearn>ONU AutoBind

Input the Equipment ID and bind the template you need

*Note: you must build the template first*

The screenshot shows a web-based management interface for an OLT. On the left is a vertical sidebar with a globe icon and a list of configuration options: OLT Information, OLT Configuration, ONU Configuration, ONU AuthList, ONU AutoFind, **ONU AutoLearn**, ONU Upgrade, Rogue ONU, Profile Configuration, and System Configuration. The 'ONU AutoLearn' option is selected. The main area has a blue header bar with tabs for 'ONU AutoLearn' and 'ONU AutoBind'. Below the header is a section titled 'Automatic Bind' containing a table:

Equipment ID	ONU Profile	Line Profile	Service Profile	Alarm Profile	Action
IDG	hgu	1g	hgu	N/A	<a href="#">Delete</a>

Below this is a section titled 'Add ONU Auto Bind' with four input fields:

Equipment ID	<input type="text"/>
ONU Profile	<input type="text"/> default
Line Profile	<input type="text"/> 1g
Service Profile	<input type="text"/> hgu

At the bottom of this section are two buttons: 'Add' and 'Refresh'.

Figure 4-23 Bind profile

### 4.4 ONU Upgrade

ONU upgrade by OLT

#### 4.4.1 Upload Image

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



Figure 4-24 Upload image

If the operation is successful, the following will appear

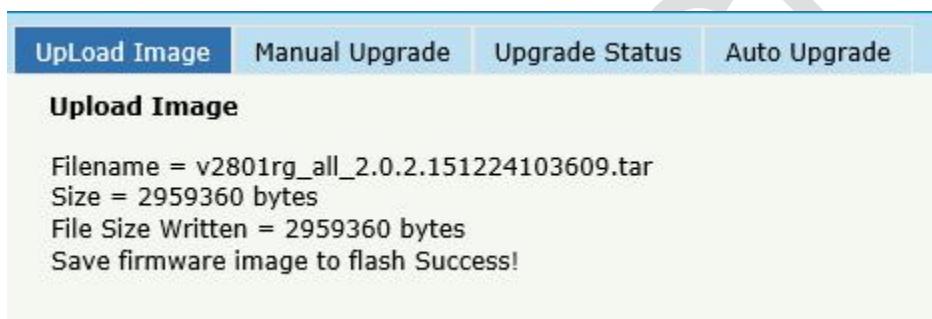


Figure 4-25 Upload info

#### 4.4.2 Manual Upgrade

##### ONU Configuration>ONU Upgrade>Manual Upgrade

Select ONU which you need and click commit button

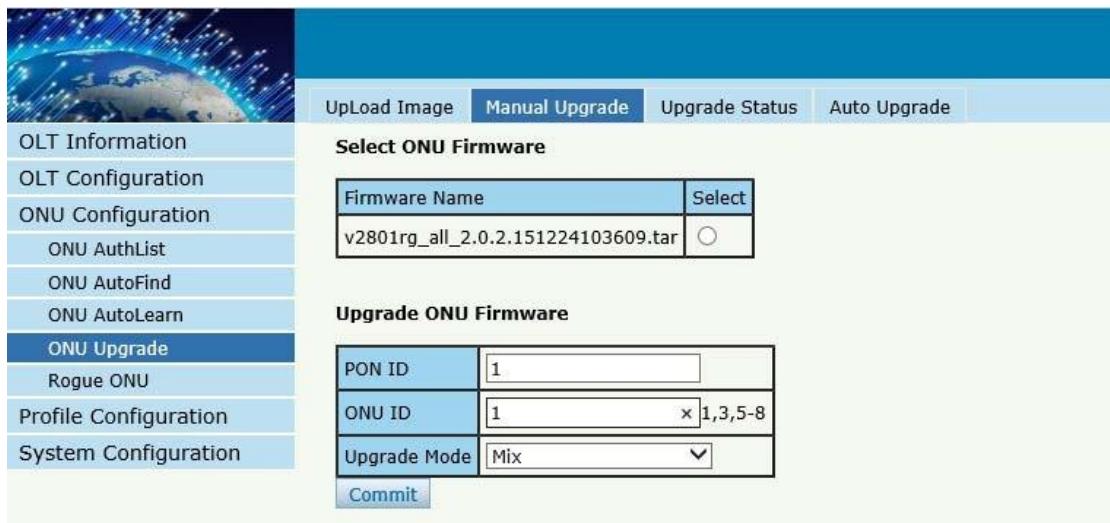


Figure 4-26 Manual Upgrade

#### 4.4.3 Upgrade Status

#### ONU Configuration>ONU Upgrade>Upgrade Status

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

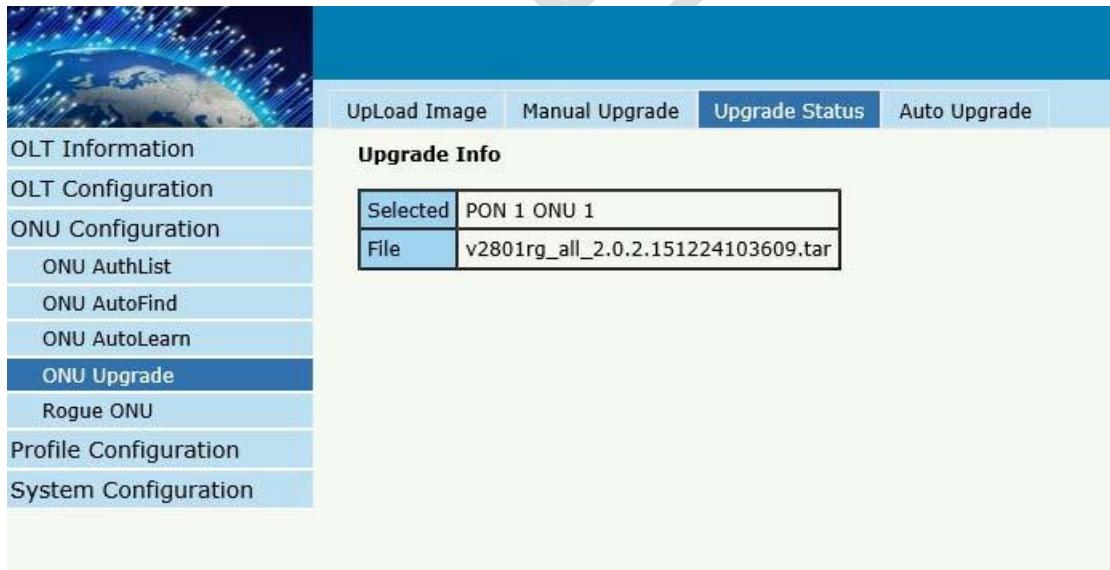


Figure 4-27 ONU Upgrade Status

#### 4.3.4 Auto Upgrade

##### ONU Configuration>ONU Upgrade>Auto Upgrade

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

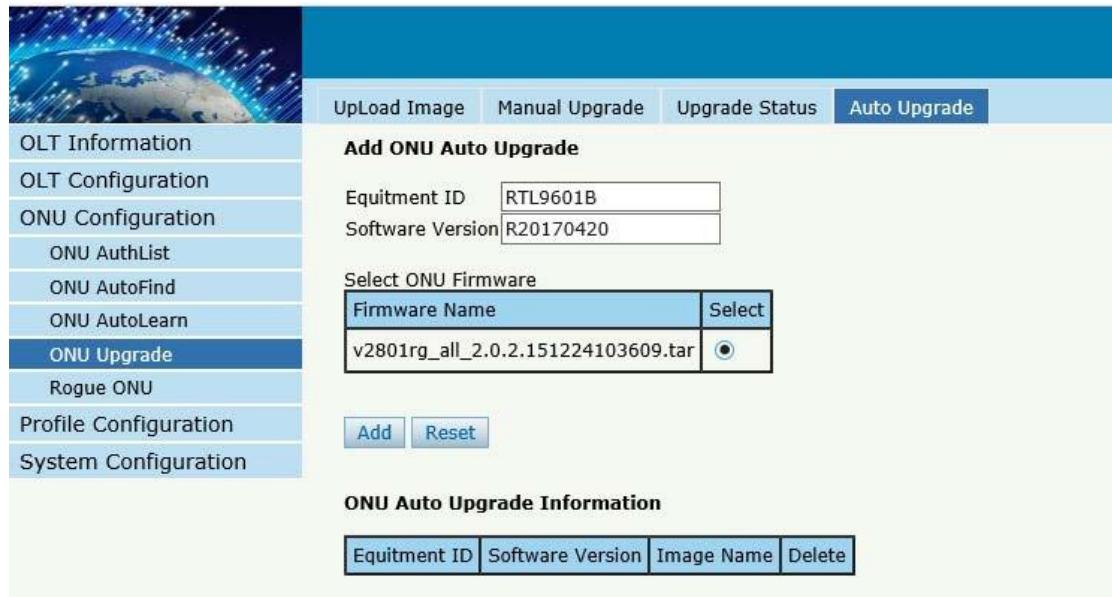


Figure 4-28 Auto Upgrade

#### 4.5 Rogue ONU

##### ONU Configuration>Rogue ONU

Enable this function, If there is a rogue ONU, it will appear in the list

The screenshot shows a left sidebar with a globe icon and a list of navigation items:

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

