

# **EMS** Guide



## 2-Port GEPON Managed OLT

▶ EPL-2220



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## **Chapter 1. MANAGEMENT SOFTWARE INSTALLATION**

This chapter explains the methods that you can use to configure management access to the GEPON OLT. It describes the types of management applications and the communication and management protocols that deliver data between your management device (workstation or personal computer) and the system. It also contains information about port connection options.

#### This chapter covers the following topics:

- Requirements
- Management Access Overview
- EMS Utility Installation

## 1.1 Requirements

The GEPON OLT provides a GUI utility to manage the system; the following equipment is necessary for further management.

- Subscriber PC is installed with Ethernet NIC (Network Card)
- EMS Software (Windows Platform)
- Management Port connection
  - Network cables -- Use standard network (UTP) cables with RJ45 connectors



## **1.2 Management Access Overview**

The GEPON OLT EPL-2220 supports 10/100Mbps management interface and two 1000BASE-X net interfaces for TCP/IP-based GUI management. The GEPON OLT gives you the flexibility to access and manage it by using any or all of the following methods:

- EMS (Element Management System) Utility
- An external SNMP-based network management application

Each of these management methods has its own advantages. Table 3-1 compares the two management methods.

Method	Advantages	Disadvantages
EMS Utility	Ideal for configuring the EPL-2220	Can't remotely control over Ethernet
	Compatible with most popular	
	Windows-based Systems	
	Most visually appealing	

Table 1-1 Management Methods Comparison

## 1.3 EMS Utility Management

The **EMS (Element Management System)** Utility comes with a sophisticated software Graphical User Interface (GUI). It is highly intuitive and allows the user to control the GEPON and set such things as SLAs, bridging and VLAN modes, static table entries, firmware upgrades, etc. It is found in the Utility folder on the CD provided. There are two EMS softwares that need to be installed in your management PC:

- EMS Server
- EMS Client

To install and use the GUI, do the following two sections.







## 1.3.1 EMS Utility Installation

- Insert the bundled CD disk into the CD-ROM drive to launch the autorun program. Once completed, a welcome menu screen will appear. Click the "Utility" button and double-click the EMS-Server to install.
- 2. Once the Setup program starts running, please click the "Next" button for starting the installation.



Figure 1-1 EMS Setup Wizard Screen

3. During the installation, it will ask for the place to put the EMS folder.



Figure 1-2 EMS Folder Installation Screen



4. Click the "**Close**" button for completing the EMS Setup.



Figure 1-3 EMS-Server Installation Completed Screen

5. When the EMS-Server installation is done, the icon will appear on the desktop.



Figure 1-4 EMS-Server icon

6. Then double-click **EMS-Client** to install the utility. Once the Setup program starts running, please click the "**Next**" button for starting installation.





Figure 1-5 EMS-Client Setup Wizard Screen

7. During the installation, it will ask for the place to put the EMS folder.



Figure 1-6 EMS-Client Folder Installation Screen



8. Click the "Close" button for completing the EMS-Client Setup.



Figure 1-7 EMS-Client Installation Completing Screen

9. When the EMS-Client installation is done, the icon will appear on the desktop.



Figure 1-8 EMS-Client icon



## 1.3.2 Starting PLANET EMS Management

The following shows how to start up the EMS Management on the management PC.

1. Double-click the EMS-Server icon on the PC desktop to start the EMS Server.

Server
HostName SOLO-Laptop
ServerName Server and Sbi
Server
Start
Starting

Figure 1-9 EMS-Server starting

- 2. After the server started, please double-click the EMS-Client icon.
- 3. Enter the user name and password. Please enter the default user name "root", password "root", server "127.0.0.1" and port "5188" as screen in Figure 1-10 appears.

Login	
User:	root
Password:	****
Server:	127.0.0.1 Port: 5188
Language:	English
	Login Quit

Figure 1-10 PLANET-EMS Icon and Login Window

4. After entering the user name and password, the EMS utility main screen will appear as in Figure 1-11.



ONUKEEPER V1.3.9	9						
System( <u>F</u> ) <u>D</u> evice Manage	ement(D) <u>A</u> larm M	lanagement(A)	Performance Ma	anagement(P)	Security Management(S	) <u>H</u> elp(H)	
							Search(Q)
E-O root	Logic Topo Map	Physical Topo I	Map				
Jeiver	Server						<u>►</u> ■ <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>
	Realtime Alarm L	ist Realtime E	vent List				
	Severity	Probable Cause	Source	Туре	State Upo	ate Time	Source Type
							*
							-
8 Current User:root 0.1							0

Figure 1-11 Main Screen of EPL-2220 GEPON OLT

5. Right click on the map and select "Add Device" to add the OLT.



Figure 1-12 Adding GEPON OLT



6. Enter the management IP of OLT and select Read community to public, Write community to private.

- OLT Discove	r			X
Automatic discove	ery of OLT for the co	omplete discovery	parameters	E
Discover Parameter	rs			
IP Address:	192	. 168	. 8 .	. 100
Communication:	Read: public, Writ	te: private, Port:16	1	•
			New	Del
			<u>o</u> k	<u>C</u> ancel

Figure 1-13 Enter IP of GEPON OLT

## **Chapter 2. EMS Management System**

PLANET GEPON solutions include the OLT EPL-2220 and ONUs -- EPN-110 and EPN-402NV. The following information introduces the software configuration.

This document explains how to use the EMS Utility for the purpose of evaluating the functionality and usability of Host Interface Protocol. This manual assumes that the reader has a technical background and a base level of understanding regarding the basic operation of PON equipment. The EMS Utility is a demonstration package, intended for evaluation purposes only.

#### **Organization of the EMS Utility**

The screen real estate used by the EMS Utility is divided into three sash windows and one EMS toolbar.

- The upper left panel displays the entities that may be managed by the Host Interface, including the OLT, ONUs and Logical Links. This sash window will be referred to as the Element Status Window.
- Left clicking on an entity with the mouse will open a tabbed panel in the upper right sash window that may be used to manage the entity. This sash window will be referred to as the Entity Management Window.
- The bottom sash window is used for the purpose of logging the host interface message that is sent and received by the EMS Utility, and will be referred to as the Message Log.

If the OLT is running normally and the ONUs register each of their LLIDs, you should see something similar to the figure. The left handed pane shows the IP addresses of the OLT and the ONU's LLIDs. Depending on the number of ONUs, LLIDs, MAC addresses, etc., you may see something slightly different. If the GUI fails to connect to the OLT, check the IP addresses of the Host PC and the management port. Make sure you can ping the IP address assigned to the management port or uplink port. Also verify that the Host and management IP addresses match in the GUI's Utilities.

ONUKEEPER V1.3.9						
System(E) Device Management(D) Alarm Management(A) Perf	formance Management(P)	Security Manageme	ent(S) <u>H</u> elp(H)			
						Search(Q)
root 192.168.8.100 EPL-SPT-8 192.168.8.100-01/01:01 Server Server	Iap         Physical Topo Map           192.168.8.100           ar           EPL-SPT-8		192.168.8.100-	01/01:01		
Realtime Alar	rm List Realtime Event Lis	st				
Severity	y Probable Cause	Source	Туре	State	Update Time	Source Type
[System Message] 2017-01-10,17:00:52,+0800 Read 192.168.8.10	0 eqm.sync.neonusproperț	y success				
[System Message] 2017-01-10,17:00:52,+0800 Read 192.168.8.100 [System Message] 2017-01-10,17:00:52,+0800 Read 192.168.8.100 [System Message] 2017-01-10,17:00:52,+0800 Read 192.168.8.10	0 All ONU Slots Information 10 All ONU Slots Information 10 All ONU Cards Informatio	success				-
Current User:root		594 				•



## 2.1 OLT Management

To manage the EPL-2220, EMS manager needs to add EPL-2220 device. They can add and manage the EPL-2220 from the two types of interfaces:

■ AUX Port – the 10/100BASE-TX RJ45 interface

The EPL-2220 is shipped with default IP addresses shown as follows:

```
AUX Port: IP Address: 192.168.8.100
Subnet Mask: 255.255.255.0
```

Right-click on the map and then click Add Device in the interface as the windows appear below.



