
AirLive
ONU-10XG(S)-1001-10G
USER MANUAL

airlive®

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Chapter 1 Product Introduction

1.1 Product Description

The AirLive ONU-10XG(S)-1001-10G (SFU) is based on high-performance chip solutions and supports XG(S)-PON technology and Layer 2 functions. It comes in two models, an XG-PON and XGS-PON one. Its upstream and downstream rates are 10/10Gbps or 2.5/10Gbps, providing high-bandwidth data services for operator-level FTTH applications. Additionally, this ONU SFU supports the OMCI protocol, allowing for the configuration and management of extended services on the AirLive OLT, making it easy to manage and maintain and ensuring QoS for various services. It complies with the international technical standards of ITU-T G.9807.x.



Figure 1-1-1: AirLive ONU-10XG(S)-1001-10G

1.2 Special features

- Support for XG(S)-PON OLT.
- Plug and play, integrated auto detecting, auto configuration, and auto firmware upgrade technology.
- Support rich VLAN and IGMP/MLD snooping multicast feature.
- Support Firewall function.
- Supports forwarding of IPv4 and IPv6 data.
- Supports 10G high-speed ports.

1.3 Technical parameters

Technical items	Descriptions
PON interface	1 XG(S)-PON (depending on model) connector, SC single-mode/single-fiber. uplink 2.5/10Gbps, downlink 10Gbps.
Wavelength	Tx 1270nm, Rx 1577nm.
Optical interface	SC/UPC connector
Interface	1* 1GE adaptive Ethernet interface RJ-45 connector. 1* 10GE adaptive Ethernet interfaces RJ-45 connector.
LED	SYS, PON, LOS, LAN1~2
Operating condition	Operating temp: -10°C ~ +55°C Operating humidity: 5% ~ 95% (non-condensed)
Storing condition	Storing temp: -40°C ~ +70°C Storing humidity: 5% ~ 95% (non-condensed)
Power supply	DC 12V, 1.0A, external AC-DC power adaptor
Power consumption	≤12W
Dimension	140mm×140mm×34.5mm(L×W×H)
Net weight	0.316Kg

1.4 Application chart

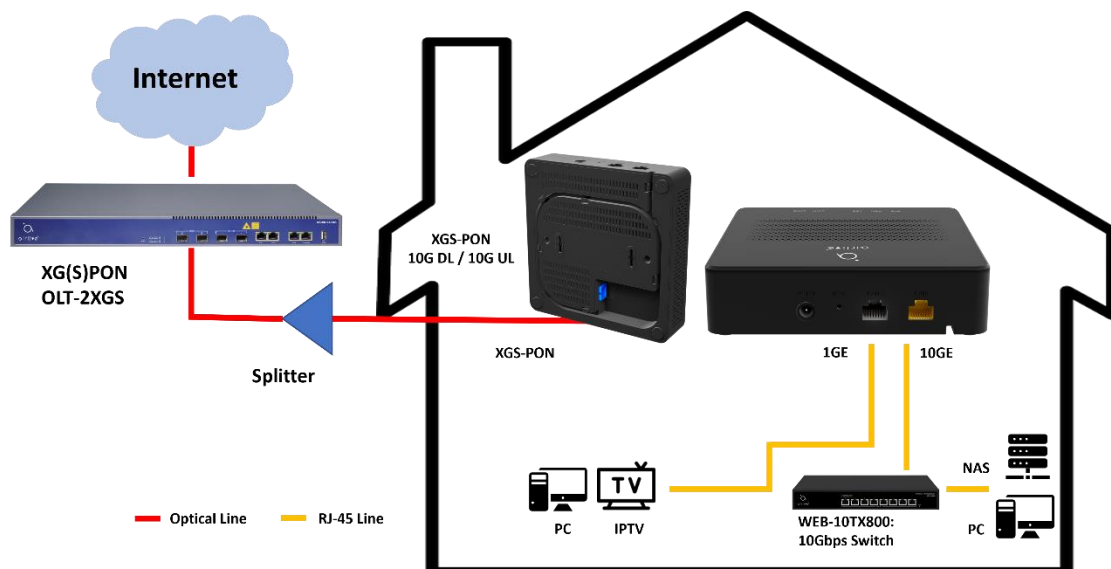


Figure 1-4-1: Application chart, when using XG-Pon it will be 10G DL/2.5G UL

1.5 Panel description

Interface panel

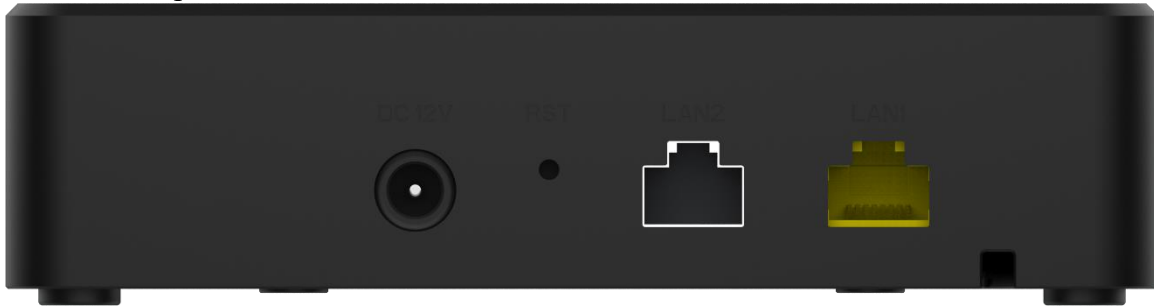


Figure 1-5-1: Interface panel

Name	Function
PON	Connect to OLT by SC type fiber connector, single mode optical fiber cable.
LAN1-2	LAN1 (Yellow) is a 1GE Port: Connect to PC or other devices with Ethernet port by Cat5/Cat5E cable, RJ-45 connector. LAN2 (Silver) is a 10GE Port: Connect to PC or other devices with Ethernet port by Cat6/Cat6A cable, RJ-45 connector.
RST	Press RST button for less than 10 seconds, the ONU restarts. Press RST button for more than 10 seconds, ONU restores to factory default configuration.
DC 12V	Connect with power adapter. DC 12V, 1.0A.

Indication Panel

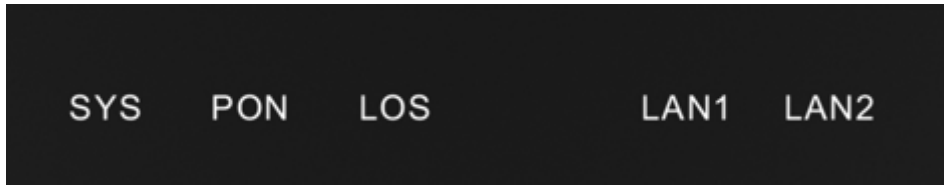


Figure 1-5-2: Indication panel

Name	Status	Function
SYS	On	The device is powered up.
	Off	The device is powered down.
	Blink	The device is powered on and the system is running stably.
PON	On	The device is registered to the PON system.
	Off	The device is not registered to the PON system.
	Blink	The device is registering.
LOS	Off	The device has received optical signal.
	Blink	The device does not receive optical signal.
LAN2 LAN1	On	Port is connected properly (Link).
	Off	Port is not connected properly.
	Blink	Port is sending or/and receiving data (Act).

Chapter 2 Quick Installation

2.1 Standard Packing Contents

When you receive our products, please check carefully to make sure that our products do not have some defects or not. If something is wrong after shipping, please contact the carrier; if there is any other damage or lack of some parts, please contact your dealer.

Contents	Description
AirLive ONU-XG-1001-10G or ONU-XGS-1001-10G	1 pc
Power Adapter	1 pc
Installation Guide	1 pc
Network cable	1 pc

2.2 Quick Installation

1. Connecting the optical fiber cable to the unit.
 - a) Remove the protective cap of the optical fiber.
 - b) Clean the end of the optical fiber with an optical fiber end cleaner.
 - c) Remove the protective cap of the ONU optical interface (PON interface). Connect the fiber to the PON port on the unit.

Note: When measuring the optical power before connecting to the ONU, it is recommended to use a PON Inline Power Meter. While connecting, please note:

- Keep the optical connector and the optical fiber clean.
- Make sure there are no tight bends in the fiber and that the bending diameter is greater than 6cm. Otherwise, the optical signal loss may be increased, to the extent that signal may be unavailable.
- Cover all optic ports and connectors with a protective cap to guard against dust and moisture when the fiber is not used.

2. Supply power to the unit.
3. After the ONU is power ON, Indicators should light up as for normal operation. Check whether the PON indicator status is continuously on. If it is, the connection is normal; otherwise, there is either a problem of the physical connection or the optical level at either end. This may be caused by either too much or too little attenuation over the optical fiber. Please refer to the Layout Description section of this installation manual for normal LED activity.

4. Check all signal levels and services on all the ONU communication ports.

Unit Installation Adjustment

1. Installing the ONU on a horizontal surface (Bench top)
Put the ONU on a clean, flat, sturdy bench top. You must keep the clearance for all sides of the unit to more than 10cm for heat dissipation.
2. Installing the ONU on a vertical surface (Hanging on a wall)
You can install the ONU on a vertical surface by using the mounting holes on the bottom of the ONU chassis and two flat-head wood screws.
 - a) Insert the screws into the wall. The screw positions must be in the same horizontal line and the distance between them must be 165mm. Reserve at least 6mm between the screw caps and the wall.
 - b) Hang the ONU on the screws through the mounting holes.

2.3 Set up Connection

Set up wired connection

Connect PC with ONU Ethernet port by RJ-45 CAT5 cable.

Chapter 3 Configuration

After finishing the basic connection configuration, you can use its basic function. In order to satisfy individuation service requirements, this chapter provides you with parameter modification and individuation configuration description.

3.1 Login

The device is configured by the web interface. The following steps will enable you to login:

- 1、Conform “2.2 Quick Installation” to install.
- 2、The device default IP is 192.168.1.1.
- 3、Open web browser, type the device IP in address bar.
- 4、Entry of the username and password will be prompted. Enter the default login Username and Password:

The default login Username of administrator is “admin”, and the default login Password is “stdONU101”.

