

AirLive
XG(S)-PON OLT-2XGS
XG(S)-PON OLT-2XGS-WDM
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 (WDM)
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)
PON 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.

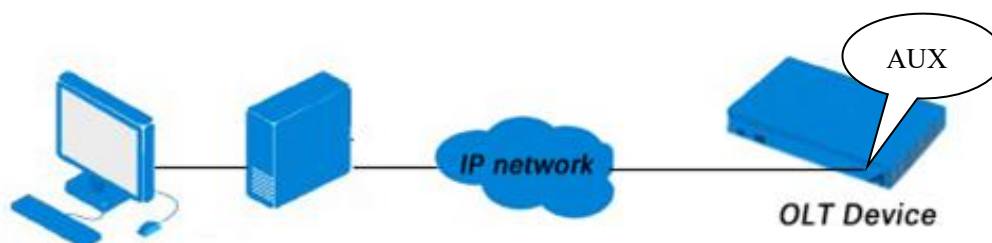
Table 1-2 Operation System requirement

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 the 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 value 'admin' and 'Password' with masked characters '*****'. Below these fields are two buttons: 'Login' and 'Reset'. At the bottom of the page, there is a blue footer bar 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 at 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 needed.

airlive® Save

Device Information

Device Status

PWR1 PWR2 PON1 PON2 GE1 GE2 GE3 GE4

Device Basic Information

System Name	gpon-olt	Serial Number	A2XGSD70101
Hardware Version	V3.1.2	Firmware Version	V1.0.1R
MAC Address	00:4F:5B:00:01:E6	Device Model	XGS-PON OLT
Software Created Time	04/05/2024	PON Mode	XG-PON

Submit Refresh

System Basic Information

System Time	2031-5-12 1:53:41	Running Time	0 Days 0 Hours 31 Minutes 32 Seconds
CPU Usage	0%	Memory Usage	22%
License ONUs Limit	Unlimited	License Time	Permanent

Refresh

It is recommended to change your default password for this device for security and safety reasons.

ChangeNow

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.

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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

VLAN | VLAN Port | QinQ/Translation

New VLAN

Mode: single ▼

VLAN ID: (1-4094)

Description:

Add Delete

VLAN Table

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→VLAN Port

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

Port VLAN Configuration

VLAN ID:

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

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.

Qinq Configuration

Port ID:
 Mode:
 Customer VLAN:
 Customer CoS:
 Service VLAN:
 Service CoS:
[Add](#) [Reset](#)

VLAN Qinq Mapping Table

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

Uplink 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.

Traffic Statistics

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

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

Figure3.2-1: Uplink Ports 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.

GE Configuration

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

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

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.

Port ID	Description	Admin Status	Isolate	ONU P2P	Storm(0 64-1000000fps)			Rate(0 64-1000000kbps)	
					Broadcast	Multicast	Unknown Unicast	Ingress	Egress
PON1		☒	☒	☐	512	0	512	0	0
PON2		☒	☒	☐	512	0	512	0	0

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.

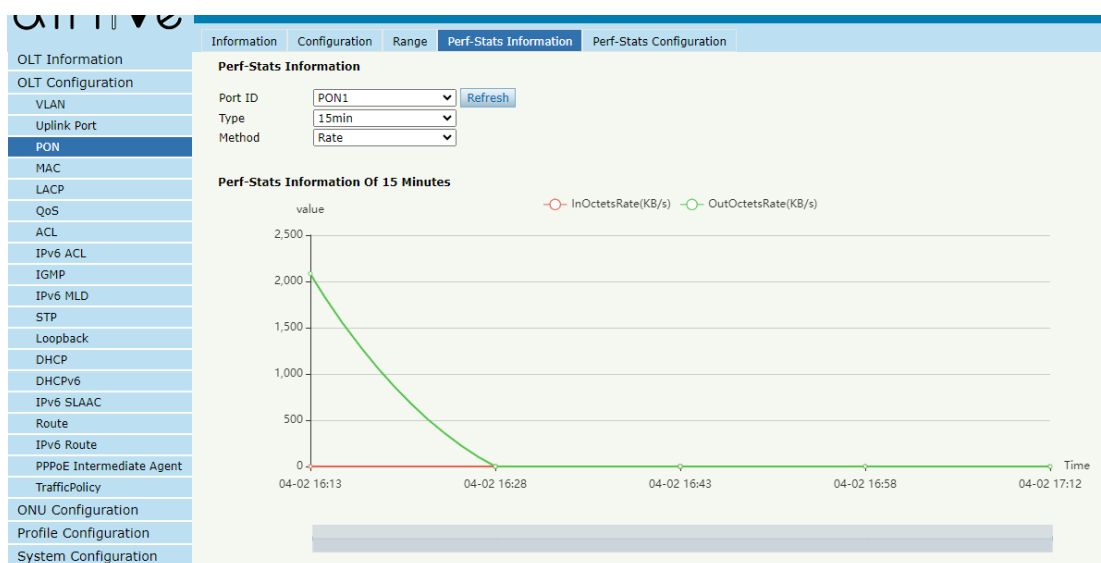


Figure3.3-4: PON Perf-Stats Information

3.3.5 Perf-Stats Configuration

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

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

Submit

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

Submit Reset

Figure3.3-5: PON Perf-Stats Configuration

3.4 MAC

In this section, you can check the MAC address table of the 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 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 main content area has tabs: MAC Table (selected), Configuration, MAC Flapping Information, and MAC Flapping Configuration. Under the 'MAC Table' tab, there is a 'MAC Address Table' section with 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 displays 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 shows the AirLive 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, IGMP, IPv6 MLD, STP, and Loopback. The main content area has tabs: MAC Table, **Configuration** (selected), MAC Flapping Information, and MAC Flapping Configuration. Under the 'Configuration' tab, there is a 'MAC Aging Configuration' section with two dropdown menus: 'Automated Aging' set to 'Enable' and 'Aging Time' set to '300' (with a range of '(10-1000000s)' shown). Below these is a 'Submit' button. There is also an 'Add MAC Address' section with four fields: 'VLAN ID' set to '1', 'MAC Address' (with a placeholder '(HH:HH:HH:HH:HH:HH)'), 'Type' with radio buttons for 'Static' (selected) and 'Dynamic', and 'Port ID' set to 'GE0/1'. At the bottom of this section are two buttons: 'Add' and 'Delete'.

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.



OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

MAC Table

Configuration

MAC Flapping Information

MAC Flapping Configuration

MAC Flapping Configuration

Status

Enable

Range

Uplink

Mode

Only-alarm

Interval

60

(10-3600s)

Suppression Threshold

3

(1-256)

Suppression Age Time

60

(10-3600s)

Submit

Reset

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.

Port ID	Status
GE0/1	☒
GE0/2	☒
GE0/3	☒
GE0/4	☒
GPON0/1	☒
GPON0/2	☒

Submit Reset

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.

Static LACP

Channel Group Configuration

Channel Group ID: 1

Load Balance: sMAC

Select GE Port: ☒ GE0/1 ☒ GE0/2 ☐ GE0/3 ☐ GE0/4

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 different channel group.

Dynamic LACP

Dynamic LACP Global Information

System ID: 0x8000, 6c68.a453.b294

Channel Group Table

Group ID: Load Balance: Ports:

Channel Group Port Information

Channel Group ID: 1

Flags: S - Device is sending Slow LACPDUs F - Device is sending fast LACPDUs.
A - Device is in active mode. P - Device is in passive mode.
I - Stand-alone.

Actor						Partner					
Port ID	Port Flags	Port Priority	Oper Key	Port Number	Port State	System ID	Port Flags	Port Priority	Oper Key	Port Number	Port State

Link Aggregation Information

Port ID	System Priority	Port Priority	Key	Aport	Syn	Col	Dis
---------	-----------------	---------------	-----	-------	-----	-----	-----

Figure 3.5-2: Dynamic LACP Information

3.6 QoS

OLT Configuration → QoS

When the 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 traffic passes though only when there is remaining bandwidth.

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

This device supports the following types of ACL.

3.7.1 IP Filter

OLT Configuration→ACL→IP Filter

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

Access List IP Configuration

Access List ID: (1000-1999)

Filter Action: ☒ Deny ☐ Permit

☐ Source IP: Mask:

☐ Source Port: (0-65535)

☐ Destination IP: Mask:

☐ Destination Port: (0-65535)

☐ Protocol: (0-255)

☐ DSCP: (0-63)

Access Lists Configured

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

Figure 3.7-1: IP Filter

3.7.2 MAC Filter

OLT Configuration → ACL → MAC Filter

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

Access List MAC Configuration

Access List ID: (2000-2999)

Filter Action: ☒ Deny ☐ Permit

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

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

☐ VLAN ID: (0-7)

☐ VLAN CoS: (0-7)

☐ Ethernet Type: (HHHH)

Access Lists Configured

List ID	Source MAC	Destination MAC	VLAN ID	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

3.7.3 IP/MAC Filter

OLT Configuration → ACL → IP/MAC Filter

This filter mix the IP address and MAC address, including source MAC address and

destination MAC address, source IP address and destination IP address.

Access List Configuration

Access List ID: (5000-5999)

Filter Action: ☒ Deny ☐ Permit ☐ Traffic Classifier

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

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

☐ VLAN ID: 1 (0-7)

☐ VLAN CoS: (0-7)

☐ Ethernet Type: (HHHH)

☐ Source IP: Mask: (0-65535)

☐ Source Port: (0-65535)

☐ Destination IP: Mask: (0-65535)

☐ Destination Port: (0-65535)

☐ Protocol: TCP (0-255)

☐ TOS-DSCP: (0-255)

[Add](#)

Access Lists Configured

List ID	Source MAC	Destination MAC	VLAN ID	VLAN CoS	Ethernet Type	Source IP	Source Port	Destination IP	Destination Port	Protocol	TOS-DSCP	Filter Action	Delete
5000	00:4F:5B:00:01:EF	ff:ff:ff:ff:ff:ff						192.168.5.3/255.255.0.0				Deny	

Figure 3.7-3: IP/MAC Filter

3.7.4 Ingress 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 inbound direction of port traffic is bound here.

Access List Port Ingress Bind

Access List ID: 1000

Select GE Port: ☒ GE0/1 ☐ GE0/2 ☐ GE0/3 ☐ GE0/4

Select PON Port: ☒ PON1 ☐ PON2

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: ☐ GE0/1 ☒ GE0/2 ☐ GE0/3 ☐ GE0/4
 PON1 PON2
 Select PON Port: ☐ PON1 ☒ PON2
 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.

Access List IPv6 Configuration

Access List ID: (1000-1999)
 Filter Action: ☒ Deny ☐ Permit
☐ Source IPv6 Prefixlen
☐ Source Port (0-65535)
☐ Destination IPv6 Prefixlen
☐ Destination Port (0-65535)
☐ Protocol TCP (0-255)
☐ DSCP (0-63)
 Add

Access Lists Configured

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

Figure 3.8-1: IPv6 Filter

3.8.2 IPv6/MAC Filter

OLT Configuration → IPv6 ACL → IPv6/MAC Filter

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

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.

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 'IPv6 Egress Effect Filter' configuration page. On the left is a navigation menu with options like OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, Static LACP, Dynamic LACP, QoS, ACL, IPv6 ACL (selected), IGMP, and IPv6 MLD. The main content area has tabs for IPv6 Filter, IPv6/MAC Filter, IPv6 Ingress Effect Filter, and IPv6 Egress Effect Filter. Under the 'IPv6 Egress Effect Filter' tab, there's a section 'Access List Port Egress Bind'. It includes a dropdown for 'Access List ID', checkboxes for 'Select GE Port' (GE0/1, GE0/2, GE0/3, GE0/4) and 'Select PON Port' (PON1, PON2), a red notice stating 'Notice: The larger access list ID number, the higher priority.', and a button 'Apply Access List to Port(s)'. Below this is a table titled 'Active Access Lists' with columns 'Access List ID' and 'Ports'.

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 'IGMP Group Member' 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 (selected), and IPv6 MLD. The main content area has tabs for Group Member (selected), Global, Port, Port User VLAN, Port Mrouter, and Static Group. Under the 'Group Member' tab, there's a section 'IGMP Group Member' containing a table with columns: Group VLAN ID, IP Address, Port ID, Type, User VLAN ID, and Time(s). The table shows one entry: 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. Below the table is a 'Refresh' button.

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.

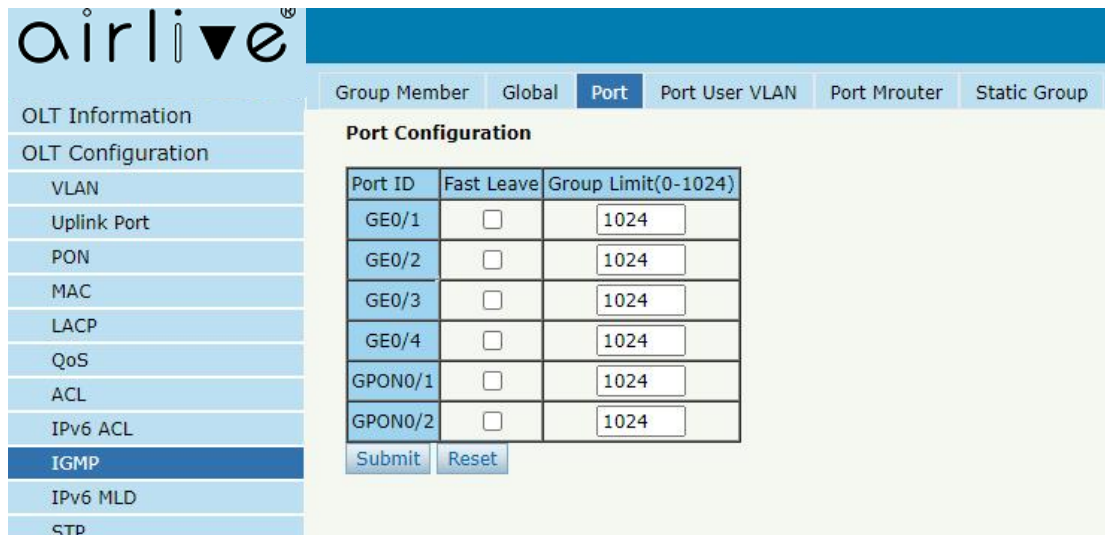
Group Member	Global	Port	Port User VLAN	Port Mrouter	Static Group
IGMP Configuration					
IGMP Status	Enable				
Member Port Timeout	260				(10-3600s)
Query Response Time	10				(1-25s)
Last Member Query Interval	1				(1-255s)
Last Member Query Count	2				(1-255)
Last Member Query Response	1				(1-25s)
General Query Packet	☐ Disable ☒ Enable				
General Query Interval	125				(10-255s)
Query Source IP	1.1.1.1				
Submit Reset					

Figure 3.9-2: IGMP Global

3.9.3 Port

OLT Configuration → IGMP → Port

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



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OLT Information

OLT Configuration

VLAN

Uplink Port

PON

MAC

LACP

QoS

ACL

IPv6 ACL

IGMP

IPv6 MLD

STP

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

Port Configuration

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

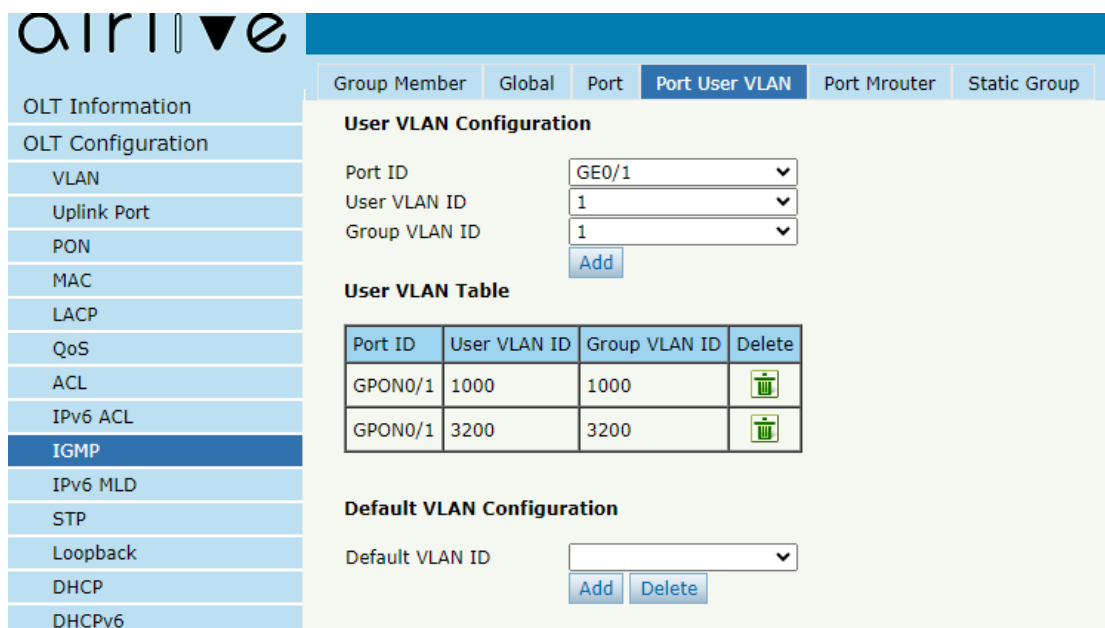
Submit Reset

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.



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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

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

User VLAN Configuration

Port ID

User VLAN ID

Group VLAN ID

Add

User VLAN Table

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

Default VLAN Configuration

Default VLAN ID

Add Delete

Figure 3.9-4: IGMP Port User VLAN

3.9.5 Port Mrouter

OLT Configuration → IGMP → Port Mrouter

Multicast router port is used to transmit IGMP signal messages. Generally, OLT uplink

ports should be set as multicast router ports.

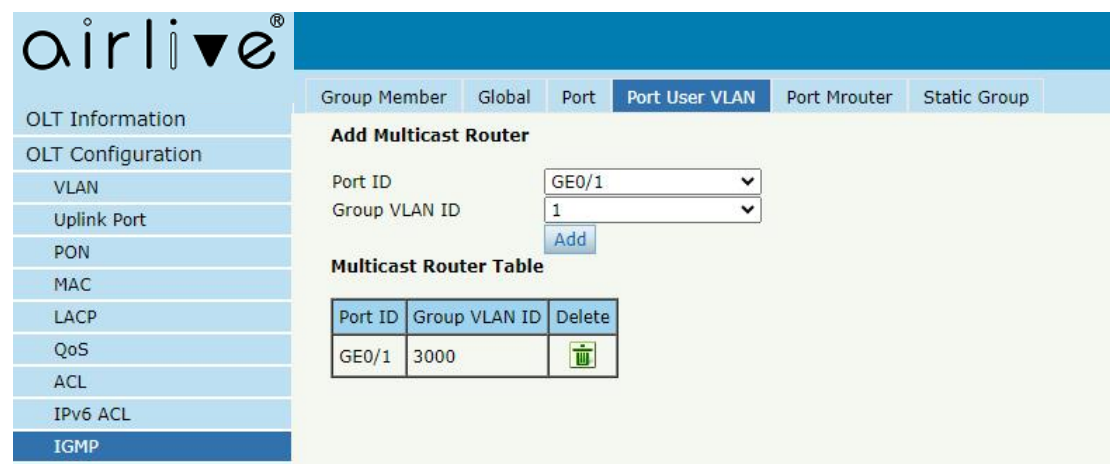


Figure 3.9-5: IGMP Port Mroute

3.9.6 Static Group

OLT Configuration → IGMP → Static Group

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

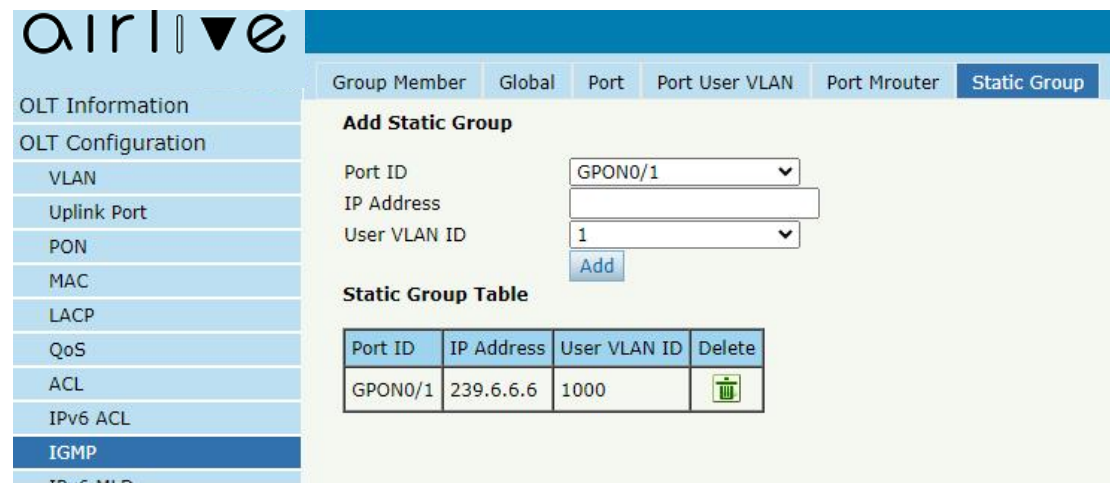


Figure 3.9-6: IGMP Static Group

3.10 IPv6 MLD

3.10.1 Group Member

OLT Configuration → IPv6 MLD → Group Member

This page displays IPv6 multicast group member ports.