Figure 2-1 Add Device Screen

I OLT Discove	r						X
Automatic discov	ery of OLT for th	e comp	lete discov	ery parar	neters	Ë	
Discover Paramete	rs						
IP Address:	192		168	đ	8	. 100	
Communication:	Read: public,	Write: p	orivate, Port	:161		-	•
					New	Del	
					OK	Cance	1 1
					QR		· · ·

Figure 2-2 Enter IP Address of OLT

Please enter the EPL-2220 default IP address "**192.168.8.100**" and select Read Community "**public**", Write Community "**private**" and Port "**161**" of the communication.



## 2.2 Device Details

Right-click the EPL-2220 device node unit in the topology tree, and click **Device Details** in the interface as the window appears below:



Figure 2-3 Device Details

Device Details	
Device Details Device Details	
Image: Solution (SWA)         Image: Solution (SWA)         Image: Portol (1000M)         Image: Portol (1000M) <td< td=""><td>Basic Information       PON Transceiver       Online ONU List       Auth ONU List       ONU No Auth List         Device Basic Information      </td></td<>	Basic Information       PON Transceiver       Online ONU List       Auth ONU List       ONU No Auth List         Device Basic Information
	Cancel

Figure 2-4 EPL-2220 OLT Management Screen



## 2.2.1 Basic Information

The Basic System Information page provides information for the current device information. The Basic System Information page helps an OLT administrator to identify the System Description, Software Version and MAC Address.

Basic Information P	ON Transceiver Online ONU List Auth ONU List ONU No Auth List
Device Basic Informa	ation
EMS Name	192.168.8.100
Device Type	
Vendor	
Host Name	
Contact Informatio	n
Location Information	on
Software Version	V2.03.23
Hardware Version	
MibSup	MIBV2 MIB
MAC Address	
Running Time	0 Days 1 Hours 6 Minutes 38 Seconds
Communication Par	ameter
Trap Server Config	Juration Add Trap Server Trap Server Management

#### Figure 2-5 Basic Information Screen

Object	Description
EMS Name	Model name of OLT
Software Version	The version of current firmware.
MAC Address	MAC Address of OLT
Running Time	The period of time the device has been operational.



## 2.2.2 PON Transceiver

<b>Basic Information</b>	PON Transceiver	Online ONU List	Auth ONU List	ONU No Auth List
PON Port	Temperature	Voltage	BIAS Current	Transmit Power
PON1	45.28 .C	3.2340 V	18.994 mA	4.922993 dbm
PON2	41.700 .C	3.2487 V	15.976 mA	4.949612 dbm

#### Figure 2-6 Net Interface Management Screen

The window includes the following fields:

Object	Description
PON Port	The PON port number for this OLT
Temperature	This shows the current temperature of this PON transceiver
Voltage	This shows the current voltage of this PON transceiver
BISA Current	This shows the current BIAS current of this PON transceiver
Transmit Power	This shows the current transmit power of this PON transceiver

## 2.2.3 Online ONU List

This page provides an overview of the current ONU.

Basic Information	PON Transceiver	Online ONU List	Auth ONU List	ONU No Auth List
PON Port	ONU Index	LLID	Status	MAC Address
PON1	1	0	auth success	

#### Figure 2-7 Online ONU List

Object	Description
PON Port	The PON port number for this OLT
ONU Index	The index for the ONU
LLID	The Logical Link identifier (LLID) was created by OLT
Status	Status of ONU that connected to OLT
MAC Address	The MAC address of the ONU that connected to OLT



## 2.2.4 Auth ONU List

This page provides an overview of the authenticated ONU.

Basic Inform	nation	PON	Transce	viver Online ONU List A		Auth ONU List		ONU No Auth List	
PON Port	ONU	Index	LLID	Lin	e Status ONU		J MAC ONU Ty		ONU Type
PON1	1		0	Onli	ne				

Figure 2-8 Auth ONU List

The window includes the following fields:

Object	Description
PON Port	The PON port number for this OLT
ONU Index	The index for the ONU
LLID	The Logical Link identifier (LLID) was created by OLT
Status	Status of ONU that authenticated by OLT
ONU MAC	The MAC address of the ONU that authenticated by OLT
ONU Type	The model of the ONU that authenticated by OLT
Exchange	The current exchange status of the ONU that authenticated by OLT
Auth Mode	The auth mode of the ONU that authenticated by OLT
ONU Description	The description of the ONU
ONU LOID	The LOID of the ONU
ONU LOID Password	The LOID password of the ONU
RTT (m)	The RTT value of the ONU
Management IP	The management IP of the ONU

## 2.2.5 ONU No Auth List

This page provides an overview of the no authentication ONU.

sic Informatio	PON Tra	nsceiver	Online	ONU List	Auth ONU List	ONU No Auth Lis
Index	PON Port	MAC Add	Iress	Time Out	t LOID	LOID Passw

Figure 2-9 ONU No Auth List

#### The window includes the following fields:

Object	Description
Index	The index for the ONU
PON Port	The PON port number for this OLT
MAC Address	The MAC address of the ONU
Time Out	The period of time the device has not been operational.
LOID	The LOID of the ONU
LOID Password	The LOID password of the ONU

## 2.3 Delete Device

Press the "Delete Device" to delete the OLT on the map.

## 2.4 Chassis View

Press "Chassis View" to check the port function

PON1 PO	T. N2	GE1 GE2	GE3 GE4	
EMS Name Vendor Contact Information Software Version MibSup	192.168.8.100 V2.03.23 MIBV2 MIB		Device Type Host Name Location Information Hardware Version MAC Address	
Running Time	0 Days 1 Hours 18 Mir	nutes 35 Seconds	esh	

Figure 2-10 Chassis View



## 2.5 Modify SNMP Parameter

Press "Modify SNMP Parameter" to change the OLT parameter.

- OLT Discover	ř.						X
Automatic discove	ery of OLT for the co	omplete discove	ery para	meters			2
Discover Parameter	s						
IP Address:	192	. 168	<i>.</i> .	8	1.18	100	
Communication:	Read: public, Wri	te: private, Port:	161				Ŧ
				N	BW	Del	
				<u>0</u> K		<u>C</u> ancel	

Figure 2-11 OLT Discover

## 2.6 Configuration

This operation is used for configuring related functions and characteristic parameters of this OLT.

Right-click the EPL-2220 device node unit in the topology tree, and click **Configuration** in the interface as the window appears below:

Device Details( <u>B</u> )	
Delete Device	
<u>C</u> hassis View	
Modify SNMP Parameter	
Sync Management	
Configuration	Port Configuration
Maintenance Management →	MAC Configuration(D)
View Realtime Performance	VLAN Configuration
View Current Alarm	IGMP Configuration
View <u>H</u> istory Alarm	ONU Auth Configuration
<u>P</u> ing	ACL Configuration
Telnet	DHCP Configuration
	RSTP Configuration
	Static Route Configuration
	QOS Configuration(E)
	ONU Template Configuration(H)
	Alarm Configuration
	ON <u>U</u> Batch Upgrade

Figure 2-12 Configuration



## 2.6.1 Port Configuration

Select one port and modify the configuration.