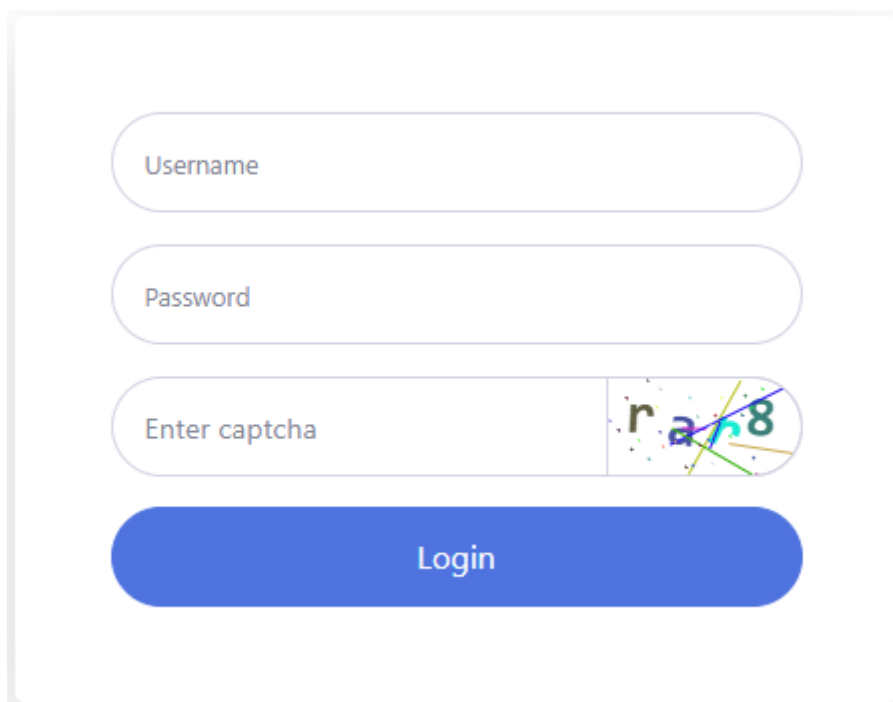
The image shows a web interface for logging in. It features four input fields stacked vertically: 'Username', 'Password', and 'Enter captcha'. The 'Enter captcha' field contains a colorful captcha image with the characters 'ra78'. Below these fields is a prominent blue 'Login' button.

Figure 3-1-1: Login

3.2 Status

This part shows the main information of the product.

3.2.1 Device Info

This page shows the device basic information, such as device model, device SN, hardware version, and firmware version, PON S/N, CPU usage and memory usage.

The screenshot displays the 'Device Info' page. On the left is a blue sidebar with navigation menus. The main content area is white and contains two tables.

Device Basic Info

Device Model	XGS-PON+10GE+1GE
Device SN	004f5b-12345004f5b0001cd
Hardware Version	V1.3
Firmware Version	V1.0-240808_NORMAL
PON S/N	GPON000001CD
System Uptime	00:01:54

Resource Info

System Load	2.36 / 0.83 / 0.30
Memory Usage	149.92MB / 475.48MB

Figure 3-2-1: Device Info

3.2.2 PON Info

This page shows the XG(S)-PON information, including connection information, FEC information, temperature, voltage, current, optical power, and statistics of the packet on send or receive direction.

The screenshot shows the PON information page. The sidebar on the left contains the following menu items:

- BASIC SETTINGS
 - Status
 - ONU STATUS
 - Device Info
 - PON Info
 - LAN Info
 - Network
- ADVANCED SETTINGS
 - Security
 - Application
 - Management
 - Diagnostics

The main content area displays the following information:

Connect information

PON MODE	XGSPON
Connect state	Registered,Certificated
FEC Upstream Status	Enable
FEC Downstream Status	Enable

Laser Device Info

Tx Power	5.1 dBm
Rx Power	-19.11 dBm
Temperature	50 °C
Voltage	3.3691 V
Bias Current	16.216 mA
PON Alarm Info	N/A

Link Performance Info

Tx Bytes	0
Rx Bytes	0
Tx Frame	0
Rx Frame	0
Tx Unicast Frame	0
Rx Unicast Frame	0

Figure 3-2-2: PON Info

3.2.2.1 Connect information

This page shows the XGS-PON connection information and FEC information.

The detailed view of the Connect information section shows the following data:

PON MODE	XGSPON
Connect state	Registered,Certificated
FEC Upstream Status	Enable
FEC Downstream Status	Enable

Figure 3-2-3: Connection Information

3.2.2.2 Laser Device Info

This page shows the laser device information, including temperature, voltage, current, optical power.

Laser Device Info	
Tx Power	5.4 dBm
Rx Power	-16.56 dBm
Temperature	48 °C
Voltage	3.3244 V
Bias Current	12.43 mA
PON Alarm Info	N/A

Figure 3-2-4: Laser Device Info

3.2.2.3 Link Performance Info

This page shows statistics of the packet on send or receive direction.

Link Performance Info	
Tx Bytes	0
Rx Bytes	0
Tx Frame	0
Rx Frame	0
Tx Unicast Frame	0
Rx Unicast Frame	0
Tx Multicast Frame	0
Rx Multicast Frame	0
Tx Broadcast Frame	0
Rx Broadcast Frame	0
Rx FEC Error Frame	0
Rx HEC Error Frame	0
Tx Lose Frame	0

Figure 3-2-5: Link Performance Info

3.2.3 LAN Info

This page shows the user information for LAN, including LAN interface and LAN packets.

The screenshot shows the 'LAN Info' page in the web interface. On the left is a blue sidebar with navigation menus. The main area is divided into two sections: 'LAN Interface' and 'LAN Send and Recv'.

LAN Interface

IP Address	IPv6 Address	MAC Address
192.168.1.1	fdea:e111:ce6b::1	00:4F:5B:00:01:CD

LAN Send and Recv

Interface	Status	Rate	Packets (Recv)	Bytes (Recv)	Errors (Recv)	Dropped (Recv)	Packets (Send)	Bytes (Send)	Errors (Send)	Dropped (Send)
br-lan	Connected	-	9455	1372277	0	0	21632	20197070	0	0
LAN_1	Connected	1000	8176	1562455	0	0	4162	3171533	0	0
LAN_2	Not Connected	-	0	0	0	0	17974	18405376	0	0

Figure 3-2-6: LAN Info

3.2.3.1 LAN Interface

This page shows LAN address and LAN gateway.

The screenshot shows the 'LAN Interface' section of the web interface. It contains a table with the following data:

IP Address	IPv6 Address	MAC Address
192.168.1.1	fdea:e111:ce6b::1	00:4F:5B:00:01:CD

Figure 3-2-7: LAN Interface

3.2.3.2 LAN Interface Statistics

This page shows the statistics of received or sent packets of the LAN interface.

The screenshot shows the 'LAN Send and Recv' section of the web interface. It contains a table with the following data:

Interface	Status	Rate	Packets (Recv)	Bytes (Recv)	Errors (Recv)	Dropped (Recv)	Packets (Send)	Bytes (Send)	Errors (Send)	Dropped (Send)
br-lan	Connected	-	9455	1372277	0	0	21632	20197070	0	0
LAN_1	Connected	1000	8176	1562455	0	0	4162	3171533	0	0
LAN_2	Not Connected	-	0	0	0	0	17974	18405376	0	0

Figure 3-2-8: LAN Send and Recv

3.3 Network

This section describes the configuration interface of network-related functions.

3.3.1 LAN

This page is used to set LAN IPv4 address and LAN IPv6 address.

The screenshot displays the LAN configuration interface. On the left is a blue sidebar with a menu. Under 'BASIC SETTINGS', 'Status' and 'Network' are visible. Under 'NETWORK SETTINGS', 'LAN' is selected. Under 'ADVANCED SETTINGS', 'Security', 'Application', 'Management', and 'Diagnostics' are listed. The main area contains two configuration panels. The top panel, 'IPv4 LAN Configuration', has input fields for 'IP Address' (192.168.1.1) and 'Subnet Mask' (255.255.255.0), with a blue 'Submit' button below. The bottom panel, 'IPv6 LAN Configuration', has input fields for 'IPv6 Address' (fdea:e111:ce6b::1), 'IPv6 Prefix Length' (60), and 'ULA Prefix' (fdea:e111:ce6b::/48), also with a blue 'Submit' button below.

Figure 3-3-1: LAN

3.3.1.1 IPv4 LAN Configuration

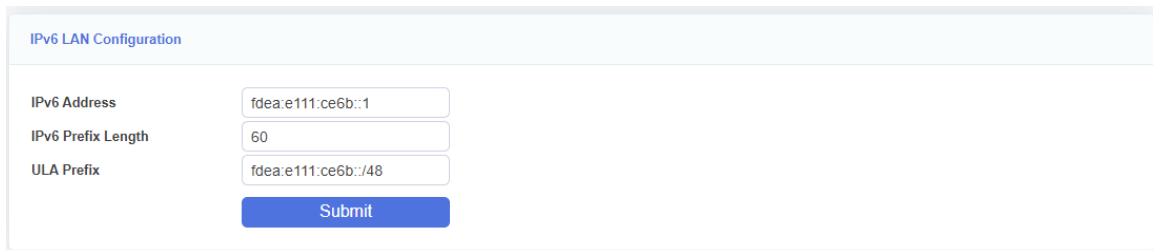
This page allows you to do some LAN settings, such as LAN IP addresses and subnet mask.

This is a close-up of the IPv4 LAN Configuration section. It shows two input fields: 'IP Address' containing '192.168.1.1' and 'Subnet Mask' containing '255.255.255.0'. A blue 'Submit' button is positioned below these fields.

Figure 3-3-2: IPv4 LAN Configuration

3.3.1.2 IPv6 LAN Configuration

This page allows you to configure LAN IPv6 address, IPv6 prefix and Prefix length.

