

**AirLive XG(S)-PON
OLT-2XGS
WEB USER MANUAL**

airlive®

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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-2XGS Series OLT interfaces

Product		2 ports XG(S)PON OLT
Chassis	Racks	1U 19-inch standard box
1G/10G Uplink Port	QTY	4
	Speed	2*1G/10G 2*1G auto-negotiation
	Type (Independent)	2*RJ45 and 2*SFP+ (SFP+ is compatible with 1GE/10GE)
GPON Port	QTY	2
	Physical Interface	2*XG(S)-PON
Management Ports		1*10/100/1000BASE-T out-band port(AUX), 1*CONSOLE port, 1*USB2.0, 1*Type-C USB console.
Management Mode		SNMP, WEB, and CLI(Console/Telnet/SSH)

1.1.2 OS Requirement

For OLT management, it supports or requires the following operation

system.

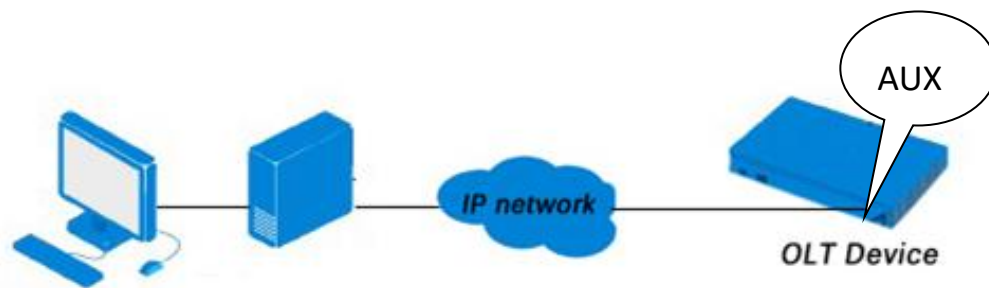
Table 1-2 Operation System requirement

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 Windows 11

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. The default username and password is "**admin/Xpon@Olt9417#**".

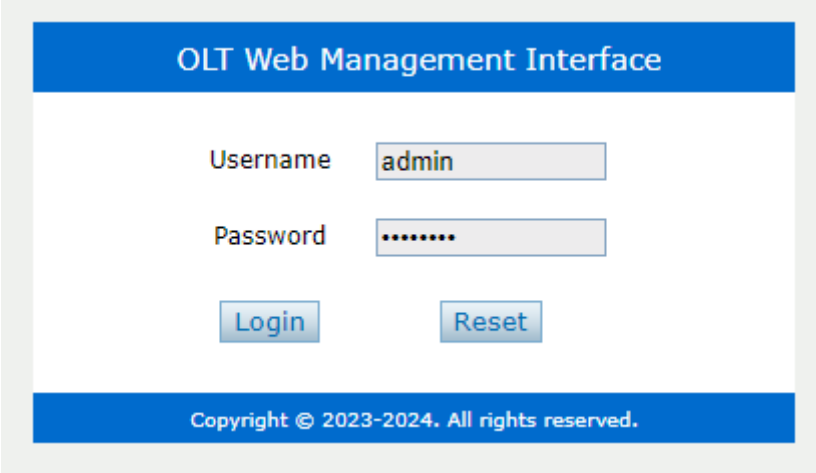
The image shows a web browser window displaying the 'OLT Web Management Interface' login page. The page has a blue header with the title 'OLT Web Management Interface'. Below the header, there are two input fields: 'Username' with the text 'admin' and 'Password' with masked characters (dots). Below the input fields are two buttons: 'Login' and 'Reset'. At the bottom of the page, there is a blue footer with the text 'Copyright © 2023-2024. All rights reserved.'

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.

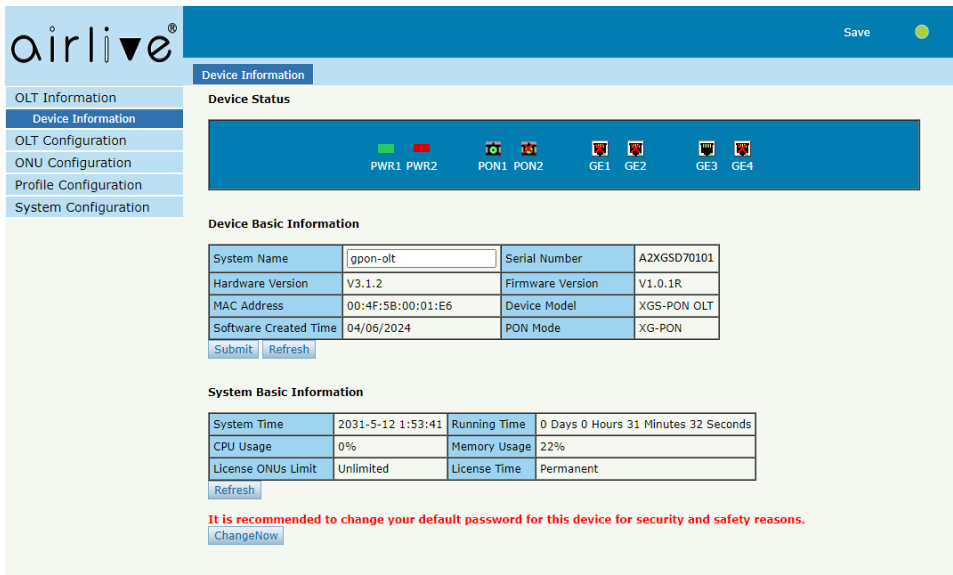


Figure 2.2-1: Device Information

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 1~4094.

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 a new VLAN.

The screenshot shows the AirLive OLT Configuration interface. On the left is a sidebar menu with options: OLT Information, OLT Configuration, **VLAN**, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, and Route. The main area has three tabs: **VLAN**, VLAN Port, and QinQ/Translation. The 'New VLAN' form is active, showing a 'Mode' dropdown set to 'single', and input fields for 'VLAN ID' and 'Description'. The 'VLAN ID' field has a range '(1-4094)' next to it. Below the form are 'Add' and 'Delete' buttons. The 'VLAN Table' below the form lists existing VLANs with their IDs, descriptions, and edit/delete icons.

VLAN ID	Description	Edit	Delete
1	default		
500	VLAN500		
1000	vlan1000		
3600	vlan3600		
4094	vlan4094		

Figure 3.1-1: Create New VLAN

3.1.2 VLAN Port

OLT Configuration→VLAN→VALN Port

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

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

VLAN

VLAN Port

QinQ/Translation

Port VLAN Configuration

VLAN ID

1

Port ID	Mode	Forbidden	Tag	Untag
GE0/1	Hybrid	☐	☐	☒
GE0/2	Hybrid	☐	☐	☒
GE0/3	Hybrid	☐	☒	☐
GE0/4	Hybrid	☐	☐	☒

Submit

Reset

Port VLAN Table

VLAN ID	Tag Ports	Untag Ports
1	GE3	GE1 GE2 GE4
500	GE3	
1000	GE3	
3600	GE4	
4094		

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.

The interface shows the 'QinQ/Translation' configuration page. On the left is a navigation menu with options: OLT Information, OLT Configuration, VLAN (selected), Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, and STP. The main area is titled 'QinQ Configuration' and contains the following fields:

- Port ID: GE0/1
- Mode: VLAN Translation
- Customer VLAN: 1
- Customer CoS: any
- Service VLAN: 1
- Service CoS: any

Below these fields are 'Add' and 'Reset' buttons. A 'VLAN QinQ Mapping Table' is displayed below:

Port ID	Mode	Customer VLAN	Customer CoS	Service VLAN	Service CoS	Edit	Delete
GE0/1	VLAN Translation	1000	any	3600	any		

Figure 3.1-3: QinQ/Translation 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.

The 'Traffic Statistics' interface shows a table with the following data:

Port ID	Link Status	Speed	Rx Bytes	Rx Packets				Tx Bytes	Tx Packets				Collisions	Errors
				Packets	Unicast	Broadcast	Multicast		Packets	Unicast	Broadcast	Multicast		
GE0/1	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE0/2	Down	-	0	0	0	0	0	0	0	0	0	0	0	0
GE0/3	Up	1000M Full	178523627392	1394715839	593526393	0	801189446	135342606559	1057364333	1057362145	283	1905	0	0
GE0/4	Up	1000M Full	9760346037	7457024	213447	99251	7144326	0	0	0	0	0	0	0

At the bottom of the table are 'Clear Counters' and 'Refresh' buttons.

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,

speed, rate limit, storm inhibition, port isolation and so on.

The screenshot shows the 'airlive' OLT Configuration interface. The 'Configuration' tab is selected, showing the 'GE Configuration' section. A table lists four ports (GE0/1 to GE0/4) with their respective configurations. All ports have 'Admin Status' checked, 'Speed' set to 'Auto', 'Isolate' checked, and 'PVID' set to '1'. Storm and rate limits are all set to '0'.

Port ID	Description	Admin Status	Speed	Isolate	PVID	Storm(0/64-1000000fps)			Rate(0/64-10000000kbps)	
						Broadcast	Multicast	Unknown Unicast	Ingress	Egress
GE0/1		☒	Auto	☒	1	512	0	512	0	0
GE0/2		☒	Auto	☒	1	512	0	512	0	0
GE0/3		☒	Auto	☒	1	512	0	512	0	0
GE0/4		☒	Auto	☒	1	512	0	512	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 GE2) and copper (GE3 to GE4).
Description	Descriptions or remarks of port.
Admin Status	Active or inactive status of port. It is Enabled by default.
Speed	Configuring Port Rate.
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.

3.3 PON

3.3.1 Information

OLT Configuration→PON→Information

This user interface is used to display parameters of PON port, such as PON module port current Temperature, Voltage, Transmit power, Vendor Name, Vendor Revision, Vendor Serial Number.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Information

Configuration

Range

Perf-Stats Information

Perf-Stats Configuration

Optical Transceiver

Port ID	Temperature(°C)	Voltage(V)	Bias Current (mA)	Transmit Power (dBm)	Vendor Name	Vendor Revision	Vendor Serial Number
PON1	49.86	3.20	81.72	5.99	OEM		1021231200001
PON2	36.34	3.24	5.82	6.70	Hisense	1.0	U7Q92006851

Traffic Statistics

Port ID	Link Status	Rx Bytes	Rx Packets				Tx Bytes	Tx Packets				Collisions	Errors
			Packets	Unicast	Broadcast	Multicast		Packets	Unicast	Broadcast	Multicast		
PON1	Up	13764	116	0	0	116	2058294532	15592034	60	12555	15579419	0	0
PON2	Down	0	0	0	0	0	4240635	30620	487	9622	20511	0	0

Clear Counters

Refresh

Figure3.3-1: PON Information

3.3.2 Configuration

OLT Configuration→PON→Configuration

This user interface is used to configure rate limit, storm inhibition, port isolation and so on like uplink port.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

Information

Configuration

Range

Perf-Stats Information

Perf-Stats Configuration

PON Configuration

Port ID	Description	Admin Status	Isolate	ONU P2P	Storm(0[64-1000000fps)			Rate(0[64-1000000kbps)	
					Broadcast	Multicast	Unknown Unicast	Ingress	Egress
PON1		☒	☒	☐					
PON2		☒	☒	☐					

Submit

Reset

Figure3.3-2: PON configuration

3.3.3 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)
GPON0/1	50	250
GPON0/2	0	200

Figure3.3-3: PON Range Configuration

3.3.4 Perf-Stats Information

OLT Configuration→PON→Perf-Stats Information

This user interface is used to View the traffic statistics of the PON port within a period of time.

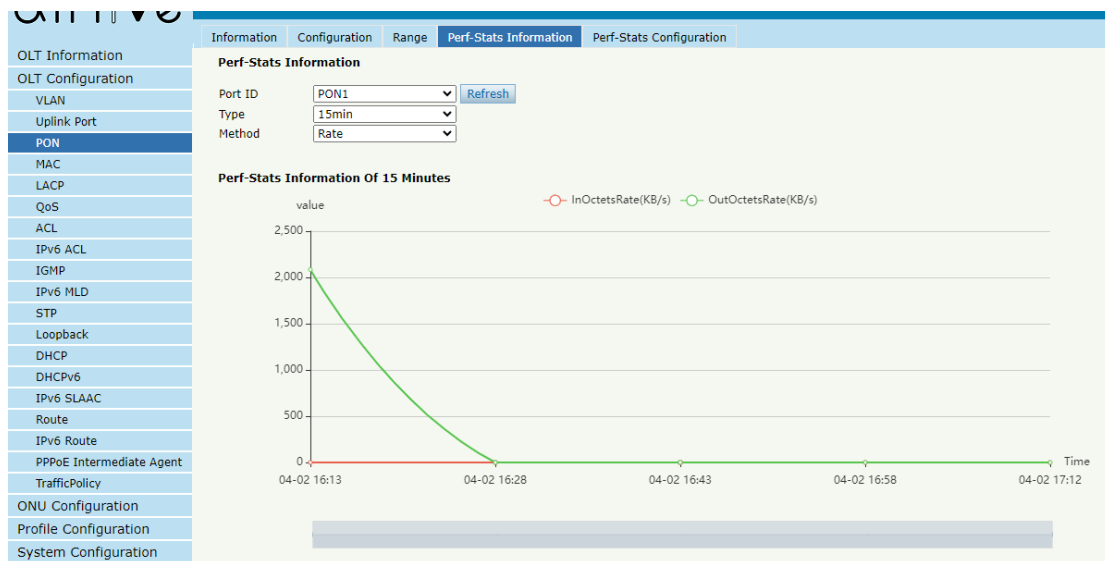


Figure3.3-4: PON Perf-Stats Information

3.3.5 Perf-Stats Configuration

This user interface is used to Set the sampling time and sampling times for traffic statistics.

The screenshot displays the 'Perf-Stats Configuration' tab in the same network management interface. The sidebar menu is identical to the previous figure. The main panel shows the 'Perf-Stats Record Number Configuration' section with a table for setting record counts:

Type	Max Record
15 Minutes	16 (1-96)
24 Hours	7 (1-30)

Below the table is a 'Submit' button. The 'Perf-Stats Configuration' section contains a table for configuring data collection for specific ports:

Port ID	15min	24hour
PON1	☒	☒
PON2	☒	☒

Below this table are 'Submit' and 'Reset' buttons.

Figure3.3-5: PON Perf-Stats Configuration

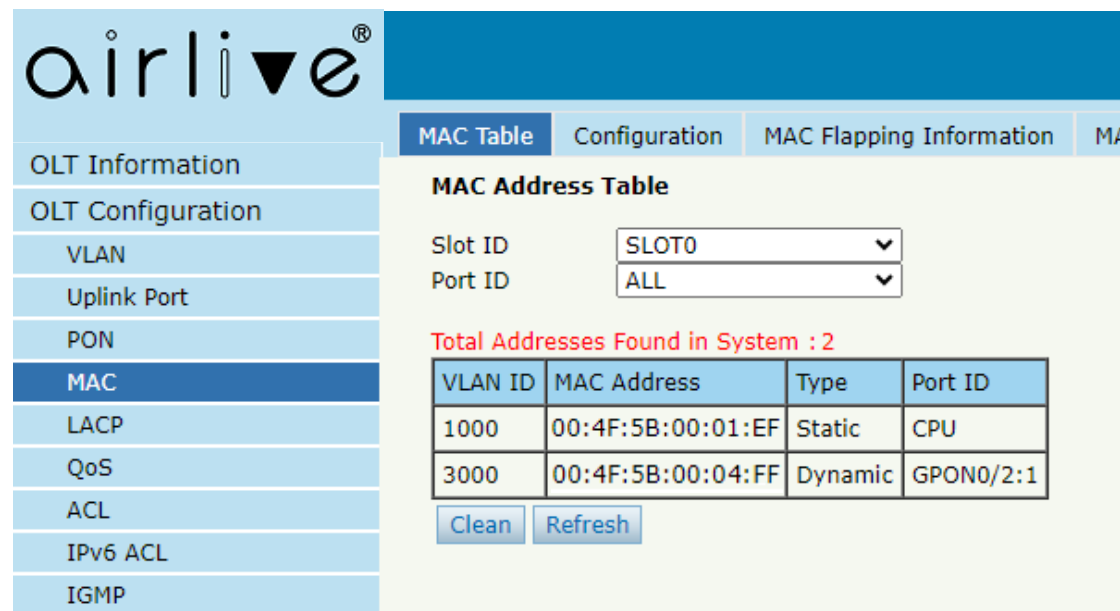
3.4 MAC

In this section, you can check the 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.



The screenshot shows the AirLive OLT Configuration web interface. On the left is a navigation menu with options: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, **MAC**, LACP, QoS, ACL, IPv6 ACL, and IGMP. The 'MAC' option is selected. The main content area has tabs for 'MAC Table', 'Configuration', 'MAC Flapping Information', and 'MAC Address'. The 'MAC Table' tab is active, displaying the 'MAC Address Table'. At the top of this section are two dropdown menus: 'Slot ID' set to 'SLOT0' and 'Port ID' set to 'ALL'. Below these is a red text label 'Total Addresses Found in System : 2'. A table follows with the following data:

VLAN ID	MAC Address	Type	Port ID
1000	00:4F:5B:00:01:EF	Static	CPU
3000	00:4F:5B:00:04:FF	Dynamic	GPON0/2:1

At the bottom of the table are two buttons: 'Clean' and 'Refresh'.

Figure3.4-1: 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 MAC address to the OLT manually.

The screenshot displays the AirLive web management interface. On the left is a vertical sidebar with a menu of network configuration options: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC (highlighted in dark blue), LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, and Loopback. The main content area has a top navigation bar with tabs: MAC Table, Configuration (active), MAC Flapping Information, and MAC Flapping Configuration. Below the tabs, the 'MAC Aging Configuration' section is visible, containing a dropdown for 'Automated Aging' set to 'Enable', a text input for 'Aging Time' set to '300' with a unit of '(10-1000000s)', and a 'Submit' button. Below this is the 'Add MAC Address' section, which includes a 'VLAN ID' dropdown set to '1', a 'MAC Address' text input with a placeholder '(HH:HH:HH:HH:HH:HH)', a 'Type' section with 'Static' selected (radio button) and 'Dynamic' as an option, and a 'Port ID' dropdown set to 'GE0/1'. 'Add' and 'Delete' buttons are located at the bottom of this section.

Figure 3.4-2: MAC Configuration

3.4.3 MAC Flapping Information

This interface displays information learned on multiple ports for the same MAC if you enable MAC Flapping switch.

MAC Table	PON MAC Table	Configuration	MAC Flapping Information	MAC Flapping Configuration	MAC Flapping Po	
MAC Flapping Information						
MAC Address	VLAN	Source port	Current Port	Begin Time	Last Time	Times
00:4F:5B:98:81:4D	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:56	2021/07/23 13:26:28	2/0
00:4F:5B:98:81:7D	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:57	2021/07/23 13:26:28	2/0
00:4F:5B:98:81:35	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:57	2021/07/23 13:26:28	2/0
00:4F:5B:98:83:7D	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:57	2021/07/23 13:26:28	2/0
00:4F:5B:98:80:D5	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:57	2021/07/23 11:09:57	1/0
00:4F:5B:98:81:15	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:57	2021/07/23 13:26:29	2/0
00:4F:5B:98:81:5D	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:57	2021/07/23 13:26:29	2/0
00:4F:5B:98:82:7D	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:57	2021/07/23 11:09:57	1/0
00:4F:5B:98:83:0D	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:58	2021/07/23 13:26:29	2/0
00:4F:5B:98:83:25	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:58	2021/07/23 13:26:30	2/0
00:4F:5B:98:81:95	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:58	2021/07/23 13:26:30	2/0
00:4F:5B:98:80:E5	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:59	2021/07/23 13:26:30	2/0
00:4F:5B:98:82:55	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:59	2021/07/23 13:26:30	2/0
00:4F:5B:98:81:3D	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:59	2021/07/23 11:09:59	1/0
00:4F:5B:98:81:25	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:59	2021/07/23 13:26:27	2/0
00:4F:5B:98:80:FD	3000	GPON 0/1	GE 0/1	2021/07/23 11:09:59	2021/07/23 13:26:30	2/0
00:4F:5B:98:82:5D	3000	GPON 0/1	GE 0/1	2021/07/23 11:10:00	2021/07/23 11:10:00	1/0
00:4F:5B:98:81:B5	3000	GPON 0/1	GE 0/1	2021/07/23 13:26:27	2021/07/23 13:26:27	1/0
00:4F:5B:98:81:05	3000	GPON 0/1	GE 0/1	2021/07/23 13:26:28	2021/07/23 13:26:28	1/0
00:4F:5B:98:82:0D	3000	GPON 0/1	GE 0/1	2021/07/23 13:26:28	2021/07/23 13:26:28	1/0

Figure 3.4-3: MAC Flapping Information

3.4.4 MAC Flapping Configuration

You can enable MAC Flapping Configuration in this interface.



MAC Table
Configuration
MAC Flapping Information
MAC Flapping Configuration

OLT Information
OLT Configuration
VLAN
Uplink Port
PON
MAC
LACP
QoS
ACL
IPv6 ACL
IGMP

MAC Flapping Configuration

Status:

Range:

Mode:

Interval: (10-3600s)

Suppression Threshold: (1-256)

Suppression Age Time: (10-3600s)

Figure 3.4-4: MAC Flapping Configuration

3.4.5 MAC Flapping Port Configuration

This user interface is used to enable MAC Flapping Configuration for specific port.

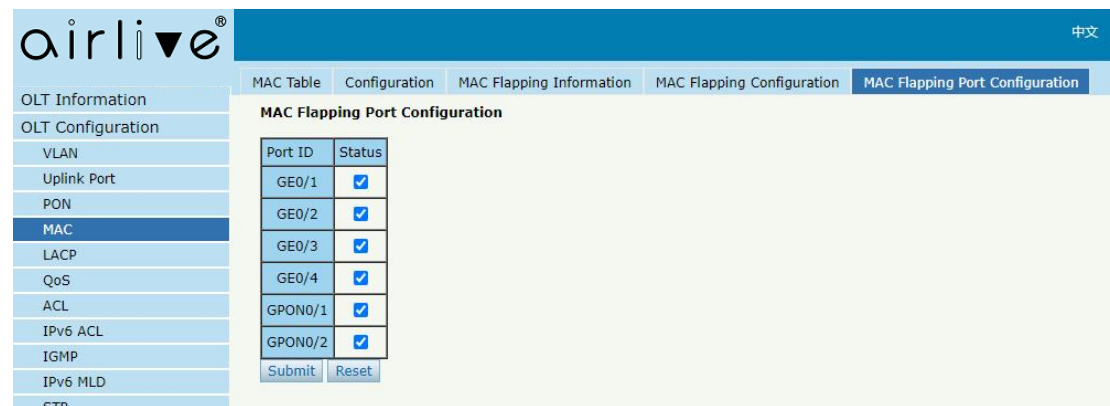


Figure 3.4-5: MAC Flapping Port Configuration

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.

The screenshot shows the 'airliVe' OLT Configuration interface. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP (highlighted), Static LACP (highlighted), Dynamic LACP, QoS, ACL, and IPv6 ACL. The main content area is titled 'Static LACP' and contains two sections: 'Channel Group Configuration' and 'Channel Group Table'.

Channel Group Configuration

Channel Group ID: 1 (dropdown menu)
 Load Balance: sMAC (dropdown menu)
 Select GE Port: GE0/1 ☒ GE0/2 ☒ GE0/3 ☐ GE0/4 ☐
 Submit button

Channel Group Table

Group ID	Load Balance	Ports	Delete
1	sMAC	GE1 GE2	

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 are connected to. If the ports are connected to the same device, they will be in a channel group, otherwise in a different channel group.

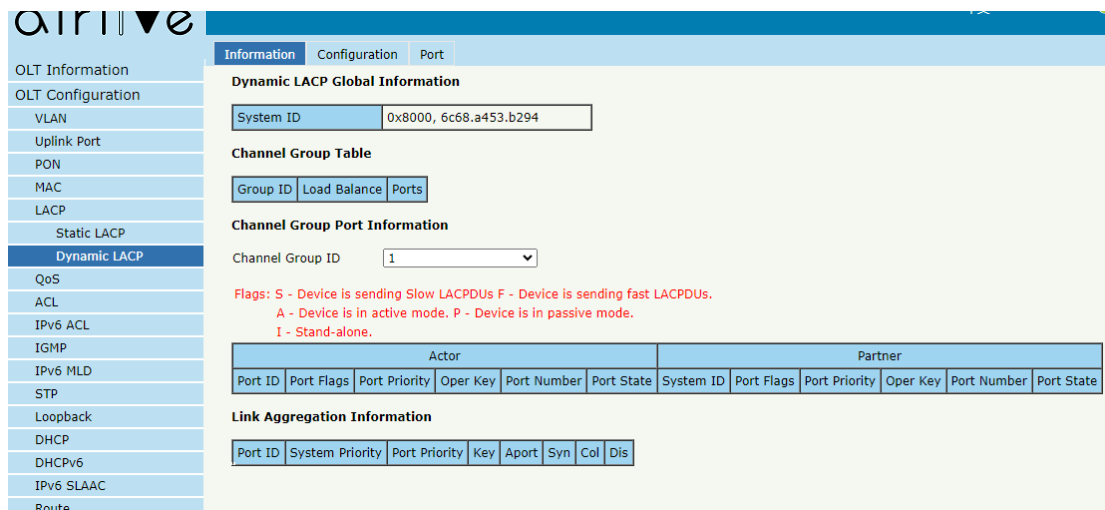


Figure 3.5-2: Dynamic LACP Information

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 first. 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.

The screenshot shows the 'airlive' OLT Configuration web interface. The left sidebar contains a menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, Static LACP, Dynamic LACP, **QoS**, ACL, and IPv6 ACL. The 'QoS' item is currently selected. The main content area is titled 'QoS Configuration'. It features a 'QoS Mode' dropdown menu set to 'Strict-WRR'. Below this is a 'Weight' section with a table of input fields for different traffic classes. The weights are: Q0(1-127) = 1, Q1(1-127) = 2, Q2(1-127) = 3, Q3(1-127) = 10, Q4(0-127) = 20, Q5(0-127) = 100, Q6(0-127) = 120, and Q7(0-127) = 0. A 'Submit' button is located below the weight inputs. In the top right corner, there are links for '中文' and 'Save'.

QoS Mode	Q0(1-127)	Q1(1-127)	Q2(1-127)	Q3(1-127)	Q4(0-127)	Q5(0-127)	Q6(0-127)	Q7(0-127)
Strict-WRR	1	2	3	10	20	100	120	0

Figure 3.6-1: QoS Configuration

3.7 ACL

In order to filter data packages, network equipment needs 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 based on the IP address, including source IP address and destination IP address.

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

IP Filter

MAC Filter

IP/MAC Filter

Effect Filter

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

TCP

(0-255)

☐ DSCP

(0-63)

Add

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 based on the MAC address, including source MAC address and destination MAC address.

airlive®

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

Static LACP

Dynamic LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

IP Filter

MAC Filter

IP/MAC Filter

Ingress Effect Filter

Egress Effect Filter

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

1

☐ VLAN CoS

(0-7)

☐ Ethernet Type

(HHHH)

Add

Access Lists Configured

List ID	Source MAC	Destination MAC	VLAN ID	VLAN CoS	Ethernet Type	Filter Action	Delete
2000	00:4F:5B:00:01:EF/ff:ff:ff:ff:ff:ff					Deny	

Figure 3.7-2: MAC Filter

Access List Port Ingress Bind

Access List ID: 1000

GE0/1 GE0/2 GE0/3 GE0/4

Select GE Port: ☒ ☐ ☐ ☐

PON1 PON2

Select PON Port: ☒ ☐

Notice: The larger access list ID number, the higher priority.