· Port Configuration							
Port Configuration OLT port configuration. Including PON p	oort, etherne	et port, port mir	ror etc.				
Port Configuration     Uplink Port Configuration     PON Port Configuration     PON Downward Encryption     Port Channel Group     Port Mirror Configuration	Port	Status	Link Status	Port Type	Auto Negotiation	Speed	Apply Refresh
							<u>C</u> ancel

Figure 2-13 Port Configurations

#### 2.6.1.1. Uplink Port Configuration

This page provides the information of the uplink port.

Port	Status	Link Status	Port Type	Auto Negotiation	Speed
		1			

Figure 2-14 Uplink Port Configurations

Object	Description
Port	The uplink port of the ONU
Status	The subsequent parameters can be configured only when the port is enabled. Default is " <b>Enable</b> "
Link Status	Showing the link status of uplink ports is "Link Down" or "Link Up"
Port Type	It shows "Fiber" or "Copper"
Auto Negotiation	It is used to enable or disable auto negotiation of the uplink port. The default is " <b>Enable</b> ". After enabled, the uplink port will negotiate with the connected port to reach the



	largest possible transmission rate.
Speed	To configure uplink ports speed, there are three options: <b>10Mbps</b> , <b>100Mbps</b> , and <b>1000Mbps</b> . This parameter can be configurable only when auto negotiation is disabled.
Duplex	Configure the working mode as duplex or half duplex. This parameter can be configurable only when auto negotiation disabled. The default is " <b>Duplex</b> ".
Flow Control	It is used to enable or disable the flow control function of uplink port to control congestion. Default is " <b>Disable</b> ".
Ingress Rate	Enter the Ingress Rate
Egress Rate	Enter the Egress Rate
Broadcast	Broadcast storm inhibition
Multicast	Multicast storm inhibition
Unknown Unicast	Unknown unicast storm inhibition
Isolate	Port isolate with each other
PVID	Enter port default VLAN ID

## 2.6.1.2. PON Port Configuration

This page is configuring related functions and characteristic parameters of PON port.



Figure 2-15 PON Port Configurations

Object	Description
Port	The PON port of the ONU
Status	The subsequent parameters can be configured only when the port is enabled. Default is " <b>Enable</b> "
Link Status	The link status of uplink ports shown is "Link Down" or "Link Up"
Flow Control	It is used to enable or disable the flow control function of PON port to control



	congestion.	
	Default is " <b>Disable</b> ".	
Ingress Rate	Enter the Ingress Rate	
Egress Rate	Enter the Egress Rate	
Broadcast	Broadcast storm inhibition	
Multicast	Multicast storm inhibition	
Unknown Unicast	Unknown unicast storm inhibition	
PVID	Enter port default VLAN ID	
Isolate	Port isolate with each other	

## 2.6.1.3. PON Downward Encryption

The downward transmission broadcasted by the GEPON system protects the safety of the user.

Port	Encrytion Status	Encrytion Time(s)	PON Max RTT(s)	P2P Stat	us
PON1	Enable 💌	0	14500	Disable	
PON2	Enable	0	14500	Disable	-

Figure 2-16 PON Downward Encryption

Object	Description
Port	The PON port of the ONU
	You can enable or disable this function. Only when enabled, it can configure the
Encryption Status	subsequent parameters.
	Default is " <b>Enable</b> ".
Encryption Time	This is the timer of encryption. Range is from 774 to786426
	To avoid all the signals of ONUs to reach OLT at the same time, The maximum
PON Max. RTT	RTT can be configured to prevent this conflict. The range is from 2000 to 32000.
	Default is <b>14500</b> .
	You can enable or disable this function to communicate with other PON ports of
P2P Status	ONU.
	Default is " <b>Disable</b> ".



#### 2.6.1.4. Port Channel Group

The GE ports can be added as a group and all the ports can be added as the same group. If one cannot be used suddenly, it will change the link to another port. The maximum number for groups is 4 and each group can add a maximum of 4 ports.

Group ID	Load-Bala	Port 1	Port 2	Port3	Port 4	Add
						Delete
						Apply
						Refresh
						Refresh
						<u>Cancel</u>

Figure 2-17 Port Channel Group

Click "Add" and select the Load-Balance. All the configurations of the ports should be in the same group.

#### 2.6.1.5. Port Mirror Configuration

Copy the data from one or more ports to the specified port which can help for traffic analysis and network error diagnostics. A maximum of 4 mirror groupscan be added.

Mir	rror DstPort	Mirro	or SrcPort	Mirror Typ	e Add
					Delete
					Refresh
					Apply

Figure 2-18 Port Mirror Configuration

Click "Add">select "Mirror DstPort">click "Mirror SrcPort" blank entries to select one or more ports>choose the "Mirror Type".



## 2.6.2 MAC Configuration

MAC Configuration			
MAC Configuration MAC address learn. Configurate MA	C address aging ti	me and show MAC address-table	
MAC Configuration	Aging Time	300	Apply Delete
🔤 🖶 Port MAC Address Limit			Refresh
	<u></u>		Cancel

Figure 2-19 MAC Configuration

#### 2.6.2.1. MAC Address Aging Time

You can enter the MAC address aging time here.

Aging Time	300	Apply
		Delete
		Refresh
		Cancel

Figure 2-20 MAC Address Aging Time

#### 2.6.2.2. MAC Address List

It shows the MAC address list here.

Index	VLAN	Address	Туре	Port	Refrest

Figure 2-21 MAC Address List

#### 2.6.2.3. Port MAC Address Limit

Enter the MAC address count.



Port	MAC Address Count	Apply
GE1	0	Refresh
GE2	0	
GE3	0	
GE4	0	
PON1	0	
PON2	0	

Figure 2-22 Port MAC Address Limit

## 2.6.3 VLAN Configuration

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

- Supports Port-based VLAN and IEEE802.1Q VLAN.
- Supports full 4K VLAN group. VID range is from1 to 4095.
- All ports, including uplink ports and downlink ports, support VLAN partition.

••• VLAN Configuration				
VLAN Configuration OLT VLAN configuration. Including VL	AN, <mark>VLAN IP</mark> , Q	in <mark>q</mark> etc.		
□@ VLAN	VLAN ID	VLAN Name	Tagged Port	Untagged Port
VLAN Configuration VLAN IP Configuration Qinq Configuration	1	default		GE1 GE2 GE3 GE4 PON1 PON2
				Add Delete refresh
				<u>C</u> ancel



#### 2.6.3.1. VLAN Configuration

VLAN 1 is the system reserved VLAN, including all switch ports, and all ports are in UNTAG mode. Press "Add" to add a VLAN ID.



VLAN ID	VLAN Name	Tagged Port		Untagged Port	
1	default		GE1 GE2 GE3 GE4 F		PON1 PON2
			294		
			Add	Delete	refresh
			Add	Delete	refrest

Figure 2-24 Add VLAN Configuration

The window includes the following fields:

Object	Description
VLAN ID	Indicates the ID of this particular VLAN.
VLAN Name	It shows the VLAN ID automatically when you set up the VLAN.
Tagged Port	Selects specific port to transmit outgoing frames with VLAN-Tagged.
Untagged Port	Selects specific port to transmit outgoing frames without VLAN-Tagged.

#### 2.6.3.2. VLAN IP Configuration

Please create the VLAN first. This configuration can add the IP to the VLAN. When the VLAN is added to the port, the IP address will be added.