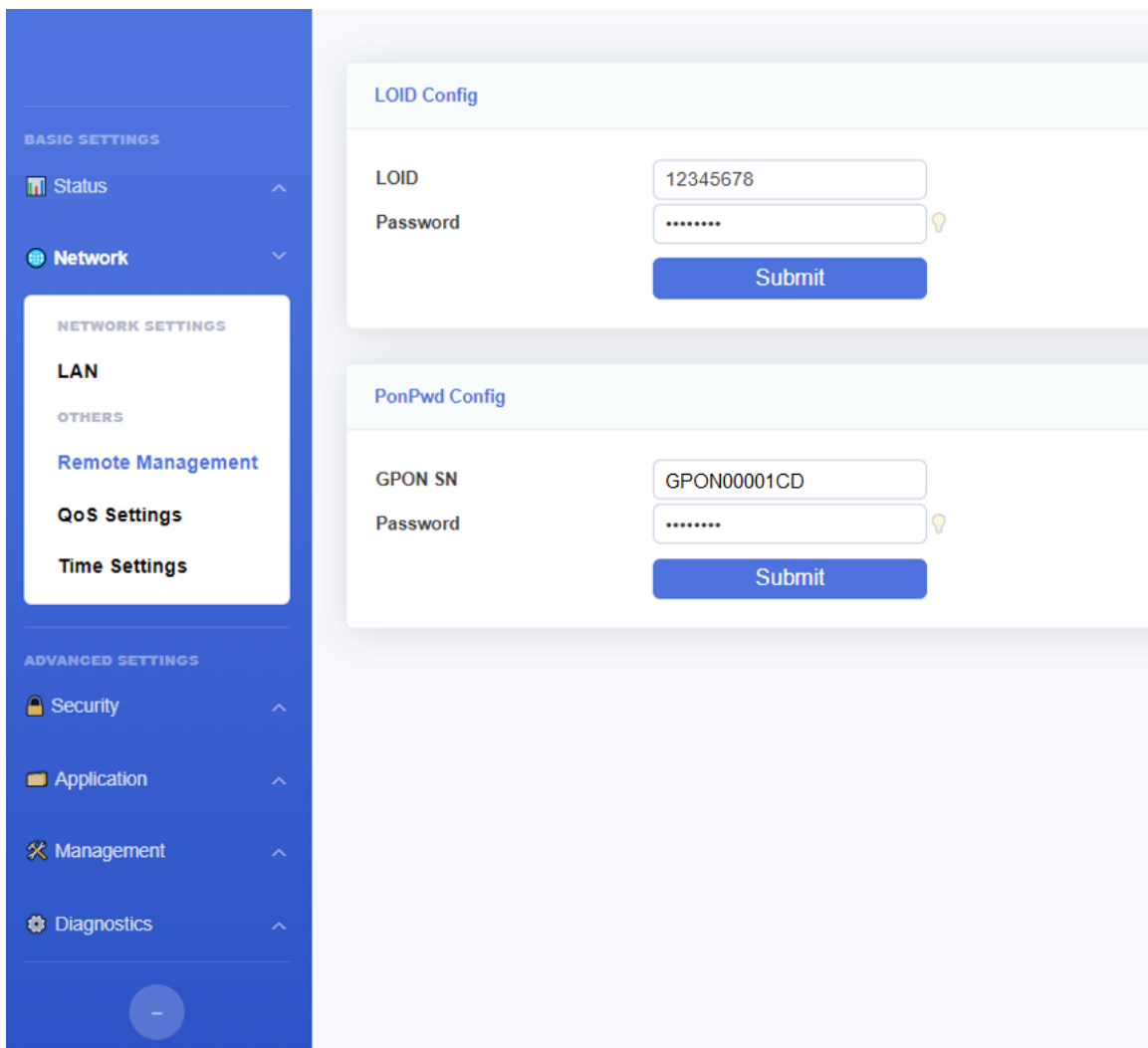


IPv6 Address	<input type="text" value="fdea:e111:ce6b::1"/>
IPv6 Prefix Length	<input type="text" value="60"/>
ULA Prefix	<input type="text" value="fdea:e111:ce6b::/48"/>
<input type="button" value="Submit"/>	

Figure 3-3-3: IPv6 configuration

3.3.2 Remote Management

This page is used to configure the parameters that may be used when registering an OLT, such as the LOID, LOID password, GPON SN, and SN password.

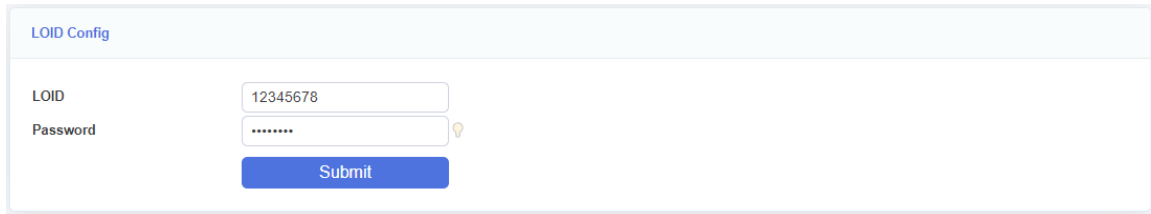


LOID Config	
LOID	<input type="text" value="12345678"/>
Password	<input type="password" value="....."/>
<input type="button" value="Submit"/>	
PonPwd Config	
GPON SN	<input type="text" value="GPON00001CD"/>
Password	<input type="password" value="....."/>
<input type="button" value="Submit"/>	

Figure 3-3-4: Remote Management

3.3.2.1 LOID Config

LOID is used for PON authentication.



LOID Config

LOID: 12345678

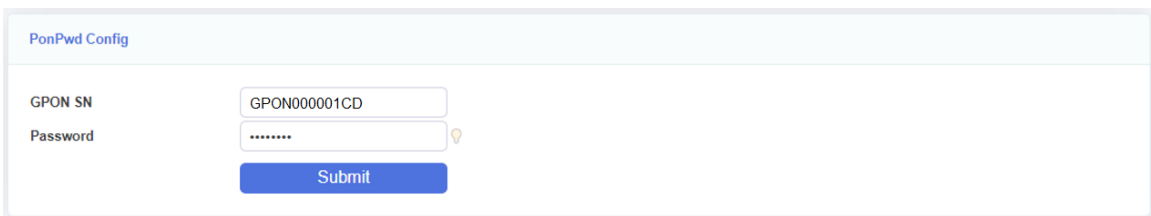
Password: *****

Submit

Figure 3-3-5: LOID Config

3.3.2.2 PonPwd Config

GPON PLOAM Password is used for the registration and distribution of the new device, please do not change it. Restart the gateway if changing the Password causes business to malfunction.



PonPwd Config

GPON SN: GPON000001CD

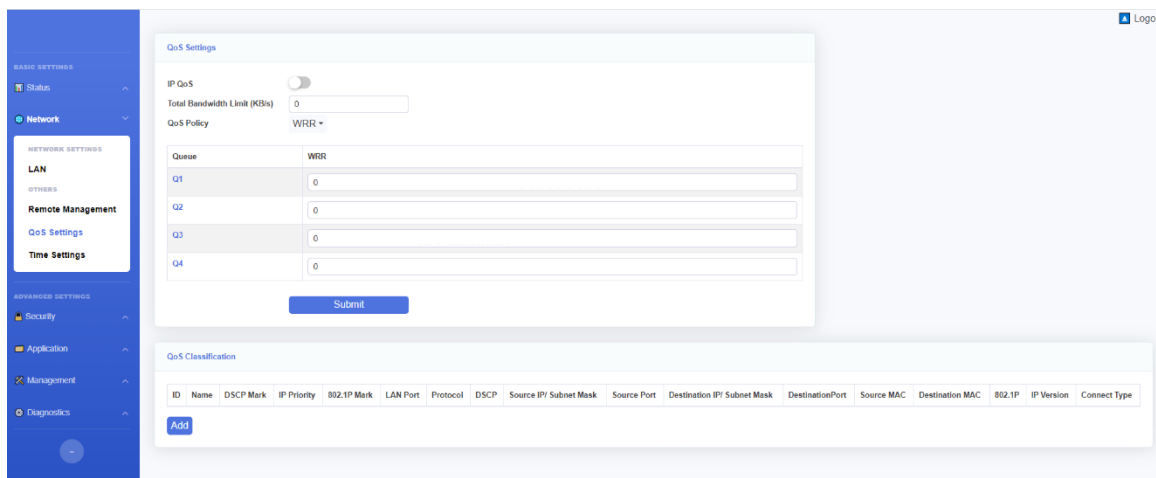
Password: *****

Submit

Figure 3-3-6: PonPwd Config

3.3.3 QoS Settings

This page allows you to configure QoS config, QoS Classification and QoS Traffic Control.



QoS Settings

IP QoS:

Total Bandwidth Limit (KB/s): 0

QoS Policy: WRR +

Queue	WRR
Q1	0
Q2	0
Q3	0
Q4	0

Submit

QoS Classification

ID	Name	DSCP Mark	IP Priority	802.1P Mark	LAN Port	Protocol	DSCP	Source IP/Subnet Mask	Source Port	Destination IP/Subnet Mask	Destination Port	Source MAC	Destination MAC	802.1P	IP Version	Connect Type
Add!																

Figure 3-3-7: QoS Settings

3.3.3.1 QoS Settings

This page is used to configure the QoS policy and Queue. If select PRIO of policy, the lower numbers imply greater precedence. If select WRR of policy, please input the weight of this queue. After configuration, please click 'Submit'.

QoS Settings

IP QoS

Total Bandwidth Limit (KB/s)

QoS Policy WRR ▾

Queue	WRR
Q1	<input type="text" value="0"/>
Q2	<input type="text" value="0"/>
Q3	<input type="text" value="0"/>
Q4	<input type="text" value="0"/>

Figure 3-3-8: QoS Settings

3.3.3.2 QoS Classification

This page is used to configure the QoS classification. Click on the "Add" button to add the network traffic control type rules.

QoS Classification

ID	Name	DSCP Mark	IP Priority	802.1P Mark	LAN Port	Protocol	DSCP	Source IP/ Subnet Mask	Source Port	Destination IP/ Subnet Mask	DestinationPort	Source MAC	Destination MAC	802.1P	IP Version	Connect Type
<input type="button" value="Add"/>																

Figure 3-3-9: QoS Classification

Add IP QoS Traffic Shaping Rule

IP protocol version	IPv4 ▾
Flow control type name	<input type="text"/>
Specify IP Priority Tags	Queue 1 ▾
DSCP/TC Remark	Default(000000) ▾
802.1p Remark	NONE ▾
Mode Selection	General mode ▾
Physical LAN Port	None ▾
Protocol	None ▾
DSCP Check	Default(000000) ▾
802.1p Priority	NONE ▾
Source IP Address	<input type="text"/>
Source subnet mask	<input type="text"/>
Destination IP Address	<input type="text"/>
Destination subnet mask	<input type="text"/>
Source start port	<input type="text"/>
Source end port	<input type="text"/>
Destination start port	<input type="text"/>
Destination end port	<input type="text"/>
Source MAC	<input type="text"/>
Destination MAC	<input type="text"/>

Figure 3-3-10: Add IP QoS Traffic Shaping Rule

parameter	illustration
IP protocol version	Select IPv4 or IPv6.
Flow control type name	Input this rule name.

Specify IP Priority Tags	Select queue.
DSCP/TC Remark	Select DSCP tag.
802.1p Remark	Set the 802.1p value.
Mode Selection	Select the general mode or the application type.
Physical LAN Port	Select the physical LAN port to which this rule applies.
Protocol	Select Protocol.
DSCP Check	Select DSCP Check mark.
802.1p Priority	Input 802.1p Priority.
Source IP Address	Input source IP address.
Source subnet mask	Input the source subnet mask.
Destination IP Address	Input destination IP address.
Destination subnet mask	Input the destination subnet mask.
Source start Port	Input source start port.
Source end Port	Input source end port.
Destination start Port	Input destination start port.
Destination end Port	Input destination end port.
Source MAC (xx:xx:xx:xx:xx:xx)	Input source MAC.
Destination MAC (xx:xx:xx:xx:xx:xx)	Input destination MAC.

3.3.4 Time Settings

This page allows you to configure a time zone. After selecting the check box, select the time zone to set, click "Sync with browser", and finally click "Submit" button to save.