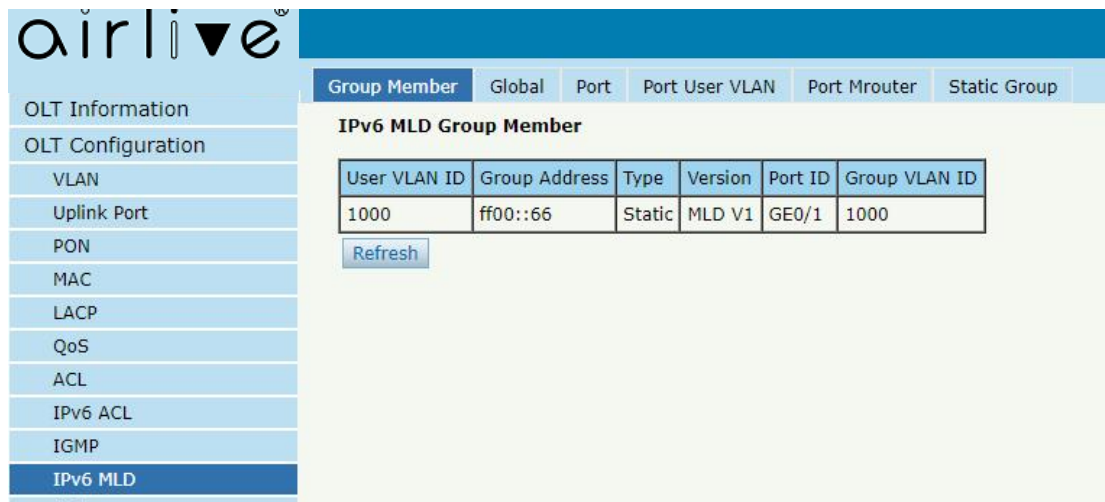


Figure 3.10-1: IPv6 MLD Group Member

3.10.2 Global

OLT Configuration → IPv6 MLD → Global

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

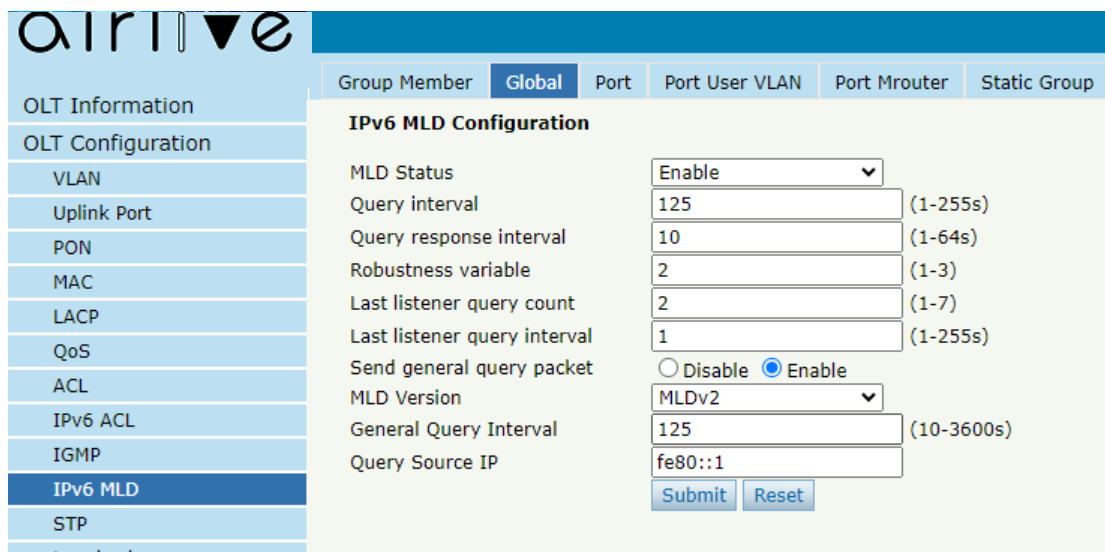


Figure 3.10-2: IPv6 MLD Global

3.10.3 Port

OLT Configuration → IPv6 MLD → Port

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

airlive

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

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.

airlive

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

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

User VLAN Configuration

Port ID: GE0/1
User VLAN ID: 1
Group VLAN ID: 1
Add

User VLAN Table

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

Refresh

Default VLAN Configuration

Default VLAN ID:
Add Delete

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.

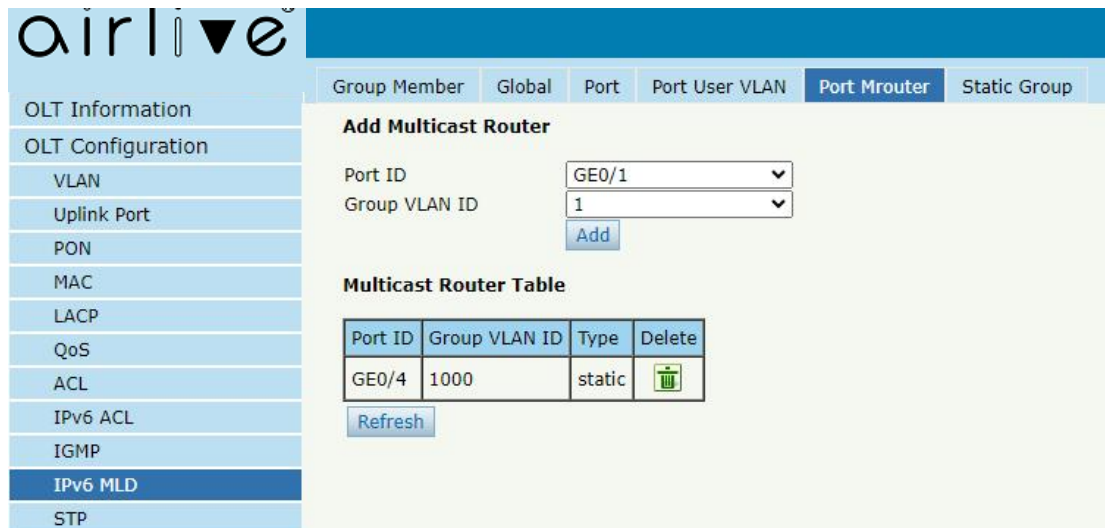


Figure 3.10-5: IPv6 MLD Port Mrouter

3.10.6 Static Group

OLT Configuration → IPv6 MLD → Static Group

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

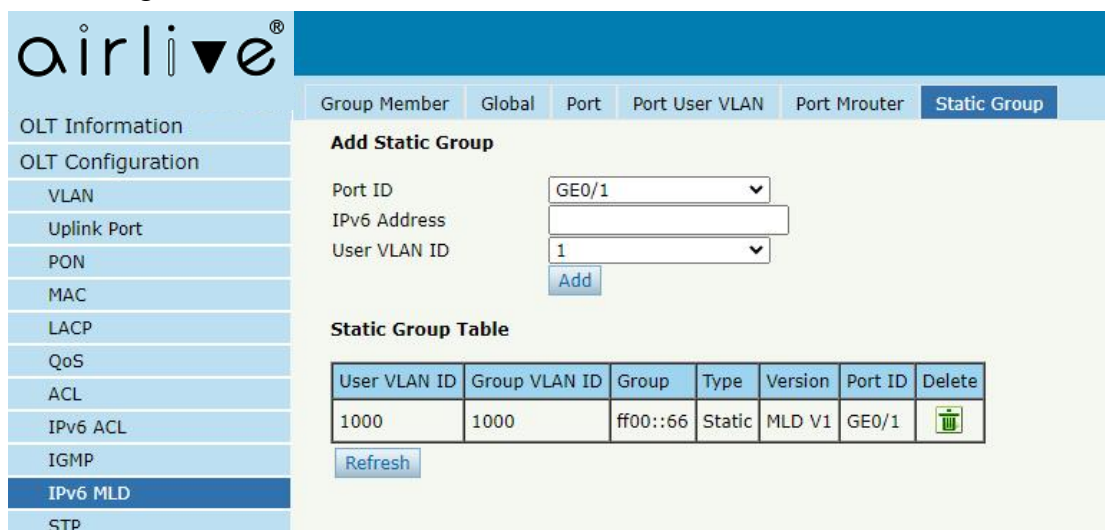


Figure 3.10-6: MLD Static Group

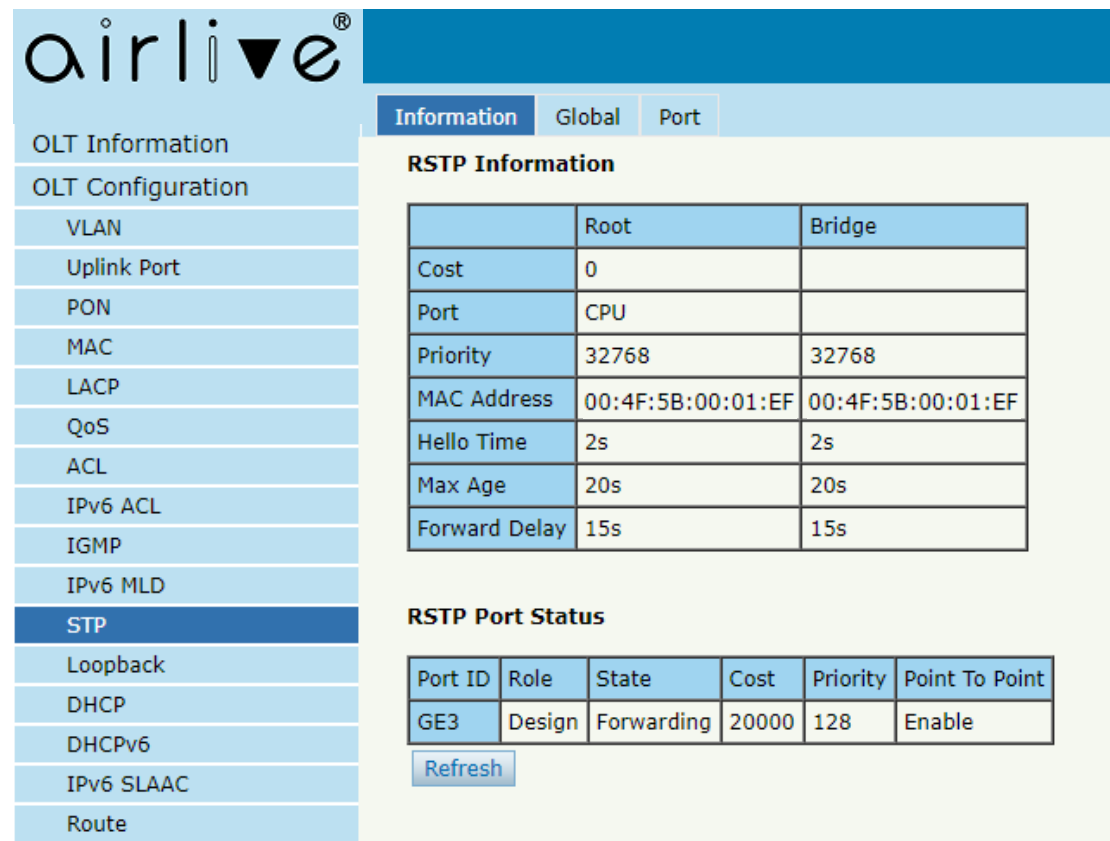
3.11 STP

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 interface for STP configuration. 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, and Route. The 'STP' option is currently selected.

The main content area is titled 'RSTP Information' and contains two tables. The first table, 'RSTP Information', shows the following parameters:

	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

The second table, 'RSTP Port Status', shows the status of the port GE3:

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

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	☒	☐	☒

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

Interface	Mode	Time(s)	Source Interface
Refresh			

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.

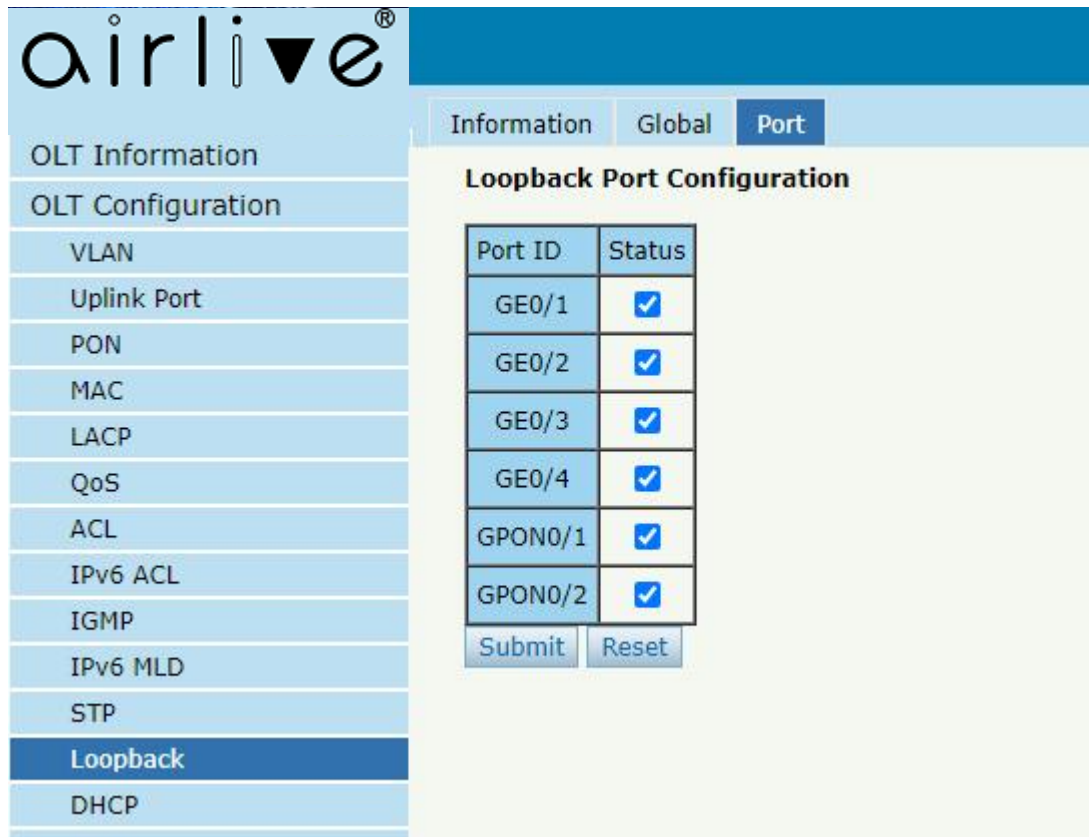
Status	Enable	▼
Range	All	▼
Effect	ONU	▼
Mode	Manual-recovery	▼
Age Time	60	(10-3600s)
Packet Send Way	VLAN-base	▼
Packet Send Time	2	(range 1-720, unit:0.5s)
Submit Reset		

Figure 3.12-2: Loopback Global

3.12.3 Port

OLT Configuration→Loopback→Port

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



The screenshot shows the AirLive web interface. On the left is a sidebar with a menu of OLT configuration options: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, **Loopback**, and DHCP. The 'Loopback' option is highlighted. The main content area has tabs for 'Information', 'Global', and 'Port', with 'Port' selected. Below the tabs is the 'Loopback Port Configuration' section, which contains a table with two columns: 'Port ID' and 'Status'. The table lists the following ports, all of which have a checked status:

Port ID	Status
GE0/1	☒
GE0/2	☒
GE0/3	☒
GE0/4	☒
GPON0/1	☒
GPON0/2	☒

Below the table are two buttons: 'Submit' and 'Reset'.

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.



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 the IP address for the VLAN.

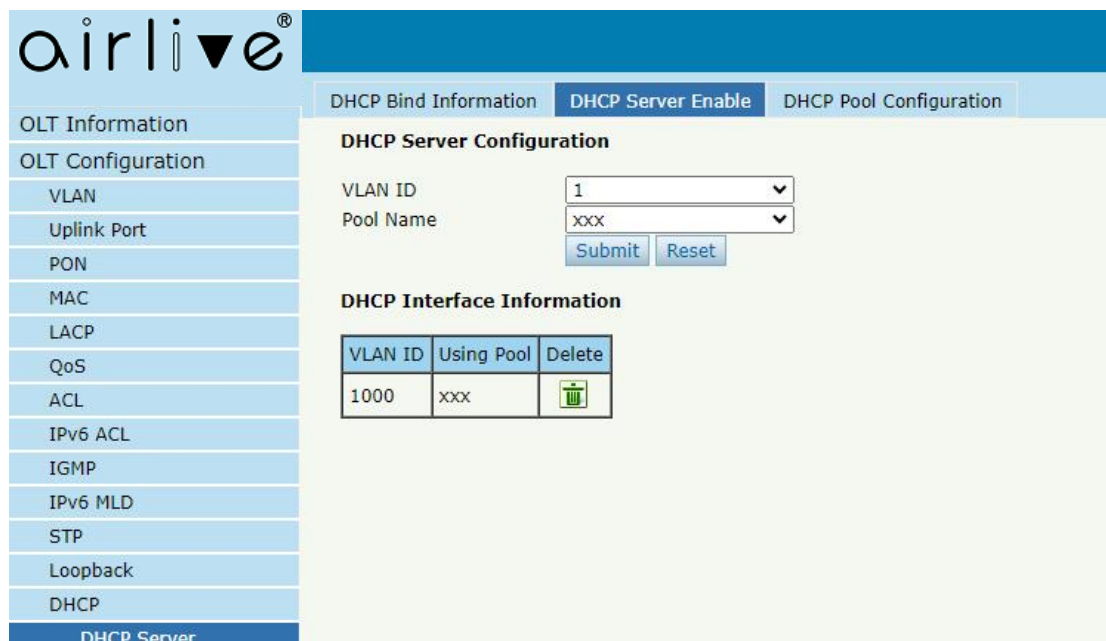
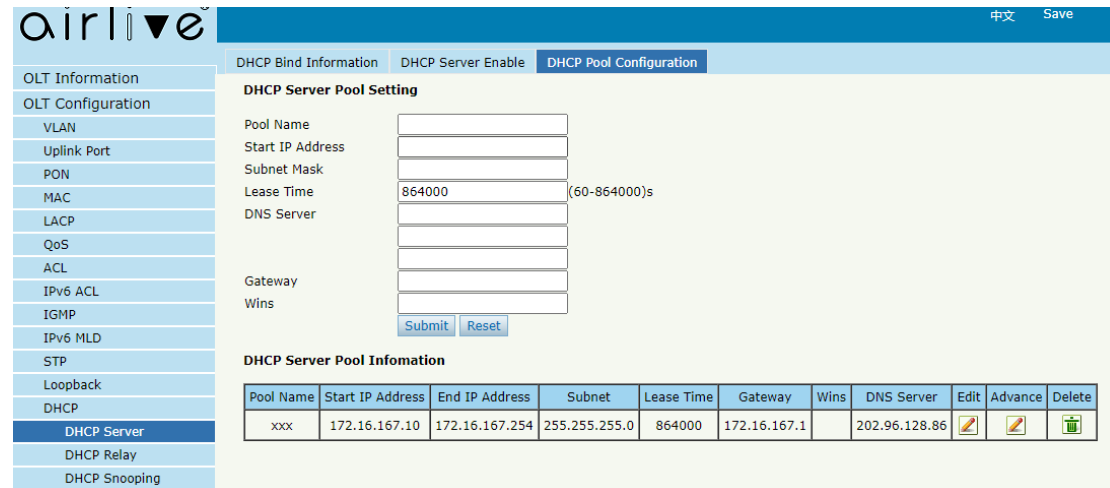


Figure 3.13-2: DHCP Server Enable

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.



DHCP Server Pool Setting

Pool Name:

Start IP Address:

Subnet Mask:

Lease Time: (60-864000)s

DNS Server:

Gateway:

Wins:

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.

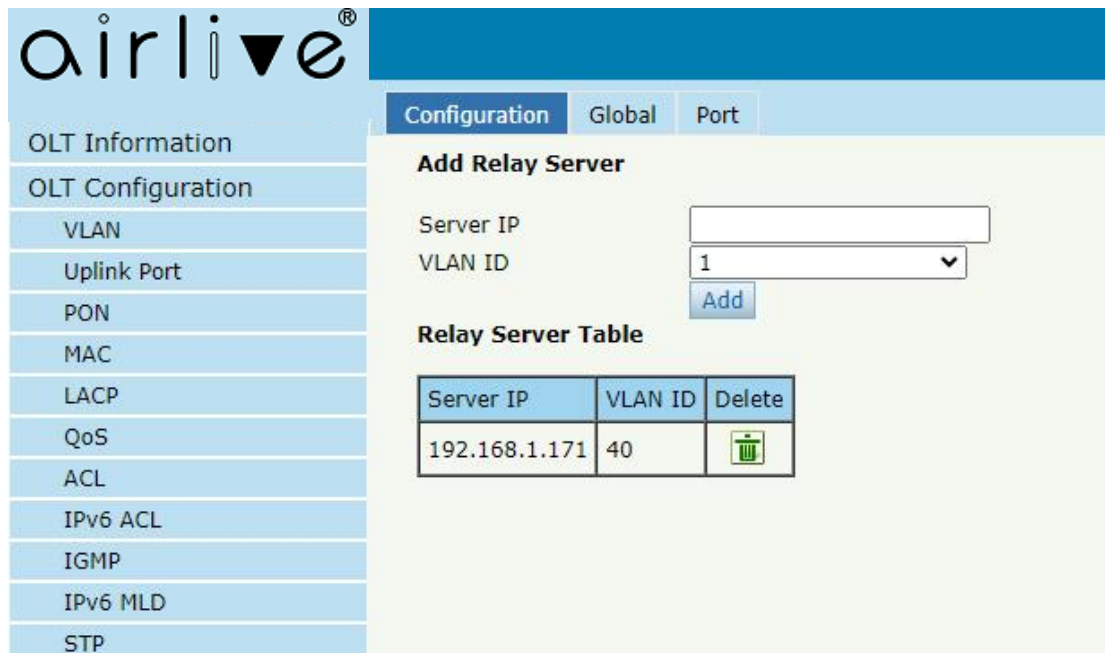


Figure 3.13-4: DHCP Relay Configuration

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.

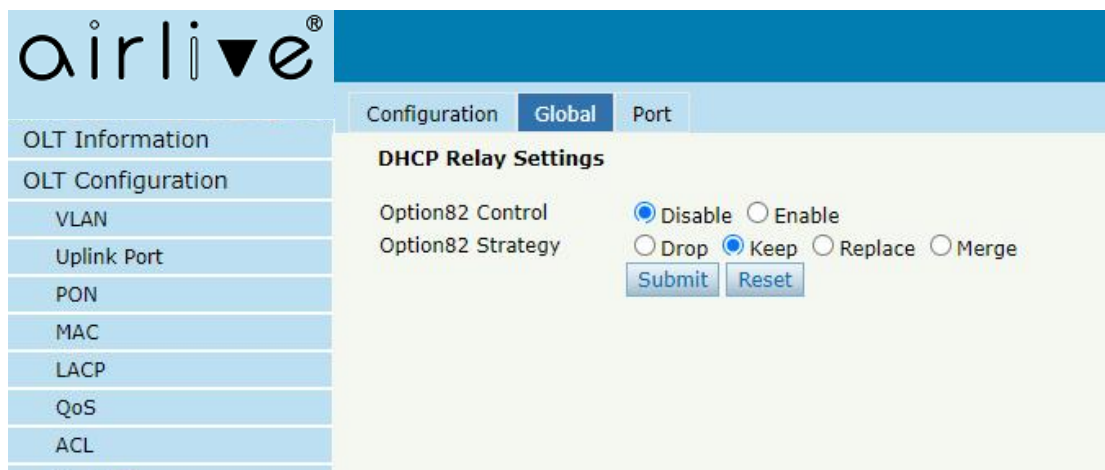


Figure 3.13-5: DHCP Relay Global

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.

airlive

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.