The main content area has a blue header bar with the text "Rogue ONU configuration". Below it is a section titled "Rogue onu detect configuration" containing a table:

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

Below this is a section titled "Change configuration" with another table:

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

Finally, there is a section titled "Rogue onu list" with a search bar:

The search bar contains the following buttons from left to right: Pon, Onu, Keywords, Time, State, and a blue "Commit" button.

Figure 4-29 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 authorized. The ONU profile specifies the capability of this ONU.

### 5.1.1 Information

#### Profile Configuration → ONU profile → Information

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

Profile ID	Profile Name	Max Tcont	Max GemPort	Max Veip	Action
0	default	255	255	1	<a href="#">Details</a>
1	hgu	8	32	1	<a href="#">Details</a> <a href="#">Delete</a>
2	sfu	8	32	0	<a href="#">Details</a> <a href="#">Delete</a>
3	54y	8	32	0	<a href="#">Details</a> <a href="#">Delete</a>

Figure 5-1 ONU profile list

### 5.1.2 Add profile

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

SFU mode (only using bridge mode):

The screenshot shows a web-based configuration interface for an ONU profile. On the left is a sidebar with various configuration categories. The 'ONU Profile' category is currently selected. The main area is titled 'ONU Profile Modify' and contains a form with the following fields:

Profile ID	4
Profile Name	4GE
Description	SFU
Max tcont	8
Max gemport	32
Max eth	4
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

Figure 5-2 Add SFU profile

HGU mode (with the routing wan connection mode)

Profile ID	4
Profile Name	4GE
Description	HGU
Max tcont	8
Max gemport	32
Max eth	4
Max pots	0
Max Iphost	2
Max Ipv6host	0
Max veip	2
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 5-3 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 fix<=assure<=max.

### 5.2.1 DBA profiles

#### Profile Configuration€DBA Profile €DBA Profiles

The table displays DBA profile list. We can also do some operation, such delete and modify.

Figure 5-4 DBA profile list

### 5.1.2 Add profile

#### Profile Configuration → DBA Profile → Add profile

Types: 1, 2, 3, 4, 5, In general, we use type3

Relationships:

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

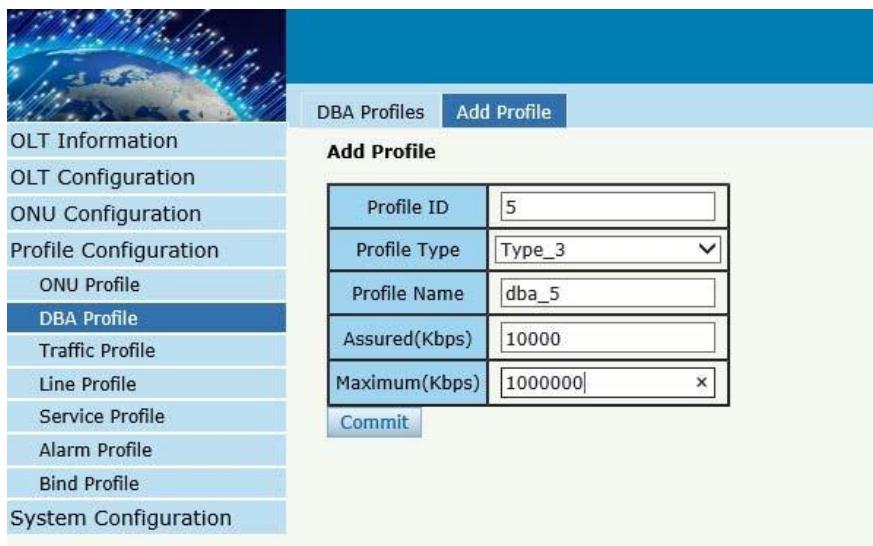


Figure 5-5 Add a DBA profile

## 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. We can also do some operation, such delete and modify.

Traffic Profiles						
Profile ID	Profile Name	SIR	PIR	CBS	PBS	Action
0	default	10000000	10000000	default	default	N/A
1	up10m	10240	10240	default	default	<a href="#">Delete</a> <a href="#">Modify</a>
2	dn20m	20480	20480	default	default	<a href="#">Delete</a> <a href="#">Modify</a>
3	erer	1200	1200	default	default	<a href="#">Delete</a> <a href="#">Modify</a>

[Refresh](#)

Figure 5-6 Traffic Profile list

### 5.2.2 Add profile

#### Profile Configuration€Traffic Profile € Add Profile

Configure Gempot to specify the upstream/downstream bandwidth.

SIR: Committed Information Rate

PIR: Peak Information Rate

CBS: Committed Burst Size

PBS: Peak Burst Size



Figure 5-7 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.

### 5.3.1 Line profile

#### Profile Configuration€Line Profile € Line Profile

The table displays Line profile list. We can also do some operation, such delete and modify.

Profile ID	Profile Name	Action
1	1g	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>
2	10m	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>
3	line_3	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>
4	sfu	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>

Figure 5-8 Line Profile list

### 5.3.2 Add profile

#### Profile Configuration€Line profile€Add profile

Create a new line profile

Profile ID	5
Profile Name	line_5

Figure 5-9 Add Line Profile

## Modify the line profile parameters

Profile ID	Profile Name	Action
1	1g	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>
2	10m	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>
3	line_3	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>
4	sfu	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>
5	line_5	<a href="#">Detail &amp; Modify</a> <a href="#">Delete</a>

Figure 5-10 Modify Line Profile

## Create a tcont ID and bind DBA templates

Tcont ID	Name	DBA Profile	Action
1	1	1g	<a href="#">Delete</a>

Figure 5-11 Add Tcont

## Create a gempore ID and bind tcont ID

Gport ID	Name	Tcont	Cos	Upstream	Downstream	State	UpQueueMapId	DownQueueMapId	Action
1	default	1	N/A	default	default	Enable	N/A	N/A	<a href="#">Delete</a>

**Add Gport**

Gport ID	<input type="text" value=""/>	(1~255)
Tcont ID	<input type="text" value="1"/>	
Gport Name	<input type="text" value="default"/>	
Cos	<input type="text" value="N/A"/>	(0-7)
Upstream Traffic	<input type="text" value="default"/>	
Downstream Traffic	<input type="text" value="default"/>	
UpQueueMapId	<input type="text" value="N/A"/>	(0-3)
DownQueueMapId	<input type="text" value="N/A"/>	(0-7)
State	<input type="text" value="Enable"/>	

[Add](#)

Figure 5-12 Add Gport

Create a service , Set the VLAN and VLAN mode and let it bind one gport ID.

Service Name	Gport	Vlan Mode	Vlan List	Cos List	Port	Action
1	1	Tag	1010	N/A	N/A	<a href="#">Delete</a>

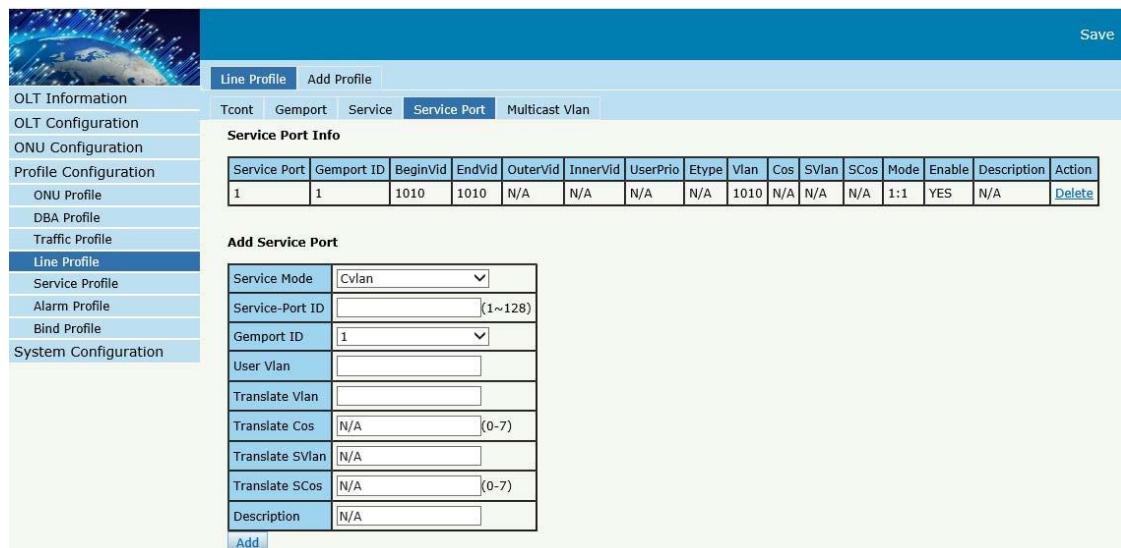
**Add Service**

Service Name	<input type="text" value="1"/>
Gport ID	<input type="text" value="1"/>
Vlan Mode	<input type="text" value="Tag"/>
Vlan List	<input type="text" value="1010"/> (X,X or X-X;0 for all)
Cos List	<input type="text" value="N/A"/> (X,X or X-X;)
Port Type	<input type="text" value="N/A"/>

[Add](#)