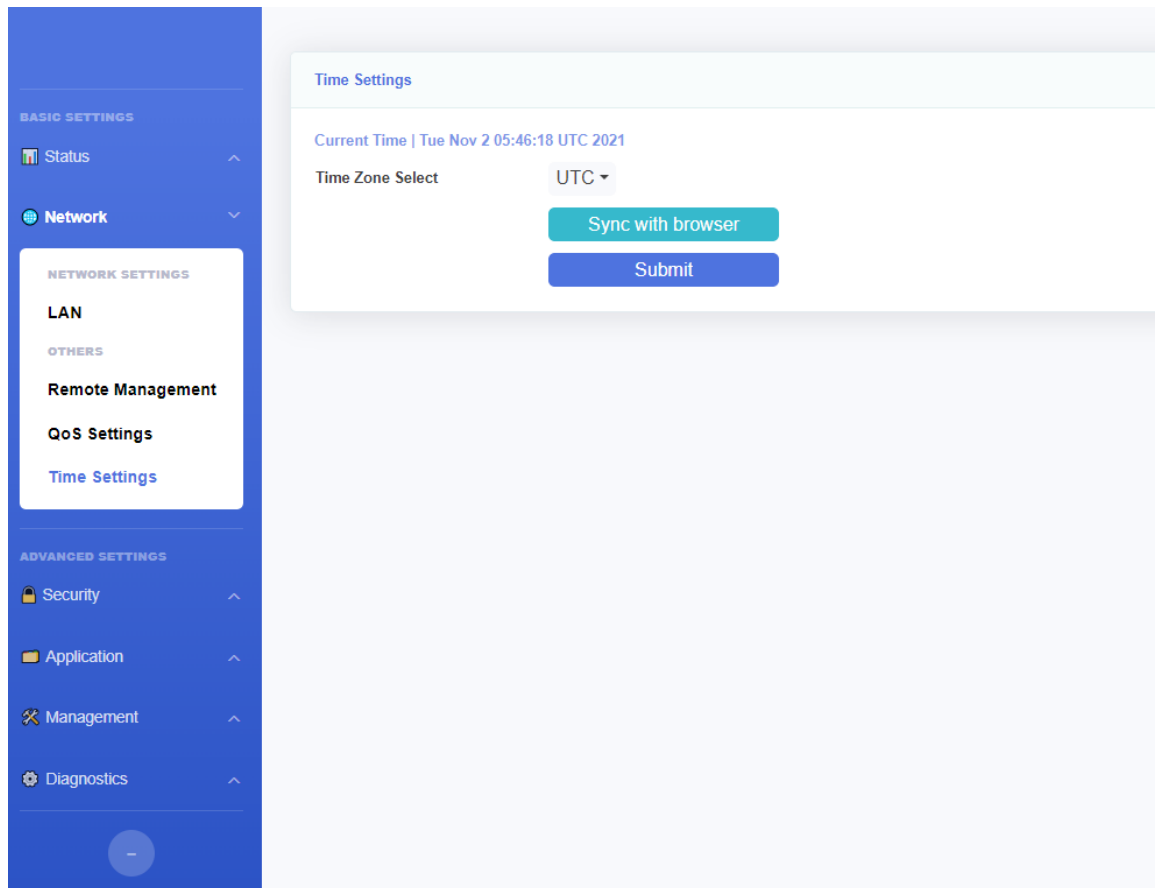


Figure 3-3-11: Time Settings

3.4 Security

3.4.1 Firewall

This page allows you to configure the firewall level and attack protection status. The Firewall has two levels: Low and High. When the firewall level is set to low, the login permission screen is displayed automatically.

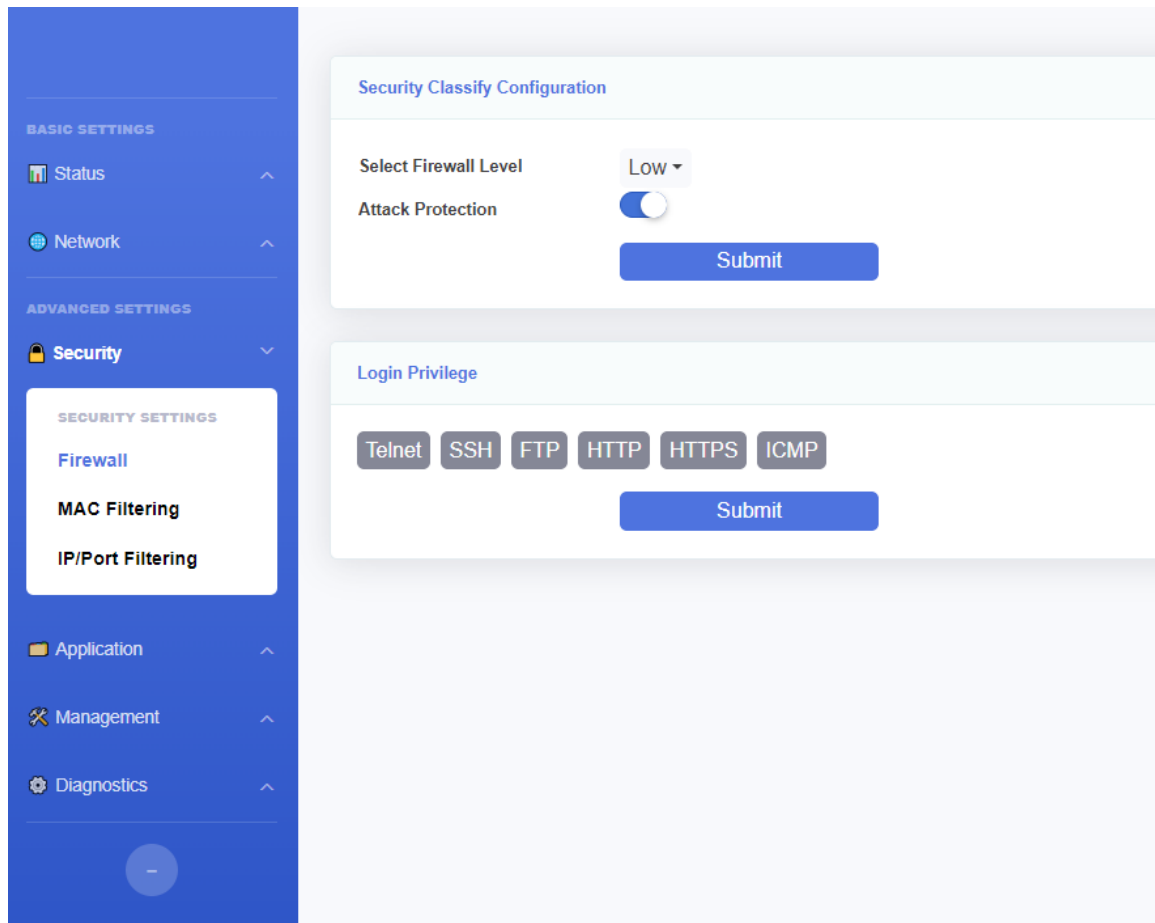


Figure 3-4-1: Security Classify Configuration

Parameter	Illustration
Firewall Level	Low: Protect nothing. High: Forbid ICMP Input, Forbid Port Scan, Denial of Service protections.

3.4.1.1 Login Privilege

This page is used to configure the access control and common ports on the upstream and downstream directions. By default, ONU can't be accessed from WAN side by telnet, web and so on.

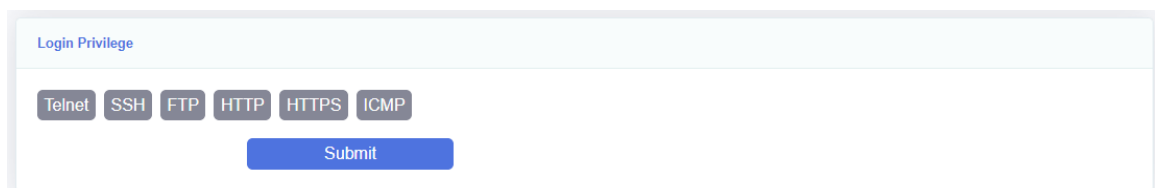


Figure 3-4-2: Login Privilege

3.4.2 MAC Filtering

This page allows you to configure MAC address filters. When a packet enters a LAN port, it is either discarded or received based on MAC filtering rules.

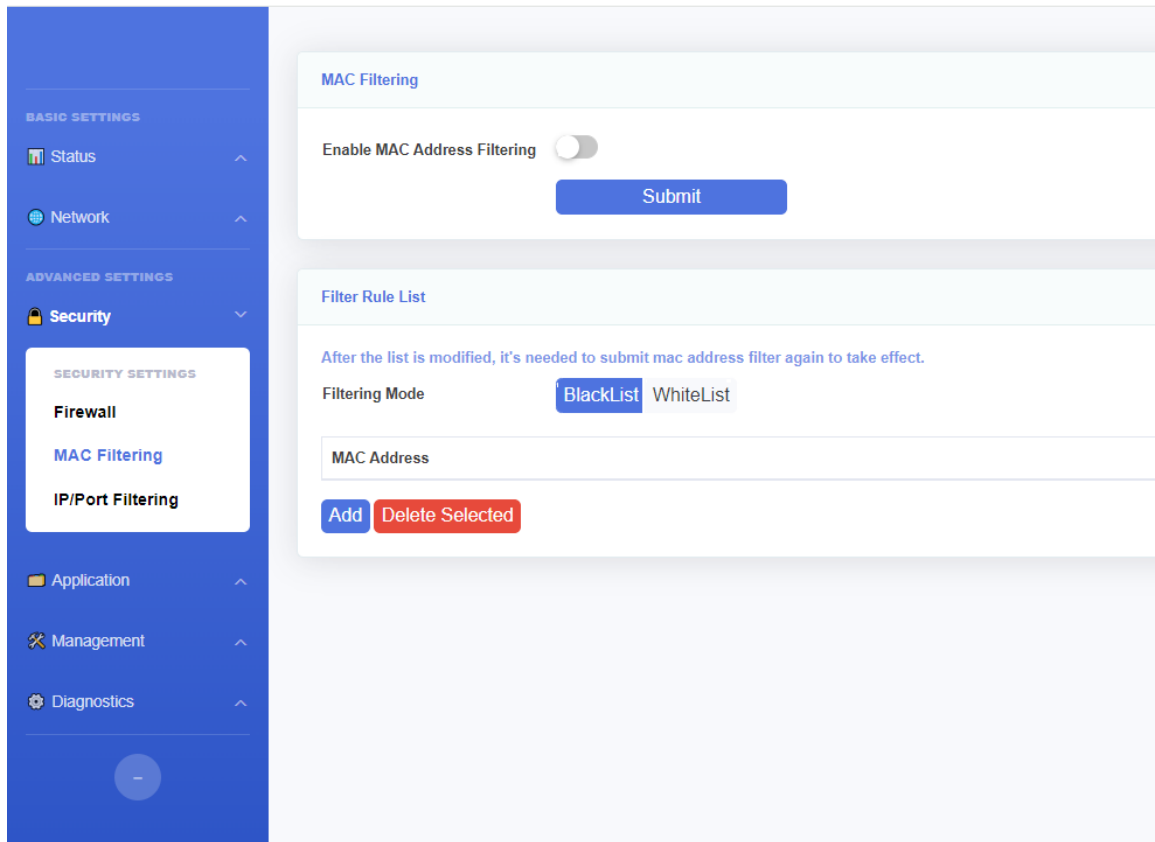


Figure 3-4-3: MAC Filtering

Parameter	Illustration
Enable Mac Address Filtering	unchecked: Disable Mac Filter. checked: Enable Mac Filter.
Filtering Mode	Black List: MAC Address in the list will be forbidden and others will be accessed. White List: Mac Address in the list will be accessed and others will be forbidden.
MAC Address	Input the MAC address and click the “Add” button to add MAC address to the table. Select “Delete” checkbox and then click “Delete Selected” button to remove MAC address from the table.

