Single PON port GPON OLT WEB USER MANUAL

Version V1.0 Release Date 2023-4-7

CONTENTS

Chapter 1 System Description	6
1.1 Overview	6
1.1.1 OLT Introduction	6
1.1.2 OS Requirement	6
1.2 Connection	7
Chapter 2 OLT Information	8
2.1 Login	8
2.2 Device Information	8
Chapter 3 OLT Configuration	10
3.1 VLAN	10
3.1.1 Create VLAN	10
3.1.2 VLAN Port	11
3.2 Uplink Port	12
3.2.1 Information	12
3.2.2 Configuration	12
3.2.3 Optical Information	13
3.3 PON	14
3.3.1 Information	14
3.3.2 Traffic Statistics	14
3.3.3 Configuration	15
3.3.4 Range	15
3.4 MAC	16
3.4.1 MAC Table	16
3.4.2 PON MAC Table	17
3.4.3 Configuration	18
3.5 IGMP	19
3.5.1 Group Member	19
3.5.2 Global	20
3.5.3 Port	21
3.5.4 Port User VLAN	21
3.5.5 Port Mrouter	22
3.5.6 Static Group	22
3.6 Loopback	23

3.6.1 Information	23
3.6.2 Global	24
3.6.3 Port	24
3.7 IP Route	25
3.7.1 VLAN IP	25
Chapter 4 ONU Configuration	27
4.1 ONU AuthList	27
4.1.1 ONU List	27
4.1.2 ONU Status	44
4.1.3 ONU Optical Info	44
4.1.4 ONU Version Information	45
4.1.5 ONU Manual Add	45
4.1.6 ONU Allowlist	46
4.1.7 ONU Statistics	46
4.2 ONU AutoFind	47
4.2.1 Automatic Discovery	47
4.2.2 Aging Time	48
4.3 ONU AutoLearn	49
4.3.1 ONU AutoLearn	49
4.3.2 ONU AutoBind	49
4.3.3 ONU AutoDelete	50
4.4 ONU Upgrade	51
4.4.1 UpLoad Image	51
4.4.2 Manual Upgrade	51
4.4.3 Upgrade Status	52
4.4.4 Auto Upgrade	52
4.4.5 Auto Upgrade Status	53
4.5 Rogue ONU	54
Chapter 5 Profile Configuration	55
5.1 ONU Profile	55
5.1.1 Information	55
5.1.2 Add profile	56
5.2 DBA Profile	57
5.2.1 DBA profiles	58

	5.2.2 Add profile	58
	5.3 Line Profile	59
	5.3.1 Line profile	59
	5.3.2 Add profile	60
	5.3.3 Display or modify line profile info	61
	5.4 Service Profile	65
	5.4.1 Service profile	65
	5.4.2 Add profile	66
	5.4.3 Display or modify line profile info	67
	5.5 Alarm Profile	70
	5.5.1 Profile Info	70
	5.5.2 Add Profile	71
	5.6 Pri Profile	72
	5.6.1 Pri Profile	72
	5.6.2 Add Profile	72
	5.6.3 Display or modify pri profile info	73
	5.7 IGMP Profile	81
	5.7.1 IGMP Profile	81
	5.7.2 Add Profile	81
	5.7.3 Display or modify IGMP profile info	82
	5.8 Format Profile	83
	5.8.1 Format Profile	83
	5.8.2 Add Profile	84
	5.8.3 Display or modify Format profile info	85
	5.9 Bind Profile	87
С	hapter 6 System Configuration	89
	6.1 System Log	89
	6.1.1 System Log	89
	6.1.2 Alarm	89
	6.1.3 Threshold Alarm	90
	6.2 Device Management	91
	6.2.1 Firmware Upgrade	91
	6.2.2 Device Reboot	92
	6.2.3 Config File	93

6.3 User Management	93
6.4 Gateway	94
6. 5 DNS	95
6.5.1 IPv4 DNS	95
6.6 System Time	96
6.6.1 RTC	96
6.6.2 NTP	96
6.7 Mirror	97
6.8 Login Management	98
6.8.1 Login Access List	98
6.8.2 Service Port	98
6.8.3 Login Configuration	99
6.8.4 Telnet Management	100

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 and Table 1-2. After you have completed installation, connection and commissioning of the equipment, you can start on configuring various services and functions for the equipment.

Table 1-1 OLT interfaces

1.1.2 OS Requirement

1-2

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

Operation System requirement

Table

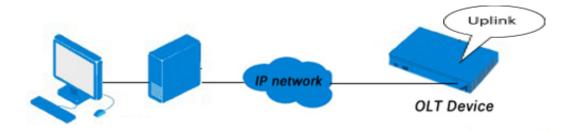
Products		Single PON port GPON OLT	
Chassis	Racks	1U	
1G/10G Uplink Port	QTY	3	
	Copper	2*100/1000M auto-negotiation	
	SFP(Independent)	1*SFP+ (SFP+ is compatible with 10GE)	
GPON Port	QTY	1	
	Fiber Type	9/125 µ m SM	
Management Mode		Console, WEB, Telnet and CLI	

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

1.2 Connection

Connect the OLT Uplink 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#".

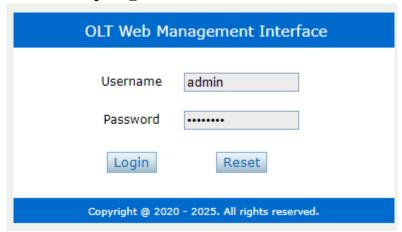


Figure 2-1-1: Login

2.2 Device Information

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

OLT Information \rightarrow **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 in need.



Figure 2-2-1: Device Information

Chapter 3 OLT Configuration

This section is about the basic service of OLT configuration.

3.1 VLAN

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

- ☐ Support Port-based VLAN and IEEE802.1Q VLAN.
- □ Support full 512 VLAN at the same time, VLAN range is 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 \rightarrow **VLAN**

In this user interface, you can create new VLAN.

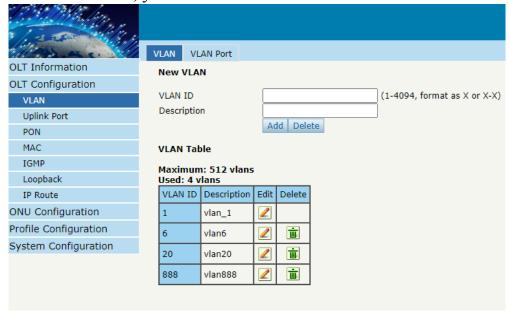


Figure 3-1-1: Create New VLAN

3.1.2 VLAN Port

OLT Configuration \rightarrow **VLAN** \rightarrow **VALN Port**

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

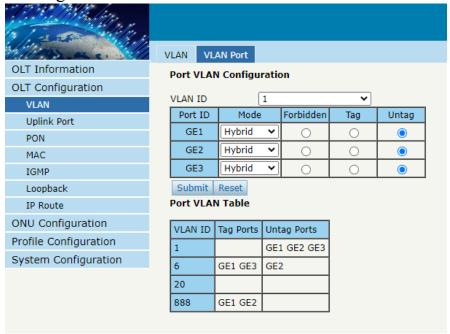


Figure 3-1-2: Add VLAN Port

3.2 Uplink Port

GE ports traffic statistics and basic configuration setting.

3.2.1 Information

OLT Configuration \rightarrow **Uplink Port** \rightarrow **Information**

This user interface displays traffic statistics of uplink ports.

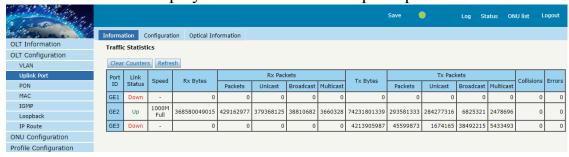


Figure 3-2-1: GE Traffic Statistics

3.2.2 Configuration

OLT Configuration \rightarrow **Uplink Port** \rightarrow **Information**

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

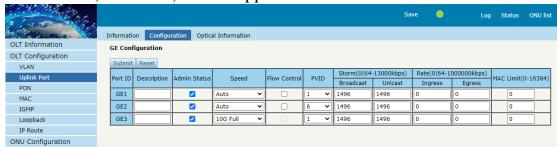


Figure 3-2-2: Uplink Ports Configuration

Illustrations of each parameter:

Parameters	Illustration	
Port ID	GE port has two types, copper (GE1 to GE2) and fiber SFP (GE3).	
Description	Descriptions or remarks of port.	
Admin Status	Active or inactive status of port. It is enabled by default.	
Speed	Configuring Port Rate.	
Flow Control	Enable or disable flow control function of uplink port to control congestion. It is disabled by default.	
PVID	Default VLAN ID of the port.	
Broadcast	Broadcast storm suppression.	
Unknown Unicast	Unknown unicast storm suppression.	
Ingress Rate	Port ingress rate.	
Egress Rate	Port egress rate.	
MAC limit	Number of MAC address can be learnt in the port.	

3.2.3 Optical Information

$OLT\ Configuration \rightarrow Uplink\ Port \rightarrow Optical\ Information$

This page can be used to view the optical port temperature, voltage, current, transmitted and received optical power and other parameters

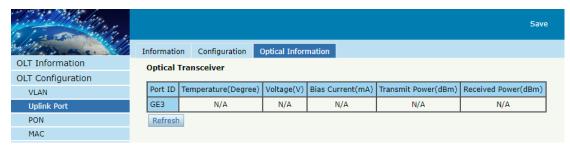


Figure 3-2-3: Optical Information

3.3 PON

3.3.1 Information

OLT Configuration \rightarrow **PON** \rightarrow **Information**

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

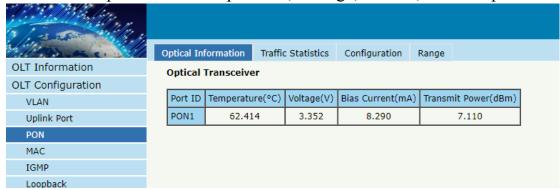


Figure 3-3-1: PON Information

3.3.2 Traffic Statistics

OLT Configuration \rightarrow **PON** \rightarrow **Traffic Statistics**

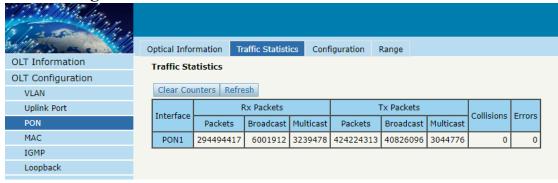


Figure 3-3-2: Traffic Statistics

3.3.3 Configuration

OLT Configuration \rightarrow **PON** \rightarrow **Configuration**

This page is used to configure functions and characteristic parameters of the PON port, such as port attributes, storm suppression, and rate limiting.

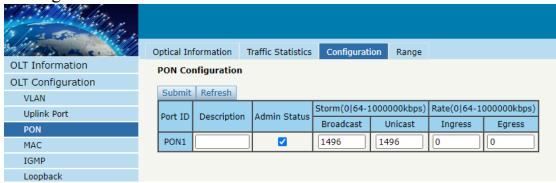


Figure 3-3-3: PON configuration

3.3.4 Range

OLT Configuration \rightarrow **PON** \rightarrow **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.