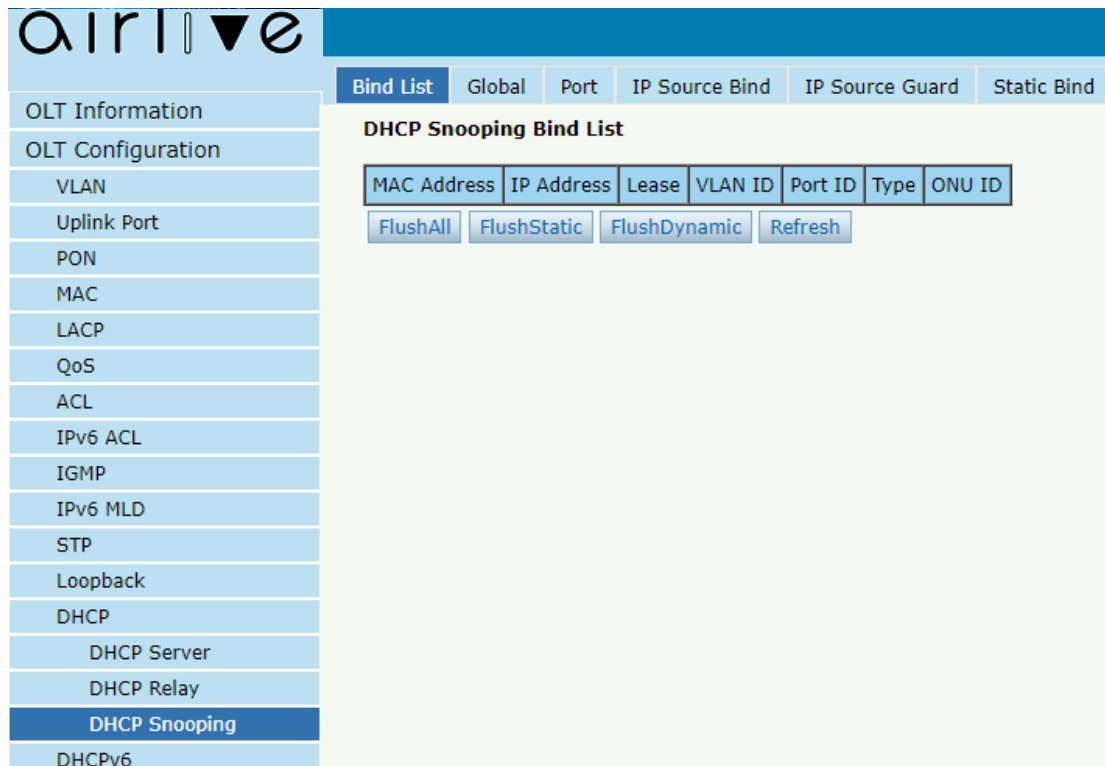


Figure 3.13-7: DHCP Snooping Bind List

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.

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)	

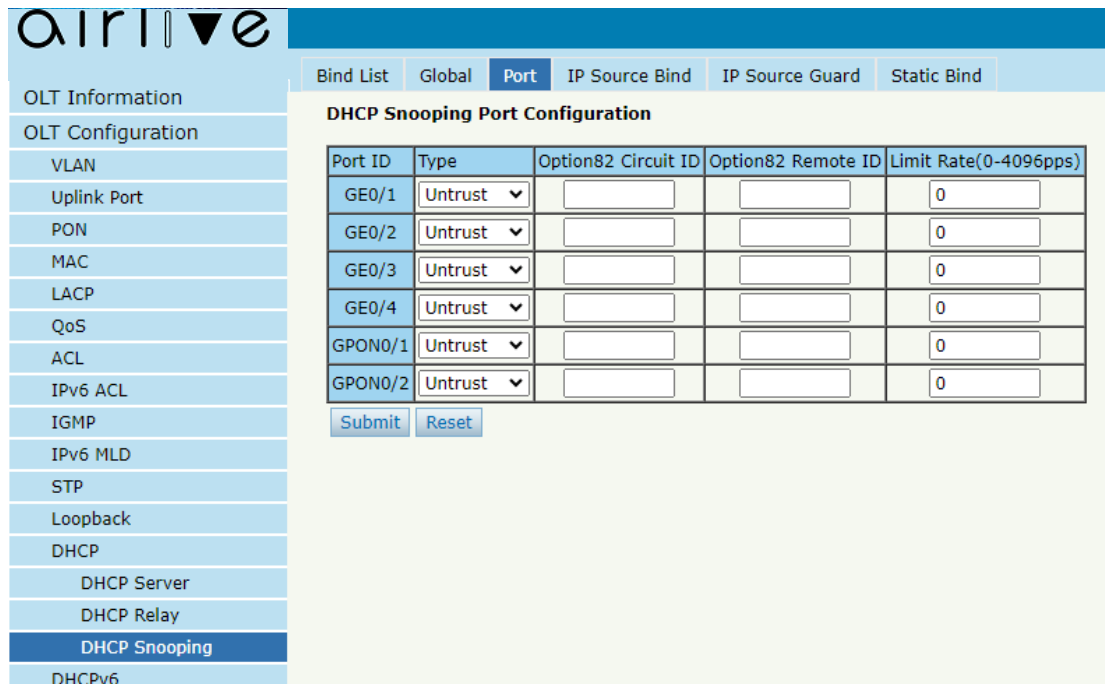
Figure 3.13-8: DHCP Snooping Global

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.



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

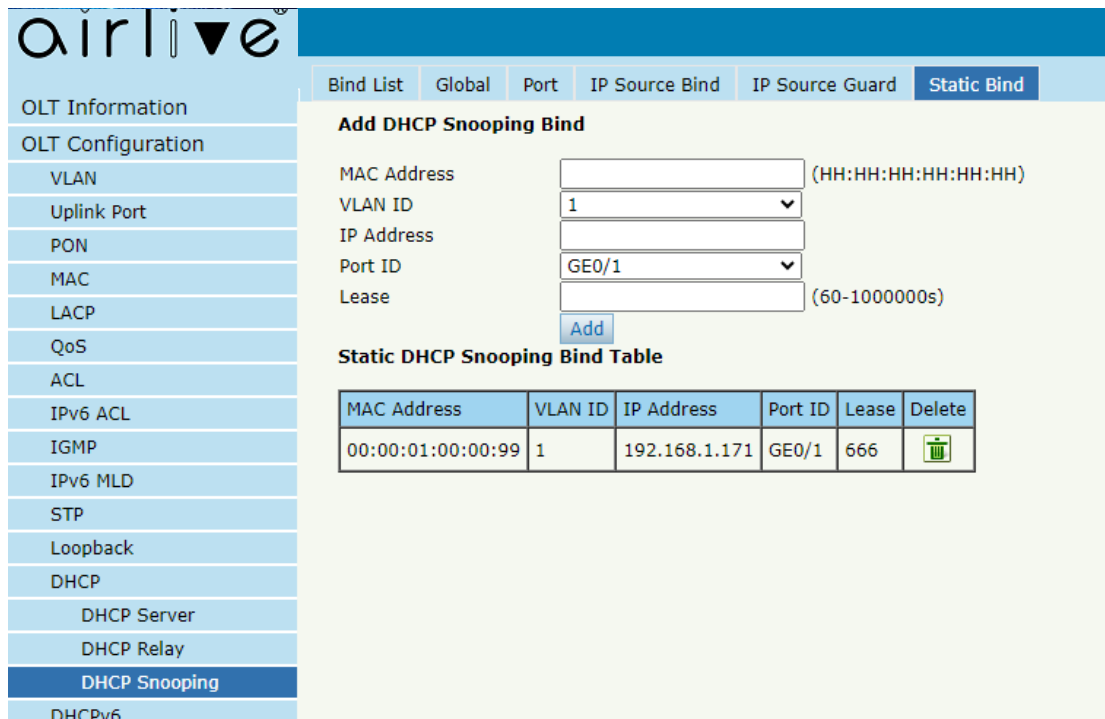
Submit Reset

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.



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

Add DHCP Snooping Bind

MAC Address (HH:HH:HH:HH:HH:HH)

VLAN ID ▼

IP Address

Port ID ▼

Lease (60-1000000s)

Add

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

Interface	FilterType	FilterMode	IP Address	MAC Address	Filtered VLAN ID
PON5	MAC	Active	192.168.22.177	B4: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.

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.

	DHCPv6 Bind Information	DHCPv6 Server Enable	Server Pool Configuration							
OLT Information	DHCPv6 Bind Information <table><tr><td>Client</td><td>DUID</td><td>Address</td><td>Preference</td><td>LifeTime</td><td>Valid LifeTime</td><td>Expire Info</td></tr></table> Refresh			Client	DUID	Address	Preference	LifeTime	Valid LifeTime	Expire Info
Client				DUID	Address	Preference	LifeTime	Valid LifeTime	Expire Info	
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										

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.

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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 Server Configuration

VLAN ID: 1
Pool Name: test
Preference Value: ☐
Rapid Commit: ☐ On ☒ Off
Submit Reset

DHCPv6 Interface Information

VLAN ID	Using Pool	Preference Value	Rapid Commit	Delete
Refresh				

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

DHCPv6 Bind Information DHCPv6 Server Enable **Server Pool Configuration**

DHCPv6 Server Pool Setting

Pool Name:
 Start IPv6 Address:
 End IPv6 Address:
 Valid LifeTime: (60-4294967295)s
 Preferred LifeTime: (60-4294967295)s (Valid lifetime must be large than Preferred lifetime)
 DNS Server:
 Domain Name:
 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.

airlive

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: (1-4294967295)

Identifier:

DHCPv6 DUID Table

DUID Type	DUID
DUID-LLT	00:01:00:01:2e:04:5a:33:00:4f:5b:00:01:ef

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.

airlive® Save

IPv6 SLAAC IPv6 SLAAC Prefix RDNSS

IPv6 SLAAC Configuration

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

submit

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.

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IPv6 SLAAC IPv6 SLAAC Prefix RDNSS

IPv6 SLAAC Prefix Configuration

VLAN ID: 1

ND Prefix:

ND Prefix Length:

Valid LifeTime: 2592000 (0-4294967295)s

Preferred LifeTime: 604800 (0-4294967295)s (Valid lifetime must be larger or equal than Preferred lifetime)

Add

IPv6 SLAAC Prefix

VLAN ID	ND Prefix	Valid LifeTime	Preferred LifeTime	Delete
10	10::/64	2592000	604800	
100	100::/64	2592000	604800	

Refresh

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 IP Configuration

VLAN ID

1

IP Address

Subnet Mask

Submit

Reset

VLAN IP Table

VLAN ID	IP Address	Subnet Mask	Delete
3000	192.168.6.182	255.255.255.0	

Figure 3.16-1: VLAN IP

3.16.1.2 ARP Proxy

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

The process which results in the node responding with its own MAC address to an ARP request for a different IP address for proxying purposes is sometimes referred to as 'publishing'. Not all OLT models support ARP Proxy.

OLT Configuration→Route→IP→ARP Proxy

ARP Proxy Configuration

VLAN ID:

ARP Proxy: ☒ Disable ☐ Enable

ARP Proxy Table

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

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

Static Route

Add Static Route

Destination IP

Destination Mask

Gateway

Add

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.

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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 Table

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	

Routing Information Sources

Gateway	BadPackets	BadRoutes	Distance	Last Update
Refresh				

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.

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

RIP Information | **RIP Enable** | RIP Route Networking | RIP Redistribute | RIP Interface

RIP Enable Configuration

RIP Route: Disable (Bases)

RIP Version: (5-2147483647s)

Update Time: 30 (5-2147483647s)

Timeout Time: 180 (5-2147483647s)

Garbage Time: 120 (5-2147483647s)

Default Metric: 1 (1-16)

Distance: 120 (1-255)

submit reset

Figure 3.16-5: RIP Enable

3.16.3.3 RIP Route Networking

OLT Configuration → Route → RIP → RIP Route Networking

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

The screenshot shows the AirLive web interface for configuring RIP Route Networking. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, STP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IP, Static Route, **RIP**, and OSPF. The main content area has a top bar with tabs: RIP Information, RIP Enable, **RIP Route Networking**, RIP Redistribute, and RIP Interface. Below the tabs, the 'RIP Route Networking' section contains a form with the following fields: VLAN (a dropdown menu showing '40'), IP Address (a text box with '192.168.40.2'), and Subnet Mask (a text box with '255.255.255.0'). There are 'Add' and 'Reset' buttons below these fields. Below the form is a table titled 'RIP Route Networking Table' with two columns: 'Network' and 'Delete'. The table contains two rows: '192.168.40.2/24' and '192.168.50.1/24', each with a delete icon in the 'Delete' column. A 'Refresh' button is located below the table.

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						
Default Route Redistribute Default Route Redistribute: Disable submit reset										
Redistribute Redistribute: Kernel Metric: (0-16) add reset										
Redistribute Table <table border="1"> <thead> <tr> <th>Redistribute Type</th> <th>Metric</th> <th>Delete</th> </tr> </thead> <tbody> <tr> <td colspan="3"> refresh </td> </tr> </tbody> </table>					Redistribute Type	Metric	Delete	refresh		
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.

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

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 Enable						
Uplink Port	Router ID 192.168.6.182						
PON	submit reset						
MAC							
LACP							
QoS							
ACL							
IPv6 ACL							
IGMP							
IPv6 MLD							
RSTP							
Loopback							
DHCP							
DHCPv6							
IPv6 SLAAC							
Route							
IP							
Static Route							
RIP							
OSPF							

Figure 3.16-10: OSPF Enable

3.16.4.3 OSPF Route Networking

OLT Configuration → Route → OSPF → OSPF Route Networking

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

The screenshot shows the 'OSPF Route Networking' configuration page. On the left is a navigation menu with options like OLT Information, VLAN, Uplink Port, PON, MAC, LACP, QoS, ACL, IPv6 ACL, IGMP, IPv6 MLD, RSTP, Loopback, DHCP, DHCPv6, IPv6 SLAAC, Route, IP, Static Route, RIP, and OSPF (selected). The main content area has tabs for OSPF Information, OSPF Enable, OSPF Route Networking (active), OSPF Area Type, OSPF Area Summary, OSPF Redistribute, and OSPF Interface.

OSPF Route Networking

Area:
 VLAN:
 IP Address:
 Subnet Mask:

OSPF Route Networking Table

Area	Network	Delete
0.0.0.0	192.168.6.182/24	delete

Figure 3.16-11: OSPF Route Networking

3.16.4.4 OSPF Area Type

OLT Configuration → Route → OSPF → OSPF Area Type

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

The screenshot shows the 'OSPF Area Type' configuration page. The navigation menu and tabs are similar to the previous page, with 'OSPF Area Type' now selected in the tabs.

OSPF Area Type Configuration

Area:
 Area Type:
 No Summary:

Notice: Backbone cannot be configured as stub

OSPF Area Type Table

Area	Type	No Summary	Delete
0.0.0.2			delete

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.

The screenshot shows the 'OSPF Area Summary Configuration' page. On the left is a navigation menu with 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, Static Route, RIP), and OSPF. The main content area has tabs: OSPF Information, OSPF Enable, OSPF Route Networking, OSPF Area Type, **OSPF Area Summary**, OSPF Redistribute, and OSPF Interface. Under 'OSPF Area Summary Configuration', there is a dropdown for 'Area' (0.0.0.0), and input fields for 'IP Address' and 'Subnet Mask' with 'add' and 'reset' buttons. Below is the 'OSPF Area Summary Table' with columns 'Area', 'Network', and 'Delete', and a 'refresh' button.

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

The screenshot shows the 'OSPF Redistribute' page. The navigation menu and tabs are the same as in Figure 3.16-13. The 'OSPF Redistribute' tab is active. Under 'Redistribute', there is a dropdown for 'Redistribute' (Kernel), and input fields for 'Metric' (1-16777214) and 'Metric Type' (1-2) with 'Add' and 'Reset' buttons. Below is the 'Redistribute Table' with columns 'Redistribute Table', 'Metric', 'Metric Type', and 'Delete', and a 'Refresh' button.

Figure 3.16-14: OSPF Redistribute

3.16.4.7 OSPF Interface

OLT Configuration → Route → OSPF → OSPF Interface

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

The screenshot displays the OSPF Interface Configuration page. On the left is a navigation menu with options like OLT Information, 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, and Key Chain. The main content area has tabs for OSPF Information, OSPF Enable, OSPF Route Networking, OSPF Area Type, OSPF Area Summary, OSPF Redistribute, and OSPF Interface (which is selected). Under the OSPF Interface tab, there's a configuration section with fields for VLAN (40), IP Address (192.168.40.2), Subnet Mask (255.255.255.0), and Authentication (Disable). Below this is an 'OSPF Interface Table' with columns for VLAN, Network, Cost, Priority, Retransmit Interval, Transmit Delay, Hello Interval, Dead Interval, and Authentication. The table contains two rows of data. A 'Refresh' button is located below the table.

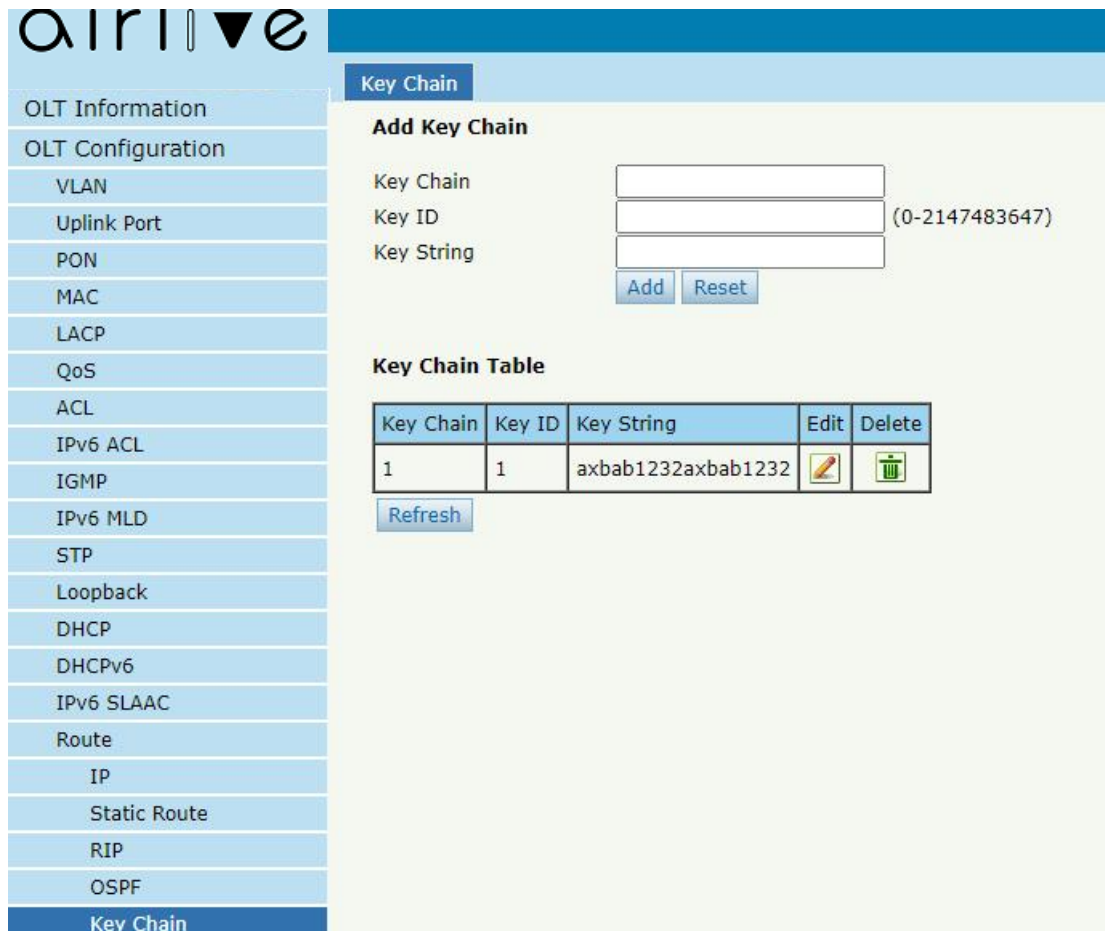
VLAN	Network	Cost	Priority	Retransmit Interval	Transmit Delay	Hello Interval	Dead Interval	Authentication
40	192.168.40.2/24	1	1	5	1	10	40	
50	192.168.50.1/24	1	1	5	1	10	40	

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 (0-2147483647)

Key String

Key Chain Table

Key Chain	Key ID	Key String	Edit	Delete
1	1	axbab1232axbab1232		

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

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.

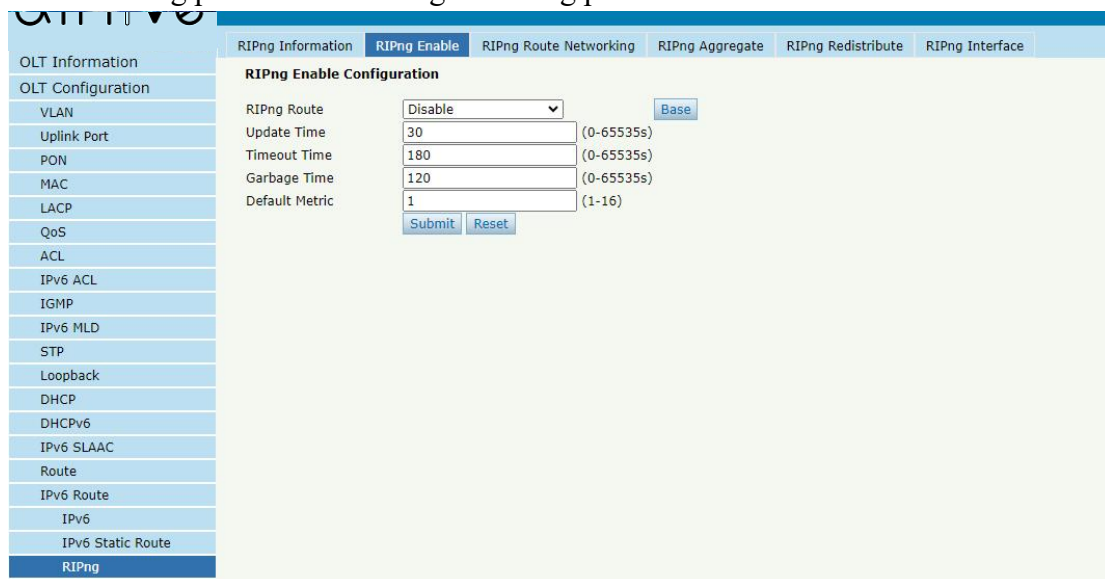


Figure 3.17-4: RIPng Enable

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.