 	1001000	TE ITI MOON	

Figure 2-25 VLAN IP Configuration

Object	Description
VLAN ID	Indicates the ID of this particular VLAN.
VLAN IP Address	Enter the VLAN IP Address
VLAN IP Mask	Enter the VLAN IP Mask
ARP Proxy	Select ARP Proxy to Enable or Disable. Default is "Enable"



## 2.6.3.3. Q-in-Q Configuration

Port	CVLAN	SVLAN			Mode
					1
		Add	Delete	Apply	Refresh



The window includes the following fields:

Object	Description
Port	Select the port from the list
CVLAN	The inner tag or inner tags are set by the customer
SVLAN	The outer tag is set by the provider
Mode	Select Translation or Q-in-Q

## 2.6.4 IGMP Configuration

IGMP Configuration			
IGMP Configuration OLT IGMP Configuration			
IGMP Configuration     Basic Configuration     Router Configuration     Port Configuration     User VLAN Configuration     Static Group Configuration     Group VLAN Info	IGMP Configuration	٢	Apply Refresh
1			Cancel

Figure 2-27 IGMP Configuration



## 2.6.4.1. Basic Configuration

On this page, you can enable IGMP snooping.

IGMP Configuration			
IGMP Snooping	Г		
		Apply	Refresh

Figure 2-28 IGMP Snooping

## 2.6.4.2. Router Configuration

	Index	Router Por	t F	Router VLAN	4
1		GE1	1		

Figure 2-29 Router Configuration

Object	Description
Index	Indicates the ID of this particular VLAN.
Router Port	Select the router port from the list
Router VLAN	Enter the Router VLAN



## 2.6.4.3. Port Configuration

Max GroupCount	Mode	k.	Fast	Leave
1024	TAG	*	Disable	-
1024	TAG	-	Disable	-
1024	TAG	*	Disable	-
1024	TAG	-	Disable	•
1024	TAG	*	Disable	-
1024	TAG	-	Disable	•
		0.0		Defreeh
	Max GroupCount           1024           1024           1024           1024           1024           1024           1024           1024           1024           1024           1024           1024	Max GroupCount         Mode           1024         TAG           1024         TAG	Max GroupCount         Mode           1024         TAG         Image: Constraint of the second	Max GroupCount     Mode     Fast       1024     TAG     Disable       1024     TAG     Disable

## Figure 2-30 Port Configuration

The window includes the following fields:

Object	Description
Port	Indicates the port of this OLT
Max Group Count	Enter the group count from 0 to 1024
Mode	Select TAG or UNTAG
Fast Leave	Enable or disable the fast leave on the port.

## 2.6.4.4. User VLAN Configuration

Index	Port	Group VLAN	ld U	Jser VLAN Id
	GE1	1	1	
			1	
		Dalata	Cours	

Figure 2-31 User VLAN Configuration

Object	Description	
Index	Indicates the ID of this particular VLAN.	
Port	Select the port from the list	



Group VLAN ID	Enter the Group VLAN ID from 1 to 4094
User VLAN ID	Enter the User VLAN ID from 1 to 4094

## 2.6.4.5. Static Group Configuration

Enable the IGMP Snooping to activate this function.

Index	Port	IP Address	Group	VLAN
	PON1	225.0.0.1	0	

Figure 2-32 Static Group Configuration

The window includes the following fields:

Object	Description
Index	Indicates the ID of this particular VLAN.
Port	Select the port from the list
IP Address	Enter the IP address
Group VLAN ID	Enter the Group VLAN ID from 1 to 4094

#### 2.6.4.6. Group VLAN Info

On this page, it shows the Group VLAN information.

Index	Port	Туре	IP Address	Group VLAN	User VLAN
					Defease

Figure 2-33 Group VLAN Info



## 2.6.5 ONU Auth Configuration

ONU Auth Configuratio	n		
ONU Auth Configuration cm.vs.olt.onuauth.description			
ONU Auth Configuration	PON Port	Auth Mode	e
	PON1	None	-
Black List	PON2	None	•
		Apply	Refresh
			Cancel

Figure 2-34 ONU Auth Configuration

#### 2.6.5.1. Auth Mode

On this page, you can select the Auth mode to None, Mac Model, Loid and Hybrid.

PON Port	Auth Mo	de
PON1	None	*
PON2	None	-
÷		

Figure 2-35 Auth Mode

#### 2.6.5.2. Black List

On this page, you can enter the MAC address to add the black list.

	FON POIL		MAC Add	lress
PON1		-	11-22-33-44-55-66	6
FUNT			11-22-33-44-55-00	0

Figure 2-36 MAC Black List



#### 2.6.5.3. White List

On this page, you can enter the MAC address to add the white list.

DONIA			
FUNT	▼ 11-22	-33-44-55-60	6
FUNT	11-22	-33-44-55-01	0

Figure 2-37 MAC White List

#### 2.6.5.4. LOID White List

On this page, you can add the LOID white list.

1 123456789

Figure 2-38 LOID White List

Object	Description
PON Port	Select the PON port fom the list
LOID Value	Enter the LOID value. The length is 1 to 24
LOID Password	Enter the LOID password. The length is 1 to 12



## 2.6.6 ACL Configuration

ACL is an acronym for Access Control List. It is the list table of ACEs, containing access control entries that specify individual users or groups permitted or denied to specific traffic objects, such as a process or a program.

Each accessible traffic object contains an identifier to its ACL. The privileges determine whether there are specific traffic object access rights.

ACL Configuration						
ACL Configuration						E
Port Configuration	ld	*	Mode	Source IP	Source IP Mask	Add
Extend IP ACL						Delete
Port Base ACL						Apply
ACL Port Binding						Refresh
						Cancel

Figure 2-39 ACL Configuration

## 2.6.6.1. Standard IP ACL

ld	▲ Mod	le	Source IP	Source IP Mask	Add
1	deny	-	192.168.0.100	255.255.255.0	Delete
	÷				Apply

#### Figure 2-40 Standard IP ACL

Object	Description
ID	Indicates the ID of this IP ACL
Mode	Select <b>permit</b> or <b>deny</b> from the list
Source IP	Enter the source IP
Source IP Mask	Enter the source mask



### 2.6.6.2. Extend IP ACL

It is the extension of the IP standard ACL. On this page, you can permit or deny the IP address of both source and destination. Press "Add" for more information.

•••• Extend IP A	ACL Configuration		
Extend IP AC	CL Configuration		
ld	1000	Mode	<b>_</b>
Protocol	0	DSCP Value	0
Source Port	0	Destination Port	0
Source IP		Source IP Mask	(* 18 A
Destination Ip		Destination IP Mask	(m. 19 19)
			<u>O</u> K <u>C</u> ancel

Figure 2-41 Extend IP ACL

Object	Description
ID	Indicates the ID of this IP ACL
Mode	Select <b>permit</b> or <b>deny</b> from the list
Protocol	Enter the protocol 6 or 17
DSCP Value	Enter the DSCP value between 1 to 63
Source Port	Enter the source port between 1 to 65535
Destination Port	Enter the destination port between 1 to 65535



Source IP	Enter the source IP
Source IP Mask	Enter the source mask
Destination IP	Enter the destination IP
Destination IP Mask	Enter the destination mask

#### 2.6.6.3. MAC ACL

This ACL is based on MAC address. It can filter data packages both the source MAC address and destination MAC address. Press "**Add**" for more information.

- MAC ACL C	onfiguration		
MAC ACL Co	nfiguration		
ld	2000	Mode	<b>_</b>
VLAN Id	0	Cos Value	-1
Source Mac		Source Mac Mask	
Destination Mac		Destination MAC Mask	
Ethernet Type		Ethernet Type Mask	
			<u>QK</u> <u>C</u> ancel

## Figure 2-42 MAC ACL

Object	Description
ID	Indicates the ID of this MAC ACL
Mode	Select <b>permit</b> or <b>deny</b> from the list



VLAN ID	Enter the VLAN ID between 0 and 4094
CoS Value	Enter the CoS value between -1 and 7
Source Mac	Enter the source MAC address
Source Mac Mask	Enter the source MAC mask
Destination Mac	Enter the destination MAC address
Destination MAC Mask	Enter the destination MAC mask
Ethernet Type	Enter the Ethernet type
Ethernet Type Mask	Enter the Ethernet type mask

## 2.6.6.4. Port-based ACL

Press "Add" for more information.