3.4.3 IP/Port Filtering

This page is used to configure port filter. Port filter includes many kinds of filters, such as IP filter, protocol filter and port filter. Black list and White list take effect simultaneously.

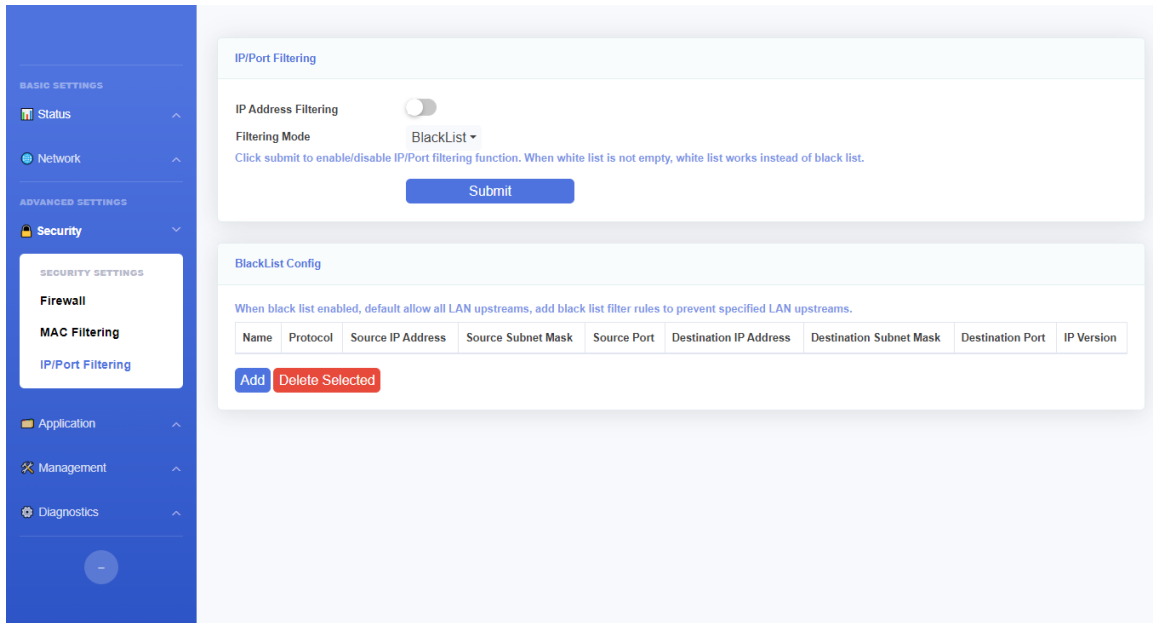


Figure 3-4-4: IP / Port Filtering

Add IP/Port Filter - Out

Filter Name	<input type="text"/>
IP Version	IPv4 ▾
Protocol	TCP/UDP ▾
Source Start Address	<input type="text"/>
Source End Address	<input type="text"/>
Source subnet mask	<input type="text"/>
Destination Start Address	<input type="text"/>
Destination End Address	<input type="text"/>
Destination subnet mask	<input type="text"/>
Source start port	<input type="text"/>
Source end port	<input type="text"/>
Destination start port	<input type="text"/>
Destination end port	<input type="text"/>

Figure 3-4-5: Add IP/Port Filter -Out

Parameter	Illustration
IP Address Filtering	Switch of IP/port filtering.
Filter Mode	Black List: Rule in the list will be forbidden and others will be accessed. White List: Rule in the list will be accessed and others will be forbidden.
Filter Rule Settings	
Filter Name	Input filter name.
IP Version	IPv4 or IPv6.
Protocol	Input the protocol you want to configure in the rule.
Source start IP Address	Input the source start IP address you want to configure in the rule.
Source end IP Address	Input the source end IP address you want to configure in the rule.
Source Subnet Mask	Input the mask of source IP address. Only need to configure when using single IP address.
Destination start IP Address	Input the destination start IP address you want to configure in the rule.
Destination end IP Address	Input the destination end IP address you want to configure in the rule.
Destination Subnet Mask	Input the mask of destination IP address. Only need to configure when using single IP address.
Source start Port	Input the source start port you want to configure in the rule.
Source end Port	Input the source end port you want to configure in the rule.
Destination start Port	Input the destination start port you want to configure in the rule.
Destination end Port	Input the destination end port you want to configure in the rule.

3.5 Application

3.5.1 Multicast Settings

This page allows you to enable or disable the IGMP/MLD Snooping function.

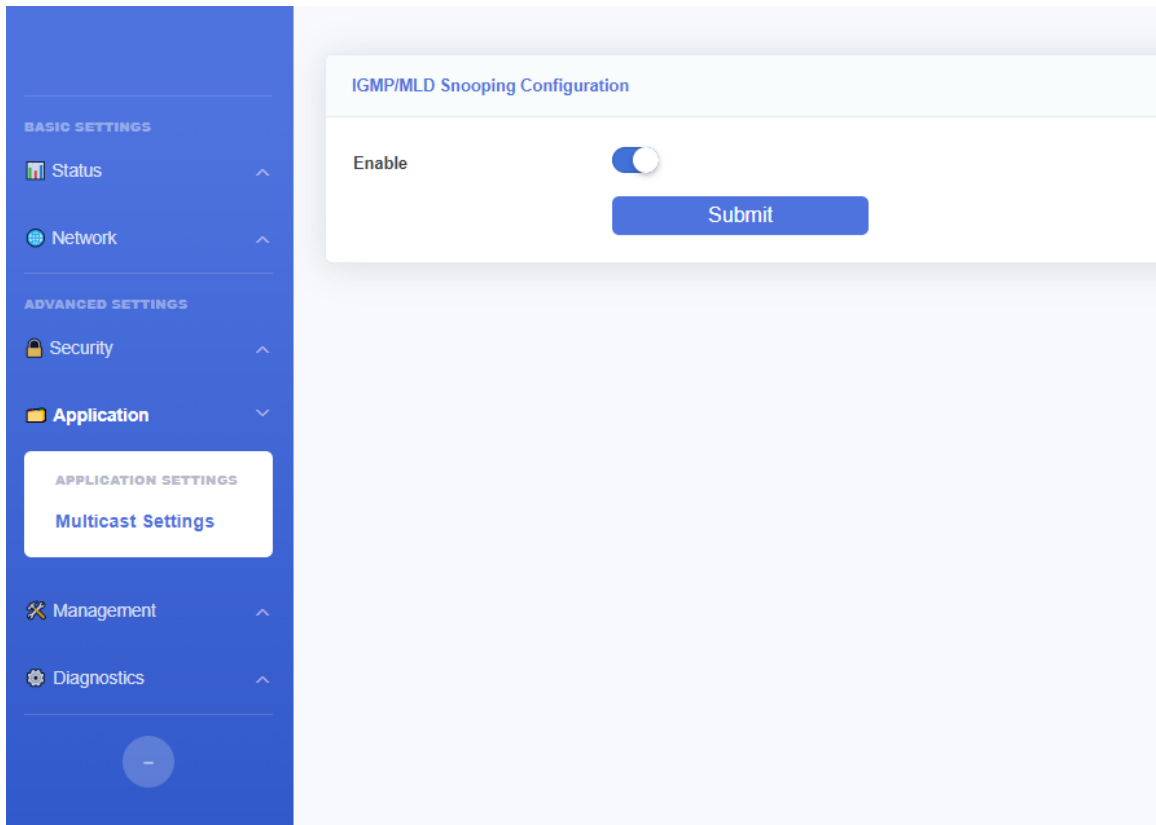
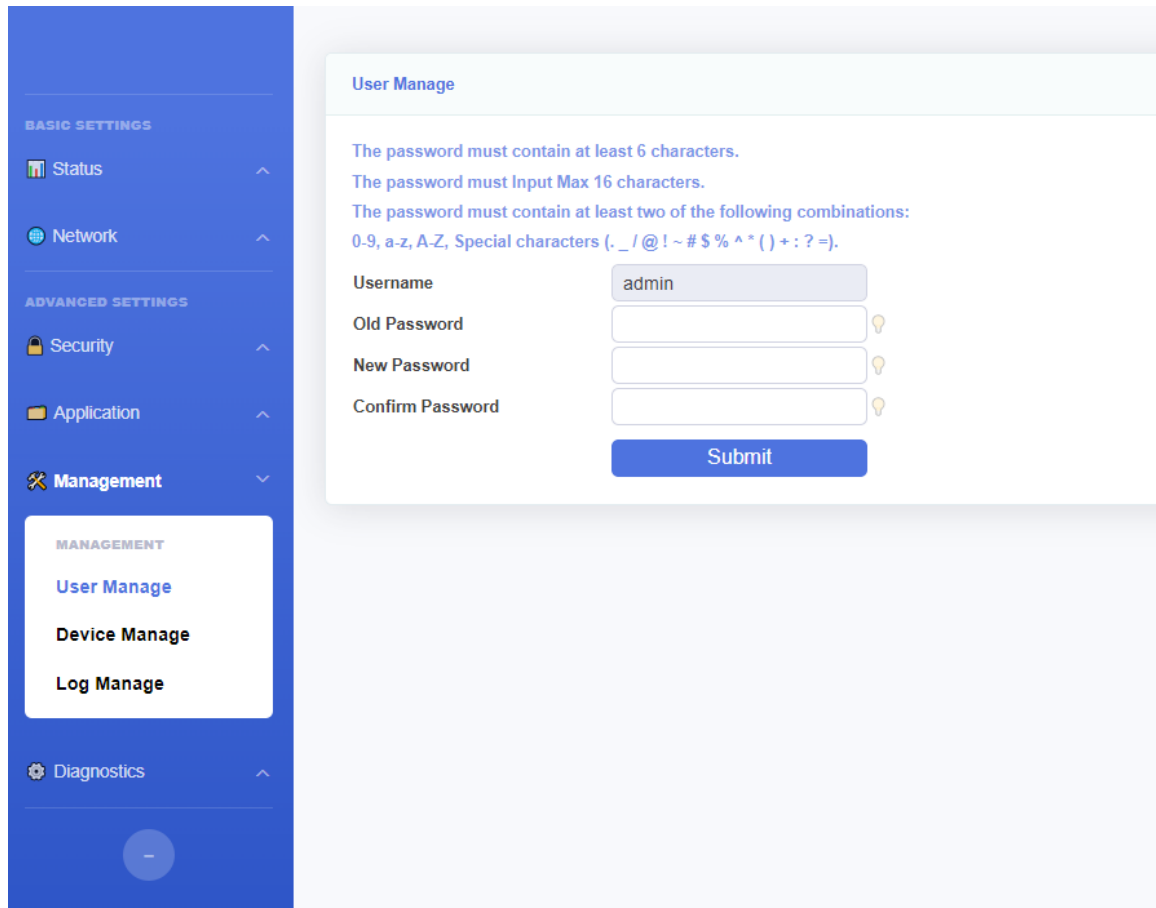


Figure 3-5-1: Multicast Settings

3.6 Management

3.6.1 User Manage

This page allows you to change the login password of the current user.