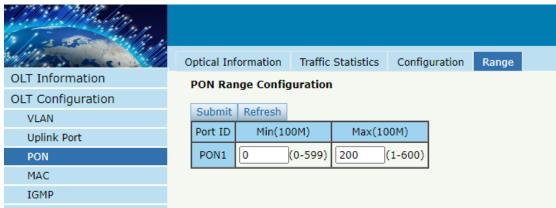


Figure 3-3-4: PON Range Configuration

3.4 MAC

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

3.4.1 MAC Table

OLT Configuration \rightarrow **MAC** \rightarrow **MAC Table**

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

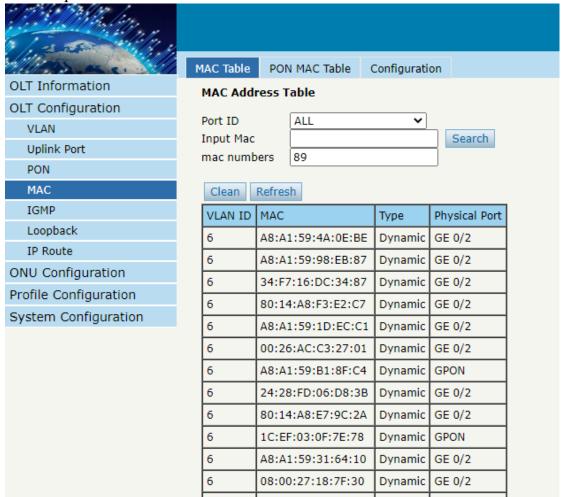


Figure 3-4-1: MAC Address Table

3.4.2 PON MAC Table

OLT Configuration \rightarrow **MAC** \rightarrow **PON MAC Table**

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

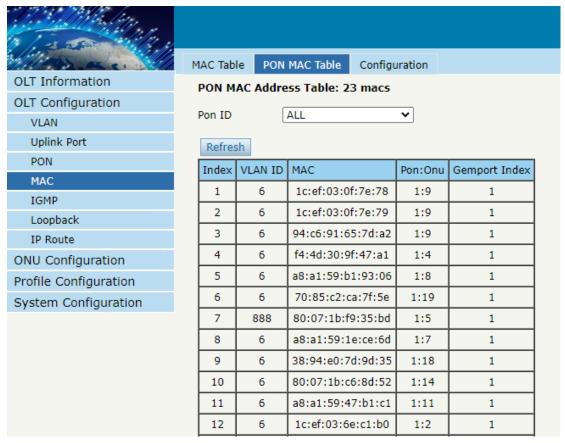


Figure 3-4-2: PON MAC Table

3.4.3 Configuration

OLT Configuration \rightarrow MAC \rightarrow Configuration

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

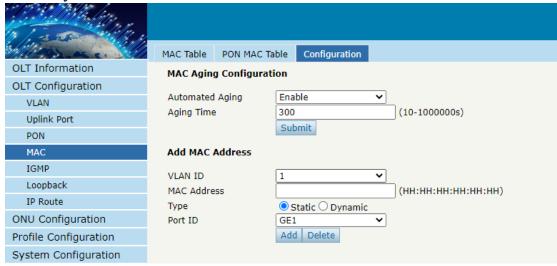


Figure 3-4-1: MAC Configuration

3.5 IGMP

3.5.1 Group Member

OLT Configuration \rightarrow **IGMP** \rightarrow **Group Member**

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



Figure 3-5-1: Group Member

3.5.2 Global

OLT Configuration \rightarrow **IGMP** \rightarrow **Global**

IGMP basic configuration mainly contains parameters of query packet and member timeout. 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.



Figure 3-5-2: IGMP Global

3.5.3 Port

OLT Configuration \rightarrow **IGMP** \rightarrow **Port**

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



Figure 3-5-3: IGMP Port

3.5.4 Port User VLAN

OLT Configuration \rightarrow IGMP \rightarrow 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.

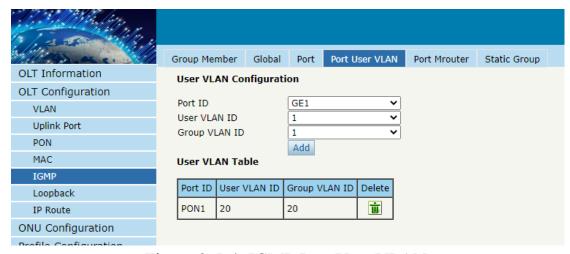


Figure 3-5-4: IGMP Port User VLAN

3.5.5 Port Mrouter

OLT Configuration \rightarrow **IGMP** \rightarrow **Port Mrouter**

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

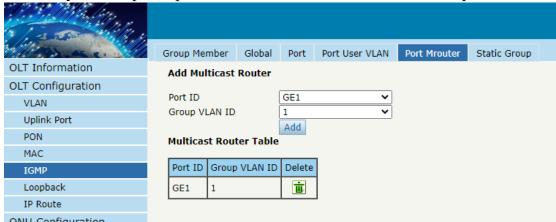


Figure 3-5-5: IGMP Port Mrouter

3.5.6 Static Group

$OLT\ Configuration \rightarrow IGMP \rightarrow Static\ Group$

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



Figure 3-5-7: IGMP Static Group

3.6 Loopback

Loopback can detect loop ports and process loop ports.

3.6.1 Information

OLT Configuration \rightarrow Loopback \rightarrow Information

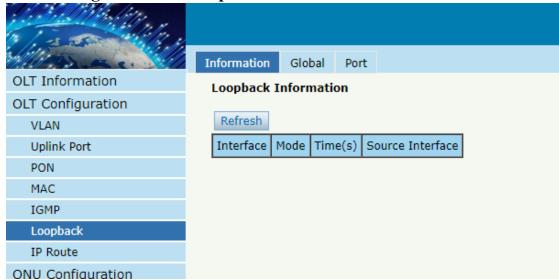


Figure 3-6-1: Loopback Information

3.6.2 Global

$OLT\ Configuration \rightarrow Loopback \rightarrow Global$

This page is used to enable or disable loopback detect, set the loopback range, mode, and aging time, loopback packet sending mode and packet sending interval.



Figure 3-6-2: Loopback Global

3.6.3 Port

OLT Configuration \rightarrow **Loopback** \rightarrow **Port**

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

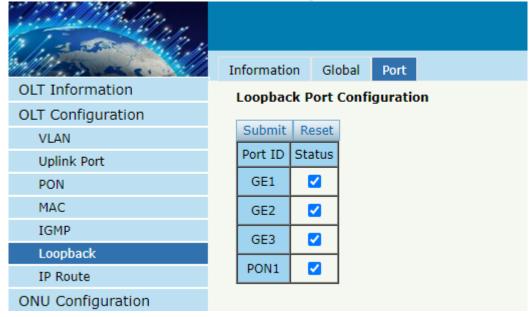


Figure 3-6-3: Loopback Port

3.7 IP Route

3.7.1 VLAN IP

OLT Configuration \rightarrow IP Route \rightarrow VLAN IP

This configuration is used to configure IP address for VLAN. When the

VLAN is added to a port, you can access OLT by the IP address from the port.

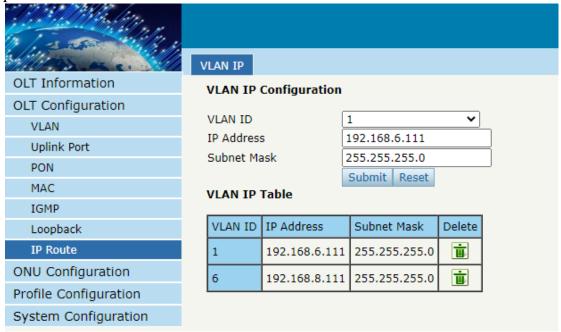


Figure 3-7-1: VLAN IP

Chapter 4 ONU Configuration

This chapter is about the ONU management by OLT.

4.1 ONU AuthList

4.1.1 ONU List

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List

All registered ONUs will be displayed in this interface. You can check ONU using profile, Registration mode and do some operations on every ONU.

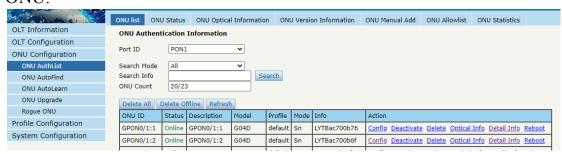


Figure 4-1-1: ONU List

4.1.1.1 Config

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config

Configure ONU parameter information which you selected.

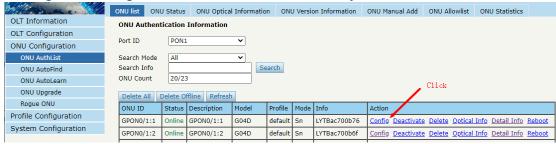


Figure 4-1-2: Configure ONU

4.1.1.1 Tcont

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Tcont

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

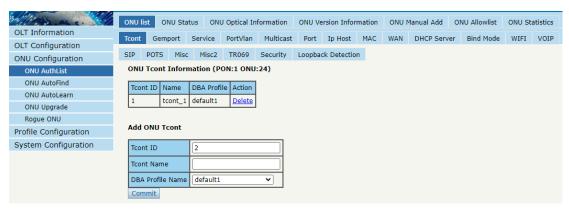


Figure 4-1-3: Create Tcont

4.1.1.1.2 Gemport

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Gemport

Create gemport ID and bind tcont ID.

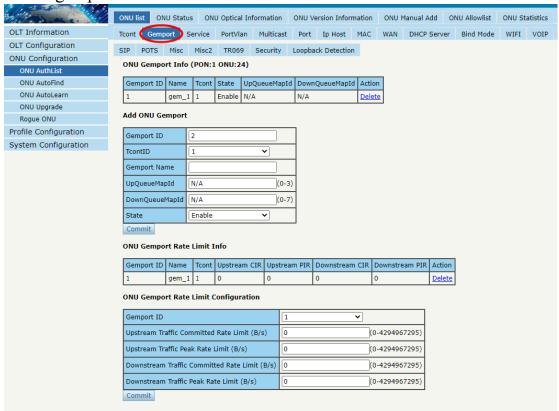


Figure 4-1-4: Create gemport

4.1.1.1.3 Service

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Service

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

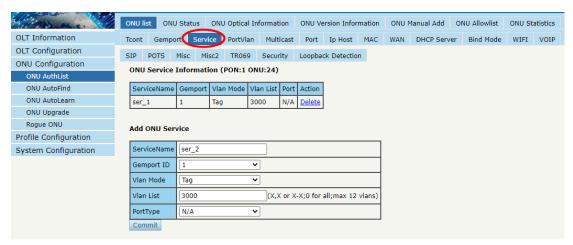


Figure 4-1-5: Create service

4.1.1.1.4 PortVlan

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow PortVlan

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

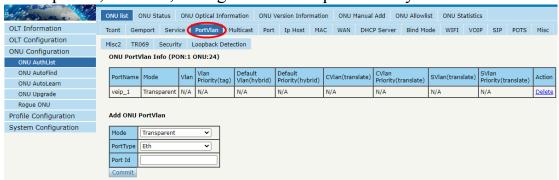


Figure 4-1-6: Configure port VLAN mode

4.1.1.1.5 Multicast

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Multicast

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



Figure 4-1-7: Configure multicast VLAN

4.1.1.1.6 Port

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Port

Set the basic configuration and speed limit of the ONU LAN port. Please note that you can select the LAN port to configure on the ONU Port.