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

Active Access Lists

Access List ID	Ports
1000	GE1 PON1

Figure 3.7-4: Bind Security Filter(Ingress)

3.7.5 Egress 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 to several ports. The outbound direction of port traffic is bound here.

Access List Port Egress Bind

Access List ID: 1000

GE0/1 GE0/2 GE0/3 GE0/4

Select GE Port: ☐ ☒ ☐ ☐

PON1 PON2

Select PON Port: ☐ ☒

Notice: The larger access list ID number, the higher priority.

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

Active Access Lists

Access List ID	Ports
1000	GE2 PON2

Figure 3.7-5: Bind Security Filter(Egress)

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.

The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, Static LACP, Dynamic LACP, QoS, ACL, **IPv6 ACL**, IGMP, IPv6 MLD, STP, Loopback, and DHCP. The 'IPv6 ACL' item is highlighted. The main content area is titled 'Access List IPv6 Configuration' and contains the following fields:

- Access List ID: [Text Box] (1000-1999)
- Filter Action: ☒ Deny ☐ Permit
- ☐ Source IPv6: [Text Box] Prefixlen [Text Box]
- ☐ Source Port: [Text Box] (0-65535)
- ☐ Destination IPv6: [Text Box] Prefixlen [Text Box]
- ☐ Destination Port: [Text Box] (0-65535)
- ☐ Protocol: [Dropdown Menu] (0-255)
- ☐ DSCP: [Text Box] (0-63)

Below these fields is an 'Add' button. At the bottom, there is a section titled 'Access Lists Configured' which contains a table with the following columns: List ID, Source IPv6, Source Port, Destination IPv6, Destination Port, Protocol, DSCP, Filter Action, and 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.

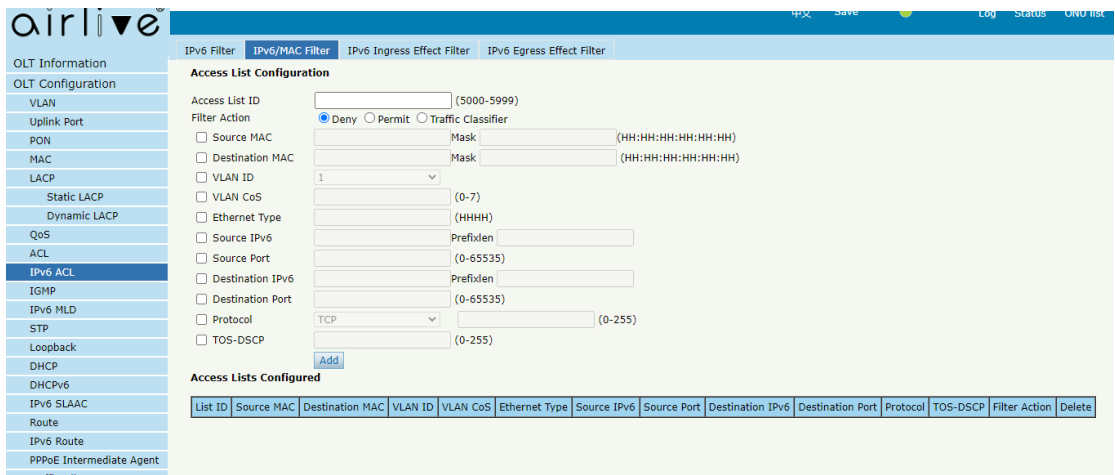


Figure 3.8-2: IPv6/MAC Filter

3.8.3 IPv6 Ingress Effect Filter

OLT Configuration → IPv6 ACL → IPv6 Ingress 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 inbound direction of port traffic is bound here.

The screenshot shows the AirLive OLT Configuration interface. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, Static LACP, Dynamic LACP, QoS, ACL, **IPv6 ACL**, IGMP, IPv6 MLD, and STP. The main content area has four tabs: IPv6 Filter, IPv6/MAC Filter, **IPv6 Ingress Effect Filter**, and IPv6 Egress Effect Filter. The 'IPv6 Ingress Effect Filter' tab is active, displaying the 'Access List Port Ingress Bind' configuration. This section includes an 'Access List ID' dropdown menu, checkboxes for selecting GE ports (GE0/1, GE0/2, GE0/3, GE0/4) and PON ports (PON1, PON2), and a button labeled 'Apply Access List to Port(s)'. A red notice states: 'Notice: The larger access list ID number, the higher priority.' Below this is a table titled 'Active Access Lists' with columns 'Access List ID' and 'Ports'.

Figure 3.8-3: Bind IPv6 Security Filter(Ingress)

3.8.4 IPv6 Egress Effect Filter

OLT Configuration → IPv6 ACL → IPv6 Egress 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 outbound direction of port traffic is bound here.

The screenshot shows the AirLive OLT Configuration interface, similar to the previous one, but with the 'IPv6 Egress Effect Filter' tab selected. The configuration section is titled 'Access List Port Egress Bind'. It features the same 'Access List ID' dropdown, checkboxes for selecting GE ports (GE0/1, GE0/2, GE0/3, GE0/4) and PON ports (PON1, PON2), and the 'Apply Access List to Port(s)' button. The red notice and the 'Active Access Lists' table are also present.

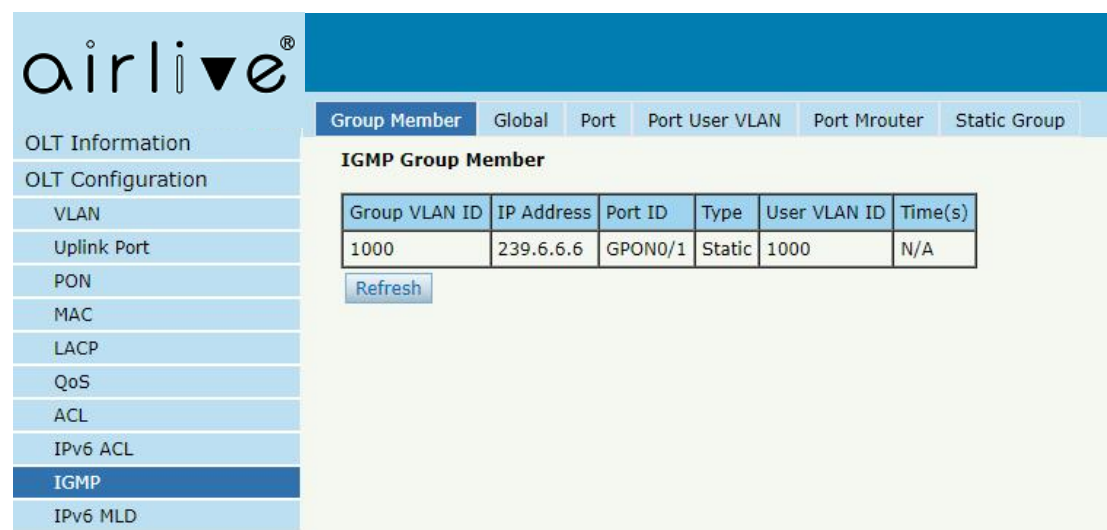
Figure 3.8-4: Bind IPv6 Security Filter(Egress)

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.



The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar with a menu including OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP (highlighted), and IPv6 MLD. The main area has tabs for Group Member, Global, Port, Port User VLAN, Port Mrouter, and Static Group. The 'Group Member' tab is active, displaying the 'IGMP Group Member' table. The table has columns for Group VLAN ID, IP Address, Port ID, Type, User VLAN ID, and Time(s). It contains one entry with Group VLAN ID 1000, IP Address 239.6.6.6, Port ID GPON0/1, Type Static, User VLAN ID 1000, and Time(s) N/A. A 'Refresh' button is located below the table.

Group VLAN ID	IP Address	Port ID	Type	User VLAN ID	Time(s)
1000	239.6.6.6	GPON0/1	Static	1000	N/A

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.

The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar with a menu including OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, **IGMP**, IPv6 MLD, STP, Loopback, and DHCP. The main area has tabs for Group Member, **Global**, Port, Port User VLAN, Port Mrouter, and Static Group. The 'IGMP Configuration' section is active, showing the following settings:

IGMP Status	Enable	
Member Port Timeout	260	(10-3600s)
Query Response Time	10	(1-25s)
Last Member Query Interval	1	(1-255s)
Last Member Query Count	2	(1-255)
Last Member Query Response	1	(1-25s)
General Query Packet	☐ Disable ☒ Enable	
General Query Interval	125	(10-255s)
Query Source IP	1.1.1.1	

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

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.

The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar menu with options: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, **IGMP**, IPv6 MLD, and STP. The main area has tabs: Group Member, Global, **Port**, Port User VLAN, Port Mrouter, and Static Group. The 'Port Configuration' section contains a table with columns 'Port ID', 'Fast Leave', and 'Group Limit(0-1024)'. The table lists ports GE0/1 through GPON0/2, each with a 'Fast Leave' checkbox and a 'Group Limit' of 1024. Below the table are 'Submit' and 'Reset' buttons.

Port ID	Fast Leave	Group Limit(0-1024)
GE0/1	☐	1024
GE0/2	☐	1024
GE0/3	☐	1024
GE0/4	☐	1024
GPON0/1	☐	1024
GPON0/2	☐	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 shows the AirLive OLT configuration interface for 'Port User VLAN'. The sidebar menu is the same as in Figure 3.9-3, with 'IGMP' selected. The main area has tabs: Group Member, Global, Port, **Port User VLAN**, Port Mrouter, and Static Group. The 'User VLAN Configuration' section has dropdowns for 'Port ID' (GE0/1), 'User VLAN ID' (1), and 'Group VLAN ID' (1), with an 'Add' button. The 'User VLAN Table' section contains a table with columns 'Port ID', 'User VLAN ID', 'Group VLAN ID', and 'Delete'. It lists two entries for GPON0/1 with User VLAN ID 1000 and Group VLAN ID 1000, and another for GPON0/1 with User VLAN ID 3200 and Group VLAN ID 3200. The 'Default VLAN Configuration' section has a 'Default VLAN ID' dropdown, 'Add', and 'Delete' buttons.

Port ID	User VLAN ID	Group VLAN ID	Delete
GPON0/1	1000	1000	
GPON0/1	3200	3200	

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.

The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar with a menu: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, and IGMP (which is highlighted). The main area has tabs: Group Member, Global, Port, Port User VLAN (selected), Port Mrouter, and Static Group. Under the 'Port User VLAN' tab, there is a section 'Add Multicast Router' with two dropdown menus: 'Port ID' set to 'GE0/1' and 'Group VLAN ID' set to '1'. Below these is an 'Add' button. Further down is a 'Multicast Router Table' containing a table with three columns: Port ID, Group VLAN ID, and Delete. The table has one row with 'GE0/1' in the first column and '3000' in the second column. The 'Delete' column contains a trash icon.

Port ID	Group VLAN ID	Delete
GE0/1	3000	

Figure 3.9-5: IGMP Port Mroute

3.9.6 Static Group

OLT Configuration → IGMP → Static Group

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

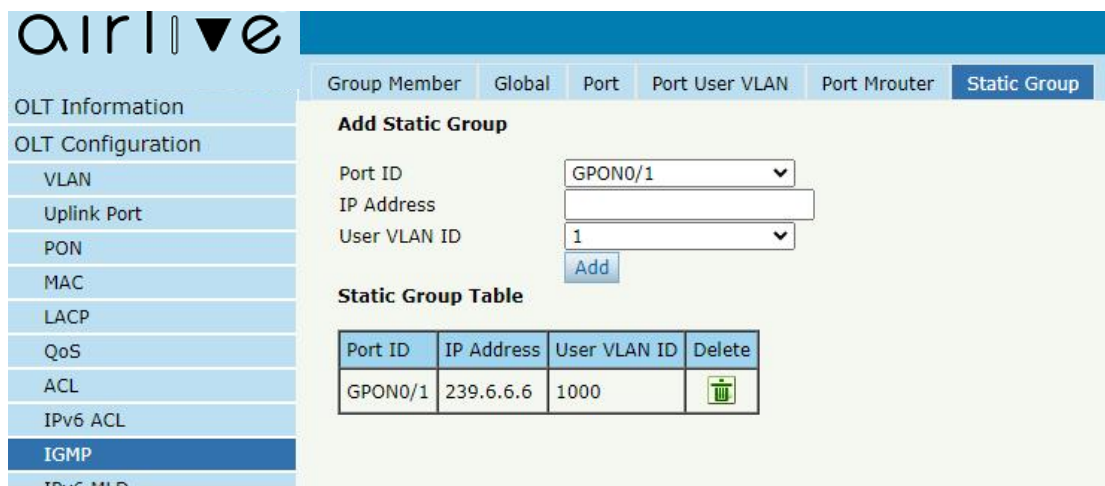


Figure 3.9-6: IGMP Static Group

3.10 IPv6 MLD

3.10.1 Group Member

OLT Configuration → IPv6 MLD → Group Member

This page displays IPv6 multicast group member ports.



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 Port User VLAN Port Mrouter Static Group

IPv6 MLD Configuration

MLD Status: Enable

Query interval: 125 (1-255s)

Query response interval: 10 (1-64s)

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

MLD Version: MLDv2

General Query Interval: 125 (10-3600s)

Query Source IP: fe80::1

Submit Reset

Figure 3.10-2: IPv6 MLD Global

3.10.3 Port

OLT Configuration → IPv6 MLD → Port

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

Group Member Global Port Port User VLAN Port Mrouter Static Group

Port Configuration

Port ID	Fast Leave	Group Limit(0-256)
GE0/1	☐	256
GE0/2	☐	256
GE0/3	☐	256
GE0/4	☐	256
GPON0/1	☐	256
GPON0/2	☐	256

Submit Reset

Figure 3.10-3: IPv6 MLD Port

3.10.4 Port User VLAN

OLT Configuration → IPv6 MLD → Port User VLAN

This page is used to configure MLD VLAN for OLT.

The screenshot shows the AirLive OLT configuration interface. The left sidebar contains a menu with 'IPv6 MLD' selected. The main content area has tabs for 'Group Member', 'Global', 'Port', 'Port User VLAN', 'Port Mrouter', and 'Static Group'. The 'Port User VLAN' tab is active, displaying the 'User VLAN Configuration' section with fields for 'Port ID' (GE0/1), 'User VLAN ID' (1), and 'Group VLAN ID' (1), along with an 'Add' button. Below this is the 'User VLAN Table' with a table containing one entry for GE0/1 with User VLAN ID 1000 and Group VLAN ID 1000, and a 'Delete' button. A 'Refresh' button is also present. The 'Default VLAN Configuration' section at the bottom has a 'Default VLAN ID' dropdown and 'Add' and 'Delete' buttons.

Port ID	User VLAN ID	Group VLAN ID	Delete
GE0/1	1000	1000	

Figure 3.10-4: IPv6 Port User VLAN

3.10.5 Port Mrouter

OLT Configuration → IPv6 MLD → Port Mrouter

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

The screenshot shows the AirLive OLT configuration interface. The left sidebar contains a menu with 'IPv6 MLD' selected. The main content area has tabs for 'Group Member', 'Global', 'Port', 'Port User VLAN', 'Port Mrouter', and 'Static Group'. The 'Port Mrouter' tab is active, displaying the 'Add Multicast Router' section with fields for 'Port ID' (GE0/1) and 'Group VLAN ID' (1), along with an 'Add' button. Below this is the 'Multicast Router Table' with a table containing one entry for GE0/4 with Group VLAN ID 1000 and Type 'static', and a 'Delete' button. A 'Refresh' button is also present.

Port ID	Group VLAN ID	Type	Delete
GE0/4	1000	static	

Figure 3.10-5: IPv6 MLD Port Mrouter

3.10.6 Static Group

OLT Configuration → IPv6 MLD → Static Group

This configuration is used to bind multicast IPv6 address and VLAN ID.

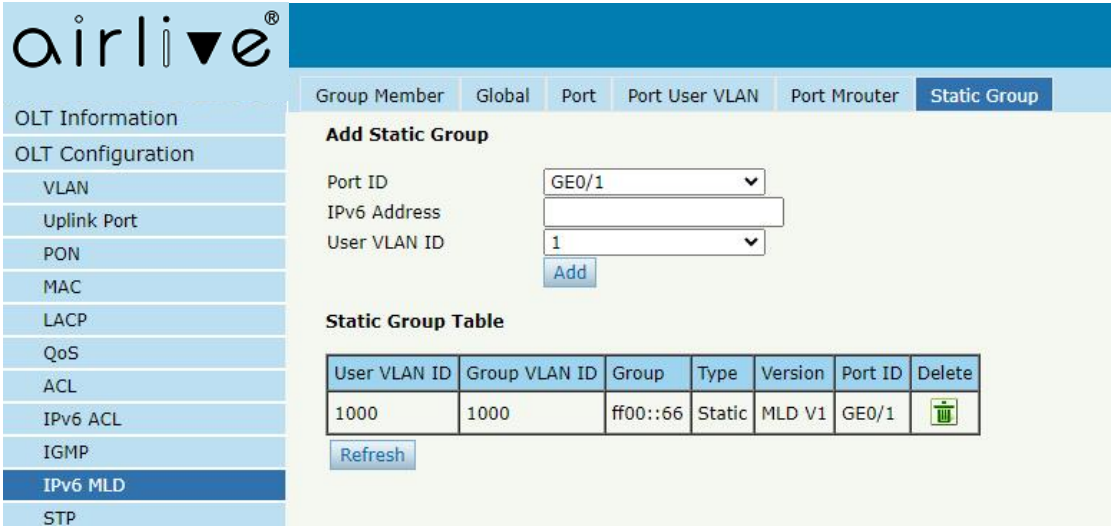


Figure 3.10-6: MLD Static Group

3.11 STP

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 → STP → Information

Global information mainly displays STP parameters of root bridge

device.

The screenshot displays the AirLive web management interface. On the left is a sidebar with a list of configuration categories: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, **STP** (highlighted), Loopback, DHCP, DHCPv6, IPv6 SLAAC, and Route. The main content area has tabs for 'Information', 'Global', and 'Port', with 'Information' selected. Under the 'Information' tab, there are two sections: 'RSTP Information' and 'RSTP Port Status'.

RSTP Information

	Root	Bridge
Cost	0	
Port	CPU	
Priority	32768	32768
MAC Address	00:4F:5B:00:01:EF	00:4F:5B:00:01:EF
Hello Time	2s	2s
Max Age	20s	20s
Forward Delay	15s	15s

RSTP Port Status

Port ID	Role	State	Cost	Priority	Point To Point
GE3	Design	Forwarding	20000	128	Enable

Below the 'RSTP Port Status' table is a 'Refresh' button.

Figure 3.11-1: STP Information

3.11.2 Global

OLT Configuration→STP→Global

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

airlive

Information **Global** Port

RSTP Configuration

RSTP Status:

Global Priority: (0-61440)

Hello Time: (1-10s)

Max Age: (6-40s)

Forward Delay: (4-30s)

Notice: $2 * (\text{HelloTime} + 1) \leq \text{MaxAge} \leq 2 * (\text{ForwardDelay} - 1)$

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

Figure 3.11-2: STP Global Setup

3.11.3 Port

OLT Configuration → STP → Port

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

airlive

Information Global **Port**

RSTP Port Configuration

Port ID	Status	Priority (0-255)	Cost (1-200000000)	admin Edge	Operating Edge	Point To Point
GE0/1	☒	128	2000	☒	☒	☒
GE0/2	☒	128	2000	☒	☒	☒
GE0/3	☒	128	20000	☒	☒	☒
GE0/4	☒	128	20000000	☒	☒	☒

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Figure 3.11-3: STP Port Settings

3.12 Loopback

Loopback can detect loop ports and process loop ports.

3.12.1 Information

OLT Configuration→Loopback→Information

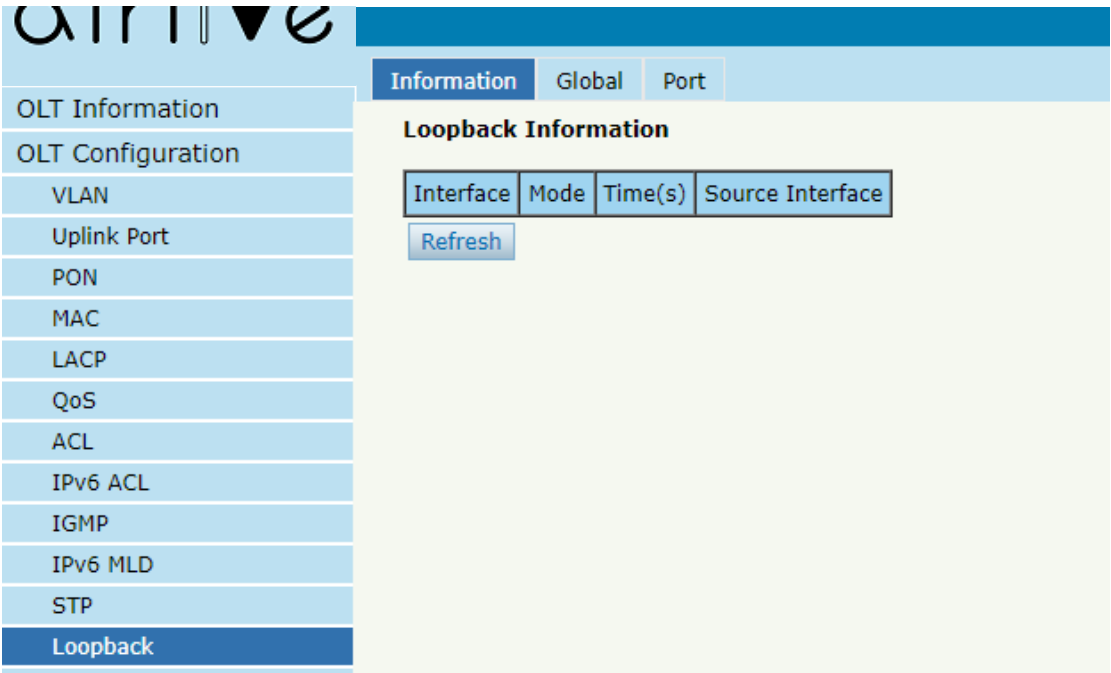


Figure 3.12-1: Loopback Information

3.12.2 Global

OLT Configuration→Loopback→Global

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

The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, **Loopback** (highlighted), and DHCP. The main content area has three tabs: Information, **Global** (selected), and Port. Under the 'Global' tab, the 'Loopback Configuration' section contains the following settings:

Status	Enable	
Range	All	
Effect	ONU	
Mode	Manual-recovery	
Age Time	60	(10-3600s)
Packet Send Way	VLAN-base	
Packet Send Time	2	(range 1-720, unit:0.5s)

At the bottom of the configuration area are two buttons: 'Submit' and '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.

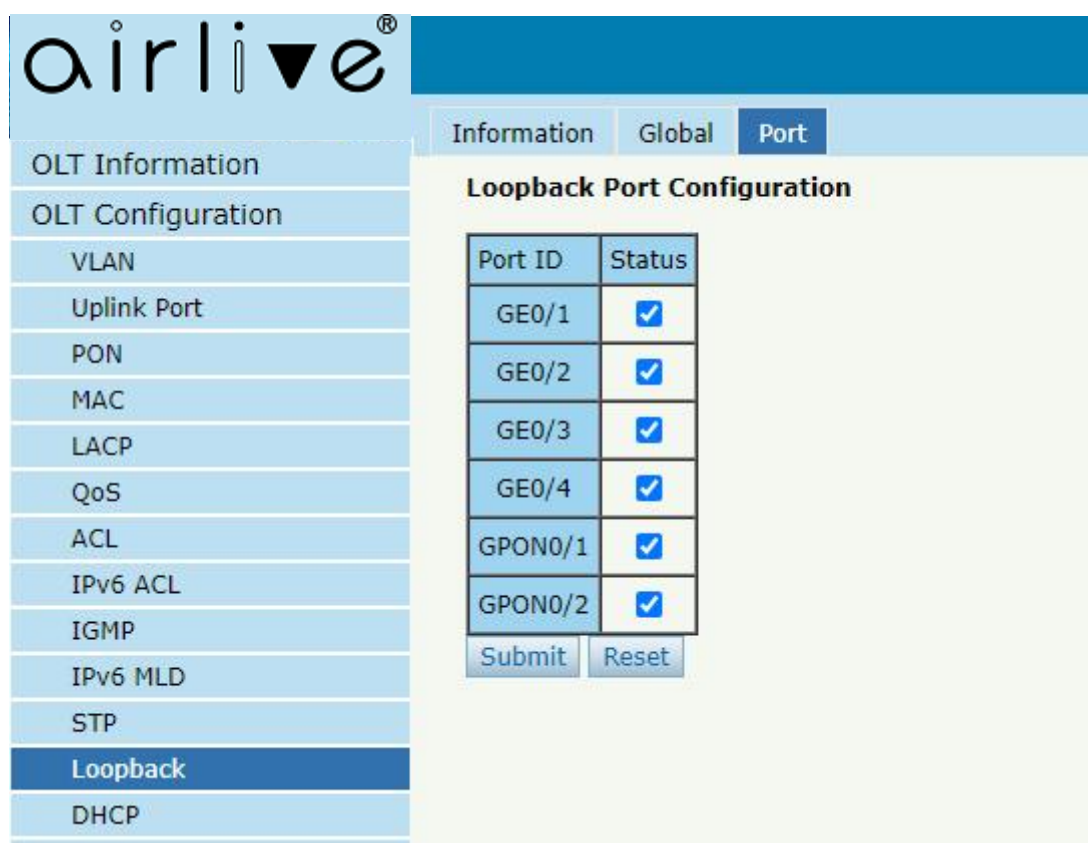


Figure 3.12-3: Loopback Port

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 Bind Information

OLT Configuration→DHCP→DHCP Server→DHCP Bind

Information

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

The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, Loopback, DHCP, **DHCP Server**, DHCP Relay, and DHCP Snooping. The main content area has three tabs: DHCP Bind Information (selected), DHCP Server Enable, and DHCP Pool Configuration. Under the DHCP Bind Information tab, there is a section titled "DHCP Server Lease" containing a table with the following headers: Pool Name, MAC Address, IP Address, Lease, Type, and Hostname. Below the table is a "Refresh" button.

Figure 3.13-1: DHCP Bind Information

3.13.1.2 DHCP Server Enable

OLT Configuration→DHCP→DHCP Server→DHCP Server Enable

This parameter is used to configure different DHCP servers for different VLAN ID.

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

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OLT Information
OLT Configuration
VLAN
Uplink Port
PON
MAC
LACP
QoS
ACL
IPv6 ACL
IGMP
IPv6 MLD
STP
Loopback
DHCP
DHCP Server

DHCP Bind Information **DHCP Server Enable** DHCP Pool Configuration

DHCP Server Configuration

VLAN ID: 1
Pool Name: xxx
Submit Reset

DHCP Interface Information

VLAN ID	Using Pool	Delete
1000	xxx	

Figure 3.13-2: DHCP Server Enable

3.13.1.3 DHCP Pool Configuration

OLT Configuration → DHCP → DHCP Server → DHCP Pool Configuration

This page is used to configure basic information about the DHCP server, including Pool Name, Lease Time, and Gateway.

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DHCP Bind Information DHCP Server Enable **DHCP Pool Configuration**

DHCP Server Pool Setting

Pool Name:
Start IP Address:
Subnet Mask:
Lease Time: 864000 (60-864000)s
DNS Server:
Gateway:
Wins:
Submit Reset

DHCP Server Pool Information

Pool Name	Start IP Address	End IP Address	Subnet	Lease Time	Gateway	Wins	DNS Server	Edit	Advance	Delete
xxx	172.16.167.10	172.16.167.254	255.255.255.0	864000	172.16.167.1		202.96.128.86			

Figure 3.13-3: DHCP Pool Configuration

3.13.2 DHCP Relay

3.13.2.1 Configuration

OLT Configuration→DHCP→DHCP Relay→Configuration

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.

The screenshot shows the AirLive OLT Configuration interface. On the left is a sidebar menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, and STP. The main area is titled 'Add Relay Server' and contains a 'Server IP' text input field, a 'VLAN ID' dropdown menu currently showing '1', and an 'Add' button. Below this is a 'Relay Server Table' with the following data:

Server IP	VLAN ID	Delete
192.168.1.171	40	

Figure 3.13-4: DHCP Relay Configuration

3.13.2.2 Global

OLT Configuration→DHCP→DHCP Relay→Global

The global configuration of DHCP relay mainly includes option 82 settings, including switches and processing modes.

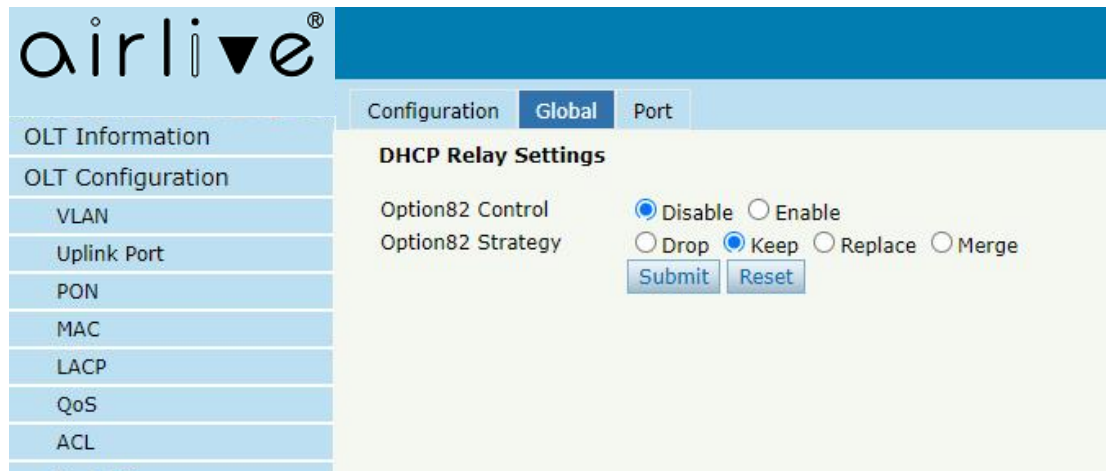


Figure 3.13-5: DHCP Relay Global

3.13.2.3 Port

OLT Configuration→DHCP→DHCP Relay→Port

This user interface is used to configure the parameters "Option 82 Circuit ID" and "Option 82 Remote ID" for option 82.

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Configuration Global **Port**

DHCP Relay Port Configuration

Port ID	Option82 Circuit ID	Option82 Remote ID
GE1		
GE2		
GE3		
GE4		
PON1		
PON2		

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCP Server

DHCP Relay

DHCP Snooping

Figure 3.13-6: DHCP Relay Port

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.

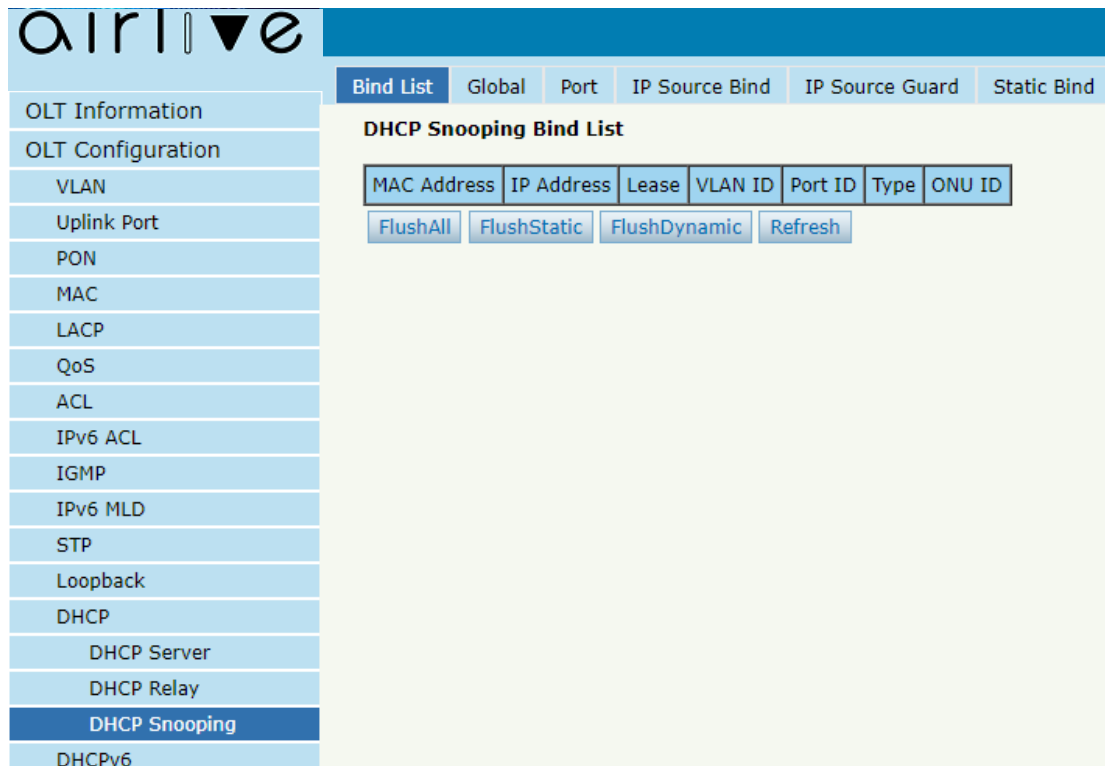


Figure 3.13-7: DHCP Snooping Bind List

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.

OLT Configuration

- OLT Information
- OLT Configuration
 - VLAN
 - Uplink Port
 - PON
 - MAC
 - LACP
 - QoS
 - ACL
 - IPv6 ACL
 - IGMP
 - IPv6 MLD
 - STP
 - Loopback
 - DHCP
 - DHCP Server
 - DHCP Relay
 - DHCP Snooping**
 - DHCPv6
 - IPv6 SLAAC
 - Route
 - IPv6 Route

Bind List **Global** Port IP Source Bind IP Source Guard Static Bind

DHCP Snooping Configuration

DHCP Snooping

DHCP Snooping Settings

Option82 Control ☒ Disable ☐ Enable

Option82 Strategy ☐ Drop ☒ Keep ☐ Replace ☐ Merge

Overspeed Recovery ☐ Disable ☒ Enable

Overspeed Recovery Interval (3-3600s)

VLAN ID List

List

VLAN ID

VLAN Option82 Profile(Format Profile) Bind

VLAN	Profile Id	Profile Name
VLAN ID 1	Profile 1(test)	

Figure 3.13-8: 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.

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Bind List Global **Port** IP Source Bind IP Source Guard Static Bind

DHCP Snooping Port Configuration

Port ID	Type	Option82 Circuit ID	Option82 Remote ID	Limit Rate(0-4096pps)
GE0/1	Untrust ▼			0
GE0/2	Untrust ▼			0
GE0/3	Untrust ▼			0
GE0/4	Untrust ▼			0
GPON0/1	Untrust ▼			0
GPON0/2	Untrust ▼			0

Submit Reset

Figure 3.13-9: 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.

The screenshot shows the AirLive OLT configuration interface. On the left is a navigation menu with categories like OLT Information, OLT Configuration, and various protocols. The main area is titled 'Static Bind' and contains a form for 'Add DHCP Snooping Bind' and a table for 'Static DHCP Snooping Bind Table'.

Add DHCP Snooping Bind

MAC Address: (HH:HH:HH:HH:HH:HH)
 VLAN ID:
 IP Address:
 Port ID:
 Lease: (60-1000000s)

Static DHCP Snooping Bind Table

MAC Address	VLAN ID	IP Address	Port ID	Lease	Delete
00:00:01:00:00:99	1	192.168.1.171	GE0/1	666	

Figure 3.13-10: DHCP Snooping Static Bind

3.13.3.5 IP Source Guard

Only GPON OLT-B Series supports this feature.

OLT Configuration→DHCP→DHCP Snooping→IP Source Guard

This function is actually based on the DHCP Snooping Bind List to restrict access to the external network. That means that an issue outside the list cannot access the external network

The screenshot shows the AirLive OLT configuration interface for IP Source Guard. The main area is titled 'IP Source Guard Configuration' and contains a form for configuration and a table for the 'IP Source Table'.

IP Source Guard Configuration

Port ID:
 FilterType:
 Filtered VLAN ID:

IP Source Table

Interface	FilterType	FilterMode	IP Address	MAC Address	Filtered VLAN ID
PON5	MAC	Active	192.168.22.177	84:F9:49:00:00:09	100

Figure 3.13-11: DHCP Snooping IP Source Guard

3.13.3.6 IP Source Bind

Only GPON OLT-B Series supports this feature.

OLT Configuration→DHCP→DHCP Snooping→IP Source Bind

If you configure a rule in IP Source Guard, a dynamic rule is displayed in IP Source Bind Table. You can add a static rule manually on this page. It works as described in the previous section.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCP Server

DHCP Relay

DHCP Snooping

DHCPv6

Bind List

Global

Port

IP Source Bind

IP Source Guard

Static Bind

IP Source Bind Configuration

VLAN ID

Port ID

IP Address

mask

MAC Address

(HH:HH:HH:HH:HH:HH)

submit

reset

IP Source Bind Table

MAC Address	IP Address	Type	VLAN ID	Interface	Delete
B4:F9:49:00:00:09	192.168.22.177/32	Dynamic	100	PON5	
36:33:33:33:33:B1	192.168.77.63/24	Static	100	PON5	

Figure 3.13-12: DHCP Snooping IP Source 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.

The screenshot shows the AirLive OLT configuration interface. On the left is a sidebar menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, Loopback, DHCP, DHCPv6 (highlighted), DHCPv6 Server (highlighted), and DHCPv6 Relay. The main content area has four tabs: DHCPv6 Bind Information, DHCPv6 Server Enable (active), Server Pool Configuration, and DHCPv6 DUID. Under the 'DHCPv6 Server Enable' tab, the 'DHCPv6 Server Configuration' section contains: VLAN ID (dropdown with '1'), Pool Name (dropdown with 'test'), Preference Value (checkbox, disabled), and Rapid Commit (radio buttons with 'Off' selected). There are 'Submit' and 'Reset' buttons. Below this is the 'DHCPv6 Interface Information' section, which contains a table with columns: VLAN ID, Using Pool, Preference Value, Rapid Commit, and Delete. The table is currently empty. A 'Refresh' button is located below the table.

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. Lifetime, DNS and domain also can be specified here for DHCPv6 client.

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

Route

IPv6 Route

ONU Configuration

Profile Configuration

System Configuration

DHCPv6 Bind Information

DHCPv6 Server Enable

Server Pool Configuration

DHCPv6 Server Pool Setting

Pool Name

Start IPv6 Address

End IPv6 Address

Valid LifeTime

Preferred LifeTime

DNS Server

Domain Name

Submit

Reset

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 2222:abcd::ef:1	test.com		

Figure 3.14-3: DHCPv6 Pool

3.14.1.4 DHCPv6 DUID

OLT Configuration → DHCPv6 → DHCPv6 Server → DHCPv6 DUID

This page is used to configure DHCPv6 DUID types, Enterprise Number and Identifier.

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OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

DHCPv6 Server

DHCPv6 Relay

DHCPv6 Bind Information

DHCPv6 Server Enable

Server Pool Configuration

DHCPv6 DUID

DHCPv6 DUID Configuration

DUID Type

Enterprise Number

Identifier

Submit

Reset

DHCPv6 DUID Table

DUID Type	DUID
DUID-LLT	00:01:00:01:2e:04:5a:33:00:4F:5B:00:01:EF

Refresh

Figure 3.14-4: DHCPv6 DUID

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.

Configuration

DHCPv6 Global Configuration

option37

option38

Add DHCPv6 Relay Server

VLAN ID

Server IPv6

Remote id

Subscriber id

DHCPv6 Realy Server Table

VLAN ID	Server IPv6	Remote id	Subscriber id	Delete
---------	-------------	-----------	---------------	--------

Figure 3.14-5: DHCPv6 Relay

3.15 IPv6 SLAAC

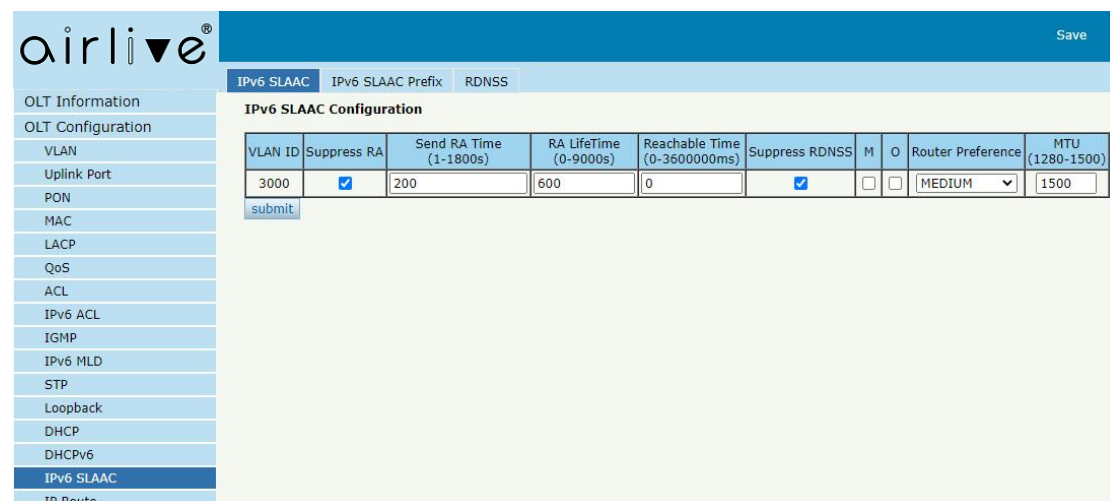
IPv6 network uses the ICMPv6 route discovery protocol. When an IPv6

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 uses 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 AirLive OLT configuration interface. The sidebar on the left lists various configuration options, with 'IPv6 SLAAC' selected. The main area displays the 'IPv6 SLAAC Configuration' table.

VLAN ID	Suppress RA	Send RA Time (1-1800s)	RA LifeTime (0-9000s)	Reachable Time (0-3600000ms)	Suppress RDNSS	M	O	Router Preference	MTU (1280-1500)
3000	☒	200	600	0	☒	☐	☐	MEDIUM	1500

There is a 'submit' button below the table.

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.

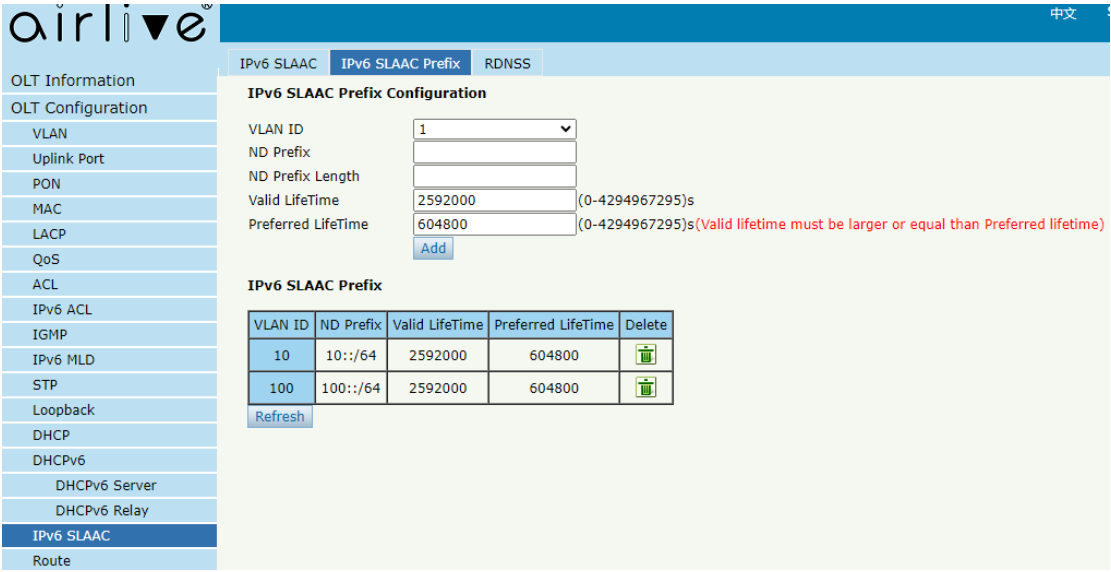


Figure 3.15-2: IPv6 SLAAC Prefix

3.15.3 RDNSS

OLT Configuration → IPv6 SLAAC → RDNSS

OLT will send the route advertisement packet with the DNS parameters you configured.

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IPv6 SLAAC | IPv6 SLAAC Prefix | **RDNSS**

OLT Information
OLT Configuration
VLAN
Uplink Port
PON
MAC
LACP
QoS
ACL
IPv6 ACL
IGMP
IPv6 MLD
STP
Loopback
DHCP
DHCPv6
IPv6 SLAAC

RDNSS Configuration

VLAN ID: 1
Sequence: (0-8)
Lifetime: 600 (60-4294967295s)
DNS Server:

Notice: Lifetime must be at least or equal 3 * sent RA time

Submit Reset

RDNSS Table

VLAN ID	Sequence	DNS Server	DNS Server	DNS Server	Lifetime	Delete
Refresh						

Figure 3.15-3: RDNSS

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 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

The screenshot displays the OLT configuration interface. On the left, a sidebar lists various 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, IP (selected), and Static Route. The main content area is titled 'ARP Proxy Configuration' and includes a 'VLAN ID' dropdown menu set to '1' and a radio button selection for 'ARP Proxy' status, currently set to 'Disable'. A 'Submit' button is located below these options. Below the configuration section is an 'ARP Proxy Table' with two columns: 'VLAN ID' and 'ARP Proxy Status'. The table lists five entries: VLAN ID 1, 2, 888, 3000, and 4000, all with a status of 'disable'.

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 shows the AirLive OLT configuration interface. The left sidebar contains a list of configuration options: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IP, Static Route, RIP (selected), and OSPF. The main content area is titled 'RIP Information' and contains several tabs: RIP Information (selected), RIP Enable, RIP Route Networking, RIP Redistribute, and RIP Interface. Below the tabs, there is a 'RIP Route Table' with the following data:

Route Type	Network	Next Hop	Metric	From	Tag	Time
Connected(i)	192.168.40.0/24	0.0.0.0	1	self	0	
Connected(i)	192.168.50.0/24	0.0.0.0	1	self	0	

Below the table, there is a 'Routing Information Sources' section with a table showing the following data:

Gateway	BadPackets	BadRoutes	Distance	Last Update

A 'Refresh' button is located below the 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	RIP Enable Configuration				
OSPF	RIP Route Disable ▼ 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 Bases				

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.

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OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

RIP Information

RIP Enable

RIP Route Networking

RIP Redistribute

RIP Interface

RIP Route Networking

VLAN

40

IP Address

192.168.40.2

Subnet Mask

255.255.255.0

Add

Reset

RIP Route Networking Table

Network	Delete
192.168.40.2/24	
192.168.50.1/24	

Refresh

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.

	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					

Default Route Redistribute

Default Route Redistribute

Redistribute

Redistribute

Metric (0-16)

Redistribute Table

Redistribute Type	Metric	Delete
refresh		

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.

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OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

RIP Information

RIP Enable

RIP Route Networking

RIP Redistribute

RIP Interface

RIP Interface Configuration

VLAN

40

IP Address

192.168.40.2

Subnet Mask

255.255.255.0

Send Version

2

Recv Version

1&2

Authentication

Disable

Submit

Reset

RIP Interface Table

Interface	Network	Send Version	Recv Version	Authentication
ethv0.40	192.168.40.2/24	2	1 2	
ethv0.50	192.168.50.1/24	2	1 2	

Refresh

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

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

Key Chain

Route Table

OSPF Information

OSPF Enable

OSPF Route Networking

OSPF Area Type

OSPF Area Summary

OSPF Redistribute

OSPF Interface

OSPF Neighbor Table

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	192.168.40.0/24	1	0.0.0.2	directly attached to ethv0.40
N	192.168.50.0/24	1	0.0.0.2	directly attached to ethv0.50

OSPF Router Routing Table				
Destination Type	Network	Cost	Area/Type	Interface

OSPF External Routing Table				
Destination Type	Network	Type 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.

OLT Information	OSPF Information	OSPF Enable	OSPF Route Networking	OSPF Area Type	OSPF Area Summary	OSPF Redistribute	OSPF Interface
OLT Configuration	OSPF Enable Configuration						
VLAN	OSPF Route						
Uplink Port	Router ID						
PON	Enable 192.168.6.182 submitreset						
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.

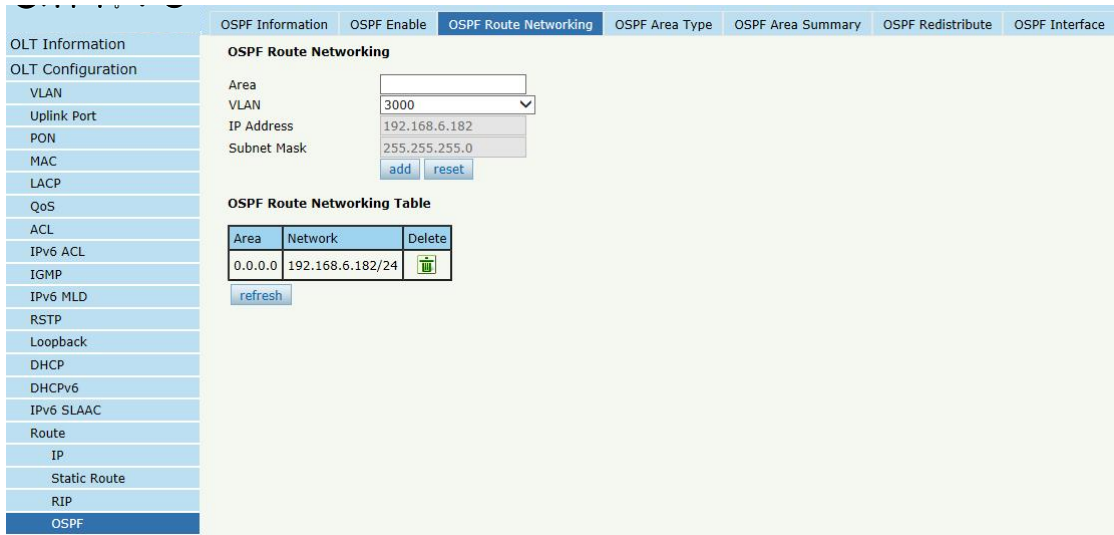


Figure 3.16-11: OSPF Route Networking

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

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

Key Chain

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

OSPF Area Type Configuration

Area: 0.0.0.2

Area Type: Stub

No Summary: Disable

Add Reset

Notice: Backbone cannot be configured as stub

OSPF Area Type Table

Area	Type	No Summary	Delete
0.0.0.2			

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: 0.0.0.0

IP Address:

Subnet Mask:

add reset

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

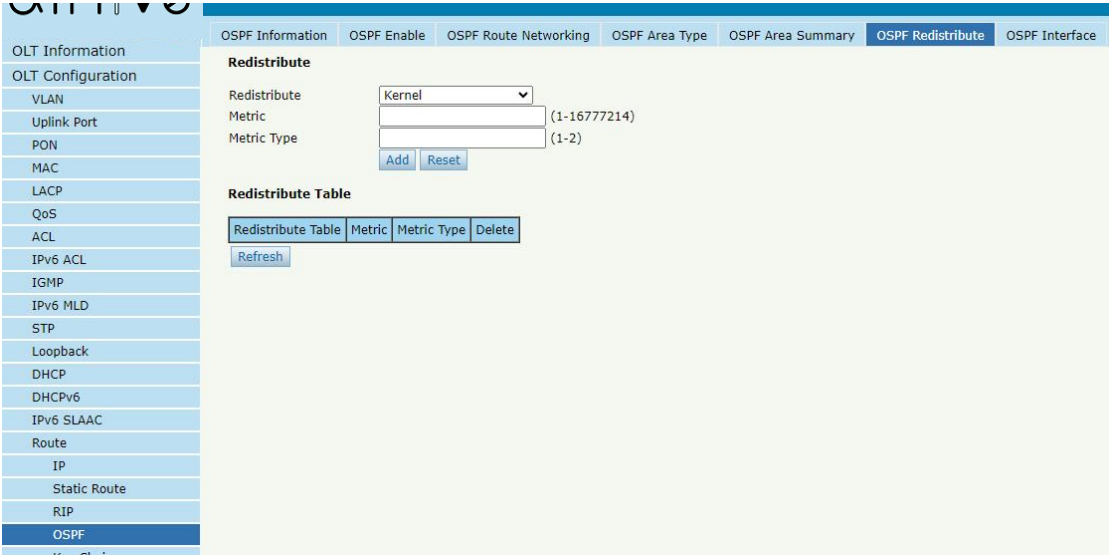


Figure 3.16-14: OSPF Redistribute

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.

OSPFS Interface Configuration

VLAN: 40 [Advance](#)

IP Address: 192.168.40.2

Subnet Mask: 255.255.255.0

Authentication: Disable [Submit](#) [Reset](#)

OSPFS Interface Table

VLAN	Network	Cost	Priority	Retransmit Interval	Transmit Delay	Hello Interval	Dead Interval	Authentication
40	192.168.40.2/24	1	1	5	1	10	40	
50	192.168.50.1/24	1	1	5	1	10	40	

[Refresh](#)

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

airlive

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IP

Static Route

RIP

OSPF

Key Chain

Key Chain

Add Key Chain

Key Chain

Key ID

Key String

Add

Reset

(0-2147483647)

Key Chain Table

Key Chain	Key ID	Key String	Edit	Delete
1	1	axbab1232axbab1232		

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	Route Table
OLT Configuration	Route Types: K - kernel route, C - connected, S - static, R - RIP, O - OSPF, > - selected route, * - FIB route
VLAN	Route Table
Uplink Port	
PON	
MAC	
LACP	
QoS	
ACL	
IPv6 ACL	
IGMP	
IPv6 MLD	
STP	
Loopback	
DHCP	
DHCPv6	
IPv6 SLAAC	
Route	
IP	
Static Route	
RIP	
OSPF	
Key Chain	
Route Table	

Route Type	Network	Distance	Metric	Interface	Time
C>*	127.0.0.0/8			directly connected, lo	
S	192.168.20.0/24	1	0	via, 192.168.1.1	
O	192.168.40.0/24	110	1	directly connected, ethv0.40	01:41:58
C>*	192.168.40.0/24			directly connected, ethv0.40	
O	192.168.50.0/24	110	1	directly connected, ethv0.50	01:41:58
C>*	192.168.50.0/24			directly connected, ethv0.50	

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.

airlive

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

IPv6

IPv6 Static Route

IPv6 Static Route

Add IPv6 Static Route

Destination IPv6

Destination Prefixlen

Gateway

Add

IPv6 Static Route Table

Destination IPv6	Destination Prefixlen	Gateway	Delete
6000::	64	6000::1	

Figure 3.17-2: IPv6 Static Route

3.17.3 RIPng

RIPng is the next generation of RIP, which uses the IPv6 protocol on top of RIP.

3.17.3.1 RIPng Information

OLT Configuration → IPv6 Route → RIPng → RIPng Information

This page displays RIPng information.

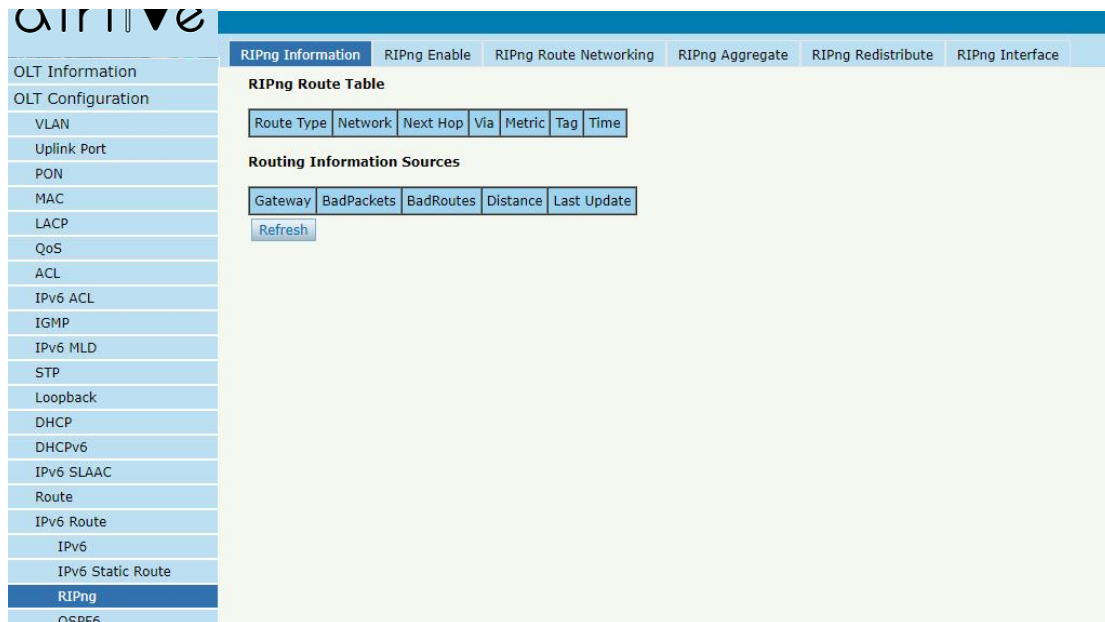


Figure 3.17-3: RIPng Information

3.17.3.2 RIPng Enable

OLT Configuration → IPv6 Route → RIPng → RIPng Enable

Enable RIPng protocol and configure RIPng parameters.

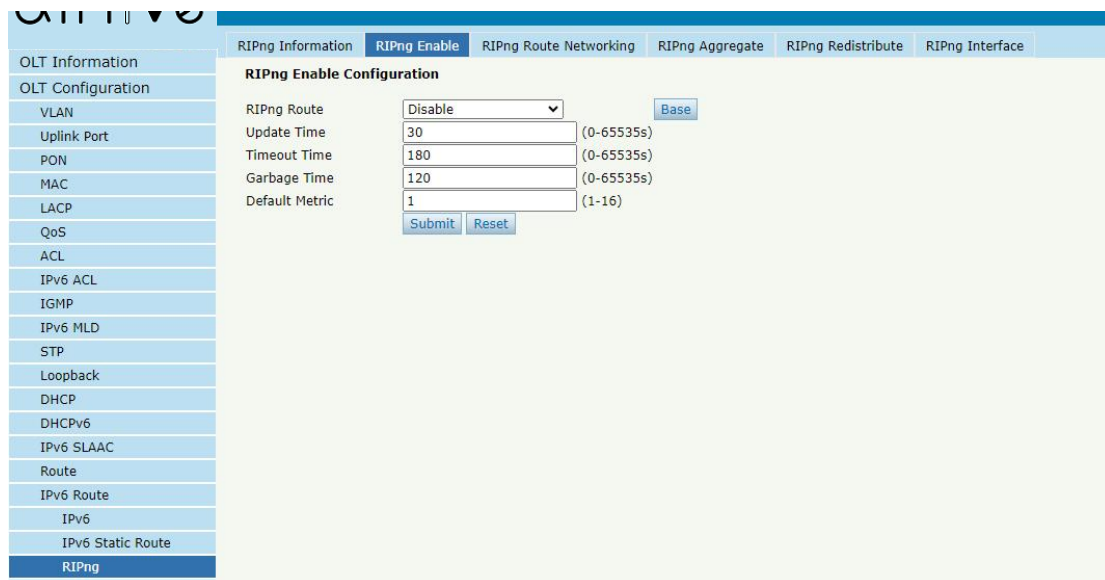


Figure 3.17-4: RIPng Enable

3.17.3.3 RIPng Route Networking

OLT Configuration → IPv6 Route → RIPng → RIPng Route Networking

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

The screenshot displays the 'RIPng Route Networking' configuration page. On the left is a sidebar with a tree view containing categories like 'OLT Information', 'OLT Configuration', and various protocols. The 'RIPng' option is selected. The top navigation bar includes tabs: 'RIPng Information', 'RIPng Enable', 'RIPng Route Networking' (active), 'RIPng Aggregate', 'RIPng Redistribute', and 'RIPng Interface'. The main content area is titled 'RIPng Route Networking' and contains two sections. The first section has input fields for 'VLAN' (set to 100) and 'IPv6 Address', with 'Add' and 'Reset' buttons. The second section, 'RIPng Route Networking Table', contains a table with two columns: 'Network' and 'Delete'. The table lists two entries: '10::169/64' and '100::169/64', each with a delete icon. A 'Refresh' button is located below the table.

Network	Delete
10::169/64	
100::169/64	

Figure 3.17-5: RIPng Route Networking

3.17.3.4 RIPng Aggregate

OLT Configuration → IPv6 Route → RIPng → RIPng Aggregate.

This page is used to aggregate routes of the same network segment with different prefixes.

The screenshot shows the 'RIPng Aggregate' configuration page. On the left is a navigation menu with options like OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IPv6 Route, IPv6, IPv6 Static Route, **RIPng**, and OSPF6. The main content area has tabs for RIPng Information, RIPng Enable, RIPng Route Networking, **RIPng Aggregate**, RIPng Redistribute, and RIPng Interface. Under the 'RIPng Aggregate' tab, there are input fields for 'IPv6 Address' and 'Prefixlen', with 'Submit' and 'Reset' buttons below them. Below these is a section titled 'RIPng Aggregate Table' containing a table with columns 'Network' and 'Delete'. The table has one row with the value '1000::/32' and a trash icon. A 'Refresh' button is located below the table.

Figure 3.17-6: RIPng Aggregate

3.17.3.5 RIPng Redistribute

OLT Configuration → IPv6 Route → RIPng → RIPng Redistribute.

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

The screenshot shows the 'RIPng Redistribute' configuration page. The navigation menu on the left is the same as in the previous figure, with 'RIPng' selected. The main content area has tabs for RIPng Information, RIPng Enable, RIPng Route Networking, RIPng Aggregate, **RIPng Redistribute**, and RIPng Interface. Under the 'RIPng Redistribute' tab, there is a section 'Default Route Redistribute' with a dropdown menu set to 'Disable' and 'Submit'/'Reset' buttons. Below this is a 'Redistribute' section with a 'Redistribute' dropdown set to 'Kernel', a 'Metric' input field with '(0-16)' next to it, and 'Add'/'Reset' buttons. At the bottom is a 'Redistribute Table' with columns 'Redistribute Type', 'Metric', and 'Delete', and a 'Refresh' button below it.

Figure 3.17-7: RIPng Redistribute

3.17.3.6 RIPng Interface

OLT Configuration → IPv6 Route → RIPng → RIPng Interface

This page is used to configure the RIPng interface's modes, including split-horizon, split-horizon, and poisoned-reverse mixed mode selection.

RIPng Interface Configuration

VLAN: 10
Split-Horizon: split-horizon
[Submit](#) [Reset](#)

RIPng Interface Table

Interface	Split-Horizon
ethv0.10	split-horizon
ethv0.100	split-horizon

[Refresh](#)

Figure 3.17-8: RIPng Interface

3.17.4 OSPF6

OSPF6 is the next generation of OSPF, which uses the IPv6 protocol on top of OSPF.

3.17.4.1 OSPF6 Information

OLT Configuration → IPv6 Route → OSPF6 → OSPF6 Information

This page displays OSPF6 information, including neighbor information

and OSPF6 routing information.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

IPv6

IPv6 Static Route

RIPng

OSPF6

IPv6 Route Table

OSPF6 Information

OSPF6 Enable

OSPF6 Route Networking

OSPF6 Area Summary

OSPF6 Redistribute

OSPF6 Interface

OSPF6 Neighbor Table

OSPF6 Routing Table

Neighbor ID	Priority	Dead Time	State/IfState	Duration	Interface[State]
-------------	----------	-----------	---------------	----------	------------------

Destination Type	Path Type	Destination	Nextthop	Interface	Duration
*N	IA	10::/64	::	ethv0.10	00:23:11
*N	IA	100::/64	::	ethv0.100	00:23:11

Figure3.17-9: OSPF6 Information

3.17.4.2 OSPF6 Enable

OLT Configuration → IPv6 Route → OSPF6 → OSPF6 Enable

This page is used to enable OSPF6. Fill in route ID and let it blank, enable OSPF6. OLT will use the biggest IPv6 address as route ID if it's blank.

OLT Information

OLT Configuration

- VLAN
- Uplink Port
- PON
- MAC
- LACP
- QoS
- ACL
- IPv6 ACL
- IGMP
- IPv6 MLD
- STP
- Loopback
- DHCP
- DHCPv6
- IPv6 SLAAC
- Route
- IPv6 Route
- IPv6
- IPv6 Static Route
- RIPng
- OSPF6**
- IPv6 Route Table
- BBnE Intermediate Agent

OSPF6 Information | **OSPF6 Enable** | OSPF6 Route Networking | OSPF6 Area Summary | OSPF6 Redistribute | OSPF6 Interface

OSPF6 Enable Configuration

OSPF6 Route:

Router ID:

Figure 3.17-10: OSPF6 Enable

3.17.4.3 OSPF6 Route Networking

OLT Configuration → IPv6 Route → OSPF6 → OSPF6 Route Networking

This page is used to configure area number for VLAN where OSPF6 protocol is operating.

OLT Information

OLT Configuration

- VLAN
- Uplink Port
- PON
- MAC
- LACP
- QoS
- ACL
- IPv6 ACL
- IGMP
- IPv6 MLD
- STP
- Loopback
- DHCP
- DHCPv6
- IPv6 SLAAC
- Route
- IPv6 Route
- IPv6
- IPv6 Static Route
- RIPng
- OSPF6**
- IPv6 Route Table
- BBnE Intermediate Agent

OSPF6 Information | OSPF6 Enable | **OSPF6 Route Networking** | OSPF6 Area Summary | OSPF6 Redistribute | OSPF6 Interface

OSPF6 Route Networking

Area:

VLAN:

OSPF6 Route Networking Table

Area	Network	Delete
0.0.0.0	vlan 10	Delete
0.0.0.0	vlan 100	Delete

Figure 3.17-11: OSPF6 Route Networking

3.17.4.4 OSPF6 Area Summary

OLT Configuration → IPv6 Route → OSPF6 → OSPF6 Area Summary

This page is used to configure area IPv6 address summary.

The screenshot shows a web-based configuration interface for OSPF6. On the left is a sidebar menu with various configuration options, including 'OSPF6' which is currently selected. The main content area has a top navigation bar with tabs: 'OSPF6 Information', 'OSPF6 Enable', 'OSPF6 Route Networking', 'OSPF6 Area Summary' (active), 'OSPF6 Redistribute', and 'OSPF6 Interface'. Below the tabs, the 'OSPF6 Area Summary Configuration' section contains three input fields: 'Area' (a dropdown menu showing '0.0.0.0'), 'IPv6 Address', and 'Prefixlen'. There are 'Add' and 'Reset' buttons below these fields. Below this is the 'OSPF6 Area Summary Table' section, which includes a table with columns 'Area', 'Network', and 'Delete', and a 'Refresh' button.

Figure 3.17-12: OSPF6 Area Summary

3.17.4.5 OSPF6 Redistribute

The router can use route redistribution to broadcast the OSPF6 routing it learns through another routing protocol so that several routing protocols can cooperate with each other in a network.

OLT Configuration → IPv6 Route → OSPF6 → OSPF6 Redistribute

OSPF6 Information | OSPF6 Enable | OSPF6 Route Networking | OSPF6 Area Summary | **OSPF6 Redistribute** | OSPF6 Interface

Redistribute

Redistribute: Kernel Add Reset

Redistribute Table

Redistribute Table Delete

kernel	
--------	--

Refresh

Figure 3.17-13: OSPF6 Redistribute

3.17.4.6 OSPF6 Interface

OLT Configuration → IPv6 Route → OSPF6 → OSPF6 Interface

This page is used to OSPF6 interface parameters such as cost, time, priority, authentication, and so on.

OSPF6 Information | OSPF6 Enable | OSPF6 Route Networking | OSPF6 Area Summary | OSPF6 Redistribute | **OSPF6 Interface**

OSPF6 Interface Configuration

VLAN: 10

Retransmit Interval: 5 (1-65535s)

Transmit Delay: 1 (1-3600s)

Hello Interval: 10 (1-65535s)

Dead Interval: 40 (1-65535s)

Priority: 1 (0-255)

Submit Reset

OSPF6 Interface Table

VLAN	Retransmit Interval	Transmit Delay	Hello Interval	Dead Interval	Priority
10	5	1	10	40	1
100	5	1	10	40	1

Refresh

Figure 3.17-14: OSPF6 Interface

3.17.5 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.

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
O	10::/64	110	10	directly connected, ethv0.10	00:27:46
C>*	10::/64			directly connected, ethv0.10	
O	100::/64	110	10	directly connected, ethv0.100	00:27:46
C>*	100::/64			directly connected, ethv0.100	
S	6000::/64	1	0	via 6000::1 inactive	
C *	fe80::/10			directly connected, ethv0.100	
C *	fe80::/10			directly connected, ethv0.50	
C *	fe80::/10			directly connected, ethv0.40	
C>*	fe80::/10			directly connected, ethv0.10	
K>*	ff00::/8			directly connected, ethv0.100	

[Refresh](#)

Figure 3.17-15: IPv6 Route Table

3.18 PPPoE Intermediate Agent

The PPPoE Intermediate Agent intercepts the PPPoE client's PPPoE message and adds port information (such as slot number/sub card number/interface number, VLAN, MAC address, etc.) for the end user's host access to it. It then forwards it to the PPPoE Server through PAD (PPPoE Active Discovery) to achieve binding authentication between the end user's user account and the access port.

3.18.1 PPPoE Intermediate Agent

OLT Configuration → PPPoE Intermediate Agent → PPPoE Intermediate Agent

This page is used to configure the PPPoE Intermediate Agent's switches, bound VLANs, and other parameter information.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

IPv6

IPv6 Static Route

RIPng

OSPF6

IPv6 Route Table

PPPoE Intermediate Agent

TrafficPolicy

PPPoE Intermediate Agent

PPPoE Intermediate Agent Interface

PPPoE Intermediate Agent Configuration

PPPoE Intermediate Agent

Disable

Vendor ID

3561

(0-4294967295)

Encapsulation

Policy

KEEP

Ignore Reply

Enable

SubmitReset

VLAN ID List

VLAN ID

1

AddDelete

List

VLAN20

Figure 3.18-1: PPPoE Intermediate Agent

3.18.2 PPPoE Intermediate Agent Interface

OLT Configuration → PPPoE Intermediate Agent → PPPoE Intermediate Agent Interface

This page is used to configure whether the port is trusted, as well as the values of Circuit ID and Remote ID.

The screenshot shows the 'PPPoE Intermediate Agent 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, STP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IPv6 Route, IPv6, IPv6 Static Route, RIPng, OSPF6, IPv6 Route Table, and PPPoE Intermediate Agent (which is currently selected). The main content area has two tabs: 'PPPoE Intermediate Agent' and 'PPPoE Intermediate Agent Interface' (which is active). Below the tabs is the title 'PPPoE Intermediate Agent Interface Configuration'. It contains a table with the following columns: Port, Type, Circuit ID Format, Circuit ID, Remote ID Format, and Remote ID. The table has seven rows for ports GE1, GE2, GE3, GE4, PON1, and PON2. Each row has a 'Type' dropdown set to 'Untrust', a 'Circuit ID Format' dropdown set to 'COMMON', and a 'Remote ID Format' dropdown set to 'COMMON'. The 'Circuit ID' and 'Remote ID' columns are empty. Below the table are 'Submit' and 'Reset' buttons.

Port	Type	Circuit ID Format	Circuit ID	Remote ID Format	Remote ID
GE1	Untrust	COMMON		COMMON	
GE2	Untrust	COMMON		COMMON	
GE3	Untrust	COMMON		COMMON	
GE4	Untrust	COMMON		COMMON	
PON1	Untrust	COMMON		COMMON	
PON2	Untrust	COMMON		COMMON	

Figure 3.18-2: PPPoE Intermediate Agent Interface

3.19 TrafficPolicy

3.19.1 Policy

OLT Configuration → TrafficPolicy → Policy

This page is used to bind flow classifier and flow behavior to flow policy.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

IPv6

IPv6 Static Route

RIPng

OSPF6

IPv6 Route Table

PPPoE Intermediate Agent

TrafficPolicy

Policy

Classifier

Behavior

New Policy

Policy Name

Classifier Name

123

Behavior Name

456

Port

GE0/1

BoundType

Ingress

Add

Policy Table

Policy Name	Classifier Name	Behavior Name	Port	BoundType	Operation	Delete
123456	123	456	GE0/1	Ingress	Mirror to GE0/2	

Figure 3.19-1: Policy

3.19.2 Classifier

OLT Configuration → TrafficPolicy → Classifier

This page is used to configure flow classifier, It is created based on ACL.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

IPv6

IPv6 Static Route

RIPng

OSPF6

IPv6 Route Table

PPPoE Intermediate Agent

TrafficPolicy

ONU Configuration

Policy

Classifier

Behavior

New Classifier

Classifier Name

Match ACL

ACL ID

IPv4

5000

(5000-5999)

Add

Classifier Table

Classifier Name	Type	ACLID	Status	Delete
123	IPv4	5000	active	

Figure 3.19-2: Classifier

3.19.3 Behavior

OLT Configuration → TrafficPolicy → Behavior

This page is used to configure flow behavior, here subsequent operations can be specified, such as mirroring, speed limits, and data statistics.

OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

Loopback

DHCP

DHCPv6

IPv6 SLAAC

Route

IPv6 Route

IPv6

IPv6 Static Route

RIPng

OSPF6

IPv6 Route Table

PPPoE Intermediate Agent

TrafficPolicy

Policy

Classifier

Behavior

New Behavior

Behavior Name

☐ Mirror to

GE0/1

☐ Speed limit

kbps

☐ Remark DSCP

(0~63)

☐ Statistics

Add

Behavior Table

Behavior Name	Action	Operation	Status	Delete
456	Mirror-to	GE0/2	active	

Figure 3.19-3: Behavior

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.

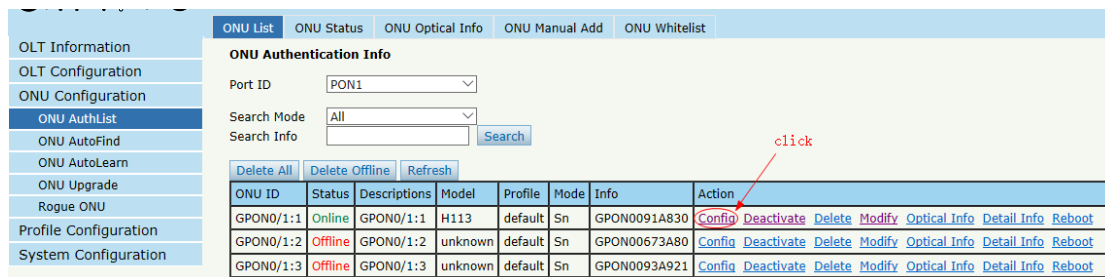


Figure 4.1-2: Configure ONU

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.

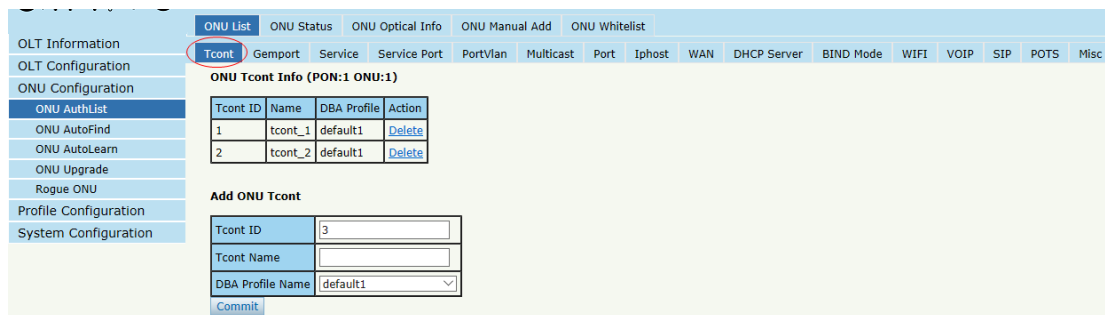


Figure 4.1-3: Create Tcont

4.1.1.1.2 Gemport

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

Create gemport ID and bind tcont ID.

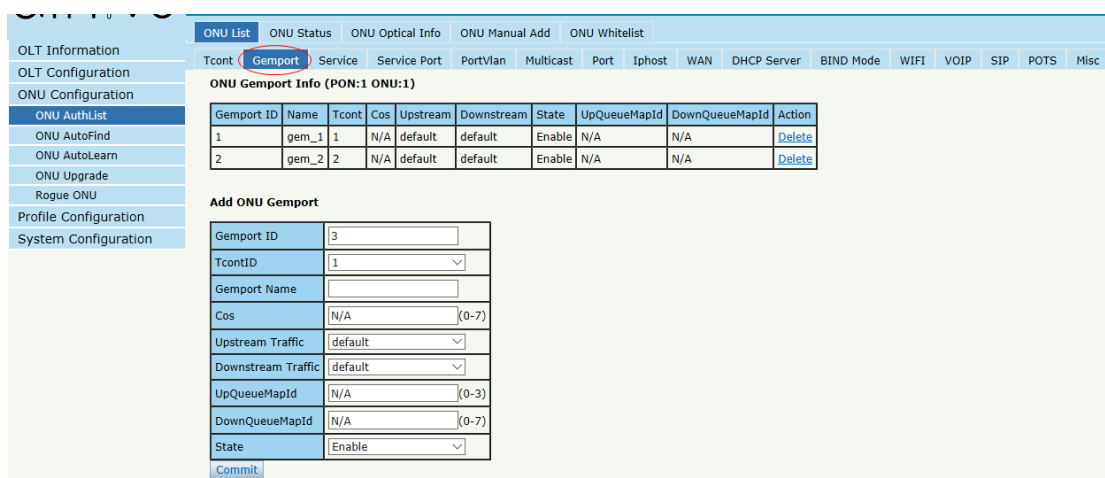


Figure 4.1-4: Create gemport

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.

ONU Service Info (PON:1 ONU:1)

Service Name	Gemport	Vlan Mode	Vlan List	Cos List	Port	Action
ser_1	1	Tag	3000	N/A	N/A	Delete
ser_2	2	Tag	4000	N/A	N/A	Delete

Add ONU Service

Service Name	ser_3
Gemport ID	1
Vlan Mode	Tag
Vlan List	(X,X or X-X;0 for all)
Cos List	N/A (X,X or X-X;)
Port Type	N/A
Commit	

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.

ONU Service Port Info (PON:1 ONU:1)

Service Port	Gemport ID	BenginVid	EndVid	OuterVid	InnerVid	UserPrio	Etype	Vlan	Cos	SVlan	SCos	Mode	Enable	Description	Action
1	1	3000	3000	N/A	N/A	N/A	N/A	3000	N/A	N/A	N/A	1:1	YES	N/A	Delete
2	2	4000	4000	N/A	N/A	N/A	N/A	4000	N/A	N/A	N/A	1:1	YES	N/A	Delete

Add ONU Service Port

Service Mode	Cvlan
Service-Port ID	3
Gemport ID	1
User Vlan	
Translate Vlan	
Translate Cos	N/A (0-7)
Translate SVlan	N/A
Translate SCos	N/A (0-7)
Description	N/A
Commit	

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: [Port](#) [Action](#)

(eth number)

[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.

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

Tcont | Gemport | Service | Service Port | PortVlan | Multicast | **Port** | Iphost | WAN | DHCP Server | BIND Mode | WIFI | VOIP | SIP | POTS | Misc

Port Basic Configuration

ONU Port: LAN1

☒ Admin Status
☒ loop detect
Port Speed: auto

Submit

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.

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

Tcont | Gemport | Service | Service Port | PortVlan | Multicast | Port | **Iphost** | WAN | DHCP Server | BIND Mode | WIFI | VOIP | SIP | POTS | Misc

Iphost Configuration Info

Iphost ID	Desc	IP Mode	IP Address	Mask	Gateway	DNS1	DNS2	Action
1		DHCP						

Iphost Config

Iphost ID: 1
Desc:
IP Mode: DHCP
DNS1(A.B.C.D):
DNS2(A.B.C.D):
Commit

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.

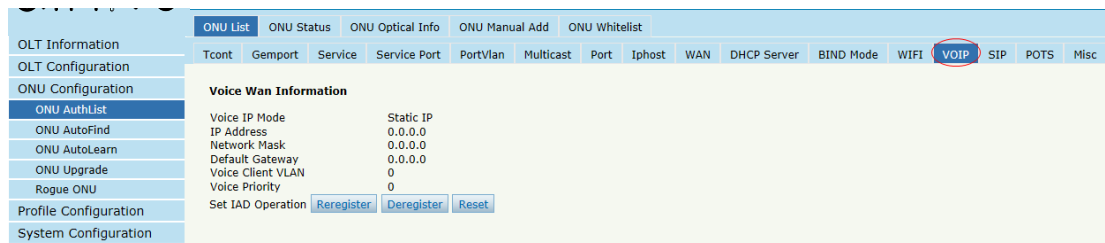


Figure 4.1-15: Voice Wan Information

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.