🚥 Port Binding	g ACL Configuration		🔀
Port Binding	ACL Configuration		
ld	5000	Mode	<b>_</b>
Ethernet Type		Cos Value	-1
Source Mac		Source Mac Mask	
Destination Mac		Destination Mac Mask	
VLAN	0	VLAN Mask	0
0 ID		0	
Source IP	*/ (* *)	Source IP Mask	
Destination IP	20 (2 2	Destination IP Mask	
Protocol	-1	Protocol Mask	255
DSCP Value	-1	DSCP Mask	0
Source Port	-1	Source Port Mask	
Destination Port	-1	Destination Port Mask	
			<u>O</u> K <u>C</u> ancel

Figure 2-43 Port-based ACL



Object	Description
ID	Indicates the ID of this MAC ACL
Mode	Select <b>permit</b> or <b>deny</b> from the list
Ethernet Type	Enter the Ethernet type
CoS Value	Enter the CoS value between -1 and 7
Source Mac	Enter the source MAC address
Source Mac Mask	Enter the source MAC mask
Destination Mac	Enter the destination MAC address
Destination MAC Mask	Enter the destination MAC mask
VLAN	Enter the VLAN between 0 and 4094
VLAN Mask	Enter the VLAN mask between 0 and 4095
Source IP	Enter the source IP
Source IP Mask	Enter the source mask
Destination IP	Enter the destination IP
Destination IP Mask	Enter the destination mask
Protocol	Enter the protocol between -1 and 255
Protocol Mask	Enter the protocol mask between 0 and 255
DSCP Value	Enter the DSCP value between -1 and 255
DSCP Mask	Enter the DSCP mask between 0 and 255
Source Port	Enter the source port between -1 and 65535
Source Port Mask	Enter the source port mask
Destination Port	Enter the destination port between -1 and65535
Destination Port Mask	Enter the destination port mask



## 2.6.6.5. QoS-based ACL

Bind this ACL to a port, and it will limit the data by the priority. Press "Add" for more information.

🚥 QoS Data C	onfiguration		
QoS Data Co	nfiguration		
ld	6000	Out Packet Priority	0
TransQueue	0	Rule Priority	1
Ethernet Type		Cos Value	-1
Source Mac		Source Mac Mask	
Destination Mac		Destination Mac Mask	
VLAN	0	VLAN Mask	0
Source IP	•2 (r •	Source IP Mask	
Destination IP		Destination IP Mask	
Protocol	-1	Protocol Mask	0
DSCP Value	-1	DSCP Mask	0
Source Port	-1	Source Port Mask	
Destination Port	-1	Destination Port Mask	
			<u>O</u> K <u>C</u> ancel

Figure 2-44 QoS-based ACL

Object	Description
ID	Indicates the ID of this QoS ACL
Out Packet Priority	Enter the Out Packet Priority between 0 and 8
Trans Queue	Enter the Trans Queue between 0 and 7
Rule Priority	Enter the Rule Priority between 1 and 12
Ethernet Type	Enter the Ethernet type



CoS Value	Enter the CoS value between -1 and 7
Source Mac	Enter the source MAC address
Source Mac Mask	Enter the source MAC mask
Destination Mac	Enter the destination MAC address
Destination MAC Mask	Enter the destination MAC mask
VLAN	Enter the VLAN between 0 and 4094
VLAN Mask	Enter the VLAN mask between 0 and 4095
Source IP	Enter the source IP
Source IP Mask	Enter the source mask
Destination IP	Enter the destination IP
Destination IP Mask	Enter the destination mask
Protocol	Enter the protocol between -1 and 255
Protocol Mask	Enter the protocol mask between 0 and 255
DSCP Value	Enter the DSCP value between -1 and 255
DSCP Mask	Enter the DSCP mask between 0 and 255
Source Port	Enter the source port between -1 and 65535
Source Port Mask	Enter the source port mask
Destination Port	Enter the destination port between -1 and 65535
Destination Port Mask	Enter the destination port mask



## 2.6.6.6. ACL Port Binding

When you create an ACL list, the ACL Port Binding would take effect. The index will appear automatically when created.

Index					Port	 			
									 ·
🚥 Ple	ase Sele	ect Po	rt					X	R
Pleas	e Selec	t Port	t					E.	
Port > >									
	GE1	Г	GE2	Г	GE3	Г	GE4	Г	
	PON1	Г	PON2						
					1	0	$\langle  $	Cancel	

Figure 2-45 ACL Port Binding



## 2.6.7 DHCP Configuration

## 2.6.7.1. DHCP Server Configuration

m DHCP Configuration			
DHCP Configuration			
Tree Content Filter			
Port Configuration	DHCP Current State	Disable	
DHCP Server Configuration	DHCP Start IP	192 . 168 . 0 . 20	
DHCP Lease Table	DHCP End IP	192 . 168 . 0 . 254	
DHCP Relay Configuration     DHCP Relay Server	DHCP SubNet Mask	0.0.0.0	
	DHCP GateWay	0.0.0.0	
DHCP Snooping Port Configuration	DHCP DNS1	0.0.0.0	
DHCP Snooping VLAN	DHCP DNS2	0.0.0.0	
	DHCP DNS3	0.0.0.0	
	DHCP WINS		
	DHCP Lease Time	64000	
	DHCP Interface VLAN		
	DHCP Control	Enable	
< <u> </u>		<u>C</u> ommit <u>r</u> efresh(R)	
			Cancel

## Figure 2-46 DHCP Server Configuration

Object	Description
DHCP Current State	Select Enable or Disable the DHCP server from the list. Default is "Disable"
DHCP Start IP	Enter the DHCP server start IP
DHCP End IP	Enter the DHCP server end IP
DHCP Subnet Mask	Enter the DHCP Subnet mask
DHCP Gateway	Enter the DHCP Gateway
DHCP DNS1	Enter the DHCP DNS1
DHCP DNS2	Enter the DHCP DNS2
DHCP DNS3	Enter the DHCP DNS3
DHCP WINS	Enter the DHCP WINS
DHCP Lease Time	Enter the DHCP lease time from 0 to 65535
DHCP Interface VLAN	Enter the DHCP interface VLAN
DHCP Control	Enable or Disable the DHCP control. Default is "Enable"



#### 2.6.7.2. DHCP Relay Configuration

Configure DHCP Relay on this page. **DHCP Relay** is used to forward and to transfer DHCP messages between the clients and the server when they are not on the same subnet domain.

DHCP Configuration				
DHCP Configuration				
Tree Content Filter	Relay Server VLAN		Relay Server IP List	
Port Configuration     DHCP Server Configuration     DHCP Server Configuration     DHCP Lease Table     DHCP Relay Configuration     DHCP Relay Configuration     DHCP Relay Server     DHCP Snooping Configuration     DHCP Snooping Port Configurati(     DHCP Snooping PLAN     DHCP Snooping Binding Configu				
4 <b>F</b>		<u>A</u> dd	Delete Apply(S)	Refresh
				Cancel

#### Figure 2-47 DHCP Relay Configuration

#### 2.6.7.3. DHCP Snooping Configuration

The addresses assigned to DHCP clients on unsecure ports can be carefully controlled using the dynamic bindings registered with DHCP Snooping. DHCP snooping allows a switch to protect a network from rogue DHCP servers or other devices which send port-related information to a DHCP server. This information can be useful in tracking an IP address back to a physical port.