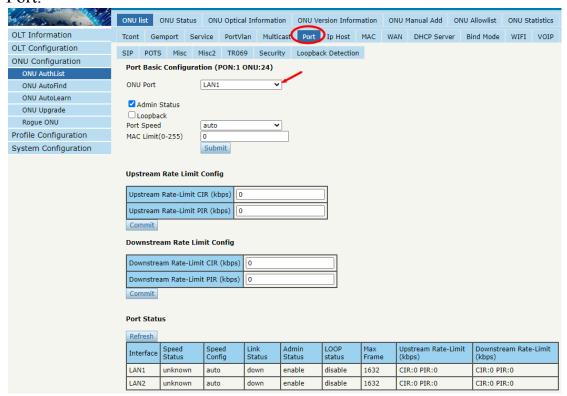


Figure 4-1-8: ONU Port Configuration

4.1.1.1.7 lp Host

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Ip Host

Create IP host for ONU wan connection. It is used for ONU management.

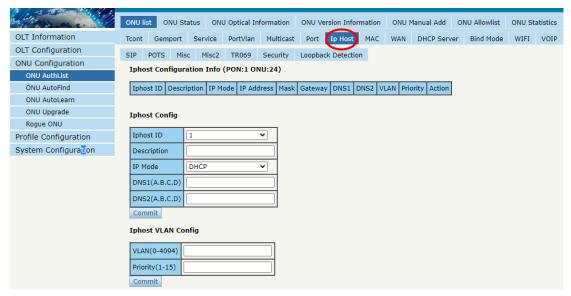


Figure 4-1-9: Configure IP host

4.1.1.1.8 MAC

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow MAC

Configure the MAC counts limit based on ONU or Gemport, and 0 means there is no limit.

This interface can also display the learned MAC addresses of each LAN port of the ONU.

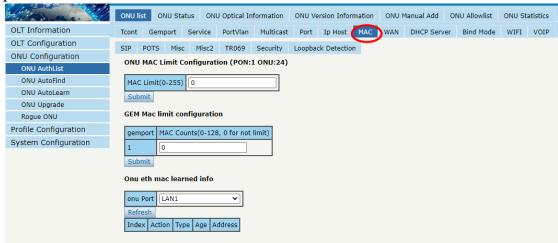


Figure 4-1-10: MAC Limit

4.1.1.1.9 WAN

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow 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.

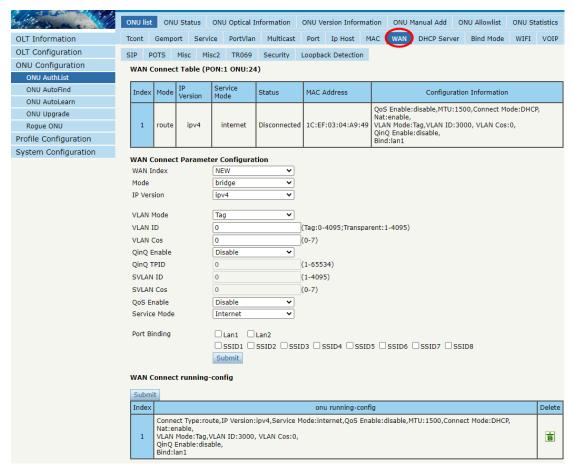


Figure 4-1-11: Configure WAN

4.1.1.1.10 DHCP Server

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow 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.

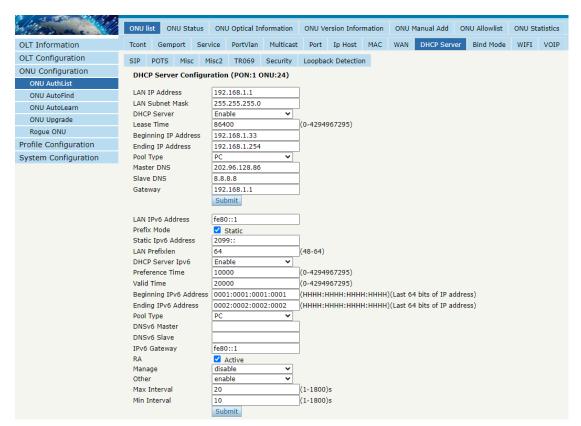


Figure 4-1-12: ONU DHCP Server

4.1.1.1.11 Bind Mode

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow 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.

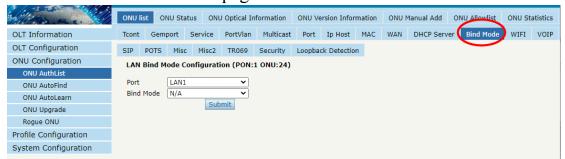


Figure 4-1-13: LAN Bind Mode Configuration

4.1.1.1.12 WIFI

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow 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.

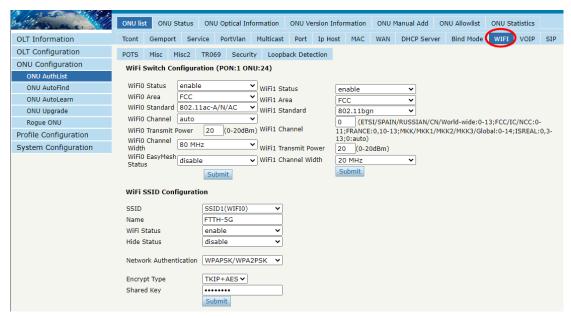


Figure 4-1-14: WIFI Configuration

4.1.1.1.13 VOIP

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow 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.

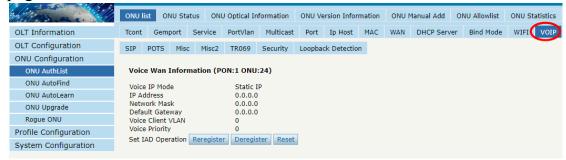


Figure 4-1-15: Voice Wan Information

4.1.1.1.14 SIP

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow 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.

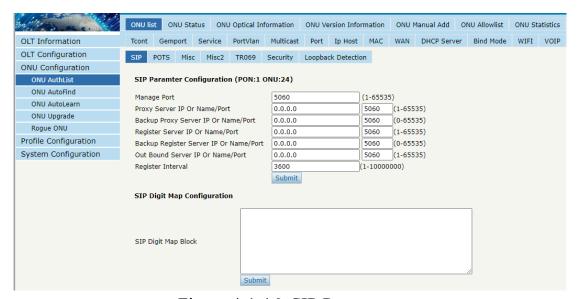


Figure 4-1-16: SIP Parameter

4.1.1.1.15 POTS

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow POTS

ONU VoIP POTS account, password and other VOIP parameters of POTS can be configured on this page; the length of SIP account and password can't be more than 16 characters, the length of SIP username can't be more than 32 characters.

When the connected ONU supports VOIP, the option "POTS" can be shown on this page.

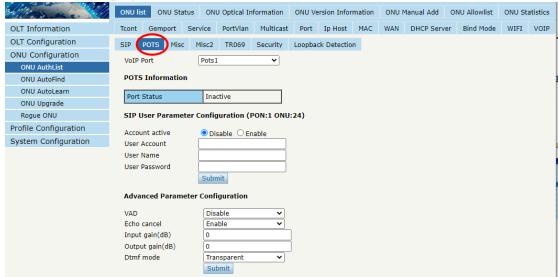


Figure 4-1-17: POTS Configuration

4.1.1.1.16 Misc

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Misc

Misc includes other features of ONUs configured by private OMCI, such

ONU List ONU Status ONU Optical Info ONU Manual Add ONU Whitelist OLT Information Tont Gemport Service Service Port PortVlan Multicast Port Iphost WAN DHCP Server BIND Mode WIFI VOIP SIP POTS Misc OLT Configuration ONU Configuration Misc Control Operation Save configuration ONU AutoFind ONU AutoLearn Restore default IGMP configuration IGMP Enable Submit Roque ONU STP Enable Submit Profile Configuration System Configuration Port isolate Enable Submit DownStream limit Mac Table Configuration mac age time Pon mac limit Lan mac limit Submit

as reset default, CATV control, and so on.

Figure 4-1-18: Misc Configuration

4.1.1.1.17 Misc2

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Misc2

Misc2 includes the NAT type and UPnP configuration of ONUs configured by private OMCI.



Figure 4-1-19: Misc2 Configuration

4.1.1.1.18 TR069

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow TR069

ONU TR069 is configured by private OMCI between OLT and ONU. It supports configuring TR069 management parameters and STUN server configurations.

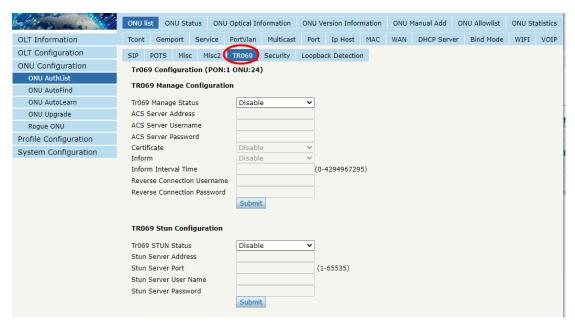


Figure 4-1-20: TR069 Configuration

4.1.1.1.19 Security

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Security

ONU Security is configured by private OMCI between OLT and ONU. It supports you to modify ONU passwords, firewall level, and device access rules.

Please note that if you need to enable the device's access protocol, you need to first modify the firewall level to low or disabled.

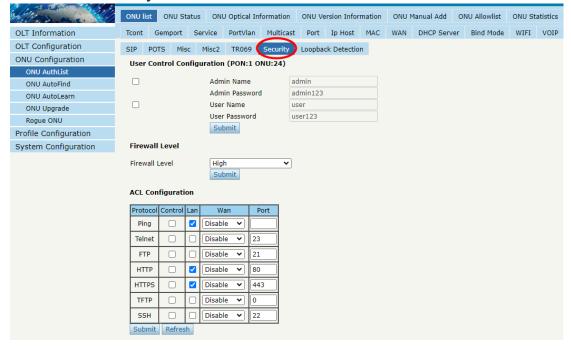


Figure 4-1-21: Security Configuration

4.1.1.1.20 Loopback Detection

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Config \rightarrow Loopback Detection

ONU Loopback Detection is configured by private OMCI between OLT and ONU. It supports configuring the loop detection status and parameters of the ONU.

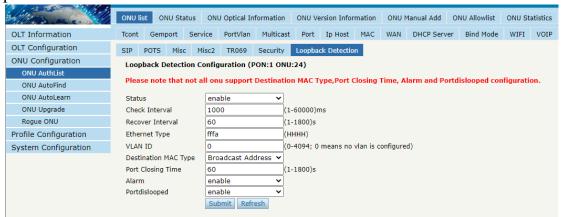


Figure 4-1-22: Loopback Detection Configuration

4.1.1.2 Deactivate

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Deactivate (Activate)

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

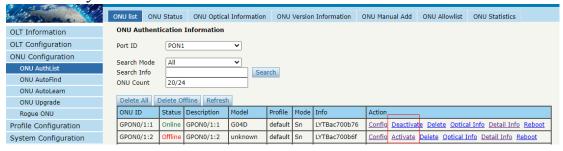


Figure 4-1-23: Deactivate/Activate ONU

4.1.1.3 Delete

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Delete

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

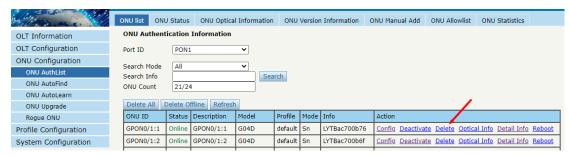


Figure 4-1-24: Delete ONU

4.1.1.4 Optical Info

ONU Configuration → ONU AuthList → ONU List → Optical Info Check the Optical Information of ONU PON module which you selected.

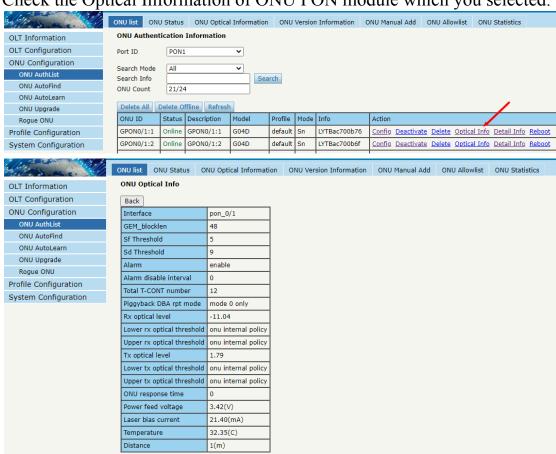


Figure 4-1-25: Optical Info of ONU

4.1.1.5 Detail Info

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

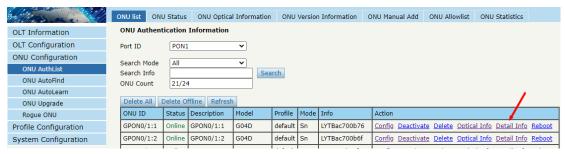


Figure 4-1-26: Click Detail info

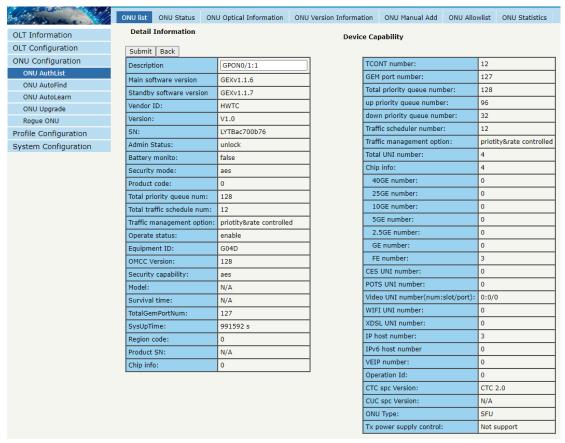


Figure 4-1-27: Detail info of ONU

4.1.1.6 Reboot

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU List \rightarrow Reboot Reboot ONU which you selected.

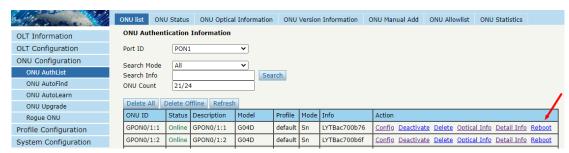


Figure 4-1-28: Reboot ONU

4.1.2 ONU Status

ONU Configuration \rightarrow **ONU AuthList** \rightarrow **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.

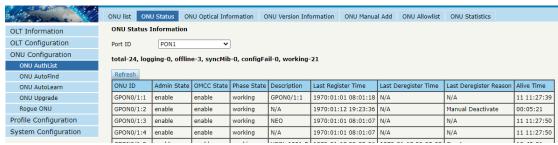


Figure 4-1-29: ONU Status

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.

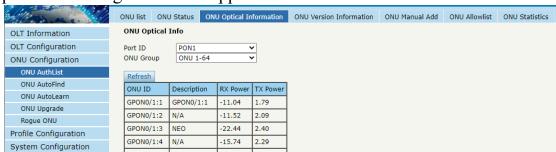


Figure 4-1-30: ONU Optical Info

4.1.4 ONU Version Information

ONU Configuration → **ONU AuthList** → **ONU Version Information**

This page displays the main and standby software versions of the ONU. You can display the version information of a batch of ONUs in the list.

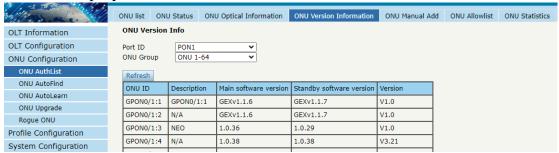


Figure 4-1-31: ONU Version Info

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.

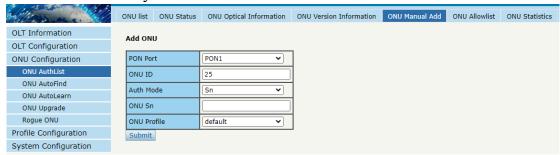


Figure 4-1-32: Add ONU Manually

4.1.6 ONU Allowlist

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU Allowlist

You can set up an allowlist on this page.

Allowlist can restrict ONU registration based on SN. It allows ONUs within one or more segments to register, while other ONUs cannot register and go online.

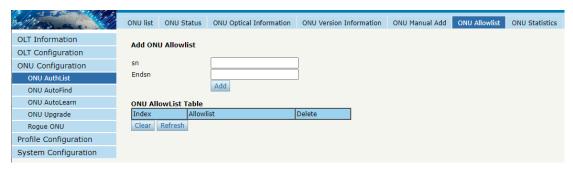


Figure 4-1-33: ONU Allowlist

4.1.7 ONU Statistics

ONU Configuration \rightarrow ONU AuthList \rightarrow ONU Statistics

This page displays the number of incoming and outgoing packets for batch ONUs.

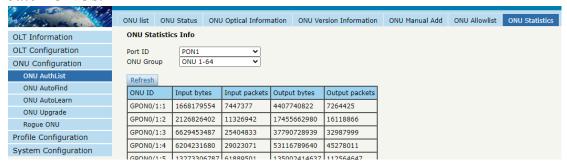


Figure 4-1-34: ONU Statistics Info

4.2 ONU AutoFind

This chapter is about the configuration and management of automatic discovery ONUs.

4.2.1 Automatic Discovery

ONU Configuration → ONU AutoFind → Automatic Discovery

All ONUs which are authenticated failed or not authenticated will be displayed in this interface. You can check the serial number of ONUs. Then click Add to authenticate ONU.

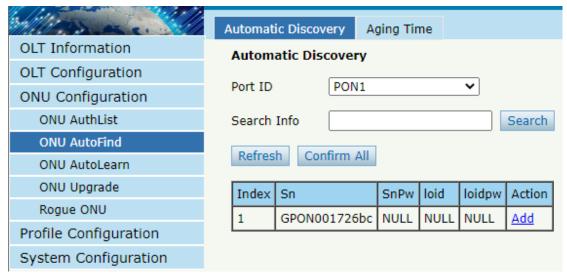


Figure 4-2-1: Automatic Discovery

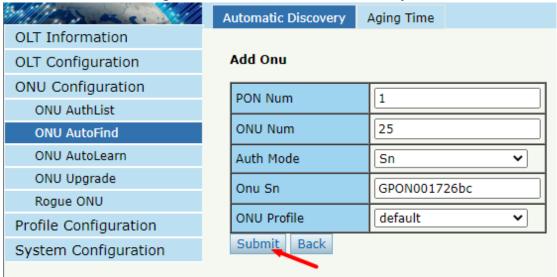


Figure 4-2-2: Add ONU

4.2.2 Aging Time

ONU Configuration \rightarrow **ONU** AutoFind \rightarrow Aging Time

It allows you to configure the retention time of automatically discovered ONU information. The default configuration is 5 minutes.

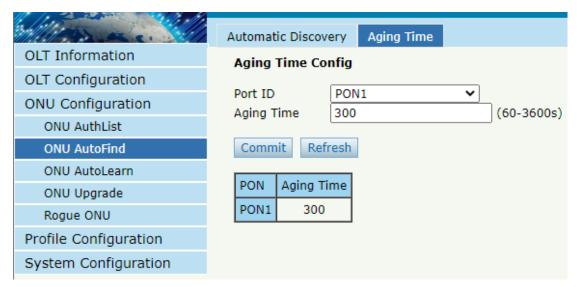


Figure 4-2-3: Aging Time

4.3 ONU AutoLearn

4.3.1 ONU AutoLearn

ONU Configuration \rightarrow **AutoLearn** \rightarrow **ONU AutoLearn**

ONU can automatically authenticate after enabling PON port automatic learning. At the same time, OLT supports automatic binding templates based on PON ports. There are also plug and play enabled switches on this interface.

Note: this autolearn feature is disabled by default.

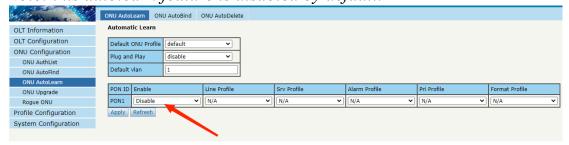


Figure 4-3-1:ONU AutoLearn

4.3.2 ONU AutoBind

ONU Configuration \rightarrow AutoLearn \rightarrow ONU AutoBind

Input the Equipment ID and bind the profile you need *Note: you must create a profile first.*

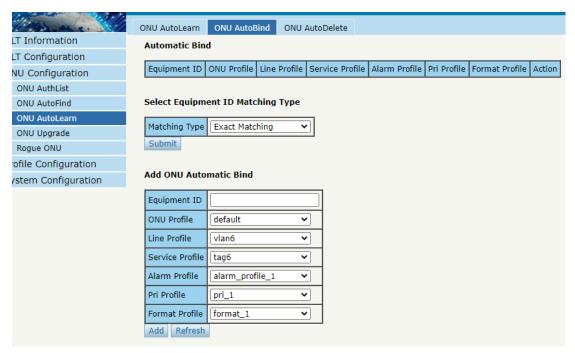


Figure 4-3-2: Bind profile

4.3.3 ONU AutoDelete

ONU Configuration \rightarrow **AutoLearn** \rightarrow **ONU AutoDelete**

It supports periodic checking and deleting offline ONUs and this feature is disabled by default.

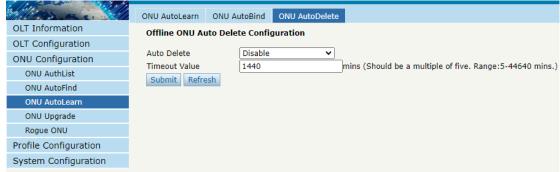


Figure 4-3-3: ONU AutoDelete

4.4 ONU Upgrade

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

4.4.1 UpLoad Image

ONU Configuration \rightarrow **ONU Upgrade** \rightarrow **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

ONU Configuration → ONU Upgrade → Manual Upgrade

Select the ONU image and the ONU that needs upgrade, click Commit button to start upgrading. You can upgrade the same ONU model under one PON port each time.