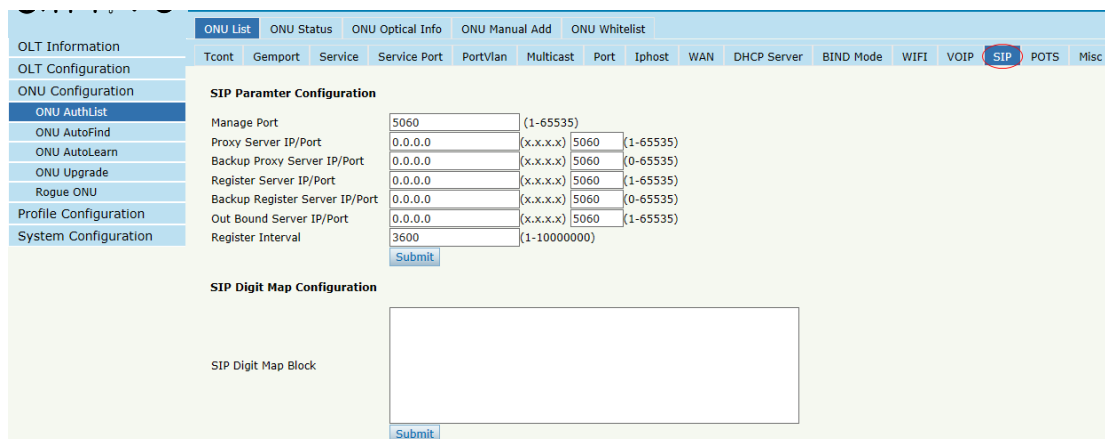


Figure 4.1-16: SIP Parameter

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. The left sidebar contains a tree view with 'ONU Configuration' expanded, showing sub-items like 'ONU AuthList', 'ONU AutoFind', 'ONU AutoLearn', 'ONU Upgrade', 'Rogue ONU', 'Profile Configuration', and 'System Configuration'. The main content area has a top navigation bar with tabs: 'Tcont', 'Gempport', 'Service', 'Service Port', 'PortVlan', 'Multicast', 'Port', 'Iphost', 'WAN', 'DHCP Server', 'BIND Mode', 'WIFI', 'VOIP', 'SIP', 'POTS', and 'Misc'. The 'POTS' tab is selected. Below the tabs, there's a 'VoIP Port' dropdown set to 'Pots1'. The 'POTS Information' section has a 'Port Status' dropdown set to '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', with a 'Submit' button. 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), with 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. The left sidebar is the same as in Figure 4.1-17. The main content area has the same top navigation bar, but the 'Misc' tab is selected. The 'Misc Control Operation' section has buttons for 'Save configuration' (Save), 'Restore default' (Restore), and checkboxes for 'IGMP configuration' (IGMP Enable), 'STP configuration' (STP Enable), and 'Port isolate' (Port isolate Enable), each with a 'Submit' button. The 'Speed Limit Configuration' section has input fields for 'Upstream limit' and 'DownStream limit', both set to 0, with a 'Submit' button. The 'Mac Table Configuration' section has input fields for 'mac age time', 'Pon mac limit', and 'Lan mac limit', all set to 0, with a 'Submit' button. The 'Mac Address Table' section has a 'Clean' button.

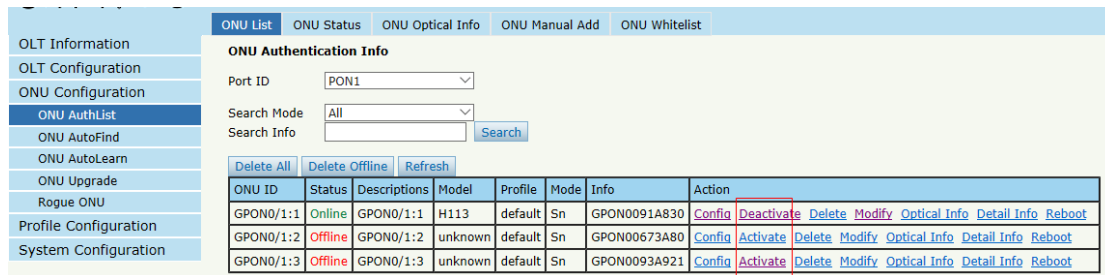
Figure 4.1-18: Misc Configuration

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.



The screenshot shows the 'ONU Authentication Info' page. On the left is a navigation menu with options like 'OLT Information', 'ONU Configuration', 'ONU AuthList', etc. The main area has a search bar and a table of ONUs. The first ONU, GPON0/1:1, is 'Online'. In its 'Action' column, the 'Deactivate' link is highlighted with a red box.

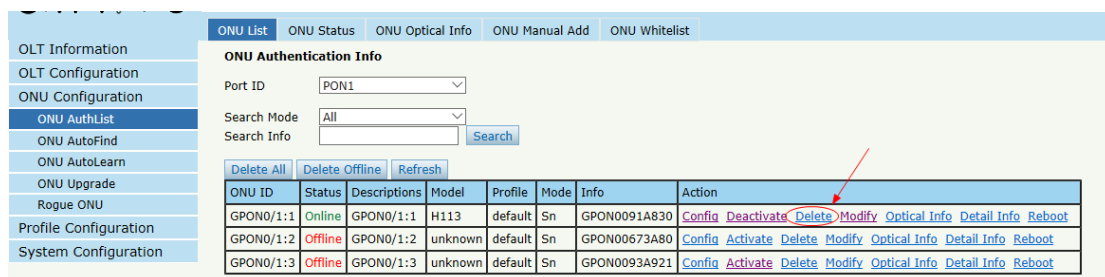
ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config Activate Delete Modify Optical Info Detail Info Reboot
GPON0/1:3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

Figure 4.1-19: 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.



The screenshot shows the same 'ONU Authentication Info' page. In the 'Action' column for the first ONU (GPON0/1:1), the 'Delete' link is now highlighted with a red box and a red arrow.

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 4.1-20: Delete ONU

4.1.1.4 Modify

ONU Configuration→ONU AuthList→ONU List→Modify

This is used to modify ONU authentication mode.

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 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

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 Modify(PON:1 ONU1)

Auth Mode

Sn

ONU Sn

Submit

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.

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 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

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 Optical Info(PON:1 ONU1)

Auth Mode

Sn

ONU Sn

Submit

	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					

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.

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 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

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

Detail Information

Submit

Back

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

Device Capability

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

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.

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 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.

airlive	ONU List	ONU Status	ONU Optical Information	ONU Version Information
OLT Information	ONU Optical Info			
OLT Configuration	Port ID PON1			
ONU Configuration	ONU Group ONU 1-64			
ONU AuthList	Refresh			
ONU AutoFind	☐ Too Strong ☐ Low ☐ Too Low ☐ Good			
ONU AutoLearn	ONU ID	Description	RX Power	TX Power
ONU Upgrade	GPON0/1:1	N/A	NULL	NULL
Rogue ONU	GPON0/1:2	N/A	NULL	NULL
ONU Common Service	GPON0/1:3	N/A	NULL	NULL
Profile Configuration	GPON0/1:4	N/A	NULL	NULL
System Configuration	GPON0/1:5	N/A	NULL	NULL
	GPON0/1:6	N/A	NULL	NULL
	GPON0/1:7	N/A	NULL	NULL

Figure 4.1-26: ONU Optical Info

4.1.4 ONU Version Information

ONU Configuration→ONU AuthList→ONU Version Information

This page allows you to view the optical power information of all online ONU.

ONU Version Info

Port ID: PON1
ONU Group: ONU 1-64

[Refresh](#)

ONU ID	Description	Main software version	Standby software version	Version
GPON0/1:1	GPON0/1:1	NULL	NULL	NULL
GPON0/1:2	GPON0/1:2	NULL	NULL	NULL
GPON0/1:3	GPON0/1:3	NULL	NULL	NULL
GPON0/1:4	GPON0/1:4	NULL	NULL	NULL
GPON0/1:5	GPON0/1:5	NULL	NULL	NULL
GPON0/1:6	GPON0/1:6	NULL	NULL	NULL
GPON0/1:7	GPON0/1:7	NULL	NULL	NULL

Figure 4.1-27: ONU Version Information

4.1.5 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.

airlive

ONU List | ONU Status | ONU Optical Information | ONU Version Information | **ONU Manual Add**

Add ONU

Port ID	PON1
ONU ID	74
Auth Mode	SN
ONU SN	
ONU Profile	default
Line Profile	N/A
Srv Profile	N/A
Alarm Profile	N/A
Pri Profile	N/A
Format Profile	N/A

[Submit](#)

Figure 4.1-28: Add ONU Manually

4.1.6 ONU Allowlist

ONU Configuration→ONU AuthList→ONU Allowlist

You can set up Allowlist on this page.

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

airlive

ONU List | ONU Status | ONU Optical Information | ONU Version Information | ONU Manual Add | **ONU Allowlist** | ONU Statistics

Add ONU Allowlist

When the allowlist table is empty, it means that all ONU can be online.

SN:

EndSN:

[Add](#)

ONU AllowList Table

Index	Allowlist	Delete
Clear	Refresh	

Figure 4.1-29: ONU Allowlist

4.1.7 ONU Statistics

ONU Configuration→ONU AuthList→ONU Statistics

This page displays the information of package count about ONU ports.

ONU ID	Input bytes	Input packets	Output bytes	Output packets
GPON0/1:1	NULL	NULL	NULL	NULL
GPON0/1:2	NULL	NULL	NULL	NULL
GPON0/1:3	NULL	NULL	NULL	NULL
GPON0/1:4	NULL	NULL	NULL	NULL
GPON0/1:5	NULL	NULL	NULL	NULL

Figure 4.1-30: ONU Statistics

4.2 ONU AutoFind

4.2.1 Automatic Discovery

ONU Configuration→ONU AutoFind→ Automatic Discovery

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.

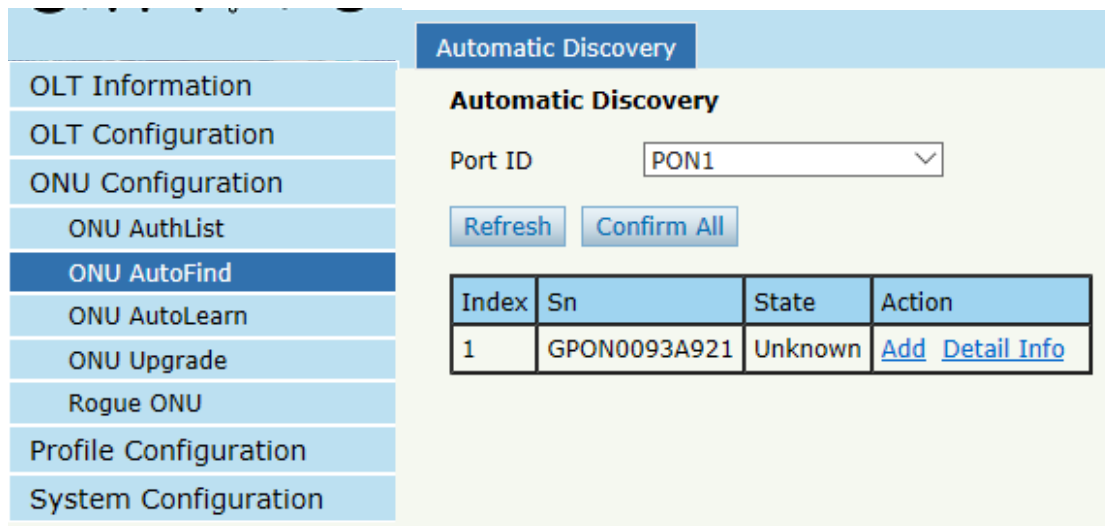


Figure4.2-1: Automatic Discovery

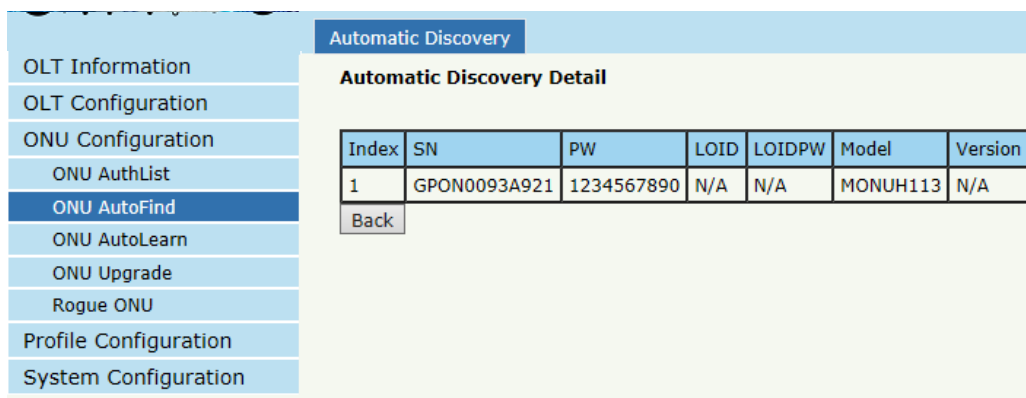
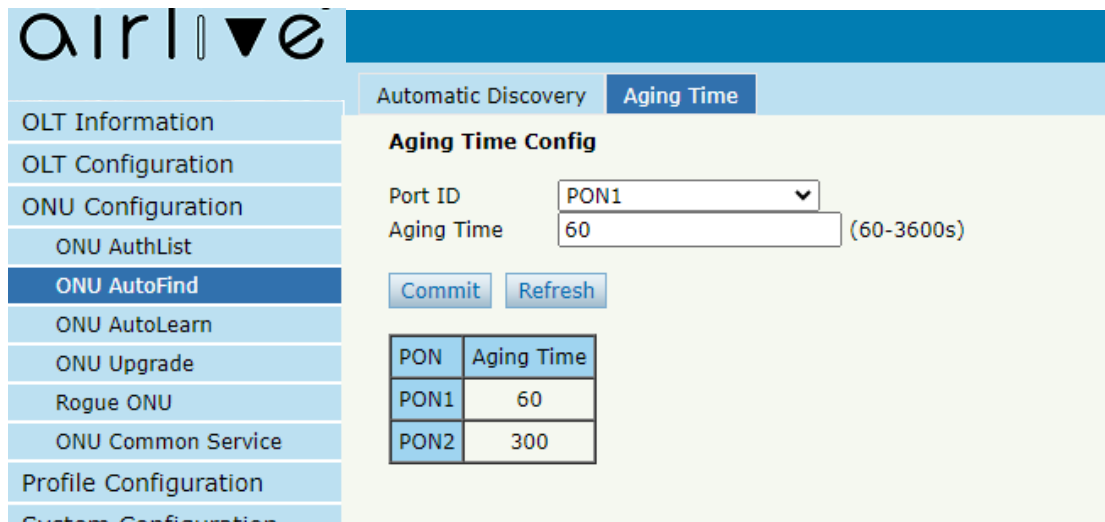


Figure 4.2-2: Detail info

4.2.2 Aging Time

ONU Configuration→ONU AutoFind→ Aging Time

Through this page, you can modify the aging time after discovering ONU through the PON port.



Aging Time Config

Port ID:

Aging Time: (60-3600s)

PON	Aging Time
PON1	60
PON2	300

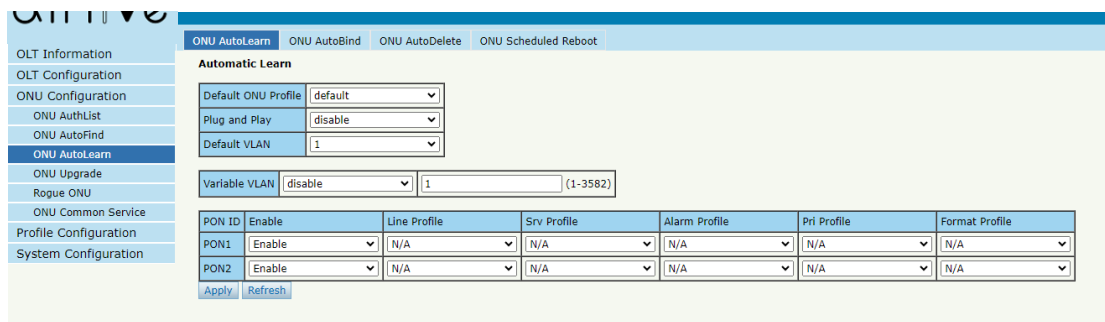
Figure4.2-3: Aging Time

4.3 ONU AutoLearn

4.3.1 ONU AutoLearn

Configuration→AutoLearn→ONU AutoLearn

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



Automatic Learn

Default ONU Profile:

Plug and Play:

Default VLAN:

Variable VLAN: (1-3582)

PON ID	Enable	Line Profile	Srv Profile	Alarm Profile	Pri Profile	Format Profile
PON1	☒	N/A	N/A	N/A	N/A	N/A
PON2	☒	N/A	N/A	N/A	N/A	N/A

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.

The screenshot shows the 'ONU AutoBind' configuration page. On the left is a navigation menu with options like 'OLT Information', 'OLT Configuration', 'ONU Configuration', 'ONU AuthList', 'ONU AutoFind', 'ONU AutoLearn' (selected), 'ONU Upgrade', 'Rogue ONU', 'ONU Common Service', 'Profile Configuration', and 'System Configuration'. The main content area has tabs for 'ONU AutoLearn', 'ONU AutoBind' (selected), 'ONU AutoDelete', and 'ONU Scheduled Reboot'. Under 'Automatic Bind', there is a table with columns: Equipment ID, ONU Profile, Line Profile, Service Profile, Alarm Profile, Pri Profile, Format Profile, and Action. The table contains one entry with Equipment ID 'MONU' and a 'Delete' link in the Action column. Below this is a 'Select Equipment ID Matching Type' section with a 'Matching Type' dropdown set to 'Exact Matching' and a 'Submit' button. At the bottom is the 'Add ONU Automatic Bind' section, which includes a form with fields for Equipment ID, ONU Profile (default), Line Profile (line_1), Service Profile (srv_1), Alarm Profile (test), Pri Profile (pri_1), and Format Profile (test). There are 'Add' and 'Refresh' buttons at the bottom of this form.

Equipment ID	ONU Profile	Line Profile	Service Profile	Alarm Profile	Pri Profile	Format Profile	Action
MONU	default	line_1	srv_1	test	pri_1	test	Delete

Select Equipment ID Matching Type

Matching Type:

Add ONU Automatic Bind

Equipment ID:

ONU Profile:

Line Profile:

Service Profile:

Alarm Profile:

Pri Profile:

Format Profile:

Figure 4.3-2: Bind profile

4.3.3 ONU AutoDelete

Configuration→AutoLearn→ONU AutoDelete

After this function is enabled, ONU registrations that are offline but remain offline for a certain period of time will be deleted.

The screenshot shows the 'ONU AutoDelete' configuration page. The navigation menu is the same as in Figure 4.3-2, with 'ONU AutoDelete' selected. The main content area has tabs for 'ONU AutoLearn', 'ONU AutoBind', 'ONU AutoDelete' (selected), and 'ONU Scheduled Reboot'. Under 'Offline ONU Auto Delete Configuration', there is a form with 'Auto Delete' set to 'Disable' and 'Timeout Value' set to '1440' mins. A note says '(Should be a multiple of five. Range:5-44640 mins.)'. There are 'Submit' and 'Refresh' buttons.

Offline ONU Auto Delete Configuration

Auto Delete:

Timeout Value: mins (Should be a multiple of five. Range:5-44640 mins.)

Figure 4.3-3: ONU AutoDelete

4.3.4 ONU Scheduled Reboot

Configuration→AutoLearn→ONU Scheduled Reboot

Through this page, you can set the scheduled restart function of ONU, it can specify one or more ONU to restart at a certain time.

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

ONU Common Service

Profile Configuration

System Configuration

ONU AutoLearn

ONU AutoBind

ONU AutoDelete

ONU Scheduled Reboot

Current Time

Tue Jun 18 19:21:01 2024

ONU Scheduled Reboot Configuration

ONU Scheduled Rebootenable

Port IDPON1

Select ONU

Schedule RebootFix-Time (Monthly)

Fix Time (Monthly)1Day0Hour0Minute

SubmitDelete

ONU Reboot Table

ONU ID	Reboot Types	Reboot Time	Action
GPON0/1:1	Fix time	1 day 0 hour 0 minute	

Figure 4.3-4: ONU Scheduled Reboot

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.

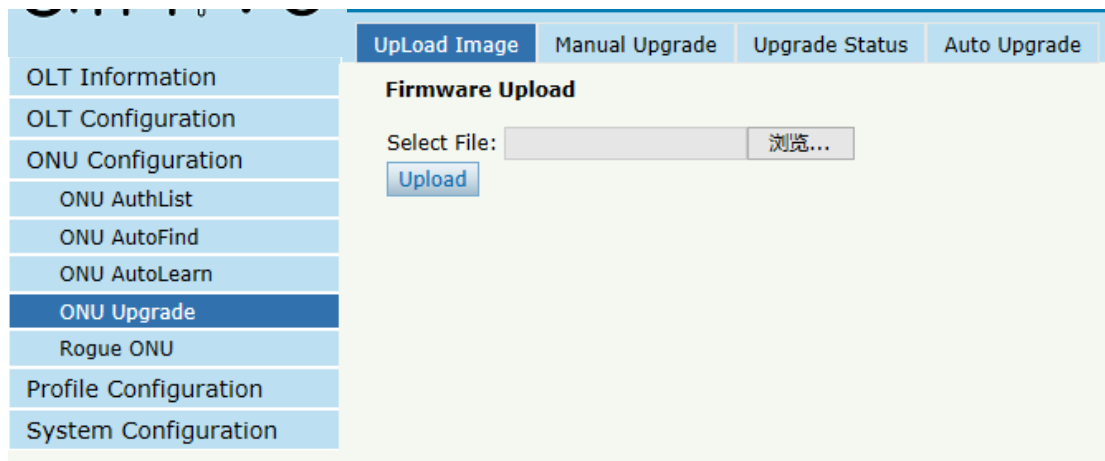


Figure 4.4-1: Upload image

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 every time.

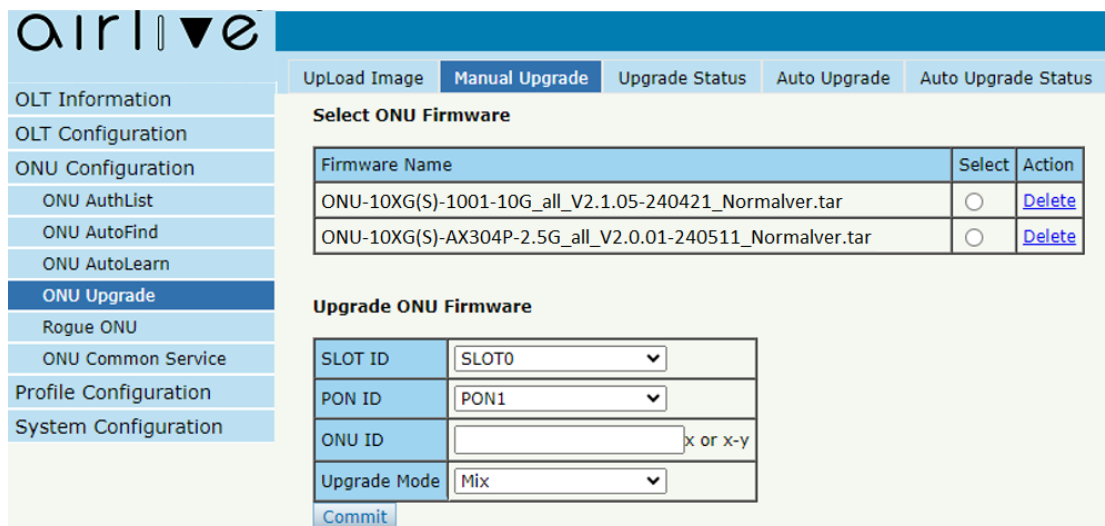
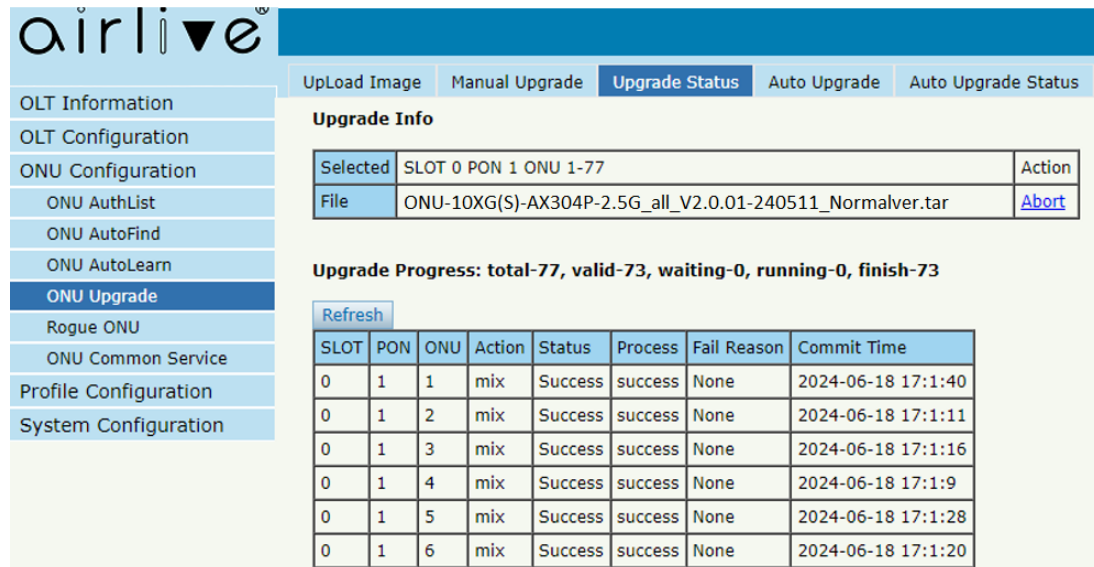


Figure 4.4-2: Manual Upgrade

4.4.3 Upgrade Status

Configuration→ONU Upgrade→Upgrade Status

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



The screenshot shows the AirLive OLT management interface. On the left is a navigation menu with options like OLT Information, OLT Configuration, ONU Configuration, and ONU Upgrade (which is highlighted). The main content area is titled 'Upgrade Status' and includes tabs for 'UpLoad Image', 'Manual Upgrade', 'Upgrade Status', 'Auto Upgrade', and 'Auto Upgrade Status'. Under 'Upgrade Info', it shows 'Selected: SLOT 0 PON 1 ONU 1-77' and a file 'ONU-10XG(S)-AX304P-2.5G_all_V2.0.01-240511_Normalver.tar' with an 'Abort' link. Below this, it states 'Upgrade Progress: total-77, valid-73, waiting-0, running-0, finish-73'. A 'Refresh' button is present above a table showing the upgrade status for each ONU.

SLOT	PON	ONU	Action	Status	Process	Fail Reason	Commit Time
0	1	1	mix	Success	success	None	2024-06-18 17:1:40
0	1	2	mix	Success	success	None	2024-06-18 17:1:11
0	1	3	mix	Success	success	None	2024-06-18 17:1:16
0	1	4	mix	Success	success	None	2024-06-18 17:1:9
0	1	5	mix	Success	success	None	2024-06-18 17:1:28
0	1	6	mix	Success	success	None	2024-06-18 17:1:20

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.

UpLoad Image **Manual Upgrade** **Upgrade Status** **Auto Upgrade** **Auto Upgrade Status**

Add ONU Auto Upgrade

Equipment ID:

Software Version:

Select ONU Firmware

Firmware Name	Select
ONU-10XG(S)-1001-10G_all_V2.1.05-240421_Normalver.tar	☐
ONU-10XG(S)-AX304P-2.5G_all_V2.0.01-240511_Normalver.tar	☐

ONU Auto Upgrade Information

Equipment ID	Software Version	Image Name
MONUH413	v1.1.00-240408	ONU-10XG(S)-1001-10G_all_V2.1.05-240421_Normalver.tar

Figure 4.4-4: Auto Upgrade

4.4.5 Auto Upgrade Status

Configuration→ONU Upgrade→Auto Upgrade Status

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

Auto Upgrade Status
total-4, waiting-0, running-4, finish-0

PON	ONU	Status	Progress	Fail Reason	Action
14	2	running	transferred 12 %	None	Delete
14	6	running	transferred 13 %	None	Delete
14	8	running	transferred 13 %	None	Delete
14	13	running	transferred 12 %	None	Delete

PON	ONU	Status	Progress	Fail Reason	Commit Time	Action
-----	-----	--------	----------	-------------	-------------	--------

Figure 4.4-5: Auto Upgrade Status

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. (Function not in OLT-2XGS).

Rogue ONU Configuration

Rogue ONU Detect Configuration

PON	Detect state	Measurement	Alloc to scan	Auto shutdown	Operation	Algorithm
PON 1	enable	cut-off	unused	manual	deactivate	Early Detection
PON 2	disable	cut-off	unused	manual	deactivate	Early Detection

Change Configuration

SLOT	0
PON	1
Detect state	Enable
Measurement	Cut-Off
Alloc to scan	Unused
Auto shutdown	Disable
Shutdown type	deactivate
Algorithm	Early Rogue Detector

Rogue ONU List

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

Figure 4.5-1: Rogue ONU detect

4.6 ONU Common Service

ONU Configuration→ONU Common Service

You have more flexibility to create TCONT ID, Gempport, Service, Service port and Port Vlan for the specified ONU you select.

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

ONU Common Service

Profile Configuration

System Configuration

Tcont

Gemport

Service

Service Port

Port VLAN

ONU Tcont

Slot ID

SLOT0

Port ID

PON1

Search Mode

All

Search Info

Search

Add ONU Tcont

ONU List

(X,X or X-X;max 128 ONUs)

Tcont ID

Tcont Name

DBA Profile Name

default1

Commit

Delete

ONU Tcont Information

ONU ID	Information	Description	Tcont ID	Name	DBA Profile	Action
ONU 1	GPON007320a0	GPON0/1:1				
ONU 2	GPON007321d0	GPON0/1:2				
ONU 3	GPON00732140	GPON0/1:3				
ONU 4	GPON007321c0	GPON0/1:4				
ONU 5	GPON00732020	GPON0/1:5				

Figure 4.6-1: Create TCONT ID

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

ONU Common Service

Profile Configuration

System Configuration

Tcont

Gemport

Service

Service Port

Port VLAN

ONU Gemport

Slot ID

SLOT0

Port ID

PON1

Search Mode

All

Search Info

Search

Add ONU Gemport

ONU List

(X,X or X-X;max 128 ONUs)

Gemport ID

Tcont ID

Gemport Name

Downstream Traffic

default

Commit

Delete

ONU Gemport Info

ONU ID	Information	Description	Gemport ID	Name	Tcont	Downstream	Action
ONU 1	GPON007320a0	GPON0/1:1					
ONU 2	GPON007321d0	GPON0/1:2					
ONU 3	GPON00732140	GPON0/1:3					
ONU 4	GPON007321c0	GPON0/1:4					
ONU 5	GPON00732020	GPON0/1:5					

Figure 4.6-2: Create Gemport

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

ONU Common Service

Profile Configuration

System Configuration

Tcont

Gemport

Service

Service Port

Port VLAN

ONU Service

Slot ID

SLOT0

Port ID

PON1

Search Mode

All

Search Info

Search

Add ONU Service

ONU List

(X,X or X-X;max 128 ONUs)

Service Name

Gemport ID

VLAN Mode

Tag

VLAN List

(X,X or X-X;0 for all;max 12 VLANs)

CoS List

N/A

(X,X or X-X;)

Port Type

N/A

Commit

Delete

ONU Service Information

ONU ID	Information	Description	Service Name	Gemport	VLAN Mode	VLAN List	CoS List	Port	Action
ONU 1	GPON007320a0	GPON0/1:1							
ONU 2	GPON007321d0	GPON0/1:2							
ONU 3	GPON00732140	GPON0/1:3							

Figure 4.6-3: Create Service

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

ONU Common Service

Profile Configuration

System Configuration

Tcont

Gemport

Service

Service Port

Port VLAN

ONU Service Port

Slot ID

SLOT0

Port ID

PON1

Search Mode

All

Search Info

Search

Add ONU Service Port

ONU List

(X,X or X-X;max 128 ONUs)

Search Mode

CVLAN

Service Port ID

Gemport ID

User VLAN

Translate VLAN

Translate SVLAN

N/A

Description

N/A

Commit

Delete

ONU Service Port Info

ONU ID	Information	Description	Service Port	Gemport ID	Begin Vid	End Vid	Outer Vid	Inner Vid	VLAN	SVLAN	Mode	Enable	Description	Delete
ONU 1	GPON007320a0	GPON0/1:1												
ONU 2	GPON007321d0	GPON0/1:2												
ONU 3	GPON00732140	GPON0/1:3												

Figure 4.6-4: Create Service port

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

ONU Common Service

Profile Configuration

System Configuration

TcontGempportServiceService PortPort VLAN

ONU PortVLAN

Slot ID

SLOT0

Port ID

PON1

Search Mode

All

Search Info

Search

Add ONU PortVLAN

ONU List

(X,X or X-X;max 128 ONUs)

Mode

Transparent

Port Type

Eth

Port Id

CommitDelete

ONU PortVLAN Information

ONU ID	Information	Description	Port Name	Mode	VLAN	VLAN Priority	Default VLAN	Default Priority	CVLAN	CVLAN Priority	SVLAN	SVLAN Priority	Action
ONU 1	GPON007320a0	GPON0/1:1											
ONU 2	GPON007321d0	GPON0/1:2											
ONU 3	GPON00732140	GPON0/1:3											
ONU 4	GPON007321c0	GPON0/1:4											
ONU 5	GPON00732020	GPON0/1:5											

Figure 4.6-5: Create Port Vlan

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

IGMP Profile

Format Profile

Bind Profile

System Configuration

Information

Add Profile

ONU Profile

Refresh

Profile ID	Profile Name	Max Tcont	Max Gempport	Max Veip	Action
0	default	255	255	1	Details
2	test	8	32	0	Details Delete

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		
OLT Configuration		
ONU Configuration		
Profile Configuration		
ONU Profile	ONU Profile Modify	
DBA Profile	Commit	
Traffic Profile	Profile ID: 1	
Line Profile	Profile Name: ONU_profile_1	
Service Profile	Description: ONU_profile_1	
Alarm Profile	Max Tcont: 8	
Pri Profile	Max Gemport: 32	
IGMP Profile	Max Eth: 1	
Format Profile	Max POTS: 0	
Bind Profile	Max IPHost: 2	
System Configuration	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 5.1-2: 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	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>4</td> </tr> <tr> <td>Max POTS</td> <td>2</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	4	Max POTS	2	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		4																																	
Max POTS		2																																	
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																																			
ONU Configuration																																			
Profile Configuration																																			
ONU Profile																																			
DBA Profile																																			
Traffic Profile																																			
Line Profile																																			
Service Profile																																			
Alarm Profile																																			
Pri Profile																																			
IGMP Profile																																			
Format Profile																																			
Bind Profile																																			
System Configuration																																			

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 <= assured <= 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. Default1 Profile defines bandwidth allocation for each of the three modes.

OLT Information	DBA Profiles	Add Profile
OLT Configuration	DBA Profile	
ONU Configuration	Refresh	
Profile Configuration		
ONU Profile		
DBA Profile		
Traffic Profile		
Line Profile		
Service Profile		
Alarm Profile		
Pri Profile		
IGMP Profile		
Format Profile		
Bind Profile		
System Configuration		

Profile ID	Profile Name	Profile Type	Fixed(Kbps)	Assured(Kbps)	Maximum(Kbps)	Action
0	default	1	10240			
1	dba_1	3		102400	1024000	Delete Modify
129	default1	3		GPON:1024 XGPON:2560 XGSPON:10240	GPON:1024000 XGPON:2488320 XGSPON:9953280	

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

OLT Information	DBA Profiles	Add Profile
OLT Configuration	Add Profile	
ONU Configuration	Profile ID	1
Profile Configuration	Profile Type	Type_3
ONU Profile	Profile Name	dba_1
DBA Profile	Assured(Kbps)	(256 - 9953280Kbps)
Traffic Profile	Maximum(Kbps)	(256 - 9953280Kbps)
Line Profile	Commit	
Service Profile		
Alarm Profile		
Pri Profile		
IGMP Profile		
Format Profile		
Bind Profile		
System Configuration		

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

IGMP Profile

Format Profile

Bind Profile

System Configuration

Traffic Profiles

Add Profile

Traffic Profiles

Refresh

Profile ID	Profile Name	SIR(Kbps)	CBS(Kbytes)	Action
0	default	10000000	default	N/A
3	test	1000000	default	Delete Modify

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

CBS: Committed Burst Size

	Traffic Profiles	Add Profile
OLT Information	Add Profile	
OLT Configuration	Profile ID	1
ONU Configuration	Profile Name	traffic_1
Profile Configuration	SIR(Kbps)	
ONU Profile	CBS(Kbytes)	
DBA Profile	Commit	
Traffic Profile		
Line Profile		
Service Profile		
Alarm Profile		
Pri Profile		
IGMP Profile		
Format Profile		
Bind Profile		
System Configuration		

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.

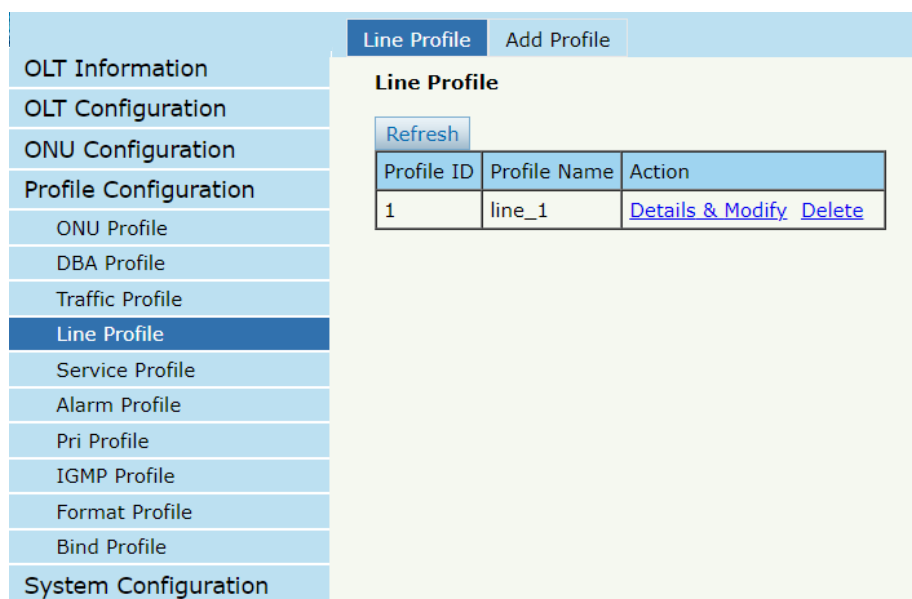


Figure 5.4-1: Line Profile list

5.4.2 Add profile

Profile Configuration→Line profile→Add profile

Create a new line profile.

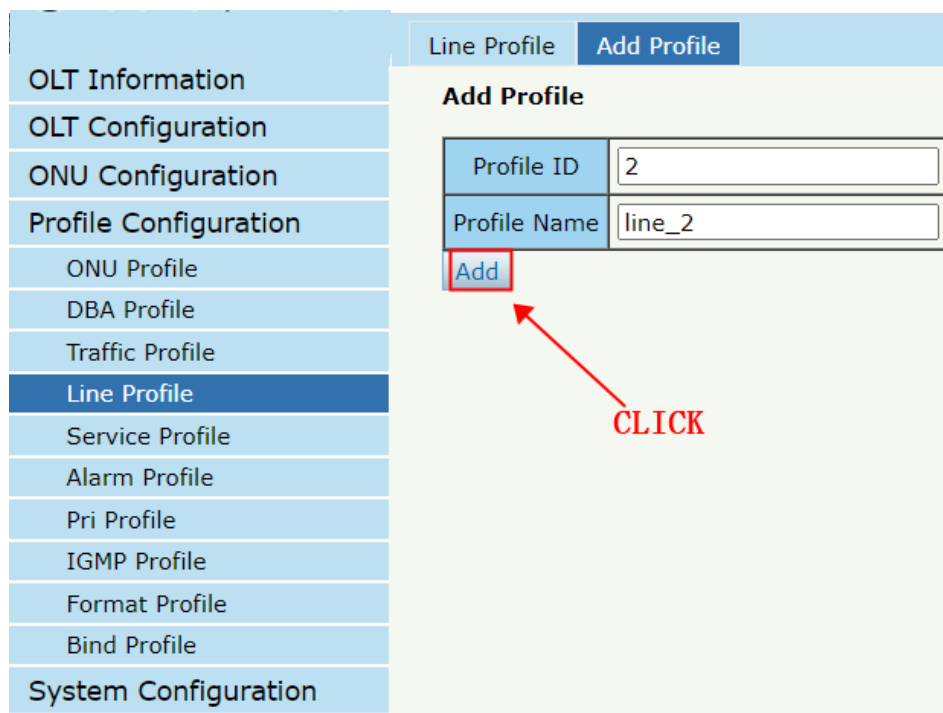


Figure 5.4-2: Add Line Profile

Modify the line profile parameters.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Line ProfileAdd Profile

Line Profile

Refresh

Profile ID	Profile Name	Action
1	line_1	Details & Modify Delete

Figure 5.4-3: Modify Line Profile

5.4.2.1 Tcont

Add tcont ID and bind DBA profile.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Line ProfileAdd Profile

TcontGemportServiceService PortMulticast VLAN

Tcont Information(Line Profile:1)

Tcont ID	Name	DBA Profile	Action
1	tcont_1	default1	Delete

Add Tcont

Tcont ID	2(1 ~ 255)
Tcont Name	
DBA Profile Name	default1

Add

Figure 5.4-4: Add Tcont

5.4.2.2 Gemport

Add gemport ID and bind tcont ID.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Line Profile

Add Profile

Tcont

Gemport

Service

Service Port

Multicast VLAN

Gemport Info(Line Profile:1)

Gemport ID	Name	Tcont	Downstream	Action
1	gem_1	1	default	Delete

Add Gemport

Gemport ID	2	(1~255)
Tcont ID	1	
Gemport Name		
Downstream Traffic	default	

Add

ONU Gemport Rate Limit Info

Gemport ID	Name	Tcont	Upstream CIR	Upstream PIR	Downstream CIR	Downstream PIR	Action
1	gem_1	1	0	0	0	0	Delete

ONU Gemport Rate Limit Configuration

Gemport ID	1
Upstream Traffic Committed Rate Limit (B/s)	0 (0-4294967295)
Upstream Traffic Peak Rate Limit (B/s)	0 (0-4294967295)
Downstream Traffic Committed Rate Limit (B/s)	0 (0-4294967295)
Downstream Traffic Peak Rate Limit (B/s)	0 (0-4294967295)

Commit

Figure 5.4-5: Add Gemport

5.4.2.3 Service

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

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Line Profile

Add Profile

Tcont

Gemport

Service

Service Port

Multicast VLAN

ServiceInformation(Line Profile:1)

ServiceName	Gemport	VLAN Mode	VLAN List	CoS List	Port	Action
1	1	Tag	1000	N/A	N/A	Delete

AddService

ServiceName	1
Gemport ID	1
VLAN Mode	Tag
VLAN List	1000 (X,X or X-X;0 for all;max 12 VLANs)
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.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Line Profile

Add Profile

Tcont

Gemport

Service

Service Port

Multicast VLAN

Service Port Info(Line Profile:1)

Service Port	Gemport ID	Begin Vid	End Vid	Outer Vid	Inner Vid	VLAN	SVLAN	Mode	Enable	Description	Action
1	1	1000	1000	N/A	N/A	1000	N/A	1:1	YES	N/A	Delete

Add Service Port

Service Mode	CVLAN
Service Port ID	2 (1~~128)
Gemport ID	1
User VLAN	
Translate VLAN	
Translate SVLAN	N/A
Description	N/A

Add

Figure 5.4-7: Add Service Port

5.4.2.5 Multicast Vlan

Set the Multicast VLAN of ONU.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Line Profile

Add Profile

Tcont

Gemport

Service

Service Port

Multicast VLAN

Multicast VLAN List(Line Profile:1)

Line Profile ID	Line Profile Name	VLAN List	Action
1	line_1	88	Delete All

Add/Del Multicast VLAN (max 12 VLANs)

MVLAN List

(100,103 or 105-108)

Add

Delete

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.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Service Profiles

Add Profile

Service Profile

Refresh

Profile ID	Profile Name	Action
1	srv_1	Details & Modify Delete

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
OLT Information	Add Profile	
OLT Configuration		
ONU Configuration		
Profile Configuration		
ONU Profile		
DBA Profile		
Traffic Profile		
Line Profile		
Service Profile		
Alarm Profile		
Pri Profile		
IGMP Profile		
Format Profile		
Bind Profile		
System Configuration		

Profile ID

2

Profile Name

srv_2

Add

Figure 5.5-2: Add Service profile

	Service Profiles	Add Profile
OLT Information	Service Profile	
OLT Configuration		
ONU Configuration		
Profile Configuration		
ONU Profile		
DBA Profile		
Traffic Profile		
Line Profile		
Service Profile		
Alarm Profile		
Pri Profile		
IGMP Profile		
Format Profile		
Bind Profile		
System Configuration		

Refresh

Profile ID	Profile Name	Action
1	srv_1	Details & Modify Delete

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.

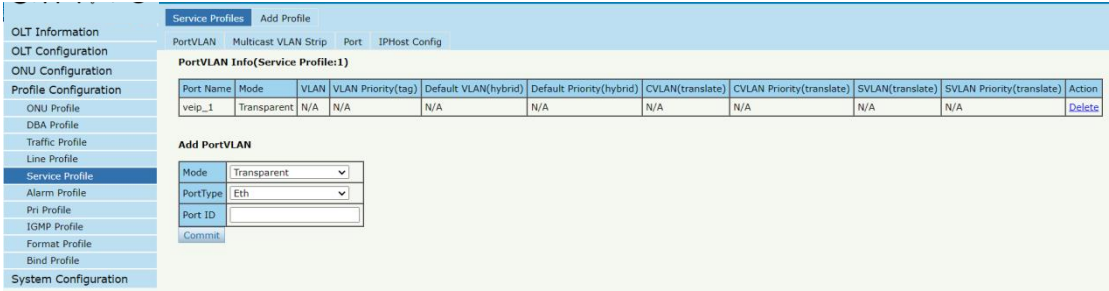


Figure 5.5-4: Port VLAN mode

5.5.2.2 Multicast Vlan Strip

Set the multicast VLAN mode of ONU’s port.

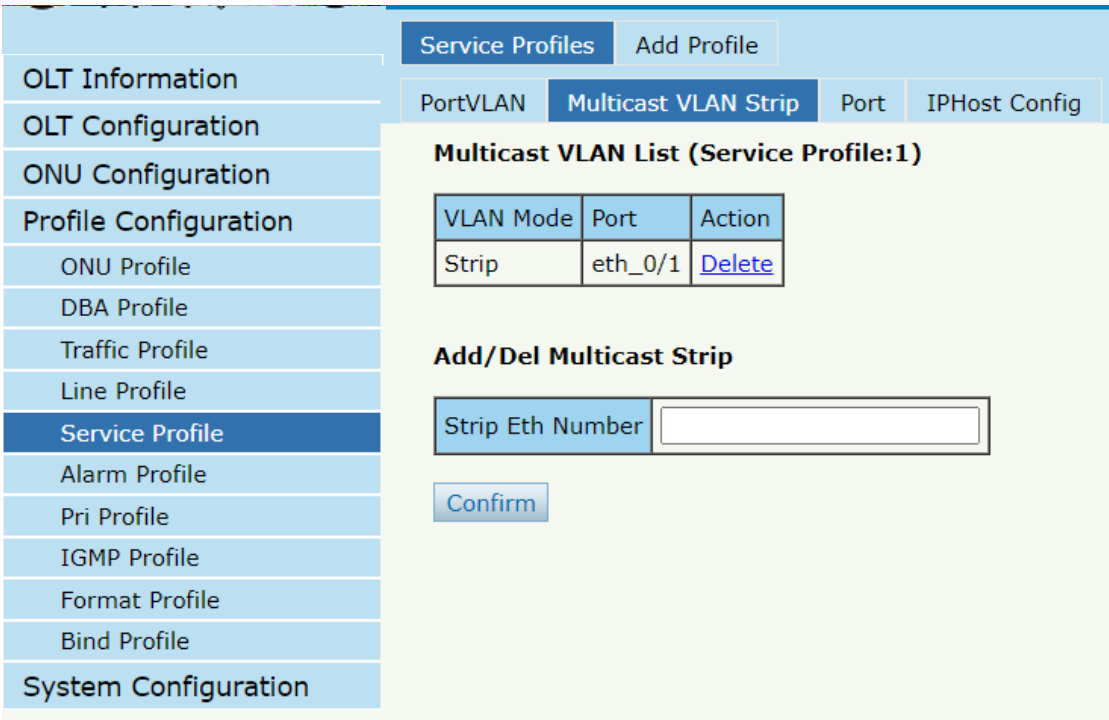


Figure 5.5-5: Port Multicast VLAN Mode

5.5.2.3 Port

Configure the status and rate of the onu port

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Service Profiles

Add Profile

PortVLAN

Multicast VLAN Strip

Port

IPHost Config

Port Basic Configuration (Service Profile:1)

ONU Port

LAN1

☒ Admin Status

☒ Loopback

Port Speed

auto

Submit

Upstream Rate Limit Config

Upstream Rate-Limit CIR (bytes)

0

Upstream Rate-Limit PIR (bytes)

0

Commit

Downstream Rate Limit Config

Downstream Rate-Limit CIR (bytes)

0

Downstream Rate-Limit PIR (bytes)

0

Commit

Port Status

Refresh

Interface

Speed Config

Admin Status

LOOP status

Upstream Rate-Limit (bytes)

Downstream Rate-Limit (bytes)

Action

Figure 5.5-6: Port status

5.5.2.4 Iphost Config

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

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Service Profiles

Add Profile

PortVLAN

Multicast VLAN Strip

Port

IPHost Config

IPHost Configuration Info(Service Profile:1)

IPHost ID

Description

IP Mode

IP Address

Mask

Gateway

DNS1

DNS2

VLAN

Priority

Action

IPHost Config

IPHost ID

Description

IP Mode

DHCP

DNS1(A.B.C.D)

DNS2(A.B.C.D)

Commit

IPHost VLAN Config

VLAN(0-4094)

Priority(1-15)

Commit

Figure 5.5-7: Add IPhost

5.6 Alarm Profile

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

5.6.1 Profile Infomation

Profile Configuration→Alarm Profile →profile infomation

The table displays alarm profile list.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Profile InformationAdd Profile

Alarm Profile

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.

OLT Information	Profile Information	Add Profile
OLT Configuration	Create Alarm Profile	
ONU Configuration	Alarm Name	alarm_profile_2
Profile Configuration	Alarm State	Enable
ONU Profile	Rx Low Power	-27 (-27 ~ -8)dBm
DBA Profile	Rx High Power	-8 (-27 ~ -8)dBm
Traffic Profile	Tx Low Power	1 (1 ~ 5)dBm
Line Profile	Tx High Power	5 (1 ~ 5)dBm
Service Profile	Sf Threshold	5 (3 ~ 8)
Alarm Profile	Sd Threshold	9 (4 ~ 10)
Pri Profile	Commit	
IGMP Profile		
Format Profile		
Bind Profile		
System Configuration		

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.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Pri ProfileAdd Profile

Pri Profile

Refresh

Profile ID	Profile Name	Action
1	pri_1	Details & Modify Delete

Figure 5.7-1: Pri Profile

5.7.2 Add Profile

Profile Configuration→Pri Profile →Add profile

The screenshot shows a web interface for configuring profiles. On the left is a vertical menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, ONU Profile, DBA Profile, Traffic Profile, Line Profile, Service Profile, Alarm Profile, Pri Profile (highlighted), IGMP Profile, Format Profile, Bind Profile, and System Configuration. The main content area has two tabs: 'Pri Profile' and 'Add Profile'. The 'Add Profile' tab is active and displays a form titled 'Add Profile'. The form contains two input fields: 'Profile ID' with the value '2' and 'Profile Name' with the value 'pri_2'. Below these fields is an 'Add' button.

Figure 5.7-2: Add Private Profile

5.8 IGMP Profile

IGMP profile is used to configure the parameters of ONU multicast .

5.8.1 IGMP Profile

Profile Configuration→IGMP Profile →IGMP Profile

The table displays IGMP profile list.

