HE5000 EPON OLT WEB USER MANUAL

Version：V1.3
Release Date 2022-07-27

Shenzhen Huanhu Technology Co., Ltd
http://www.huanhutech.cn

Contents

Chapter 1 Monitor 6
1.1 System Information 6
1.1.1 LoginOLT 6
1.1.2 Device Information 6
1.2 Port Information 7
1.2.1 Basic Information 7
1.2.2 Basic Statistics 7
1.2.3 Detail Statistics 8
1.2.4 Optical Module 8
1.3 EPON Information 9
1.3.1 Port Statistics 9
1.4 ONU Information 9
1.4.1 ONU Status 9
1.4.2 ONU Auto Discovery 10
1.4.3 Optical Performance Monitor 10
1.4.4 Overall Information 11
1.4.5 MAC Address Information 11
1.5 Syslog Information 12
Chapter 2 System Management 13
2.1 System Information 13
2.2 Web Timeout 13
2.3 User Management 14
2.3.1 User Overview 14
2.3.2 User Add 14
2.3.3 User Modify 15
2.3.4 User Delete 15
Chapter 3 Port Management 16
3.1 Basic Configuration 16
3.2 Port Mirror 16
3.3 Port Isolation 17
3.4 Storm Control 18

3.5 Bandwidth Control 18
Chapter 4 Basic Service 19
4.1 VLAN Configuration 19
4.1.1 Static VLAN 19
4.1.2 VLAN Port 19
4.2 IP and Route Configuration 20
4.2.1 MGMT IP Configuration 20
4.2.2 VLAN IP Configuration 21
4.2.3 Static Route Configuration 21
4.3 Multicast 22
4.3.1 Multicast Configuration 22
4.3.2 IGMP Configuration 22
4.4 STP Configuration 23
4.4.1 Global Configuration 23
4.4.2 STP/RSTP Port Configuration 24
4.5 LACP Configuration 25
4.5.1 Status Display 25
4.5.2 LACP Configuration 25
4.5.3 Protocol Control 26
4.6 MAC Configuration 26
4.6.1 Port Binding Display 27
4.6.2 Port Binding Configuration 27
4.7 SNMP Configuration 28
4.7.1 Commutity Configuration 28
4.7.2 Trap Configuration 28
4.8 DHCP Configuration 29
4.8.1 DHCP Snooping 29
4.8.2 IP-MacBinding 30
4.8.3 DHCP Server&Relay 30
Chapter 5 Advance Service 31
5.1 System Time 31
5.2 DNSClient 31

5.3 SNTP 32
5.4Access List 32
5.4.1Classifier 32
5.4.2Policy 33
Chapter 6 EPON Management 35
6.1 Port Configuration 35
6.2 MAC White List 35
6.3 MAC Black List 35
6.4 LOID List 36
6.5 Hybrid List 36
Chapter 7 ONU Management 38
7.1 ONU List 38
7.1.1Bandwidth Configure 38
7.1.1 IP Address 39
7.1.2 Port 39
7.1.3 VLAN 39
7.1.4 STP 40
7.1.5 PPPOE 40
7.1.6 WIFI 41
7.1.7 CATV 41
7.2 Binding Operation 42
7.3 Bandwidth Control 42
Chapter 8 ONU Profile Management 43
8.1 Line Profile 43
8.1.1 DBAConfiguration 43
8.1.2 Port Bandwidth Configuration 44
8.1.3 PortVLANConfiguration 44
8.1.4PortMulticastConfiguration 44
8.2 Rule Profile 45
8.3Profile Relation 45
Chapter 9 Maintain 47
9.1 Software Upgrading 47

9.2 Configuration Operation 47
9.2.1 Configuration Update 47
9.2.2 Configuration Save 48
9.3 Device Reboot 48
9.4 ONU Operation 48
9.4.1 ONU Upgrade 48
9.4.2 ONU Batch Upgrade 49
9.4.3 ONU Auto Upgrade 49
9.4.4 ONU Upgrade Log 50
9.4.5 ONU Reboot 50
9.5 Logo Replace 51

Chapter 1 Monitor

1.1 System Information

1.1.1 LoginOLT

The default management address of the OLT is 192.168.168.1, the PC is configured as the address of the 192.168.168.X, and the network cable is connected to the MGMT port to access the OLT. The default user name and password are admin/admin.

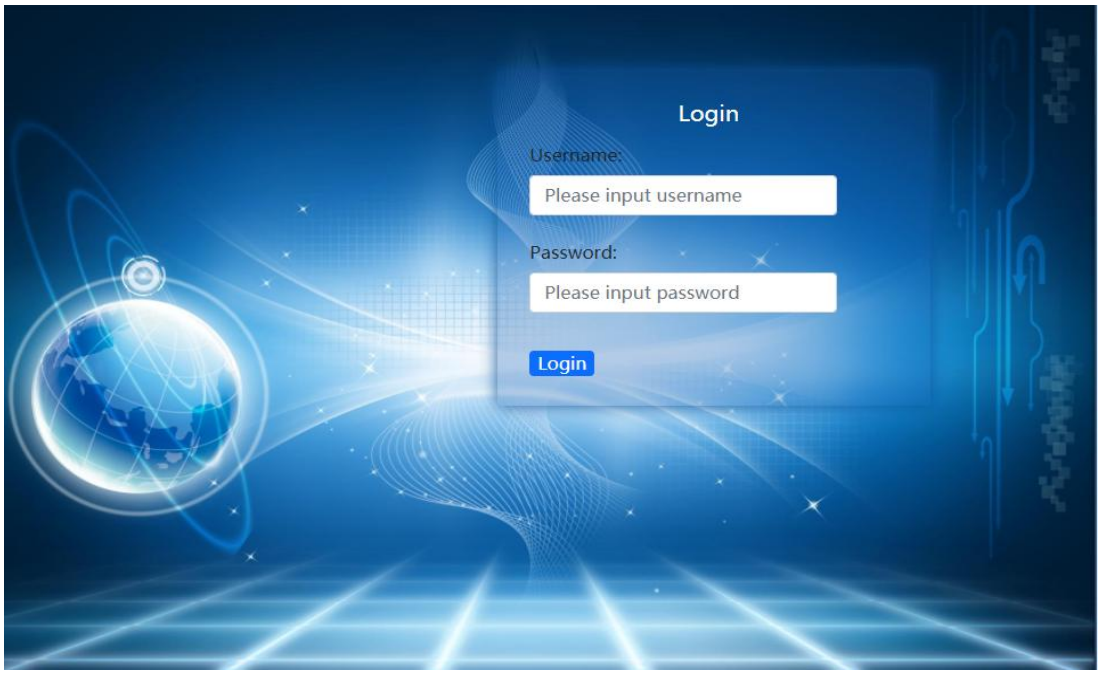


Figure 1-1

1.1.2 Device Information

1.Click Monitor-> System Information-> Device Information

2. This page displays information such as device description, hardware version, software version, and MAC address.

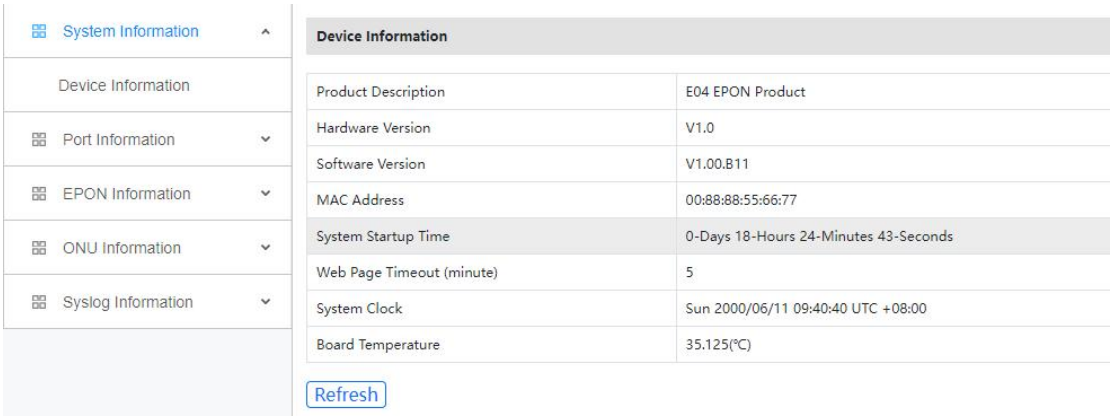


Figure 1-2

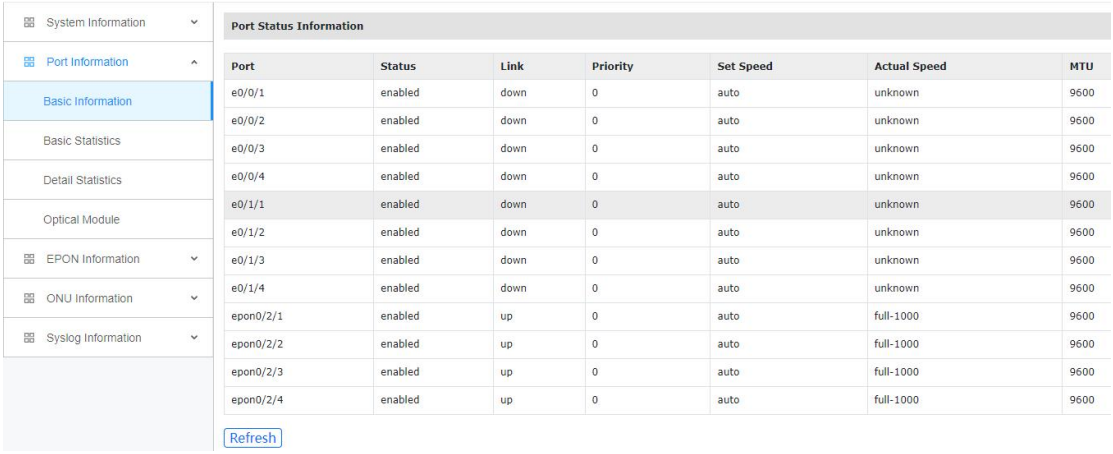
1.2 Port Information

Port information displays device port status, port traffic statistics, and uplink optical module information.

1.2.1 Basic Information

1.Click Monitor-> Port Information-> Basic Information

2. This page displays the port status, priority, speed, MTU, description and other information.



Port	Status	Link	Priority	Set Speed	Actual Speed	MTU
e0/0/1	enabled	down	0	auto	unknown	9600
e0/0/2	enabled	down	0	auto	unknown	9600
e0/0/3	enabled	down	0	auto	unknown	9600
e0/0/4	enabled	down	0	auto	unknown	9600
e0/1/1	enabled	down	0	auto	unknown	9600
e0/1/2	enabled	down	0	auto	unknown	9600
e0/1/3	enabled	down	0	auto	unknown	9600
e0/1/4	enabled	down	0	auto	unknown	9600
epon0/2/1	enabled	up	0	auto	full-1000	9600
epon0/2/2	enabled	up	0	auto	full-1000	9600
epon0/2/3	enabled	up	0	auto	full-1000	9600
epon0/2/4	enabled	up	0	auto	full-1000	9600

Figure 1-3

1.2.2 Basic Statistics

1.Click Monitor-> Port Information-> Basic Statistics

2. This page displays simple statistics about packets transmit and receive by the port.

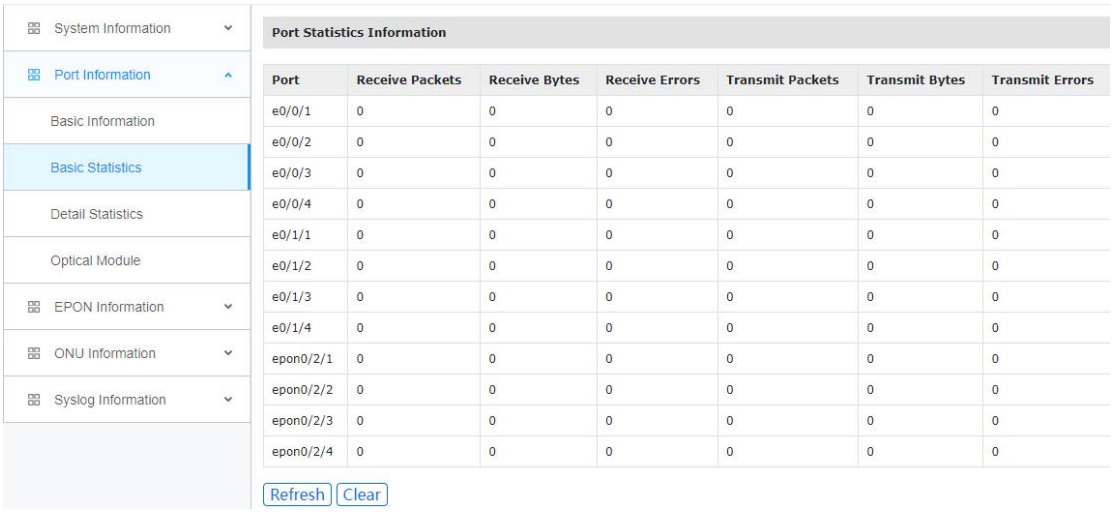


Figure 1-4

1.2.3 Detail Statistics

1.Click Monitor->Port Information->Detail Statistics

2. This page displays detailed statistics about the received and transmit packets on the port.

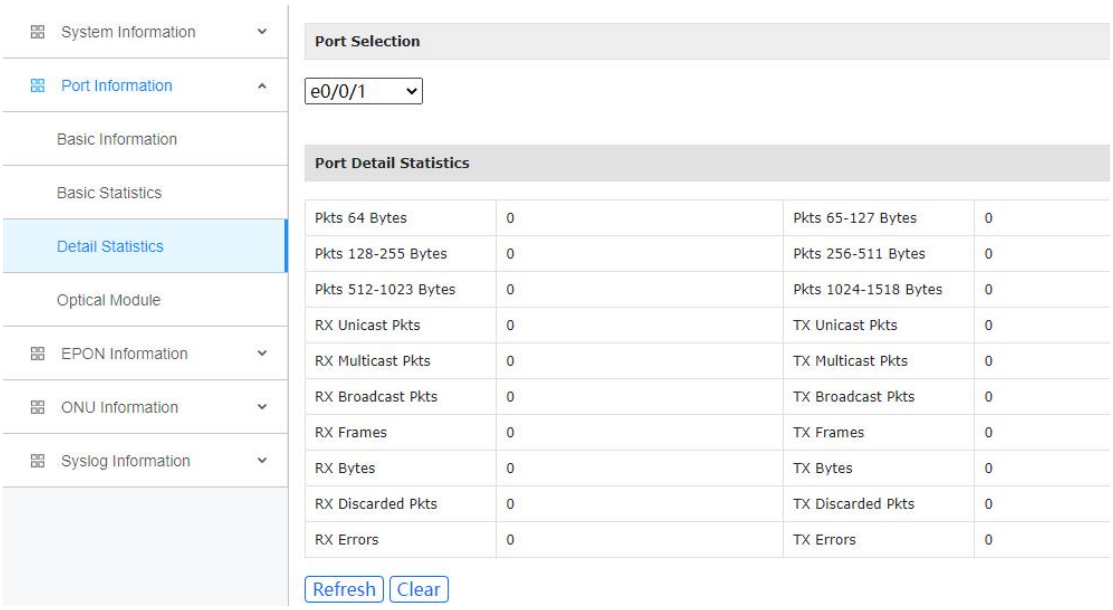


Figure 1-5

1.2.4 Optical Module

1.Click Monitor->Port Information->Optical Module

2. This page displays the basic information and DDM information of the optical module of the uplink port.

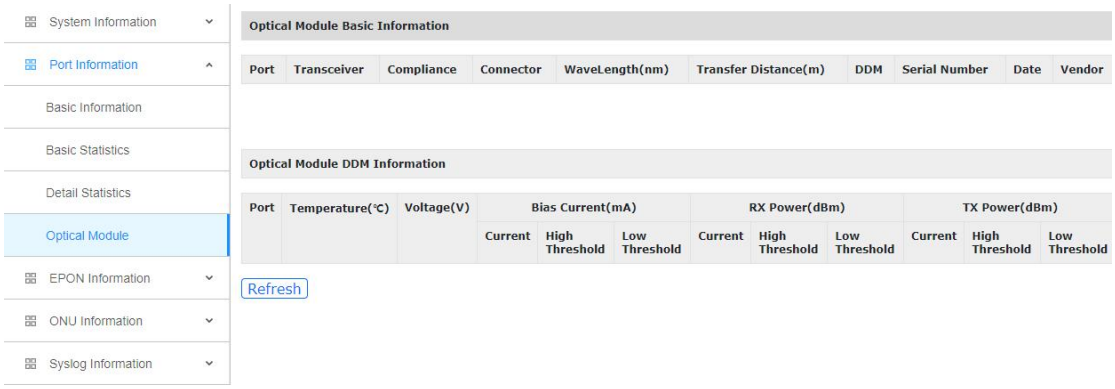


Figure 1-6

1.3 EPON Information

1.3.1 Port Statistics

1.Click Monitor->EPON Information->Port Statistics

2. This page displays PON port optical modules and PON port traffic statistics.

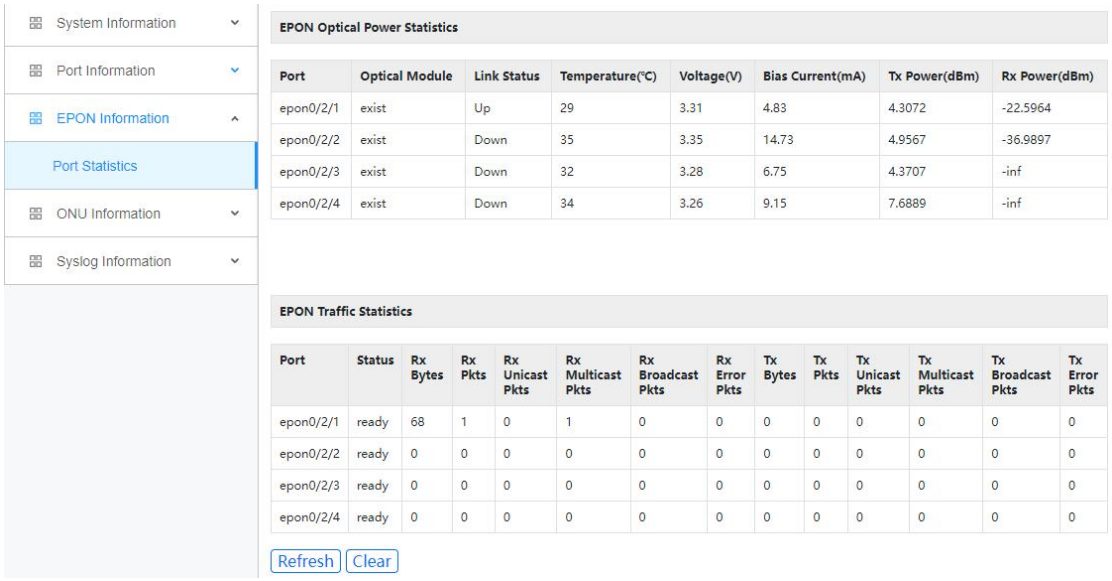


Figure 1-7

1.4 ONU Information

ONU information includes ONU status, power, temperature and other information.

1.4.1 ONU Status

1.Click Monitor->ONU information->ONU Status

2. This page displays ONU's mac address, type, registration time and software information, etc.

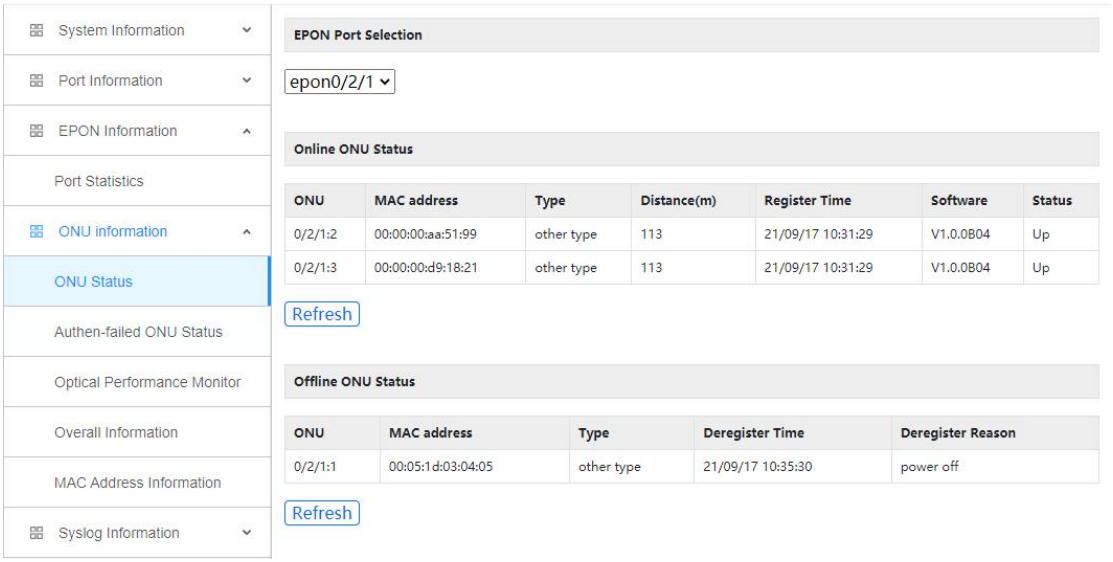


Figure 1-8

1.4.2 ONU Auto Discovery

1.Click Monitor->ONU information->ONU Auto Discovery
2. This page displays information about ONUs that have failed authentication.