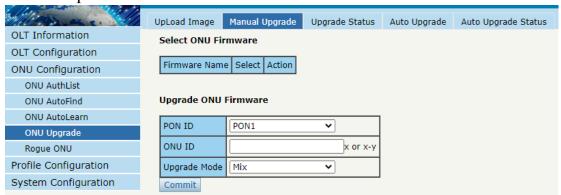


Figure 4-4-2: Manual Upgrade

4.4.3 Upgrade Status

ONU Configuration → ONU Upgrade → Upgrade Status

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

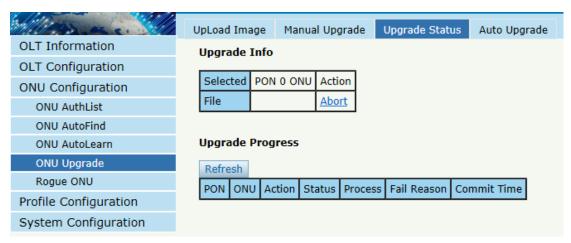


Figure 4-4-3: ONU Upgrade Status

4.4.4 Auto Upgrade

ONU Configuration \rightarrow ONU Upgrade \rightarrow 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 comes online, they will be upgraded automatically.

Each type of ONU has its own equipment ID, which you can check in ONU detail info.

Note: please upload the ONU firmware in advance on the upload image interface

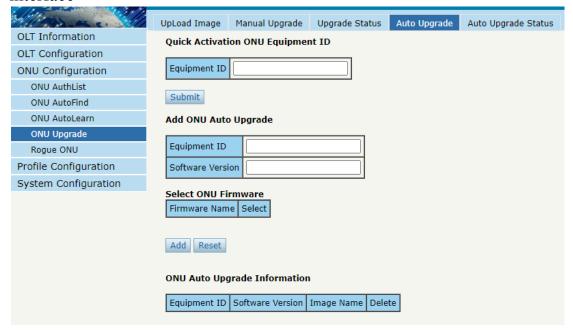


Figure 4-4-4: Auto Upgrade

4.4.5 Auto Upgrade Status

ONU Configuration → ONU Upgrade → Auto Upgrade Status

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



Figure 4-4-5: Auto Upgrade Status

4.5 Rogue ONU

ONU Configuration \rightarrow Rogue **ONU**

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

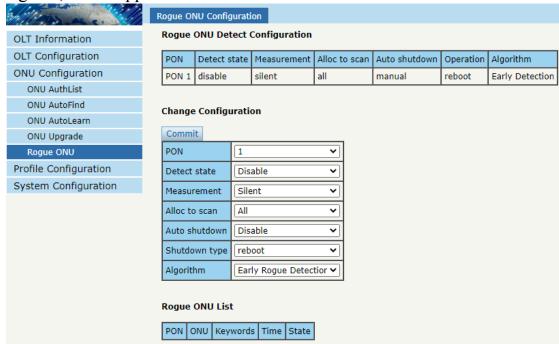


Figure 4-5-1: Rogue ONU detect

Chapter 5 Profile Configuration

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

5.1 ONU Profile

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

5.1.1 Information

Profile Configuration \rightarrow **ONU profile** \rightarrow **Information**

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

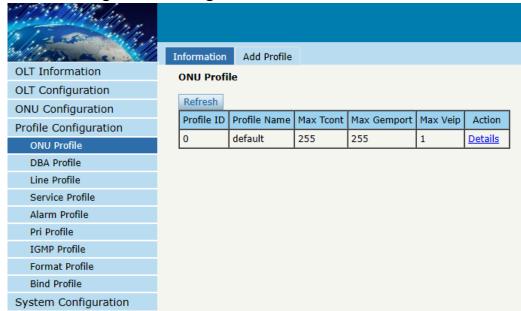


Figure 5-1-1: ONU profile list

5.1.2 Add profile

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

SFU type (only using bridge mode):

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

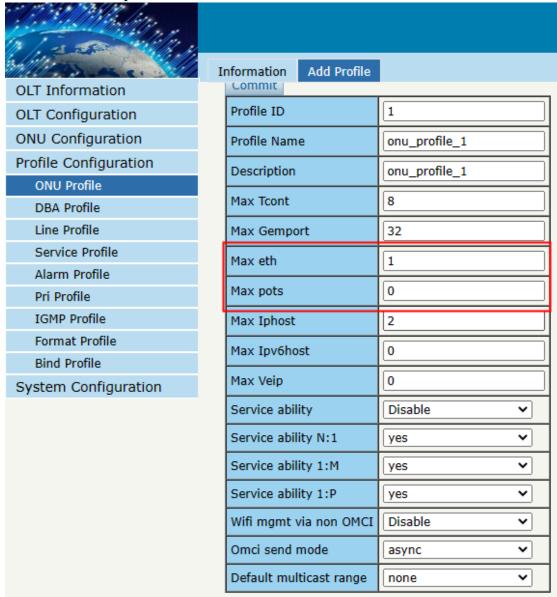


Figure 5-1-2: Add SFU profile

HGU type (with the routing wan connection mode):

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

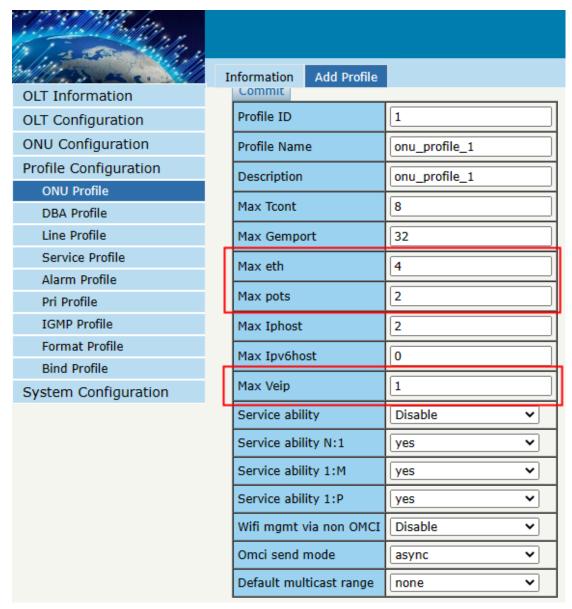


Figure 5-1-3: Add HGU profile

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 \rightarrow DBA Profile \rightarrow DBA Profiles

The table displays DBA profile list. You can also do some operations,

such as delete and modify.

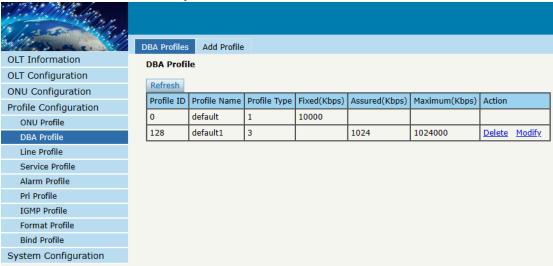


Figure 5-2-1: DBA profile list

5.2.2 Add profile

$\textbf{Profile Configuration} \rightarrow \textbf{DBA Profile} \rightarrow \textbf{Add profile}$

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				
		Type 1	Type 2	Type 3	Type 4	Type 5
Fixed	Yes	√				√
Assured	No		√	√		√
Maximum	No			√	√	√

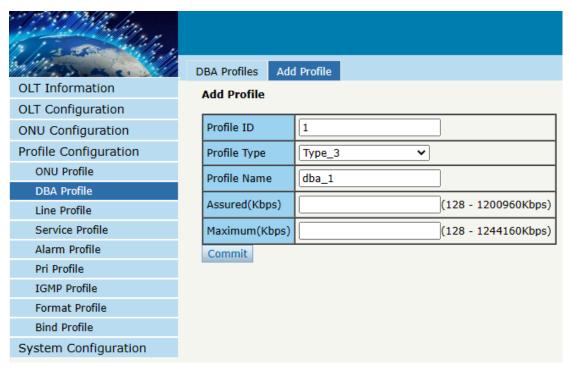


Figure 5-2-2: Add DBA profile

5.3 Line Profile

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

5.3.1 Line profile

$\textbf{Profile Configuration} \rightarrow \textbf{Line Profile} \rightarrow \textbf{Line Profile}$

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



Figure 5-3-1: Line Profile list

5.3.2 Add profile

$\textbf{Profile Configuration} \rightarrow \textbf{Line profile} \rightarrow \textbf{Add profile}$

Create a new line profile, set the profile name.

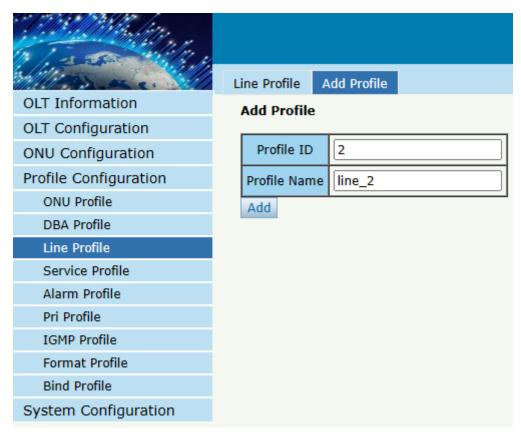


Figure 5-3-2: Add Line Profile

5.3.3 Display or modify line profile info

Profile Configuration \rightarrow Line Profile \rightarrow Line Profile \rightarrow Details & Modify

In the interface of line profile list, click Details&Modify to edit the profile.

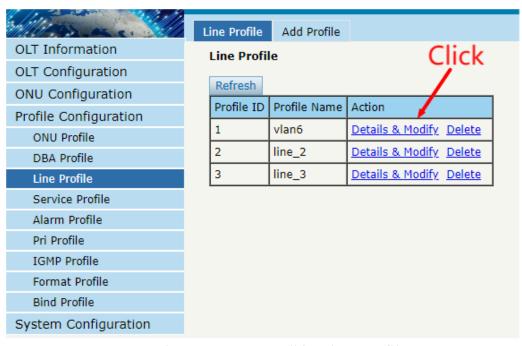


Figure 5-3-3: Modify Line Profile

5.3.3.1 Tcont

Profile Configuration \rightarrow Line Profile \rightarrow Line Profile \rightarrow Details & Modify \rightarrow Tcont

Add Tcont ID and bind DBA profile.

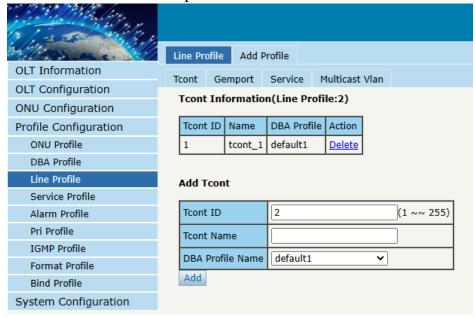


Figure 5-3-4: Add Tcont

5.3.3.2 Gemport

Profile Configuration → Line Profile → Line Profile → Details & 53/88

Modify → **Gemport**

Add gemport ID and bind tcont ID.

You can also limit the forwarding speed according to the Gemport ID.

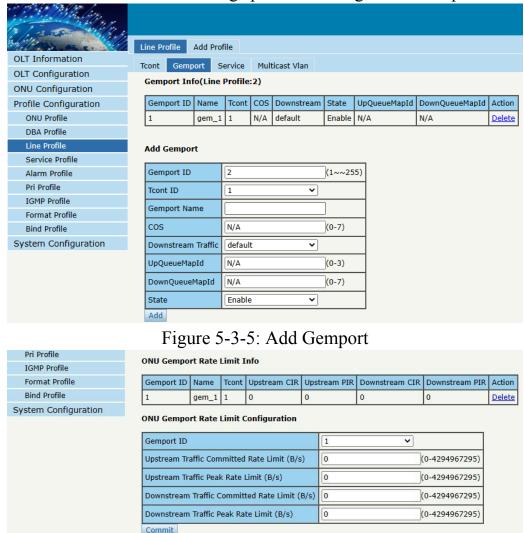


Figure 5-3-6: ONU Gemport Rate Limit Configuration

5.3.3.3 Service

Profile Configuration \rightarrow Line Profile \rightarrow Line Profile \rightarrow Details & Modify \rightarrow Service

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

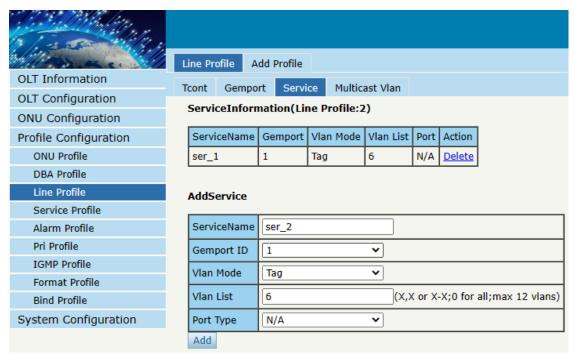


Figure 5-3-7: Add Service

5.3.3.4 Multicast Vlan

Profile Configuration \to Line Profile \to Line Profile \to Details & Modify \to Multicast Van

Set the Multicast VLAN of ONU.

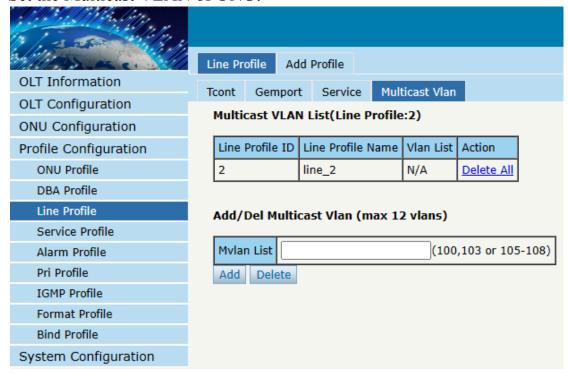


Figure 5-3-8: Configure Multicast VLAN

5.4 Service Profile

The service configuration file is used to configure the UNI side and multicast of the ONU.

5.4.1 Service profile

Profile Configuration \rightarrow Service Profile \rightarrow Service Profile

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



Figure 5-4-1: Service Profile List

5.4.2 Add profile

Profile Configuration \rightarrow Service Profile \rightarrow Add Profile Add a new service profile, set the profile name.

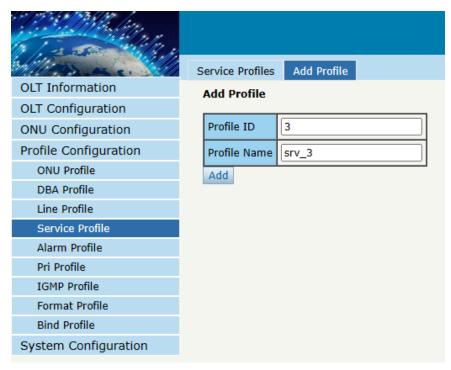


Figure 5-4-2: Add Service profile

5.4.3 Display or modify line profile info

Profile Configuration \rightarrow Service Profile \rightarrow Service Profile \rightarrow Details & Modify

In the interface of service profile list, click Details&Modify to edit the profile.



Figure 5-4-3: Modify service profile

5.4.3.1 PortVlan

Profile Configuration → Service Profile → Service Profile → Details & Modify → PortVlan

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

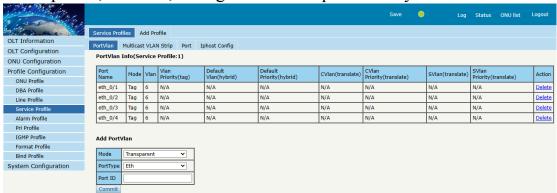


Figure 5-4-4: Port VLAN mode

5.4.3.2 Multicast Vlan Strip

Profile Configuration → Service Profile → Service Profile → Details & Modify → Multicast VLAN Strip

Set the multicast VLAN mode of ONU's port.

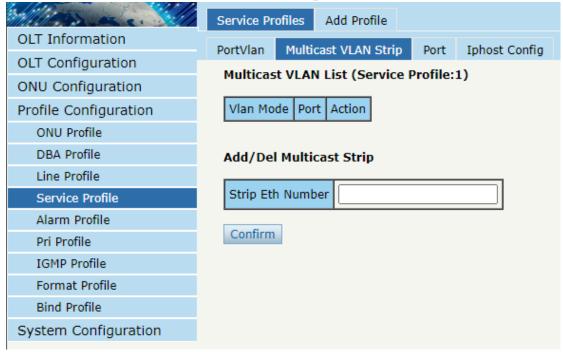


Figure 5-4-5: Port Multicast VLAN Mode

5.4.3.3 Port

Profile Configuration → Service Profile → Service Profile → Details & Modify → Port

Set the rate negotiation mode of the ONULAN interface. You can also choose whether to enable ports or not, and even limit the rates of different LAN ports.

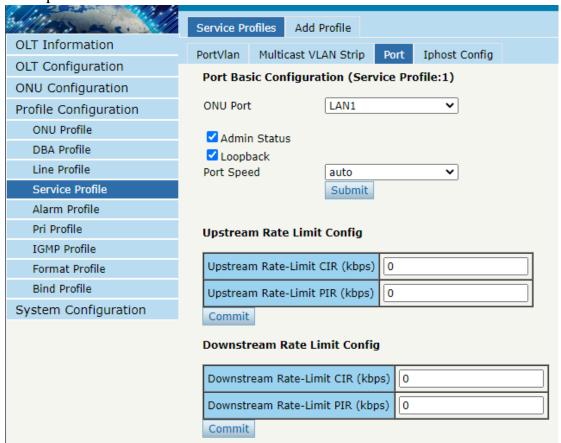


Figure 5-4-6: Port Basic Configuration

5.4.3.4 Iphost Config

Profile Configuration → Service Profile → Service Profile → Details & Modify → Iphost Config

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

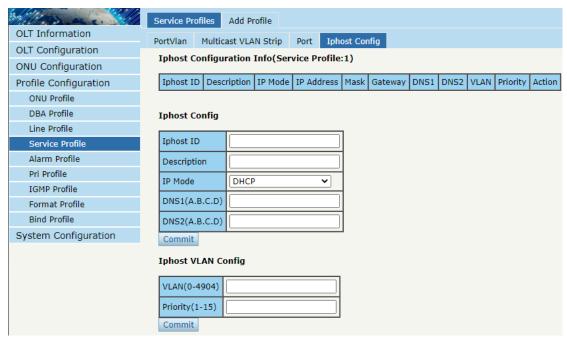


Figure 5-4-7: Iphost Config

5.5 Alarm Profile

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

5.5.1 Profile Info

Profile Configuration \rightarrow Alarm Profile \rightarrow Profile Information

The table displays alarm profile list.



Figure 5-5-1: Alarm Profile List

5.5.2 Add Profile

Profile Configuration \rightarrow Alarm Profile \rightarrow Add Profile

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

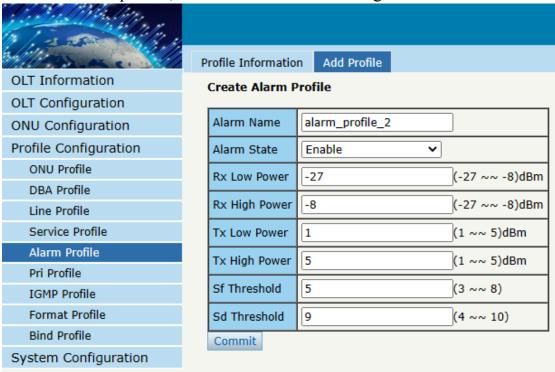


Figure 5-5-2: Add Alarm Profile

5.6 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.

5.6.1 Pri Profile

Profile Configuration \rightarrow Pri Profile \rightarrow Pri Profile

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

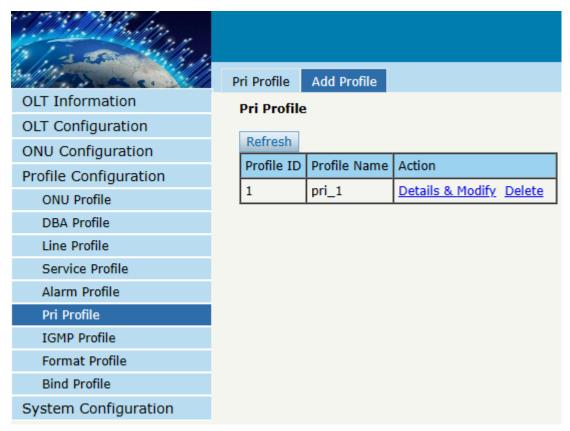


Figure 5-6-1: Pri Profile

5.6.2 Add Profile

Profile Configuration \rightarrow Pri Profile \rightarrow Add profile Add a private profile, set the profile name.

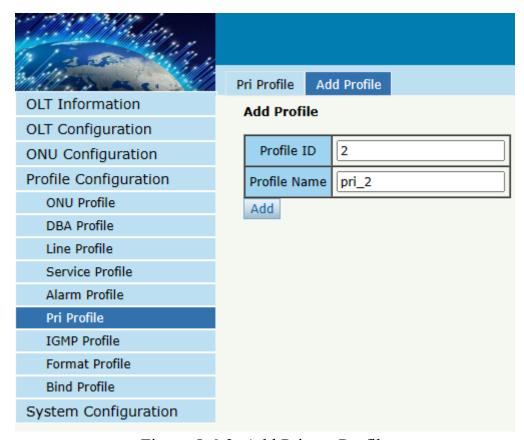


Figure 5-6-2: Add Private Profile

5.6.3 Display or modify pri profile info

Profile Configuration \to pri Profile \to pri Profile \to Details & Modify

In the interface of pri profile list, click Details&Modify to edit the profile.

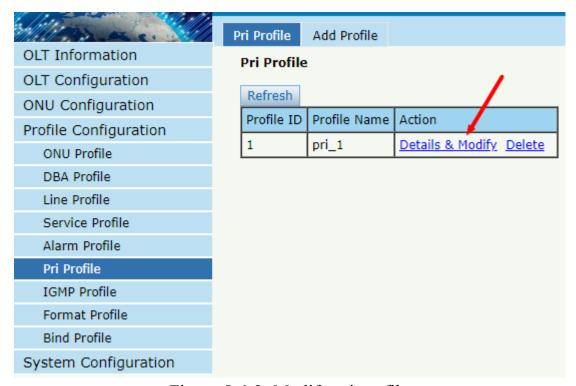


Figure 5-6-3: Modify pri profile

5.6.3.1 WAN

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow WAN

Add IPv4 single-stack WAN connection for Pri Profile.

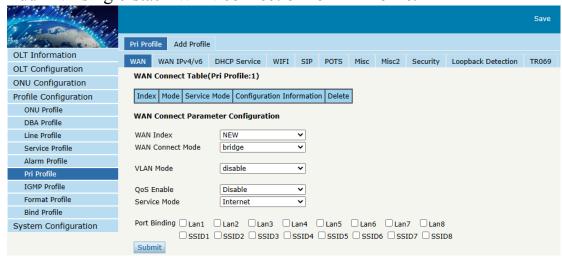


Figure 5-6-4: WAN Configuration

5.6.3.2 WAN IPv4/v6

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow WAN IPv4/v6

Add IPv4/IPv6 dual-stack WAN connections for Pri Profile.

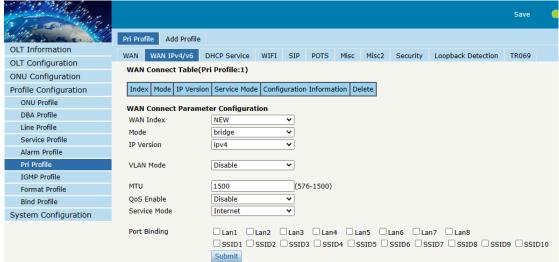


Figure 5-6-5: WAN IPv4/v6 Configuration

5.6.3.3 DHCP Service

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & **Modify** → **DHCP** Service

Configure IPv4/v6 DHCP server parameters for Pri Profile.

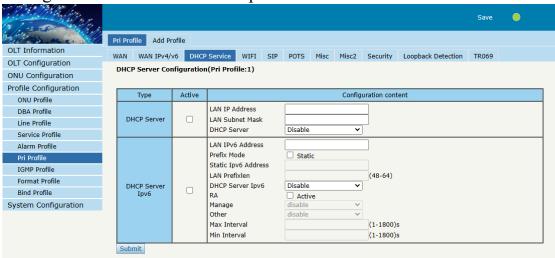


Figure 5-6-6: DHCP Service

5.6.3.4 WIFI

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify → WIFI

Configure WiFi parameters for Pri Profile.

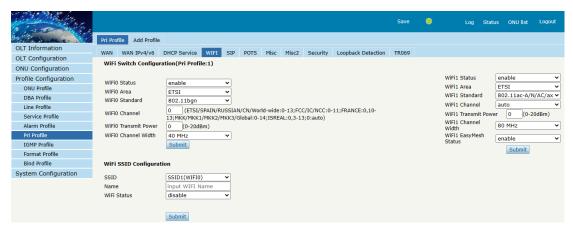


Figure 5-6-7: WIFI Configuration

5.6.3.5 SIP

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow SIP

Configure SIP parameters for Pri Profile.

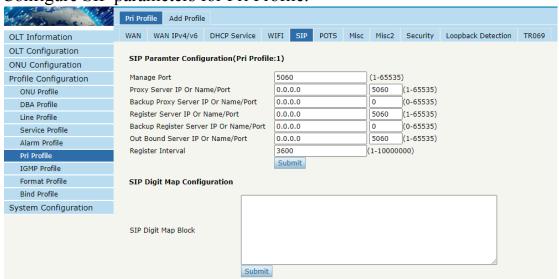


Figure 5-6-8: SIP Configuration

5.6.3.6 POTS

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow POTS

Configure POTS parameters for Pri Profile.

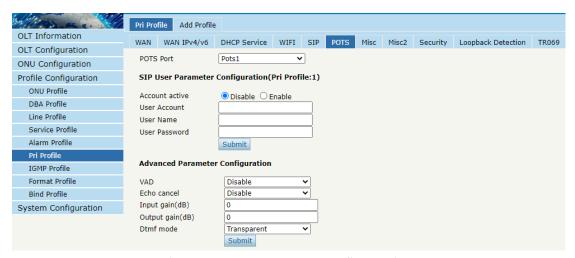


Figure 5-6-9: POTS Configuration

5.6.3.7 MISC

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow MISC

Some misc configurations, including CATV switches, speed limits, limit the number of MAC learning, and so on.

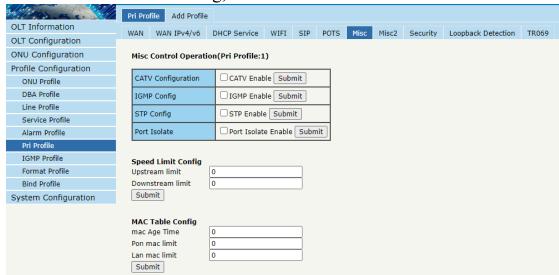


Figure 5-6-10: MISC Configuration

5.6.3.8 MISC2

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow MISC2

Some misc configurations, including NAT Type and UPnP Status.

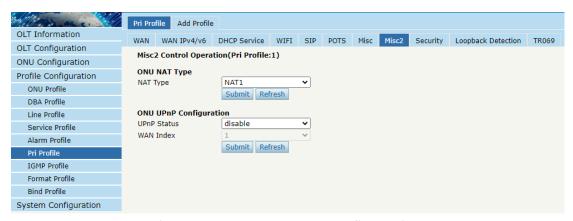


Figure 5-6-11: MISC2 Configuration

5.6.3.9 Security

Profile Configuration → pri Profile → pri Profile → Details & Modify → Security

Configure security parameters for Pri Profile.

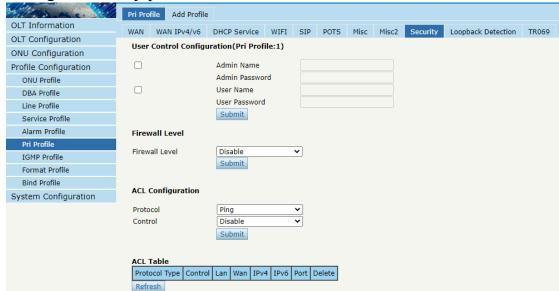


Figure 5-6-12: Security Configuration

5.6.3.10 Loopback Detection

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow Loopback Detection

Configure Loopback Detection parameters for Pri Profile.

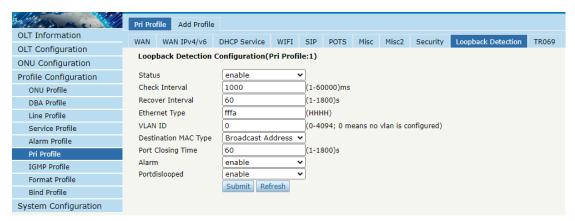


Figure 5-6-13: Loopback Detection Configuration

5.6.3.11 TR069

Profile Configuration \rightarrow pri Profile \rightarrow pri Profile \rightarrow Details & Modify \rightarrow TR069

Configure TR069 parameters for Pri Profile.

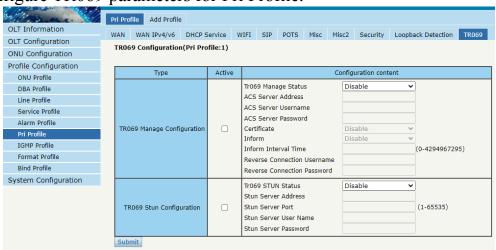


Figure 5-6-14: TR069 Configuration

5.7 IGMP Profile

5.7.1 IGMP Profile

Profile Configuration \rightarrow IGMP Profile \rightarrow IGMP Profile

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

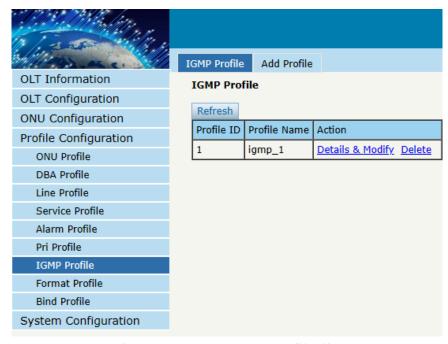


Figure 5-7-1: IGMP Profile list

5.7.2 Add Profile

Profile Configuration \rightarrow IGMP Profile \rightarrow Add profile Add new IGMP profile, set the profile name.

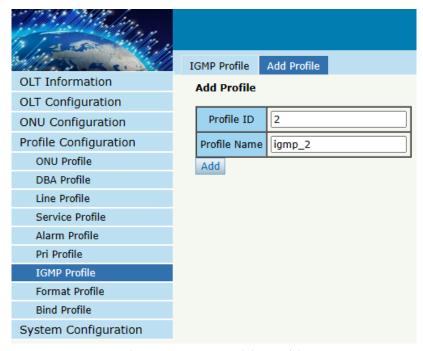


Figure 5-7-2: Add Profile

5.7.3 Display or modify IGMP profile info

Profile Configuration \rightarrow IGMP Profile \rightarrow IGMP Profile \rightarrow Details & Modify

In the interface of IGMP profile list, click Details&Modify to edit the profile.

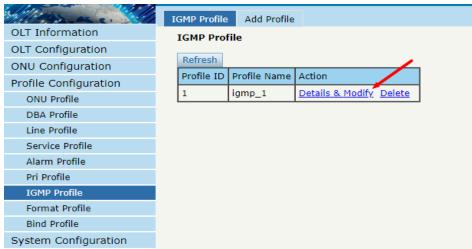


Figure 5-7-3: Modify IGMP profile

5.7.3.1 Config

Profile Configuration \rightarrow IGMP Profile \rightarrow IGMP Profile \rightarrow Details & Modify \rightarrow Config

Set IGMP/MLD protocol parameters as required.

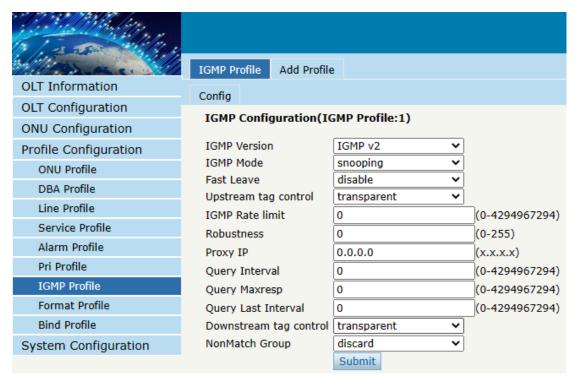


Figure 5-7-4: IGMP Configuration

5.8 Format Profile

Format profile is mainly used to configure the DHCP option format of ONU.

5.8.1 Format Profile

Profile Configuration \rightarrow Format Profile \rightarrow Format Profile

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

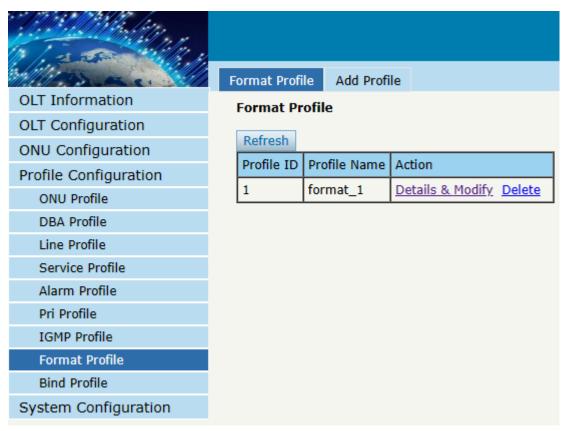


Figure 5-8-1: Format Profile list

5.8.2 Add Profile

Profile Configuration \rightarrow Format Profile \rightarrow Add profile Add new format profile, set the profile name.