DHCP Configuration			
DHCP Configuration			
Tree Content Filter	DHCP Snooping Control status DHCP Option82 Control status DHCP Option82 Strategy status DHCP Snooping Error Recovery status DHCP Snooping Error Recovery Interval Snooping Binding DeleteTime	Disable Disable Keep Enable 30 300	
			Cancel





#### • DHCP Configuration

DHCP Snooping Control sta	atus	Disable 💌
DHCP Option82 Control sta	tus	Disable 💌
DHCP Option82 Strategy sta	atus	Keep 💌
DHCP Snooping Error Reco	overy status	Enable 💌
DHCP Snooping Error Reco	overy Interval	30
Snooping Binding DeleteTir	ne	300
		11

Figure 2-49 DHCP Configuration

The window includes the following fields:

Object	Description
DHCP Snooping Control	Select Enable or Disable the DHCP Snooping Control from the list. Default is
status	"Disable"
DHCP Option82 Control	Select Enable or Disable the DHCP Option82 Control from the list. Default is
status	"Disable"
DHCP Option82 Strategy	Select Drop, Keep or Replace the DHCP Option82 Strategy from the list.
status	Default is " <b>Keepe</b> "
DHCP Snooping Error	Select Enable or Disable the DHCP Snooping Error Recovery from the list.
Recovery status	Default is " <b>Enable</b> "
DHCP Snooping Error	Enter the DHCP Speeping Error Receivery interval from 0 to 65525
Recovery Interval	
Snooping Binding Delete	Enter the Speeping Rinding delete time from 0 to 65525
Time	

#### • DHCP Snooping Port

All the port type is untrust by default. The "Port User Circuit" and "Port User Remate ID" are the parameters of Option82. The "Port Rate Limit" is about the port maximum speed of receiving the DHCP packet. It doesn't limit by default.



Port Index	Port Ty	pe	Port User Circuit ID	Port User Remate ID	Port Rate Limit
1	Untrust	-			0
2	Untrust	*			0
}	Untrust	-			0
-	Untrust	-			0
5	Untrust	-		-	0
)	Untrust	-			0
				Apply(S	<u>R</u> efresh

Figure 2-50 DHCP Snooping Port

The window includes the following fields:

Object	Description
Port Index	Indicates the Port of this OLT
Port Type	Select Trust or Untrust from the list. Default is "Untrust"
Port User Circuit ID	Enter the Port User Circuit ID
Port User Remote ID	Enter the Port User Remote ID
Port Rate Limit	Enter the Port Rate Limit from 0 to 4096.

#### • DHCP Snooping VLAN

This page shows the VLAN. All the DHCPs offering packets will be forbidden in this VLAN. The DHCP clients will not get the IP address by this VLAN ID.

DHCP Snooping VLAN		
DHCP Snooping VLAN List		

Figure 2-51 DHCP Snooping VLAN



#### • DHCP Snooping Binding Configuration

ID	Index	MAC Addr	VLAN	IP	Port Index	Lease	Binding Type
0	0		0		0	0	•
	10				8		

## Figure 2-52 DHCP Snooping Binding Configuration

The window includes the following fields:

Object	Description
ID	Indicates the ID of the binding configuration
Index	Indicates the Index of this OLT
MAC Address	Enter the MAC address
IP	Enter the IP
Port Index	Indicates the Port of this OLT
Lease	Enter the Lease time
Binding Type	Select SnBinding Type.Static or SnBinding Type.Dynamic

## 2.6.8 RSTP Configuration

••• RSTP Configuration Main Vie	W		
Tree Content Filter	RSTP Status Max Age Bridge Priority Bridege MAC Hello Time Forward Delay	Disable   20   32768   2   15   Configuration(E)   Refresh	
			Cancel

Figure 2-53 RSTP Configuration



without creating forwarding loops.

## 2.6.8.1. RSTP Bridge Configuration

Max Age	20
Bridge Priority	32768
Bridege MAC	
Hello Time	2
Forward Delay	15

Rapid Spanning Tree Protocol (RSTP) : Detects and uses network topologies that provide faster spanning tree convergence,

Figure 2-54 RSTP Bridge Configuration

Object	Description
RSTP Status	Select Enable or Disable the RSTP. Default is "Disable"
	The maximum age of the information transmitted by the Bridge when it is the
	Root Bridge. Valid values are in the range from 6 to 40 seconds.
Max. Age	-Default: 20
	-Minimum: The higher of 6 or [2 x (Hello Time + 1)].
	-Maximum: The lower of 40 or [2 x (Forward Delay -1)]
	Controls the bridge priority. Lower numeric values have better priority. The bridge
Bridge Priority	priority plus the MSTI instance number, concatenated with the 6-byte MAC
	address of the switch forms a Bridge Identifier.
Bridge MAC	It shows the Bridge MAC address
	The time that controls the switch to send out the BPDU packet to check STP
Hello Time	current status.
	Enter a value between 1 and10.
	The delay used by STP Bridges to transit Root and Designated Ports to
	Forwarding (used in STP compatible mode). Valid values are in the range from 4
Forward Delay	to 30 seconds
Forward Delay	-Default: 15
	-Minimum: The higher of 4 or [(Max. Message Age / 2) + 1]
	-Maximum: 30



## 2.6.8.2. RSTP Port

Port Id	Port RSTP Status	RstpPortInfo.rstp	RstpPortInfo.rst	Port Oper Edge	. Port P2P Satus
1	Enable 👻	128	200000	Enable 💌	Enable 💌
2	Enable 💌	128	200000	Enable 💌	Enable 💌
3	Enable 💌	128	200000	Enable 💌	Enable 💌
4	Enable 👻	128	200000	Enable 👻	Enable

This page allows the user to inspect the current RSTP port configurations, and possibly change them as well.

#### Figure 2-55 RSTP Port

The window includes the following fields:

Object	Description
Port ID	The OLT port number of the logical RSTP port.
Port RSTP Status	Display the current RSTP state. Select Enable or Disable.
	Controls the port priority. This can be used to control priority of ports having
RSTP	identical port cost.
PortInfo.RSTPPortPrioritySet	Default: 128
	Range: 0-240, in steps of 16
	Controls the path cost incurred by the port. The Auto setting will set the path cost
DETD	as appropriate by the physical link speed, using the 802.1D recommended
ROIP Bartinta BSTBBartCastSat	values. The path cost is used when establishing the active topology of the
Fortimo.K3TFFOrtCost3et	network. Lower path cost ports are chosen as forwarding ports in favor of higher
	path cost ports. Valid values are in the range from 1 to 200000.
	Controls whether the bridge should enable automatic edge detection on the
Port Oper Edge Status	bridge port. This allows operEdge to be derived from whether BPDU's are
	received on the port or not.
	Controls whether the port is connected to a point-to-point LAN rather than a
Port D2D Status	shared medium. This can be automatically determined, or forced either true or
ruit rzr Jialus	false. Transitions to the forwarding state are faster for point-to-point LANs rather
	than shared media.

## 2.6.8.3. RSTP Port Status

This page shows the RSTP port status.



Port Index	Port Role	Port Status	Port Cost	Port Priority	Port P2F



#### 2.6.8.4. RSTP Root Bridge

This page shows the RSTP Root Bridge status.

Path Cost To Root Bridge	0
Root Port	0
Root Max Age	20
Root Bridge Priority	32768
Root Bridge Mac	
Root Hello Time	2
Root Forward Delay	15

Figure 2-57 RSTP Root Bridge

## 2.6.9 Static Route Configuration

When configuring the VLAN IP address and then adding the static route, the network in the different network segment can communicate with each other.

Static Route     Static Route T     Static Route Confi	Table able guration		E S
Index	IP Address	Mask	Gateway
	Add	elete Apply(	<u>S)</u> <u>R</u> efresh
			Cancel

Figure 2-58 Static Route Table



Press "Add" and enter the IP address, mask and gateway.

## 2.6.10 QoS Configuration

Quality of Service (QoS) is an advanced traffic prioritization feature that allows you to establish control over network traffic. QoS enables you to assign various grades of network service to different types of traffic, such as multi-media, video, protocol-specific, time critical, and file-backup traffic.