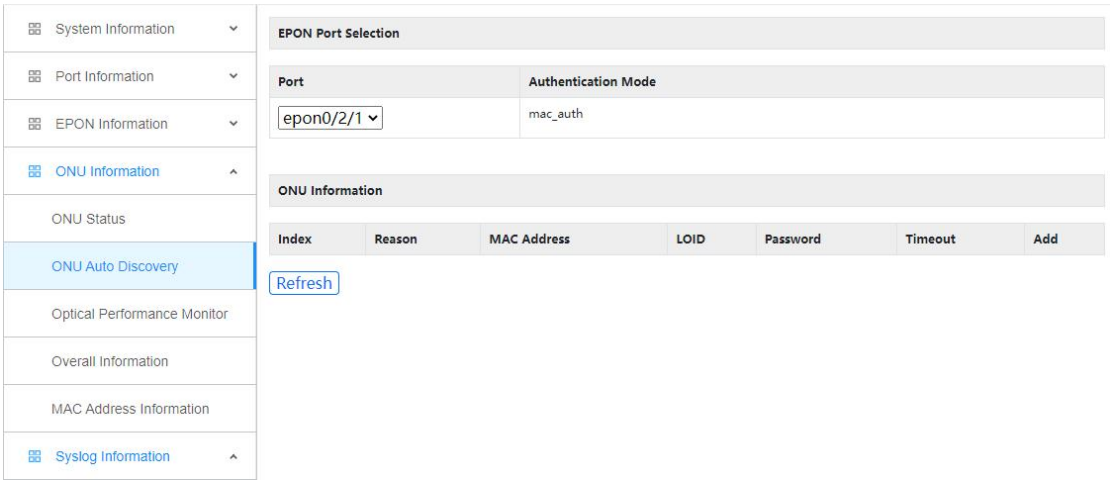


Figure 1-9

1.4.3 Optical Performance Monitor

1.Click Monitor->ONU information->Optical Performance Monitor
2. This page displays the ONU's temperature, voltage, bias current, Txpower and Rx power information

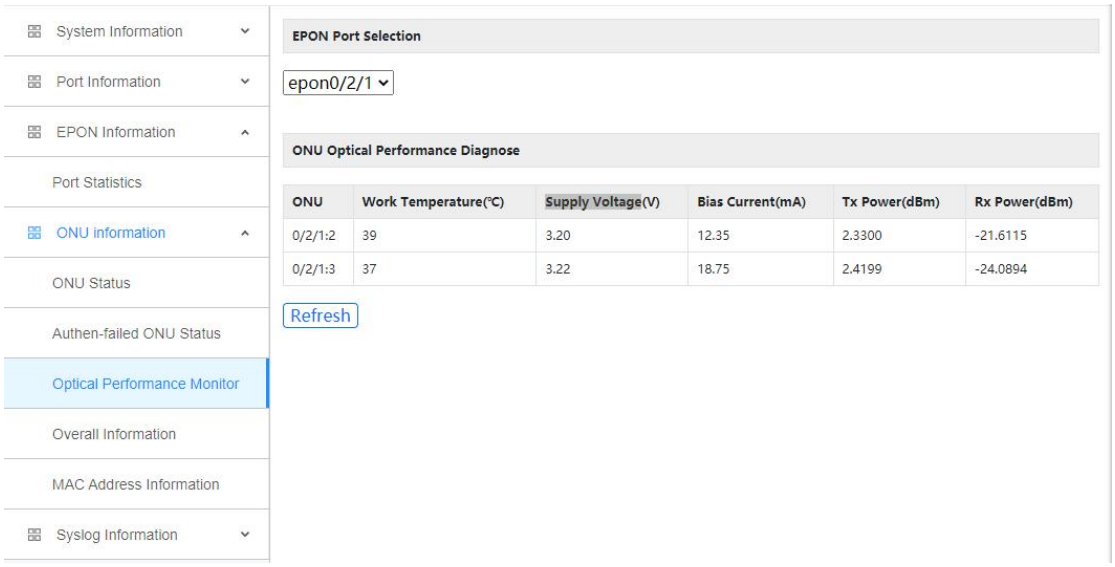


Figure1-10

1.4.4 Overall Information

1.Click Monitor->ONU information->Overall Information

2. This page displays ONU's CTC version, SN, Chip and Firmware information

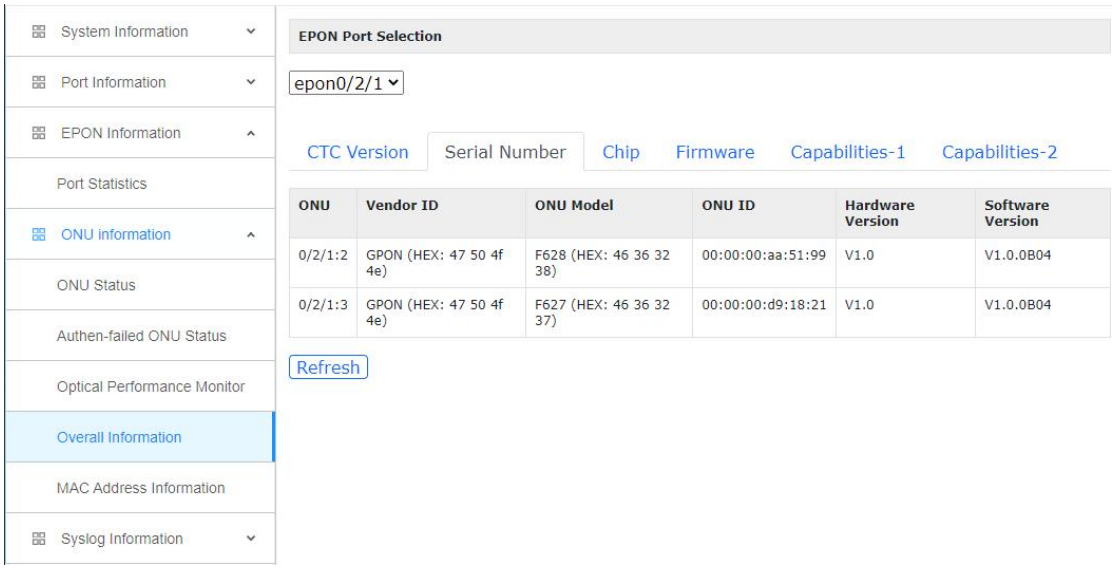


Figure 1-11

1.4.5 MAC Address Information

1.Click Monitor->ONU information->MAC Address Information

2. This page displays the MAC address learned by ONU

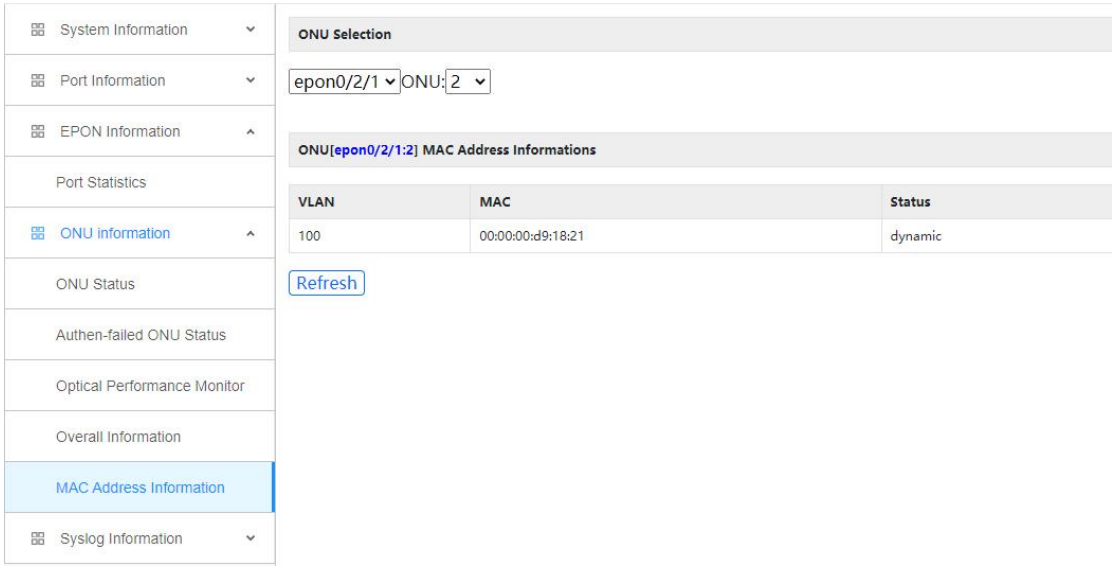


Figure 1-12

1.5 Syslog Information

1.Click Monitor->Syslog Information

2. This page displays the system log. The log records up to 10,000 entries, and it will be automatically overwritten when exceeded.

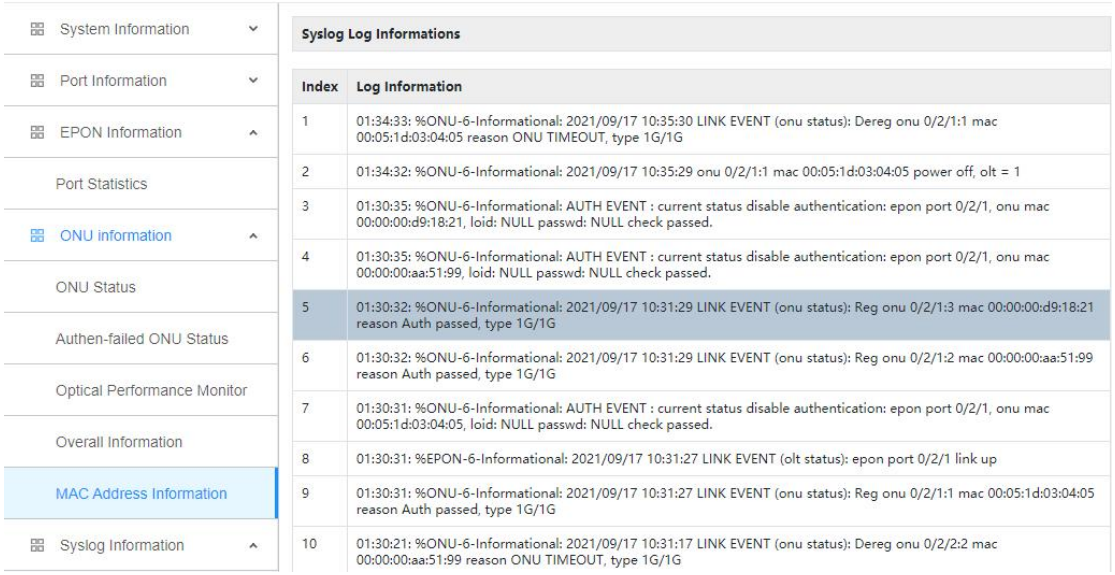


Figure 1-13

Chapter 2 System Management

System OEM information modification and user management, etc.

2.1 System Information

1.Click Config->System Management->System Information
2.This page is configure and display the OEM information of OLT.

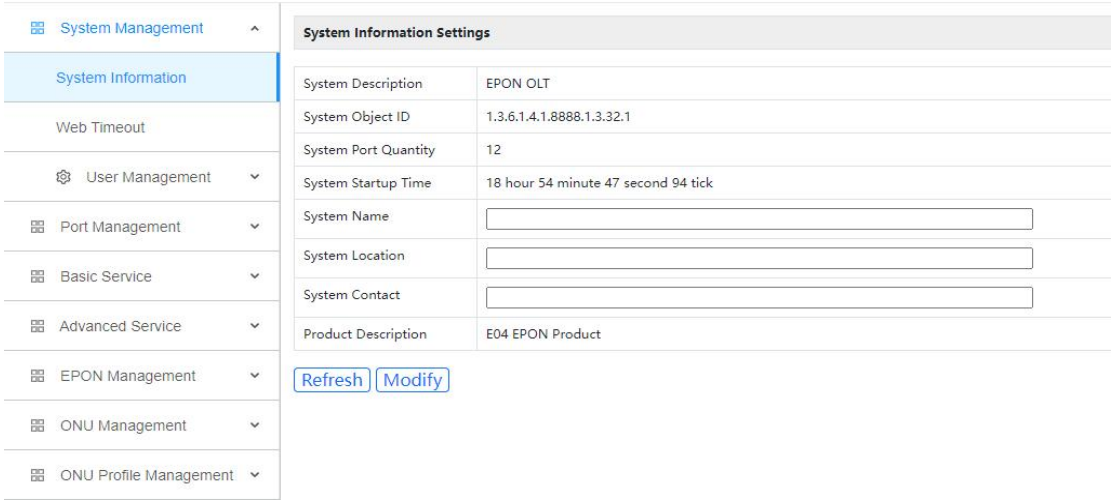


Figure 2-1

2.2 Web Timeout

1.Click Config->System Management->Web Timeout
2. This page configures the web timeout time, which can be 5, 10, 15 and 20 minutes.

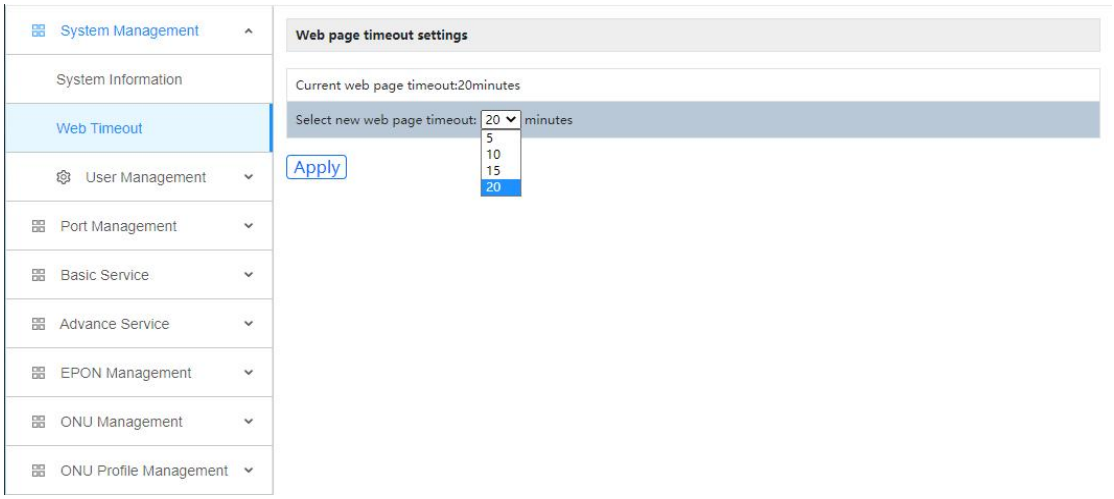


Figure 2-2

2.3 User Management

User management is used to modify, add and delete new users. The system administrator account cannot be deleted, and the user administrator account cannot modify user permissions, and cannot add user accounts.

2.3.1 User Overview

1.Click Config->System Management->User Management->User Overview
2. This page displays all the accounts and privilege of the device.

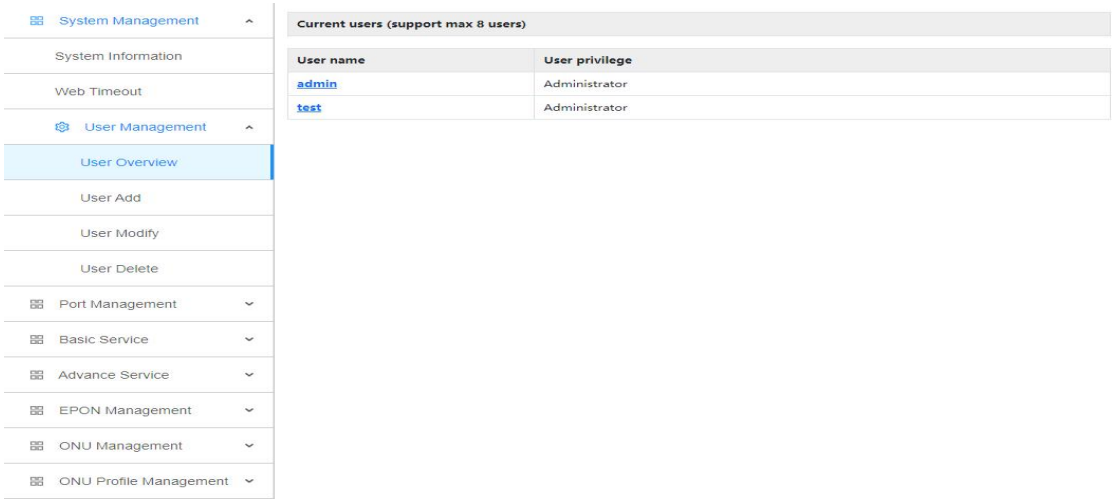


Figure 2-3

2.3.2 User Add

1.Click Config->System Management->User Management->User Add
2.This page is used to add user account and password.

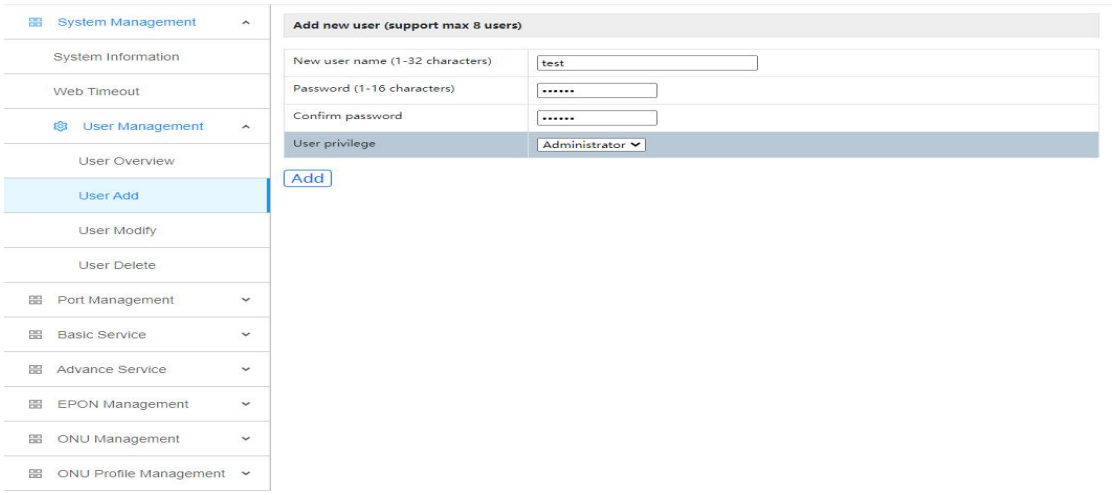


Figure2-4

2.3.3 User Modify

1.Click Config->System Management->User Management->User Modify
2.This page is used to modify user password and user privilege. The admin account privilege cannot be modified. Only the admin account can modify the privilege of other users.

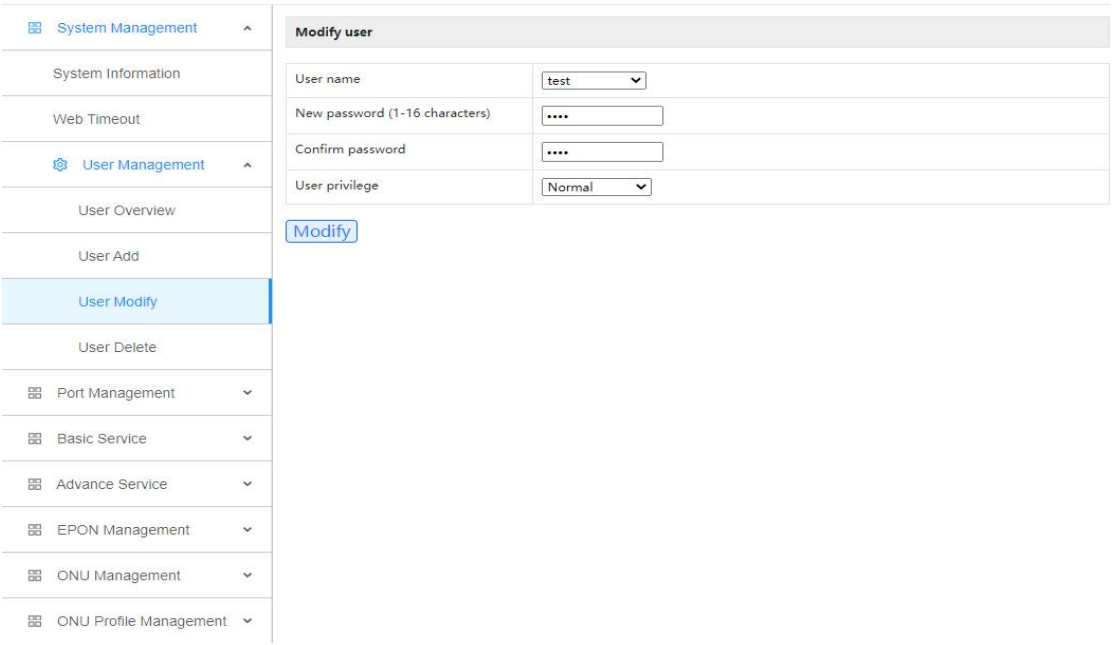


Figure 2-5

2.3.4 User Delete

1.Click Config->System Management->User Management->User Delete
2. This page is used to delete user accounts. Only admin user can perform this operation.

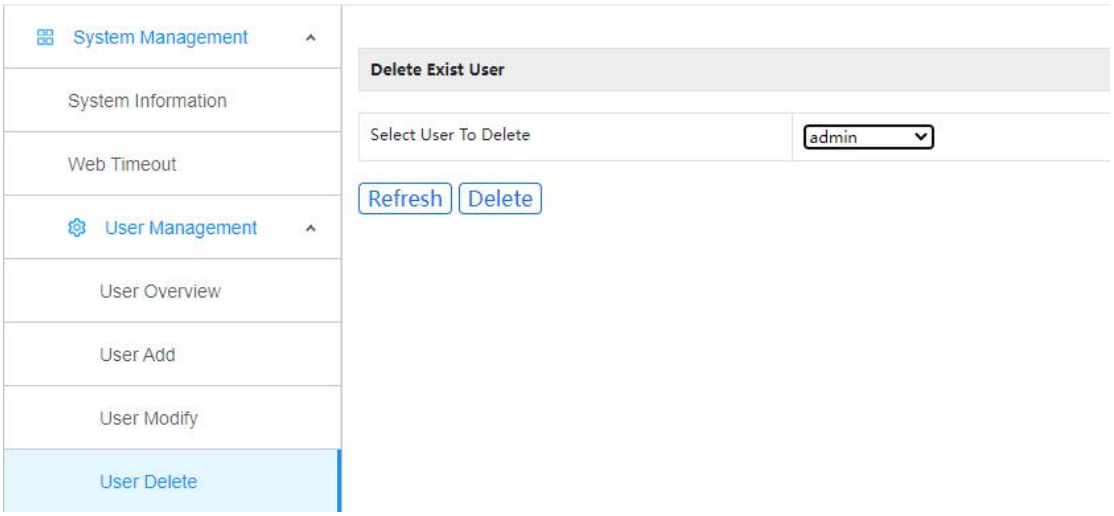


Figure 2-6

Chapter 3 Port Management

Port management configures port mirror, port isolation, storm control and bandwidth control.