The screenshot displays the 'User Manage' page. On the left is a blue sidebar with the following sections:

- BASIC SETTINGS**
 - Status
 - Network
- ADVANCED SETTINGS**
 - Security
 - Application
 - Management** (expanded to show:
 - User Manage** (selected)
 - Device Manage
 - Log Manage)
 - Diagnostics

The main content area is titled 'User Manage' and contains the following instructions and form fields:

- The password must contain at least 6 characters.
- The password must Input Max 16 characters.
- The password must contain at least two of the following combinations:
0-9, a-z, A-Z, Special characters (. _ / @ ! ~ # \$ % ^ * () + : ? =).

The form fields are:

- Username:
- Old Password:
- New Password:
- Confirm Password:

A blue 'Submit' button is located at the bottom of the form.

Figure 3-6-1: User manage

3.6.2 Device Manage

This page allows you to manage devices, including upgrade, restart, restore factory default configuration, etc.

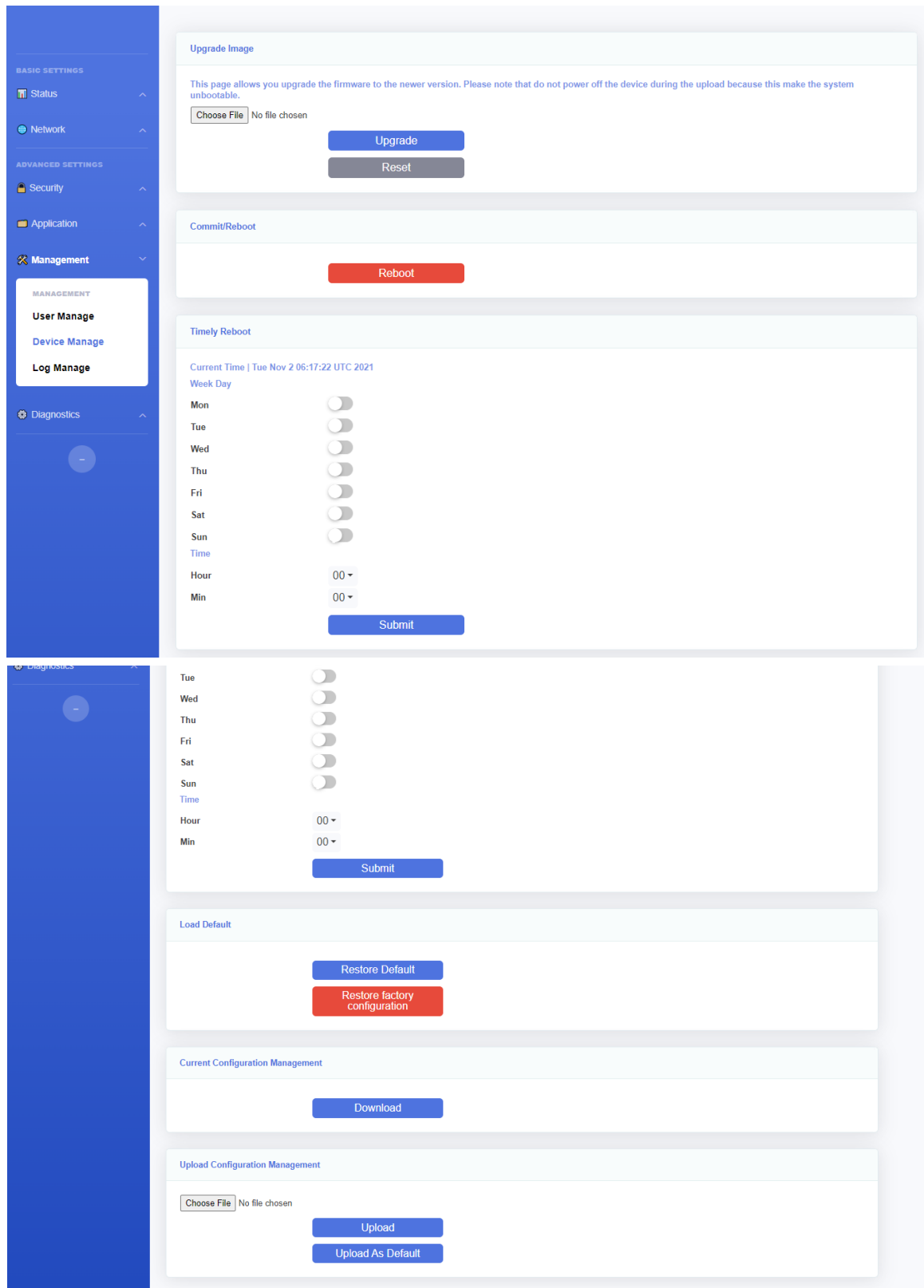
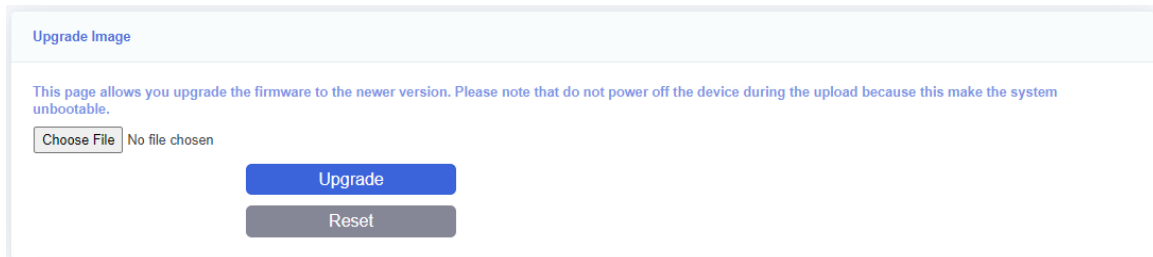


Figure 3-6-2: Device Manage

3.6.2.1 Upgrade Image

This page allows you to upgrade the device. You can select the upgrade firmware and click "Upgrade" to upgrade device. Please keep the power on, otherwise this device will be damaged. It will reboot automatically when finish upgrade.

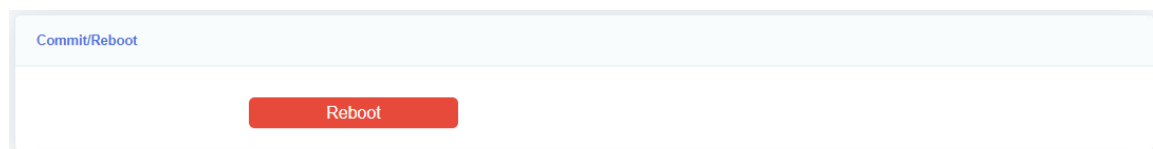


The screenshot shows a web interface titled "Upgrade Image". Below the title, there is a warning message: "This page allows you upgrade the firmware to the newer version. Please note that do not power off the device during the upload because this make the system unbootable." Below the message, there is a file selection area with a "Choose File" button and the text "No file chosen". At the bottom of the interface, there are two buttons: a blue "Upgrade" button and a grey "Reset" button.

Figure 3-6-3: Upgrade Image

3.6.2.2 Commit/Reboot

This page allows you to reboot the device. The process of reboot will take several minutes.

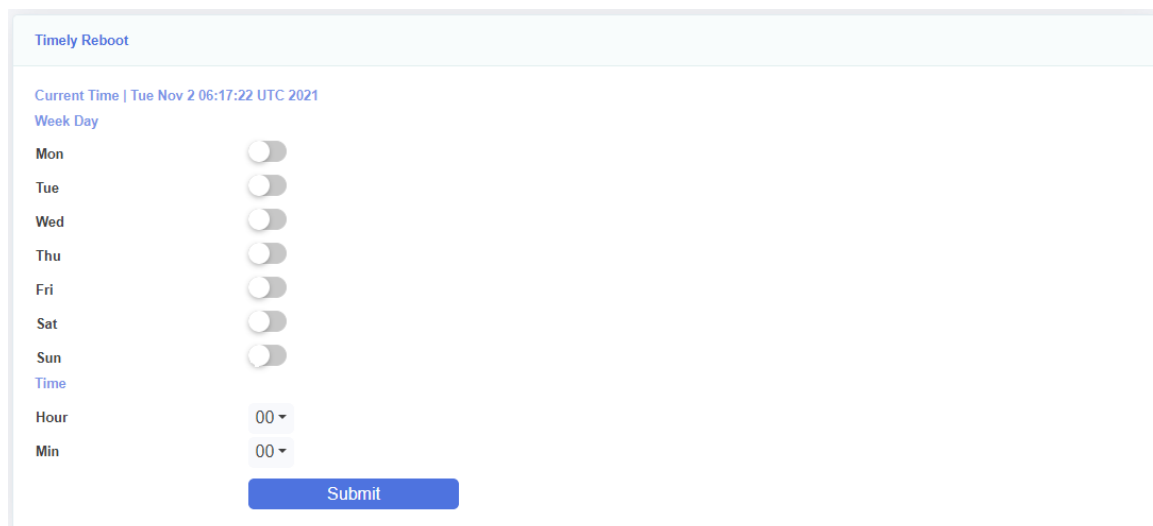


The screenshot shows a web interface titled "Commit/Reboot". In the center of the interface, there is a single red button labeled "Reboot".

Figure 3-6-4: Commit/Reboot

3.6.2.3 Timely Reboot

This page is used to configure timely reboot. The device will reboot at the set time, but the function will take effect only after time synchronization.



The screenshot shows a web interface titled "Timely Reboot". At the top, it displays the current time: "Current Time | Tue Nov 2 06:17:22 UTC 2021". Below this, there is a section for "Week Day" with a list of days (Mon, Tue, Wed, Thu, Fri, Sat, Sun) and corresponding toggle switches, all of which are currently turned off. Below the days, there is a "Time" section with "Hour" and "Min" dropdown menus, both set to "00". At the bottom of the interface, there is a blue "Submit" button.

Figure 3-6-5: Timely Reboot

3.6.2.4 Load Default

This page allows you to restore the device to default settings. You can click “Restore Default” or "Restore factory configuration" button to restore settings of the device. "Restore Default" button restores the LAN parameter, "Restore Factory configuration" button restores all the ONU configurations. After restored, it will restart automatically.

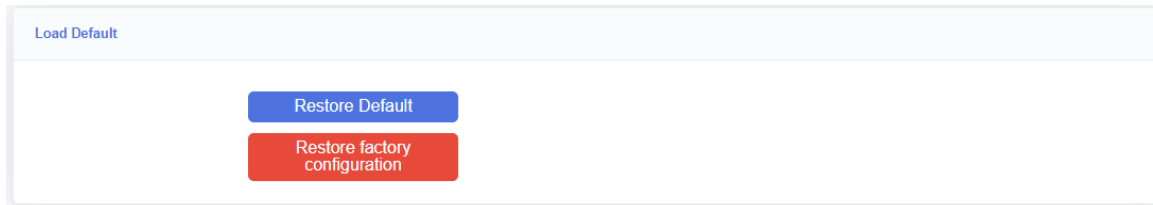


Figure 3-6-6: Load Default

3.6.2.5 Current Configuration Management

This page allows you to backup the configurations of ONU. "Download" button can download the current configuration file to your PC. "Cancel self custom default" button can remove your previous default configuration which uploaded before.