	IGMP Profile	Add Profile						
OLT Information	IGMP Profile							
OLT Configuration	Refresh							
ONU Configuration	<table> <tr> <th>Profile ID</th><th>Profile Name</th><th>Action</th></tr> <tr> <td>1</td><td>IGMP_1</td><td>Details & Modify Delete</td></tr> </table>		Profile ID	Profile Name	Action	1	IGMP_1	Details & Modify Delete
Profile ID	Profile Name	Action						
1	IGMP_1	Details & Modify Delete						
Profile Configuration								
ONU Profile								
DBA Profile								
Traffic Profile								
Line Profile								
Service Profile								
Alarm Profile								
Pri Profile								
IGMP Profile								
Format Profile								
Bind Profile								
System Configuration								

Figure 5.8-1: IGMP Profile List

5.8.2 Add Profile

Profile Configuration→IGMP Profile →Add profile

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

	IGMP Profile	Add Profile
OLT Information	Add Profile	
OLT Configuration		
ONU Configuration		
Profile Configuration		
ONU Profile		
DBA Profile		
Traffic Profile		
Line Profile		
Service Profile		
Alarm Profile		
Pri Profile		
IGMP Profile		
Format Profile		
Bind Profile		
System Configuration		

Figure 5.8-2: Add IGMP Profile

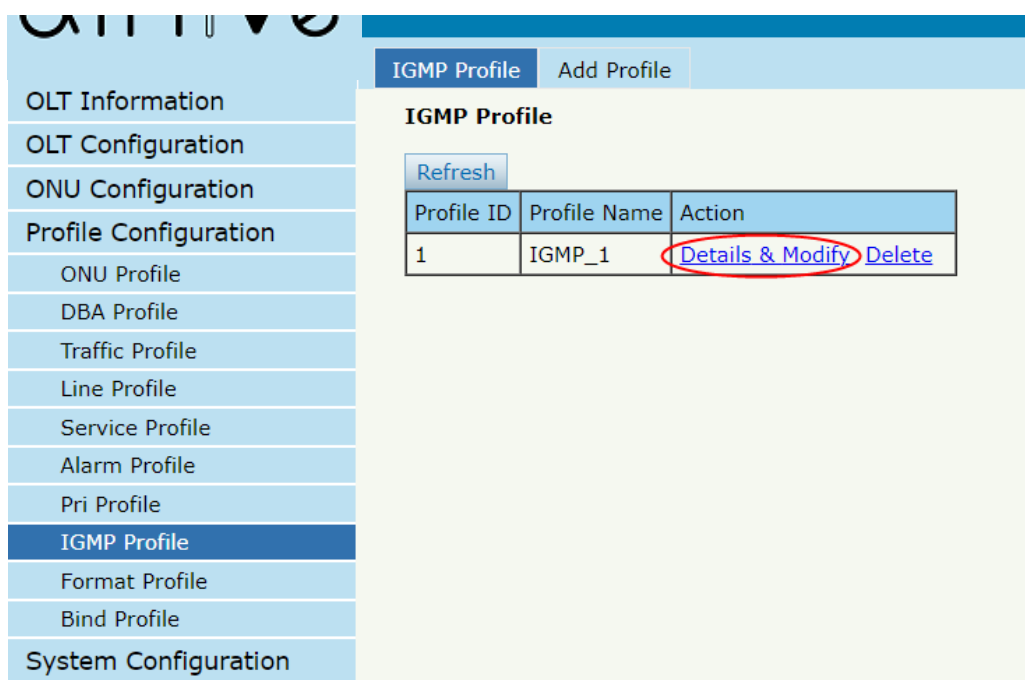


Figure 5.8-3: Modify IGMP Profile

5.8.2.1 Config

Configure multicast related data.

IGMP Profile Add Profile

Config

IGMP Configuration(IGMP Profile:1)

IGMP Version	IGMP v2	
IGMP Mode	spr	
Fast Leave	disable	
Upstream tag control	transparent	
IGMP Rate limit	0	(0-4294967294)
Robustness	0	(0-255)
Proxy IP	0.0.0.0	(x.x.x.x)
Query Interval	125	(0-4294967294)
Query Maxresp	100	(0-4294967294)
Query Last Interval	10	(0-4294967294)
Downstream tag control	transparent	
NonMatch Group	forward	

Submit

Figure 5.8-4: Config

5.9 Format Profile

Format profile is used to configure the parameters of ONU DHCP related information .

5.9.1 Format Profile

Profile Configuration→Format Profile →Format Profile

The table displays Format profile list.

	Format Profile	Add Profile						
OLT Information	Format Profile							
OLT Configuration	Refresh							
ONU Configuration	<table><tr><th>Profile ID</th><th>Profile Name</th><th>Action</th></tr><tr><td>1</td><td>format_1</td><td>Details & Modify Delete</td></tr></table>		Profile ID	Profile Name	Action	1	format_1	Details & Modify Delete
Profile ID	Profile Name	Action						
1	format_1	Details & Modify Delete						
Profile Configuration								
ONU Profile								
DBA Profile								
Traffic Profile								
Line Profile								
Service Profile								
Alarm Profile								
Pri Profile								
IGMP Profile								
Format Profile								
Bind Profile								
System Configuration								

Figure 5.9-1: Format Profile List

5.9.2 Add Profile

Profile Configuration→Format Profile →Add profile

Add new Format profile.

The screenshot shows a web interface for configuring an IGMP Profile. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration (highlighted), ONU Profile, DBA Profile, Traffic Profile, Line Profile, Service Profile, Alarm Profile, Pri Profile, IGMP Profile (selected), Format Profile, Bind Profile, and System Configuration. The main content area has a header with 'IGMP Profile' and an 'Add Profile' button. Below this is the 'Add Profile' form with two input fields: 'Profile ID' containing the value '2' and 'Profile Name' containing the value 'IGMP_2'. An 'Add' button is located below the input fields.

Figure 5.9-2: Add Format Profile

The screenshot shows a web interface for managing Format Profiles. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration (highlighted), ONU Profile, DBA Profile, Traffic Profile, Line Profile, Service Profile, Alarm Profile, Pri Profile, IGMP Profile, Format Profile (selected), Bind Profile, and System Configuration. The main content area has a header with 'Format Profile' and an 'Add Profile' button. Below this is the 'Format Profile' section, which includes a 'Refresh' button and a table. The table has three columns: Profile ID, Profile Name, and Action. It contains one row with Profile ID '1' and Profile Name 'format_1'. The 'Action' column for this row contains two links: 'Details & Modify' (circled in red) and 'Delete'.

Profile ID	Profile Name	Action
1	format_1	Details & Modify Delete

Figure 5.9-3: Modify Format Profile

5.9.2.1 Config

Configure Format related data.

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Format Profile

Add Profile

Config

Format Configuration(Format Profile:1)

Switch Configuration

Option82

disable

▼

Option18

disable

▼

Option37

disable

▼

PPPoE Plus

disable

▼

Submit

Format Type Configuration

Format Type

custom

▼

Submit

Circuit ID / Remote ID Configuration

ID

Circuit ID

▼

Index

Type

CVLAN

▼

Submit

Circuit ID / Remote ID Table

ID	Type
----	------

Refresh

Figure 5.9-4: Config

5.10 Bind Profile

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

Profile Configuration→Bind Profile

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Profile Bind

ONU Profile Bind

Port ID PON2

Refresh

ONU ID	ONU Profile	Line Profile	Service Profile	Alarm Profile	Pri Profile	Format Profile	Bind
1	default	N/A	N/A	N/A	N/A	N/A	Config

Figure 5.10-1: Bind profile

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

ONU Profile

DBA Profile

Traffic Profile

Line Profile

Service Profile

Alarm Profile

Pri Profile

IGMP Profile

Format Profile

Bind Profile

System Configuration

Profile Bind

ONU Profile Binding Config (SLOT:0 PON:2 ONU:1)

ONU ID	Line Profile	Service Profile	Alarm Profile	Pri Profile	Format Profile
1	line_1	srv_1	alarm_profile_1	pri_1	format_1

Commit

Figure 5.10-2: 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.

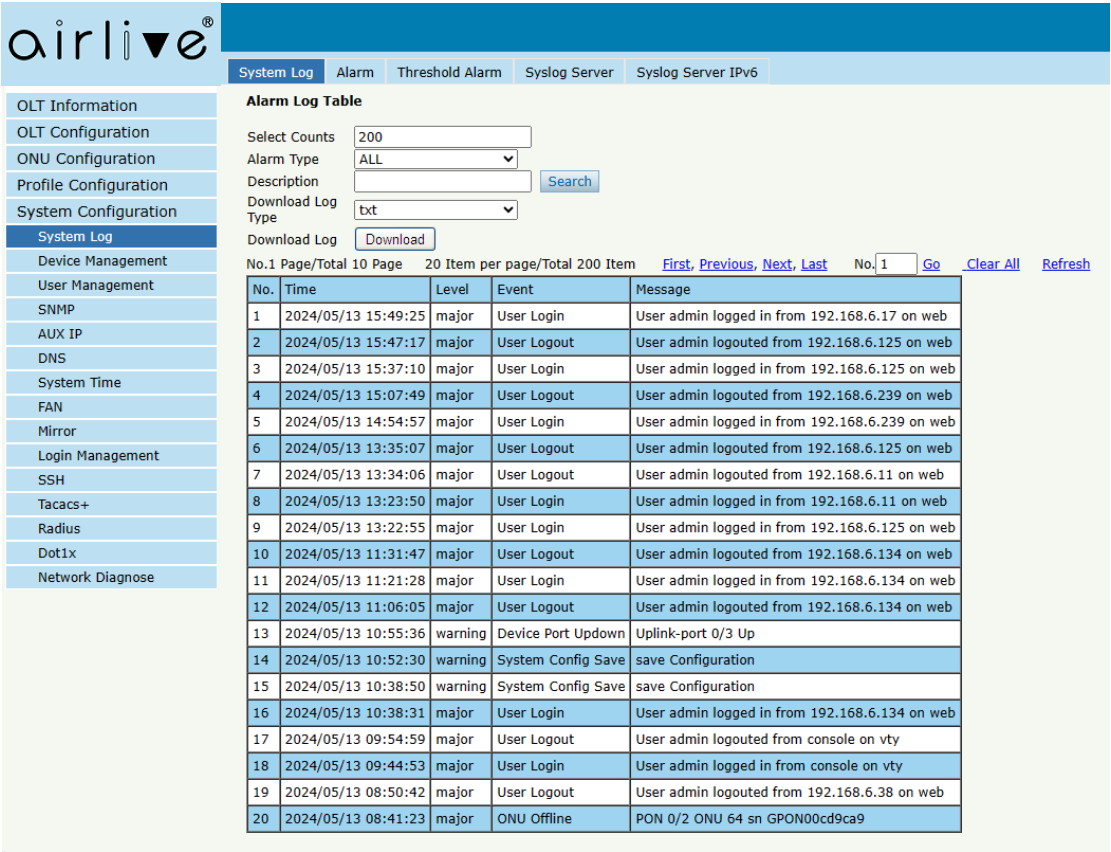


Figure 6.1-1: System Log

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".

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	☒	☒	☒	☒
ONU PON Vcc High	☒	☒	☒	☒	ONU PON Vcc Low	☒	☒	☒	☒
ONU PON Temp High	☒	☒	☒	☒	ONU PON Temp Low	☒	☒	☒	☒
ONU Port Autoneg Failure	☒	☒	☒	☒	ONU Port Uplink	☐	☐	☐	☐
ONU Port Los	☒	☒	☒	☒	ONU Port Failure	☒	☒	☒	☒
ONU Port Loopback	☒	☒	☒	☒	ONU POTS Failure	☒	☒	☒	☒
OLT Power1 Updown	☒	☒	☒	☒	OLT Power2 Updown	☒	☒	☒	☒

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.

airlive®

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

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.

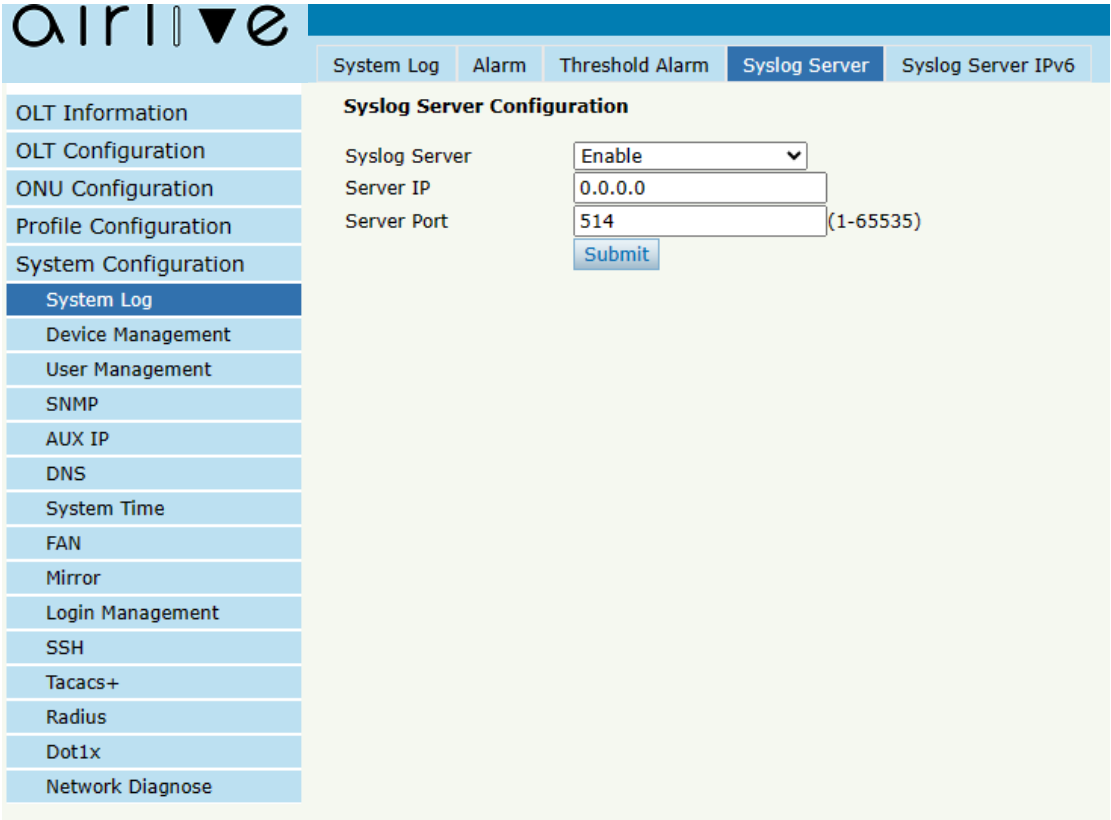


Figure 6.1-4: Syslog Server

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.

The screenshot displays the AirLive web management interface. On the left, a vertical menu lists configuration categories: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log (highlighted), Device Management, User Management, SNMP, AUX IP, DNS, System Time, FAN, Mirror, Login Management, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The top navigation bar includes tabs for System Log, Alarm, Threshold Alarm, Syslog Server (active), and Syslog Server IPv6. The main content area is titled 'Syslog Server IPv6 Configuration' and contains the following fields:

- Syslog Server IPv6:** A dropdown menu currently set to 'Enable'.
- Server IPv6:** An empty text input field.
- Server Port:** A text input field containing '514', with a hint '(1-65535)' to its right.
- Submit:** A blue button to save the configuration.

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.

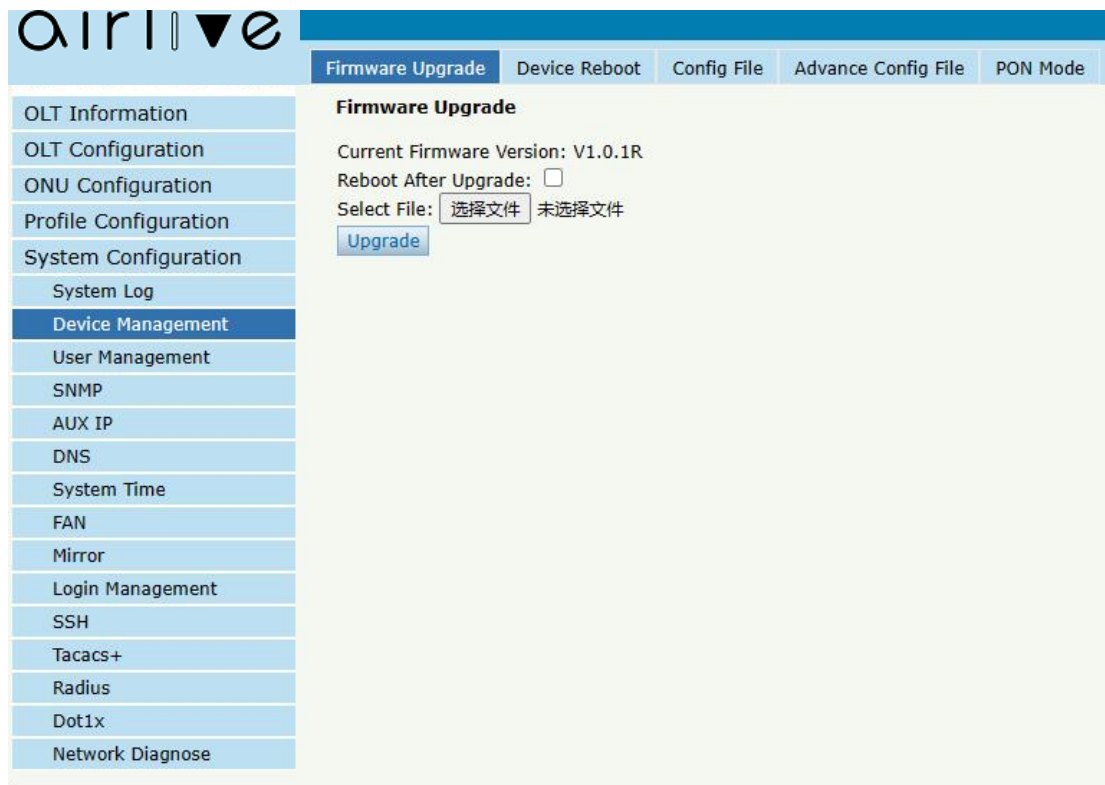


Figure 6.2-1: Firmware Upgrade

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.

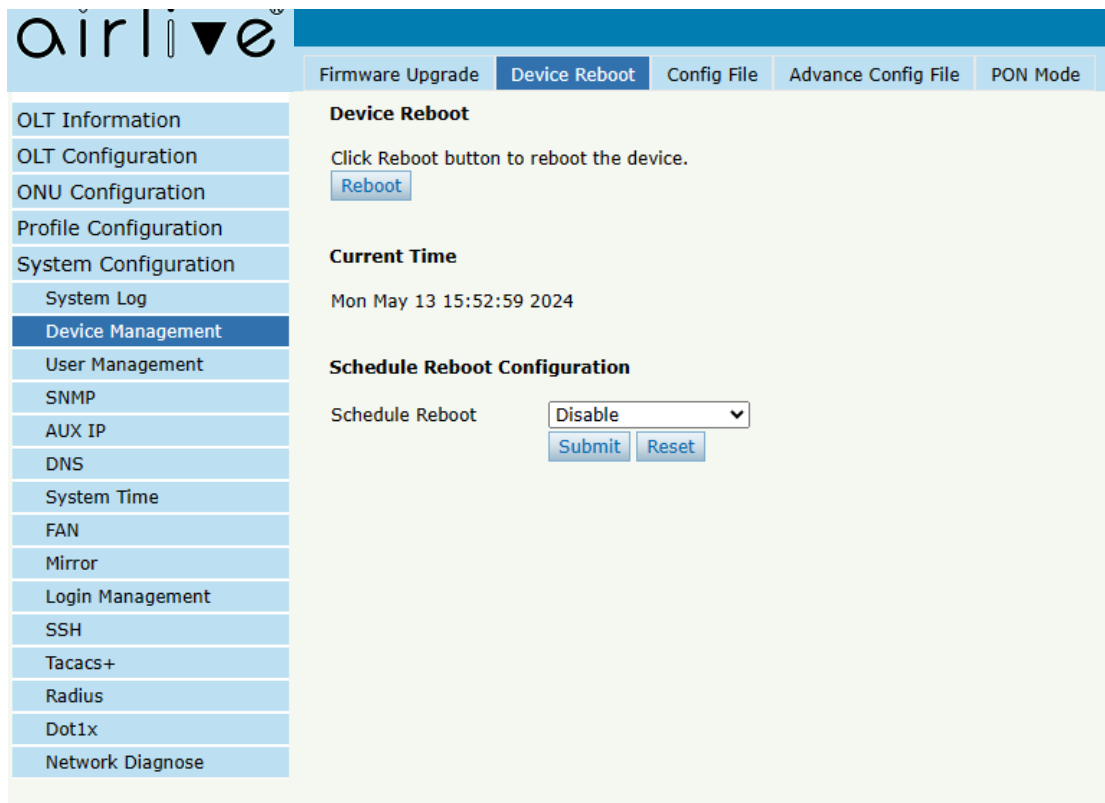


Figure 6.2-2: Device Reboot

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.

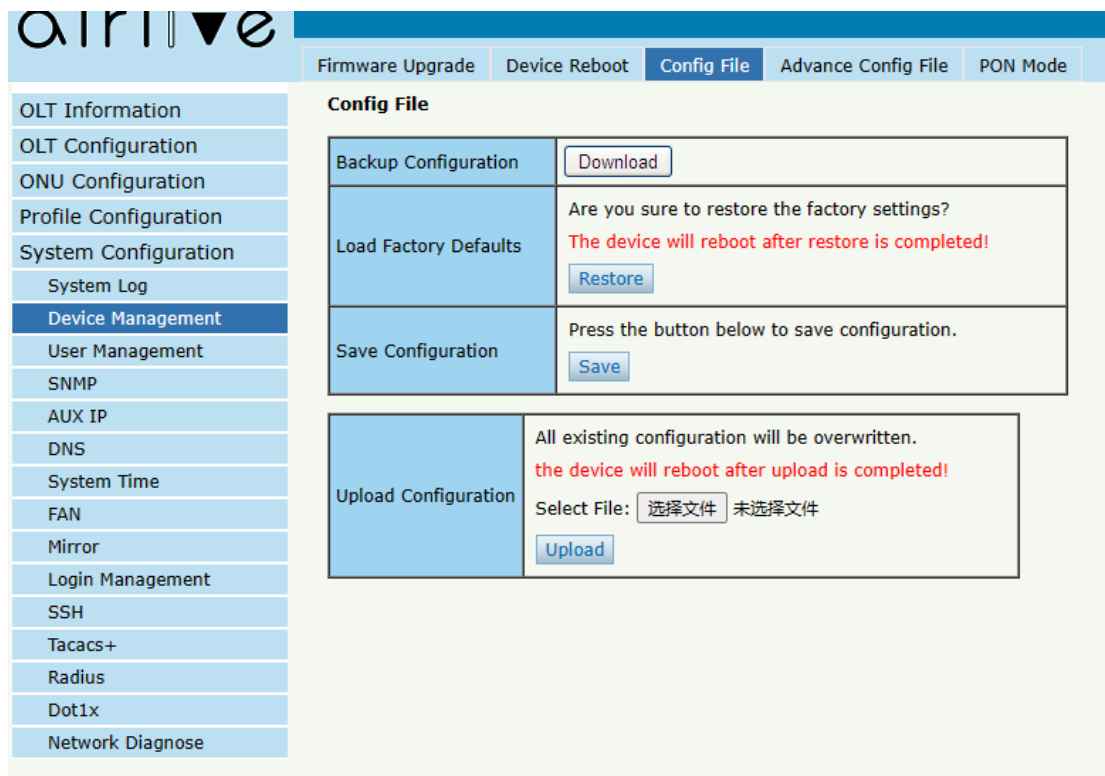


Figure 6.2-3: File Configuration

6.2.4 Advance Config File

System Configuration → Device Management → Advance Config File

You can choose between periodic auto-save configuration and periodic auto-backup configuration, There are three modes: Timeout, Fix-Time and Week-Day.

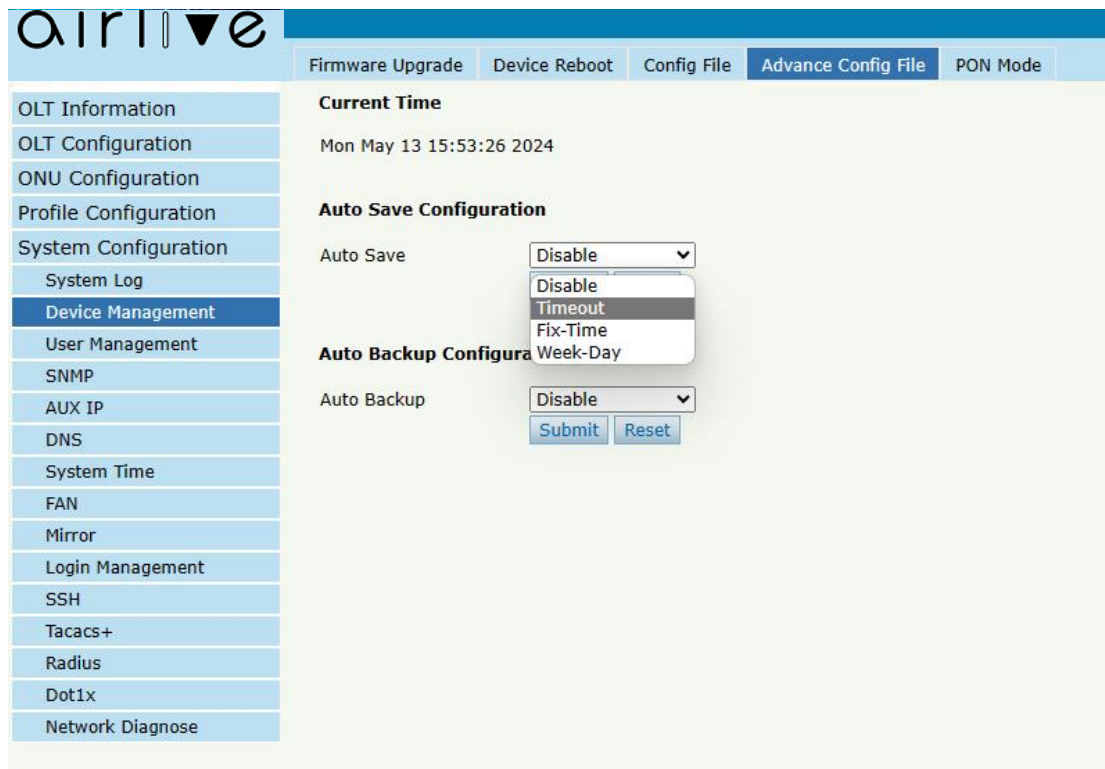


Figure 6.2-4: Auto Save

6.2.5 Pon Mode

System Configuration→Device Management →Pon Mode

Here you can select the PON mode for OLT, There are three modes:
GPON, XG-PON and XGS-PON.

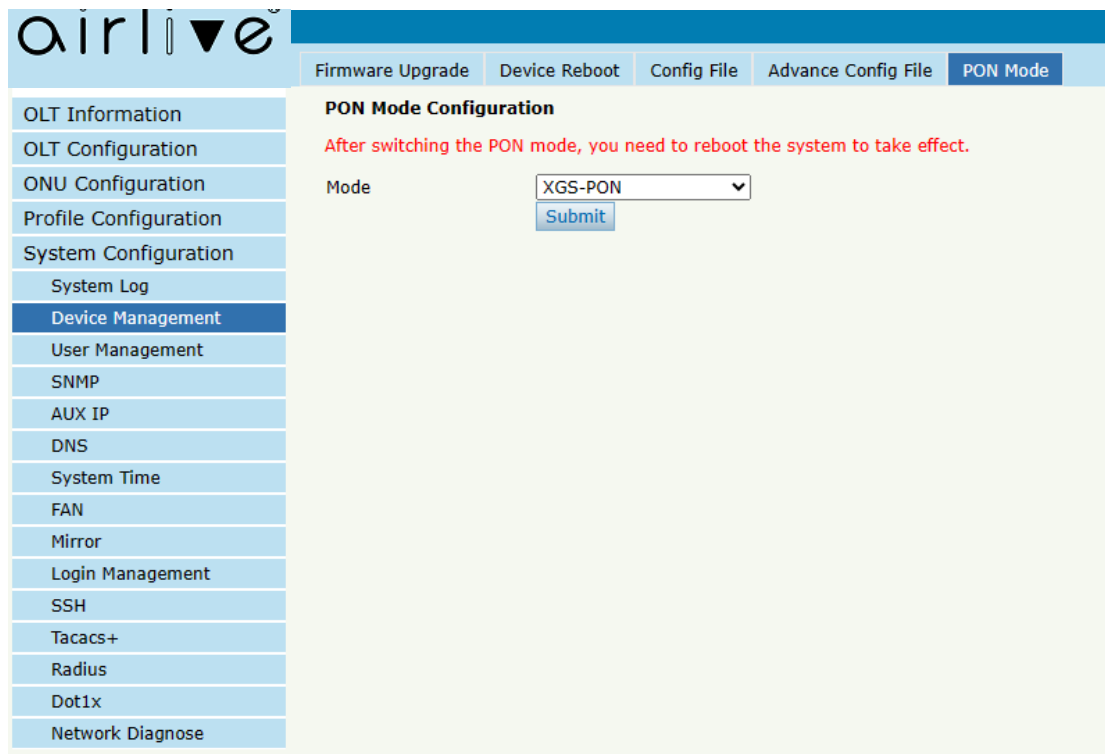


Figure 6.2-5: PON MODE

6.3 User Management

6.3.1 User manage

System Configuration→User management→User manage

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.

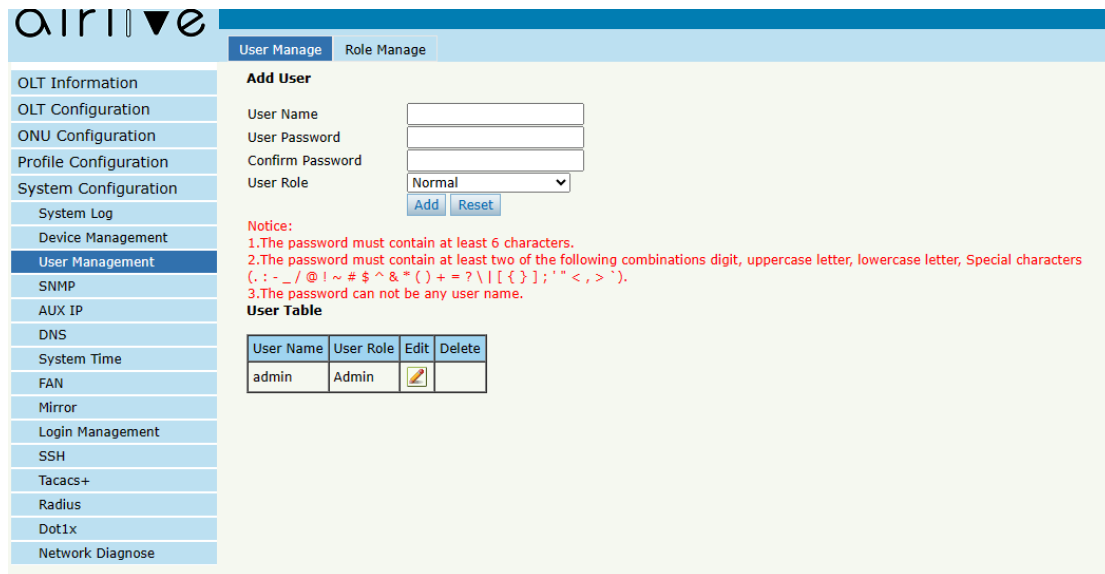


Figure6.3-1: User Manage

6.3.2 Role manage

System Configuration→User management→Role manage

You can add roles and assign different permissions to different roles.

User Management **Role Manage**

Add New Role

Role Description Name

Role Management

Role Group Name

Authorization Module	Read	Write
OLT Information	☒	☐
OLT Configuration	☒	☐
ONU Configuration	☒	☐
Profile Configuration	☒	☐
System Configuration	☒	☐

Figure6.3-2: Role 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.

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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

SNMPV1/V2

SNMPV3

SNMPV3 Trap

Remote Server

Add View

View Name

Subtree

View Type

Include

Add

View Table

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

Add Group

Group Name

Access Level

No Auth

Read View

Write View

Notify View

Add

Group Table

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

Add User

User Name

Group Name

Auth Type

None

Auth Password

Private Type

None

Private Password

Add

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.

OLT Configuration

- 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
- SSH
- Tacacs+
- Radius
- Dot1x
- Network Diagnose

SNMPV1/V2 **SNMPV3** **SNMPV3 Trap** Remote Server

Add Trap

Host IP

UDP Port (1-65535)

User Name

User Level

Tag List

Timeout (1-400000000)

Retry Count (1-100)

Trap Table

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

Figure 6.4-3: SNMP V3 Trap

6.4.4 Remote Server

System Configuration → SNMP → Remote Server

Configure the IP address of your SNMP network management server.

The screenshot displays the AirLive web management interface. On the left is a vertical menu with options: 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, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The top navigation bar has tabs for SNMPV1/V2, SNMPV3, SNMPV3 Trap, and Remote Server. The main panel is titled 'Remote Server Configuration' and contains a 'Remote Server' dropdown menu set to 'Enable', a 'Server' text input field with the value '192.168.6.228' and a red '(Connected)' status indicator, and a blue 'Submit' button.

Figure 6.4-4: Remote Server

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	192.168.6.169
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

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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

AUX IPv6 Gateway

Gateway

Submit

Reset

AUX IPv6 Configuration

IPv6 Address

Prefixlen

Submit

Reset

AUX IPv6 Table

IPv6 Address	Prefixlen	Delete
fe80::8214:a8ff:fe00:c		
fec0::8214:a8ff:fe00:c	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.

The screenshot shows the AirTie web 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, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The main content area has a top navigation bar with 'IPv4 DNS' and 'IPv6 DNS' tabs. Below the tabs, the title 'IPv4 DNS Configuration' is displayed. There are two input fields: 'Master DNS' and 'Slave DNS'. Below these fields are two buttons: 'Submit' and '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.

IPv4 DNS		IPv6 DNS
IPv6 DNS Configuration		
Master DNS		
Slave DNS		
		Submit 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.

The screenshot displays the AirTie OLT configuration web 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 (highlighted in dark blue), FAN, Mirror, Login Management, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The main content area has a top header with 'airtie' logo and two tabs: 'RTC' (selected) and 'NTP'. Below the tabs is the 'Date Setting' section, which includes input fields for Year (2024), Month (5), Day (13), Hour (16), Minute (10), and Second (13). At the bottom of this section are 'Submit' and 'Reset' buttons.

Year	Month	Day	Hour	Minute	Second
2024	5	13	16	10	13

[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.

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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

RTC NTP

NTP Configuration

Enable NTP Synchronization

NTP Timezone

Daylight Saving Time

Master NTP Server

Slave NTP Server

Current Time 2024-5-13 16:10:24

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.

airlive®

FAN

FAN Configuration

FAN Temperature: (20-80)

FAN Mode: ☐ Open ☐ Close ☒ Auto

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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

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 5 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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

Mirror

Mirror Configuration

Session ID

1

Destination Port

GE0/1

Port ID	Mirrored	Direction
GE0/1	☐	Ingress
GE0/2	☐	Ingress
GE0/3	☐	Ingress
GE0/4	☐	Ingress
GPON0/1	☐	Ingress
GPON0/2	☐	Ingress

Submit

Mirror Table

Session ID	Destination Port	Source Port	Type	Delete
------------	------------------	-------------	------	--------

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.

airTIVA

Login Access List Service Port Login Configuration Telnet Management

Login Access Status

Login Access Status: Disable

Login Access List Configuration

Filter Action: ☒ Deny ☐ Permit

Internet Version: IPv4

Protocol: Telnet

Source IP:

IP Mask:

Login Access List

Filter Action	Internet Version	Protocol	Source IP/mask length\prefix length	Delete
Deny	IPv4	SNMP	0.0.0.0/0	
Deny	IPv6	SNMP	::/0	
Deny	IPv4	Telnet	0.0.0.0/0	
Deny	IPv6	Telnet	::/0	

Figure 6.10-1: Login Access List Configuration

6.10.2 Service Port

System Configuration → Login Management → Service Port

This user interface allows you to modify the default remote service port.

The screenshot displays the AirLive web management interface. The top navigation bar includes 'Login Access List', 'Service Port' (active), 'Login Configuration', and 'Telnet Management'. The left sidebar contains a list of configuration categories: 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 (selected), SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The main content area, titled 'Service Port', contains four configuration rows: Web Port (443), Telnet Port (23), SSH Port (22), and SNMP Port (161). Each row has a text input field, a numeric value, and a range '(1-65535)'. At the bottom of the configuration area are 'Submit' and 'Reset' buttons.

Service Port		
Web Port	443	(1-65535)
Telnet Port	23	(1-65535)
SSH Port	22	(1-65535)
SNMP Port	161	(1-65535)

Submit Reset

Figure 6.10-2: Service Port Configuration

6.10.3 Login Timeout

System Configuration → Login Management → Login Timeout

This page is used to set web timeout.

The screenshot displays the AirTiva web management interface. On the left, a vertical menu lists various system configuration options. The 'Login Management' option is currently selected and highlighted in dark blue. The main content area on the right is titled 'Web Configuration' and contains several settings for login management. These include a 'Login Timeout' set to 10 minutes (with a note indicating a range of 1-180 minutes), a 'Verification Code' set to 'Disable', a 'Session Key' set to 'Enable', and 'WEB HTTP' set to 'Enable'. Each setting is accompanied by a dropdown menu. At the bottom of the configuration section, there are two buttons: 'Submit' and 'Reset'.

Configuration Item	Value	Notes
Login Timeout	10	(1-180 minutes)
Verification Code	Disable	
Session Key	Enable	
WEB HTTP	Enable	

Figure 6.10-3: Login Timeout Configuration

6.10.4 Telnet Management

System Configuration → Login Management → Telnet Management

Here you can see the user who telnet into OLT.

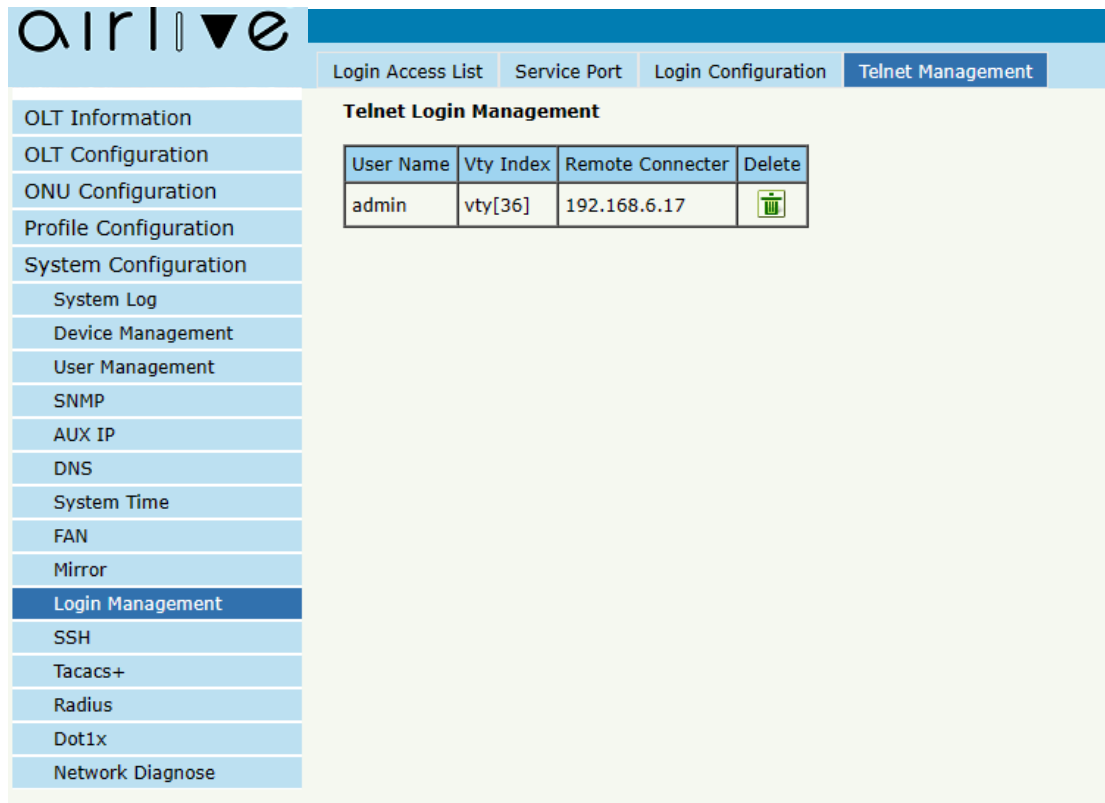


Figure 6.10-4: Telnet Management

6.11 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.

6.11.1 SSH State

System Configuration → SSH → SSH State

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

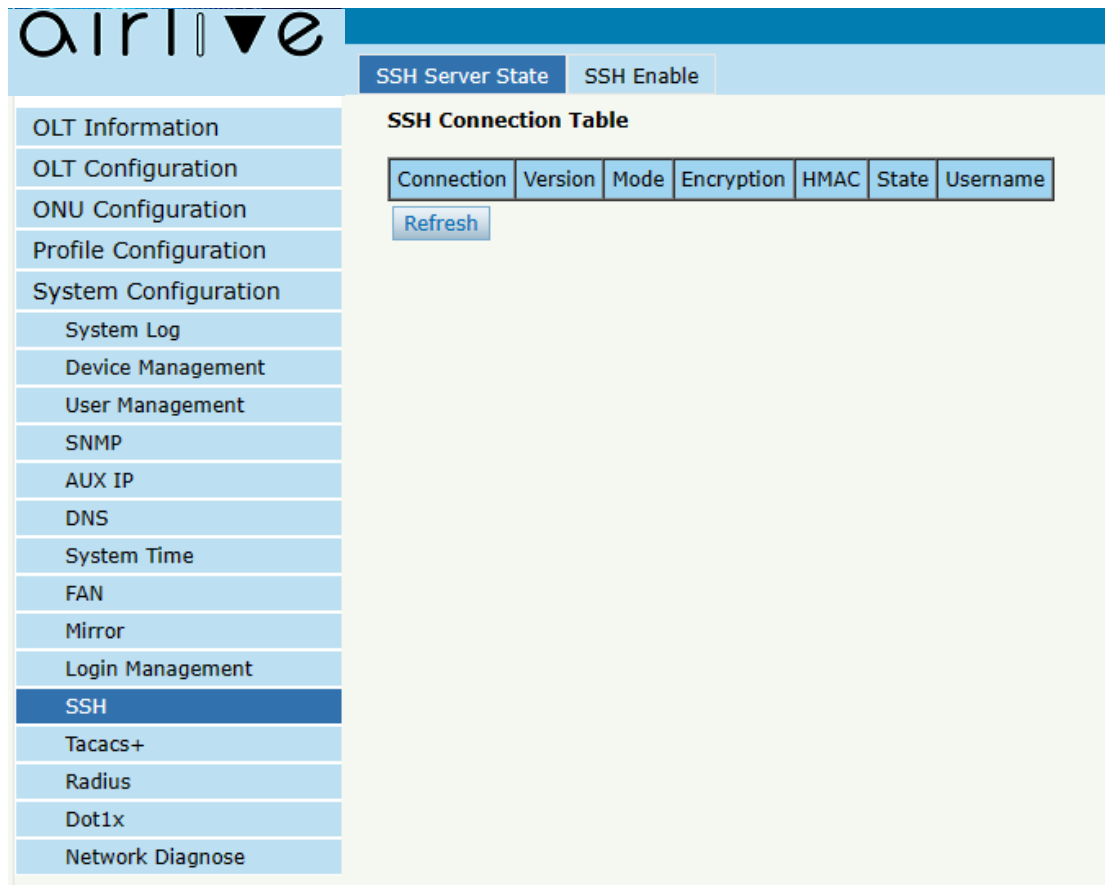


Figure 6.12-1: SSH State

6.11.2 SSH Enable

System Configuration → SSH → SSH Enable

This page is used to configure SSH protocol related parameters.

SSH Server State **SSH Enable**

SSH Enable

SSH: (v)

Version: (v)

Auth Retries: (1-6)

Login Grace Timeout: (1-120s)

Max Startups: (1-5)

Max Sessions: (1-12)

RSA Modulus: (1024-4096)

ECDSA Modulus: (v)

SSH Key Table

Key type	Key data	Encryption algorithm
Refresh		

Figure 6.12-1: SSH Global Configuration

6.12 Tacacs+

Tacacs+ is a protocol that provides access control for routers, network access servers, and other interconnected computing devices through one or more centralized servers. Tacacs+ provides independent authentication, authorization, and billing services. This interface allows you to configure the Tacacs+ server IP address and other specific parameters.

Tacacs+

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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

Tacacs+ Configuration

AAA Enable

Console Enable Tacacs+

Authentication

Authorization

Command Level

Enable

Accounting

Command Level

Enable

☒

☐ Login

☐ Login ☐ Local

☐ Enable ☐ Enable Local

☐ Exec ☐ Local

0 1 15

☐ ☐ ☐

☐ Exec

0 1 15

☐ ☐ ☐

Submit

Reset

Tacacs+ Key Configuration

Shared Key

Submit

Tacacs+ Server Configuration

Tacacs+ Server

Submit

Tacacs+ Server Table

Tacacs+ Server

Delete

Figure 6.14-1: Tacacs+ Configuration

6.13 Radius

Radius is a protocol for authentication, authorization, and accounting information. The Radius server is responsible for receiving the user's connection request, authenticating the user, and then returning all the necessary configuration information to the client to send the service to the user. This interface allows you to configure the Radius server IP address

and other parameters.

airt

Radius

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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

Radius Configuration

AAA Enable☒

Console Enable radius ☐ Login

Authentication ☐ Login ☐ Local

☐ Dot1x ☐ Local

☐ Enable ☐ Enable Local

Authorization ☐ Dot1x

Accounting ☐ Exec

☐ Dot1x

SubmitReset

Radius Server Configuration

Radius Server

Shared Key

Submit

Radius Server Table

Radius Server	Shared Key	Delete
---------------	------------	--------

Figure 6.15-1: Radius Configuration

6.14 Dot1x

802.1x is a Client/ server-based access control and authentication protocol. It can restrict unauthorized users/devices from accessing a LAN/WLAN through an access port. After the authentication, normal data can pass through the Ethernet port.

6.14.1 Dot1x Information

This interface will display dot1x entry information when an 802.1x user passes authentication on the server, the server sends the authorization information to the device.

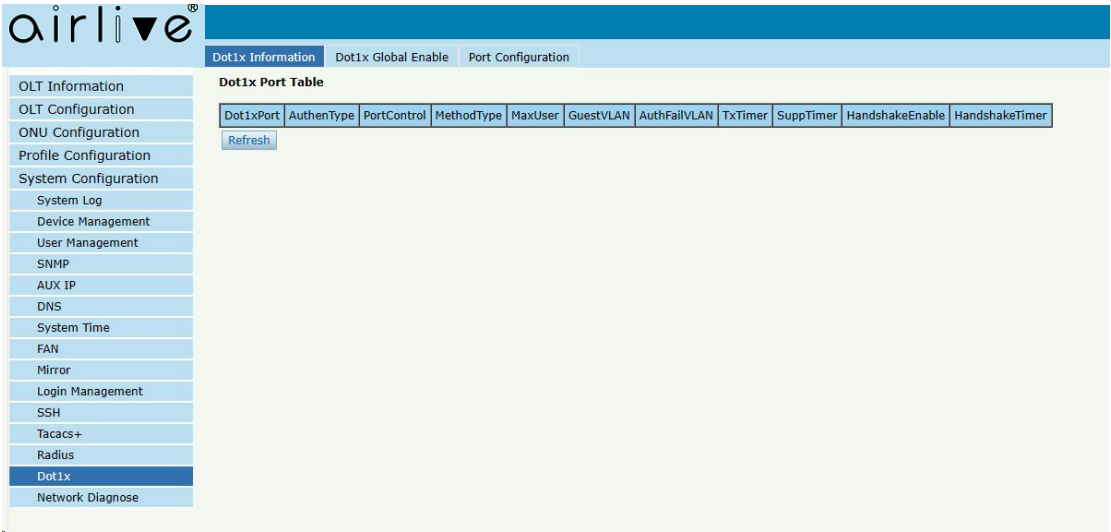


Figure 6.14-1:Dot1x Information

6.14.2 Dot1x Global Enable

You can enable Dot1x on this interface.

airlive

Dot1x Information **Dot1x Global Enable** Port Configuration

Dot1x Global Configuration

Dot1x Global Enable Enable Submit Reset

Figure 6.14-2:Dot1x Global Enable

6.14.3 Port Configuration

You can configure detailed Dot1x parameters for a specified port on this interface.

airlive

Dot1x Information Dot1x Global Enable **Port Configuration**

Port Configuration

Port ID	Status	Authen Type	Port Control	Method Type	Max User (1-256)	Guest VLAN (1-4094)	Auth-Fail VLAN (1-4094)	Tx Timer (10-120)s	Supp Timer (10-120)s	Handshake Enable	Handshake Timer (5-1024)s
GE0/1	☐	CHAP	auto	MACBased	256			30	30	☐	15
GE0/2	☐	CHAP	auto	MACBased	256			30	30	☐	15
GE0/3	☐	CHAP	auto	MACBased	256			30	30	☐	15
GE0/4	☐	CHAP	auto	MACBased	256			30	30	☐	15
GPON0/1	☐	CHAP	auto	MACBased	256			30	30	☐	15
GPON0/2	☐	CHAP	auto	MACBased	256			30	30	☐	15

Submit Reset

Figure 6.14-3:Port Configuration

6.15 Network Diagnose

6.15.1 Ping Diagnose

System Configuration → Diagnose→ Ping Diagnose

This interface is used to diagnose network connectivity.

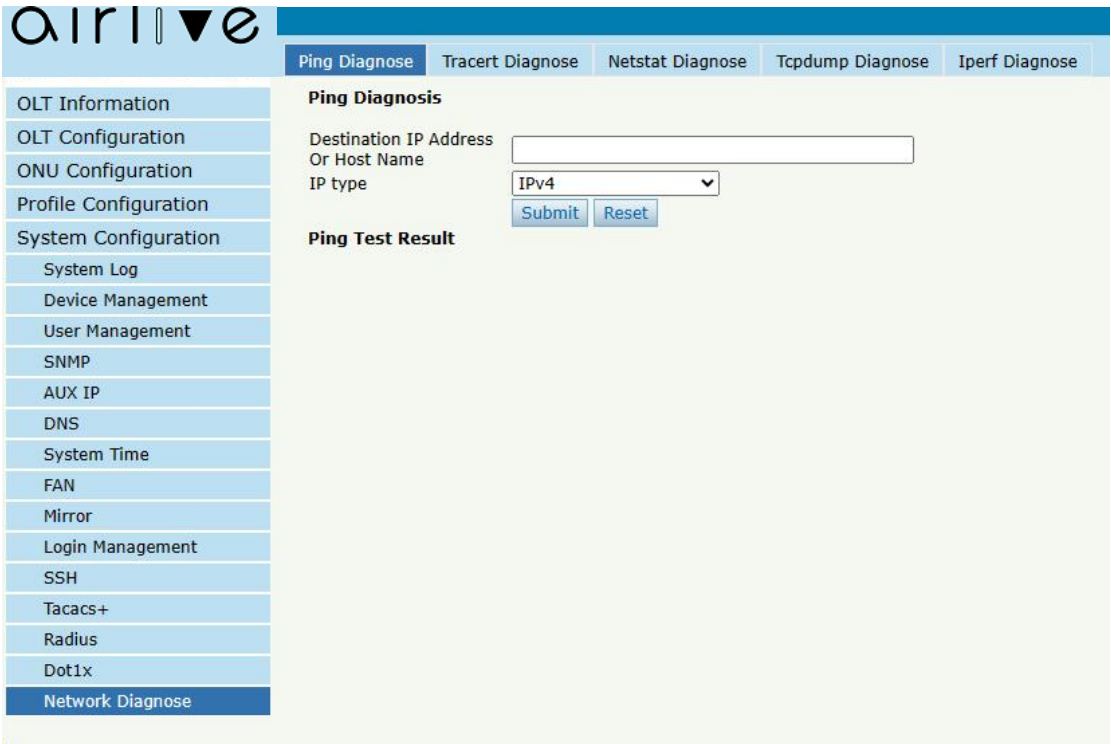


Figure 6.15-1: Ping Diagnose Configuration

6.15.2 Tracert Diagnose

System Configuration → Diagnose→ Tracert Diagnose

This interface is used to track and diagnose routing and forwarding.

airTmE

Ping Diagnose **Tracert Diagnose** Netstat Diagnose Tcpdump Diagnose Iperf Diagnose

Trace Route Diagnosis

Destination IP Address Or Host Name

IP type IPv4 ▼

Tracert Test Result

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

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

Figure 6.15-2: Tracert Diagnose Configuration

6.15.3 Netstat Diagnose

System Configuration → Diagnose → Netstat Diagnose

This is a network test.

The screenshot shows the 'Netstat Diagnose' configuration page. On the left is a navigation menu with categories like OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, and Network Diagnose. The main content area has tabs for Ping Diagnose, Tracert Diagnose, Netstat Diagnose (selected), Tcpdump Diagnose, and Iperf Diagnose. Under 'Netstat Diagnosis', there is a text input field containing 'netstat' and 'Submit'/'Reset' buttons. Below this is a 'parameter prasis' table with options for displaying all options, TCP/UDP options, names, and service status. At the bottom is a section for 'Netstat Test Result'.

parameter prasis	
-a	display all options
-t	only display tcp options
-u	only display udp options
-n	descline display name
-l	only display service status of listening

Figure 6.15-3: Netstat Diagnose Configuration

6.15.4 Tcpdump Diagnose

System Configuration → Diagnose → Tcpdump Diagnose

This is the PCP link test.

The screenshot shows the 'Tcpdump Diagnose' configuration page. It follows the same layout as the Netstat page. The 'Tcpdump Diagnosis' section has a text input field containing 'tcpdump' and 'Submit'/'Reset' buttons. The 'parameter prasis' table lists options for stopping after a certain number of packets, disabling host name conversion, outputting detailed message information, specifying the network interface, and selecting protocols on the data link layer. The 'Tcpdump Test Result' section is also present.

parameter prasis	
-c	After receiving the specified number of packets, tcpdump will stop;
-n	IP address to host name conversion is not performed
-vv	Output detailed message information
-i	Specifies the network interface to listen
-b	Select protocols on the data link layer, including IP, ARP, RARP and IPX

Figure 6.15-4: Tcpdump Diagnose Configuration

6.15.5 Iperf Diagnose

System Configuration → Diagnose → Iperf Diagnose

This is Iperf-related testing.

The screenshot shows a web interface for network diagnosis. On the left is a vertical sidebar menu with various system configuration options. The main content area has tabs for different diagnostic tools, with 'Iperf Diagnose' currently selected. The interface includes a text input field for the Iperf command, 'Submit' and 'Reset' buttons, a table of command-line parameters with their descriptions, and a section for the test results.

parameter prasis	
-a	display all options
-t	only display tcp options
-u	only display udp options
-n	descline display name
-l	only display service status of listening

Iperf Test Result

Figure 6.15-5: Iperf Diagnose Configuration