3.1 Basic Configuration

1.Click Config->Port Management->Basic Configuration
2. This page configures the OLT port status, priority, rate, MTU, and port description information.

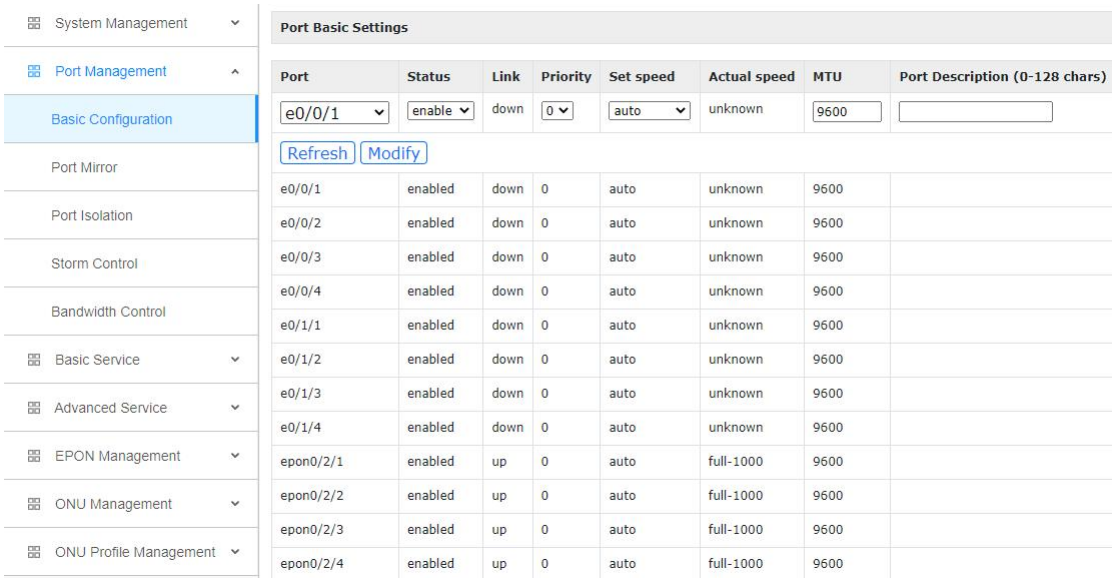


Figure 3-1

3.2 Port Mirror

1.Click Config->Port Management->Port Mirror
2. This page configures the port mirror function.

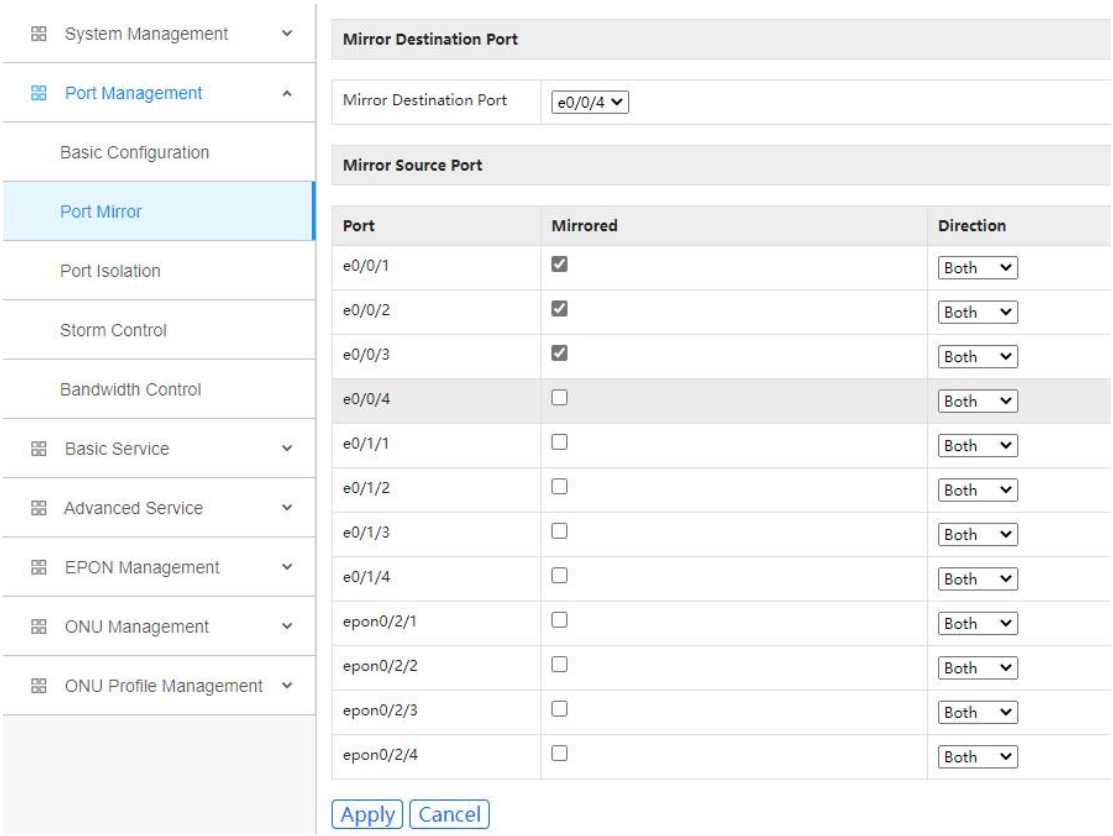


Figure 3-2

3.3 Port Isolation

1.Click Config->Port Management->Port Isolation

2. This page configures the port isolation function. The ports in the isolation group are isolated from each other and can only communicate with the uplink port, cannot communicate with other ports.

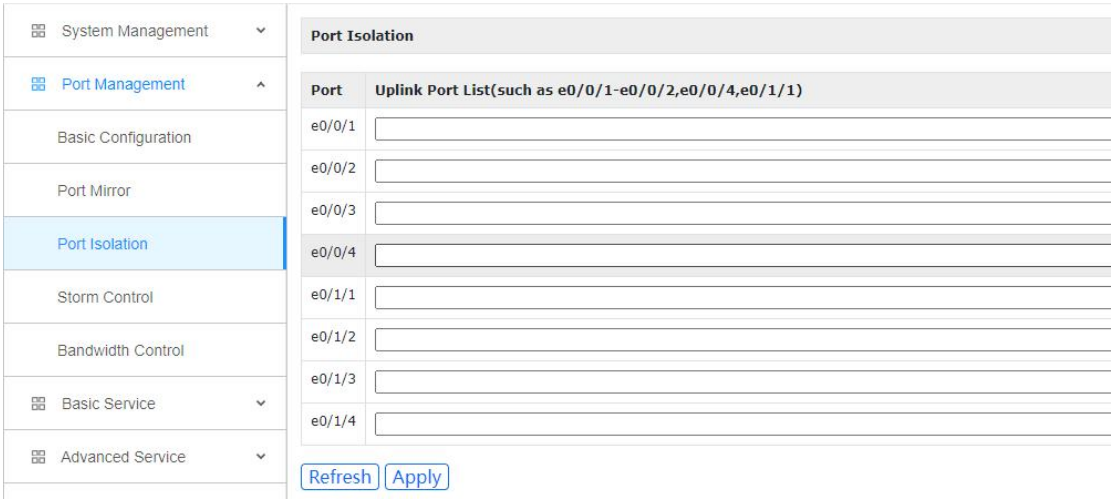


Figure 3-3

3.4 Storm Control

1.Click Config->Port Management->Storm Control

2. This page configures the storm control function, packets exceeding the configured speed will be discarded

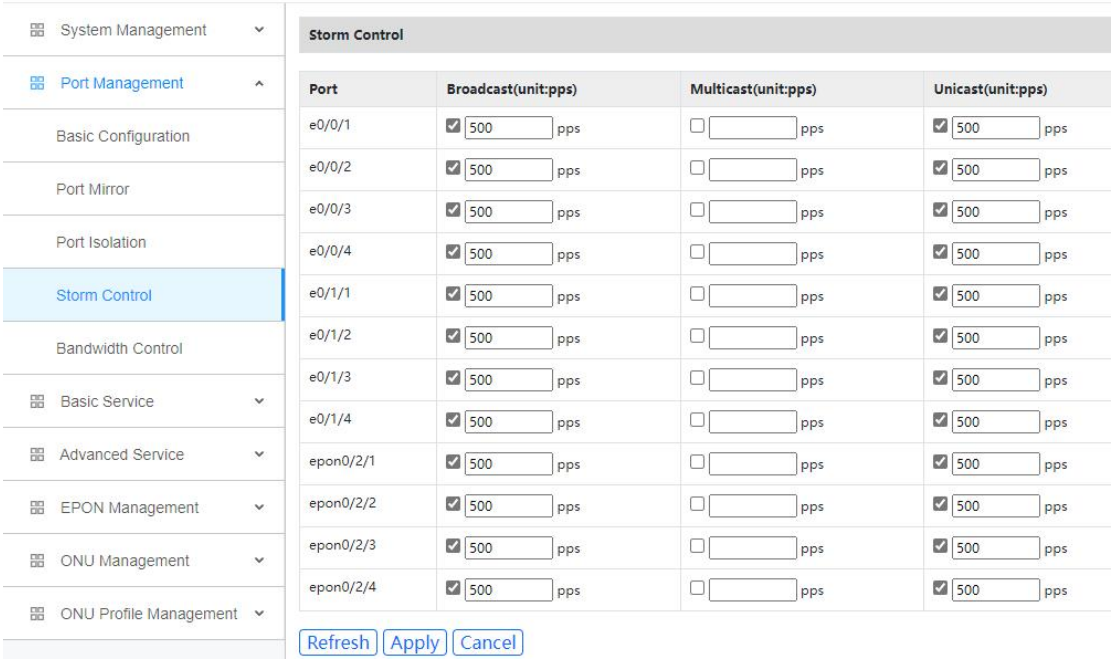


Figure 3-4

3.5 Bandwidth Control

1.Click Config->Port Management->Bandwidth Control

2. This page configures the ingress and egress rate of the OLT port, and the bandwidth is limited to an integer multiple of 64

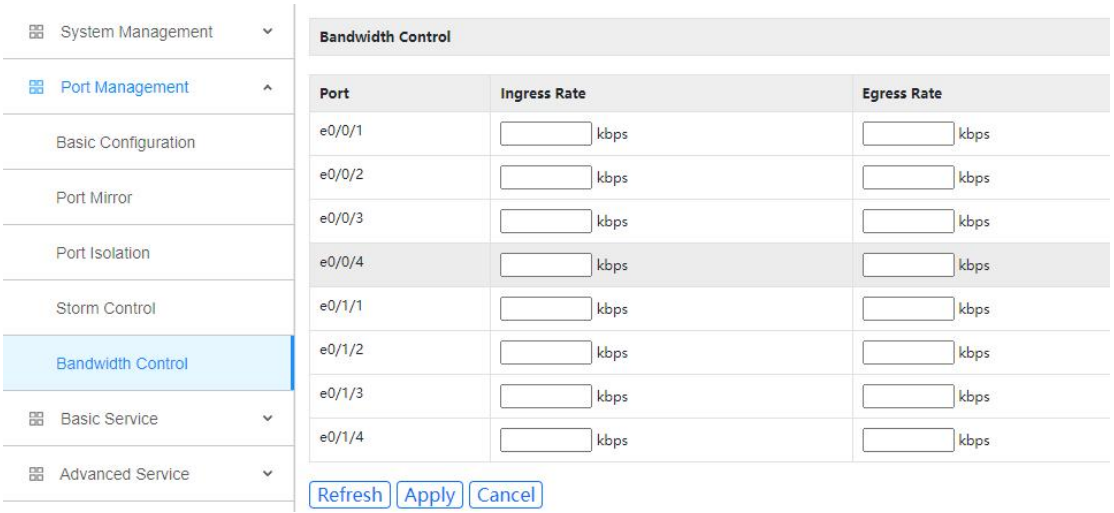


Figure 3-5

Chapter 4 Basic Service

Basic services include VLAN, management IP, Layer 2 multicast, STP, LACP and other functions.

4.1 VLAN Configuration

VLAN configuration can create VLANs and bind ports

4.1.1 Static VLAN

1.Click Config->Basic Service->VLAN Configuration->Static VLAN
2. This page can add, modify, delete, and add description information for VLANs.

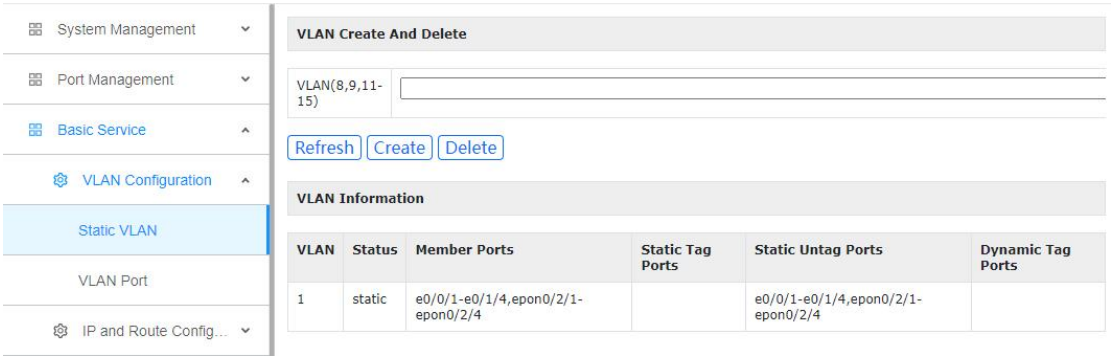


Figure 4-1

4.1.2 VLAN Port

1.Click Config->Basic Service->VLAN Configuration->VLAN Port
2. This page configures the default VLAN and mode of the port.

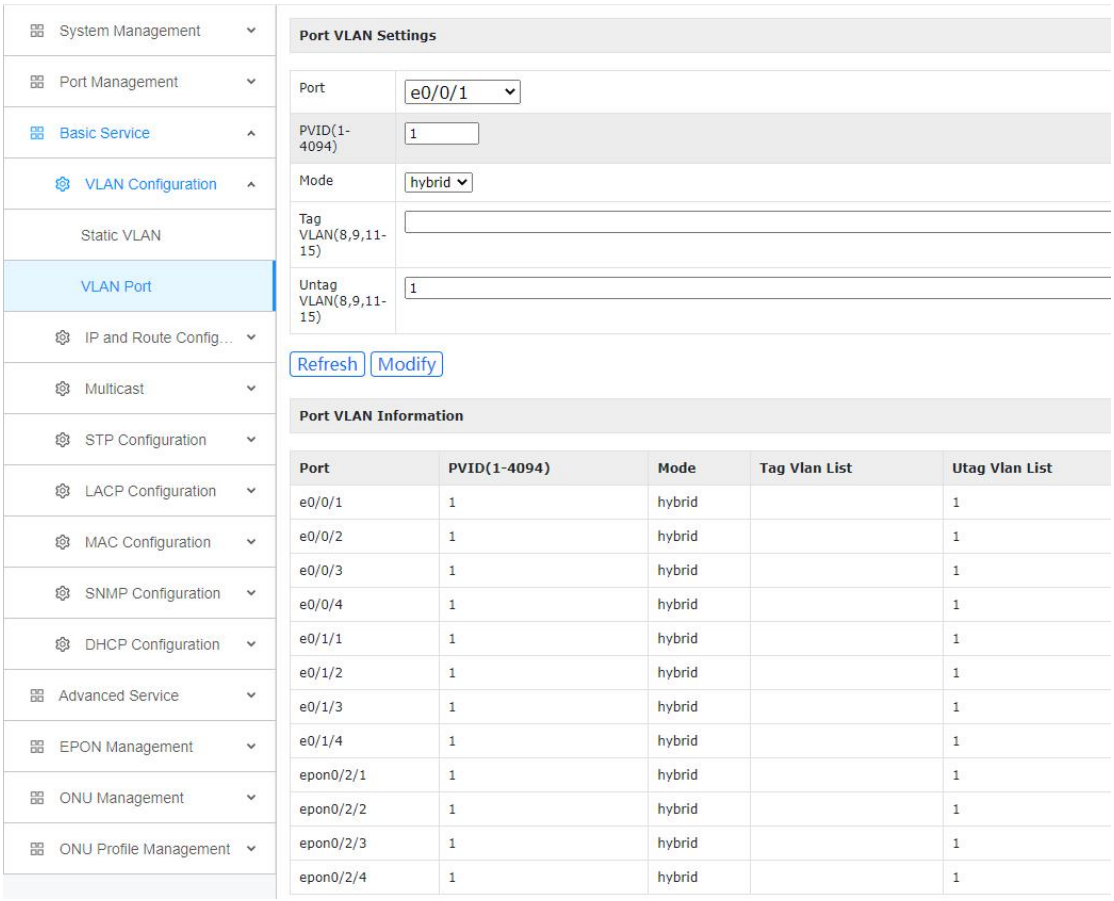


Figure 4-2

4.2 IP and Route Configuration

IP and route configuration include VLAN interface and static route.

4.2.1 MGMT IP Configuration

1.Click Config->Basic Service->IP and Route Configuration->MGMT IP Configuration
2. This page configures the management IP of the OLT. The default management IP is 192.168.168.1.

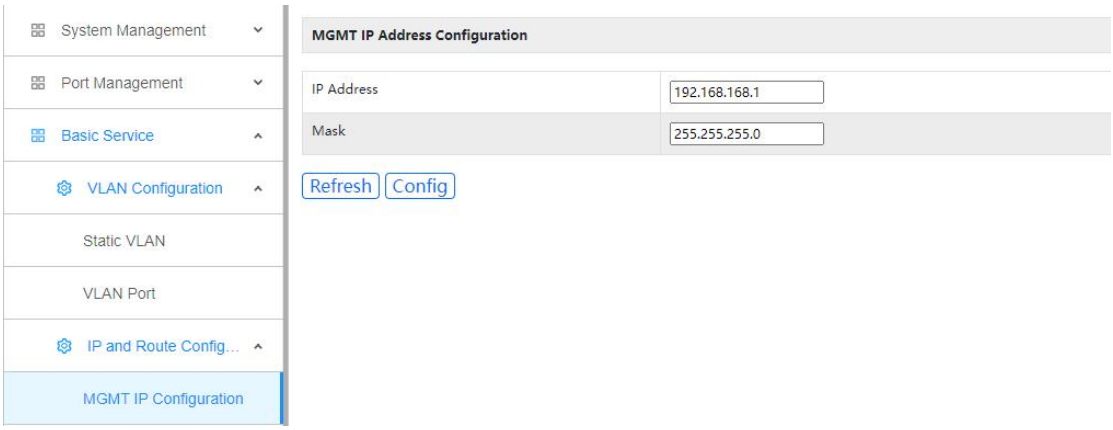


Figure 4-3

4.2.2 VLAN IP Configuration

1.Click Config->Basic Service->IP and Route Configuration->VLAN IP Configuration
2. This page can add, modify and delete VLAN interface.

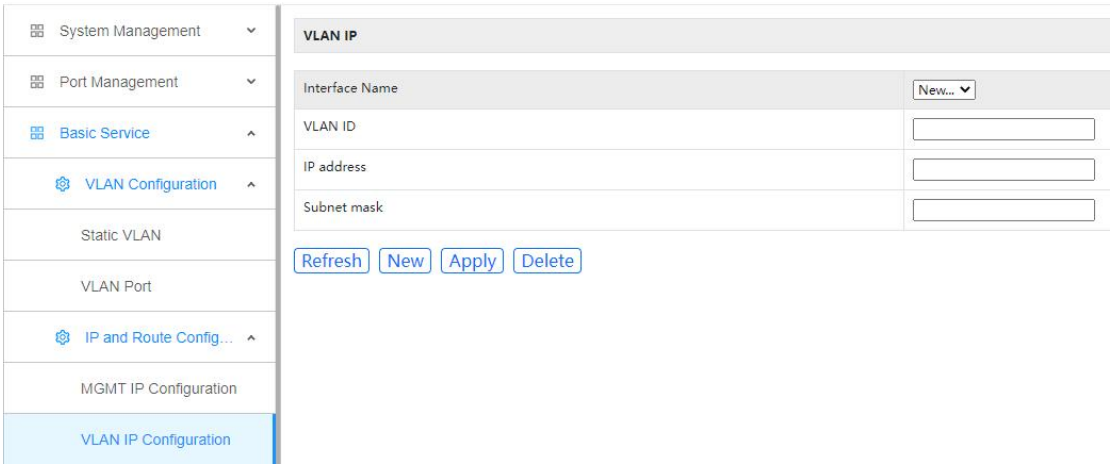


Figure 4-4

4.2.3 Static Route Configuration

1.Click Config->Basic Service->IP and Route Configuration->Static Route Configuration
2. This page displays, adds and deletes static routes.

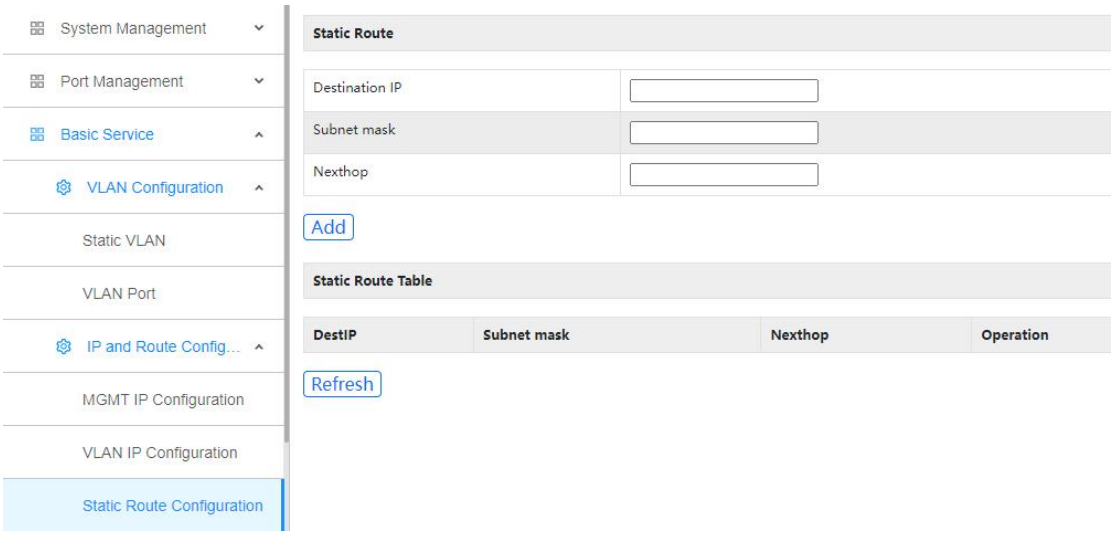


Figure 4-5

4.3 Multicast

4.3.1 Multicast Configuration

1.Click Config->Basic Service->Multicast->Multicast Configuration
2.This page can add, modify and delete static multicast groups.