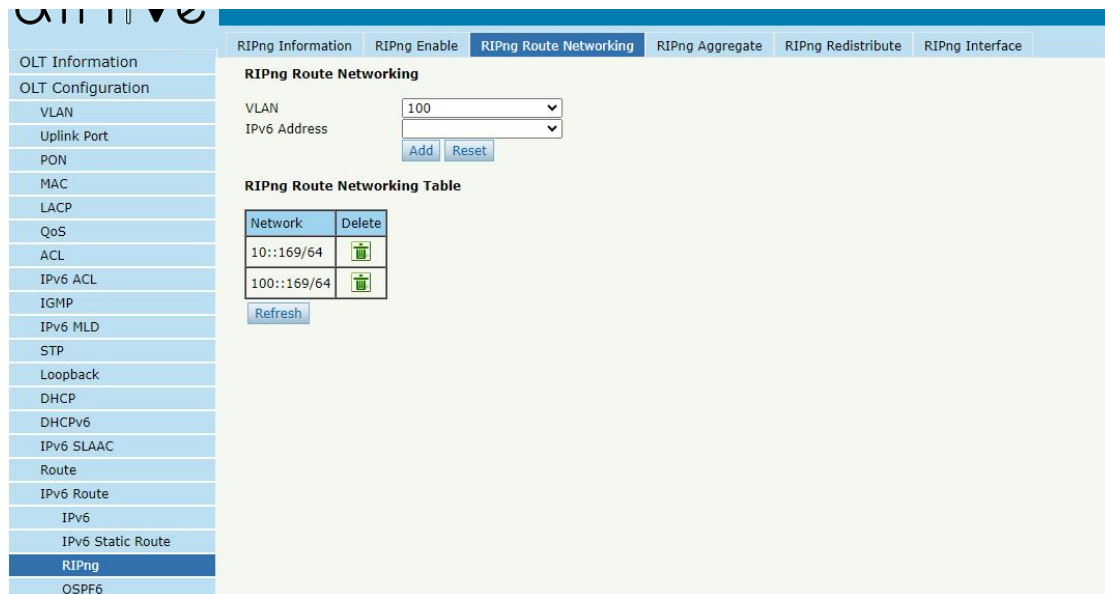


Figure 3.17-5: RIPng Route Networking

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.

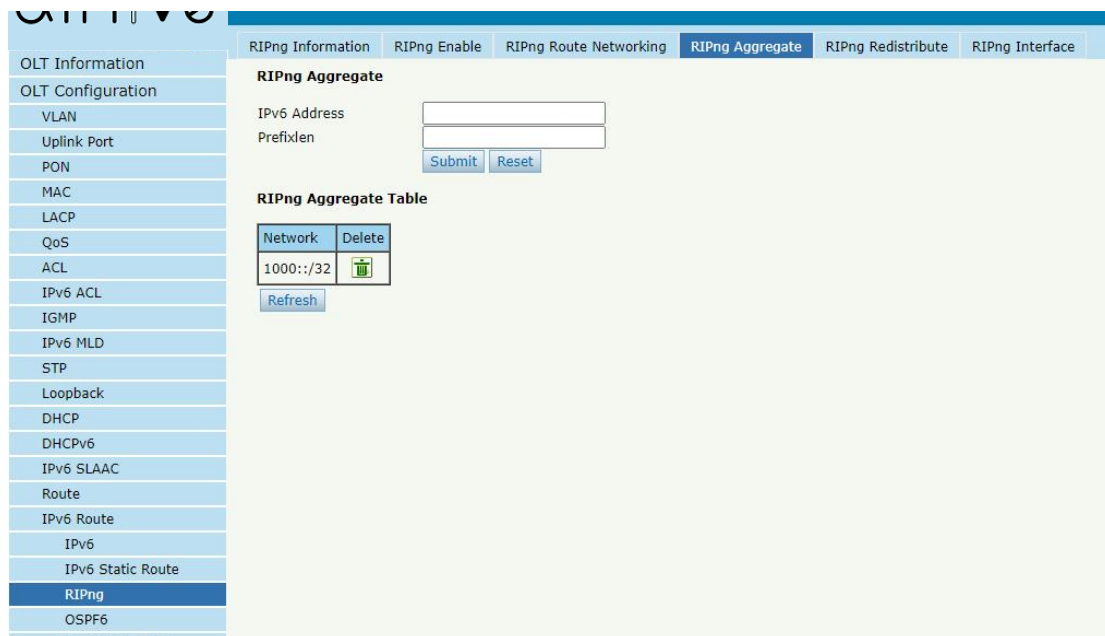


Figure 3.17-6: RIPng Aggregate

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. 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, and RIPng (selected). The main content area has tabs for RIPng Information, RIPng Enable, RIPng Route Networking, RIPng Aggregate, RIPng Redistribute (active), and RIPng Interface. Under 'Default Route Redistribute', there is a dropdown menu set to 'Disable' with 'Submit' and 'Reset' buttons. Under 'Redistribute', there is a dropdown menu set to 'Kernel' and a text input for 'Metric' (0-16), with 'Add' and 'Reset' buttons. At the bottom, there is a 'Redistribute Table' with columns 'Redistribute Type', 'Metric', and 'Delete', and a 'Refresh' button.

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.

The screenshot shows the 'RIPng Interface' configuration page. The navigation menu and tabs are the same as in Figure 3.17-7. Under 'RIPng Interface Configuration', there is a 'VLAN' dropdown menu set to '10' and a 'Split-Horizon' dropdown menu set to 'split-horizon', with 'Submit' and 'Reset' buttons. Below this is a 'RIPng Interface Table' with columns 'Interface' and 'Split-Horizon'. The table contains two rows: 'ethv0.10' and 'ethv0.100', both with 'split-horizon' in the 'Split-Horizon' column. A 'Refresh' button is located below the table.

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

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 Configuration	OSPF6 Information					
	OSPF6 Information					
OLT Configuration	OSPF6 Information					
VLAN	OSPF6 Information					
Uplink Port	OSPF6 Information					
PON	OSPF6 Information					
MAC	OSPF6 Information					
LACP	OSPF6 Information					
QoS	OSPF6 Information					
ACL	OSPF6 Information					
IPv6 ACL	OSPF6 Information					
IGMP	OSPF6 Information					
IPv6 MLD	OSPF6 Information					
STP	OSPF6 Information					
Loopback	OSPF6 Information					
DHCP	OSPF6 Information					
DHCPv6	OSPF6 Information					
IPv6 SLAAC	OSPF6 Information					
Route	OSPF6 Information					
IPv6 Route	OSPF6 Information					
IPv6	OSPF6 Information					
IPv6 Static Route	OSPF6 Information					
RIPng	OSPF6 Information					
OSPF6	OSPF6 Information					
IPv6 Route Table	OSPF6 Information					
DDoSF Intermediate Agent	OSPF6 Information					

OSPF6 Neighbor Table					
Neighbor ID	Priority	Dead Time	State/IfState	Duration	Interface[State]
OSPF6 Routing Table					
Destination Type	Path Type	Destination	NextHop	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.

The screenshot shows the 'OSPF6 Enable Configuration' page. On the left is a navigation menu with options like OLT Information, 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, and IPv6 Route Table. The main content area has tabs for OSPF6 Information, OSPF6 Enable (selected), OSPF6 Route Networking, OSPF6 Area Summary, OSPF6 Redistribute, and OSPF6 Interface. Under 'OSPF6 Enable Configuration', there are fields for 'OSPF6 Route' (a dropdown menu set to 'Enable') and 'Router ID' (a text box containing '1.1.1.1'). Below these fields are 'Submit' and 'Reset' buttons.

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.

The screenshot shows the 'OSPF6 Route Networking' page. The navigation menu on the left is the same as in the previous figure. The main content area has tabs for OSPF6 Information, OSPF6 Enable, OSPF6 Route Networking (selected), OSPF6 Area Summary, OSPF6 Redistribute, and OSPF6 Interface. Under 'OSPF6 Route Networking', there are fields for 'Area' (a text box) and 'VLAN' (a dropdown menu set to '10'). Below these fields are 'Add' and 'Reset' buttons. A section titled 'OSPF6 Route Networking Table' contains a table with three columns: 'Area', 'Network', and 'Delete'. The table has two rows: one for '0.0.0.0' with 'vlan 10' and a delete icon, and another for '0.0.0.0' with 'vlan 100' and a delete icon. Below the table is a 'Refresh' button.

Area	Network	Delete
0.0.0.0	vlan 10	
0.0.0.0	vlan 100	

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 the 'OSPF6 Area Summary Configuration' page. On the left is a navigation menu with options like OLT Information, VLAN, Uplink Port, and OSPF6 (which is selected). The main content area has tabs for OSPF6 Information, OSPF6 Enable, OSPF6 Route Networking, OSPF6 Area Summary (active), OSPF6 Redistribute, and OSPF6 Interface. Under 'OSPF6 Area Summary Configuration', there are input fields for Area (0.0.0.0), IPv6 Address, and Prefixlen, with 'Add' and 'Reset' buttons. Below this is the 'OSPF6 Area Summary Table' with buttons for Area, Network, Delete, and Refresh.

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

The screenshot shows the 'OSPF6 Redistribute' page. The navigation menu and tabs are similar to the previous figure, but the 'OSPF6 Redistribute' tab is active. Under 'Redistribute', there is a dropdown menu set to 'Kernel' and 'Add'/'Reset' buttons. Below is the 'Redistribute Table' with buttons for 'Redistribute Table', 'Delete', and 'Refresh'. The table contains one entry: 'kernel' with a green plus icon.

Figure 3.17-13: OSPF6 Redistribute

3.17.4.6 OSPF6 Interface

OLT Configuration → IPv6 Route → OSPF6 → OSPF6 Interface

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

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)

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

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.

IPv6 Route Table

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

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	

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.

The screenshot displays the 'PPPoE Intermediate Agent 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, OSPF6, IPv6 Route Table, PPPoE Intermediate Agent (selected), and TrafficPolicy. The main content area has two tabs: 'PPPoE Intermediate Agent' and 'PPPoE Intermediate Agent Interface'. Under the 'PPPoE Intermediate Agent' tab, the configuration includes:

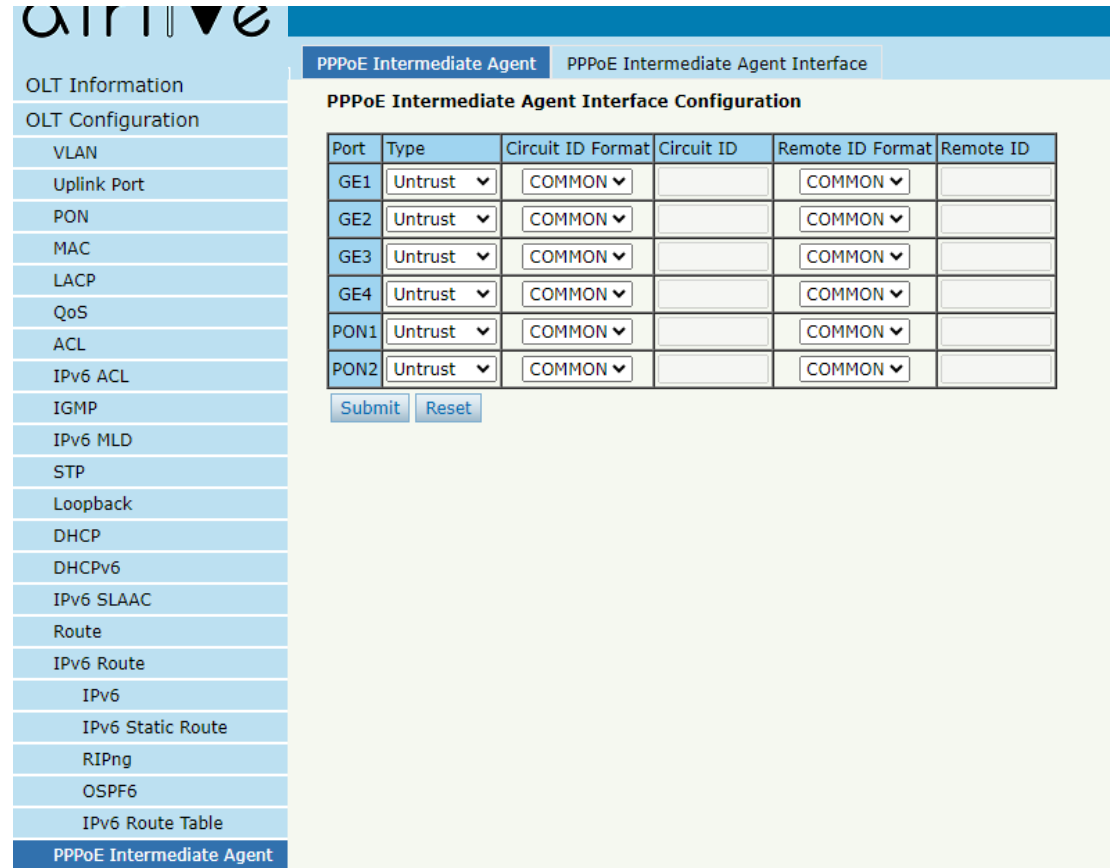
- PPPoE Intermediate Agent:** A dropdown menu currently set to 'Disable'.
- Vendor ID:** A text input field containing '3561' with a note '(0-4294967295)' to its right.
- Encapsulation:** A dropdown menu.
- Policy:** A dropdown menu set to 'KEEP'.
- Ignore Reply:** A dropdown menu set to 'Enable'.
- Buttons:** 'Submit' and 'Reset' buttons.
- VLAN ID List:** A section containing a 'VLAN ID' dropdown set to '1' and 'Add' and 'Delete' buttons.
- Table:** A table with a 'List' button and a single entry '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 web interface for configuring the PPPoE Intermediate Agent Interface. 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
 - PPPoE Intermediate Agent

The main content area is titled "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 rows for ports GE1, GE2, GE3, GE4, PON1, and PON2. Each row has a "Type" dropdown menu set to "Untrust", a "Circuit ID Format" dropdown menu set to "COMMON", and empty text boxes for "Circuit ID", "Remote ID Format" (set to "COMMON"), and "Remote ID". 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 Traffic Policy

3.19.1 Policy

OLT Configuration → Traffic Policy → Policy

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

The screenshot shows the 'Policy' configuration page. 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, IPv6 SLAAC, Route, IPv6 Route, IPv6, IPv6 Static Route, RIPng, OSPF6, IPv6 Route Table, PPPoE Intermediate Agent, and TrafficPolicy (highlighted in blue). The main content area has three tabs: Policy, Classifier, and Behavior. The 'Policy' tab is selected. It contains a 'New Policy' section with the following fields: Policy Name (text input), Classifier Name (dropdown menu showing '123'), Behavior Name (dropdown menu showing '456'), Port (dropdown menu showing 'GE0/1'), and BoundType (dropdown menu showing 'Ingress'). There is an 'Add' button below these fields. Below the 'New Policy' section is a 'Policy Table' with the following data:

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.

The screenshot displays the 'Classifier' configuration page in the AirLive web interface. The left sidebar contains a list of configuration categories, with 'TrafficPolicy' highlighted. The main content area features three tabs: 'Policy', 'Classifier', and 'Behavior'. The 'Classifier' tab is selected, revealing a 'New Classifier' section with input fields for 'Classifier Name', 'Match ACL' (set to 'IPv4'), and 'ACL ID' (set to '5000'). An 'Add' button is located below these fields. Below the form is a 'Classifier Table' with the following data:

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.

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	<a>Config <a>Deactivate <a>Delete <a>Modify <a>Optical Info <a>Detail Info <a>Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	<a>Config <a>Deactivate <a>Delete <a>Modify <a>Optical Info <a>Detail Info <a>Reboot
GPON0/1:3	Offline	GPON0/1:3	unknown	default	Sn	GPON0093A921	<a>Config <a>Deactivate <a>Delete <a>Modify <a>Optical Info <a>Detail Info <a>Reboot

click

Figure 4.1-2: Configure ONU

4.1.1.1.1 Tcont

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

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

ONU List | ONU Status | ONU Optical Info | ONU Manual Add | ONU Whitelist

ONU Tcont Info (PON:1 ONU:1)

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

Add ONU Tcont

Tcont ID:

Tcont Name:

DBA Profile Name:

[Commit](#)

Figure 4.1-3: Create Tcont

4.1.1.1.2 Gempport

ONU Configuration→ONU AuthList→ONU List→Config→Gempport
Create gempport ID and bind tcont ID.

ONU List | **Gempport** | Service | Service Port | PortVlan | Multicast | Port | Iphost | WAN | DHCP Server | BIND Mode | WIFI | VOIP | SIP | POTS | Misc

ONU Gempport Info (PON:1 ONU:1)

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

Add ONU Gempport

Gempport ID:

TcontID:

Gempport Name:

Cos: (0-7)

Upstream Traffic:

Downstream Traffic:

UpQueueMapId: (0-3)

DownQueueMapId: (0-7)

State:

[Commit](#)

Figure 4.1-4: Create gempport

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 gempport ID.

ONU List | ONU Status | ONU Optical Info | **Service** | Service Port | PortVlan | Multicast | Port | Iphost | WAN | DHCP Server | BIND Mode | WIFI | VOIP | SIP | POTS | Misc

ONU Service Info (PON:1 ONU:1)

Service Name	Gempport	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:

Gempport ID:

Vlan Mode:

Vlan List: (X,X or X-X;0 for all)

Cos List: (X,X or X-X;)

Port Type:

[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.

ONU PortVlan Info (PON:1 ONU:1)

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	Transparent
Port Type	Eth
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.

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.

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:8.8.8.8,vlan 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:0.0.0.0,vlan id 4000 pri 255 Bind:lan2

WAN Connect Parameter Configuration

WAN Index: NEW

WAN Connect Mode: bridge

VLAN Mode: disable

QOS Enable: Disable

Service Mode: Internet

Port Binding: ☐ Lan1 ☐ Lan2 ☐ SSID1 ☐ SSID2 ☐ SSID3 ☐ SSID4

[Submit](#)

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:8.8.8.8,vlan 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.

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.

POTS Information

VoIP Port: Pots1

Port Status: Inactive

SIP User Parameter Configuration

Account active: ☒ Disable ☐ Enable

User Account:

User name:

User Password:

Advanced Parameter Configuration

VAD:

Echo cancel:

Input gain(dB):

Output gain(dB):

Dtmf mode:

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.

Misc Control Operation

Save configuration:

Restore default:

IGMP configuration: ☐ IGMP Enable

STP configuration: ☐ STP Enable

Port isolate: ☐ Port isolate Enable

Speed Limit Configuration

Upstream limit:

DownStream limit:

Mac Table Configuration

mac age time:

Pon mac limit:

Lan mac limit:

Mac Address Table

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.

ONU Authentication Info

Port ID: PON1

Search Mode: All

Search Info:

ONU ID	Status	Descriptions	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	H113	default	Sn	GPON0091A830	Config Deactivate Delete Modify Optical Info Detail Info Reboot
GPON0/1:2	Offline	GPON0/1:2	unknown	default	Sn	GPON00673A80	Config 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 'ONU List' tab in the 'ONU Authentication Info' section. The 'Port ID' is set to 'PON1'. The 'Search Mode' is 'All'. Below the search bar are buttons for 'Delete All', 'Delete Offline', and 'Refresh'. A table lists three ONUs with their status, descriptions, models, profiles, and modes. The 'Action' column for each row contains links: 'Config', 'Deactivate', 'Delete', 'Modify', 'Optical Info', 'Detail Info', and 'Reboot'. The 'Delete' link for the first ONU (GPON0/1:1) is circled in red.

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.

The screenshot shows the 'ONU Modify(PON:1 ONU1)' interface. It has a 'Port ID' dropdown set to 'PON1' and a 'Search Mode' dropdown set to 'All'. Below the search bar are buttons for 'Delete All', 'Delete Offline', and 'Refresh'. A table lists three ONUs with their status, descriptions, models, profiles, and modes. The 'Action' column for each row contains links: 'Config', 'Deactivate', 'Delete', 'Modify', 'Optical Info', 'Detail Info', and 'Reboot'. The 'Modify' link for the first ONU (GPON0/1:1) is circled in red.