QoS reduces bandwidth limitations, delay, loss, and jitter. It also provides increased reliability for delivery of your data and allows you to prioritize certain applications across your network. You can define exactly how you want the switch to treat selected applications and types of traffic.

- QOS Configuration		
QOS Configuration QOS queue configuration. Show weight list. If you select "spwrr" model, Index of 4-7	ed queue scheduling model list and the value 0 is mean "SP"	I mixed queue scheduling model
E 🥭 Root I 🖶 Queue Scheduler Model	QOS Queue Scheduler Model	Strict Apply Refresh
		<u>C</u> ancel

#### Figure 2-59 QoS Configuration

## 2.6.10.1. Strict

QOS Queue Scheduler Model	strict	<b>-</b>
		Apply
		Refresh





## 2.6.10.2. Weight

Index	Weight	Apply
0	1	Refresh
1	2	
2	4	-
3	8	
4	16	
5	32	
6	64	
7	127	



#### 2.6.10.3. SP+WRR

	and the second second		
1		- 12	Refres

Figure 2-62 QoS SP+WRR



## 2.6.11 ONU Template Configuration

This page is about the OLT configuring the template for ONU, according to the characteristics of multiple services (data, voice and alarm). Integrated in an ONU, huge quantity terminals and configurations are similar. It can be binded by the user manually.

🚥 ONU Template Configuration	on				
ONU Template Configuratio ONU template configuration, Includin	n og of DBA, SRV, Volf	P, Alarm.			
Tree Content Filter	Template Name	Upstream FIR(Kbps)	Upstream CIR(Kbps)	Upstream PIR(Kbps)	Refresh
D. CH Poot					Add
DBA Bandwidth Template					Edit
Service (SRV) Template Voice (VoIP) Template Alarm Threshold Template					Delete
×*	•			×	
					Cancel

Figure 2-63 ONU Template Configuration

#### 2.6.11.1. DBA Bandwidth Template

Press "Add" to edit the DBA bandwidth profile.

- ONU Port DBA Pr	ofile 🛛 🔀
ONU Port DBA Pro	file
Template Name Upstream FIR(Kbps) Upstream CIR(Kbps) Upstream PIR(Kbps) Upstream Weight	
Downstream PIR(Kbps) Downstream Weight	
	<u>O</u> K <u>C</u> ancel

Figure 2-64 DBA Bandwidth Template



The window includes the following fields:

Object	Description
Template Name	Enter the template name
Upstream FIR (Kbps)	Configure the upstream FIR for the template
Upstream CIR (Kbps)	Configure the upstream CIR for the template
Upstream PIR (Kbps)	Configure the upstream PIR for the template
Upstream Weight	Configure the upstream weight for the template
Downstream PIR (Kbps)	Configure the downstream PIR for the template
Downstream Weight	Configure the downstream weight for the template

## 2.6.11.2. Service (SRV) Template

Press "Add" to edit the Service (SRV) template.

🚥 Template Config	
Template Config Template Config	
Template Name 1	
	<u>OK</u> ancel

Figure 2-65 Service (SRV) Template

## 2.6.11.3. Voice (VoIP) Template

Press "Add" to edit the Voice (VoIP) template.

Tree Content Filter	Template Name	▼ Add	Edit	Delete Commit
I □ <sup>_</sup> /# Root	*** Template Config			
Bardwidth Template     Bardwidth Template     Bervice (SRV) Template     Voice (VoIP) Template     Alarm Threshold Templat     Batch Configuration     Template Binding	Template Config Template Config Template Name			

Figure 2-66 Service (SRV) Template



## 2.6.11.4. Alarm Threshold Template

 $\label{eq:press} \ensuremath{\text{Press}}^* \ensuremath{\text{Add}}\ensuremath{\text{"to edit the Alarm Threshold template.}}$ 

Tree Content Filter	Template Name	▼ Add	Edit	Delete	Commit
Root	I Template Config		X		
DBA Bandwidth Template     Service (SRV) Template     Voice (VoIP) Template     Alarm Threshold Template     Batch Configuration	Template Config Template Config		Es		
Em 🖶 Template Binding	Template Name				

Figure 2-67 Alarm Threshold Template

## 2.6.11.5. Template Binding

Select the ONU first.

- Select Object	
Select Object Select Object	
<u></u>	K <u>C</u> ancel

Figure 2-68 Template Binding Select Object



And then configure the profile.

PON Port	ONU Index	DBA Template	Service Template	Voice Template	Alarm Template	Select
PON 1	According to t	he choice of ON	NU binding prot	file accor 🔀		select object first
	According to the	e choice of ON	U binding pro	fi		
						Configure
	DBA Template			<u>×</u>		Refresh
	Service Template			*		
	Voice Template			<u> </u>		
	Alarm Template			¥		

Figure 2-69 Template Binding Configure Profile

## 2.6.12 Alarm Configuration

Configure all the alarms including OLT system alarm and ONU alarm.

- Alarm Configuration							
Alarm Configuration Alarm Configuration, Including PO	N Optical /	Alarm Configuration, Alarm	Cor	itrol			Es
E - 🔑 Alarm Configuration	Port	Alarm Type		Status +	Alarm Thres	Clear Thres	Apply
Alarm Control	PON1	txPowerHighAlarm(dBm)	-	Disable 💌	0	0	Refresh
Alarm Control Threshold	PON1	txPowerLowAlarm(dBm)	•	Disable 💌	0	0	
	PON1	txBiasHighAlarm(mA)	*	Disable 👻	0	0	
	PON1	txBiasLowAlarm(mA)	•	Disable 💌	0	0	
	PON1	vccHighAlarm(V)	-	Disable 💌	0	0	
	PON1	vccLowAlarm(V)	•	Disable 💌	0	0	
	PON1	tempHighAlarm(°C)	•	Disable 👻	0	0	
	PON1	tempLowAlarm(°C)	Ŧ	Disable 💌	0	0	
	PON2	txPowerHighAlarm(dBm)	-	Disable 💌	0	0	
	PON2	txPowerLowAlarm(dBm)	•	Disable 💌	0	0	
	PON2	txBiasHighAlarm(mA)	*	Disable 👻	0	0	
	PON2	txBiasLowAlarm(mA)	•	Disable 💌	0	0	
	PON2	vccHighAlarm(V)	•	Disable 💌	0	0	
	PON2	vccLowAlarm(V)	•	Disable 💌	0	0	
	PON2	tempHighAlarm(°C)	*	Disable 💌	0	0	
4	PON2	tempLowAlarm(°C)	•	Disable 💌	0	0	
	1						70
							Cancel

Figure 2-70 Alarm Configuration



## 2.6.12.1. PON Optical Alarm

Port	Alarm Type		Status		Alarm Thres	. Clear Thres	Apply
PON1	txPowerHighAlarm(dBm)	¥	Disable	-	0	0	Refresh
PON1	txPowerLowAlarm(dBm)	•	Disable	-	0	0	-
PON1	txBiasHighAlarm(mA)	*	Disable	*	0	0	
PON1	txBiasLowAlarm(mA)	*	Disable	*	0	0	
PON1	vccHighAlarm(V)	-	Disable	-	0	0	
PON1	vccLowAlarm(V)	•	Disable	•	0	0	
PON1	tempHighAlarm(°C)	*	Disable	*	0	0	
PON1	tempLowAlarm(°C)	*	Disable	•	0	0	
PON2	txPowerHighAlarm(dBm)	-	Disable	-	0	0	
PON2	txPowerLowAlarm(dBm)	•	Disable	•	0	0	
PON2	txBiasHighAlarm(mA)	*	Disable	*	0	0	
PON2	txBiasLowAlarm(mA)	*	Disable	*	0	0	
PON2	vccHighAlarm(V)	•	Disable	-	0	0	
PON2	vccLowAlarm(V)	•	Disable	-	0	0	
PON2	tempHighAlarm(°C)	*	Disable	*	0	0	
PON2	tempLowAlarm(°C)	-	Disable	*	0	0	

The PON alarm can be configured to transmit power,vcc,bias, and high and low alarm for temperature.