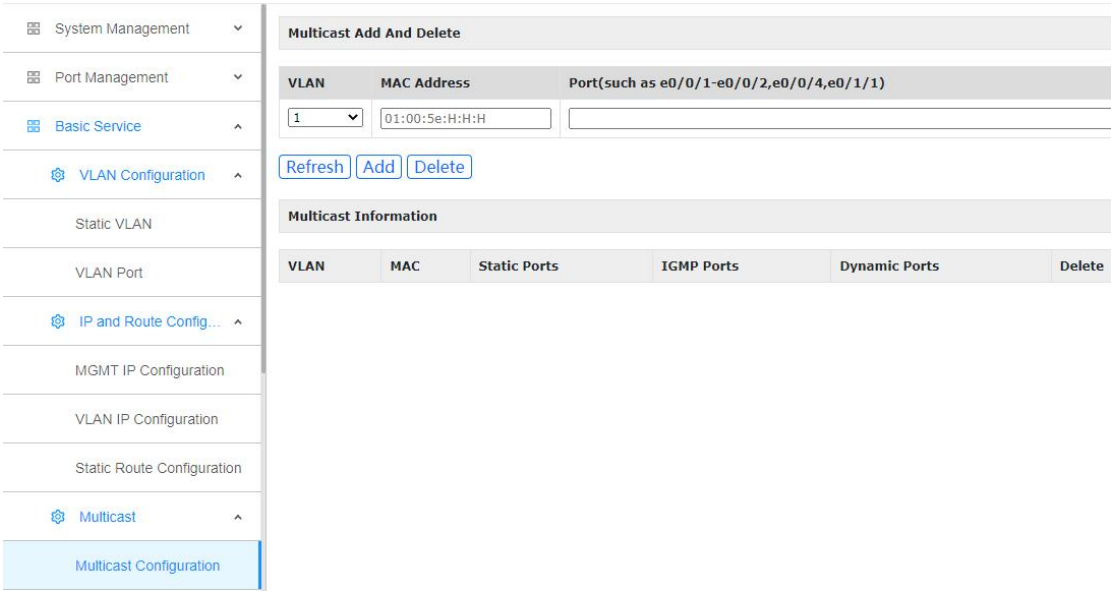


Figure 4-6

4.3.2 IGMP Configuration

1.Click Config->Basic Service->Multicast->IGMP Configuration
2.This page configures IGMP snooping.

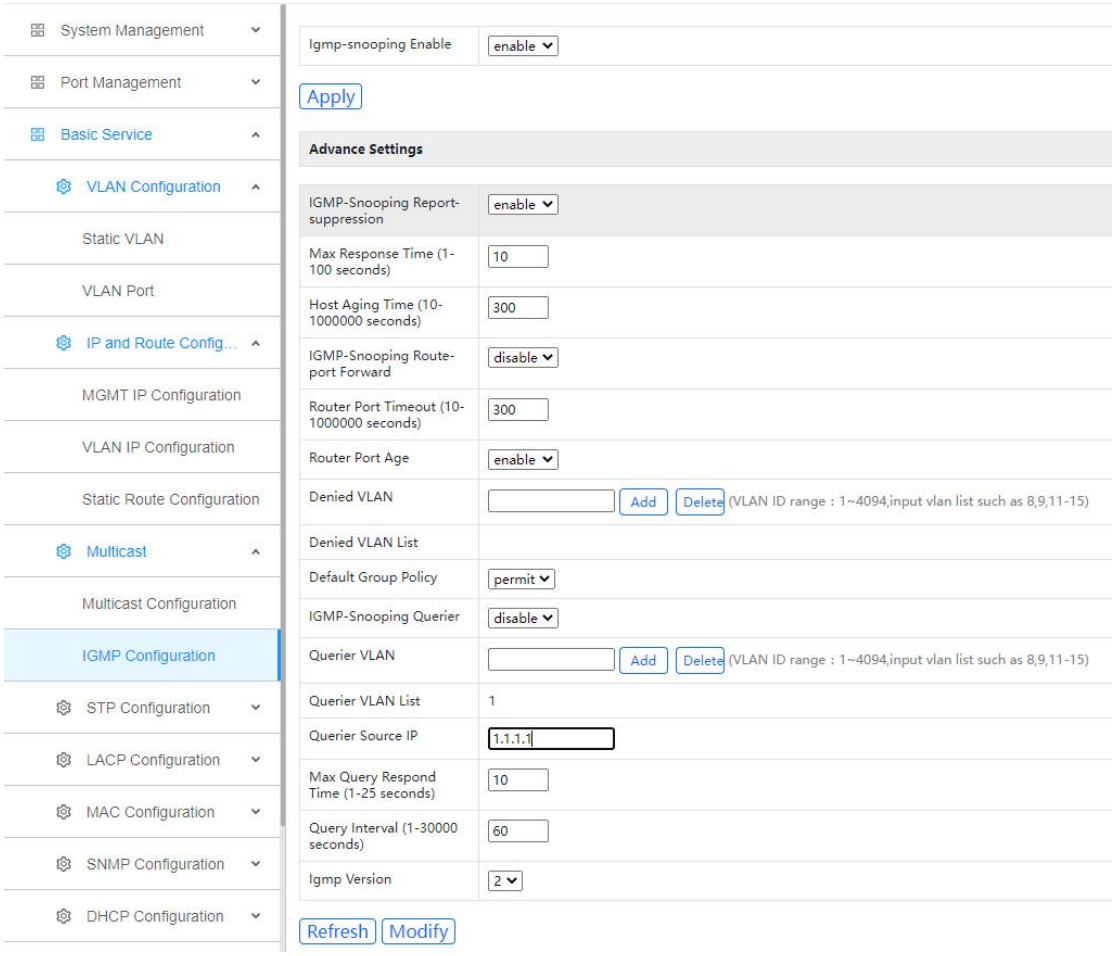


Figure 4-7

4.4 STP Configuration

STP (Spanning Tree Protocol) is a part of the IEEE 802.1D bridge protocol. The standard STP implementation can eliminate network broadcast storms caused by network cyclic connections, eliminate cyclic connections caused by mistakes or accidents, and also provide network services. Possibility of backup connection.

4.4.1 Global Configuration

1.Click Config->Basic Service->Stp Configuration->Global Configuration
2. This page configures the global STP and displays STP status.

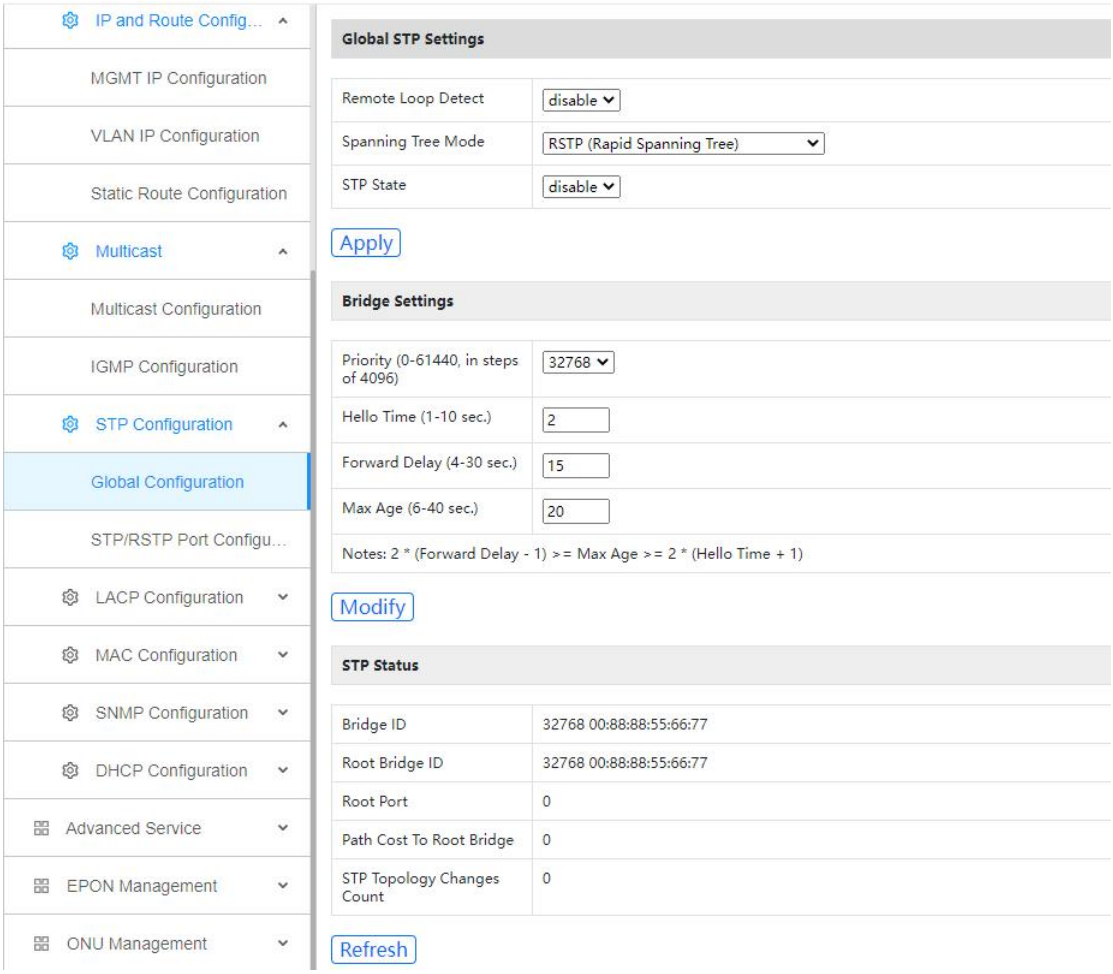


Figure 4-8

4.4.2 STP/RSTP Port Configuration

1.Click Config->Basic Service->Stp Configuration->STP/RSTP Port Configuration

2. This page configures the STP status, path cost, and priority. The priority of the port must be an integer multiple of 16.

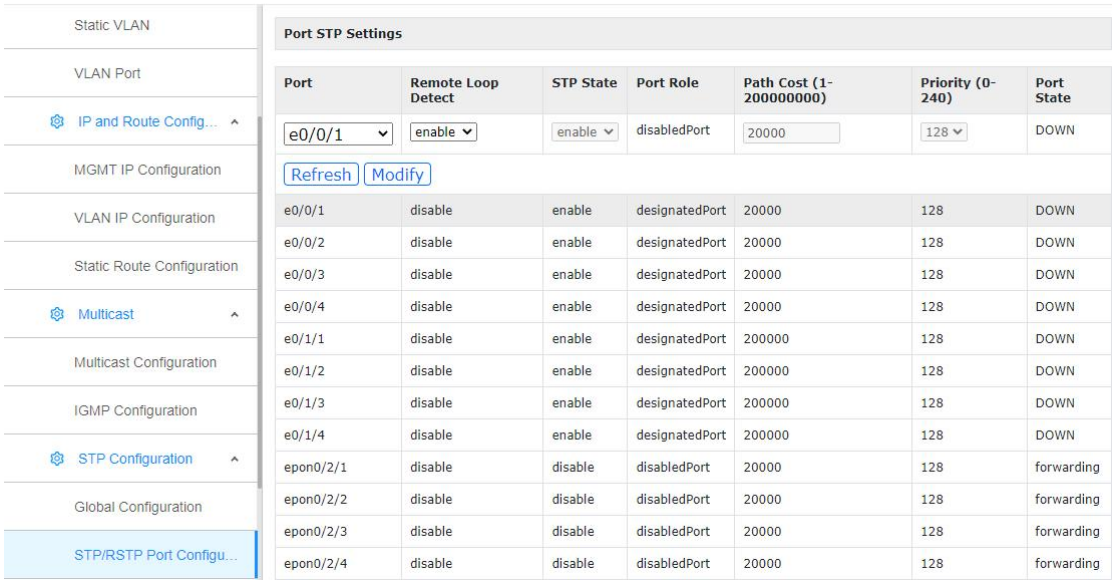


Figure 4-9

4.5 LACP Configuration

LACP is the aggregation of multiple ports together to form an aggregation group to achieve traffic load sharing among member ports. When a link is unavailable, the link traffic will automatically switch to another link to ensure uninterrupted business traffic. An aggregation group is like a port.

4.5.1 Status Display

1.Click Config->Basic Service->LACP Configuration->Status Display
2. This page displays LACP configuration information.

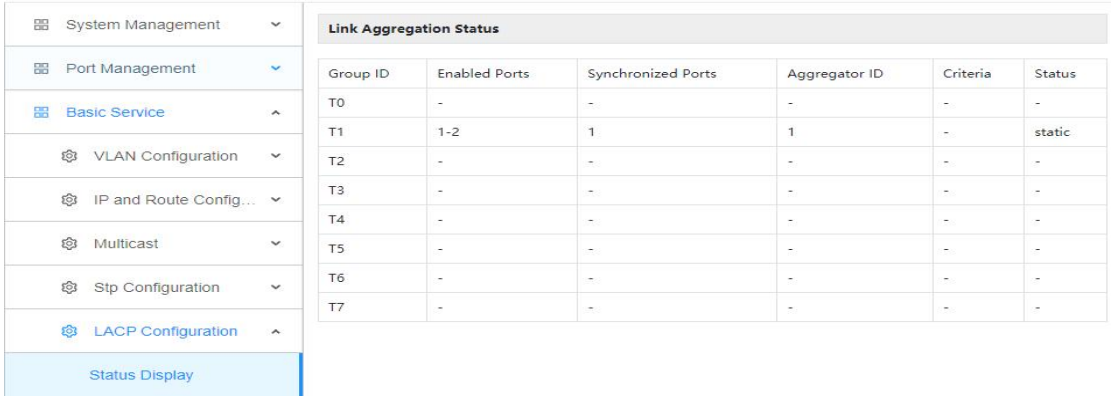


Figure 4-10

4.5.2 LACP Configuration

1.Click Config->Basic Service->LACP Configuration->LACP Configuration

2. This page configures LACP. Only ports with the same VLAN can be configured in the same group.

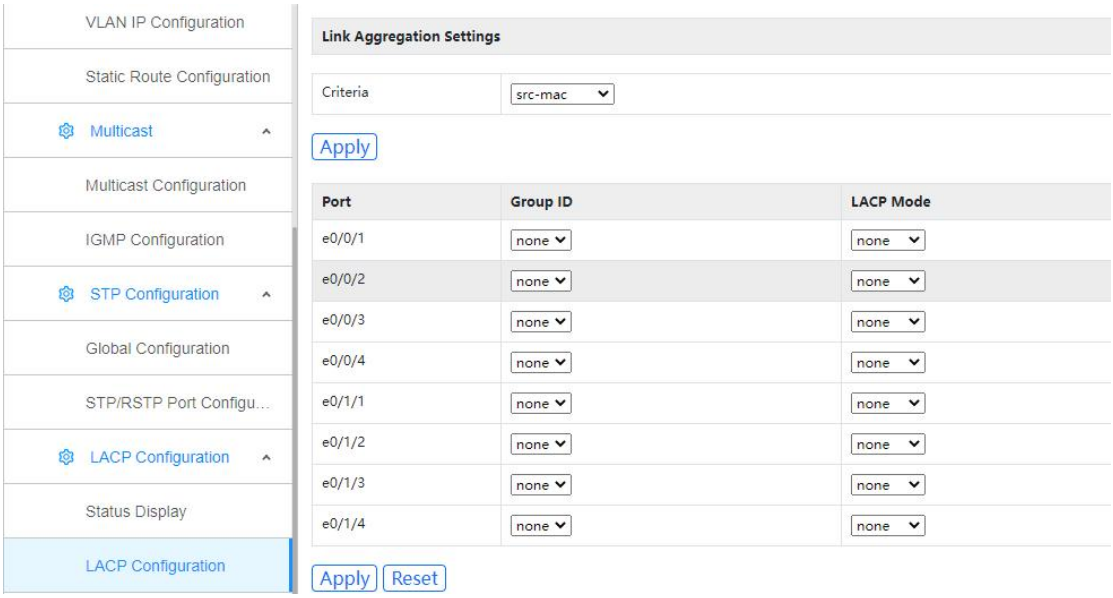


Figure 4-11

4.5.3 Protocol Control

1.Click Config->Basic Service->LACP Configuration->Protocol Control
2. This page activates the LACP group and configures the port priority.

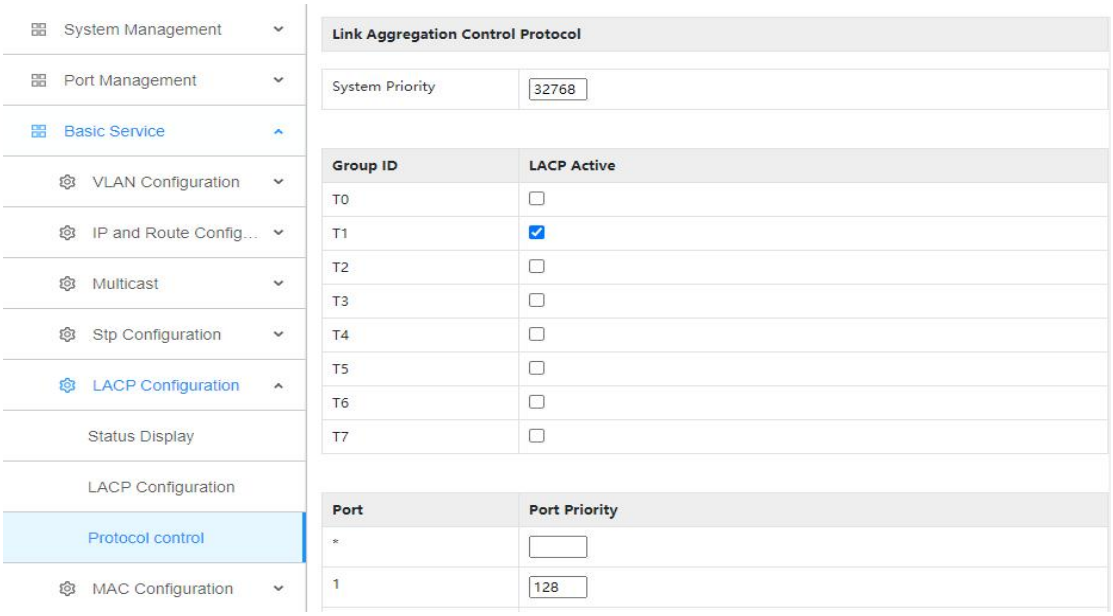


Figure 4-12

4.6 MAC Configuration

MAC configuration is used to add and delete port-MAC bind.

4.6.1 Port Binding Display

1.Click Config->Basic Service->MAC Configuration->Port Binding Display
2. This page displays port-MAC binding status information.

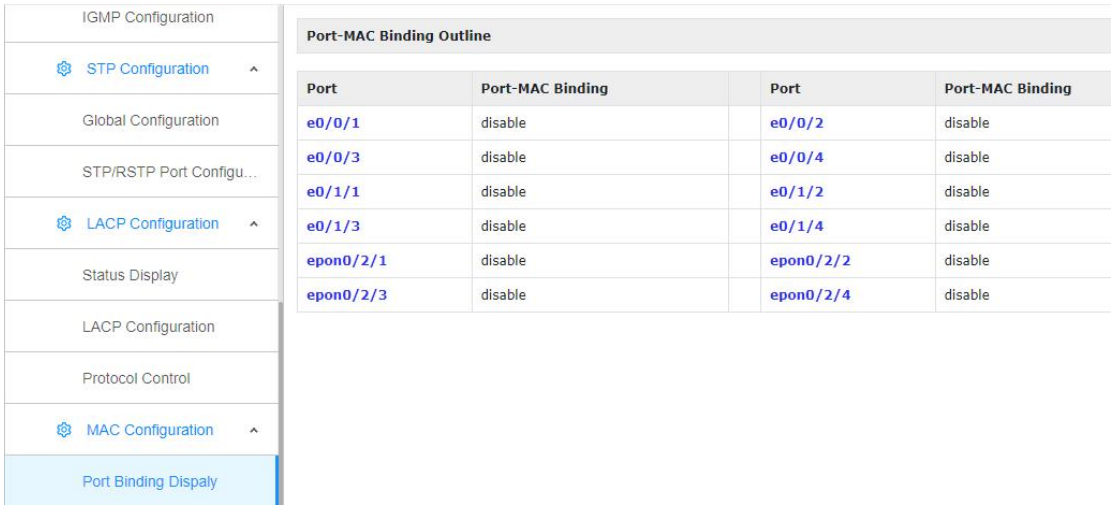


Figure 4-13

4.6.2 Port Binding Configuration

1.Click Config->Basic Service->MAC Configuration->Port Binding Configuration
2. This page can configure port-MAC binding

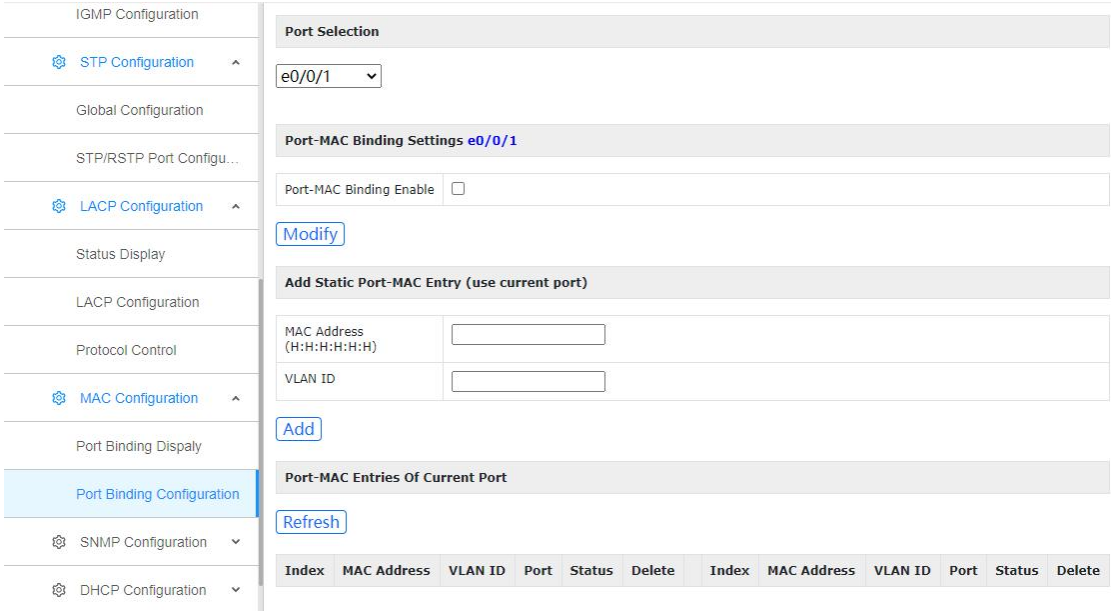


Figure 4-14

4.7 SNMP Configuration

SNMP (Simple Network Management Protocol) is a network management standard based on the TCP/IP protocol suite, and is a standard protocol for managing network nodes in an IP network.