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

The 'ONU Modify(PON:1 ONU1)' form includes:

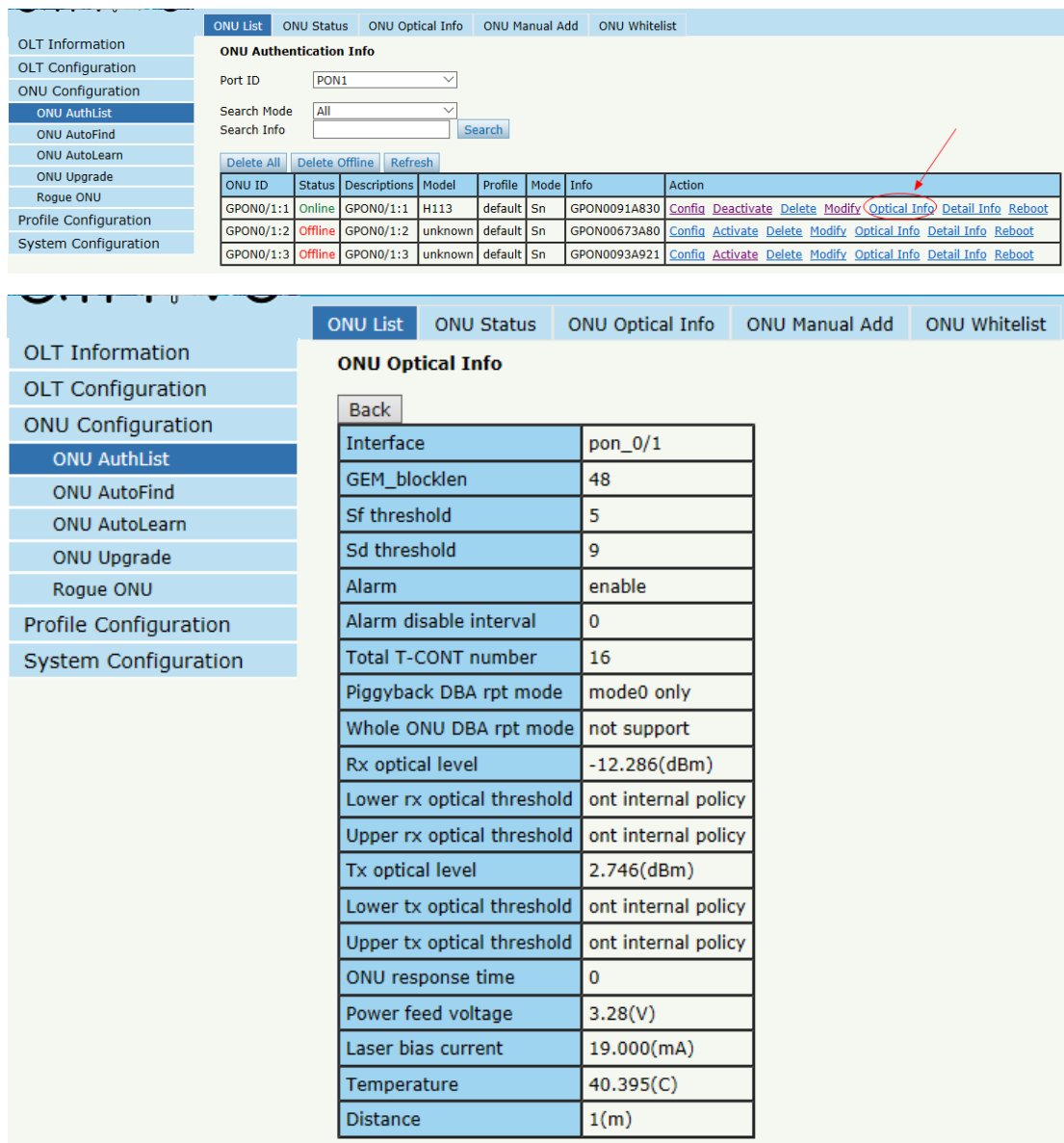
- Auth Mode:** A dropdown menu currently showing 'Sn'.
- ONU Sn:** A text input field.
- Submit:** A button to save the changes.

Figure 4.1-21: Modify ONU Authentication mode

4.1.1.5 Optical Info

ONU Configuration→ONU AuthList→ONU List→Optical Info

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



ONU Authentication Info

Port ID:

Search Mode:

Search Info:

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

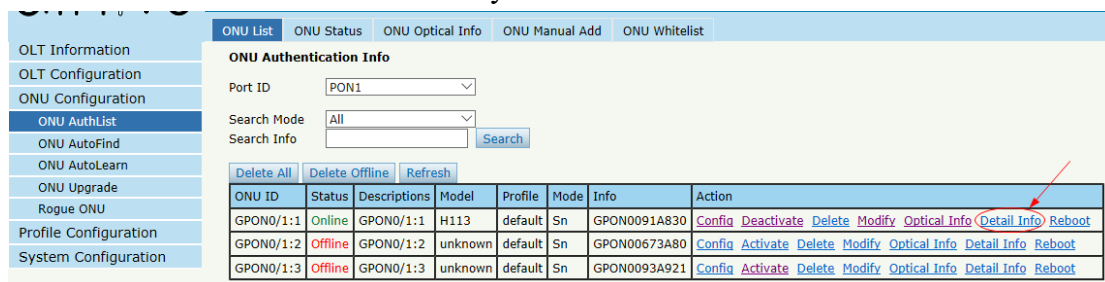
ONU Optical Info

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

Figure 4.1-22: Optical info of ONU

4.1.1.6 Detail Info

ONU Configuration→ONU AuthList→ONU List→Detail Info
Check the Detail Info of ONU which you selected.



ONU Authentication Info

Port ID:

Search Mode:

Search Info:

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

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

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

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

OLT Information

OLT Configuration

ONU Configuration

ONU AuthList

ONU AutoFind

ONU AutoLearn

ONU Upgrade

Rogue ONU

ONU Common Service

Profile Configuration

System Configuration

ONU List

ONU Status

ONU Optical Information

ONU Version Information

ONU Optical Info

Port ID

PON1

ONU Group

ONU 1-64

Refresh

Too Strong

Low

Too Low

Good

ONU ID	Description	RX Power	TX Power
GPON0/1:1	N/A	NULL	NULL
GPON0/1:2	N/A	NULL	NULL
GPON0/1:3	N/A	NULL	NULL
GPON0/1:4	N/A	NULL	NULL
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 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.

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.

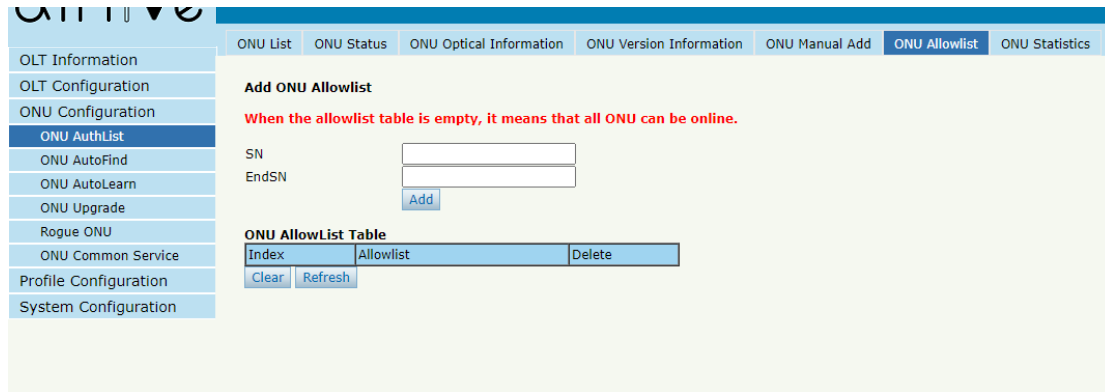


Figure 4.1-29: ONU Allowlist

4.1.7 ONU Statistics

ONU Configuration→ONU AuthList→ONU Statistics

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

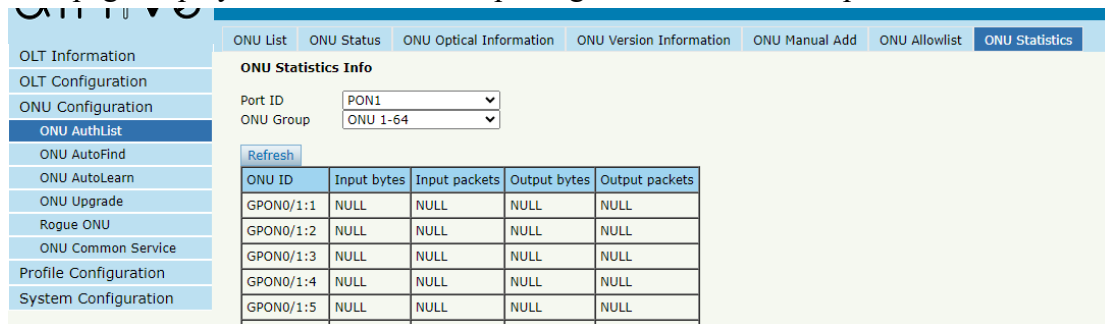


Figure 4.1-30: ONU Statistics

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.

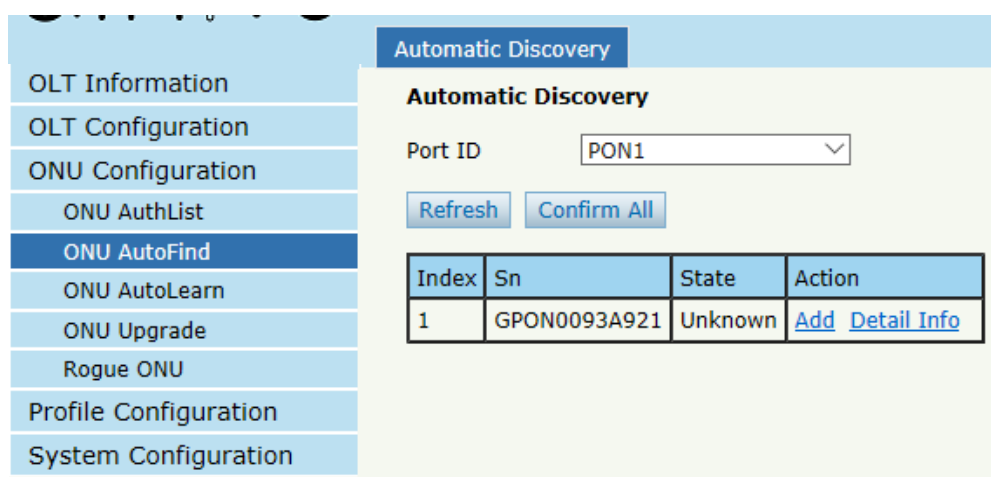


Figure4.2-1: Automatic Discovery

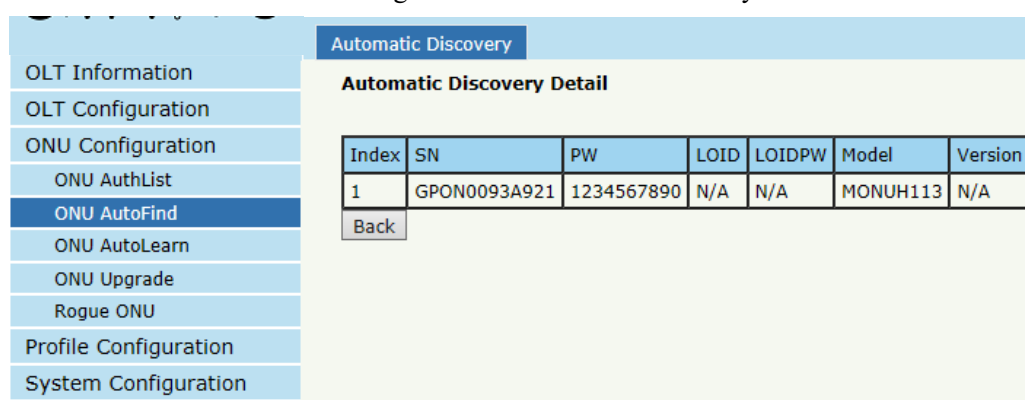


Figure 4.2-2: Detail info

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.

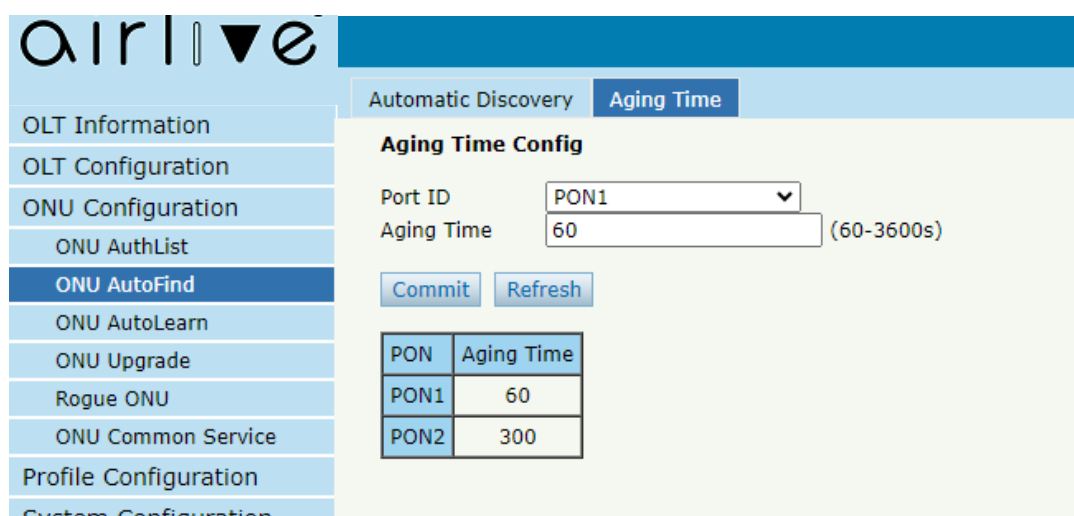


Figure4.2-3: Aging Time

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: default
 Plug and Play: disable
 Default VLAN: 1
 Variable VLAN: disable, 1 (1-3582)

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

Apply Refresh

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.

Automatic Bind

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: Exact Matching
 Submit

Add ONU Automatic Bind

Equipment ID:
 ONU Profile: default
 Line Profile: line_1
 Service Profile: srv_1
 Alarm Profile: test
 Pri Profile: pri_1
 Format Profile: test
 Add Refresh

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.

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.

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.

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

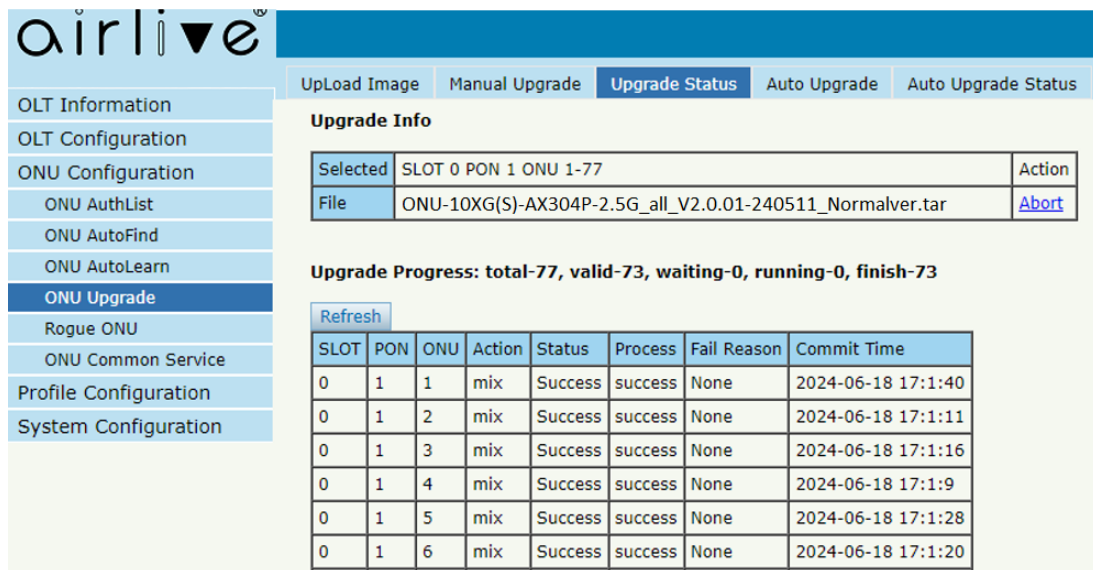
SLOT ID	SLOT0
PON ID	PON1
ONU ID	x or x-y
Upgrade Mode	Mix

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 'Upgrade Status' tab in the AirLive web interface. The left sidebar contains a menu with options: OLT Information, OLT Configuration, ONU Configuration, ONU AuthList, ONU AutoFind, ONU AutoLearn, **ONU Upgrade**, Rogue ONU, ONU Common Service, Profile Configuration, and System Configuration. The main content area has tabs: UpLoad Image, Manual Upgrade, **Upgrade Status**, Auto Upgrade, and Auto Upgrade Status. Under 'Upgrade Info', a table shows the selected slot (SLOT 0 PON 1 ONU 1-77) and the file (ONU-10XG(S)-AX304P-2.5G_all_V2.0.01-240511_Normalver.tar) with an 'Abort' link. Below this, the 'Upgrade Progress' is shown as: total-77, valid-73, waiting-0, running-0, finish-73. A 'Refresh' button is present. A table lists the upgrade progress 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

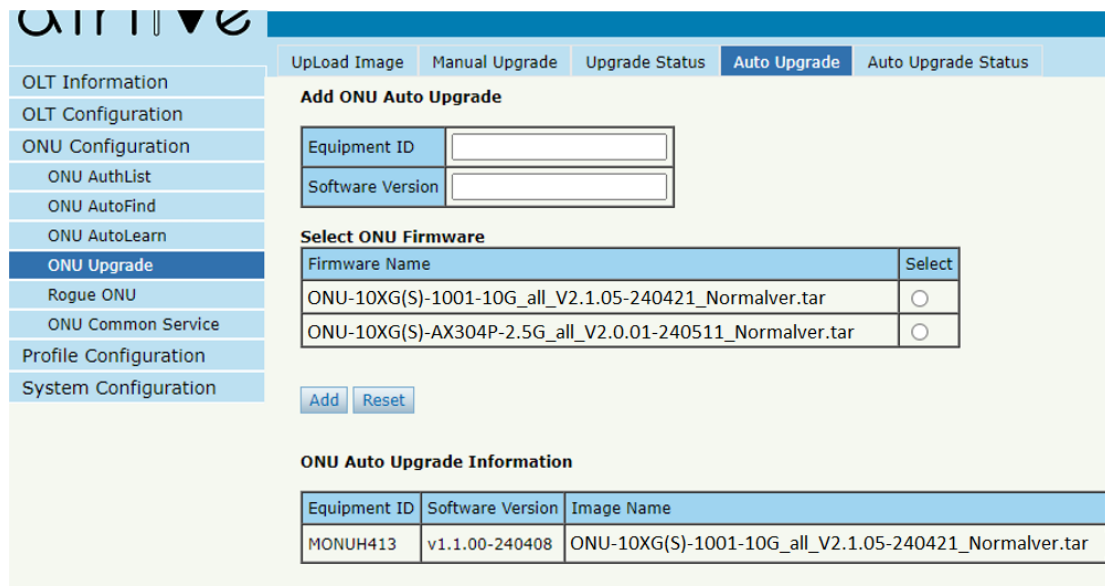
Figure 4.4-3: ONU Upgrade Status

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.



The screenshot shows the 'Auto Upgrade' configuration page. The left sidebar is the same as in Figure 4.4-3. The main content area has tabs: UpLoad Image, Manual Upgrade, Upgrade Status, **Auto Upgrade**, and Auto Upgrade Status. Under 'Add ONU Auto Upgrade', there are input fields for 'Equipment ID' and 'Software Version'. Below these is a 'Select ONU Firmware' table:

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	☐

Below the table are 'Add' and 'Reset' buttons. At the bottom, the 'ONU Auto Upgrade Information' table shows the configured conditions:

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.

The screenshot shows the 'Auto Upgrade Status' page in the AirLive web interface. The left sidebar contains navigation links for OLT Information, OLT Configuration, ONU Configuration, ONU AuthList, ONU AutoFind, ONU AutoLearn, ONU Upgrade (selected), Rogue ONU, Profile Configuration, and System Configuration. The main content area has tabs for Upload Image, Manual Upgrade, Upgrade Status, Auto Upgrade, and Auto Upgrade Status (selected). Below the tabs, there is a summary: 'Auto Upgrade Status total-4, waiting-0, running-4, finish-0'. A 'Refresh' button is present. The main table lists the upgrade status for four PONs (all 14) and four ONUs (2, 6, 8, 13). All ONUs are in the 'running' state with progress around 12-13% and no fail reasons. Each row has a 'Delete' link. A 'Clean' button is also visible.

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

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.

The screenshot shows the 'Rogue ONU Configuration' page. The left sidebar is the same as in the previous figure, with 'Rogue ONU' selected. The main content area has a 'Rogue ONU Configuration' tab. Below it, there is a 'Rogue ONU Detect Configuration' table and a 'Change Configuration' form. The table shows settings for two PONs (1 and 2). The 'Change Configuration' form has a 'Commit' button and dropdown menus for SLOT, PON, Detect state, Measurement, Alloc to scan, Auto shutdown, Shutdown type, and Algorithm. Below the form is a 'Rogue ONU List' table with columns for SLOT, PON, ONU, Keywords, Time, and State.

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

Commit

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, Gemport, Service, Service port and Port Vlan for the specified ONU you select.

The screenshot displays the 'ONU Common Service' configuration page. The left sidebar contains a navigation menu with options: OLT Information, OLT Configuration, ONU Configuration, ONU AuthList, ONU AutoFind, ONU AutoLearn, ONU Upgrade, Rogue ONU, **ONU Common Service**, Profile Configuration, and System Configuration. The main content area has tabs for Tcont, Gemport, Service, Service Port, and Port VLAN. The 'Tcont' tab is active, showing the 'ONU Tcont' configuration form. This form includes fields for Slot ID (SLOT0), Port ID (PON1), Search Mode (All), and Search Info. Below the form is the 'Add ONU Tcont' section with fields for ONU List, Tcont ID, Tcont Name, and DBA Profile Name (default1). At the bottom is the 'ONU Tcont Information' table, which lists ONU IDs, their descriptions, and associated Tcont IDs, names, and DBA profiles.

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

Port ID

Search Mode

Search Info

Add ONU Gemport

ONU List	(X,X or X-X;max 128 ONUs)
Gemport ID	
Tcont ID	
Gemport Name	
Downstream Traffic	default

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

Port ID

Search Mode

Search Info

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

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 Gempport Service **Service Port** Port VLAN

ONU Service Port

Slot ID

Port ID

Search Mode

Search Info

Add ONU Service Port

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

Search Mode

Service Port ID

Gempport ID

User VLAN

Translate VLAN

Translate SVLAN

Description

ONU Service Port Info

ONU ID	Information	Description	Service Port	Gempport 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

Tcont Gempport Service Service Port **Port VLAN**

ONU PortVLAN

Slot ID

Port ID

Search Mode

Search Info

Add ONU PortVLAN

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

Mode

Port Type

Port Id

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	Information	Add Profile
	ONU Profile	
OLT Configuration	Refresh	
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	Profile Name	Max Tcont	Max Gemport	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	ONU Profile Modify	
OLT Configuration	Commit	
ONU Configuration	Profile ID	1
Profile Configuration	Profile Name	ONU_profile_1
ONU Profile	Description	ONU_profile_1
DBA Profile	Max Tcont	8
Traffic Profile	Max Gemport	32
Line Profile	Max Eth	1
Service Profile	Max POTS	0
Alarm Profile	Max IPHost	2
Pri Profile	Max IPv6Host	0
IGMP Profile	Max Veip	0
Format Profile	Service ability	Disable ▼
Bind Profile	Service ability N:1	yes ▼
System Configuration	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, you 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 Gempport</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 Gempport	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 Gempport		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

DBA Profiles **Add Profile**

Add Profile

Profile ID	1
Profile Type	Type_3
Profile Name	dba_1
Assured(Kbps)	(256 - 9953280Kbps)
Maximum(Kbps)	(256 - 9953280Kbps)

[Commit](#)

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.