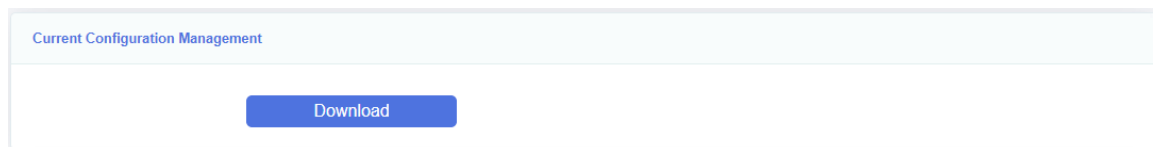


Figure 3-6-7: Current Configuration Management

3.6.2.6 Upload Configuration Management

This page allows you to restore the configurations of ONU. "Upload" button can upload the configuration file to the device. "Upload As Default" button can upload your configuration file as default configuration.

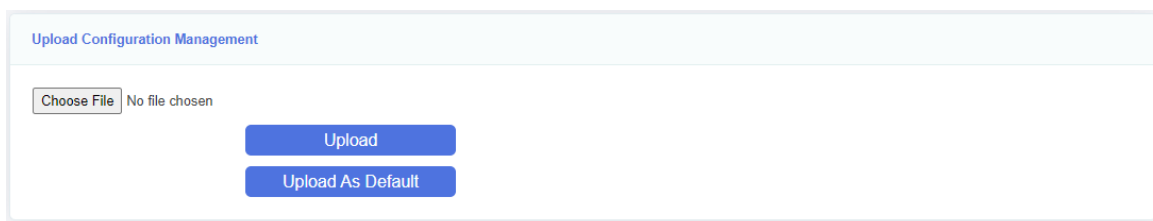


Figure 3-6-8: Upload Configuration Management

3.6.3 Log Manage

This page allows you to make some settings on the system log including record, view, download logs

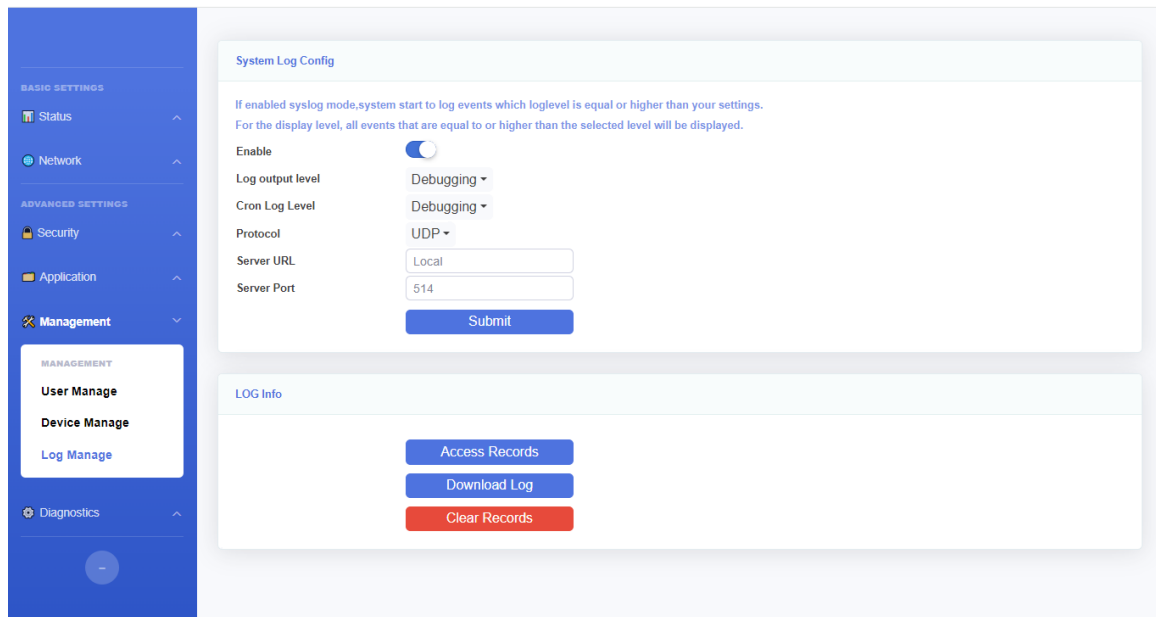


Figure 3-6-9: Log Manage

3.6.3.1 System Log Config

This page allows you to set up log level and display level, and log server as well.

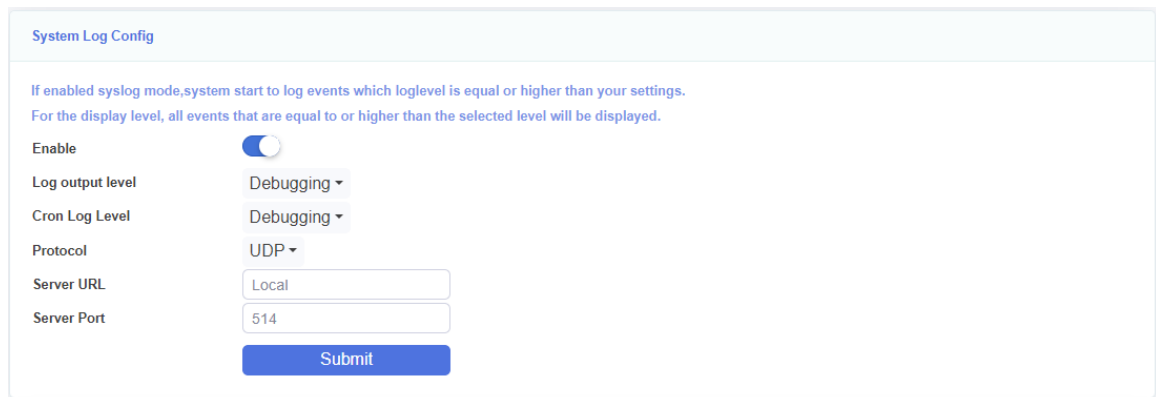


Figure 3-6-10: System Log Config

Parameters	Illustration
Log output level	Log record level, include Emergency, Alert, Critical, Error, Warning, Notice, Informational, Debugging.
Cron Log Level	Log display level, include Emergency, Alert, Critical, Error, Warning, Notice, Informational, Debugging.

3.6.3.2 LOG Info

This page allows you to view and clear the log information.

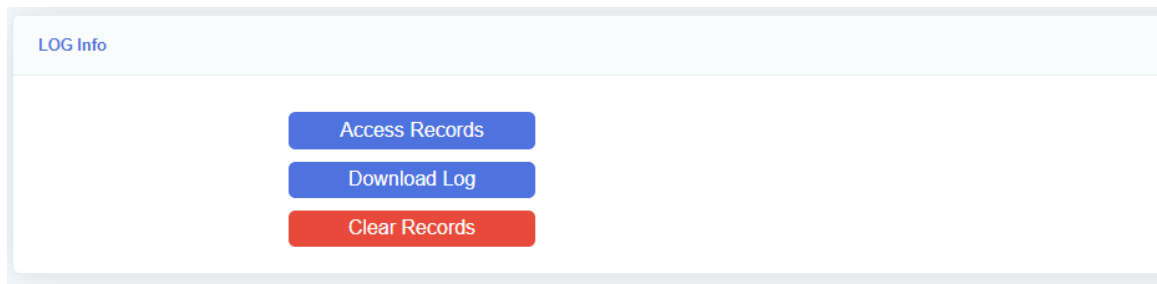


Figure 3-6-11: Log Info

3.7 Diagnostics

3.7.1 Network diagnostics

3.7.1.1 Network diagnostics

This page is used for ping test and traceroute test. You can diagnose connection status between ONU and other devices. Please note that when the traceroute is running, do not perform the traceroute test again.

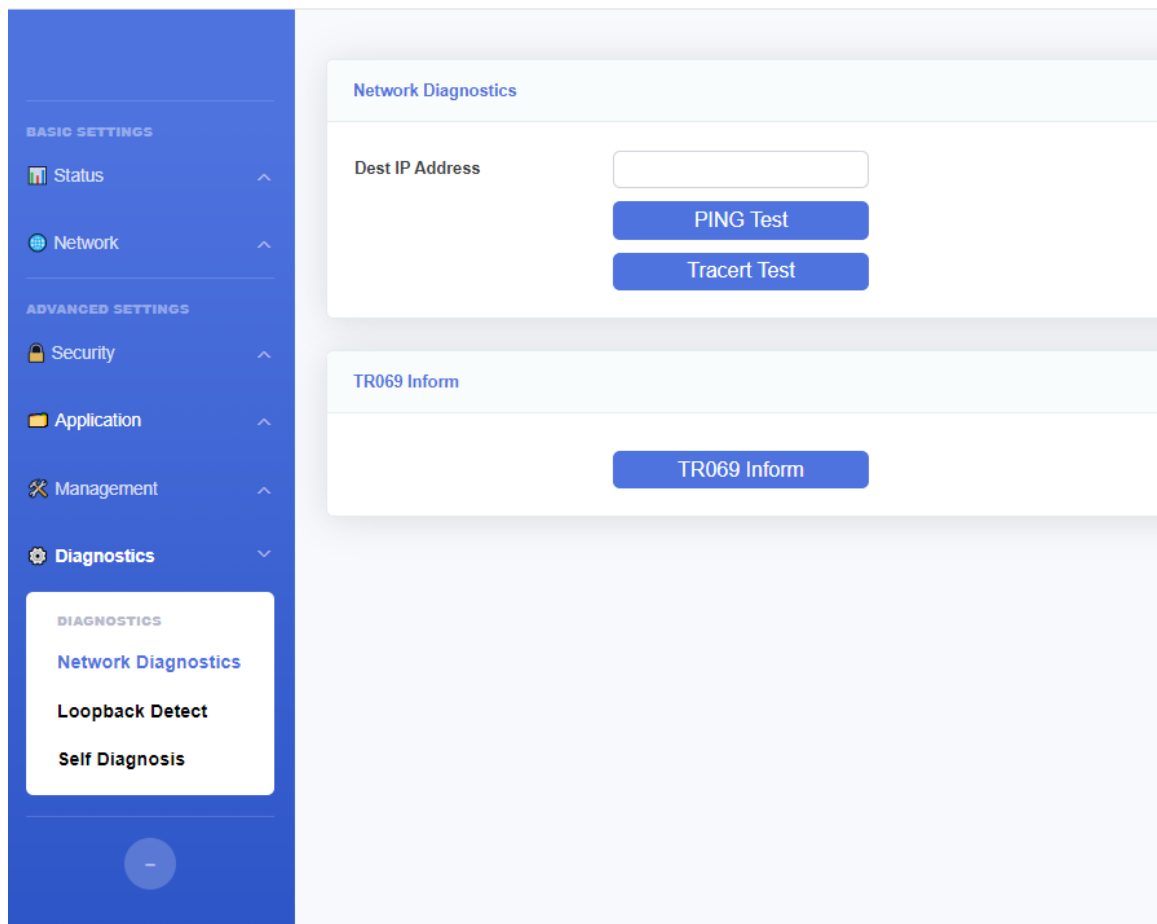


Figure 3-7-1: Network Diagnostics

3.7.1.2 TR069 Inform

This page is used to manually send TR069 inform to ACS.

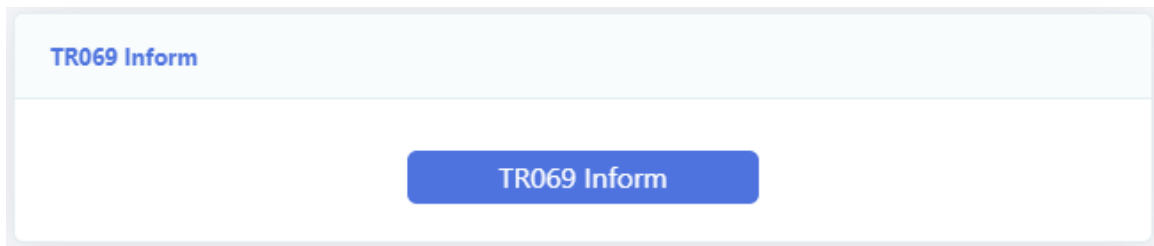


Figure :3-7-2 TR069 Inform

3.7.2 Loopback Detect

3.7.2.1 Loopback Test

This page is used to configure loopback detect function. By default, loop detection is turned on.

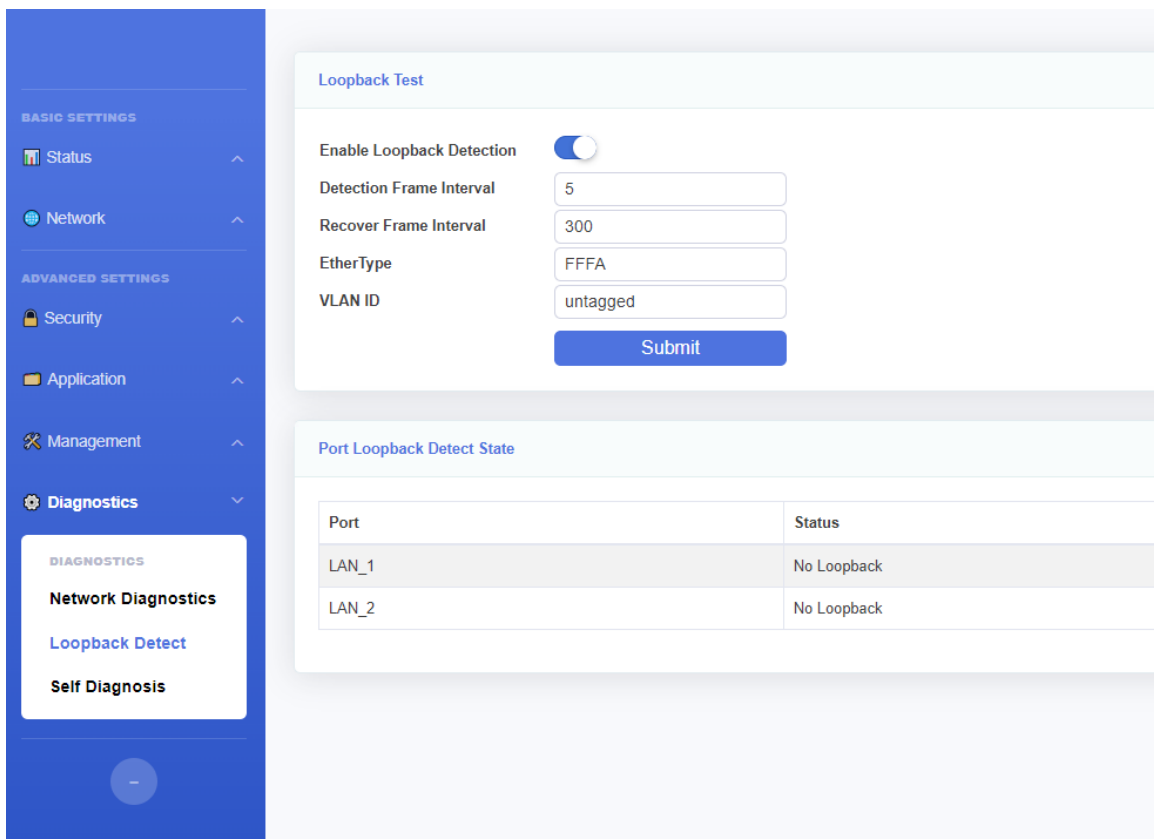


Figure 3-7-3: Loopback Test

3.7.2.2 Port Loopback Detect State

This page is used to show the loop status of each port.

Port Loopback Detect State	
Port	Status
LAN_1	No Loopback
LAN_2	No Loopback

Figure 3-7-4: Port Loopback Detect state

3.7.3 Self Diagnosis

This page is used for intelligent diagnosis of device running status, port connection status, and network connection status. In addition, it provides debugging functions for technical personnel, such as console log download and packet capture.

The screenshot shows the 'Self Diagnosis' page with a left-hand navigation menu. The main content area is divided into four sections:

- Self Diagnosis:** Features an 'Enable' toggle switch (currently off) and a blue 'Submit' button.
- Console Log:** Features a blue 'Download Log' button and a red 'Clear Records' button.
- Pon Debug Status:** Includes a warning: 'The PON process outputs debugging information to the console log. Enabling Pon Debug affects system performance. Disable Pon Debug when it is not needed.' Below this is an 'Enable' toggle switch (currently off) and a blue 'Submit' button.
- Capture Packets:** Includes information: 'Count mode: automatically stops when the number of packets reaches 5000. Rotate mode: rotates the dump file. Capture size: 3MB - 6MB.' Below this are 'Capture Mode' buttons for 'Count' and 'Rotate', an 'Interface' dropdown menu set to 'All', and a blue 'Start' button.

Figure 3-7-5: Self Diagnosis

3.7.3.1 Console Log

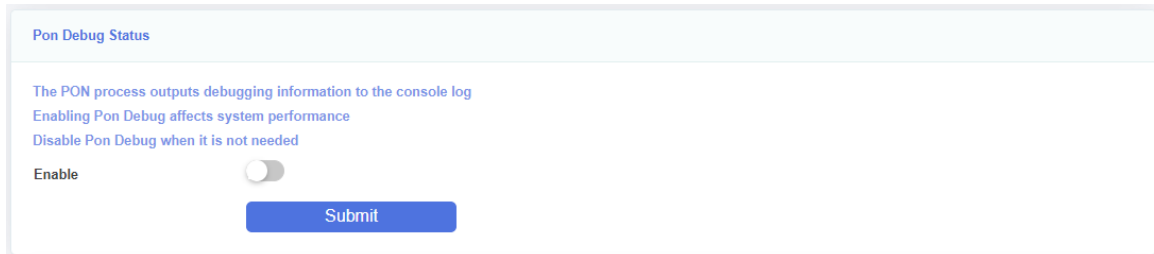
This page allows you to download and clear console logs to your PC.

The screenshot shows the 'Console Log' page with a light blue header. Below the header, there are two buttons: a blue 'Download Log' button and a red 'Clear Records' button.

Figure 3-7-6: Console Log

3.7.3.2 Pon Debug Status

This page enables the debugging function of the PON port of the ONU. After the debugging function is enabled, the debugging output of the PON port is recorded in console logs.

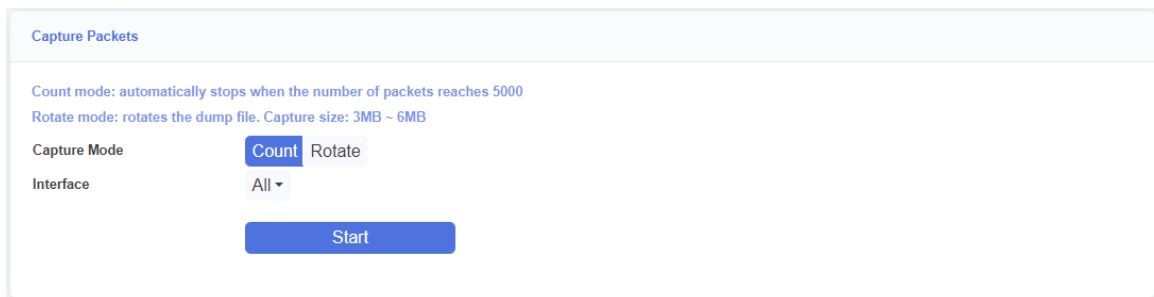


The screenshot shows a web interface for "Pon Debug Status". It includes a title "Pon Debug Status" and a description: "The PON process outputs debugging information to the console log". Below this, there are two lines of text: "Enabling Pon Debug affects system performance" and "Disable Pon Debug when it is not needed". A toggle switch is currently in the "Off" position, with the label "Enable" to its left. A blue "Submit" button is located below the toggle switch.

Figure 3-7-7: Pon Debug Status

3.7.3.3 Capture Packets

This page is used to enable packet capture on an internal interface of the ONU. The packet capture file is automatically exported after the packet capture is complete.



The screenshot shows a web interface for "Capture Packets". It includes a title "Capture Packets" and two lines of text: "Count mode: automatically stops when the number of packets reaches 5000" and "Rotate mode: rotates the dump file. Capture size: 3MB ~ 6MB". Below this, there are two radio buttons for "Capture Mode": "Count" (selected) and "Rotate". A dropdown menu for "Interface" is set to "All". A blue "Start" button is located below the interface dropdown.

Figure 3-7-8: Capture Packets

Chapter 4 FAQ

1. **Q:** All indicators are not lit?
A: (1) The indicator LED hasn't come up yet, you need to wait about two minutes.
(2) Power is off, or power adapter is bad.
2. **Q:** Why PON/LOS indicator flashing red?
A: (1) There is no optical signal. Maybe the fiber is broken down or the connection loosened.
(2) Optical power is too low.
(3) The fiber is dusty.
3. **Q:** LAN indicators are not lit?
A: (1) Indicator LED switch is turned off.
(2) The cable breaks down or connection loosened.
(3) The cable type incorrect or too long.
4. **Q:** PC can't visit web UI?
A: (1) PC and ONU are not in the same network fragment. By default, LAN IP is 192.168.1.1/24.
(2) The cable breaks down.
(3) IP conflict or have loopback.
5. **Q:** User can't surf the Internet normally.
A: (1) PC has set a wrong IP and gateway, or network is bad.
(2) There is a loopback or attack in network.
6. **Q:** ONU stops working after working for some time.
A: (1) Power supply is not working properly.
(2) The device overheats.