4.7.1 Commutity Configuration

1.Click Config->Basic Service->MAC Configuration->Port Binding Configuration
2. This page configures the SNMP community name (the default is iso).

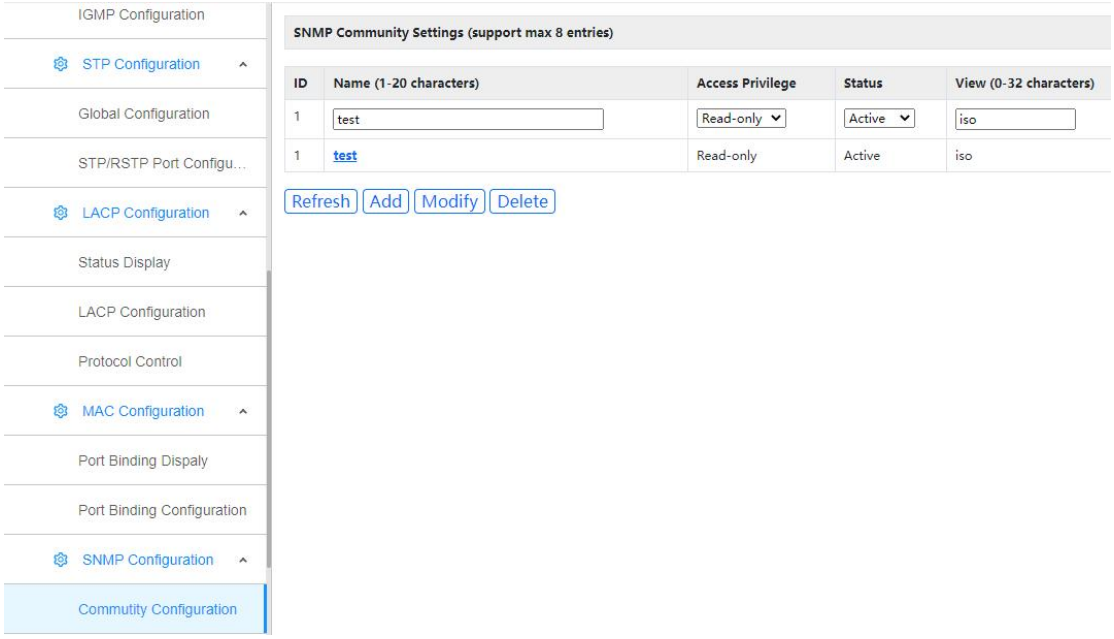


Figure 4-15

4.7.2 Trap Configuration

1.Click Config->Basic Service->SNMP Configuration->Trap Configuration
2.This page configures the Trap.

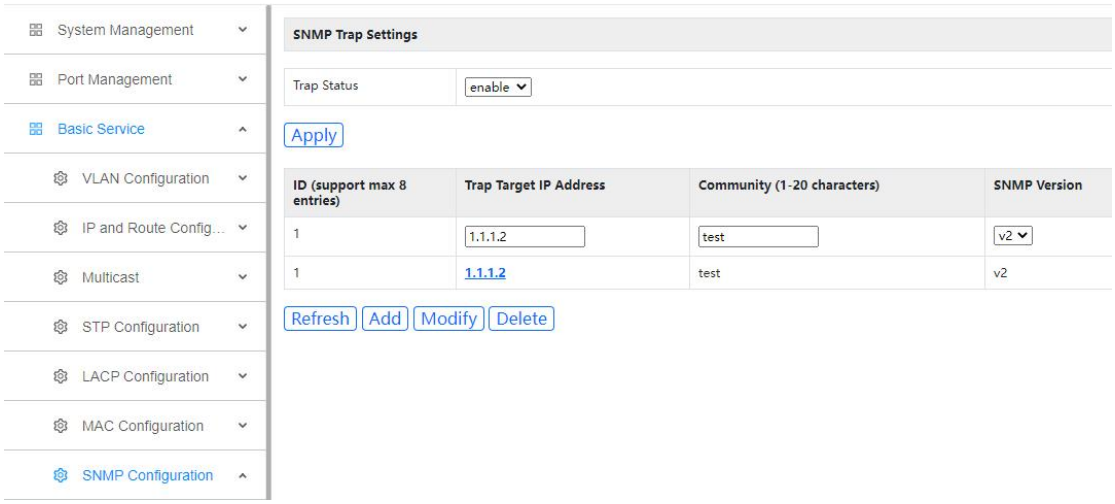


Figure 4-16

4.8 DHCP Configuration

4.8.1 DHCP Snooping

1.Click Config->Basic Service->DHCP Configuration->DHCP Snooping->DHCP snooping Setting

2.This page configures DHCP snooping, option82, trust port, etc. After enabling DHCP snooping, the trust port must be configured.

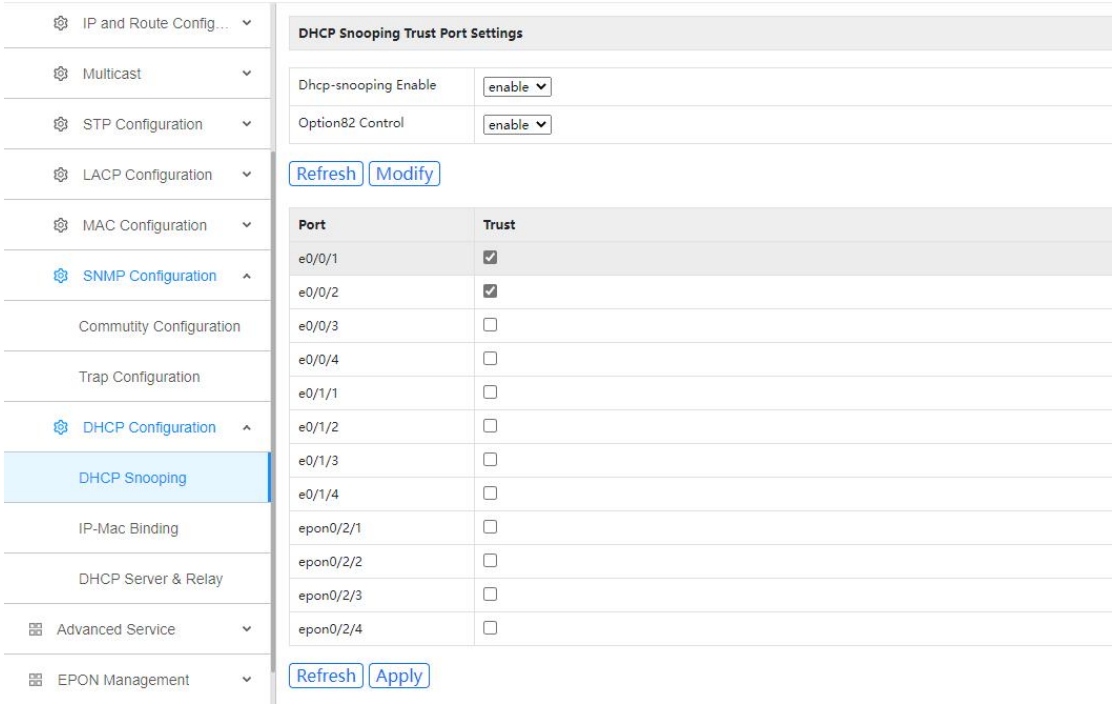


Figure 4-17

4.8.2 IP-MacBinding

1.Click Config->Basic Service->DHCP Configuration->IP-Mac Binding
2. This page configures the IP and MAC binding function, this function needs to be used with DHCP snooping.

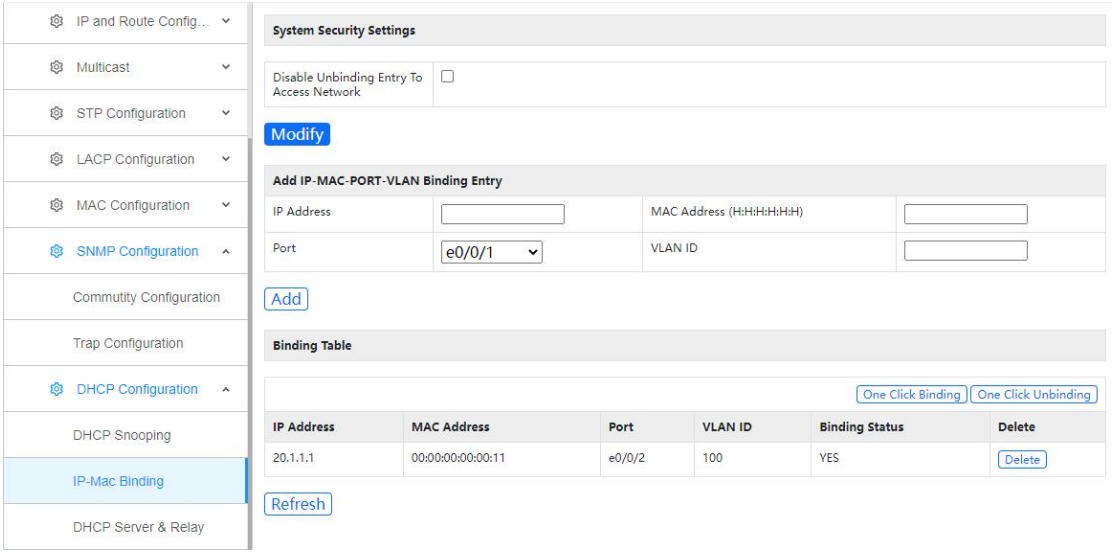


Figure 4-18

4.8.3 DHCP Server&Relay

1.Click Config->Basic Service->DHCP configuration->DHCP Server&Relay
2.This page configures DHCP server and relay.

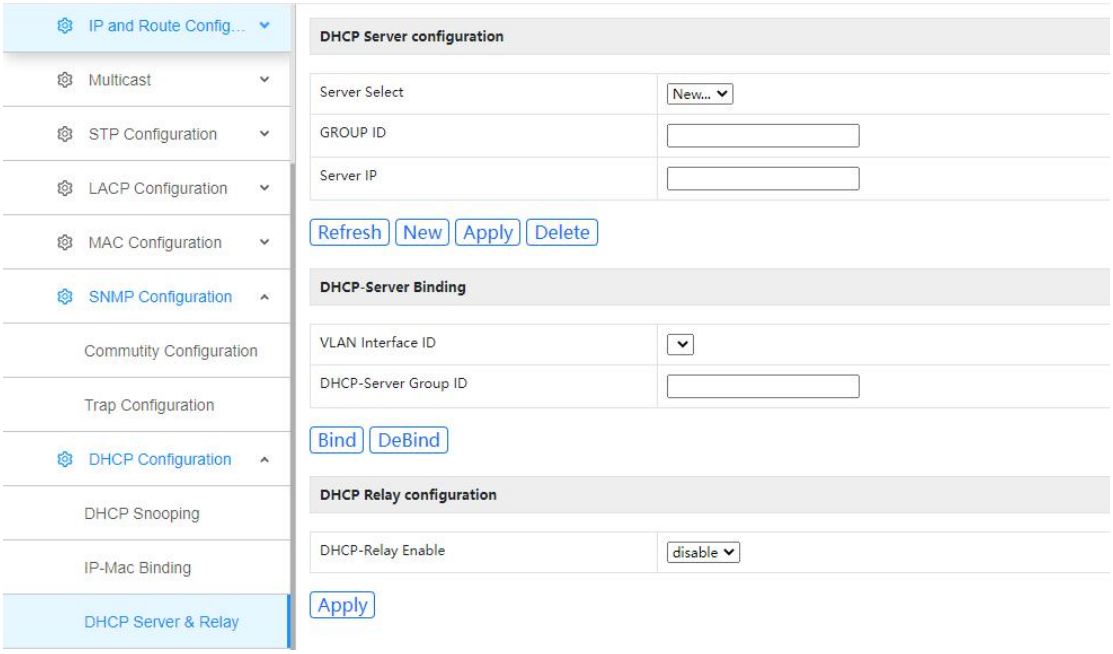


Figure 4-19

Chapter 5 Advance Service

Advanced services include configuration of system time and time server.

5.1 System Time

1.Click Config->Advance Service->System Time
2. This page configures the system time and time zone, you can synchronize the local computer time

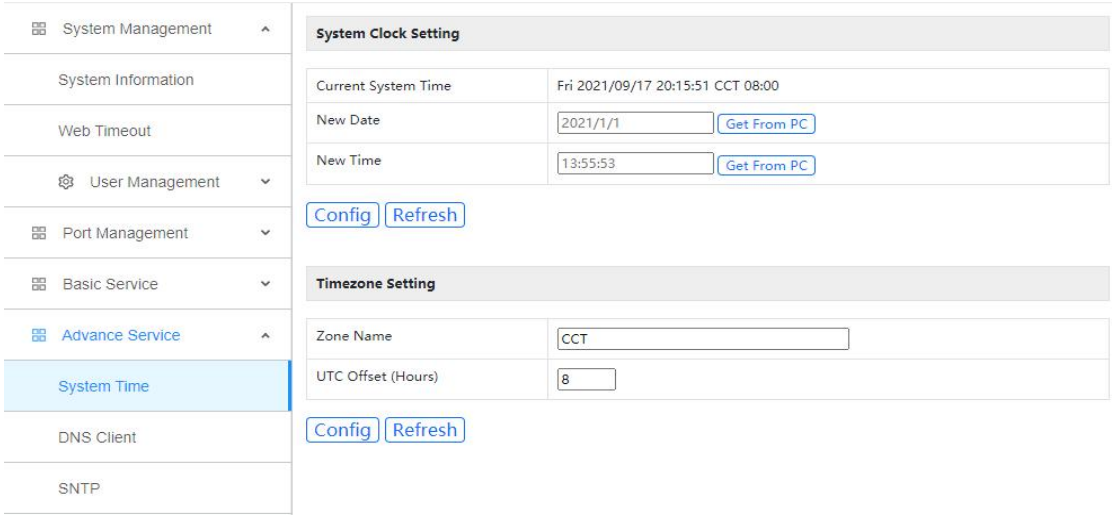


Figure 5-1

5.2 DNSClient

1.Click Config->Advance Service->DNSClient
2. This page configures the IP and domain name of the time server (need to be configured in unicast mode)。

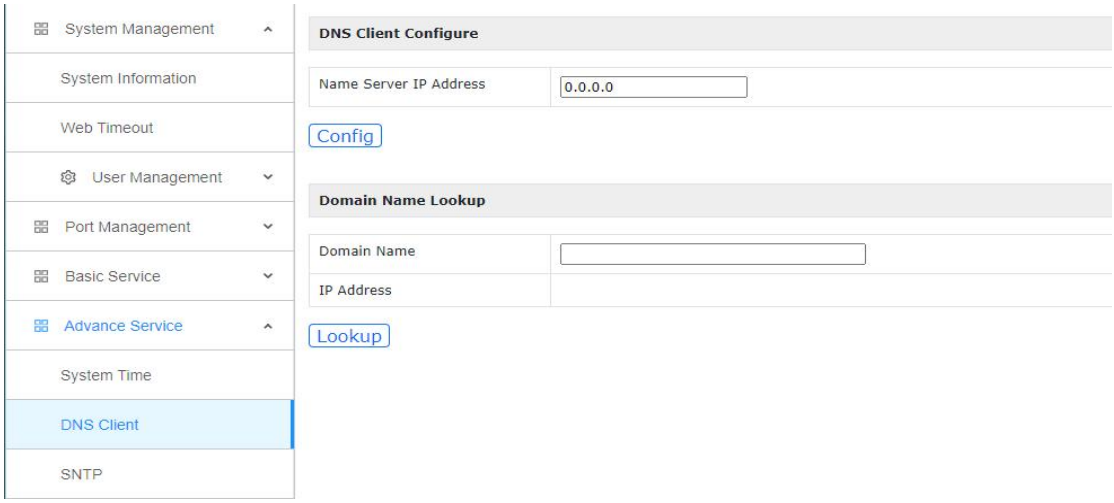


Figure 5-2

5.3 SNTP

1.Click Config->Advance Service->SNTP
2.This page configures the SNTP.

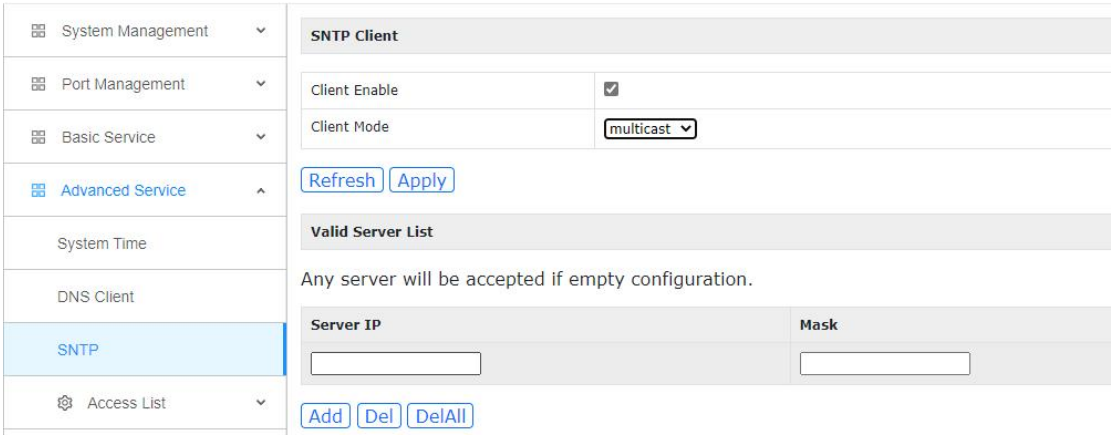


Figure 5-3

5.4Access List

5.4.1Classifier

1.Click Config->Advance Service->Access List->Classifier
2.This page configures the ACLClassifier.

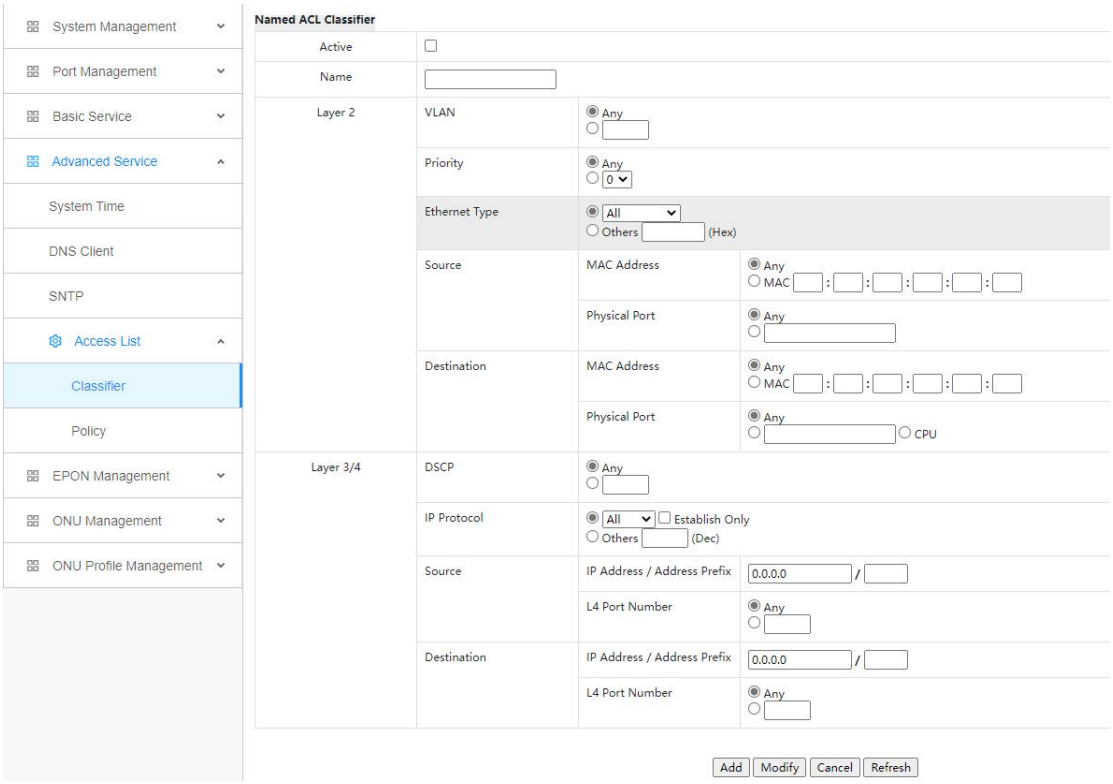


Figure 5-4

5.4.2Policy

1.Click Config->Advance Service->Access List->Policy

2.This page configures the ACLPolicy.

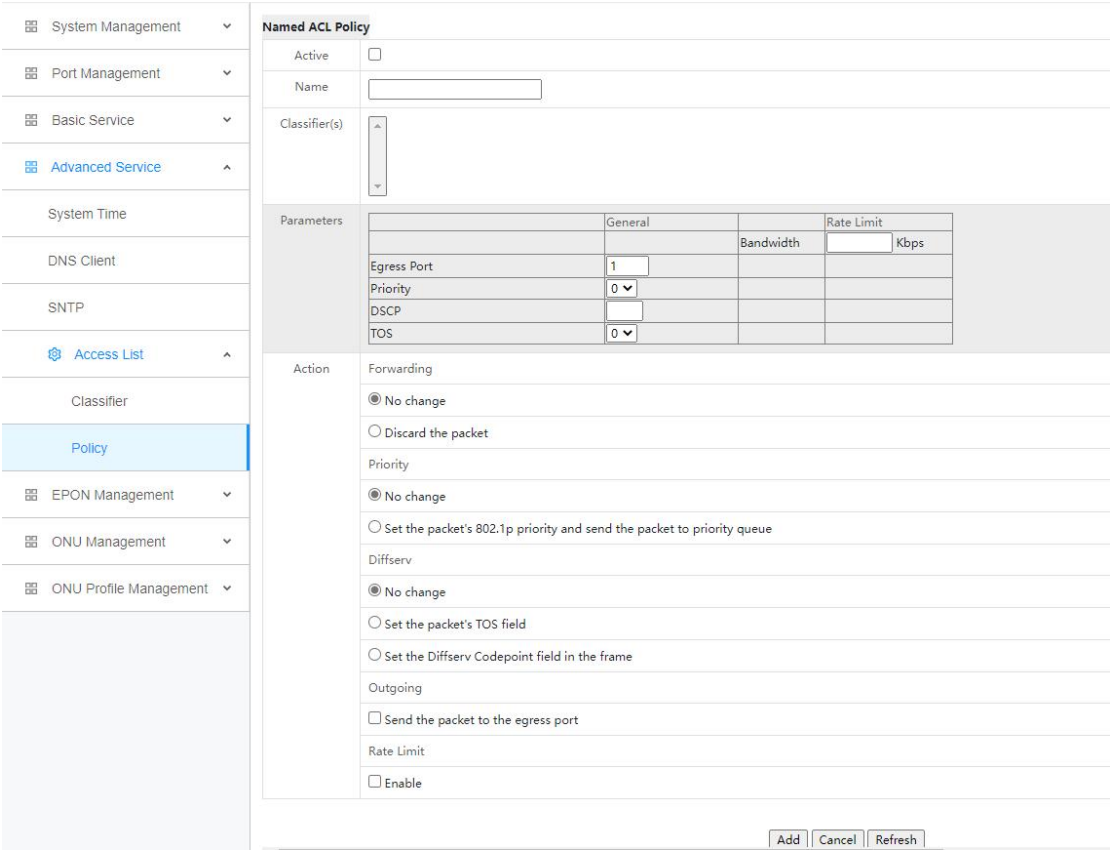

System Management
Port Management
Basic Service
Advanced Service
System Time
DNS Client
SNTP
Access List
Classifier
Policy
EPON Management
ONU Management
ONU Profile Management
Named ACL Policy
Active
Name
Classifier(s)
Parameters
General
Rate Limit
Bandwidth
Kbps
Egress Port
Priority
DSCP
TOS
Action
Forwarding
No change
Discard the packet
Priority
No change
Set the packet's 802.1p priority and send the packet to priority queue
Diffserv
No change
Set the packet's TOS field
Set the Diffserv Codepoint field in the frame
Outgoing
Send the packet to the egress port
Rate Limit
Enable
Add
Cancel
Refresh

Figure 5-5

Chapter 6 EPON Management

6.1 Port Configuration

1.Click Config->EPON Management->Port Configuration
2. This page configures the PON port authentication mode and ONU isolation function, etc. By default, the authentication mode is disable, all ONUs can go online, and ONUs under the same PON port and between PON ports are isolated.

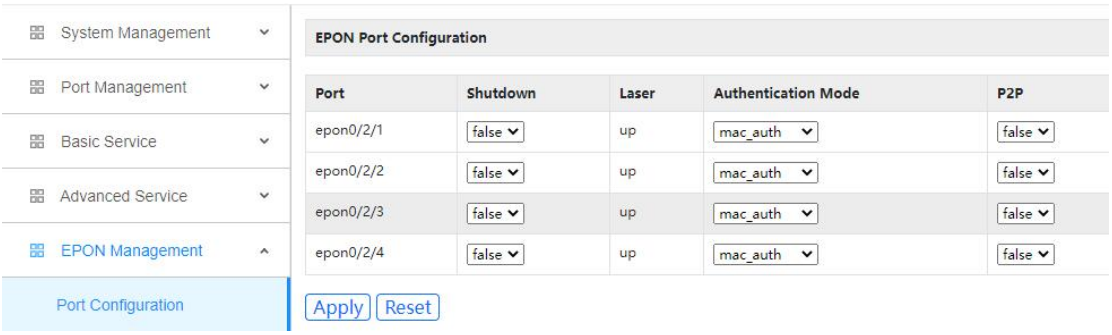


Figure 6-1

6.2 MAC White List

1.Click Config->EPON Management->MAC White List
2. This page adds and deletes the MAC whitelist. Only ONUs in the whitelist can go online

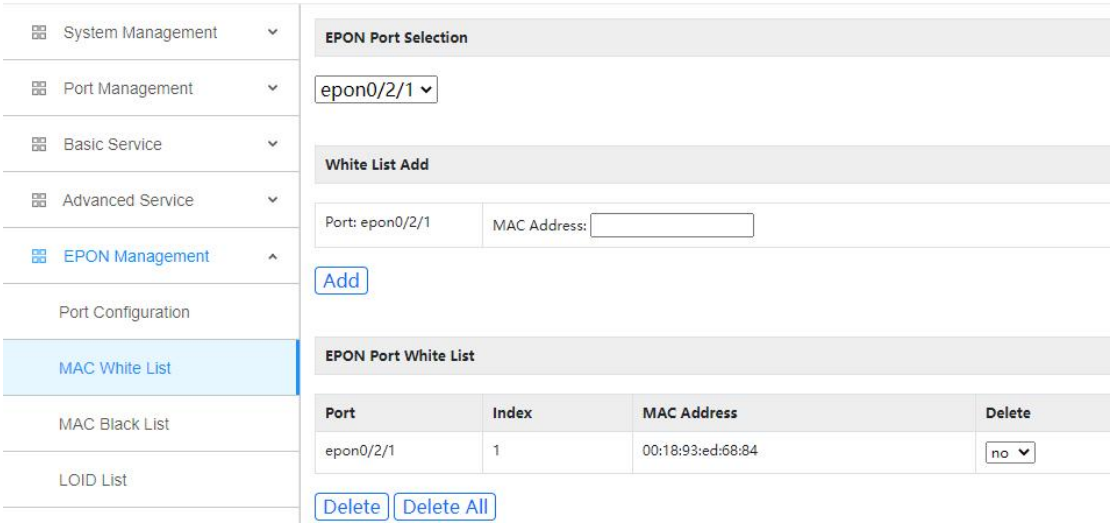


Figure 6-2

6.3 MAC Black List

1.Click Config->EPON Management->MAC Black List

2. This page configures the blacklist of the PON port, and all ONUs in the blacklist cannot go online.

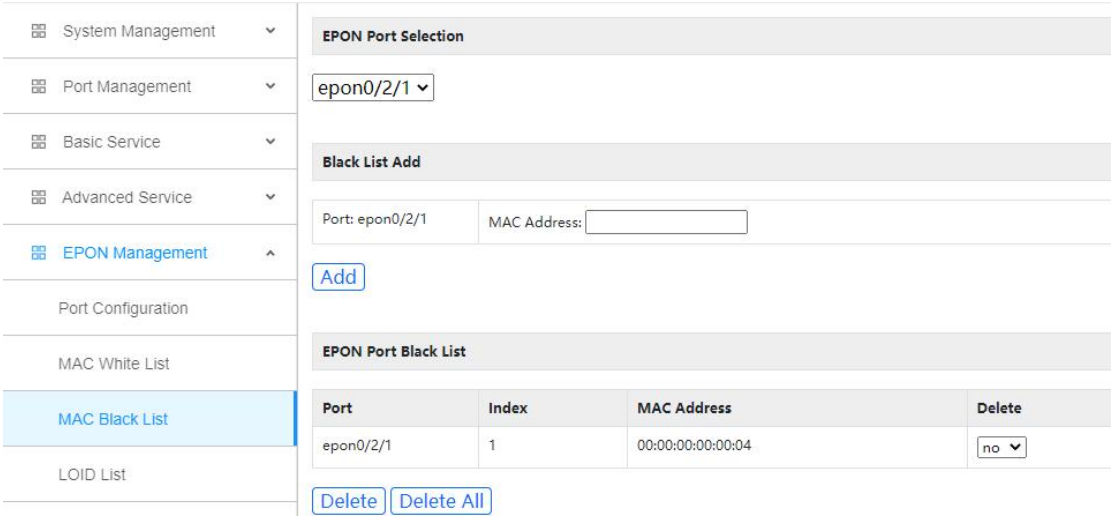


Figure 6-3

6.4 LOID List

1.Click Config->EPON Management->LOID List
2. This page configures the LOID list, and only ONUs in the LOID list can go online.

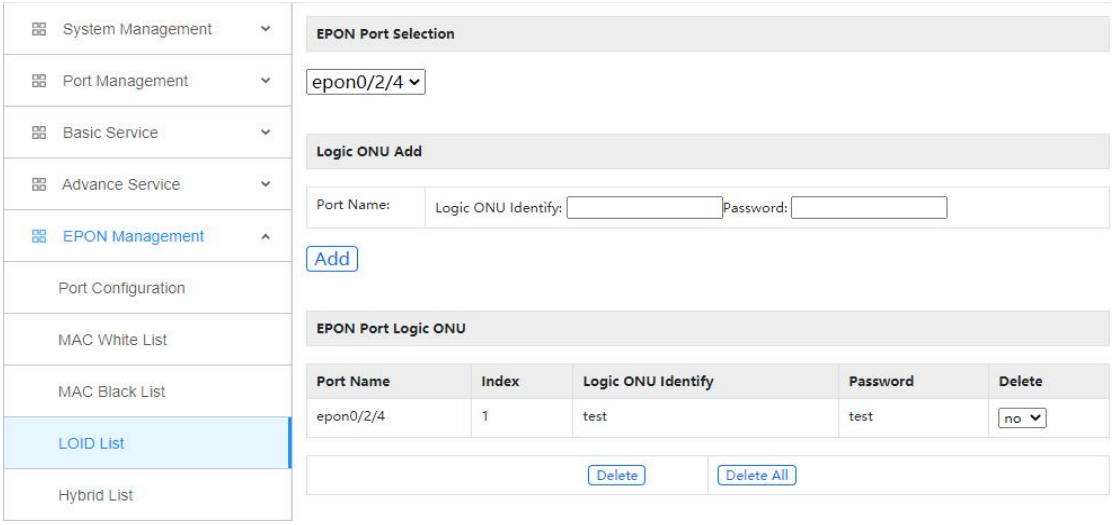


Figure 6-4

6.5 Hybrid List

1.Click Config->EPON Management->Hybrid List
2. This page configures the hybrid authentication list, and only ONUs in the hybrid list can go online normally.

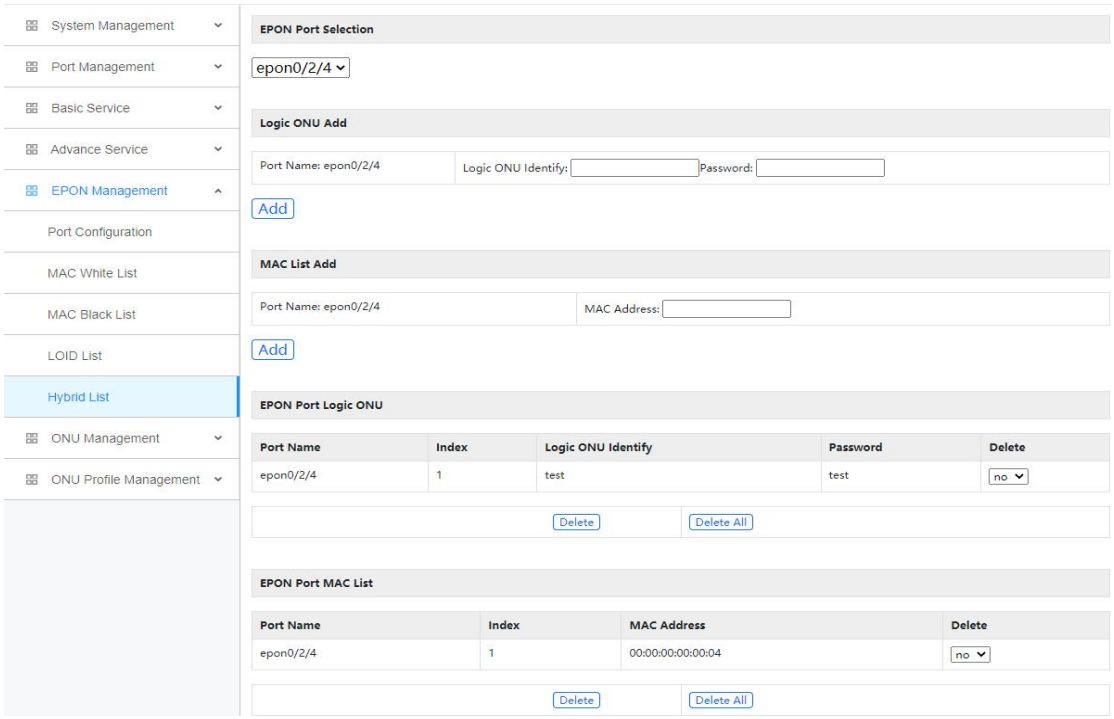

System Management
Port Management
Basic Service
Advance Service
EPON Management
Port Configuration
MAC White List
MAC Black List
LOID List
Hybrid List
ONU Management
ONU Profile Management
EPON Port Selection
epon0/2/4
Logic ONU Add
Port Name: epon0/2/4
Logic ONU Identify:
Password:
Add
MAC List Add
Port Name: epon0/2/4
MAC Address:
Add
EPON Port Logic ONU
Port Name
Index
Logic ONU Identify
Password
Delete
epon0/2/4
1
test
test
no
Delete
Delete All
EPON Port MAC List
Port Name
Index
MAC Address
Delete
epon0/2/4
1
00:00:00:00:00:04
no
Delete
Delete All

Figure 6-5

Chapter 7 ONU Management

7.1 ONU List

1.Click Config->ONU Management->ONU List

2. This page configures binding and unbinding ONUs, unbinding only operates offline ONUs

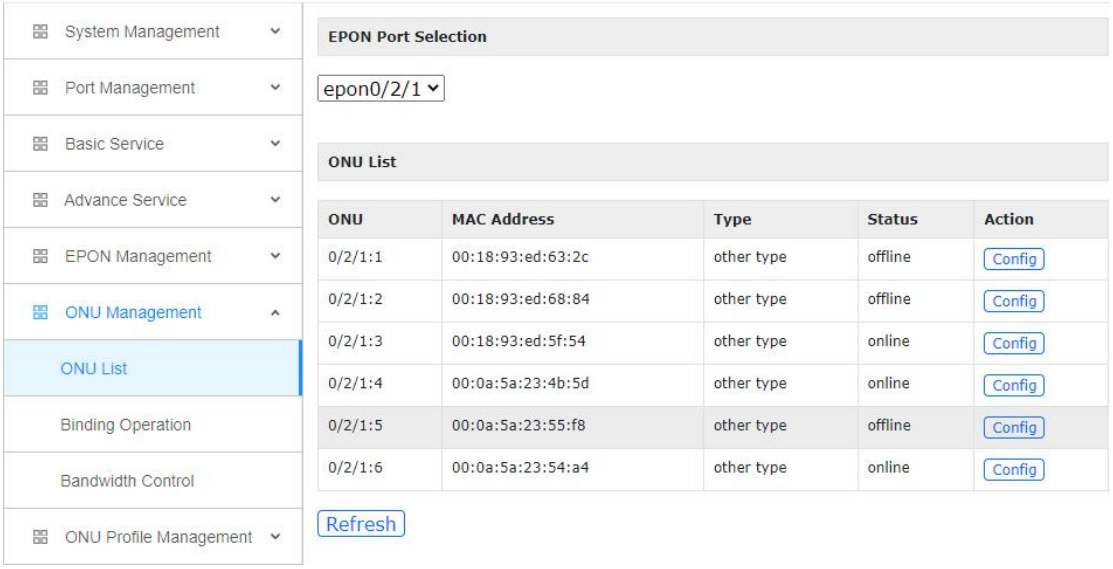


Figure 7-1

7.1.1Bandwidth Configure

1.Click Config->ONU Management->ONU List->Config->Bandwidth Configure

2. This page configures the upstream and downstream bandwidth of the ONU.

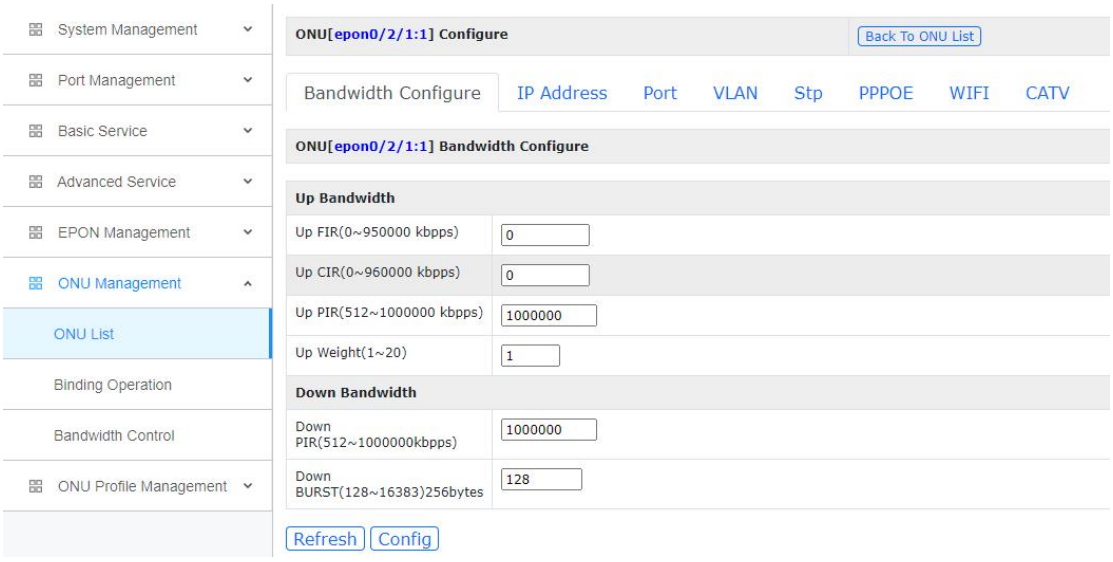


Figure 7-2

7.1.1 IP Address

1.Click Config->ONU Management->ONU List->Config->IP Address
2. This page configures the management IP and management VLAN of the ONU.

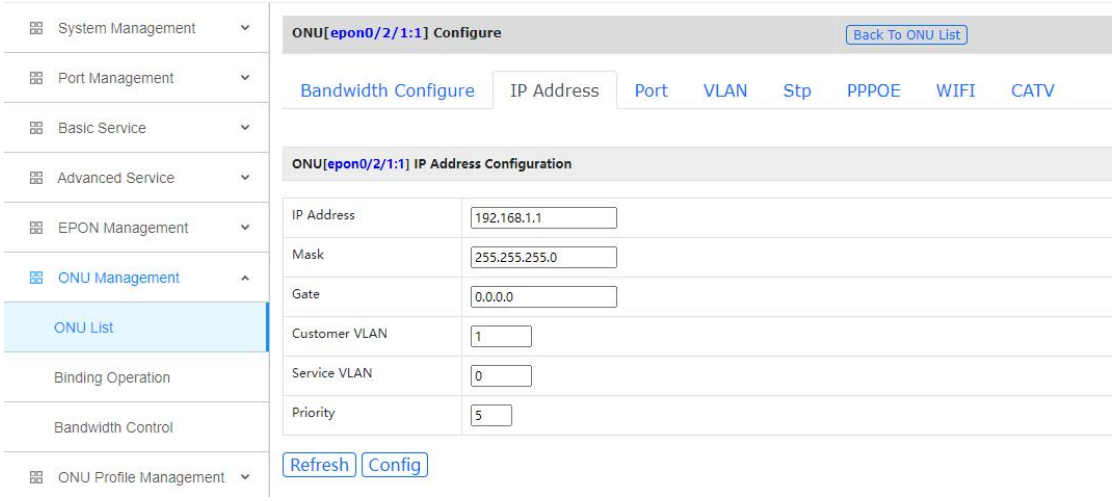


Figure 7-3

7.1.2 Port

1.Click Config->ONU Management->Port
2. This page configures ONU flow control, ingress rate and egress rate, etc.

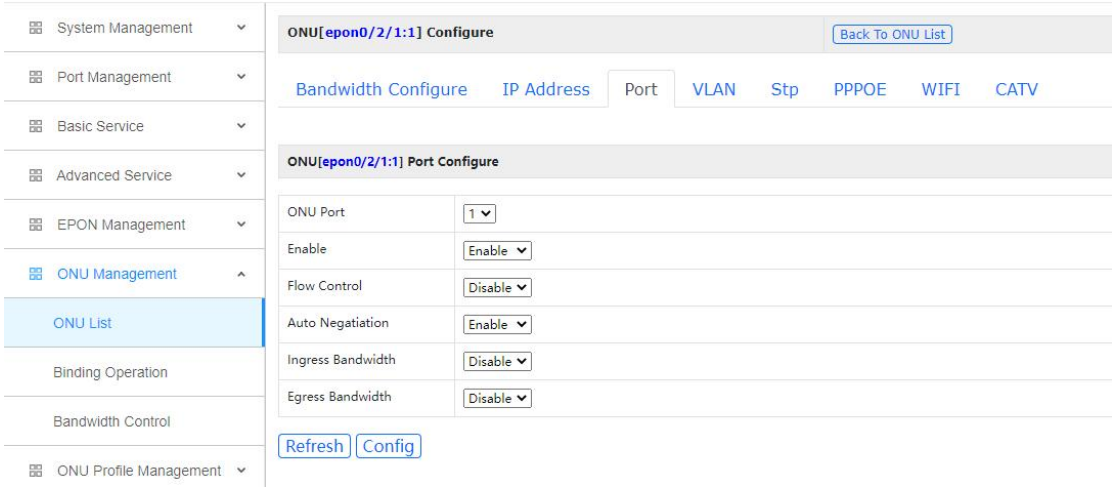


Figure 7-4

7.1.3 VLAN

1.Click Config->ONU Management->VLAN
2. This page configures the CTC VLAN of the ONU port.