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
Add Profile		
Profile ID	1	
Profile Name	traffic_1	
SIR(Kbps)		
CBS(Kbytes)		
Commit		

Figure 5.3-2: Add a traffic Profile

5.4 Line Profile

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

5.4.1 Line profile

Profile Configuration → Line Profile → Line Profile

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

OLT Information	Line Profile	Add Profile						
OLT Configuration	Line Profile							
ONU Configuration	Refresh							
Profile Configuration	<table><tr><th>Profile ID</th><th>Profile Name</th><th>Action</th></tr><tr><td>1</td><td>line_1</td><td>Details & Modify Delete</td></tr></table>		Profile ID	Profile Name	Action	1	line_1	Details & Modify Delete
Profile ID	Profile Name	Action						
1	line_1	Details & Modify Delete						
ONU Profile								
DBA Profile								
Traffic Profile								
Line Profile								
Service Profile								
Alarm Profile								
Pri Profile								
IGMP Profile								
Format Profile								
Bind Profile								
System Configuration								

Figure 5.4-1: Line Profile list

5.4.2 Add profile

Profile Configuration→Line profile→Add profile

Create a new line profile.

OLT Information	Line Profile	Add Profile
OLT Configuration	Add Profile	
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	line_2
Add	

CLICK

Figure 5.4-2: Add Line Profile

Modify the line profile parameters.

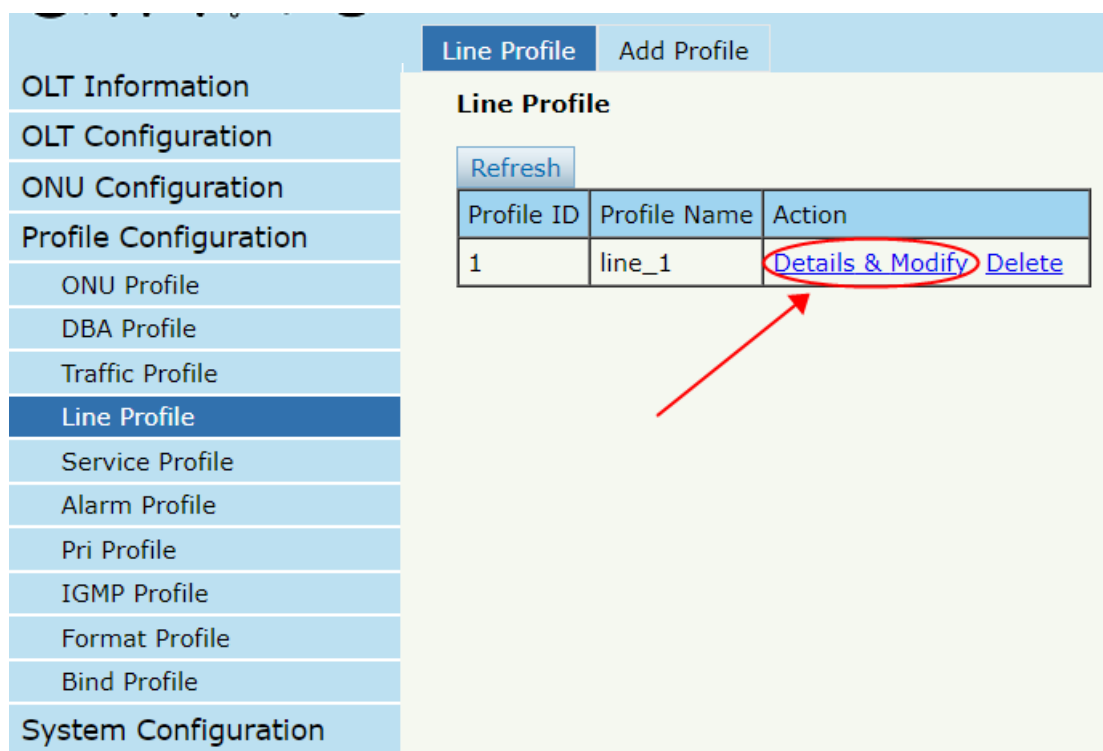


Figure 5.4-3: Modify Line Profile

5.4.2.1 Tcont

Add tcont ID and bind DBA profile.

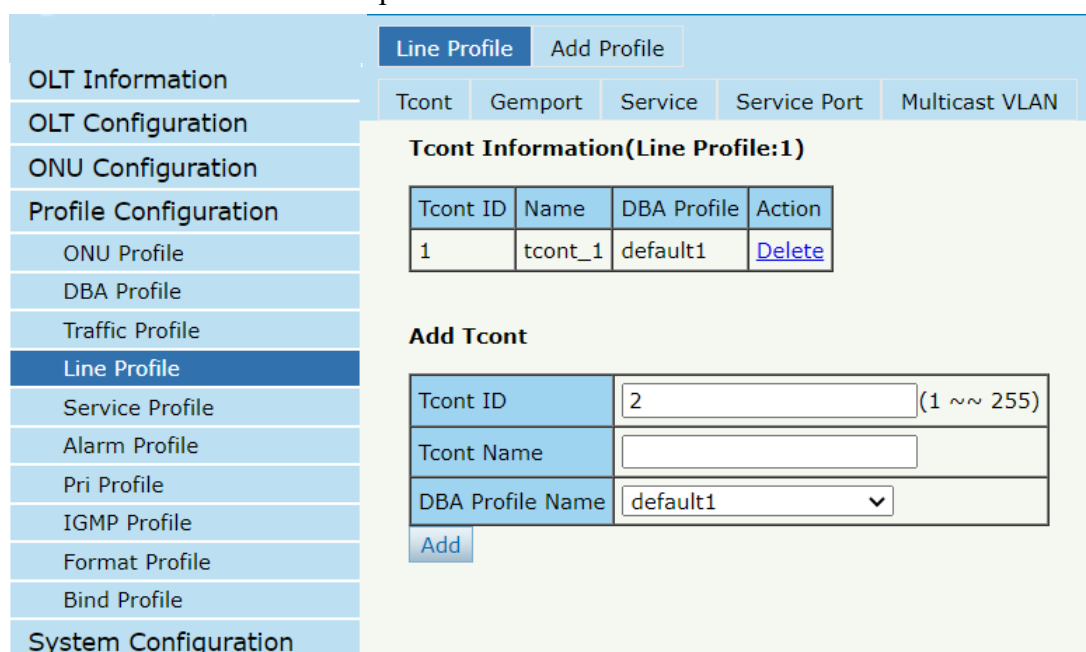


Figure 5.4-4: Add Tcont

5.4.2.2 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.

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.

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	
------------	--

[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, Wi-Fi, 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, you 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

Service Profiles Add Profile

PortVLAN Multicast VLAN Strip **Port** IPhost Config

Port Basic Configuration (Service Profile:1)

ONU Port

☒ Admin Status

☒ Loopback

Port Speed

Upstream Rate Limit Config

Upstream Rate-Limit CIR (bytes)

Upstream Rate-Limit PIR (bytes)

Downstream Rate Limit Config

Downstream Rate-Limit CIR (bytes)

Downstream Rate-Limit PIR (bytes)

Port Status

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.

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

DNS1(A.B.C.D)

DNS2(A.B.C.D)

IPHost VLAN Config

VLAN(0-4094)

Priority(1-15)

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 Information

Profile Configuration → Alarm Profile → profile information

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 Information

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

Figure 5.6-2: Add Alarm Profile

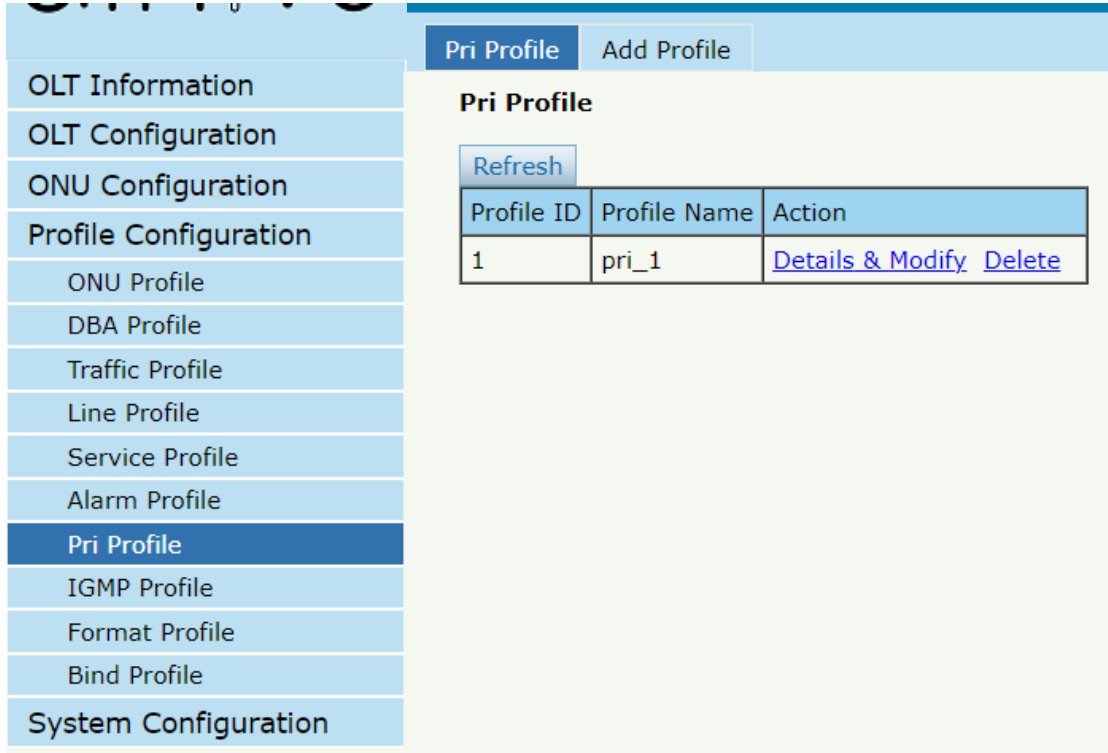
5.7 Pri Profile

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

5.7.1 Pri Profile

Profile Configuration→Pri Profile

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



The screenshot shows the 'Pri Profile' configuration page. On the left is a navigation menu with items like 'OLT Information', 'OLT Configuration', 'ONU Configuration', 'Profile Configuration', 'Pri Profile' (selected), 'IGMP Profile', 'Format Profile', 'Bind Profile', and 'System Configuration'. The main content area has two tabs: 'Pri Profile' and 'Add Profile'. Below the tabs is a 'Refresh' button and a table displaying the private profile list.

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 displays the 'Add Profile' configuration page for a Private Profile. The left-hand navigation menu includes 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**, IGMP Profile, Format Profile, Bind Profile, and System Configuration. The 'Pri Profile' section is expanded, showing two tabs: 'Pri Profile' and 'Add Profile'. The 'Add Profile' tab is currently selected. Within this tab, there are 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.

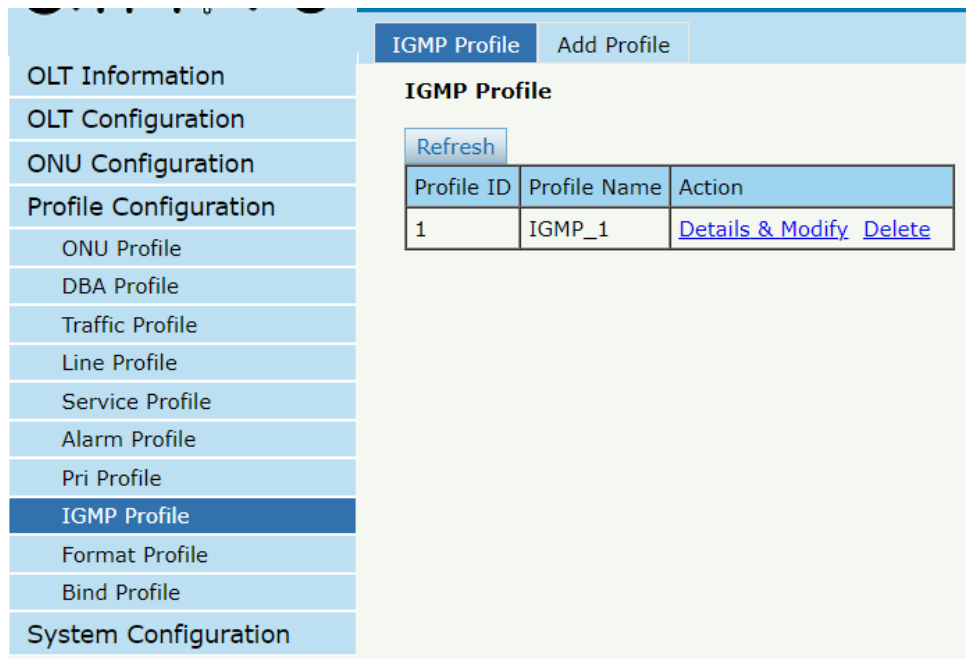


Figure 5.8-1: IGMP Profile List

5.8.2 Add Profile

Profile Configuration → IGMP Profile → Add profile

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

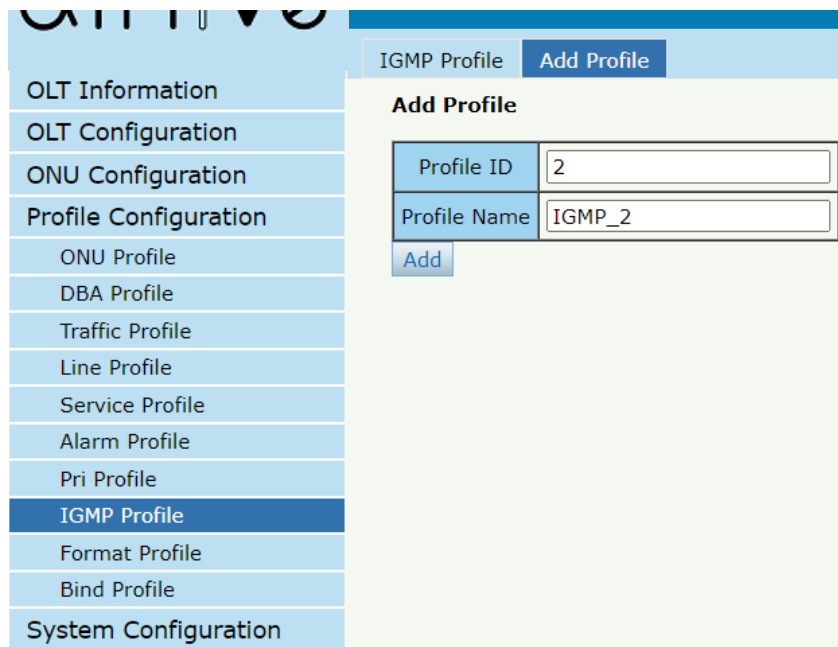


Figure 5.8-2: Add IGMP Profile

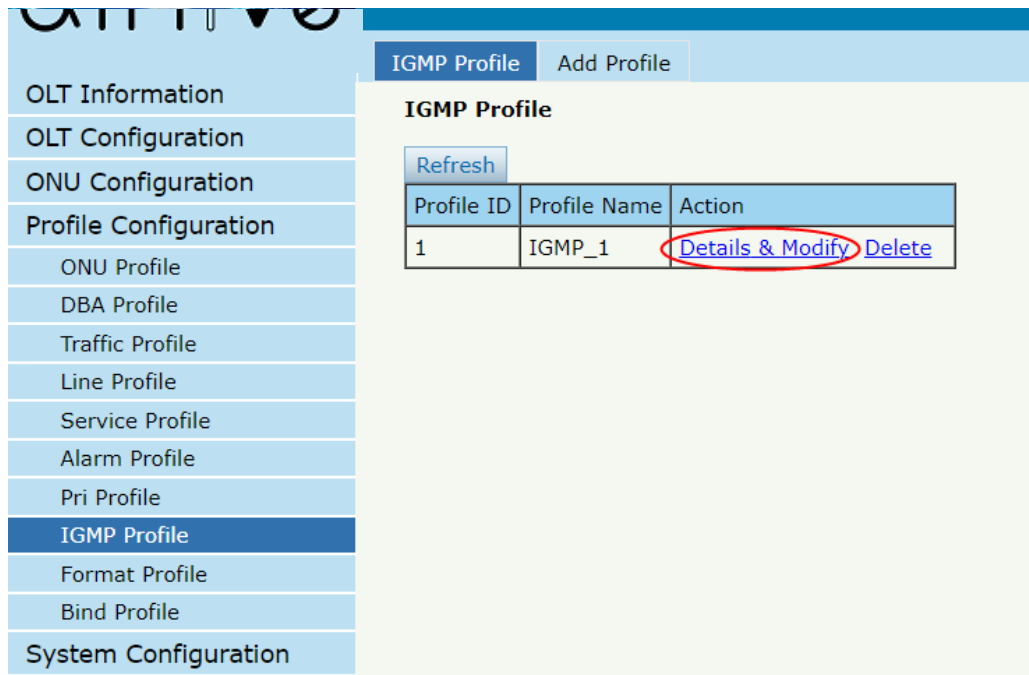


Figure 5.8-3: Modify IGMP Profile

5.8.2.1 Config

Configure multicast related data.

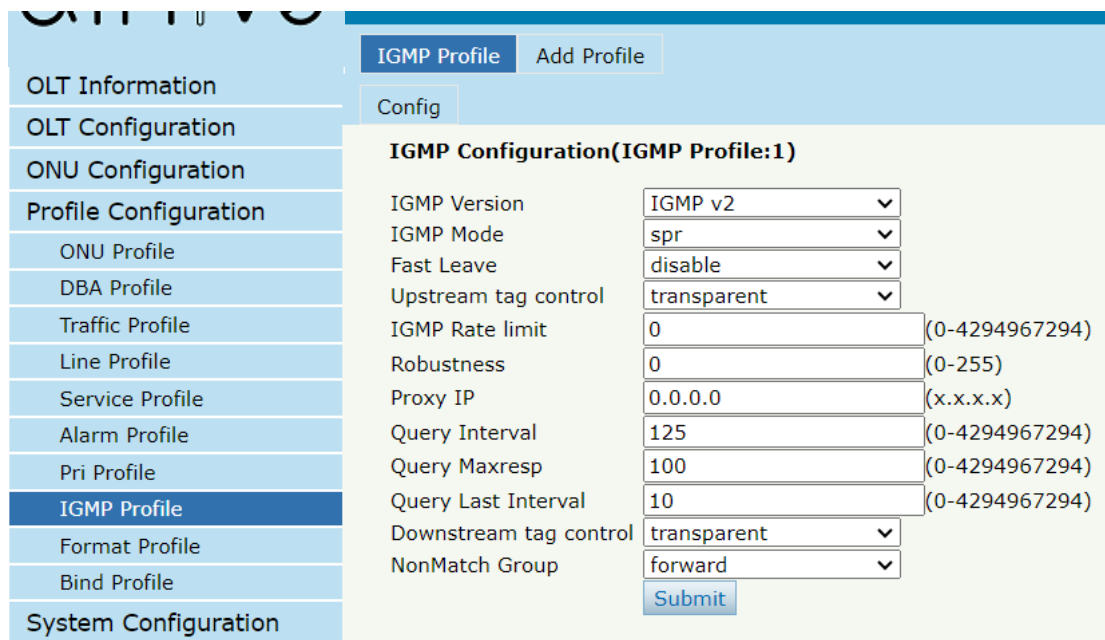


Figure 5.8-4: Config

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.

The screenshot shows the 'Format Profile' section of the web interface. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration (selected), ONU Profile, DBA Profile, Traffic Profile, Line Profile, Service Profile, Alarm Profile, Pri Profile, IGMP Profile, Format Profile (highlighted), Bind Profile, and System Configuration. The main content area has a header with 'Format Profile' and 'Add Profile' buttons. Below the header is a 'Refresh' button and a table with the following data:

Profile ID	Profile Name	Action
1	format_1	Details & Modify Delete

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 the 'Add Profile' form in the web interface. The left navigation menu is the same as in Figure 5.9-1, but 'IGMP Profile' is highlighted. The main content area has a header with 'IGMP Profile' and 'Add Profile' buttons. Below the header is the 'Add Profile' section with the following fields:

Profile ID	2
Profile Name	IGMP_2

Below the form is an 'Add' button.

Figure 5.9-2: Add Format Profile

Format Profile **Add Profile**

Format Profile

[Refresh](#)

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.

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

Profile Bind

ONU Profile Bind

Port ID

[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

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.

Alarm Log Table

Select Counts: 200
 Alarm Type: ALL
 Description:
 Download Log Type: txt
 Download Log:

No.1 Page/Total 10 Page 20 Item per page/Total 200 Item [First](#) [Previous](#) [Next](#) [Last](#) No.1 [Go](#) [Clear All](#) [Refresh](#)

No.	Time	Level	Event	Message
1	2024/05/13 15:49:25	major	User Login	User admin logged in from 192.168.6.17 on web
2	2024/05/13 15:47:17	major	User Logout	User admin logged out from 192.168.6.125 on web
3	2024/05/13 15:37:10	major	User Login	User admin logged in from 192.168.6.125 on web
4	2024/05/13 15:07:49	major	User Logout	User admin logged out from 192.168.6.239 on web
5	2024/05/13 14:54:57	major	User Login	User admin logged in from 192.168.6.239 on web
6	2024/05/13 13:35:07	major	User Logout	User admin logged out from 192.168.6.125 on web
7	2024/05/13 13:34:06	major	User Logout	User admin logged out from 192.168.6.11 on web
8	2024/05/13 13:23:50	major	User Login	User admin logged in from 192.168.6.11 on web
9	2024/05/13 13:22:55	major	User Login	User admin logged in from 192.168.6.125 on web
10	2024/05/13 11:31:47	major	User Logout	User admin logged out from 192.168.6.134 on web
11	2024/05/13 11:21:28	major	User Login	User admin logged in from 192.168.6.134 on web
12	2024/05/13 11:06:05	major	User Logout	User admin logged out from 192.168.6.134 on web
13	2024/05/13 10:55:36	warning	Device Port Updown	Uplink-port 0/3 Up
14	2024/05/13 10:52:30	warning	System Config Save	save Configuration
15	2024/05/13 10:38:50	warning	System Config Save	save Configuration
16	2024/05/13 10:38:31	major	User Login	User admin logged in from 192.168.6.134 on web
17	2024/05/13 09:54:59	major	User Logout	User admin logged out from console on vty
18	2024/05/13 09:44:53	major	User Login	User admin logged in from console on vty
19	2024/05/13 08:50:42	major	User Logout	User admin logged out from 192.168.6.38 on web
20	2024/05/13 08:41:23	major	ONU Offline	PON 0/2 ONU 64 sn GPON00cd9ca9

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".

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System Log Alarm Threshold Alarm Syslog Server Syslog Server IPv6

OLT Information

OLT Configuration

ONU Configuration

Profile Configuration

System Configuration

System Log

Device Management

User Management

SNMP

AUX IP

DNS

System Time

FAN

Mirror

Login Management

SSH

Tacacs+

Radius

Dot1x

Network Diagnose

Alarm Configuration

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	☒	☒	☒	☒

Submit Reset

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.

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

OLT Information
OLT Configuration
ONU Configuration
Profile Configuration
System Configuration
System Log
Device Management
User Management
SNMP
AUX IP
DNS
System Time
FAN
Mirror
Login Management
SSH
Tacacs+
Radius
Dot1x
Network Diagnose

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.

The screenshot displays the AirLive web management interface. On the left is a vertical menu with various system configuration options. The 'System Log' option is highlighted. At the top, there are tabs for 'System Log', 'Alarm', 'Threshold Alarm', 'Syslog Server', and 'Syslog Server IPv6', with 'Syslog Server' being the active tab. The main panel shows the 'Syslog Server Configuration' form. It includes a dropdown for 'Syslog Server' set to 'Enable', a text input for 'Server IP' set to '0.0.0.0', and a text input for 'Server Port' set to '514' with a hint '(1-65535)'. A 'Submit' button is located below the port field.

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.

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

Syslog Server IPv6 Configuration

Syslog Server IPv6

Server IPv6

Server Port (1-65535)

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 6.1-5: 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.

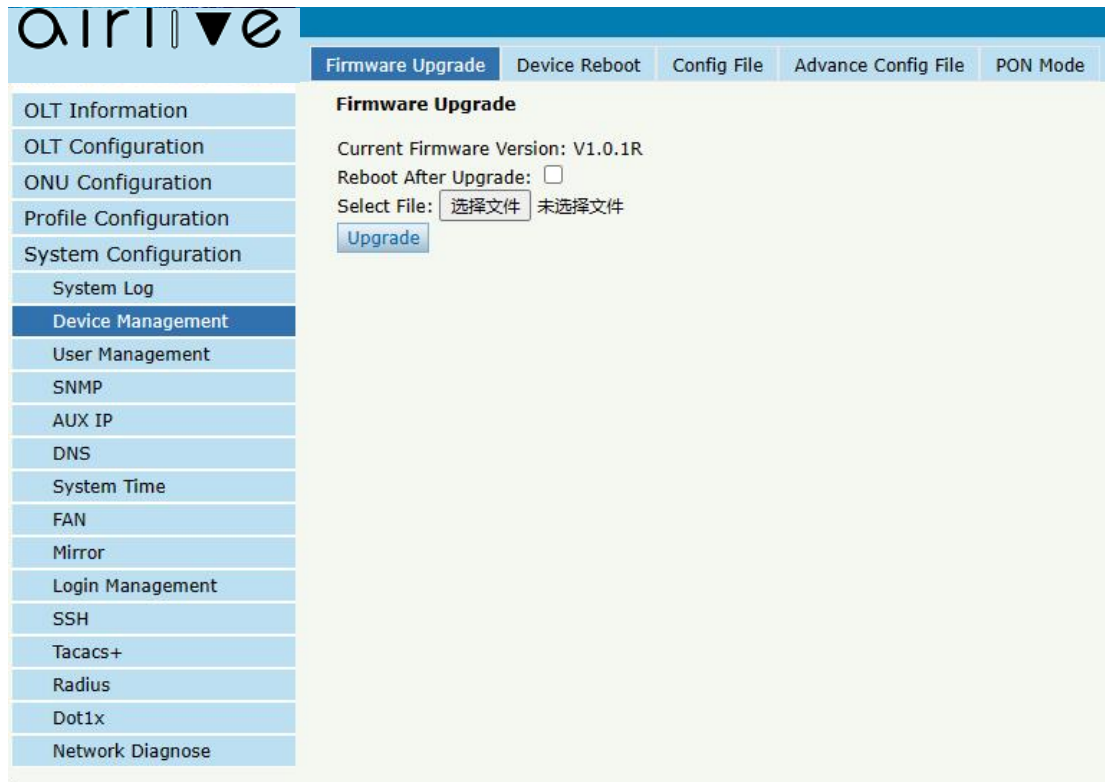


Figure 6.2-1: Firmware Upgrade

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.

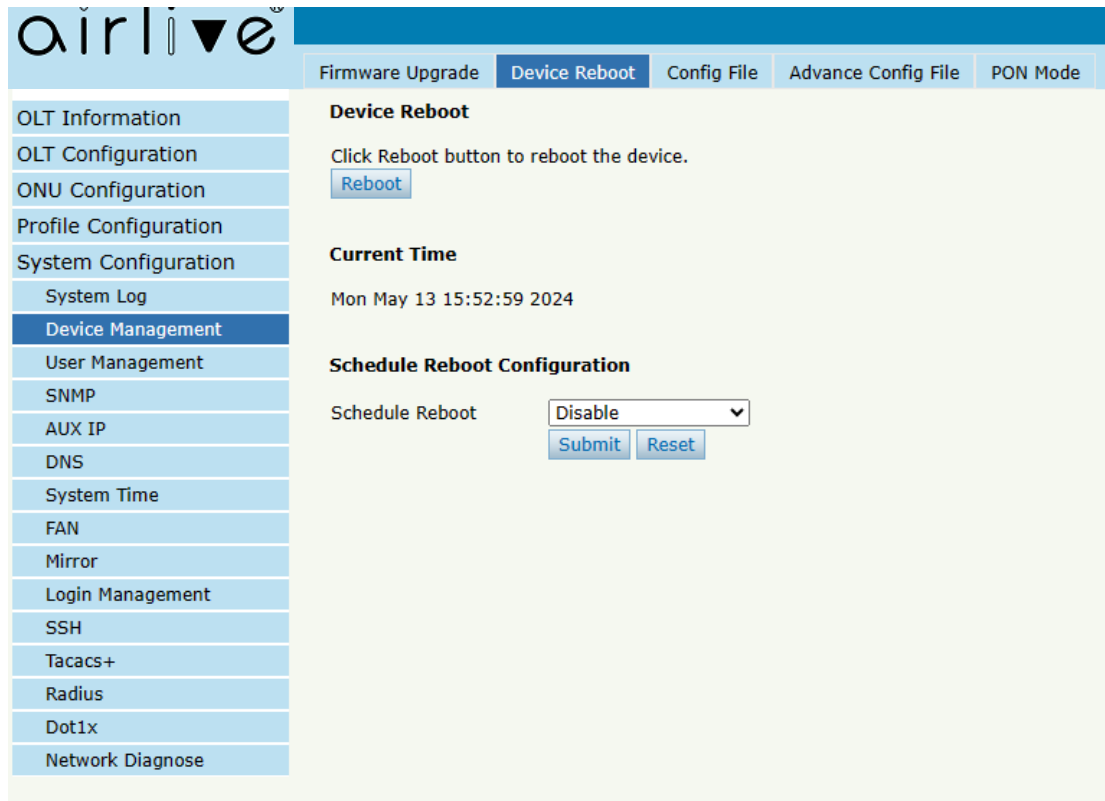


Figure 6.2-2: Device Reboot

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.

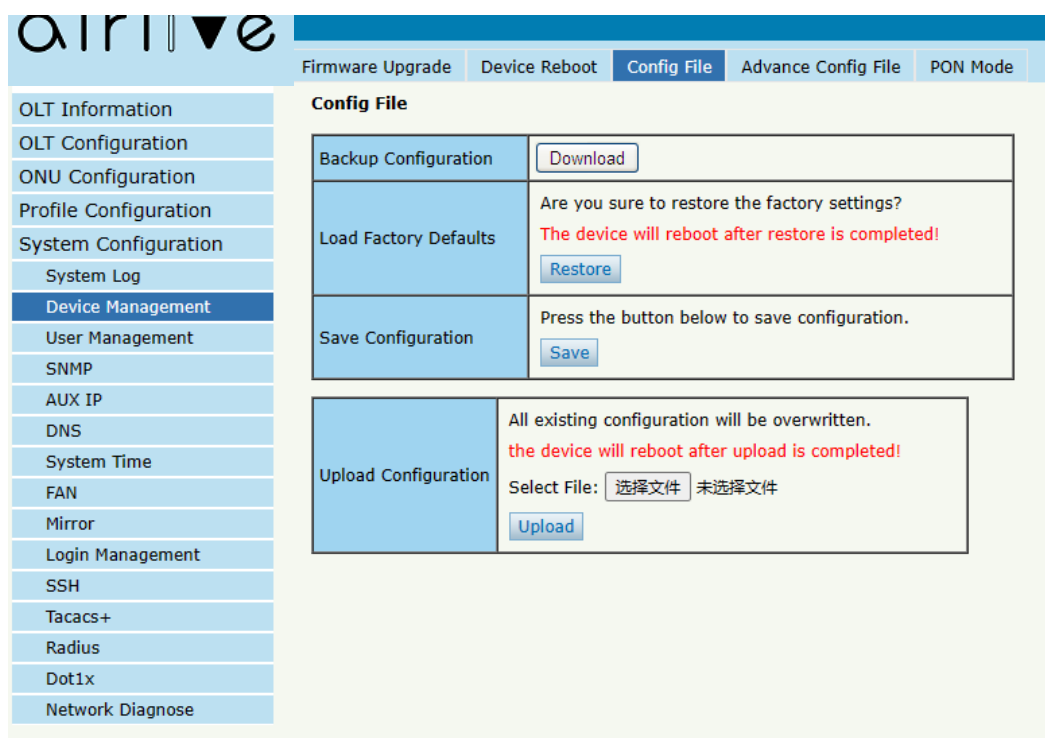


Figure 6.2-3: File Configuration

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.

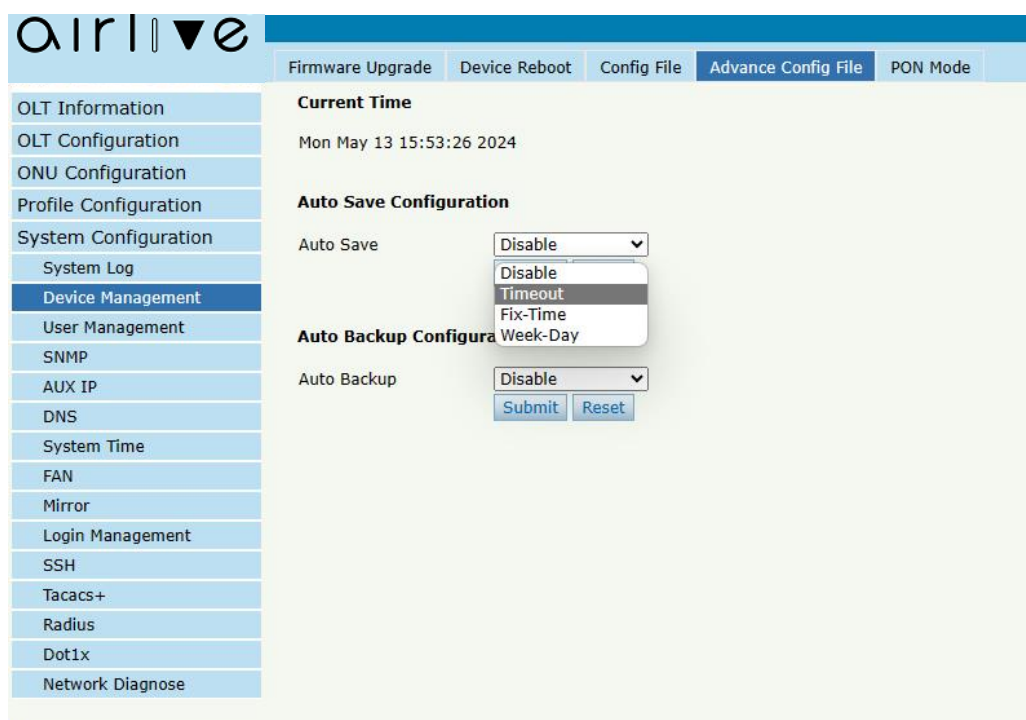


Figure 6.2-4: Auto Save

6.2.5 Pon Mode

System Configuration → Device Management → Pon Mode

Here you can select the PON mode for OLT, there are three modes: XG-PON, XGS-PON and GPON. (Only 1 mode can be used at any one-time, Correct PON module is also needed.

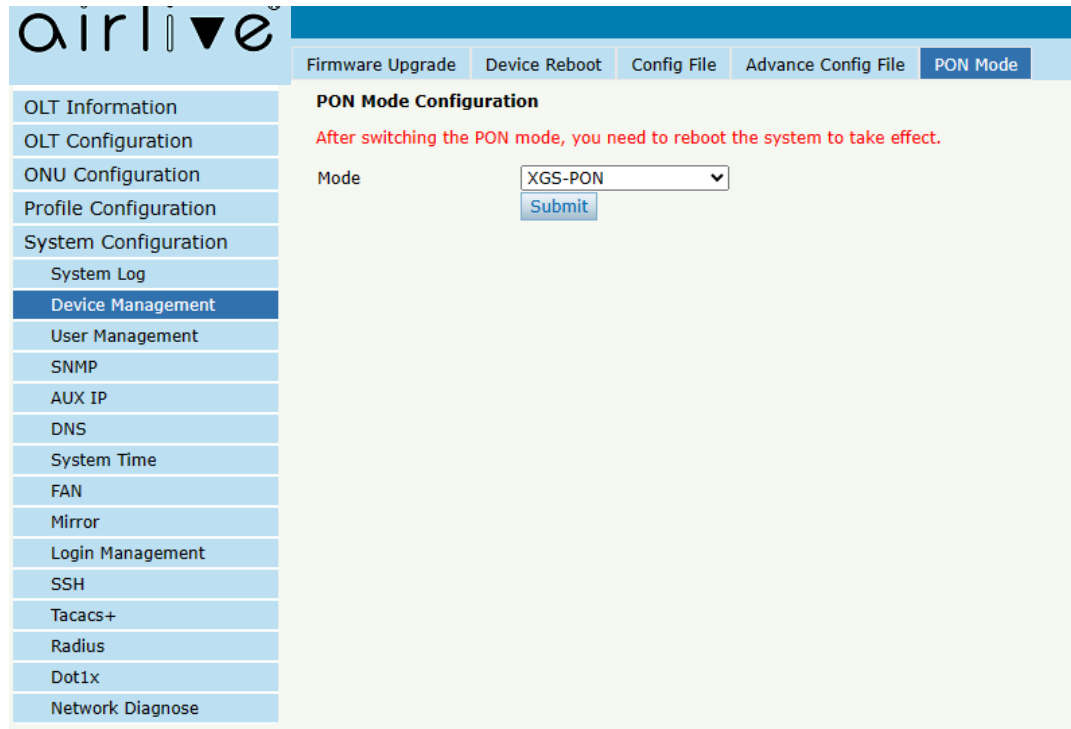


Figure 6.2-5: PON MODE

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.

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User Manage Role Manage

Add User

User Name

User Password

Confirm Password

User Role

Notice:

1.The password must contain at least 6 characters.

2.The password must contain at least two of the following combinations digit, uppercase letter, lowercase letter, Special characters (: ~ _ / @ ! ~ # \$ ^ & * () + = ? \ [{ }] ; ' " < , > `).

3.The password can not be any user name.

User Table

User Name	User Role	Edit	Delete
admin	Admin		

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.

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User Manage Role Manage

Add New Role

Role Description Name

Add

Role Management

Role Group Name custom_default ▼

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

Submit Delete

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

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.

The screenshot shows the 'SNMPV1/V2' configuration page. The sidebar menu on the left includes options like 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 main content area has tabs for 'SNMPV1/V2', 'SNMPV3', 'SNMPV3 Trap', and 'Remote Server'. The 'SNMPV1/V2' tab is selected, showing the 'Add Community' section with fields for 'Community Name' and 'Access Right' (set to 'Read-Only'), and an 'Add' button. Below this is the 'Community Table' with two entries: 'public' (Read-Only) and 'private' (Read-Write), each with a delete icon. The 'Add Trap' section includes fields for 'Host IP', 'UDP Port' (162), 'Community Name' (public), and 'SNMP Version' (1), with an 'Add' button. At the bottom is the 'Trap Table' with columns for Host IP, UDP Port, SNMP Version, Community Name, and Delete.

Figure6.4-1: SNMP V1/V2

6.4.2 SNMP V3

System Configuration → SNMP → SNMP V3

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

The screenshot displays the 'SNMPV3' configuration page. The sidebar on the left lists various system configuration options, with 'SNMP' currently selected. The main panel is divided into several sections:

- SNMPV3 Tab:** Includes sub-tabs for 'SNMPV1/V2', 'SNMPV3' (active), 'SNMPV3 Trap', and 'Remote Server'.
- Add View:** Contains input fields for 'View Name', 'Subtree' (with a note '(Type:Object Identifier)'), and a 'View Type' dropdown menu set to 'Include'. An 'Add' button is present.
- View Table:** A table with columns: View Name, Subtree, View Type, and Delete.
- Add Group:** Contains input fields for 'Group Name', 'Access Level' (dropdown set to 'No Auth'), 'Read View', 'Write View', and 'Notify View'. An 'Add' button is present.
- Group Table:** A table with columns: Group Name, Access Level, Read View, Write View, Notify View, and Delete.
- Add User:** Contains input fields for 'User Name', 'Group Name', 'Auth Type' (dropdown set to 'None'), 'Auth Password', 'Private Type' (dropdown set to 'None'), and 'Private Password'. An 'Add' button is present.
- User Table:** A table with columns: User Name, Group Name, Auth Type, Private Type, and Delete.

Figure6.4-2: SNMP V3

6.4.3 SNMP V3 Trap

System Configuration → SNMP → SNMP V3 Trap
 Configure the target host IP address of trap messages.

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

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

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, a vertical menu lists various system configuration options: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log, Device Management, User Management, **SNMP** (highlighted), AUX IP, DNS, System Time, FAN, Mirror, Login Management, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The main content area is titled 'Remote Server Configuration' and contains the following elements:

- Remote Server:** A dropdown menu currently set to 'Enable'.
- Server:** A text input field containing the IP address '192.168.6.228', followed by a red status indicator '(Connected)'.
- Submit:** A blue button to save the configuration.

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.

The screenshot shows the 'AUX IPv6' configuration page. The left sidebar lists various system configuration options, with 'AUX IP' highlighted. The main area has two tabs: 'AUX IP' and 'AUX IPv6'. The 'AUX IPv6' tab is selected, showing three sections:

- AUX IPv6 Gateway:** A form with a 'Gateway' input field and 'Submit' and 'Reset' buttons.
- AUX IPv6 Configuration:** A form with 'IPv6 Address' and 'Prefixlen' input fields, and 'Submit' and 'Reset' buttons.
- AUX IPv6 Table:** A table listing configured IPv6 addresses and their prefix lengths, with a 'Delete' column containing a trash icon.

IPv6 Address	Prefixlen	Delete
fe80::8214:a8ff:fe00:c		
fec0::8214:a8ff:fe00:c	64	

Figure 6.5-2: AUX IPv6

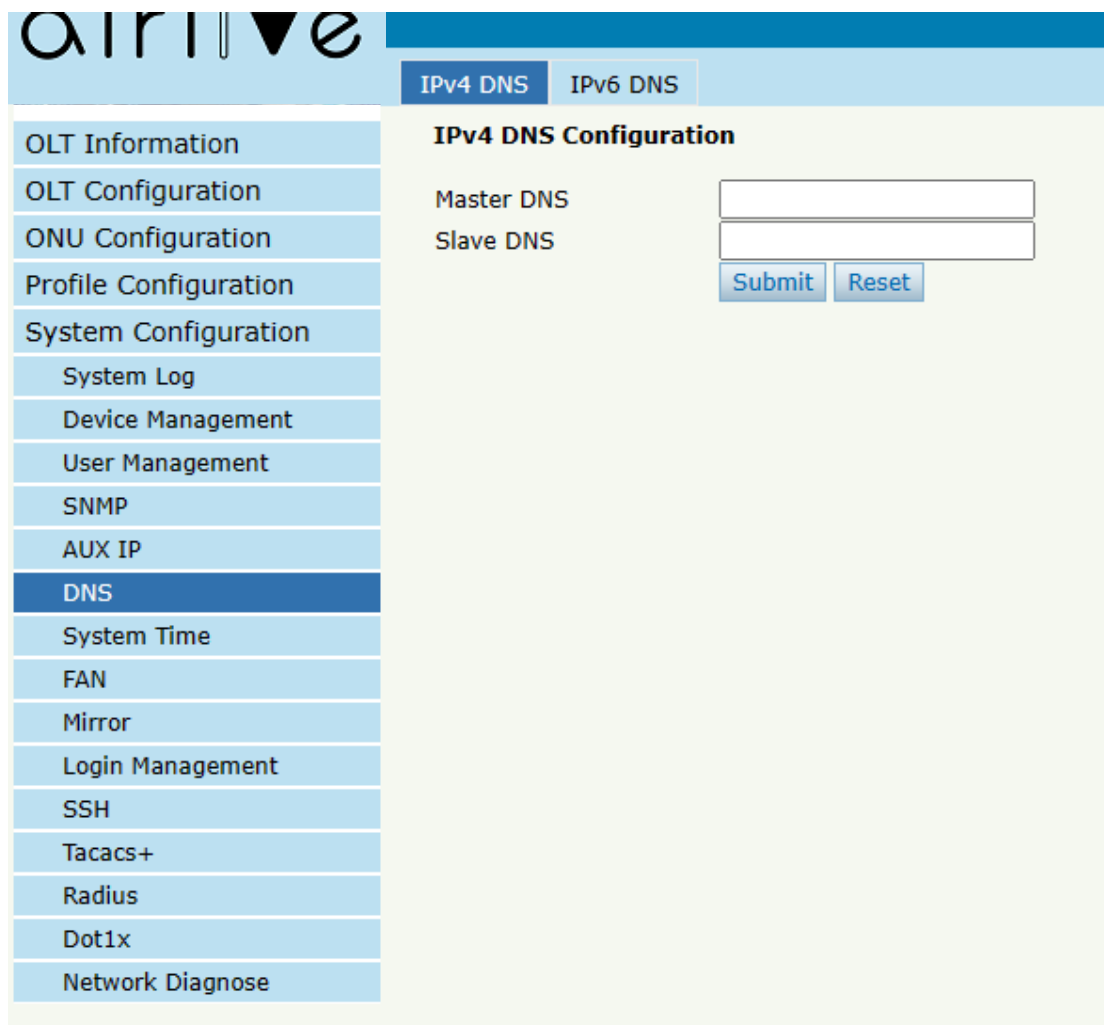
6. 6 DNS

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 displays the AirLive web management interface. On the left, a vertical menu lists various system configuration options, with 'DNS' currently selected. The main panel is titled 'IPv4 DNS Configuration' and features two tabs: 'IPv4 DNS' (active) and 'IPv6 DNS'. Below the tabs, there are two input fields labeled 'Master DNS' and 'Slave DNS'. At the bottom right of the configuration area, there are 'Submit' and 'Reset' buttons.