Figure 5-13 Add service

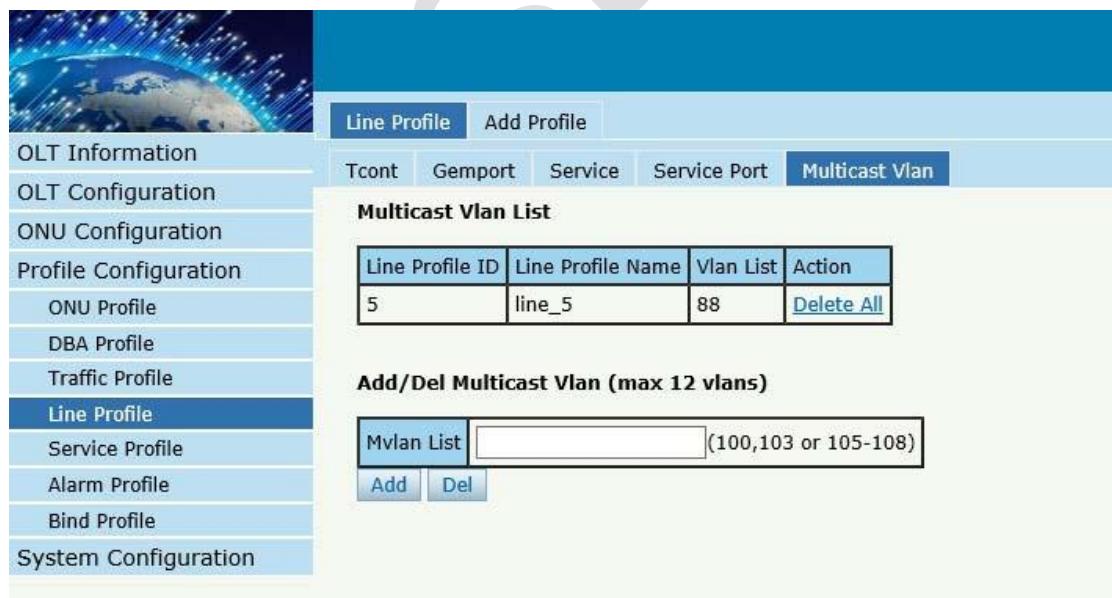
Create a service port, Set the user VLAN and translate VLAN and let it bind one gempport ID.



The screenshot shows the Line Profile configuration interface. The left sidebar lists various configuration tabs: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, ONU Profile, DBA Profile, Traffic Profile, Line Profile (which is selected), Service Profile, Alarm Profile, Bind Profile, and System Configuration. The main area has tabs for Line Profile, Add Profile, Tcont, Gemport, Service, Service Port (selected), and Multicast Vlan. Under Service Port, there is a table with columns: Service Port, Gempport ID, BeginVid, EndVid, OuterVid, InnerVid, UserPrio, Etype, Vlan, Cos, SVlan, SCos, Mode, Enable, Description, and Action. One row is present with values: 1, 1, 1010, 1010, N/A, N/A, N/A, N/A, 1010, N/A, N/A, N/A, 1:1, YES, N/A, and a Delete button. Below this is an 'Add Service Port' form with fields for Service Mode (Cvlan), Service-Port ID (1~128), Gempport ID (1), User Vlan, Translate Vlan, Translate Cos (N/A, 0~7), Translate SVlan (N/A), Translate SCos (N/A, 0~7), and Description (N/A). An 'Add' button is at the bottom.

Figure 5-13 Add service prot

Set the Multicast VLAN of ONU



The screenshot shows the Line Profile configuration interface. The left sidebar lists various configuration tabs: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, ONU Profile, DBA Profile, Traffic Profile, Line Profile (selected), Service Profile, Alarm Profile, Bind Profile, and System Configuration. The main area has tabs for Line Profile, Add Profile, Tcont, Gemport, Service, Service Port, and Multicast Vlan (selected). Under Multicast Vlan, there is a 'Multicast Vlan List' table with columns: Line Profile ID, Line Profile Name, Vlan List, and Action. One entry is shown with ID 5, Name line\_5, Vlan List 88, and Action Delete All. Below this is an 'Add/Del Multicast Vlan (max 12 vlangs)' section with a 'Mvlan List' input field containing '(100,103 or 105-108)', an 'Add' button, and a 'Del' button.

Figure 5-14 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.

### 5.3.1 Line profile

#### Profile Configuration → Line Profile → Line Profile

The table displays service profile list. We can also do some operation, such delete and modify.

Profile ID	Profile Name	Action
1	hgu	<a href="#">Details &amp; Modify</a> <a href="#">Delete</a>
2	sfu	<a href="#">Details &amp; Modify</a> <a href="#">Delete</a>

Figure 5-15 Service profile list

### 5.3.2 Add profile

#### Profile Configuration€Line Profile €Add Profile

Create a new service profile

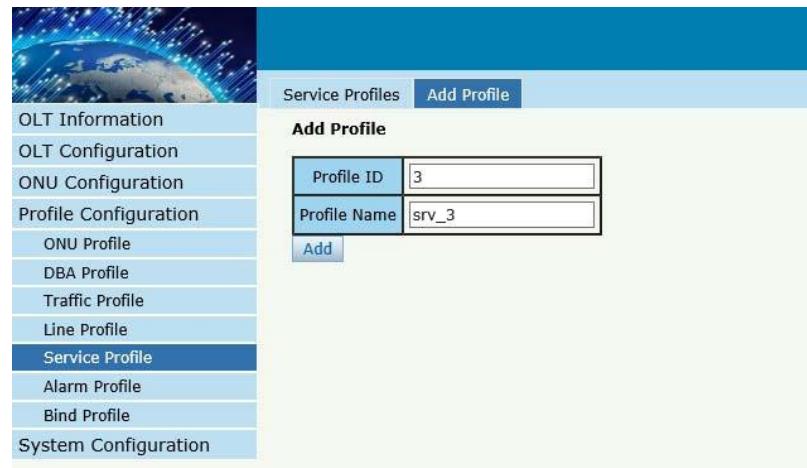


Figure 5-16 Add Service profile

Service Profiles		
Profile ID	Profile Name	Action
1	hgu	<a href="#">Details &amp; Modify</a> <a href="#">Delete</a>
2	sfu	<a href="#">Details &amp; Modify</a> <a href="#">Delete</a>
3	srv_3	<a href="#">Details &amp; Modify</a> <a href="#">Delete</a>

Figure 5-17 modify Service profile

Set the VLAN mode of the ONU's port.

Figure 5-18 Port VLAN mode

Set the Multicast VLAN mode of ONU's port

Figure 5-19 Port multicast VLAN mode

Create Iphost for ONU wan connection.

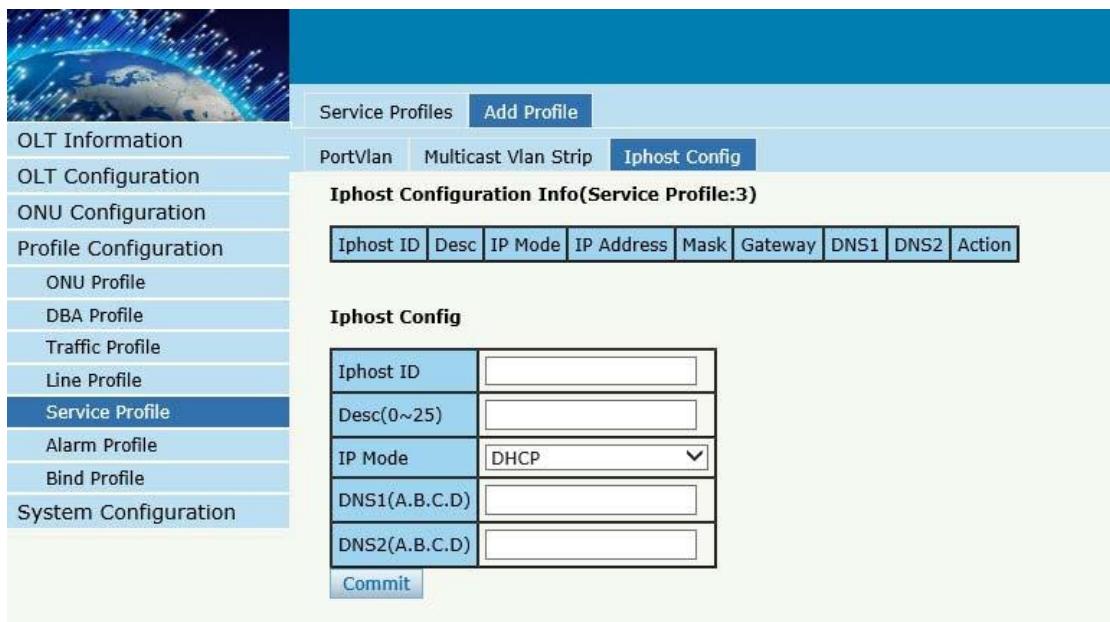


Figure 5-20 Add IPhost

## 5.6 Alarm Profile

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

### 5.4.1 profile info

#### Profile Configuration>Alarm Profile >profile info

Profile Info							
Alarm Profiles							
Profile ID	Profile Name	State	Rx Power Alarm Threshold	Tx Power Alarm Threshold	Sf Threshold/Sd Threshold	Action	
1	alarm1	enable	-27 ~ -8	1 ~ 5	5 / 9	<a href="#">Delete</a>	
<a href="#">Refresh</a>							

Figure 5-21 Alarm Profile list

## 5.4.2 Add profile

### Profile Configuration → Alarm Profile → Add profile

Alarm Name	<input type="text"/>
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)

Figure 5-21 Create Alarm profile

## 5.7 Bind Profile

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

### Profile Configuration → Bind Profile

ONU ID	ONU Profile	Line Profile	Service Profile	Alarm Profile	Bind
1	hgu	N/A	N/A	N/A	<a href="#">Config</a>
3	hgu	N/A	N/A	N/A	<a href="#">Config</a>

Figure 5-22 Bind profile

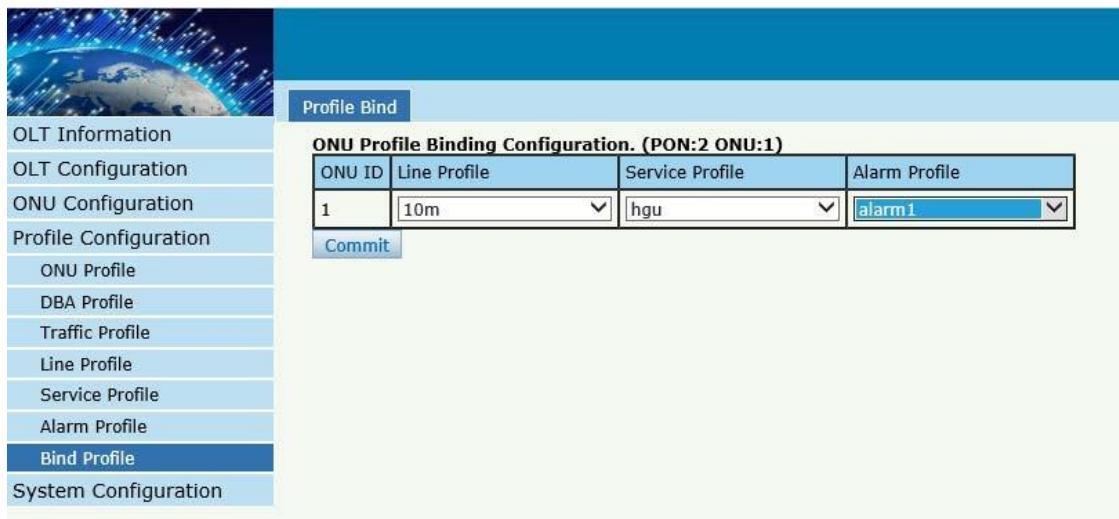


Figure 5-23 select Profile

# 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

The screenshot shows a web-based system configuration interface. On the left is a vertical sidebar with various menu items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration (which is selected and highlighted in blue), System Log (also highlighted in blue), Device Management, User Management, SNMP, AUX IP, System Time, FAN, and Mirror. At the top, there is a navigation bar with tabs: System Log (selected), Alarm, Threshold Alarm, and Syslog Server. Below the navigation bar is a section titled "Alarm Log Table" with a table header: No., Time, Level, and Message. The table contains three entries:

No.	Time	Level	Message
1	2004/01/04 04:22:19	major	ONU Online PON 0/2 ONU 1
2	2004/01/04 02:11:42	major	ONU Online PON 0/2 ONU 1
3	2004/01/04 02:11:41	major	ONU Online PON 0/2 ONU 2

Below the table are buttons for "Select Counts" (set to 200), "Alarm Type" (set to ALL), and pagination controls: "No.1", "Go!", "Clear All", and "Refresh".

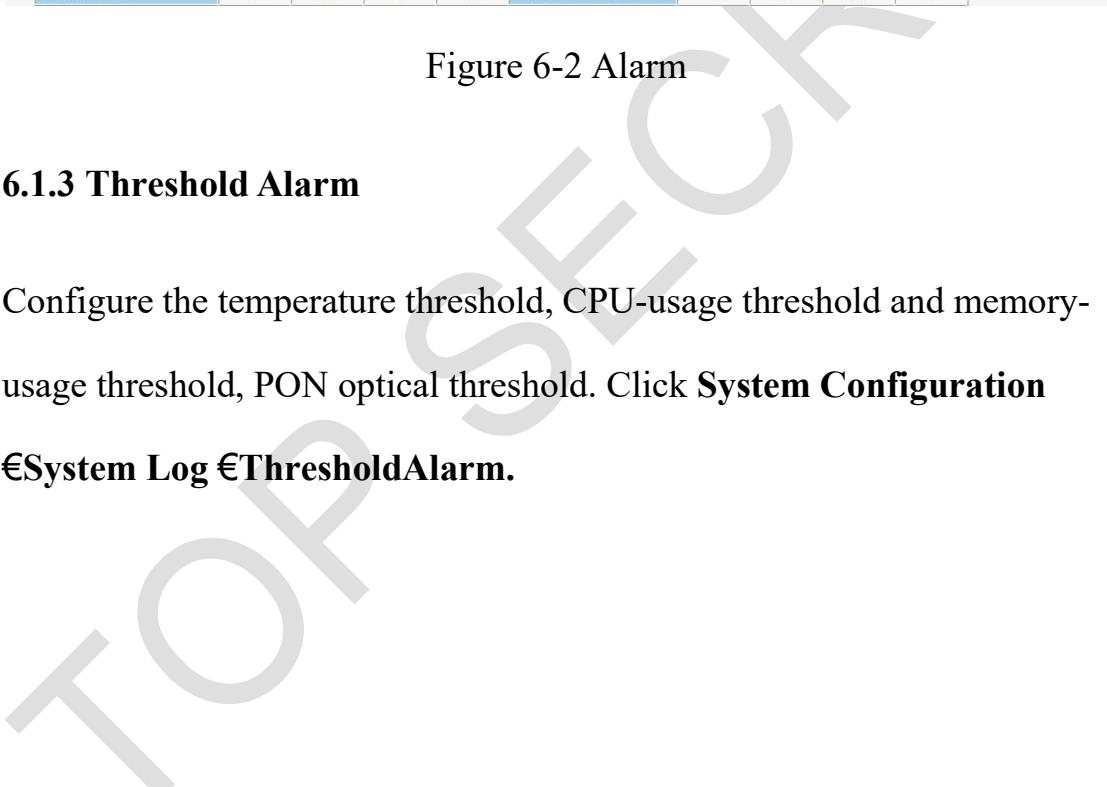
Figure 6-1 System Log

### 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

**Alarm Configuration**

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

Figure 6-2 Alarm

### 6.1.3 Threshold Alarm

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

Threshold Alarm Configuration						
Type	Print	Record	Trap	Remote	Alarm Threshold	Clear Threshold
Temp High (C)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	70.00	70.00
Temp Low (C)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20.00	20.00
CPU Usage High (%)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.00	0.00
MEM Usage High (%)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.00	0.00

**PON Optical Alarm Configuration**

Port ID	PON1		
Type	State	Alarm Threshold	Clear Threshold
Tx Power High (dBm)	<input checked="" type="checkbox"/>	10.00	10.00
Tx Power Low (dBm)	<input type="checkbox"/>	0.00	0.00
Tx Bias High (mA)	<input checked="" type="checkbox"/>	30.00	30.00
Tx Bias Low (mA)	<input type="checkbox"/>	0.00	0.00
Vcc High (V)	<input type="checkbox"/>	0.00	0.00
Vcc Low (V)	<input type="checkbox"/>	0.00	0.00
Temp High (C)	<input type="checkbox"/>	0.00	0.00
Temp Low (C)	<input type="checkbox"/>	0.00	0.00

**Figure 6-3 Threshold Alarm**

#### 6.1.4 Syslog Server

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

Syslog Server Configuration						
Syslog Server	Enable <input type="button" value="▼"/>					
Server IP	192.168.2.33					
Server Port	514 (1-65535)					

**Figure 6-4 Syslog Server**

## 6.2 Device Management

### 6.2.1 Firmware Upgrade

#### System Configuration>Device Management >Firmware Upgrade.

You can upgrade the OLT firmware by WEB, it want to reboot OLT after upgrade then take effect.



Figure 6-5 Firmware Upgrade

### 6.2.2 Device Reboot

#### System Configuration>Device Management >Device Reboot

it will reboot the entire system.(Please save the configuration first)

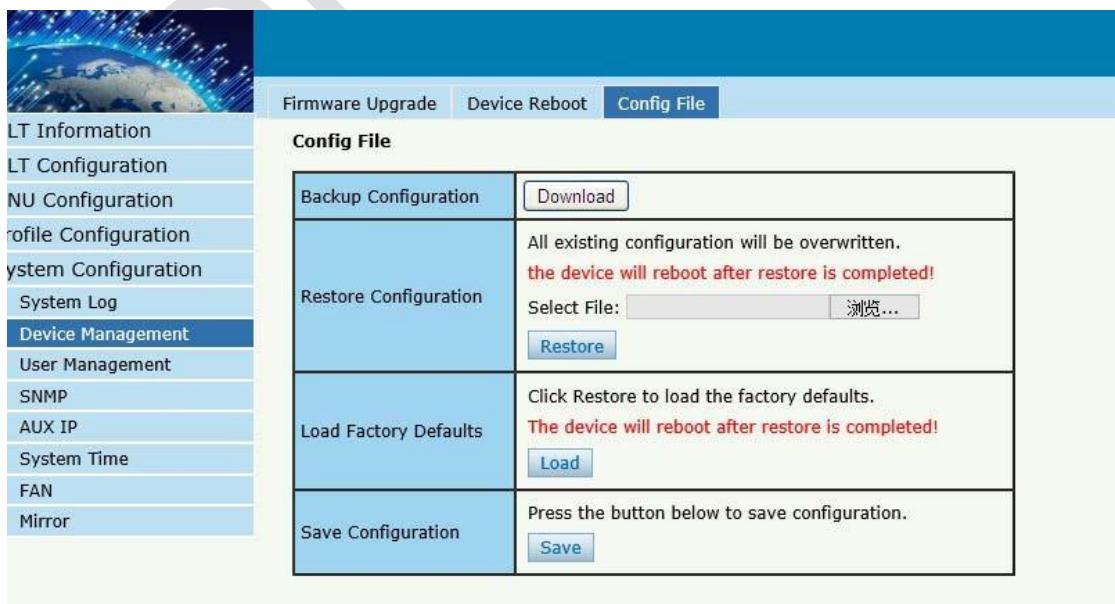


Figure 6-6 Device Reboot

### 6.2.3 Config File

System Configuration€Device Management €Config File,

you can backup configuration, restore configuration, restore factory defaults and save configuration.



---

Figure 6-7 File Configuration

## 6.3 User Management

### System Configuration € User manage

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



Figure6-8: User Manage

## 6.4 SNMP

### 6.4.1 SNMP V1/V2

#### System Configuration € SNMP €SNMP V1/V2

The OLT supports SNMP v1/v2,

---

**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
---------	----------	--------------	----------------	--------

Figure6-9: SNMP V1/V2

#### 6.4.2 SNMP V3

#### System Configuration € SNMP €SNMP V3

The OLT supports SNMP V3.

SNMPV1/V2	SNMPV3	SNMPV3 Trap
<b>Add View</b> View Name <input type="text"/> Subtree <input type="text"/> (Type: Object Identifier) View Type <input type="text" value="include"/> <input type="button" value="Add"/> <b>View Table</b> <input type="button" value="View Name"/> <input type="button" value="Subtree"/> <input type="button" value="View type"/> <input type="button" value="Delete"/>		
<b>Add Group</b> Group Name <input type="text"/> Access Level <input type="text" value="noauth"/> <input type="button" value="Add"/> Read View <input type="text"/> Write View <input type="text"/> Notify View <input type="text"/> <b>Group Table</b> <input type="button" value="Group Name"/> <input type="button" value="Access Level"/> <input type="button" value="Read View"/> <input type="button" value="Write View"/> <input type="button" value="Notify View"/> <input type="button" value="Delete"/>		

Figure6-10: SNMP V3

### 6.4.3 SMNP V3 Trap

#### System Configuration € SNMP €SNMP V3 Trap

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

SNMPV1/V2	SNMPV3	SNMPV3 Trap
<b>Add Trap</b> Host IP <input type="text"/> UDP Port <input type="text" value="162"/> (1-65535) User Name <input type="text"/> User Level <input type="text" value="noauth"/> <input type="button" value="Add"/> Tag List <input type="text" value="trap"/> <input type="button" value="Add"/> Timeout <input type="text"/> (1-400000000) Retry Count <input type="text"/> (1-100) <b>Trap Table</b> <input type="button" value="Host IP"/> <input type="button" value="UDP Port"/> <input type="button" value="Version"/> <input type="button" value="User Name"/> <input type="button" value="User Level"/> <input type="button" value="Tag List"/> <input type="button" value="Timeout"/> <input type="button" value="Retry Count"/> <input type="button" value="Delete"/>		

Figure 6-11: SNMP V3 Trap

## 6.5 AUX IP

### System Configuration € AUX IP

AUX port is out band management port. TheIP address is out band management IP, default IP address is 192.168.8.200.

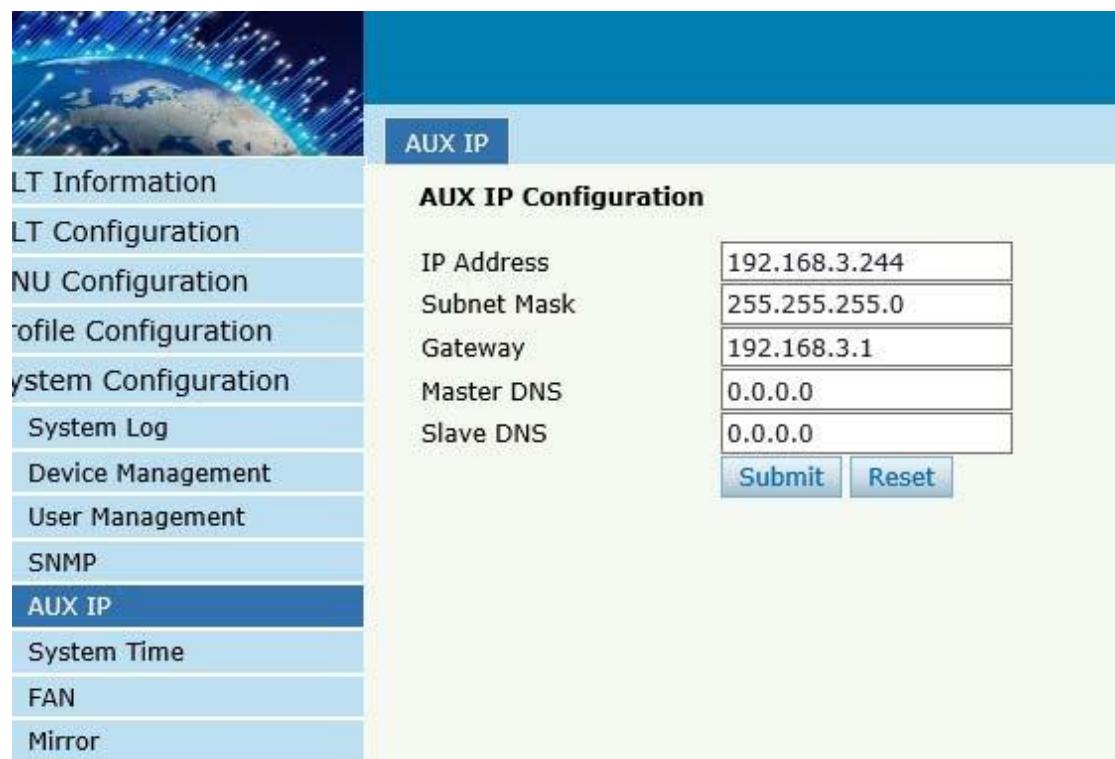


Figure 6-12: AUX IP

## 6.6 System Time

### 6.6.1 RTC

#### System Configuration € System Time€RTC .

The user can customize the OLT system time

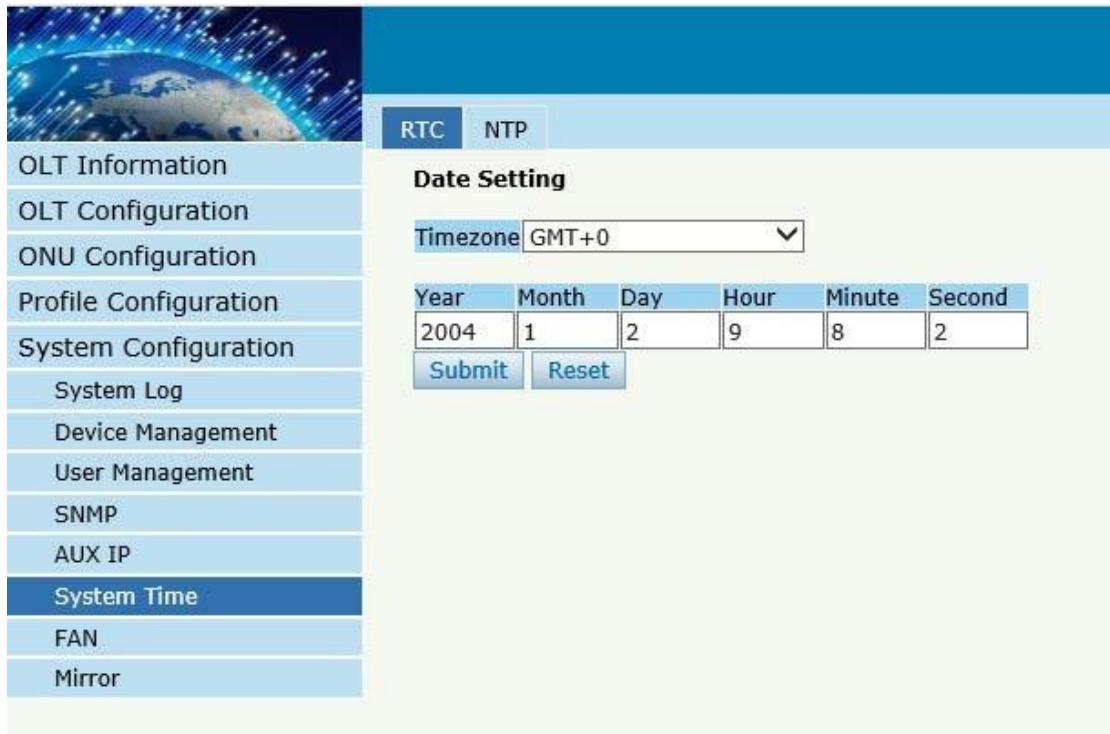


Figure 6-13: RTC Configuration

### 6.6.2 NTP

#### System Configuration → System Time → NTP

Synchronize the time to the NTP server.

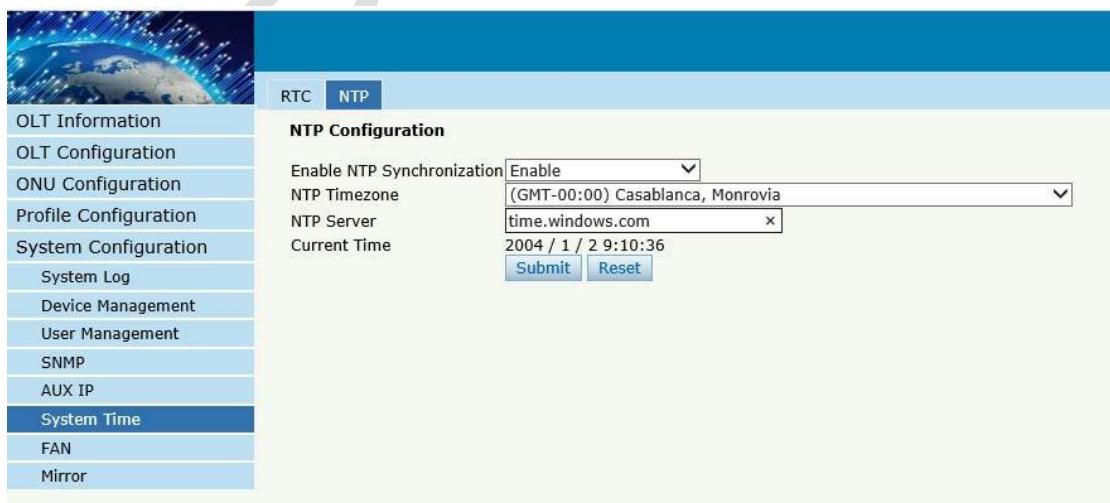


Figure 6-14: NTP Configuration

## 6.7 FAN

### System Configuration € FAN.

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



Figure 6-15: FAN Configuration

## 6.8 Mirror

### System Configuration € Mirror.

Each monitor session can be set with one destination port and up to 8 source ports.

---



**Mirror**

**Mirror Configuration**

Session ID	1	
Destination Port	GE16	
Port ID	Mirrored	Direction
GE1	<input type="checkbox"/>	Both
GE2	<input type="checkbox"/>	Both
GE3	<input type="checkbox"/>	Both
GE4	<input type="checkbox"/>	Both
GE5	<input type="checkbox"/>	Both
GE6	<input type="checkbox"/>	Both
GE7	<input type="checkbox"/>	Both
GE8	<input type="checkbox"/>	Both
GE9	<input type="checkbox"/>	Both
GE10	<input type="checkbox"/>	Both
GE11	<input type="checkbox"/>	Both
GE12	<input type="checkbox"/>	Both
GE13	<input type="checkbox"/>	Both
GE14	<input type="checkbox"/>	Both
GE15	<input type="checkbox"/>	Both
GE16	<input type="checkbox"/>	Both
PON	<input checked="" type="checkbox"/>	Both

**Submit**

Figure 6-16: Mirror

---

# Thank you!

TOP SECRET