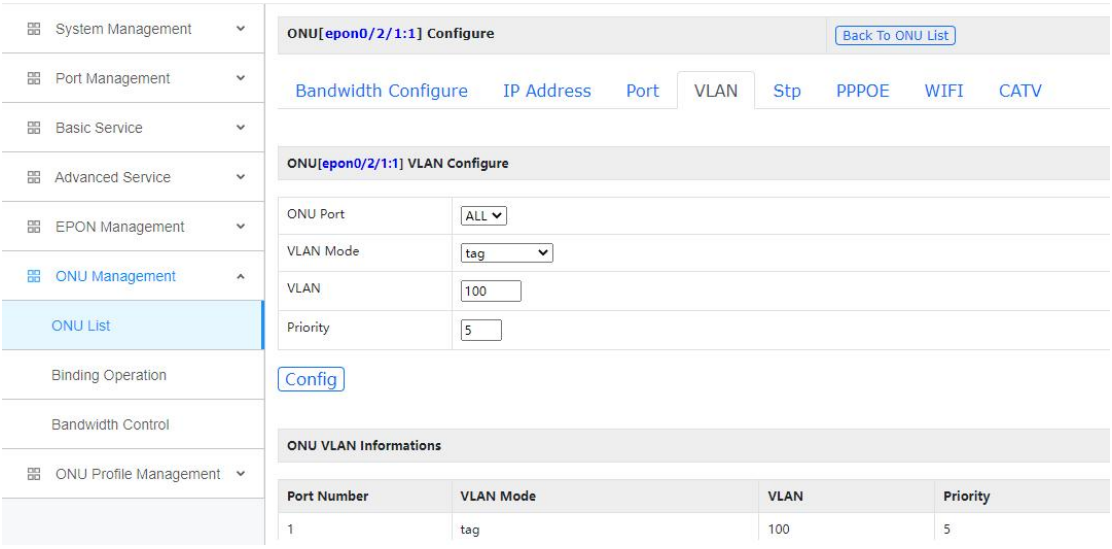


Figure 7-5

7.1.4 STP

1.Click Config->ONU Management->Stp

2. This page configures ONU's STP and loop detection functions

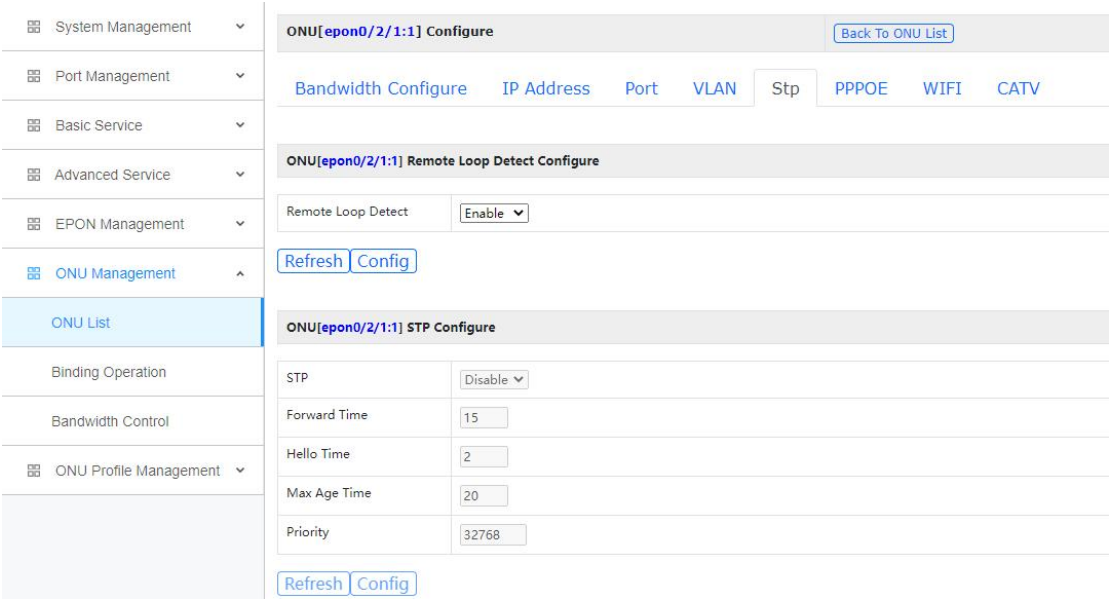


Figure 7-6

7.1.5 PPPOE

1.Click Config->ONU Management->PPPOE

2. This page configures the PPPoE account and password of the ONU. This function needs the support of the ONU.

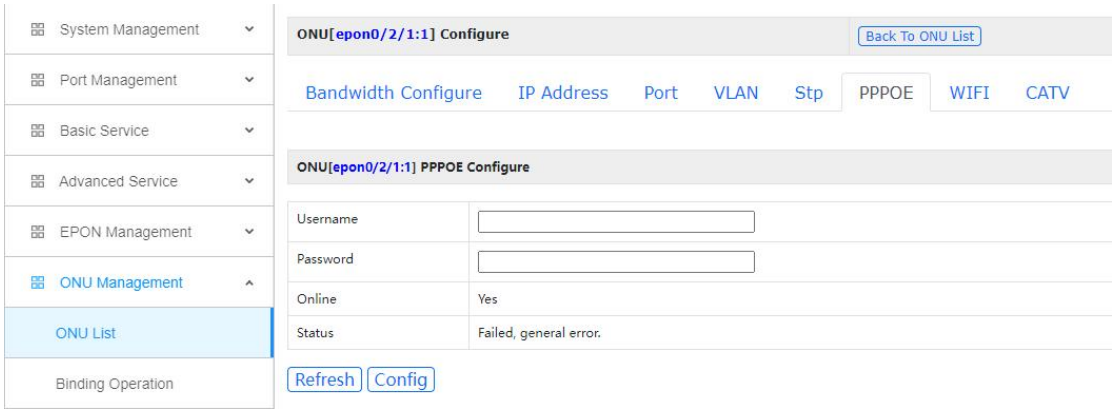


Figure 7-7

7.1.6 WIFI

1.Click Config->ONU Management->WIFI

2. This page configures ONU's WIFI, this function needs ONU support.

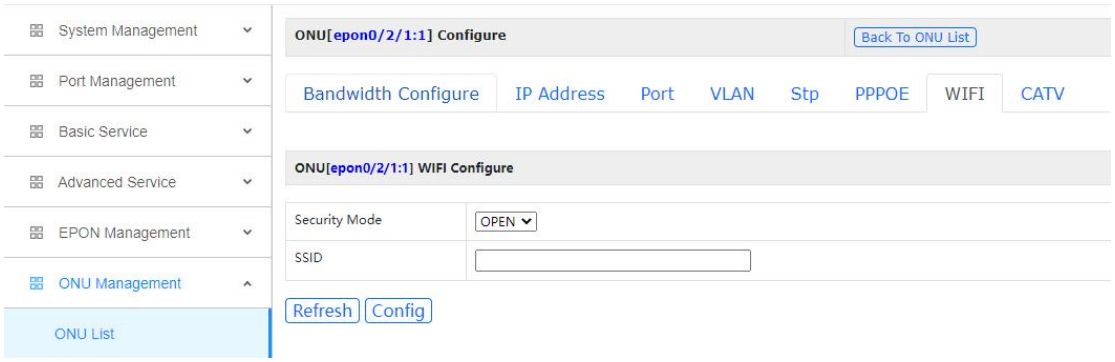


Figure 7-8

7.1.7 CATV

1.Click Config->ONU Management->CATV

2. This page configures the CATV function of the ONU. This function needs the support of the ONU.

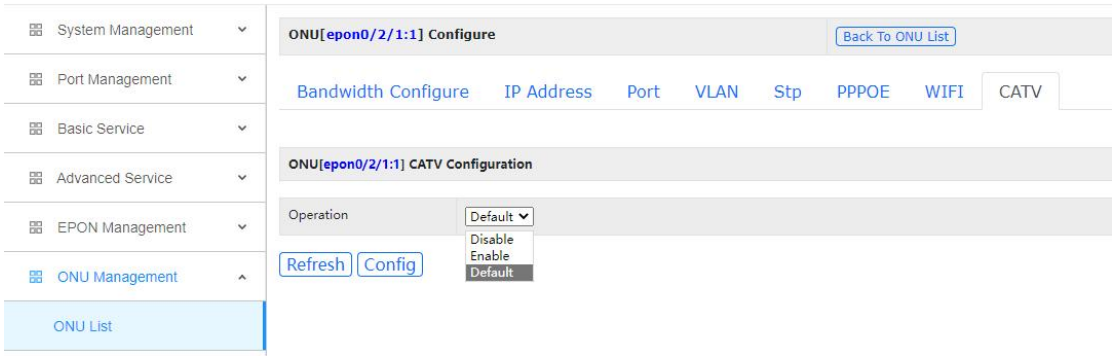


Figure 7-9

7.2 Binding Operation

1.Click Config->ONU Management->Binding Operation

2. This page configures binding and unbinding ONUs, unbinding only operates offline ONUs

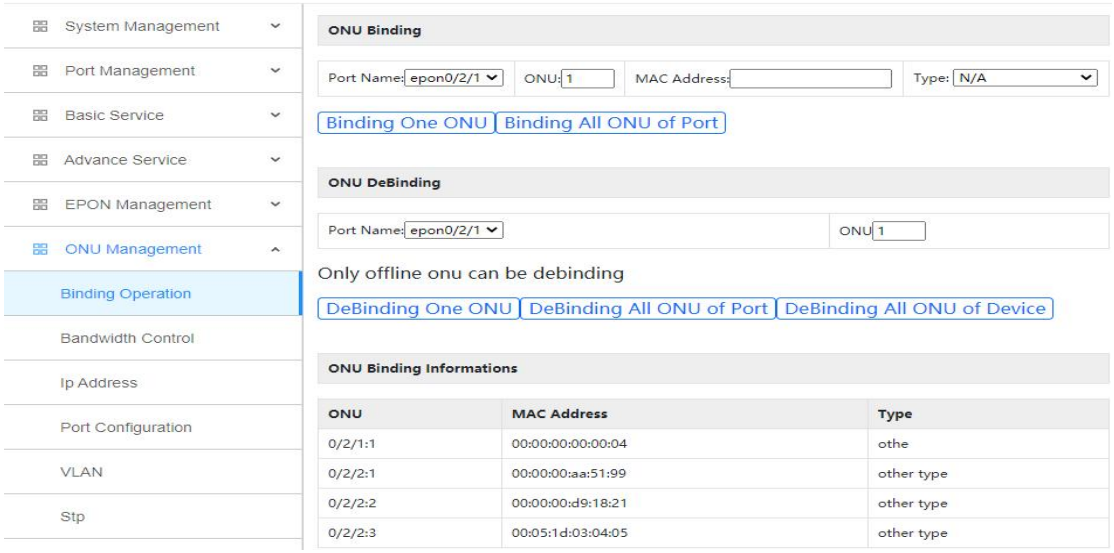


Figure 7-10

7.3 Bandwidth Control

1.Click Config->ONU Management->Bandwidth Control

2. This page configures the upstream and downstream bandwidth of the ONU.

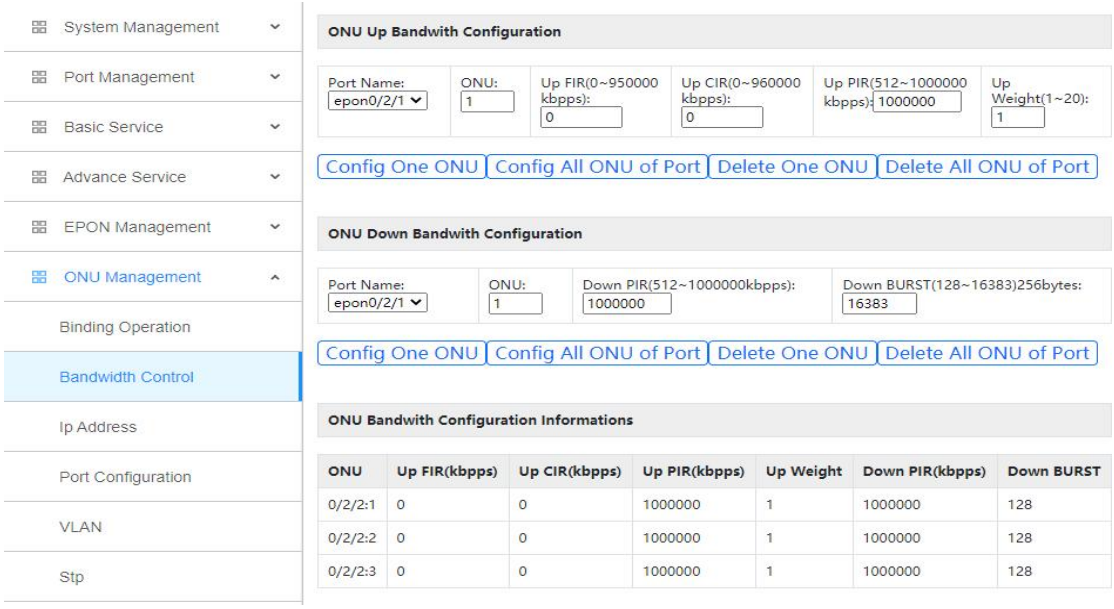


Figure 7-11

Chapter 8 ONU Profile Management

ONU profile management is used to configure ONUs in batches, line profile is used to configure ONUs, and rule profile are used to deliver the configuration of line profile to match ONUs. You need to enable profile before config it.

8.1 Line Profile

1.Click Config->ONU Profile Management->Line Profile
2.This page configures add, modify and delete line profile.

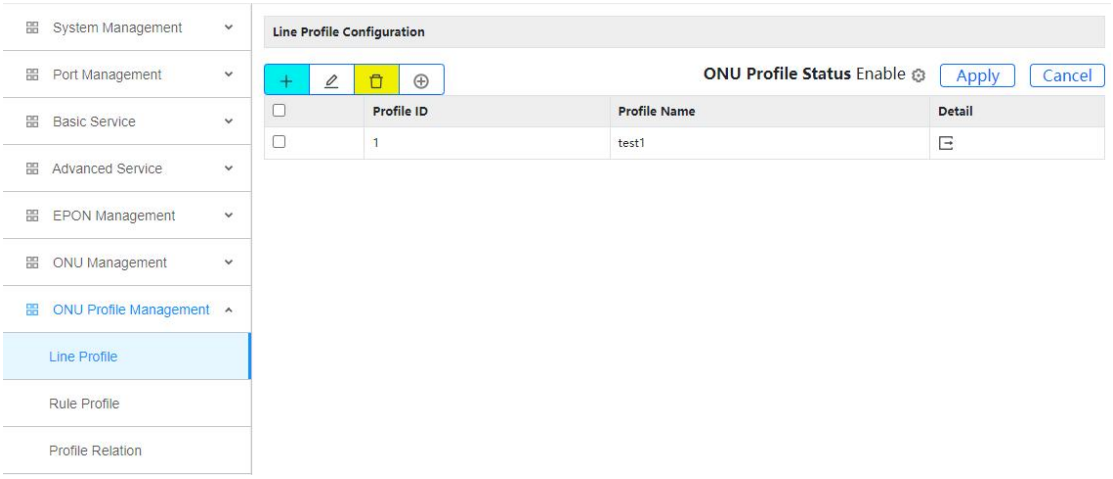


Figure 8-1

8.1.1 DBAConfiguration

1.Click Config->ONU Profile Management->Line Profile->Detail->DBA Configuration
2.This page configures the ONU upstream and downstream bandwidth of the line profile.

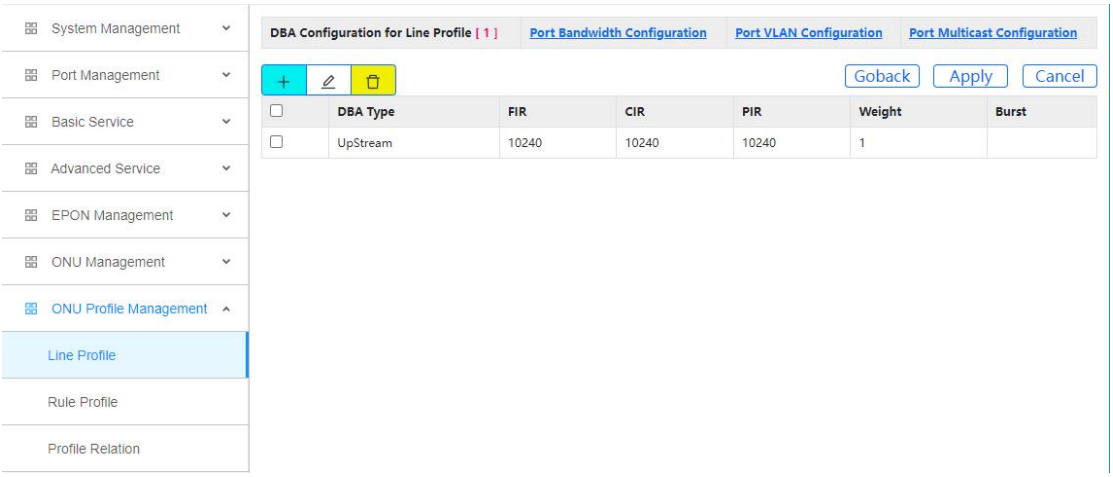


Figure 8-2

8.1.2 Port Bandwidth Configuration

1.Click Config->ONU Profile Management->Line Profile->Detail->Port Bandwidth Configuration

2.This page configures the ONU port bandwidth of the line profile.

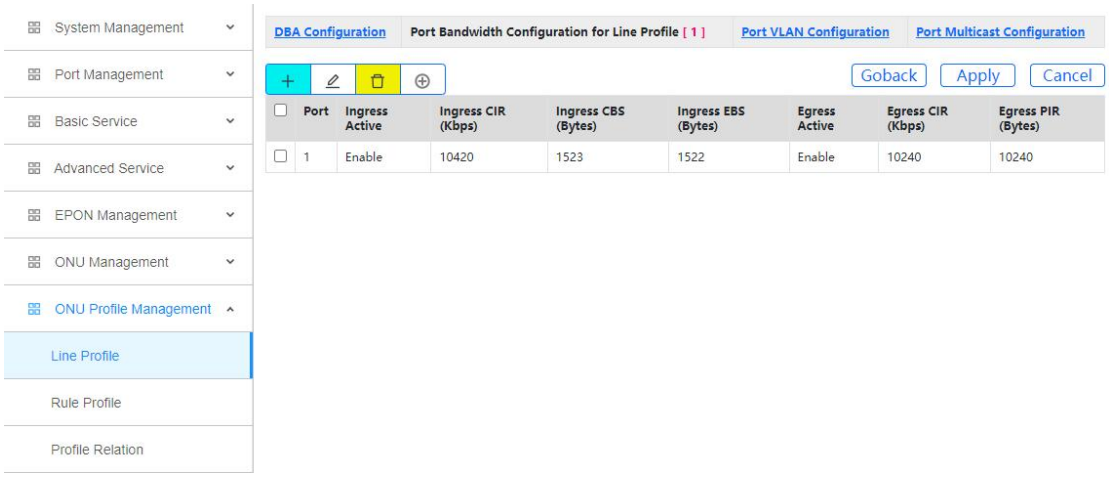


Figure 8-3

8.1.3 PortVLANConfiguration

1.Click Config->ONU Profile Management->Line Profile->Detail->Port VLAN Configuration

2. This page configures the VLAN of the ONU port in the line profile.

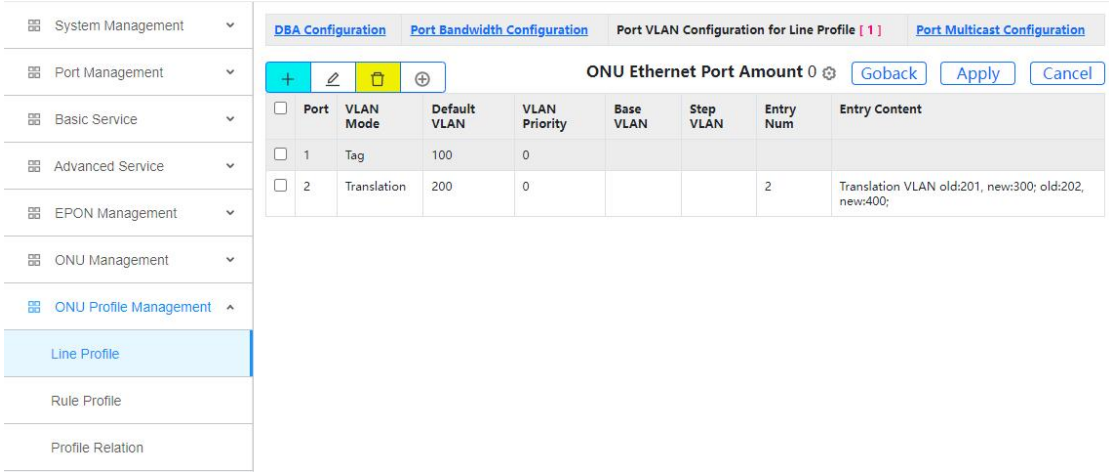


Figure 8-4

8.1.4PortMulticastConfiguration

1.Click Config->ONU Profile Management->Line Profile->Detail->Port multicast Configuration

2. This page configures the multicast of the ONU port in the line profile.

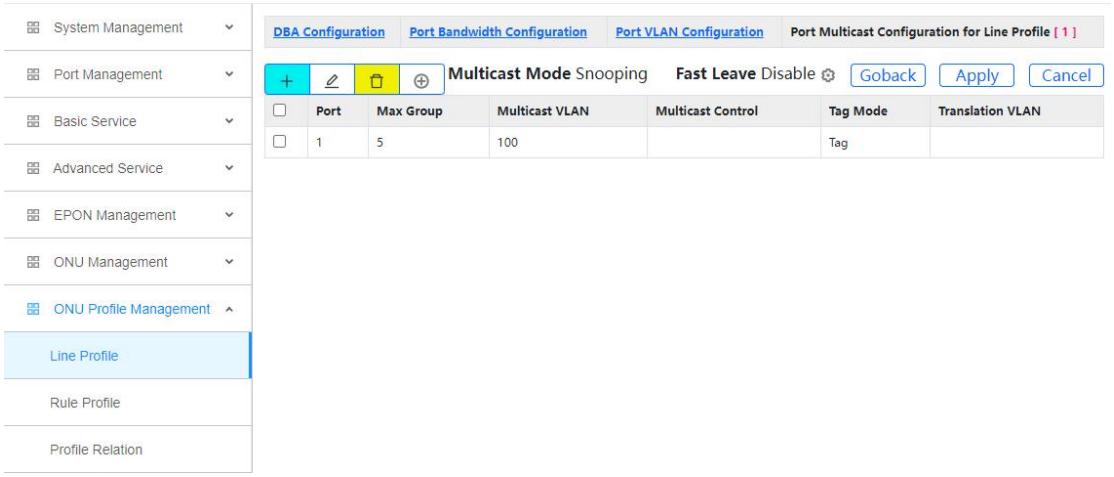


Figure 8-5

8.2 Rule Profile

1.Click Config->ONU Profile Management->Rule Profile

2, This page configures add, modify, and delete rule profile.