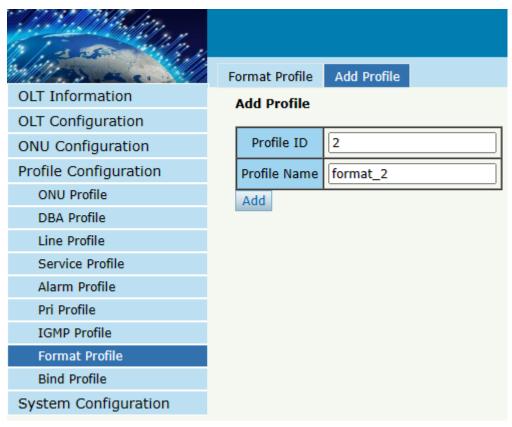


Figure 5.8-2: Add Format Profile

5.8.3 Display or modify Format profile info

Profile Configuration \rightarrow Format Profile \rightarrow Format Profile \rightarrow Details & Modify

In the interface of Format profile list, click Details&Modify to edit the profile.

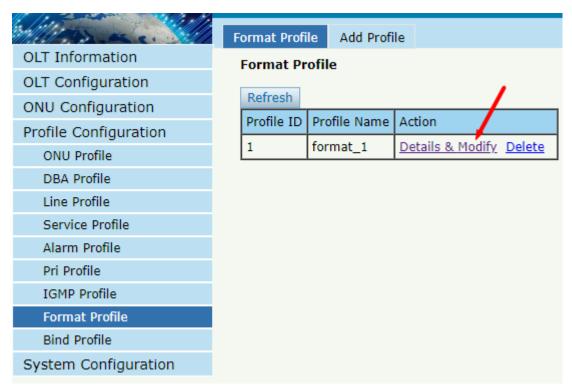


Figure 5-8-3: Modify Format profile

5.8.3.1 Config

Profile Configuration \rightarrow Format Profile \rightarrow Format Profile \rightarrow Details & Modify \rightarrow Config

Set DHCP option parameters as required.

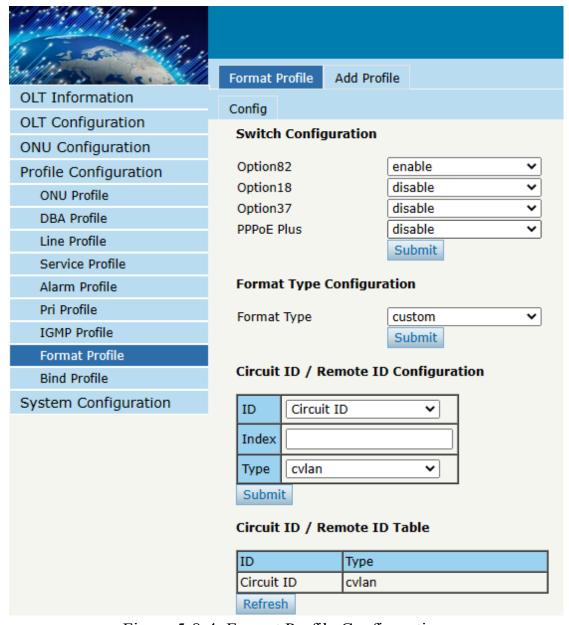


Figure 5-8-4: Format Profile Configuration

5.9 Bind Profile

Profile Configuration \rightarrow Bind Profile

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

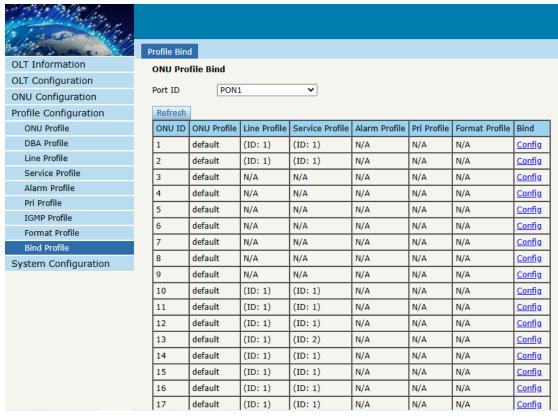


Figure 5-9-1: Bind profile

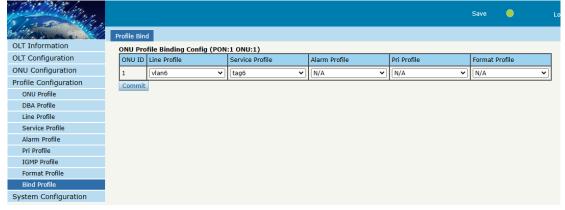


Figure 5-9-2: Select Profile

Chapter 6 System Configuration

This chapter is about the global management of OLT.

6.1 System Log

6.1.1 System Log

System Configuration → System Log

This page displays OLT system alarms and events.

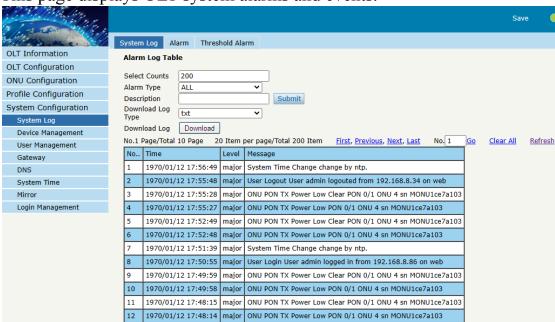


Figure 6-1-1: System Log

6.1.2 Alarm

System Configuration \rightarrow System Log \rightarrow Alarm

It contains all the alarms of OLT. User can choose the different alarms to "Print", "Record", "Trap" and "Remote".



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 \rightarrow System Log \rightarrow Threshold Alarm

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



Figure 6-1-3: Threshold Alarm

6.2 Device Management

6.2.1 Firmware Upgrade

System Configuration \rightarrow Device Management \rightarrow Firmware Upgrade You can upgrade the OLT firmware on this page. OLT will reboot automatically with the new firmware after upgraded when you select the option "Reboot After Upgrade".



Figure 6-2-1: Firmware Upgrade

6.2.2 Device Reboot

System Configuration \rightarrow Device Management \rightarrow 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 81/88

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

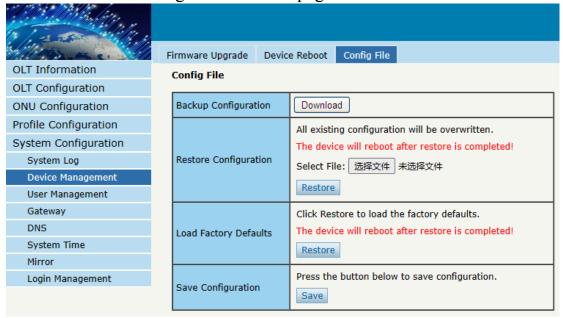


Figure 6-2-3: Config File Configuration

6.3 User Management

System Configuration → User Management

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



Figure 6-3-1: User Manage

6.4 Gateway

System Configuration \rightarrow Gateway

This page is used to configure the OLT gateway in case of that the OLT

Gateway OLT Information Gateway **OLT Configuration** Gateway 192.168.6.1 **ONU Configuration** Submit Reset Profile Configuration System Configuration System Log **Device Management** User Management Gateway DNS System Time Mirror Login Management

needs to access Internet or any Layer 3 network.

Figure 6-4-1: Gateway Configuration

6. 5 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.

6.5.1 IPv4 DNS

System Configuration \rightarrow DNS \rightarrow IPv4 DNS

This page is used to configure IPv4 DNS.

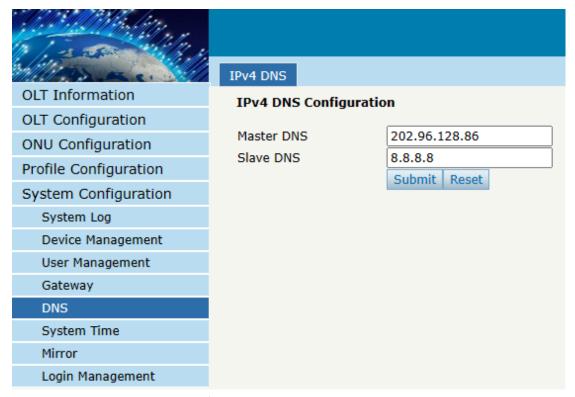


Figure 6-5-1: IPv4 DNS

6.6 System Time

6.6.1 RTC

System Configuration \rightarrow System Time \rightarrow 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.



Figure 6-6-1: RTC Setting

6.6.2 NTP

System Configuration \rightarrow System Time \rightarrow NTP

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

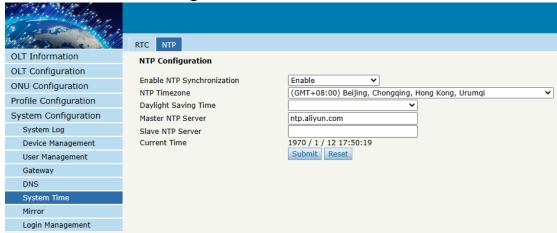


Figure 6-6-2: NTP Configuration

6.7 Mirror

System Configuration \rightarrow Mirror

Port mirror is usually used for troubleshooting. It can forward incoming and outgoing packets from the source port to the destination port.

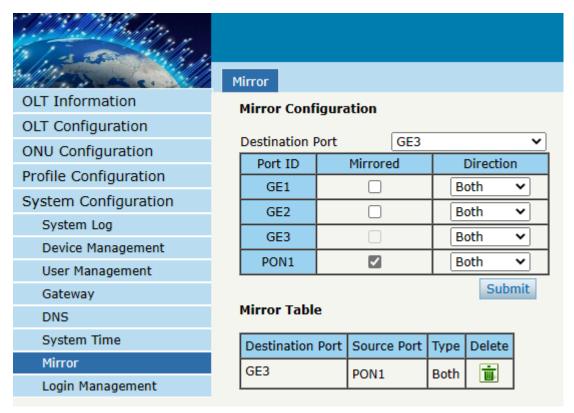


Figure 6-7-1: Mirror Configuration

6.8 Login Management

6.8.1 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, according to source IP address.



Figure 6-8-1: Login Access List Configuration

6.8.2 Service Port

System Configuration \rightarrow Login Management \rightarrow Service Port This page is used to set Web, Telnet Port.



Figure 6-8-2: Service Port Configuration

6.8.3 Login Configuration

System Configuration → Login Management → Login Configuration 87/88

Login Access List Service Port Login Configuration Telnet Management **OLT Information Web Configuration OLT Configuration** Login Timeout 10 (1-30 minutes) **ONU Configuration** Verification Code Disable Profile Configuration Submit Reset System Configuration System Log **Device Management** User Management Gateway DNS System Time Mirror

This page is used to set login timeout and verification code switch.

Figure 6-8-3: Login Configuration

6.8.4 Telnet Management

Login Management

System Configuration→ Login Management→ Telnet Management

This page displays the current telnet connection information. You can see the host IP address and user name information that are currently accessing the OLT through telnet.



Figure 6-8-4: Telnet Management