Figure 6.6-1: IPv4 DNS

6.6.2 IPv6 DNS

System Configuration → DNS → IPv6 DNS

This page is used to configure IPv6 DNS.

The screenshot displays the web management interface for an AirLive XG(S)-PON OLT. On the left, a vertical menu lists various configuration options: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log, Device Management, User Management, SNMP, AUX IP, **DNS** (highlighted), System Time, FAN, Mirror, Login Management, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The main content area is titled 'IPv6 DNS Configuration' and features two tabs: 'IPv4 DNS' and 'IPv6 DNS'. The 'IPv6 DNS' tab is active, showing two input fields labeled 'Master DNS' and 'Slave DNS'. Below these fields are two buttons: 'Submit' and 'Reset'.

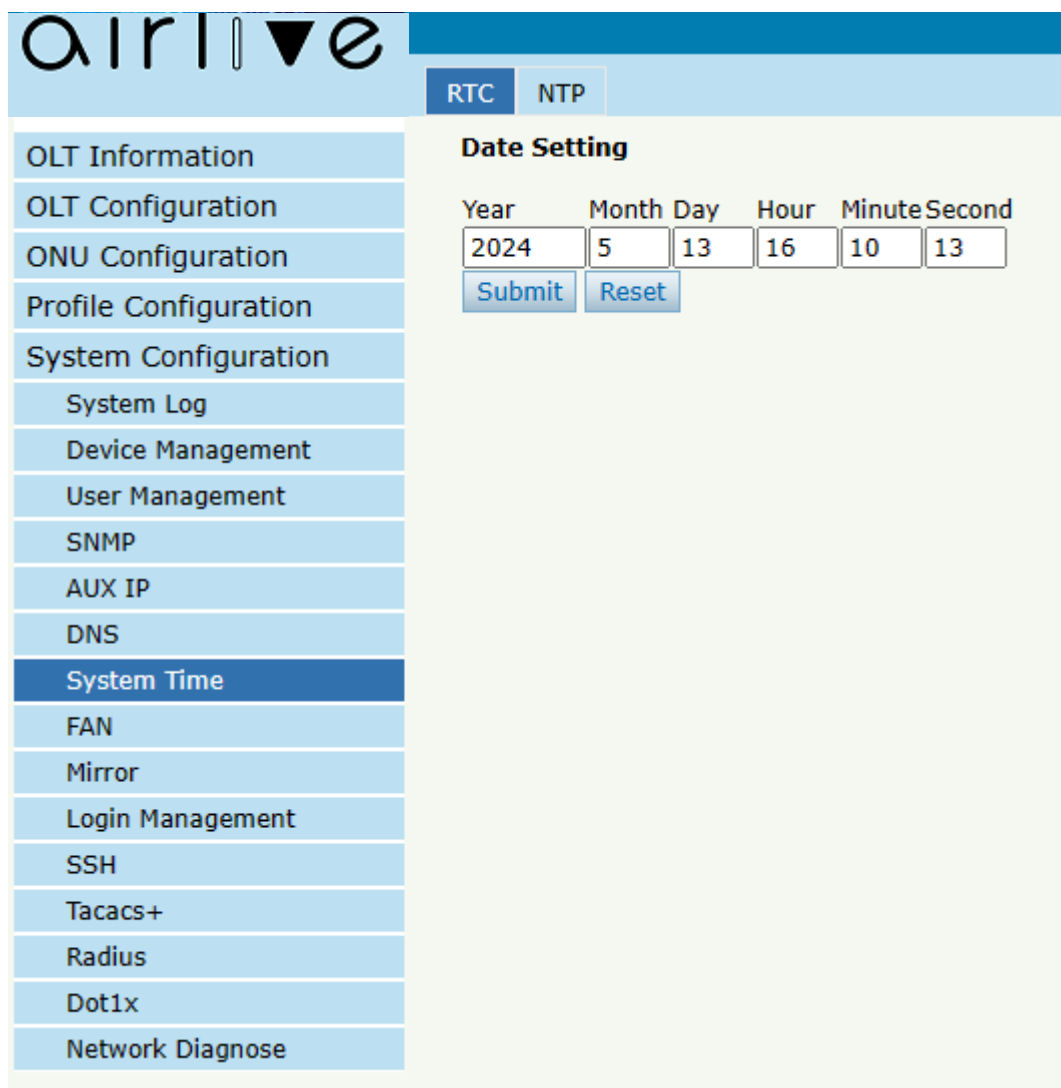
Figure 6.6-2: IPv6 DNS

6.7 System Time

6.7.1 RTC

System Configuration → System Time → RTC

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



The screenshot displays the AirLive web interface. On the left, a sidebar contains a list of configuration options: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log, Device Management, User Management, SNMP, AUX IP, DNS, System Time (highlighted), FAN, Mirror, Login Management, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose. The main content area is titled 'Date Setting' and features two tabs: 'RTC' (selected) and 'NTP'. Below the tabs, there are input fields for Year (2024), Month (5), Day (13), Hour (16), Minute (10), and Second (13). At the bottom of the form are 'Submit' and 'Reset' buttons.

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.

The screenshot displays the NTP Configuration interface. On the left, a sidebar menu lists various system settings, with 'System Time' highlighted. The main panel features two tabs: 'RTC' and 'NTP', with 'NTP' currently selected. The configuration options include:

- Enable NTP Synchronization:** A dropdown menu set to 'Enable'.
- NTP Timezone:** A dropdown menu set to '(GMT-00:00) Casablanca, Monrovia'.
- Daylight Saving Time:** A dropdown menu.
- Master NTP Server:** An empty text input field.
- Slave NTP Server:** An empty text input field.
- Current Time:** Displays the current date and time as '2024-5-13 16:10:24'.

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

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.

The screenshot displays the AirLive web management interface. On the left is a vertical navigation menu with the 'airlive' logo at the top. The 'FAN' option is highlighted in the menu. The main content area is titled 'FAN Configuration'. It contains two configuration fields: 'FAN Temperature' with a text input box containing '40' and a range '(20-80)' to its right; and 'FAN Mode' with three radio buttons labeled 'Open', 'Close', and 'Auto', where 'Auto' is selected. Below these fields are 'Submit' and 'Reset' buttons.

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.

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

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.

airlive

Login Access List Service Port Login Configuration Telnet 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

Login Access Status

Login Access Status

Login Access List Configuration

Filter Action ☒ Deny ☐ Permit

Internet Version

Protocol

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.

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 AirLive 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 is titled 'Web Configuration' and contains several settings:

- Login Timeout:** A text input field containing the value '10', followed by the text '(1-180 minutes)'.
- Verification Code:** A dropdown menu currently set to 'Disable'.
- Session Key:** A dropdown menu currently set to 'Enable'.
- WEB HTTP:** A dropdown menu currently set to 'Enable'.

At the bottom of the configuration fields, there are two buttons: 'Submit' and 'Reset'.

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.

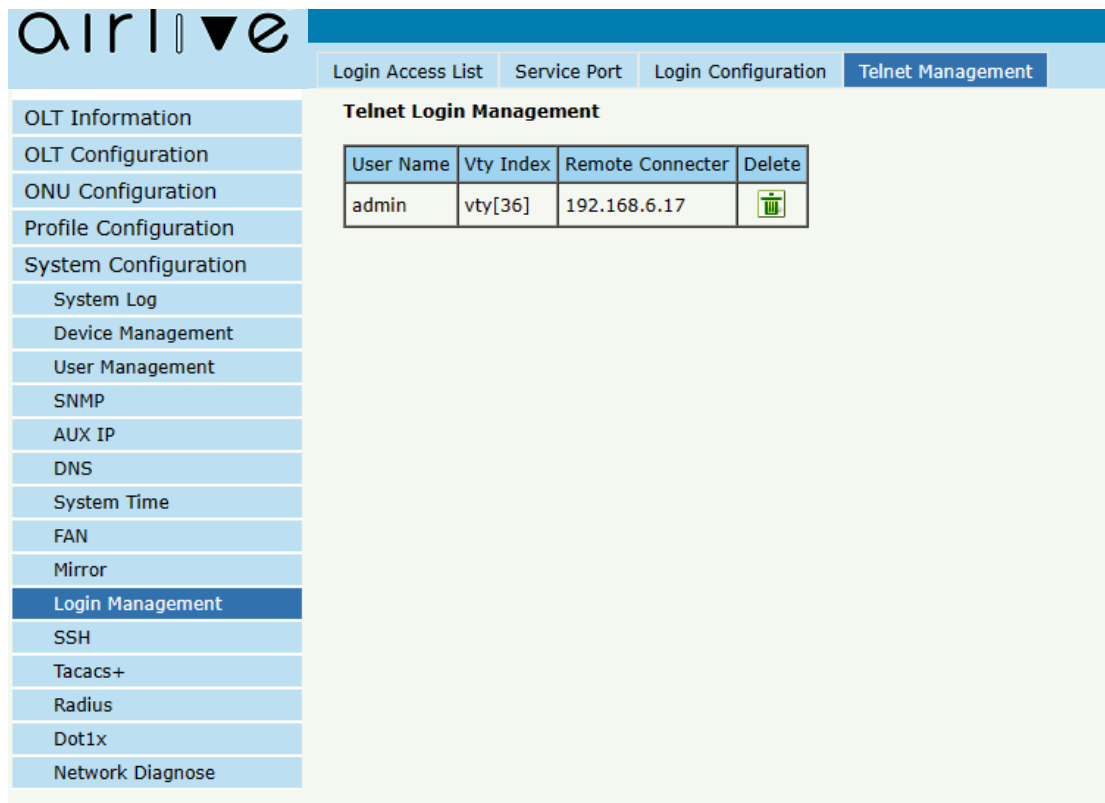


Figure 6.10-4: Telnet Management

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 been established by SSH protocol.

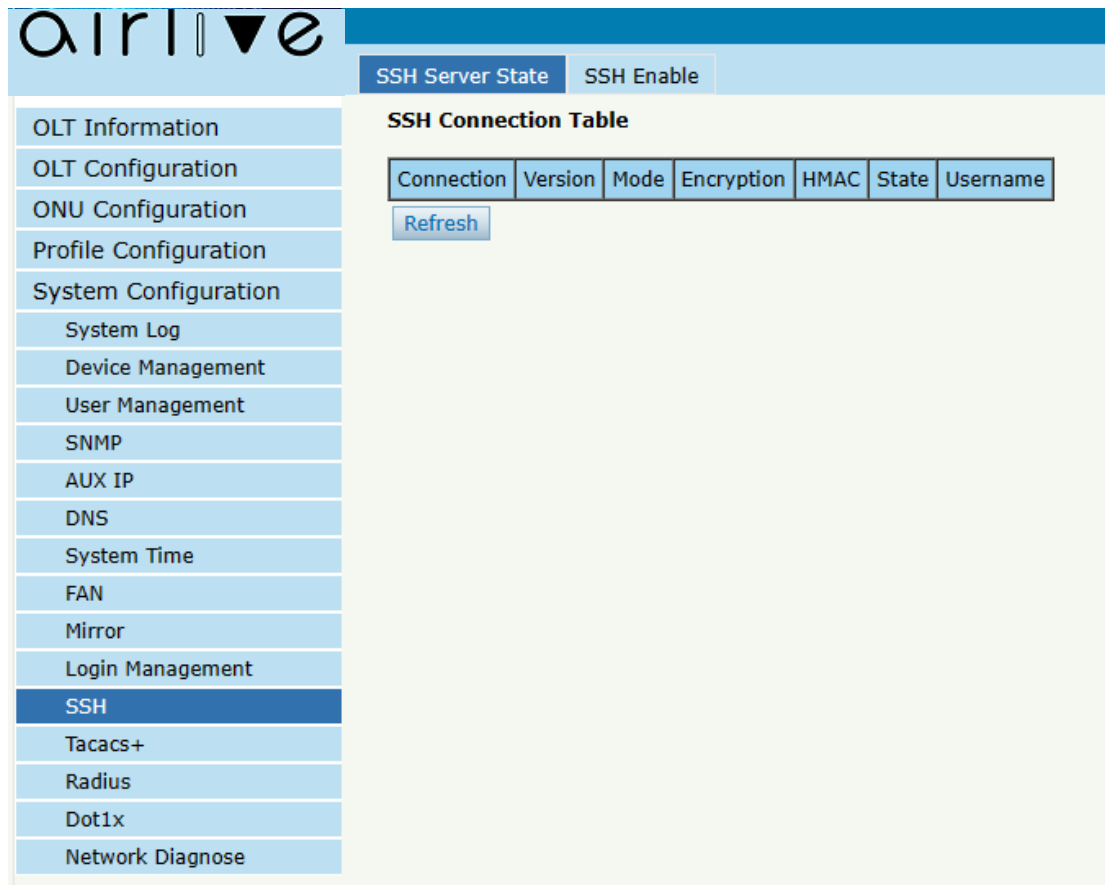


Figure 6.12-1: SSH State

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

Version

Auth Retries (1-6)

Login Grace Timeout (1-120s)

Max Startups (1-5)

Max Sessions (1-12)

RSA Modulus (1024-4096)

ECDSA Modulus

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+

Tacacs+ Configuration

AAA Enable ☒

Console Enable Tacacs+ ☐ Login

Authentication ☐ Login ☐ Local

☐ Enable ☐ Enable Local

Authorization ☐ Exec ☐ Local

Command Level 0 1 15

Enable ☐ ☐ ☐

Accounting ☐ Exec

Command Level 0 1 15

Enable ☐ ☐ ☐

Tacacs+ Key Configuration

Shared Key

Tacacs+ Server Configuration

Tacacs+ Server

Tacacs+ Server Table

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.

Radius

Radius Configuration

AAA Enable ☒

Console Enable radius ☐ Login

Authentication ☐ Login ☐ Local

☐ Dot1x ☐ Local

☐ Enable ☐ Enable Local

Authorization ☐ Dot1x

Accounting ☐ Exec

☐ Dot1x

Radius Server Configuration

Radius Server

Shared Key

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.

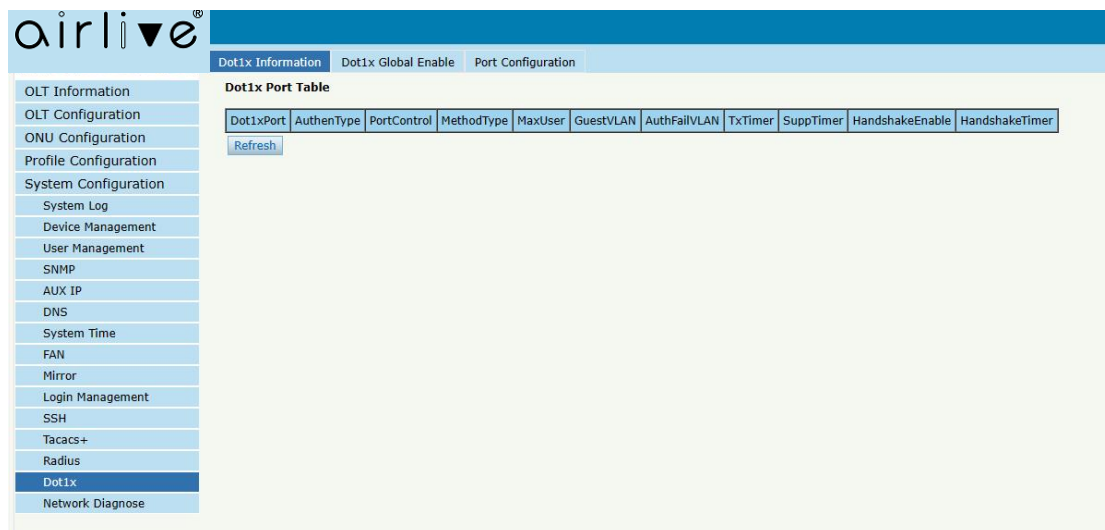


Figure 6.14-1:Dot1x Information

6.14.2 Dot1x Global Enable

You can enable Dot1x on this interface.

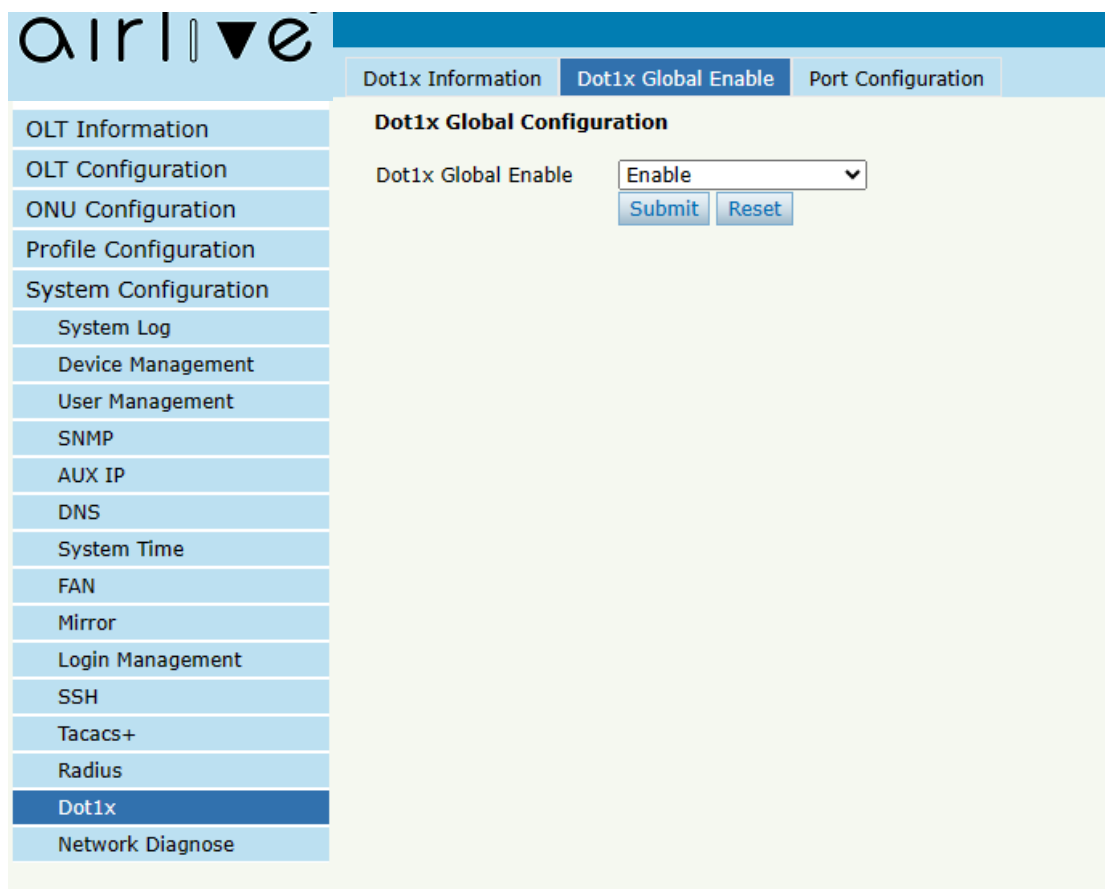


Figure 6.14-2:Dot1x Global Enable

6.14.3 Port Configuration

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

The screenshot shows the 'Port Configuration' tab selected. The table below lists the configuration for ports GE0/1 through GPON0/2.

Port ID	Status	Authn 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

Buttons: 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.

The screenshot shows the 'Ping Diagnose' tab selected. The form includes the following fields and buttons:

- Ping Diagnosis**
 - Destination IP Address Or Host Name:
 - IP type:
 - Buttons: Submit, Reset
- Ping Test Result**

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.

The screenshot shows the 'Tracert Diagnose' configuration page. On the left is a navigation menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log, Device Management, User Management, SNMP, AUX IP, DNS, System Time, FAN, Mirror, Login Management, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose (which is highlighted). The main content area has a top bar with tabs: Ping Diagnose, Tracert Diagnose (selected), Netstat Diagnose, Tcpdump Diagnose, and Iperf Diagnose. Below the tabs, the 'Trace Route Diagnosis' section contains a text input field for 'Destination IP Address Or Host Name', a dropdown menu for 'IP type' (currently set to 'IPv4'), and 'Submit' and 'Reset' buttons. Below this is a section titled 'Tracert Test Result' which is currently empty.

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' 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 labeled 'netstat' with 'Submit' and 'Reset' buttons. Below this is a 'parameter prasis' table:

-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

Below the table is a section for 'Netstat Test Result'.

Figure 6.15-3: Netstat Diagnose Configuration

6.15.4 Tcpdump Diagnose

System Configuration → Diagnose → Tcpdump Diagnose

This is the TCP link test.

The screenshot shows the 'Tcpdump Diagnose' page. It has a similar layout to the Netstat page. The 'Tcpdump Diagnosis' section includes a text input field labeled 'tcpdump' with 'Submit' and 'Reset' buttons. Below is a 'parameter prasis' table:

-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

Below the table is a section for 'Tcpdump Test Result'.

Figure 6.15-4: Tcpdump Diagnose Configuration

6.15.5 Iperf Diagnose

System Configuration → Diagnose → Iperf Diagnose

This is Iperf-related testing.

The screenshot displays the 'Iperf Diagnose' configuration page. On the left is a sidebar menu with the following items: OLT Information, OLT Configuration, ONU Configuration, Profile Configuration, System Configuration, System Log, Device Management, User Management, SNMP, AUX IP, DNS, System Time, FAN, Mirror, Login Management, SSH, Tacacs+, Radius, Dot1x, and Network Diagnose (highlighted). The top navigation bar includes tabs for Ping Diagnose, Tracert Diagnose, Netstat Diagnose, Tcpdump Diagnose, and Iperf Diagnose (selected). The main content area is titled 'Iperf Diagnosis' and contains a text input field with the value 'iperf', 'Submit' and 'Reset' buttons, a 'parameter prasis' table, and an 'IPerf Test Result' section.

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 6.15-5: Iperf Diagnose Configuration