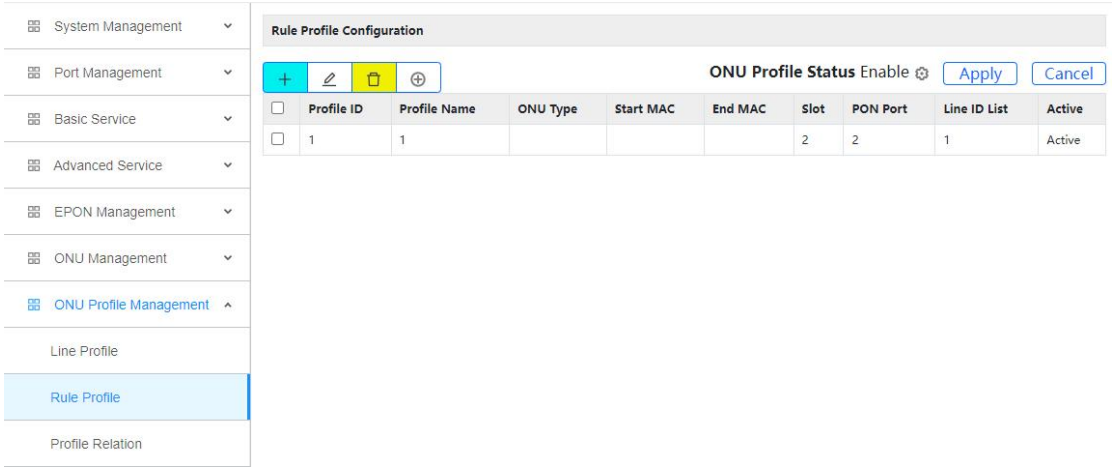


Figure 8-6

8.3Profile Relation

1.Click Config->ONU Profile Management->Profile Relation

2, This page display the profile binding status.

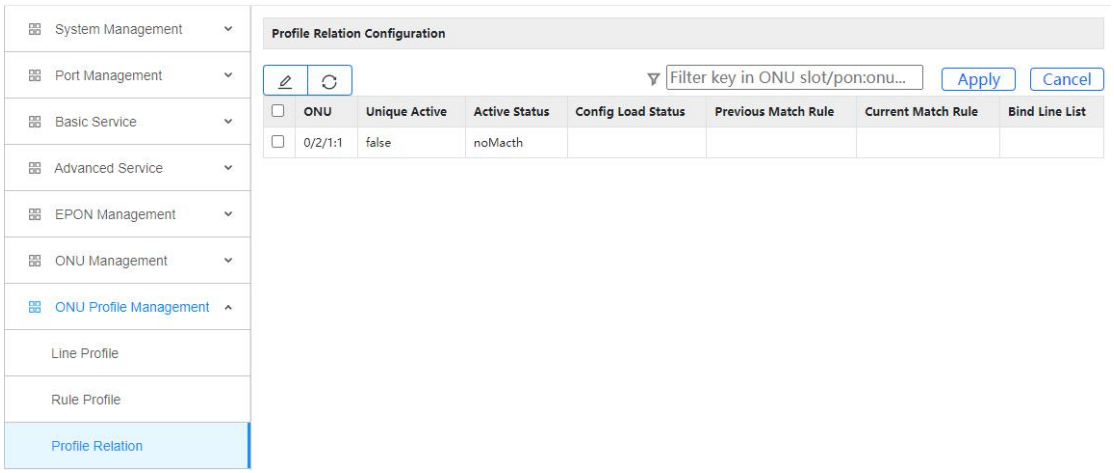

System Management
Port Management
Basic Service
Advanced Service
EPON Management
ONU Management
ONU Profile Management
Line Profile
Rule Profile
Profile Relation
Profile Relation Configuration
Filter key in ONU slot/pon:onu...
Apply
Cancel
ONU
Unique Active
Active Status
Config Load Status
Previous Match Rule
Current Match Rule
Bind Line List
0/2/1:1
false
noMacth

Figure 8-7

Chapter 9 Maintain

9.1 Software Upgrading

1.Click Maintain->Software Upgrading
2. This page upgrades the OLT version. You can choose to upgrade the boot and host files. After the upgrade, restart the OLT to take effect.

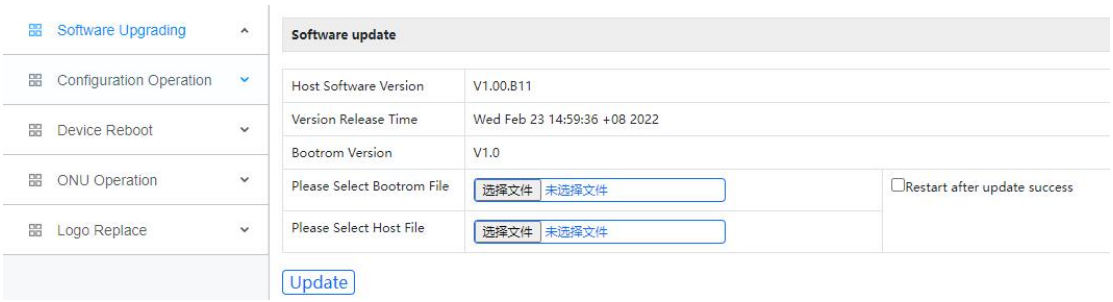


Figure 9-1

9.2 Configuration Operation

Configuration operations include upload, download and save configuration.

9.2.1 Configuration Update

1.Click Maintain->Configuration Operation->Configuration Update
2. This page uploads the configuration file to the OLT and saves the configuration file from the device to the PC.

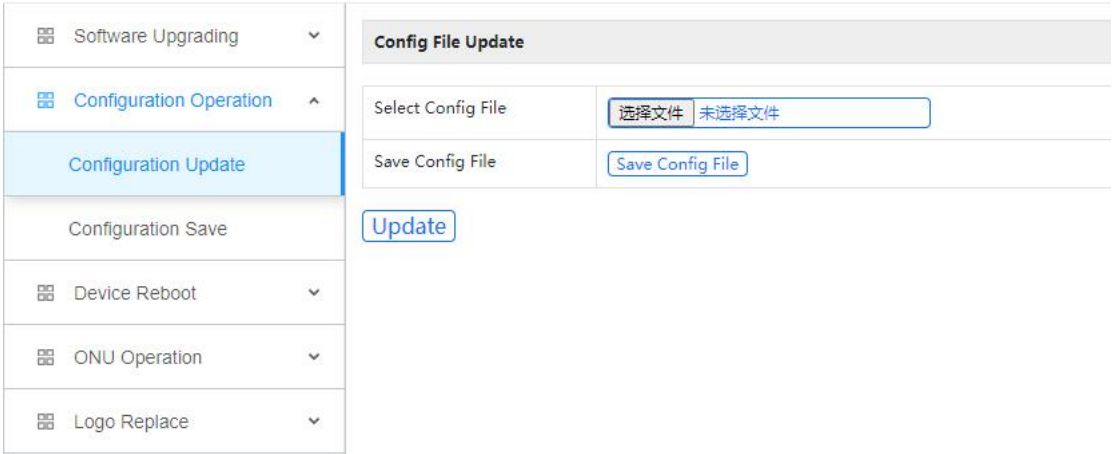


Figure 9-2

9.2.2 Configuration Save

1.Click Maintain->Configuration Operation->Configuration Save
2. This page saves the OLT configuration file to the flash.

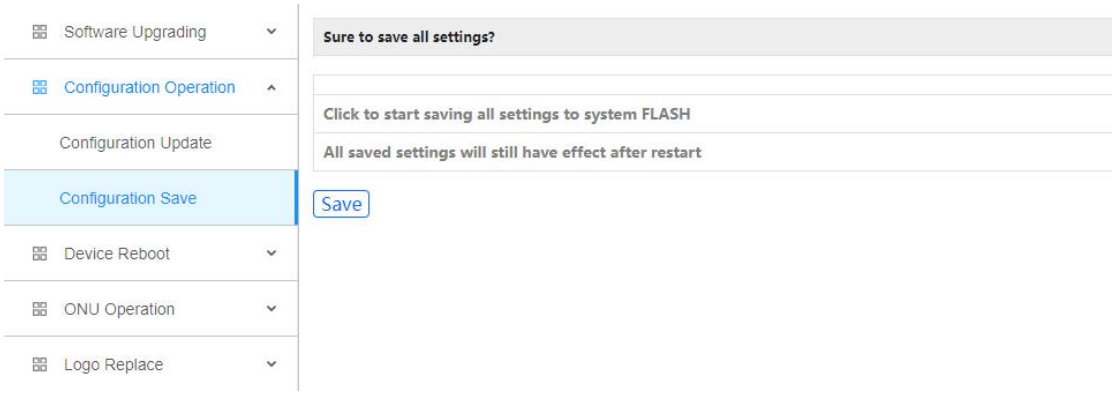


Figure 9-3

9.3 Device Reboot

1.Click Maintain->Device Reboot
2. This page restarts the OLT.

Figure 9-4

9.4 ONU Operation

ONU operations include upgrade the ONU and restart the ONU.

9.4.1 ONU Upgrade

1.Click Maintain->ONU Operation->ONU Upgrade
2. This page upgrades a single ONU.

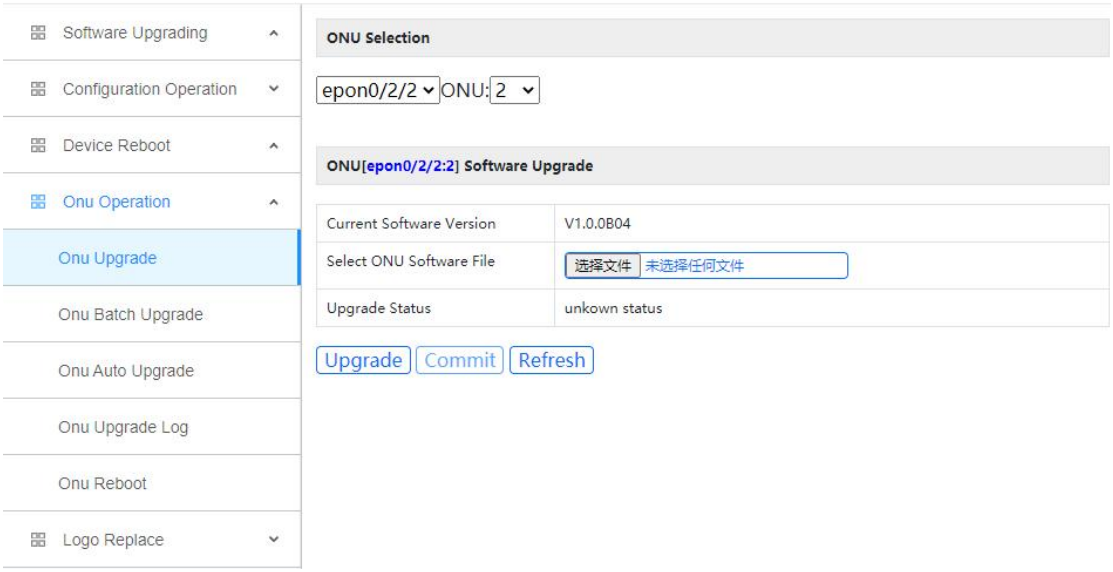


Figure 9-5

9.4.2 ONU Batch Upgrade

1.Click Maintain->Onu Operation->ONU Batch Upgrade

2. This page configures ONU batch upgrade. The ONU upgrade file must be uploaded to the OLT, and then the matching ONU will be upgraded by the
OLT.

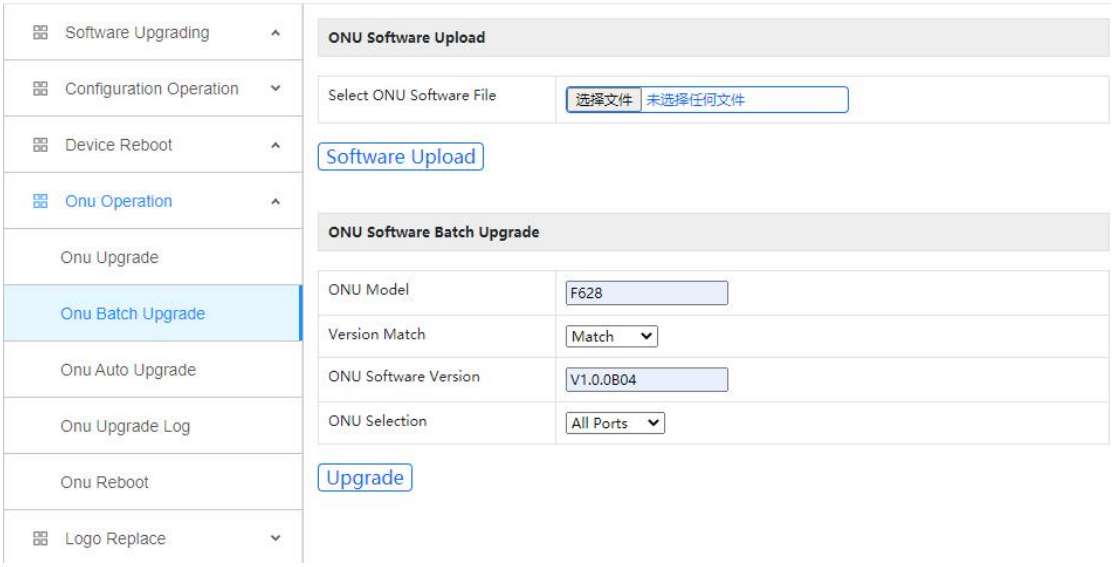


Figure 9-6

9.4.3 ONU Auto Upgrade

1.Click Maintain->Onu Operation->ONU Auto Upgrade

2. This page configures ONU automatic upgrade.

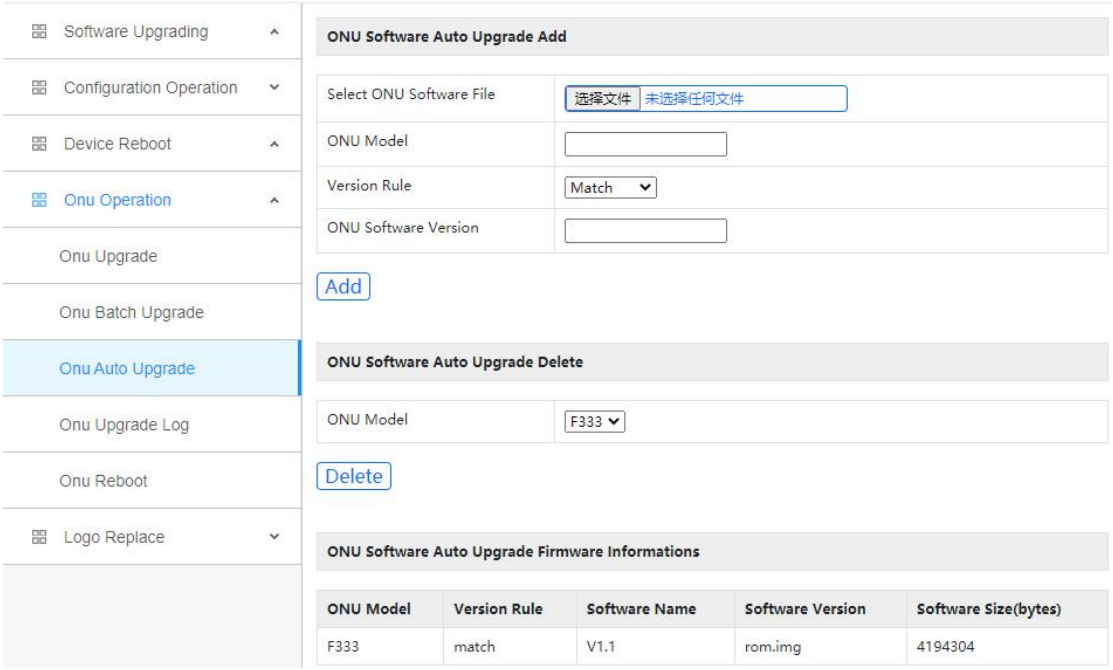


Figure 9-7

9.4.4 ONU Upgrade Log

1.Click Maintain->Onu Operation->ONU Upgrade Log

2. This page displays the upgrade logs of all ONUs.

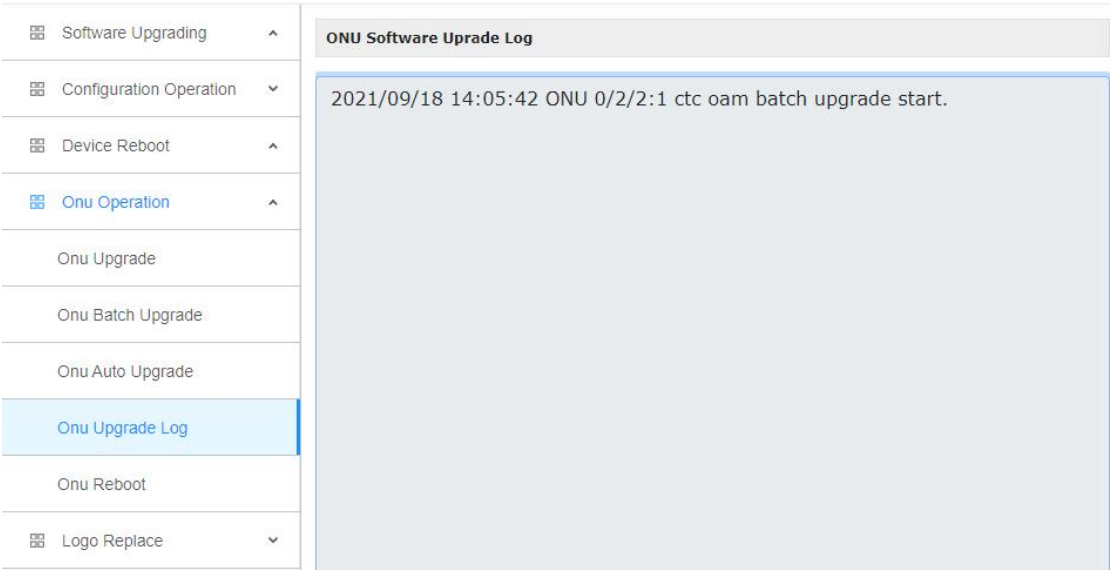


Figure 9-8

9.4.5 ONU Reboot

1.Click Maintain->Onu Operation->ONU Reboot

2. This page restarts a single ONU or batches of ONUs.

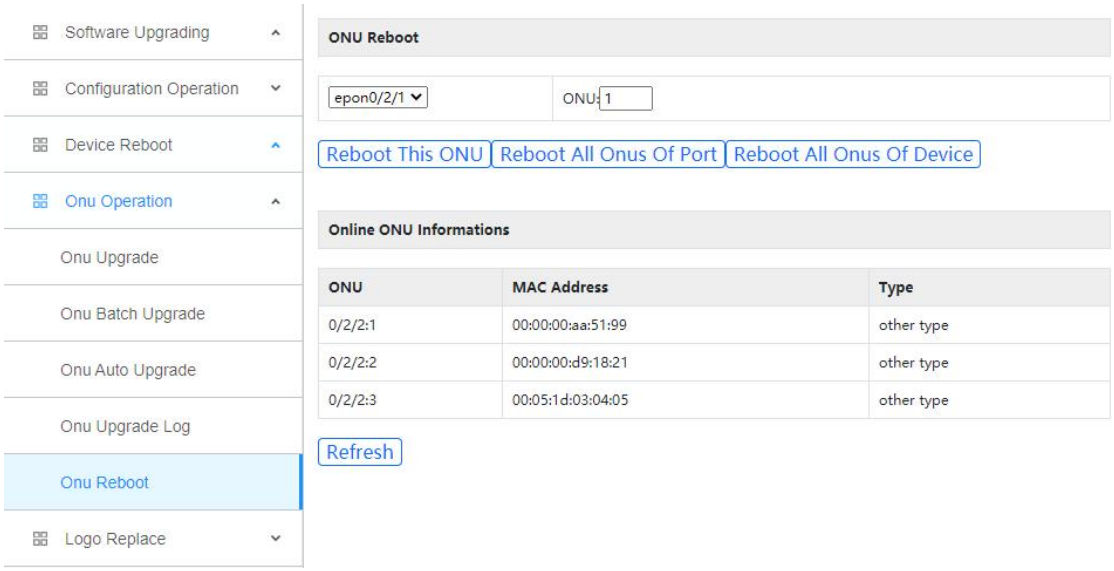


Figure 9-9

9.5 Logo Replace

1. Maintain->Logo Replace
2. This page replaces the logo information of the WEB page. After uploading the new logo, restart the browser and clear the cache.

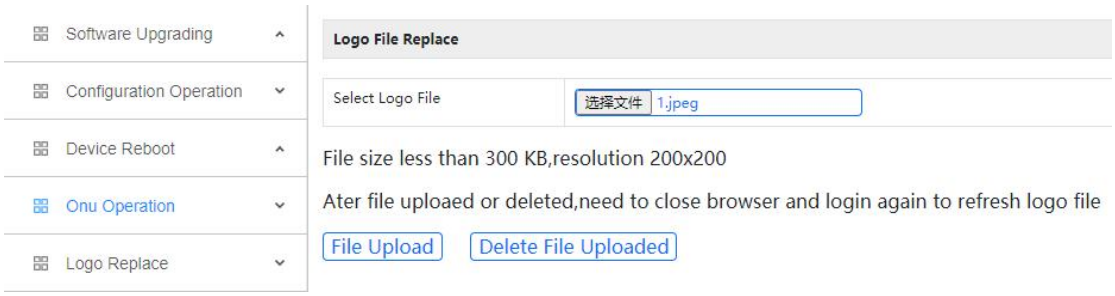


Figure 9-10