Figure 2-71 PON Optical Alarm

## 2.6.12.2. Alarm Control

This page is the OLT system global alarm configuration and the ONU global alarm.

Index	Alarm Type	Print Status	Record Status	Trap Status	Remote Status		Apply
1	fan		Г		Г	-	Refresh
2	download-file-failed	~	<b>V</b>		•		
3	upload-file-failed	•	•		<b>V</b>	H	
4	upgrade-file-failed	•	•		<b>V</b>		
5	port-updown	•	•	•	•		
6	port-loopback	•	•	~	2		
7	pon-deregister	•	•		<b>V</b>	1	
8	pon-register-failed	•	•	<b>v</b>	•		
9	pon-disable	•	•	<b>V</b>	•		
10	pon-txpower-high	V	<b>V</b>	~	1		

Figure 2-72 Alarm Control



#### 2.6.12.3. Alarm Control Threshold

Enable or diable the temp, CPU usage and mem usage alarm type status.

Index	Alarm Type	Print Status	Record Status	Trap Status	Remote Status	Alarm Threshold(0.1°C)	Clear Threshold(0.1°C)	Apply
1	Temp_high	Disable 💌	Disable 👻	Disable 🔻	Disable 💌			Refresh
2	Temp_low	Disable 🔻	Disable 💌	Disable 🔻	Disable 💌			2
3	Cpu_usage_high	Disable 🔻	Disable 💌	Disable 🔻	Disable 🔻			
4	Mem_usage_high	Disable 💌	Disable 💌	Disable 🔻	Disable 💌			

#### Figure 2-73 Alarm Control Threshold

## 2.6.13 ONU Batch Upgrade

Upgrade the ONU and the upgraded ONUs should be the same type.

🚥 ONU Batch Upgra	le 🛛
ONU Batch Upgrad ONU batch upgrade. ste step3, Commit to upgrad	) 1,Fill in the name of the file, the server IP address. step2, Choose the ONU that need to upgrade. 9.
Image File Name TFTP Server IP PON Port	Index     PON Port     LLID     Status     Process       ONU     Select
	Commit Refresh Cancel

Figure 2-74 ONU Batch Upgrade



## 2.7 Maintenance Management

#### 2.7.1.1. Upgrade System Software

On this page, you can upgrade the OLT from TFTP.

🚥 OLT System U	pgrade		×
OLT System Up	grade		
Tftp Server Ip File Name		×	×
		<u></u> K	<u>C</u> ancel

Figure 2-75 OLT System Upgrade

#### 2.7.1.2. Save Device Config

On this page, you can save the OLT config file.



Figure 2-76 Save Device Config

#### 2.7.1.3. Restart

On this page, you can restart the OLT.



Figure 2-77 Restart



## 2.7.1.4. PON ONU Operation

Select the PON port to reset, reregister or noauth the ONU.

🚥 ONU op	peration		
ONU ope The ONU o	ration operations for OLT P	PON	
ONU PON	PON1 PON1 PON2		
	Reset	Reregister	NoAuth
			Cancel

Figure 2-78 PON ONU Operation

## 2.7.1.5. Clear Flash

On this page, you can clear the flash of OLT. It will erase the configuration and reboot automatically.

Clear	Flash 🛛 🛛		
2	Are you sure want to erase startup-config? The operation will recorver system config and reboot.		
	是(Y) 否(N)		

## Figure 2-79 Clear Flash

### 2.7.1.6. Export Config

On this page, you can export the configuration file.



🚥 Export Configu	ration Files	×
Export Configur Configuration files u	ation Files ploaded to the FTP server	
FTP Server IP: File Name:	Export Config File	Cancel

### Figure 2-80 Export Config

## 2.7.1.7. Import Config

On this page, you can import the configuration file.

- Import Configu	ration Files	X
Import Configura From the FTP server t	tion Files o download configuration files	
FTP Server IP: File Name:	· · ·	
	Import Config File	<u>C</u> ancel

## Figure 2-81 Import Config

#### 2.7.1.8. OLT Rename

On this page, you can rename the OLT.



Figure 2-82 OLT Rename



## 2.7.1.9. Config AUX Port

On this page, you can configure the AUX port.

🚥 edit/delete aux	cip address a	nd mask	
edit/delete aux ij	o address an	nd mask	
Config IP Address Config Mask		T X	
		<u>o</u> k	<u>C</u> ancel

Figure 2-83 Config AUX Port

## 2.7.1.10. RTC Time Configuration

On this page, you can configure the RTC time.

🚥 RTC Tim	e Configuration	
RTC Time	Configuration	
Year Month Day Hour Minute Second	2000 1 1 1 1 1 1	
		<u>O</u> K <u>Cancel</u>

Figure 2-84 RTC Time Configuration



## 2.7.1.11. Fan Configuration

On this page, you can configure the fan mode of the OLT.

- FAN Configuration	
FAN Configuration	
FAN Mode Auto FAN Open Temperature 50	▼ Configuration( <u>E</u> ) <u>R</u> fresh
	<u>O</u> K <u>C</u> ancel

Figure 2-85 Fan Configuration

The window includes the following fields:

Object	Description
Fan Mode	Select Open, Close or Auto. Default is Auto.
Fan Open Temperature	Enter the fan working temperature

#### 2.7.1.12. Clear Port Statistic

On this page, you can clear the port statistic.



Figure 2-86 Clear Port Statistic



## 2.8 View Realtime Performance

Press "View Realtime Performance" to monitor every port of the OLT.

🚥 192.168.8.100[EP-2]Realtime Collect				
	Interval(15-900s) 30 <u>+</u> 🐝	Group Type Group By Object 💌		
<u>C</u> lear Add				

#### Figure 2-87 Realtime Performance

## 2.9 View Current Alarm

Press "View Current Alarm" to check the alarm information.

🚥 Alarm Query Result	
Alarm Query List Alarm Statistics Result	
🔽 Critical 🧮 Major 🗮 Minor 📕 Warning	
1/1Page 0-0/0Row Remain 0 items Size All	Page 1 14 4 > >1
Alarm Level Source Probable Cause Type State Update Time Confirm Time Clear Time Source Type	Locate
	Confirm( <u>A</u> )
	<u>C</u> lear
	Confirm And Clear( <u>H</u> )
	Delete( <u>R</u> )
	Detail
	Export
	Reset Condition(S)
	Close

#### Figure 2-88 Current Alarm



## 2.10 View History Alarm

Press "View History Alarm" to check the history alarm information.

Alarm Query Result	
Alarm Query List Alarm Statistics Result	
Critical Major Minor Warning	
1/1Page 0-0/0Row Remain 0 items Size All	Page 1 14 4 → →1
Alarm Level   Source   Probable Cause   Type   State   Update Time   Confirm Time   Clear Time   Source Type	Locate
	Confirm( <u>A</u> )
	Clear
	Confirm And Clear( <u>H</u> )
	Delete( <u>R</u> )
	Detail
	Export
	Reset Condition(S)
	Close

Figure 2-89 History Alarm

## 2.11 Ping

Press "Ping" to show the Windows command line and ping the OLT automatically.





## 2.12Telnet

Press "Telnet" to activate the telnet function.

Telnet 192.168.8.100 . X Hello, this is epon olt platform (version 1.00). Copyright 2010-2018,All Rights Reserved. User Access Verification Login: