



AX1700 XGSPON OLT

Web GUI Management Manual

Revision B



ACT AX1700 XGSPON OLT Web GUI Management Manual

ACT Document Number: ACT A1700 XGSPON OLT Web GUI Management Manual

Quick Reference Guide Revision B

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For more information, contact ACT: support@ascentcomtec.com



Revision History

Revision	Date	Reason for Change
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1 Introduction

This chapter contains the following topics:

- Software Overview
- Functional Features

1.1 Software Overview

AX1700 1RU XGSPON OLT Web GUI Management System is a comprehensive Web management system, covering planning, configuration, deployment and O&M(operation and maintenance), providing intuitive visualization interfaces to gain efficient management. The software adopts B/S architecture and supports multiple users at the same time.

1.2 Functional Features

The main functional features of the OLT Web Management System are listed below:

- Visual Management and Configuration: Through the intuitive interface and visual guidance, users can easily manage and configure OLT devices to improve efficiency;
- Plug-and-Play Configuration of ONU devices: The system can quickly identify newly accessed ONU devices
 and automatically issue deployment policies, reducing the workload of manual config;
- Support User Rights Assignment: The system provides a flexible user permission management mechanism, allowing administrators to allocate permissions to different users as needed to ensure information security and effective management control;
- Support Multi-User Access with B/S Architecture: The system adopts B/S architecture, enabling users to
 access the system through common Web browsers without installing additional client software, and
 support multi-user access at the same time;
- Real-Time Performance Monitoring and Port Traffic Statistics Support: The system is capable of real-time
 performance data collection from ONUs attached to the OLT, along with port traffic statistics functionality.
 This assists users in monitoring and analyzing the operational status of the devices, facilitating prompt
 issue identification and resolution.



2 Login and Logout

This chapter contains the following topics:

- Login to Web Management System
- Logout of Web Management System

2.1 Logging in and out of the Web Management System

Precondition

OLT Web Management System adopts B/S architecture, before logging in, please ensure that there is a stable network connection between the current PC and the OLT device, and that the OLT device is functioning properly.

Default Information

OLT Web provides 4 initial users by default as follows:

Username	Role	Password	Descriptions
root	Root	admin	The user possesses full operational permissions for all managed objects within the OLT Web Management System
admin	Admin	admin	The user possesses full operational permissions within the OLT Web Management System except for deletion of users.
operator	Operator	admin	The user has access and operational permissions for common functions within the OLT Web Management System.
guest	Guest	guest	The user has only access permissions.

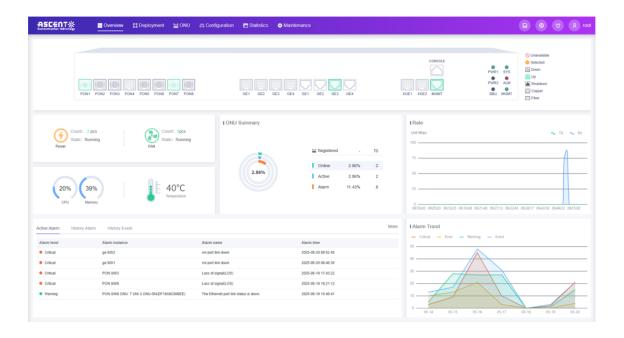
Note:

The IP address of the out-of-band network manager for the AX1700 series is 192.168.1.100. After logging in to the network element through the serial port, you can view the out-of-band network manager's IP address using the OLT(config)# show interface mgmt command.

Login to OLT Web Management System

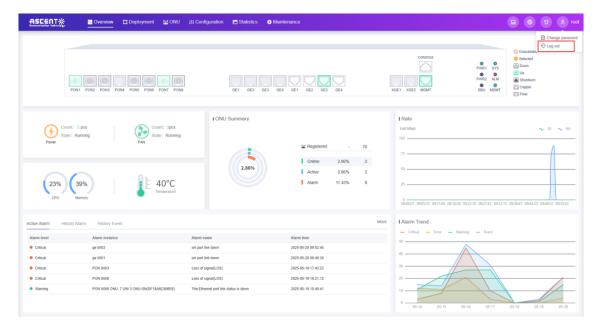
- Enter the out-of-band management IP address (192.168.1.100 by default) or in-band management IP of the OLT device in your browser's address bar to access the login page,
- Enter your username and password on the login page and click the "Login" button,
- Upon successful login, the system will redirect you to the main page of the OLT Web Management System, and a typical initial page is shown in below figure.





Logout of OLT Web Management System

- Hover or click on the "Profile" icon in the upper-right corner of the OLT Web Management System;
- Click the "Log out" option in the dropdown menu;



• Confirm by selecting the "Confirm" in the prompt dialog.



3 OLT Web Management System Overview

This chapter contains the following topic:

• OLT Web Management Interface Components

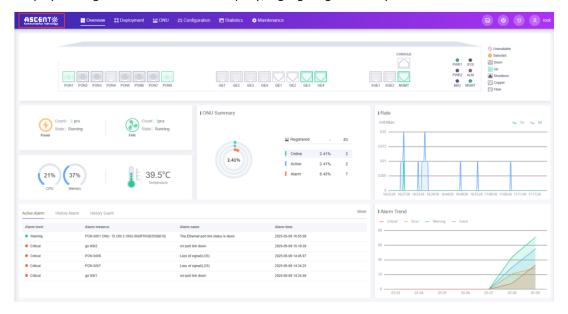
3.1 OLT Web Management Interface Components

The OLT Web Management System interface consists of the following main sections:

- Corporate Identity Zone
- Main menu area
- General function area
- Sub-menu area
- Content area

3.1.1. Corporate Identity Zone

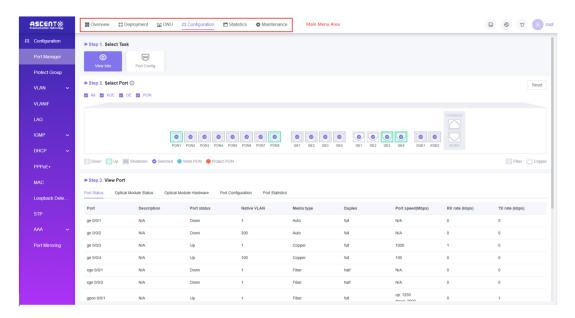
Display the Logo information of the company, highlighting the enterprise brand.



3.1.2. Main Menu Area

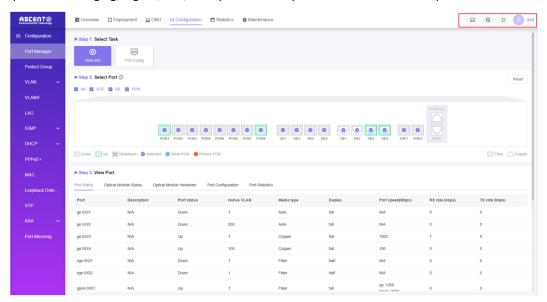
Main entry areas to various functions within the OLT Web management system.





3.1.3. General Function Area

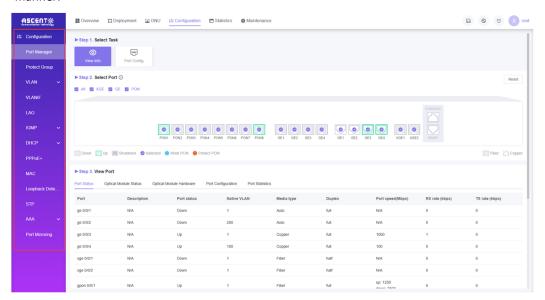
Displays the common functions and information, such as: configuration saving, language switching, color, user name, password changing, logout, etc., to improve user experience and convenient operation.





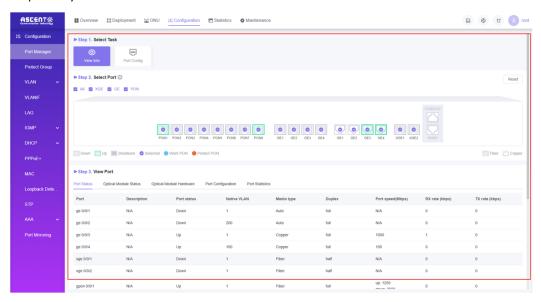
3.1.4. Sub-Menu Area

Sub-menus under the main menu, assisting users in selecting required functions and operations in a more detailed manner.



3.1.5. Content Area

Used to display the specific content of the page, presenting the various information and operational interface required by the user.





4 OLT Overview

This chapter contains the following topic:

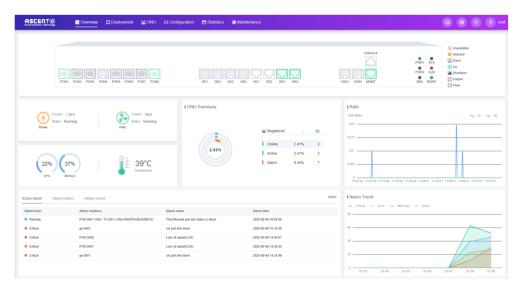
Overview Interface

4.1 Overview Interface

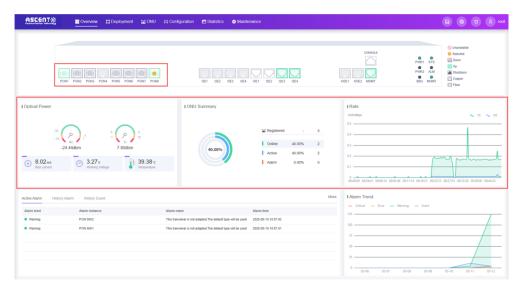
The OLT Web management system offers a comprehensive and flexible centralized monitoring method to monitor the operational status of OLT devices and their associated devices. It provides users with an intuitive display of device health and quality, facilitating efficient operations and maintenance.

- Users routinely monitor the operational status of the current OLT device, port status, and view any alarm messages and trends through the [Overview] page.
- Monitor the operational status and performance of critical resources

Device Information Overview

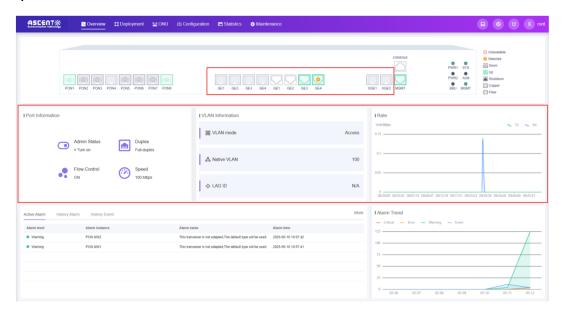


PON Ports Overview

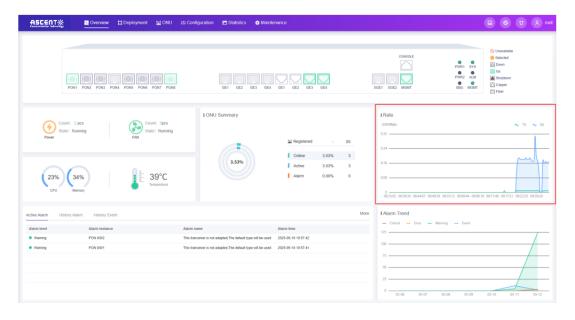




Uplink Ports Overview

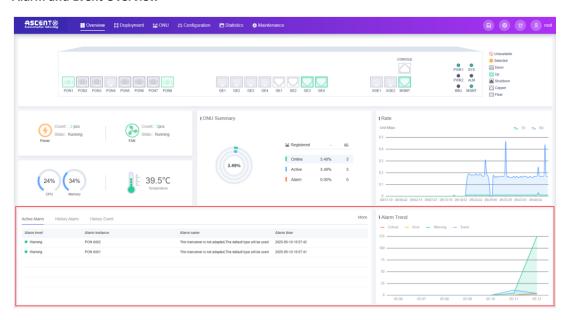


Bandwidth Monitor Overview





Alarm and Event Overview





5 ONU Deployment

This chapter contains the following topics:

- Auth Policy
- Apply Policy
- Profile

The OLT Web Management System offers the capability to plan services for PON network ONU terminal devices after the OLT device has been deployed. Once the PON terminal ONU devices are powered on, they can automatically receive business configurations according to the pre-set deployment strategy, enabling device activation.

5.1 Auth Policy

In the deployment of XGS-PON/GPON OLT networks, a significant number of ONU devices need to be deployed, which can be labor-intensive and costly to configure and test. The [Deployment] page of the OLT Web Management System facilitates simplified deployment. It only requires pre-creating the ONU Auth Policy and applying it to the OLT's PON ports. Upon the ONU online for the first time, the OLT device can automatically detect the online ONU and match it with the existing policy. Once successfully matched, the OLT device will automatically create and execute ONU deployment tasks, achieving a Plugand-Play deployment for ONU devices. This significantly enhances deployment efficiency and reduces network construction costs.

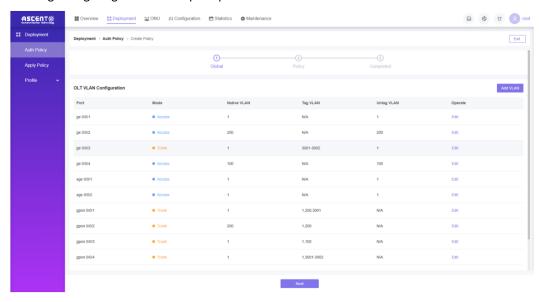
Policy List

Access path: Deployment ---->Auth Policy.

Creating Policy

- Path: Deployment ---->Auth Policy ---->Click the "Create Policy" button to enter the guidelines.
- Creating process:

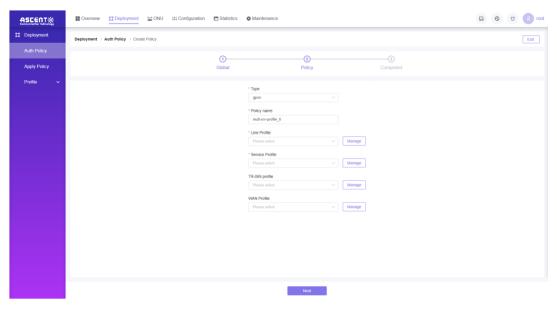
Step 1: [REQUIRED] Global Configuration - Use this operation to create global configurations for the OLT, primarily including configuring VLANs and uplink ports for the OLT.



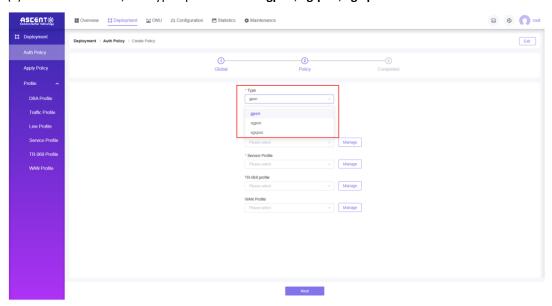


Step 2: [REQUIRED] Policy Configuration - Be used to bind Line profile, Service profile, TR-069 profile, WAN profile for auth policy.

(1) For **GPON OLT**, the Type option is **gpon** only.

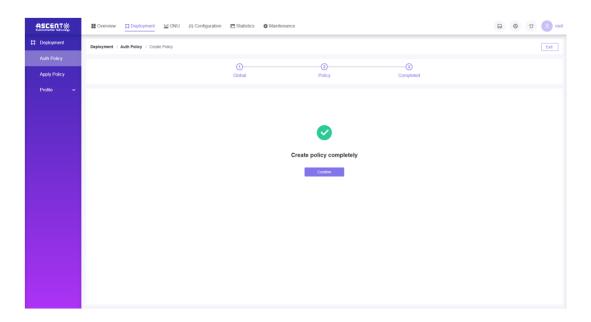


(2) For **XGS-PON OLT**, the Type option could be **gpon**, **xg-pon**, **xgs-pon**.



Step 3: [REQUIRED] Completed - The guided process of deploying the policy concludes at these steps, and the system guides the user into the process of applying the policy.

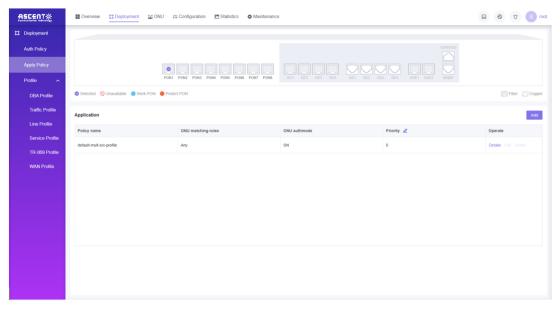




5.2 Apply Policy

Apply Policy

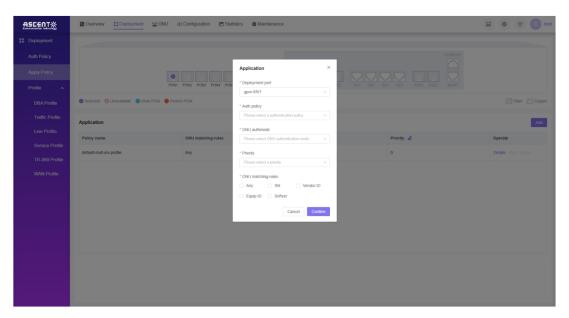
Access path: Deployment ---->Apply Policy.



Adding Policy Application Rules

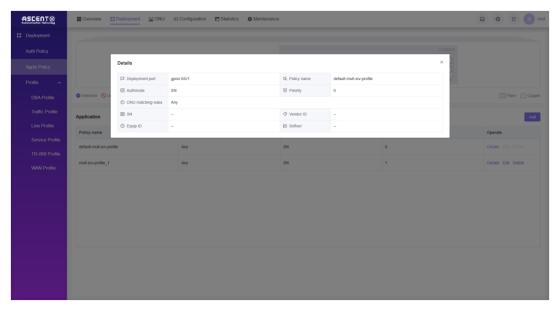
- Purpose: Used to apply the configured ONU deployment policy in the OLT Web Management System to the PON port of the OLT.
- Operation path: **Deployment** ----> **Apply Policy** ----> Select the "**PON**" port that needs to be configured ----> Click the "**Add**", and a pop-up window for policy application configuration will appear on the page.





Details of Policy Application Rules

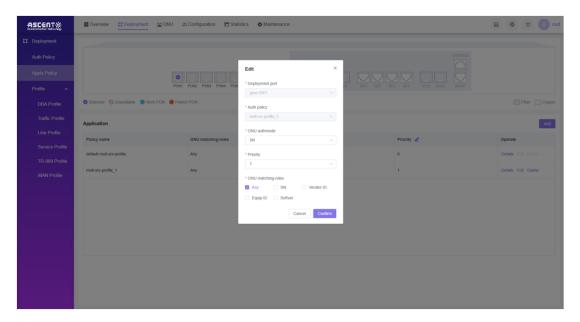
• Operation path: **Deployment** ----> **Apply Policy** ----> Select the "**PON**" ports that need to be configured ----> Select the policy application rules that need to be viewed ----> Click the "**Detail**", and a pop-up window will appear with the details of the policy application.



Rules Edit

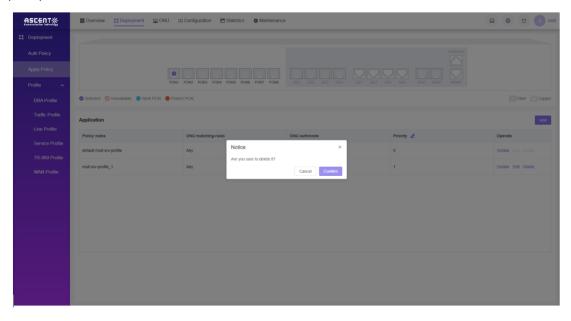
Operation path: Deployment ---->Apply Policy ---->Select the "PON" ports that need to be configured ---->Select
the policy application rules that need to be edited ---->Click the "Edit", and a pop-up window will appear on the
page for editing the policy application.





Delete Policy Application Rules

• Operation path: **Deployment** ----> **Apply Policy** ----> Select the "**PON**" ports that need to be configured ----> Select the policy application rules that need to be deleted ----> Click the "**Delete**", and the page will pop up the delete prompt.





5.3 Profile

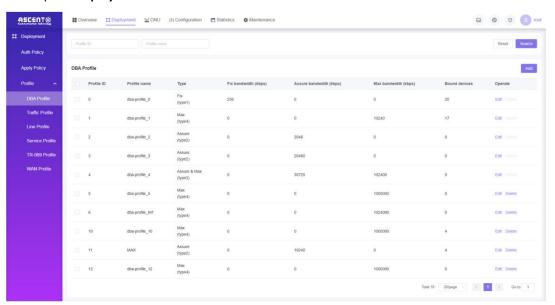
The profile configuration function integrates relevant configuration information, and users only need to select a pre-set profile to bind ONU, which improves the efficiency of management configuration. The profile function provides 6 types of profile configurations, including DBA Profile, Traffic Profile, Line Profile, Service Profile, TR-069 Profile, WAN Profile.

5.3.1. DBA Profile

In XGS-PON/GPON networks, uplink dynamic bandwidth allocation (DBA) technology is the key to achieving efficient utilization of network resources. DBA technology can dynamically adjust the upstream bandwidth allocation of ONUs based on their bandwidth requirements and network conditions, ensuring that network resources are fully utilized. The DBA Profile is used to set a predetermined bandwidth for the ONU..

DBA Profile List

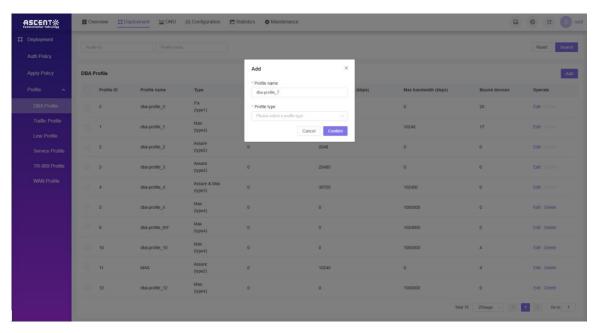
• Access path: Deployment ----> Profile ----> DBA Profile.



Add DBA Profile

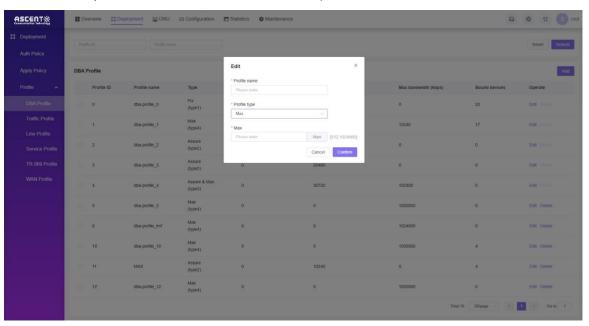
• Path: Deployment ----> Profile ----> DBA Profile ----> Click the "Add" button and a pop-up windows will apprear.





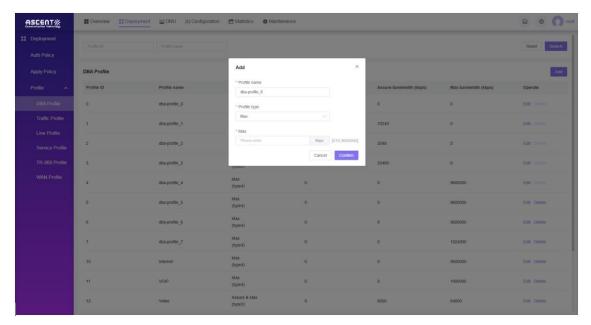
Edit DBA Profile

- Access path: Deployment ---->Profile ---->DBA Profile---->Select the DBA profile needed to be edited ---->Click
 the "Edit", and the DBA profile editing pop-up window will appear.
- (1) For **GPON DBA profile**, the max bandwidth is 1024000 kbps.



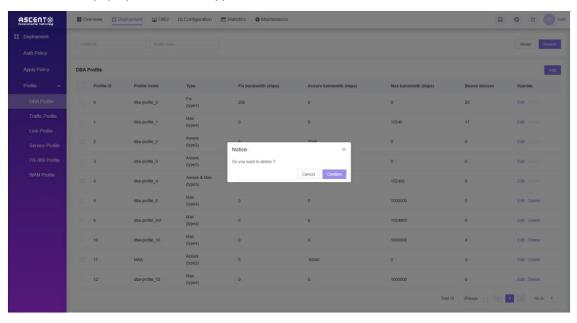
(2) For **XGS-PON DBA profile**, the max bandwidth is 9600000 kbps.





Delete DBA Profile

Access path: Deployment ---->Profile ---->DBA Profile---->Click the "Delete" that the DBA profile needed to be
deleted, and a pop-up windows will apprear.



• Click the "Confirm" to delete it.

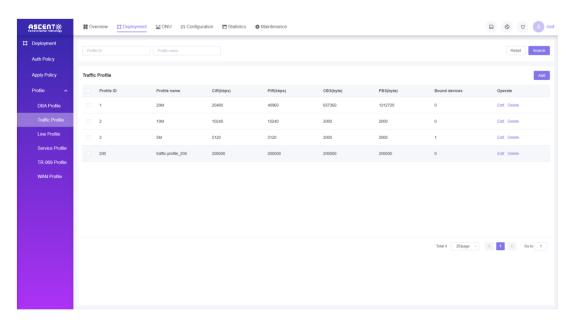
5.3.2. Traffic Profile

The Traffic Profile is used to set a predetermined speed rate to limit device.

Traffic Profile List

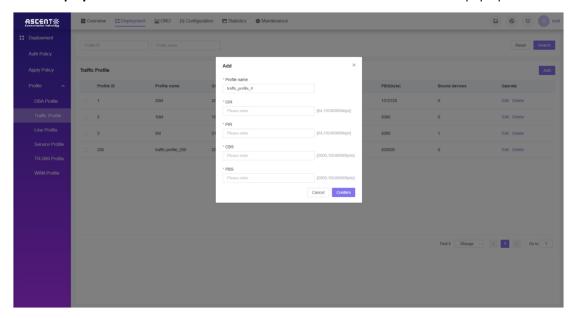
Access path: Deployment ----> Profile ----> Traffic Profile.





Add Traffic Profile

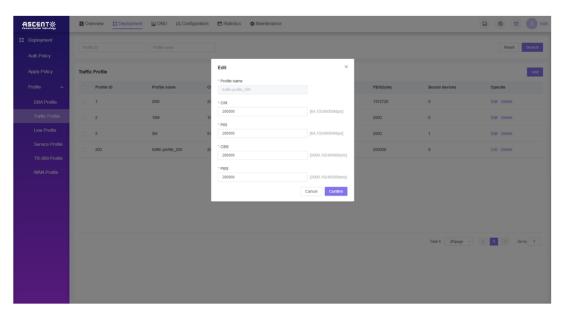
• Path: Deployment ----> Profile ----> Traffic Profile ----> Click the "Add" button and a pop-up windows will apprear.



Edit Traffic Profile

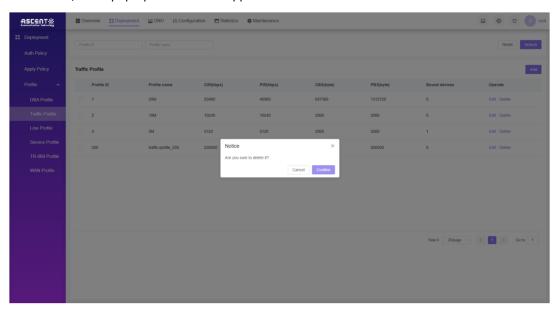
Access path: Deployment ----> Profile ----> Traffic Profile----> Select the Traffic profile needed to be edited ----> Click
the "Edit", and the Traffic profile editing pop-up window will appear.





Delete Traffic Profile

• Access path: **Deployment** ---->**Profile** ---->**Traffic Profile**---->Click the "**Delete**" that the Traffic profile needed to be deleted, and a pop-up windows will apprear.



• Click the "Confirm" to delete it.

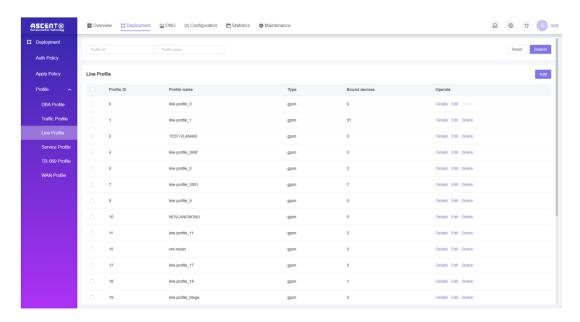
5.3.3. Line Profile

The Line Profile is used to set Global Setting, Tcont, Gemport, Mapping, Service Port.

Line Profile List

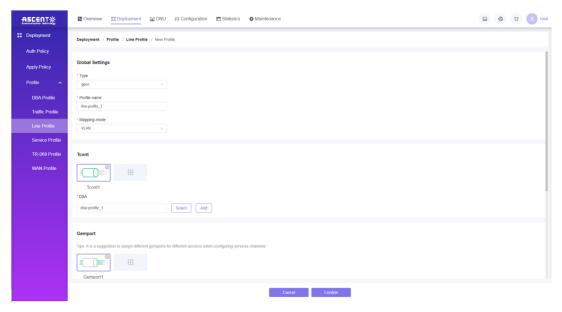
Access path: Deployment ----> Profile ----> Line Profile.





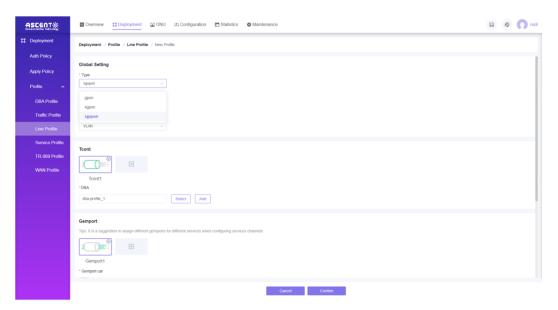
Add Line Profile

- Path: Deployment ----> Profile ----> Line Profile ----> Click the "Add" button and enter new line profile edit page.
- (1) For **GPON OLT**, type of the line profile is gpon only.



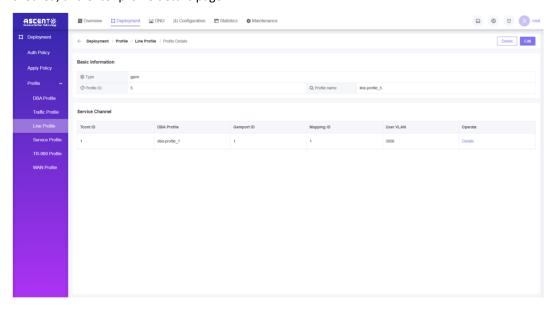
(2) For **XGS-PON OLT**, the type of line profile could be **gpon**, **xg-pon**, **xgs-pon**.





Details of Line Profile

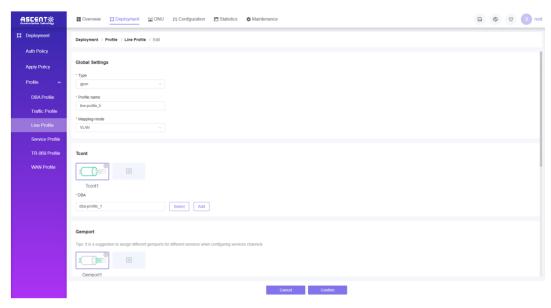
Access path: Deployment ---->Profile ---->Line Profile---->Click the "Details" that the Line profile needed to be checked, and enter profile details page.



Edit Line Profile

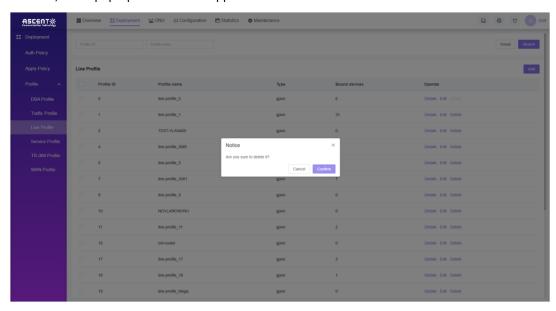
Access path: Deployment ---->Profile ---->Line Profile---->Click the "Edit" that the Line profile needed to be edited, and enter the profile edit page.





Delete Line Profile

Access path: Deployment ---->Profile ---->Line Profile---->Click the "Delete" that the Line profile needed to be
deleted, and a pop-up windows will apprear.



• Click the "Confirm" to delete it.

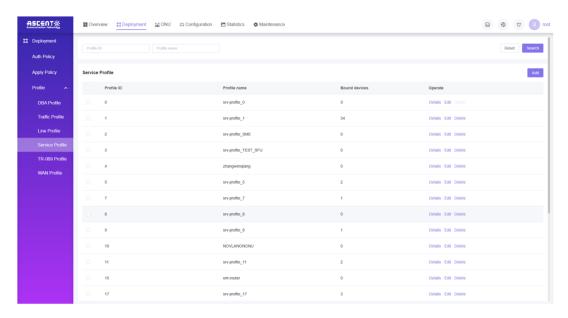
5.3.4. Service Profile

The Service Profile is mainly used to set ONU Capability, IP Host, ONU Port Configuration, Multicast Configuration.

Service Profile List

Access path: Deployment ----> Profile ----> Service Profile.

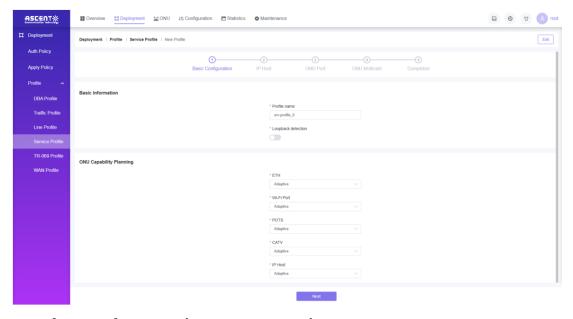




Add Service Profile

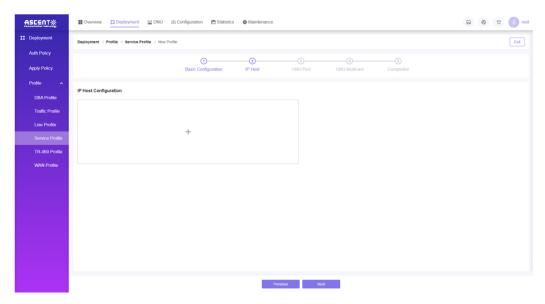
- Path: Deployment ----> Profile ----> Service Profile ----> Click the "Add" button and enter new service profile edit page.
- Adding process:

Step 1: [REQUIRED] Basic Configuration - set Basic Information and ONU Capatibility Planning.

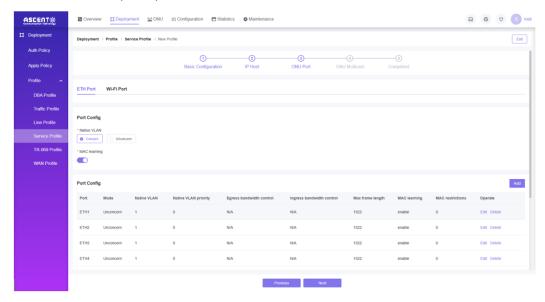


Step 2: [REQUIRED] IP Host Configuration - set IP Host for ONU remote management.



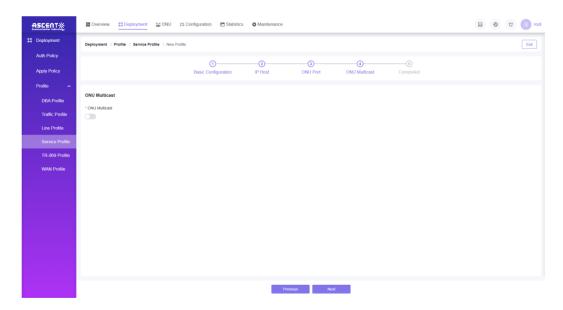


Step 3: [REQUIRED] ONU Port Configuration - set ONU Ethernet Port and Wi-Fi Port attribution, such as Native VLAN, Native VLAN priority, Bandwidth, etc.

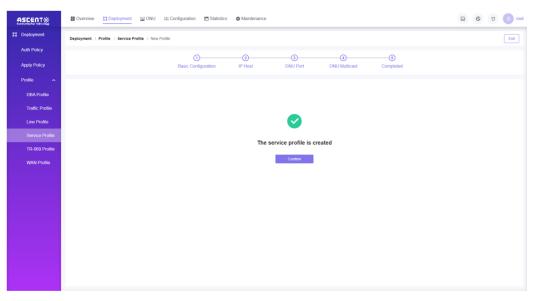


Step 4: [REQUIRED] ONU Multicast Configuration - set ONU Multicast config, such as Multicast mode, Fast-leave, Multicast Rules Configuration.





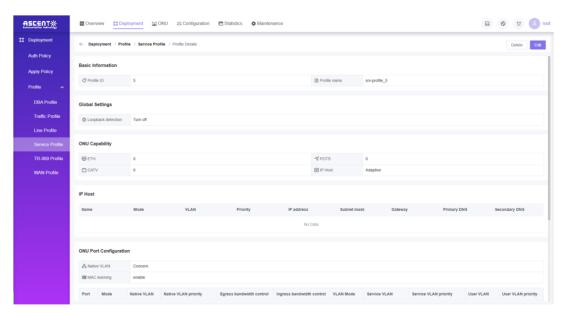
Step 5: [REQUIRED] Completed - Click "Confirm" to complete the setting.



Details of Service Profile

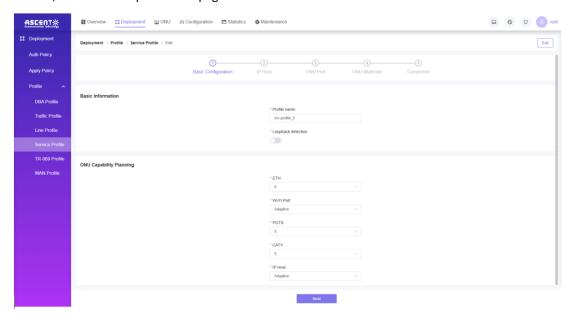
• Access path: **Deployment** ---->**Profile** ---->**Service Profile**---->Click the "**Details**" that the Service profile needed to be checked, and enter the profile details page.





Edit Service Profile

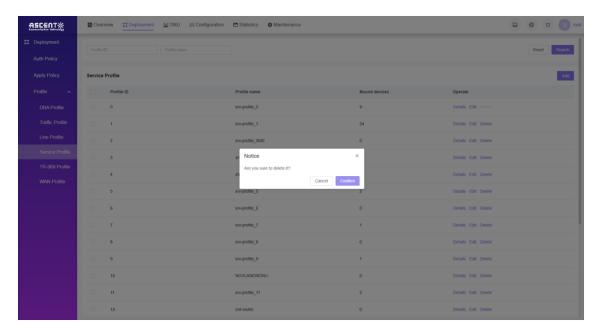
Access path: Deployment ---->Profile ---->Service Profile---->Click the "Edit" that the Service profile needed to be
edited, and enter the profile edit page.



Delete Service Profile

• Access path: **Deployment** ---->**Profile** ---->**Service Profile**---->Click the "**Delete**" that the Service profile needed to be deleted, and a pop-up windows will apprear.





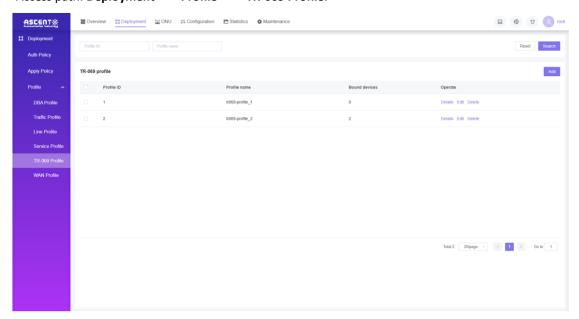
Click the "Confirm" to delete it.

5.3.5. TR-069 Profile

The TR-069 Profile is used to set a TR-069 parameters and ACS Server Configuration.

TR-069 Profile List

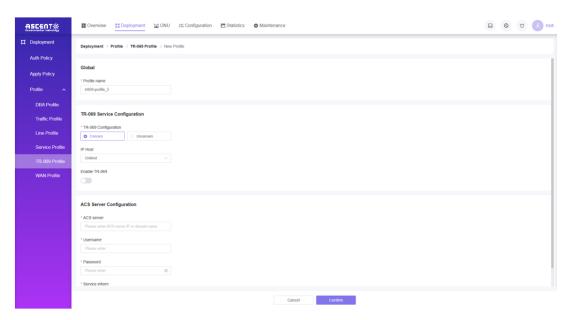
Access path: Deployment ----> Profile ----> TR-069 Profile.



Add TR-069 Profile

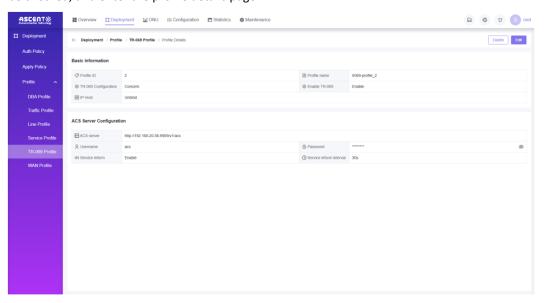
• Path: **Deployment** ----> **Profile** ----> **TR-069 Profile** ----> Click the "**Add**" button and a pop-up windows will apprear.





Details of TR-069 Profile

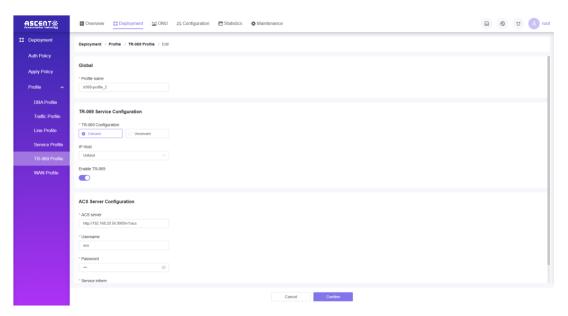
• Access path: **Deployment** ---->**Profile** ---->**TR-069 Profile**---->Click the "**Details**" that the TR-069 profile needed to be checked, and enter the profile details page.



Edit TR-069 Profile

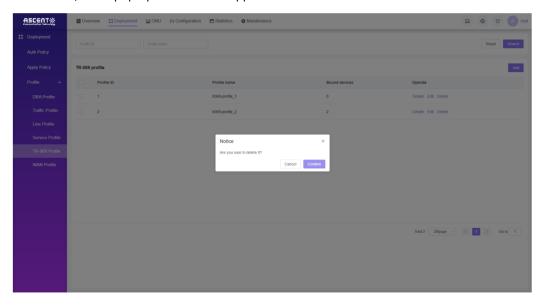
Access path: Deployment ---->Profile ---->TR-069 Profile---->Select the TR-069 profile needed to be edited ----->Click the "Edit", and enter the TR-069 profile edit page.





Delete TR-069 Profile

• Access path: **Deployment** ---->**Profile** ---->**TR-069 Profile**---->Click the "**Delete**" that the TR-069 profile needed to be deleted, and a pop-up windows will apprear.



• Click the "Confirm" to delete it.

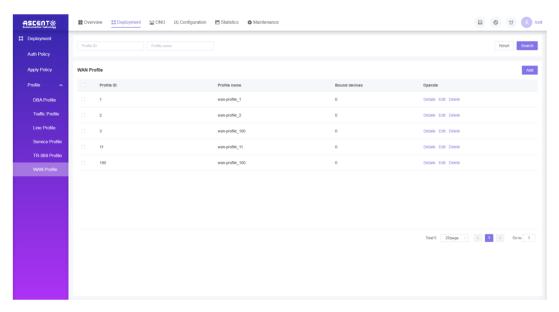
5.3.6. WAN Profile

The WAN Profile is mainly used to set ONU WAN config, such as VLAN, Mode, Service Type, IP Protocol, IGMP/MLD proxy, MTU, IP Mode, Port Binding.

WAN Profile List

• Access path: **Deployment** ----> **Profile** ----> **WAN Profile.**

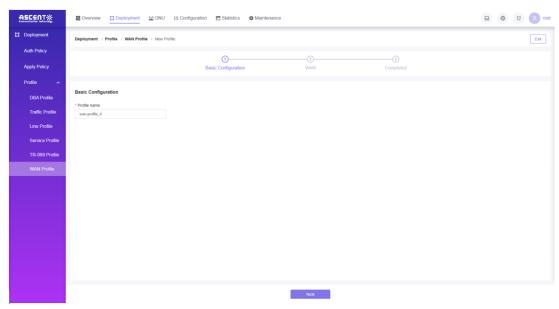




Add WAN Profile

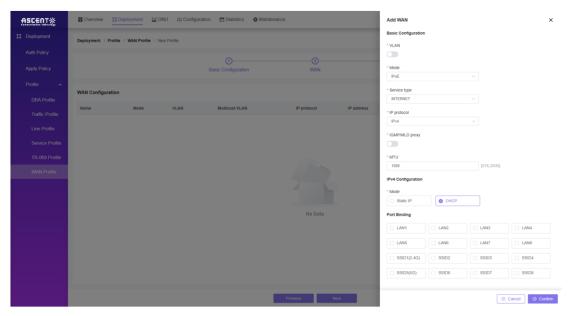
- Path: Deployment ----> Profile ----> WAN Profile ----> Click the "Add" button and enter new WAN profile edit page.
- Adding process:

Step 1: [REQUIRED] Basic Configuration - set Profile name.

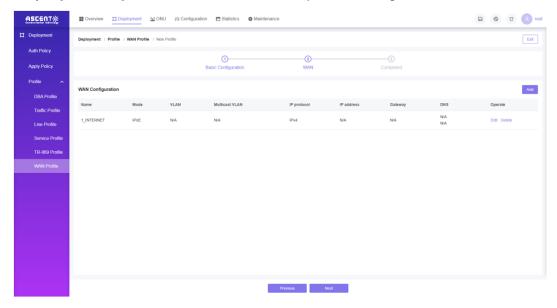




Step 2: [REQUIRED] WAN Configuration ---->Add - set WAN connection config.

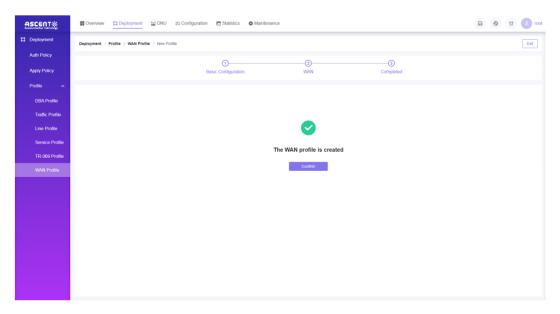


Step 3: [REQUIRED] Confirm - Click "Confirm" to complete the setting.



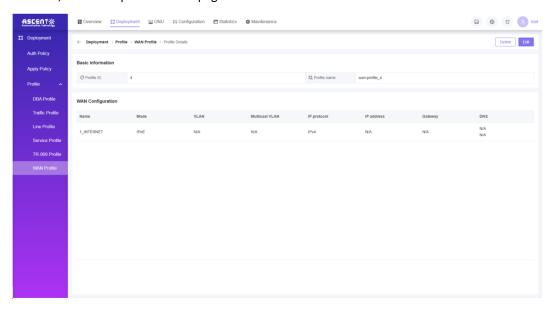
Step 4: [REQUIRED] Completed - Click "Next" and "Confirm" to complete the setting.





Details of WAN Profile

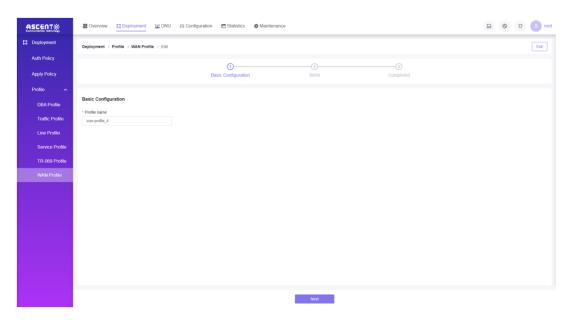
Access path: Deployment ---->Profile ---->WAN Profile---->Click the "Details" that the WAN profile needed to be
checked, and enter profile details page.



Edit WAN Profile

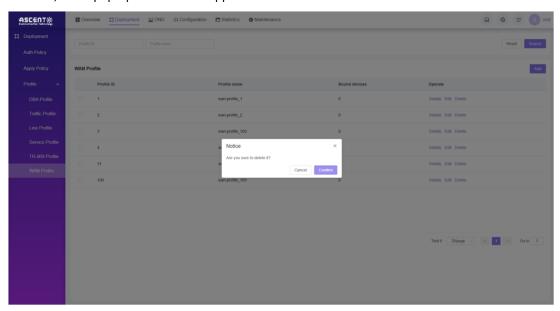
Access path: Deployment ---->Profile ---->WAN Profile---->Click the "Edit" that the WAN profile needed to be
edited, and enter the profile edit page.





Delete WAN Profile

Access path: Deployment ---->Profile ---->WAN Profile---->Click the "Delete" that the WAN profile needed to be
deleted, and a pop-up windows will apprear.



• Click the "Confirm" to delete it.



6 ONU Management

This chapter contains the following topics:

- ONU Device Manager
- ONU Bind
- Running Info
- ONU Optical Info
- ONU Autofind
- ONU Auth Setting
- ONU Blacklist
- Rogue ONU
- ONU MAC
- ONU Upgrade

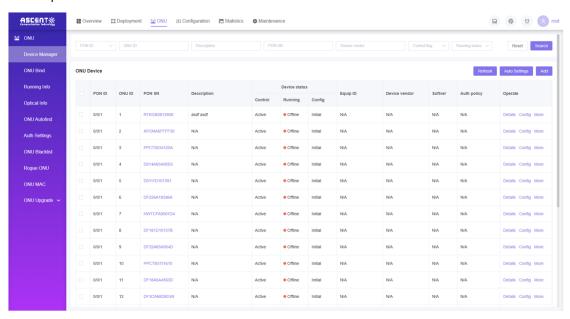
The OLT Web Management System provides the functions of resource management and service planning for ONU devices, allowing to view the resource and status information related to ONU devices and manage the devices.

6.1 ONU Device

ONU Device List

The OLT Web Management System provides ONU device management functions. Upon ONU devices connected to the OLT, the OLT Web Management System can view device information & configuration data, and manage device resources.

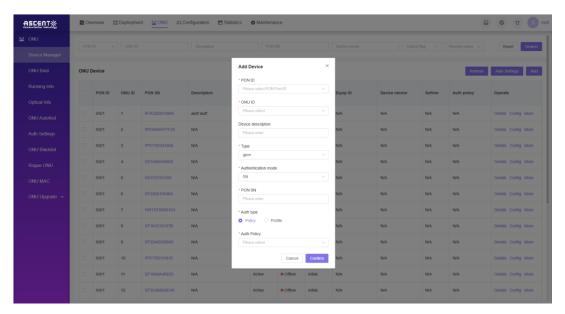
• Access path: ONU ---->ONU Device.



Adding ONU Devices

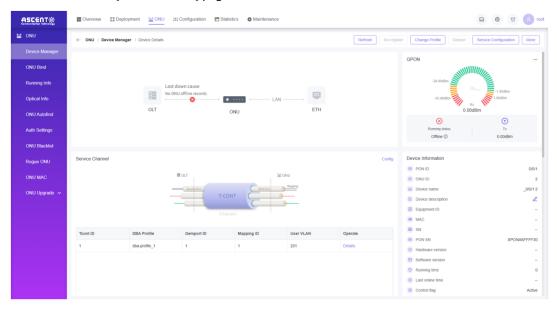
• Operation path: ONU ---->ONU Device---->Click the "Add", and a dialog box for adding devices will pop up.





ONU Device Details

Operation path: ONU ---->ONU Device ---->Select the ONU device that needs to be operated ---->Click the "Details",
 and relocate to the [Device Details] page.

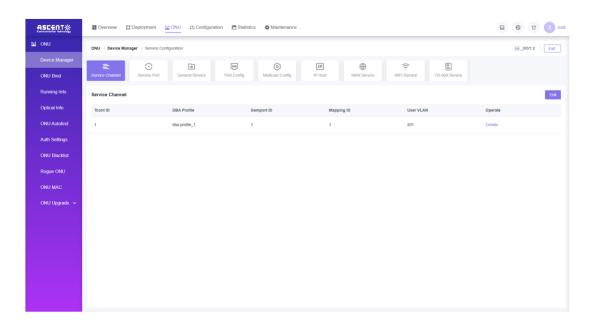


Service Configuration

In Service Configuration page, it is mainly used to configure Service Channel (like Line Profile config), Service Port, General Service, Port Config, Multicast Config, IP Host, WAN Service, WIFI Service, VOIP Service, TR-069 Service.

- Operation Path 1: **ONU** ---->**ONU Device** ---->Select the ONU device that needs to be operated ---->Click the "**Config**", and relocate to the ONU [Service Configuration] page.
- Operation Path 2: ONU ---->ONU Device ---->Select the ONU device that needs to be operated ---->Click the "Details",
 and relocate to the ONU [Device Details] page ---->Click the "Service Configuration", and relocate to the ONU [Service
 Configuration] page.

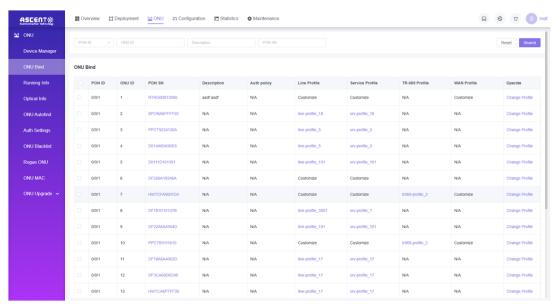




6.2 ONU Bind

The ONU Bind page provides to change profile of ONU, such as Line-profile, Service-profile, TR-069 Profile, WAN-profile.

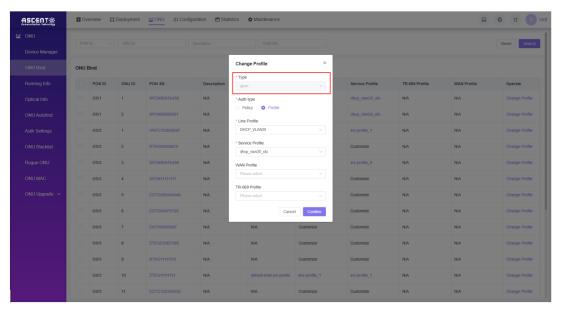
Access path: ONU ---->ONU Bind.



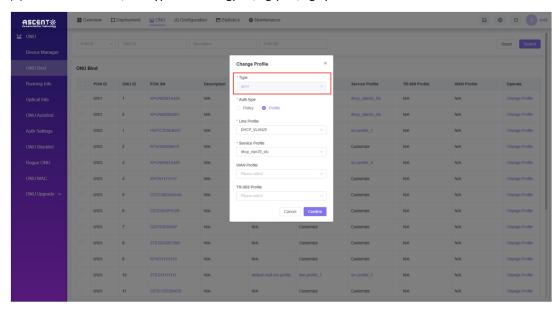


Change Profile

- Path: **ONU** ---->**ONU Bind** ---->Click the "**Change Profile**" button of a specific ONU and a pop-up windows will apprear to change the profiles.
 - (1) For GPON OLT, the type is gpon only.



(2) For XGS-PON OLT, the type could be gpon, xg-pon, xgs-pon.

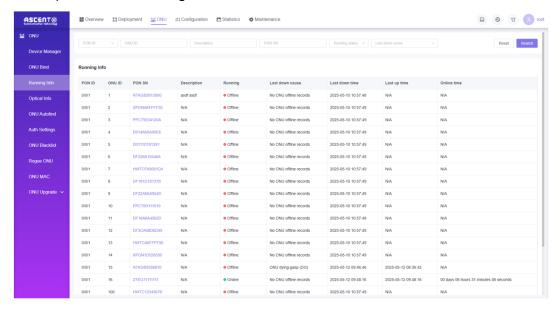




6.3 Running Info

The ONU Running Info list allows us to visually view the online status information of each ONU, including Last down cause, Last down time, Last up time, Online time.

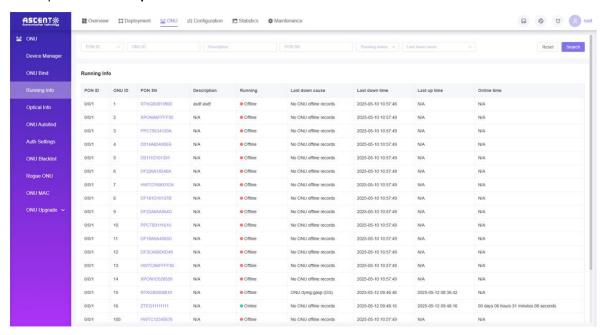
Access path: ONU ---->Running Info.



6.4 ONU Optical Info

Upon the ONU device attached to the OLT, the OLT Web Management System provides to check the optical power information of the online ONU.

Access path: ONU ---->Optical Info.

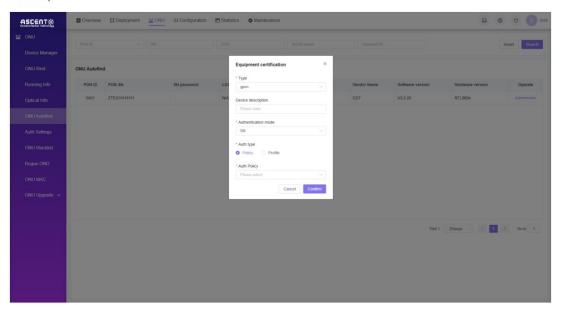




6.5 ONU Autofind

When the ONU auto discovery enable is in the disable state, the list displays the ONUs that are not registered for authentication, at which time the user can use manual authentication to handle the unauthenticated ONU devices. When the ONU auto-discovery feature is disabled, the list will display unregistered ONUs. In this scenario, users can manually authenticate the unauthenticated ONU devices.

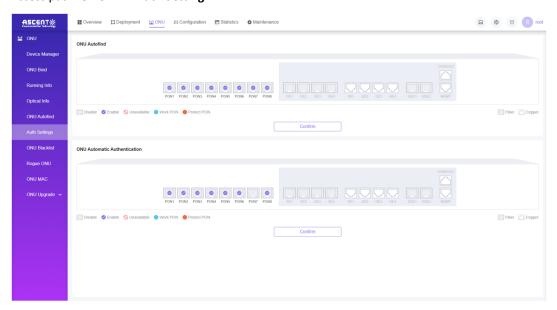
Access path: ONU ---->ONU Autofind.



6.6 ONU Authentication Setting

We can set ONU Autofind and ONU Automatic Authentication feature for PON ports.

Access path: ONU ----> Auth Setting.

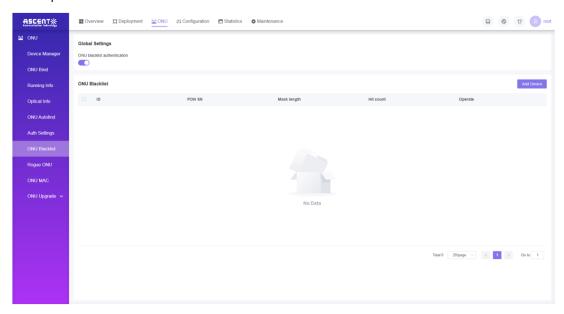




6.7 ONU Blacklist

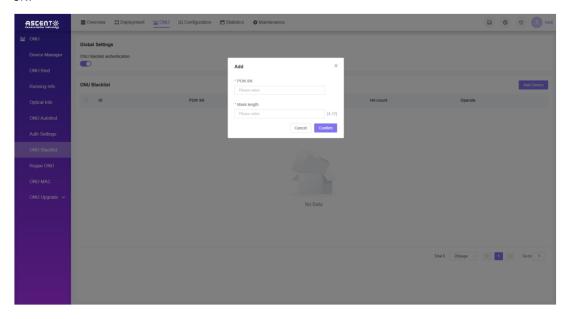
ONU Blacklist is a feature to limit ONU register. The ONUs in the Blacklist will not be registered on OLT.

Access path: ONU ----> ONU Blacklist.



Add Blacklist ONU

Path: ONU ---->ONU Blacklist ---->Click the "Add Device" button and a pop-up windows will apprear to set ONU PON
 SN.

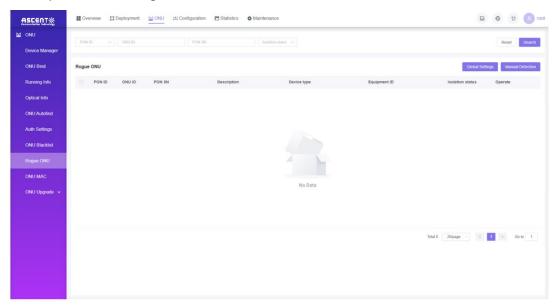


6.8 Rogue ONU

When an ONU emits light without assigning a timestamp, it will conflict with the light signals of other ONUs, which will affect the normal communication of other ONUs or all ONUs. We call this type of ONU, which does not send optical signals upwards according to the allocated timestamp, a rogue ONU.

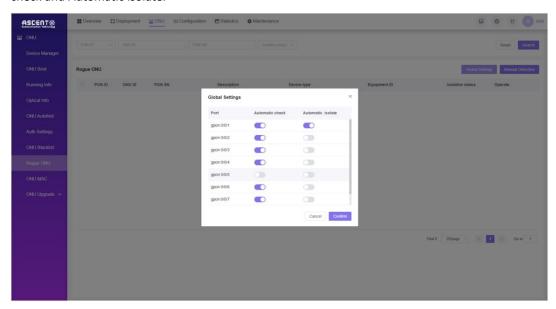


• Access path: ONU ----> Rogue ONU.



Global Setting

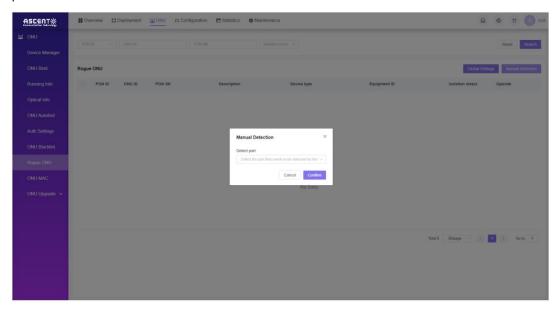
• Path: **ONU** ----> **Rogue ONU** ----> Click the "**Global Setting**" button and a pop-up windows will apprear to set Automatic check and Automatic isolate.





Manual Detection

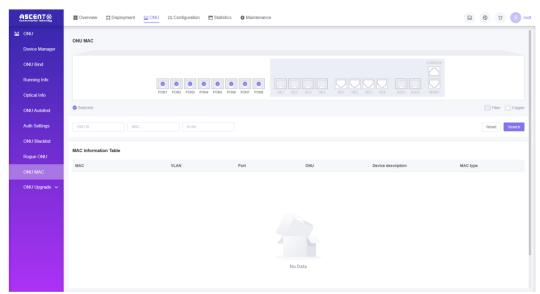
• Path: **ONU** ----> **Rogue ONU**----> Click the "**Manual Detection**" button and a pop-up windows will apprear to set Detect port.



6.9 ONU MAC

ONU MAC page supports view MAC Information table. And it supports to search mac according to PON port ID, ONU ID, MAC, VLAN ID.

Access path: ONU ----> ONU MAC.





6.10 ONU Upgrade Management

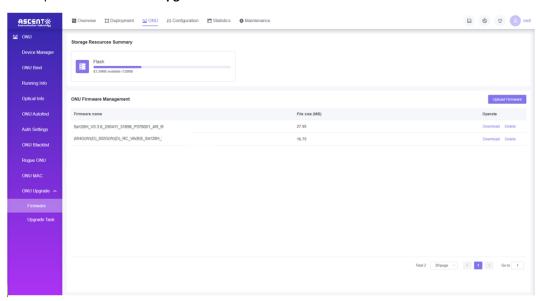
OLT Web Management System supports batch upgrade of ONU devices, including firmware management and firmware upgrade.

6.10.1 Firmware Management

Allowing to display ONU firmware upgrade packages that have been uploaded to the OLT Web Management System and provide upload, download, and delete functions.

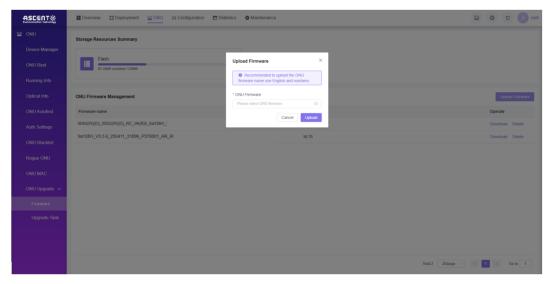
ONU Firmware List

• Access path: ONU ---->ONU Upgrade ---->Firmware.



Upload Firmware

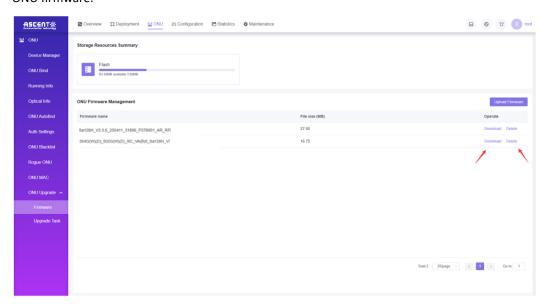
Access path: ONU ---->ONU Upgrade ---->Firmware ---->Click the "Upload Firmware", and a pop-up windows will
apprear to select ONU firmware.





Download/Delete Firmware

Access path: ONU ---->ONU Upgrade ---->Firmware ---->Click the "Download" or "Delete", to download / delete
 ONU firmware.

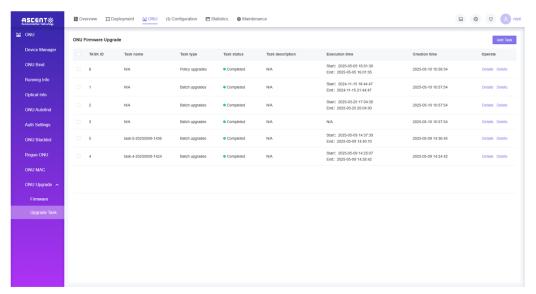


6.10.2 Upgrade Task

The [Upgrade Task] page displays the current upgrade plans of all ONU devices in the system, and provides the functions of creating, deactivating, and deleting upgrade plans.

Upgrade Task List

• Access path: ONU ---->ONU Upgrade ---->Upgrade Task.





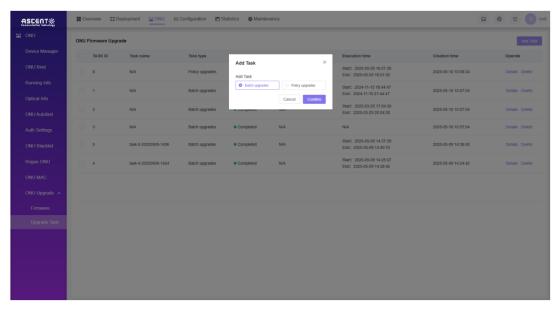
Add Tasks

• Access path: ONU ---->ONU Upgrade ---->Upgrade Task---->Click the "Add Task", and relocate to the guidelines.

Guidelines

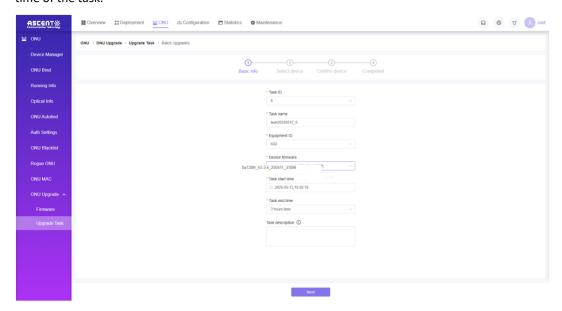
• Step 1: Task Type

Add a task and select task type, such as Batch upgrades or Policy upgrades. Click "Confirm".



• Step 2: Basic Info

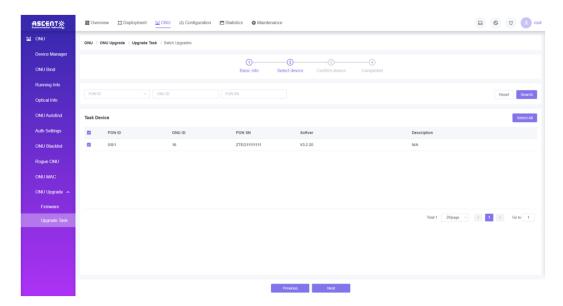
Fill in/select the device model needed to be upgraded, firmware for upgrading, and the scheduled execution time of the task.



• Step 3: Select Device

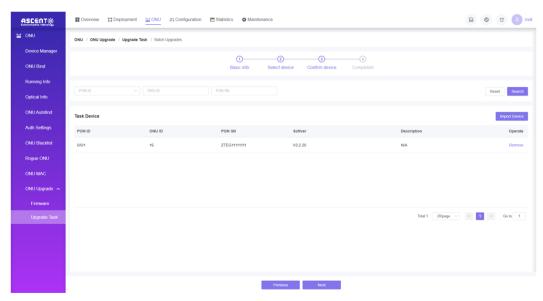
Select the ONU devices need to be upgraded.





Step 4: Confirm Device

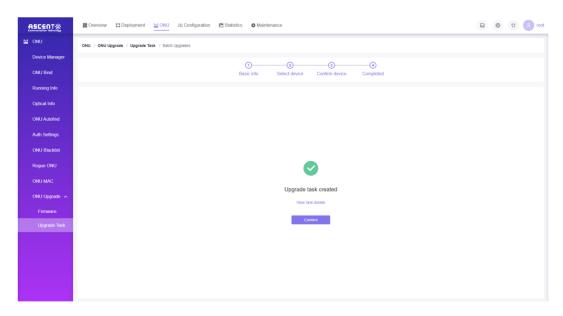
The system presents the devices to be upgraded in the form of a list, allowing users to double-check the information to confirm whether the devices need to be upgraded.



• Step 5: Completed

The firmware upgrade has been completed.

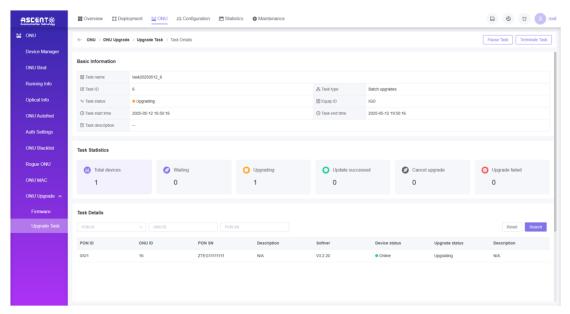




Users can choose to view the task list or check task details.

Task Details

- Access Path 1: ONU ---->ONU Upgrade ---->Upgrade Task ---->Select the upgrade task that needs to be operated
 ---->Click the "Details", and relocate to the [Task Details] page.
- Access Path 2: **ONU** ---->**ONU Upgrade** ---->**Upgrade Task** ---->Click the "**Add Task**" to complete the process --->Click "**Details**" in the "Completed" step and relocate to the [Task Details] page.





7 Configuration

This chapter contains the following topics:

- Port Management
- Protect Group
- VLAN
- VLANIF
- Link Aggregation
- IGMP
- DHCP
- PPPoE+
- MAC
- Loopback detection
- STP
- AAA
- Port Mirroring

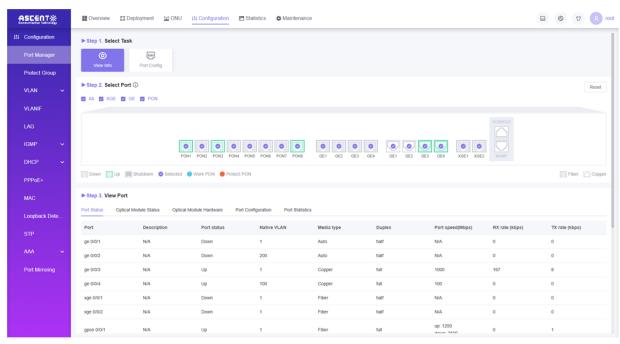
7.1 Port Management

Allowing users to view or configure functions related to the ports.

Port Information

The OLT Web Management System provides users to check information of port status, optical modules, port configuration, port statistics, etc.

• Access path: Configuration ---->Port Manager ---->Select the "View Info".

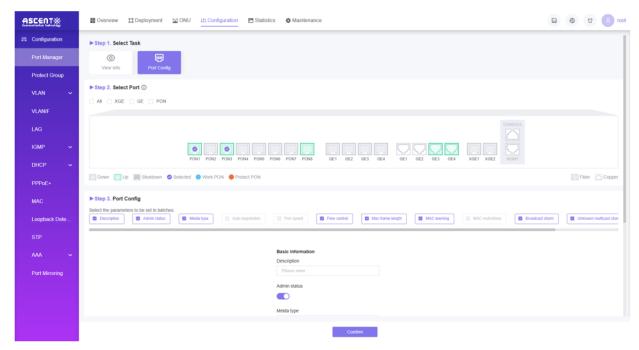




Port Configuration

The OLT Web Management System provides functions related to the port config, such as: port management, flow control, storm suppression, etc.

Access Path: Configuration ---->Port Management ---->Select the "Port Config".



7.2 Protect Group

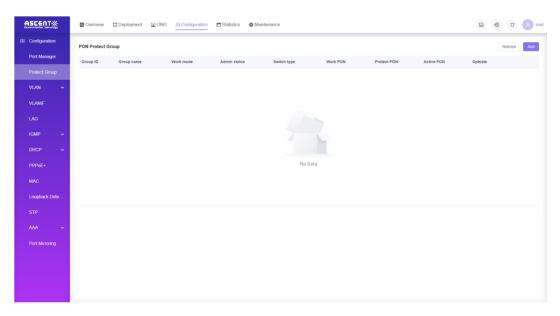
The PON protect group only supports Type B mode. The OLT uses two PON ports, each with an independent PON MAC chip and optical module, to protect the two PON ports. The backup PON port is in a cold standby state, and a 2:N optical splitter is used to establish two independent and mutually backup fiber optic links between the splitter and the OLT. The OLT detects the line status and OLT PON port status, and once the main fiber optic link fails, the OLT completes the switching. Applicable between any two PON ports of the same OLT (single homing) or between any two PON ports of different OLTs (dual homing), it has the advantages of access cost and practicality, and is widely used in scenarios with protection requirements.

PON Protect Group List

The OLT Web Management System provides users to check PON protect group information, like working mode, admin status, switch type, etc.

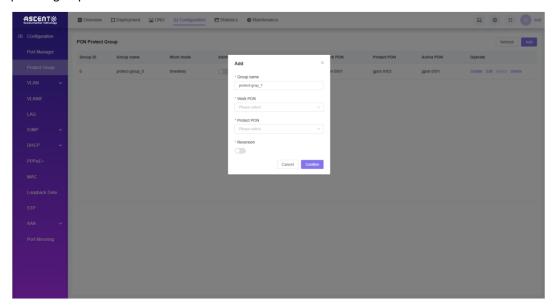
• Access path: Configuration ---->Protect Group.





Add PON Protect Group

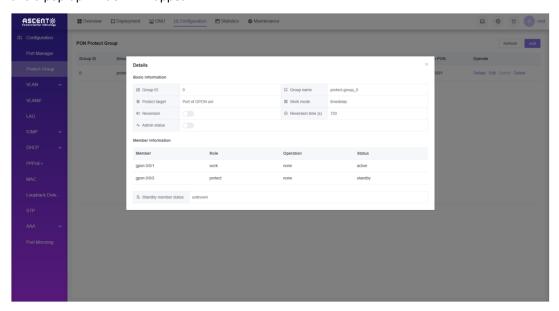
Path: Configuration ---->Protect Group ---->Click the "Add" button and and a pop-up windows will apprear to add a
protect group.





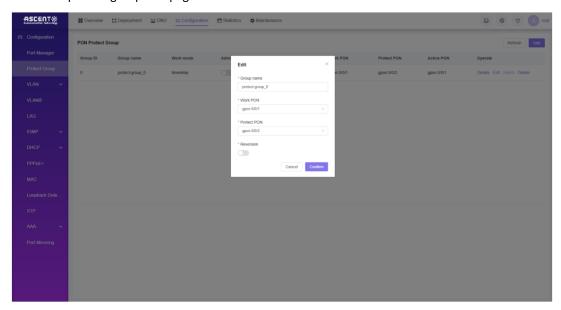
Details of PON Protect Group

• Access path: **Configuration** ---->**Protect Group** ---->Click the "**Details**" that the protect group needed to be checked, and a pop-up window will appear.



Edit PON Protect Group

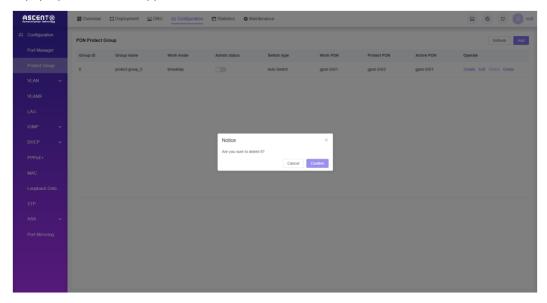
Access path: Configuration ---->Protect Group ---->Click the "Edit" that the protect group needed to be edited, and
enter the protect group edit page.





Delete PON Protect Group

• Access path: **Configuration** ---->**Protect Group** ---->Click the "**Delete**" that the protect group needed to be deleted, and a pop-up windows will apprear.



• Click the "Confirm" to delete it.

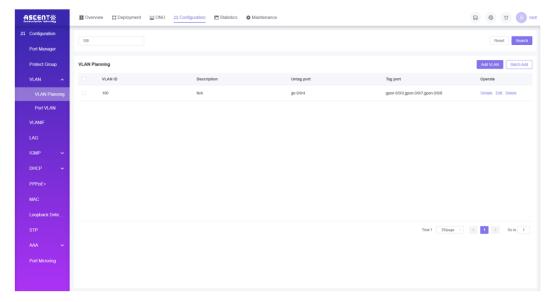
7.3 VLAN

7.3.1 VLAN Planning

- 1. OLT support supports 4094 VLANs, numbered from 1 to 4094.
- 2. By segmenting VLANs, hosts with no intercommunication require can be isolated at Layer 2, restricting the broadcast domain and enhancing network security.

VLAN Planning List

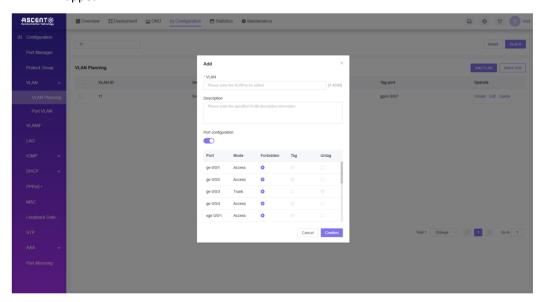
Access path: Configuration ---->VLAN ---->VLAN Planning.





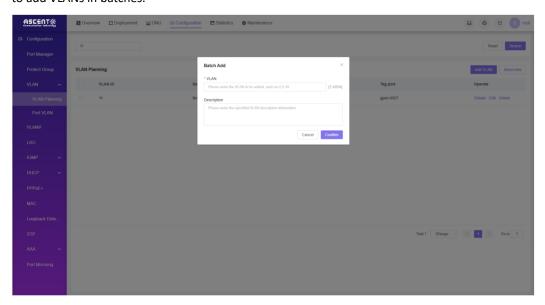
Add VLAN: Add a Single VLAN

• Access path: **Configuration** ---->**VLAN** ---->**VLAN Planning** ---->Click the "**Add VLAN**", and a pop-up window for adding VLAN will appear.



Add VLAN: Add VLANs in Batches

Access path: Configuration ---->VLAN ---->VLAN Planning ---->Click the "Batch Add", and a pop-up window will appear
to add VLANs in batches.

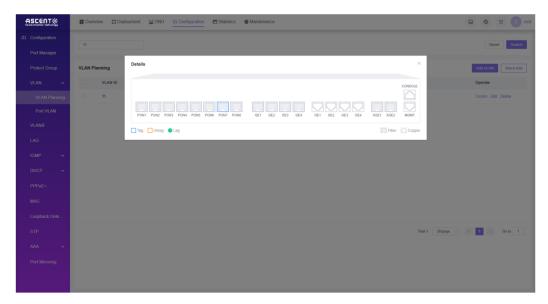


VLAN Details

The OLT Web Management System provides a view of selected VLAN join ports.

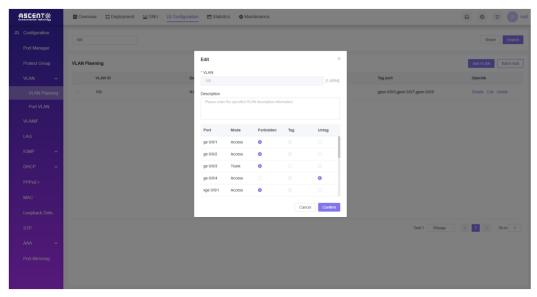
Access path: Configuration ---->VLAN ---->VLAN Planning ---->Select the VLAN needed to be operated ---->Click the
 "Details", and a pop-up window with VLAN details will appear.





Edit VLAN

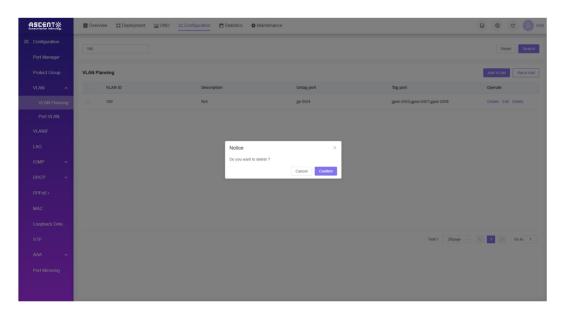
• Access path: Configuration ---->VLAN ---->VLAN Planning ---->Select the VLAN needed to be operated ---->Click the "Edit", and a pop-up window for VLAN editing will appear.



Delete VLAN

Access path: Configuration ---->VLAN ---->VLAN Planning ---->Click the "Delete" that the VLAN needed to be deleted,
 and a pop-up windows will apprear.



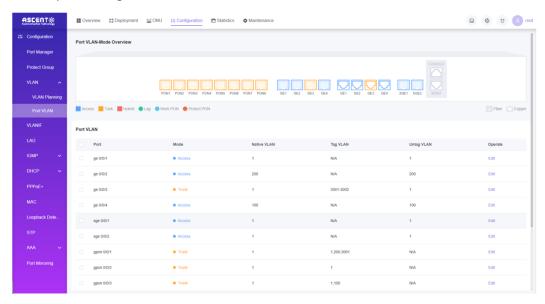


Click the "Confirm" to delete it.

7.3.2 Port VLAN

The OLT Web Management System provides the ability to view or edit Port VLAN.

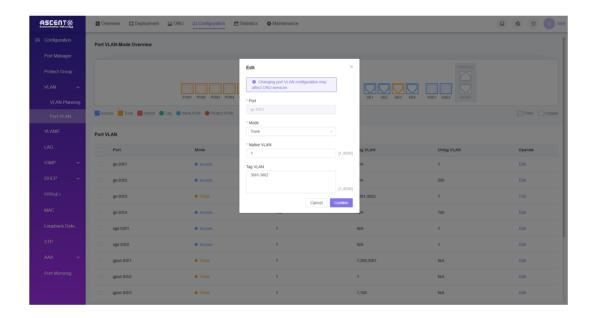
Access path: Configuration ---->VLAN ---->Port VLAN.



Port VLAN Edit

• Access path: **Configuration** ---->**VLAN** ---->**Port VLAN** ---->Select the VLAN needed to be operated ---->Click the "**Edit**", and a pop-up window for editing port VLAN will appear.



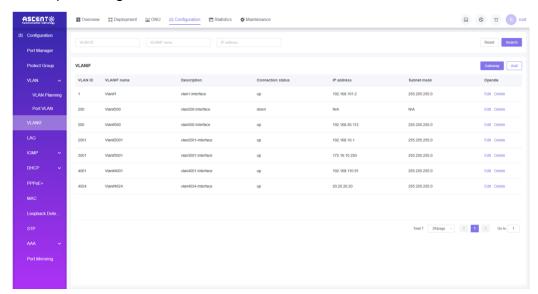


7.4 VLANIF

The VLANIF interface is a Layer 3 logical interface that, after configuring IP addresses, enables inter-VLAN communication and the deployment of Layer 3 services.

VLANIF List

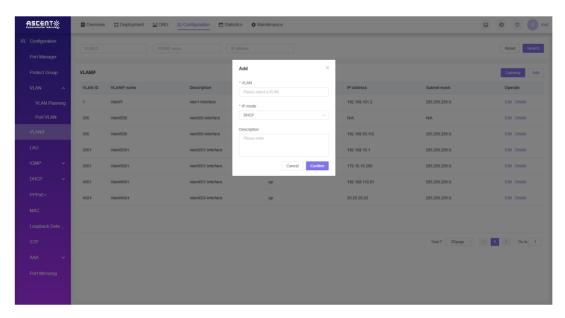
Access path: Configuration ---->VLANIF.



Add VLANIF

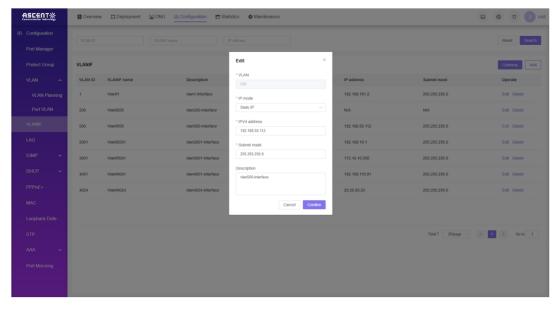
Access path: Configuration ---->VLANIF ---->Click the "Add", a pop-up window of adding VLANIF will appear.





Edit VLANIF

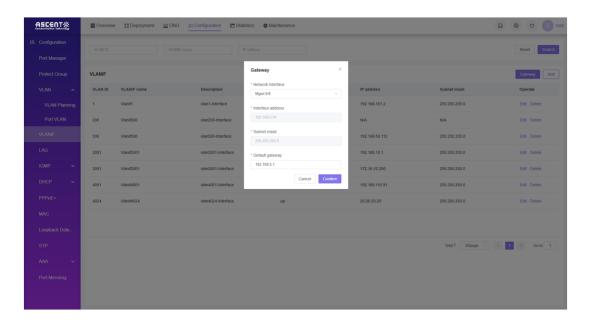
Access path: Configuration ---->VLANIF ---->Select the VLANIF needed to be operated ---->Click the "Edit", and a
pop-up window for VLANIF editing will appear.



Gateway Configuration

Access Path: Configuration ---->VLANIF ---->Click "Gateway", a pop-up window for gateway configuration will
appear.



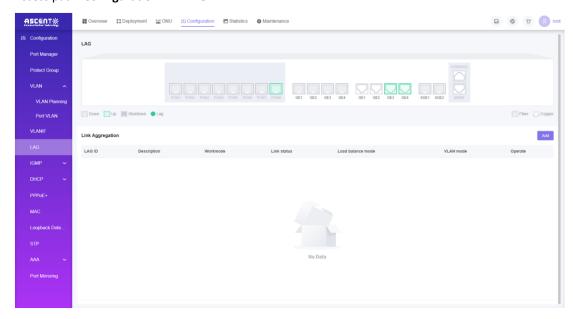


7.5 Link Aggregation

The OLT Web Management System supports the Link Aggregation Control Protocol (LACP), compliant with the IEEE 802.3ad standard. The LACP protocol is used to bundle multiple uplink ports into a single logical connection, enhancing bandwidth and providing backup connectivity between uplink ports and upper-layer devices.

Link Aggregation

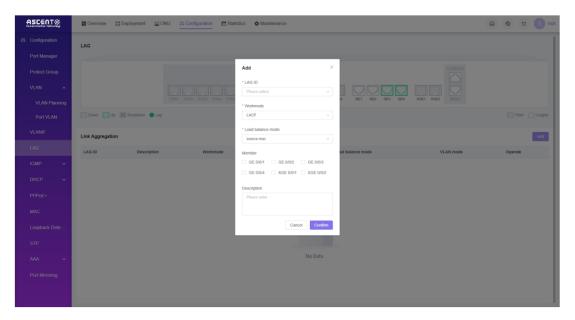
Access path: Configuration ---->LAG.



Adding a Link Aggregation Group

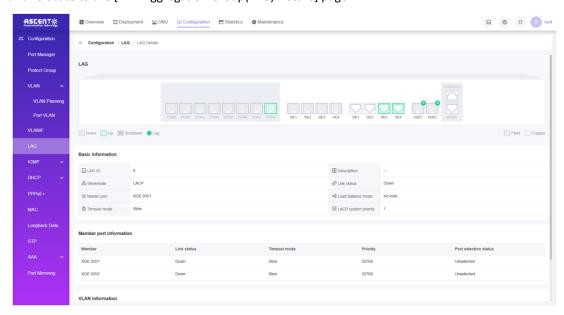
• Access path: **Configuration** ---->**LAG** ---->Click "**Add**", and a pop-up window for adding link aggregation group will appear.





View Link Aggregation Group Details

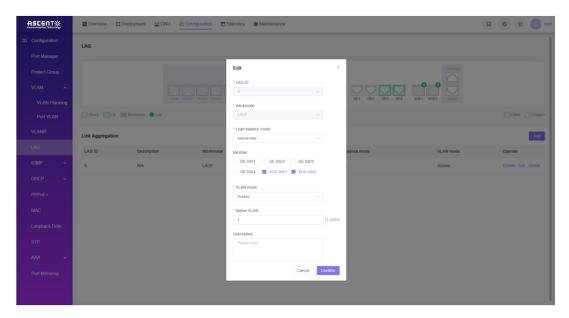
Access path: Configuration ---->LAG ---->Select the link aggregation group needed to be operated ---->Click the "Details",
 and relocate to the [Link Aggregation Group(LAG) Details] page.



Edit Link Aggregation Group

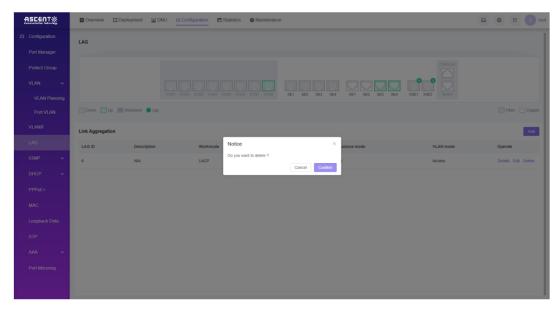
• Access path: **Configuration** ---->**LAG** ---->Select the link aggregation group needed to be edited ---->Click the "**Edit**", , and a pop-up window for editting link aggregation group will appear.





Delete Link Aggregation Group

Access path: Configuration ---->LAG ---->Click the "Delete" that the link aggregation group needed to be deleted, and a
pop-up windows will apprear.



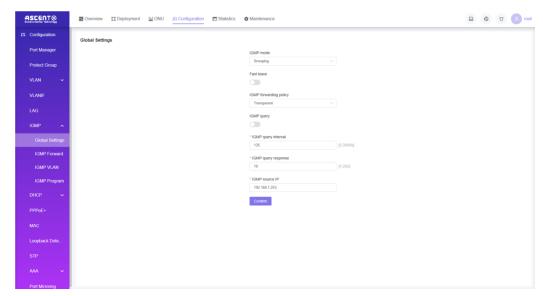
• Click the "Confirm" to delete it.



7.6 IGMP

7.6.1 Global Settings

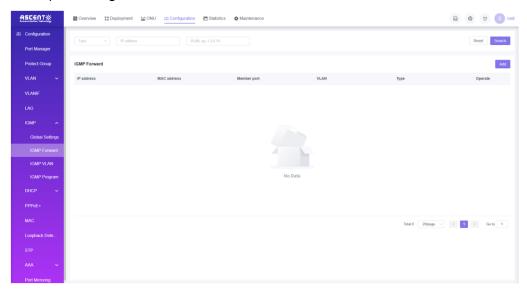
• Access path: Configuration ---->IGMP ---->Global Settings.



7.6.2 IGMP Forward

IGMP Forward List

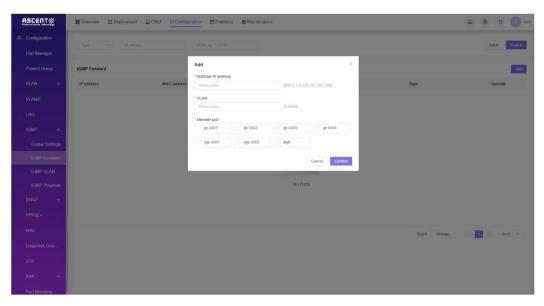
Access path: Configuration ---->IGMP ----> IGMP Forward.



Add IGMP Forward

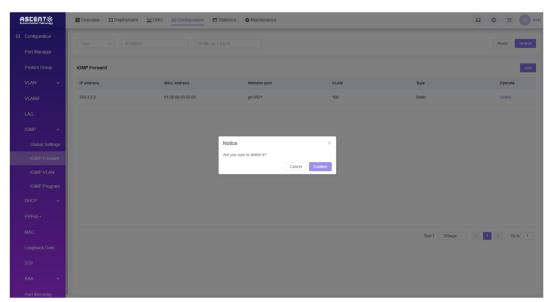
• Access path: **Configuration** ---->**IGMP** ---->**IGMP** Forward ---->Click the "**Add**", and the IGMP Forwarding [Add] pop-up window will appear.





Delete IGMP Forward

Access path: Configuration ---->IGMP ---->IGMP Forward ---->Click the "Delete", and the IGMP Forward [Delete]
 pop-up window will appear.



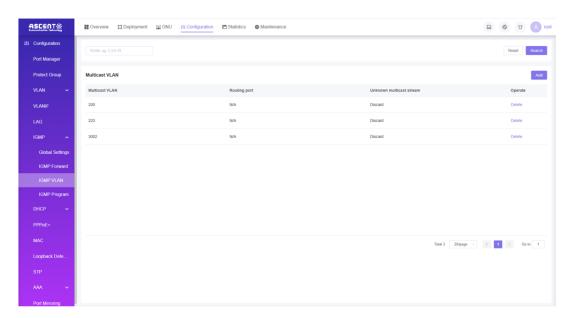
• Click the "Confirm" to delete it.

7.6.3 IGMP VLAN

IGMP(Multicast) VLAN List

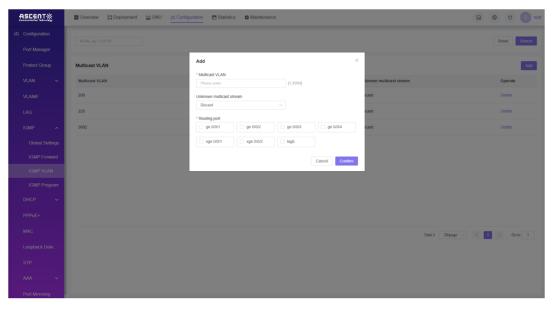
• Access path: Configuration ---->IGMP ---->IGMP VLAN.





Add IGMP VLAN

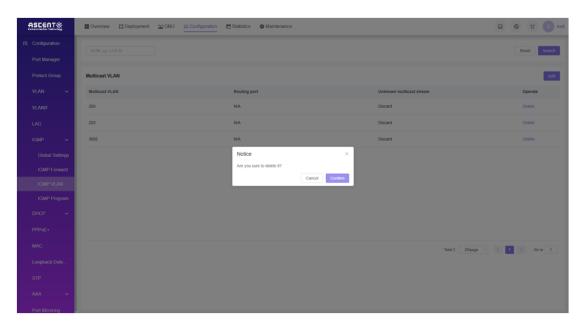
• Access path: **Configuration** ---->**IGMP** ---->**IGMP VLAN** ---->Click the "**Add**", and the Multicast VLAN [Add] pop-up window will appear.



Delete IGMP VLAN

Access path: Configuration ---->IGMP ---->IGMP VLAN ---->Click the "Delete", and the IGMP VLAN [Delete] pop-up window will appear.



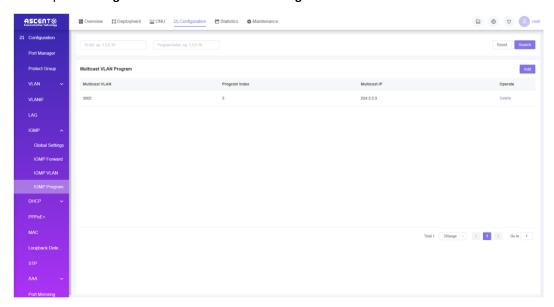


• Click the "Confirm" to delete it.

7.6.4 Multicast VLAN Program

Multicast VLAN Program List

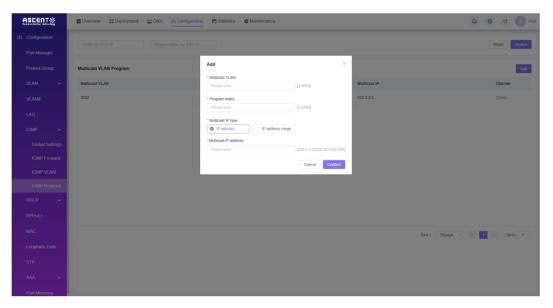
Access path: Configuration ---->IGMP ---->IGMP Program.



Add Multicast VLAN Program

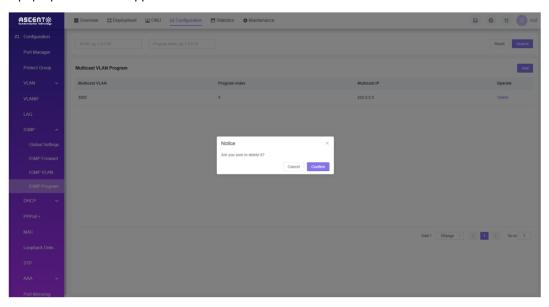
• Access path: **Configuration** ---->**IGMP Program** ---->Click the "**Add**", and the Multicast VLAN Program [Add] pop-up window will appear.





Delete Multicast VLAN Program

• Access path: **Configuration** ---->**IGMP** Program ---->Click the "**Delete**", and the IGMP Program [Delete] pop-up window will appear.



• Click the "Confirm" to delete it.

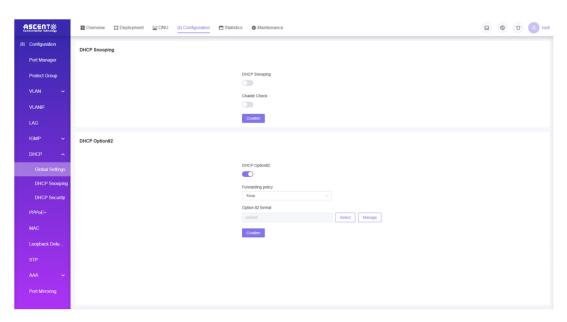
7.7 DHCP

DHCP features includes DHCP Snooping, DHCP Option82, Option82 format, DHCP Security functions.

7.7.1 Global Settings

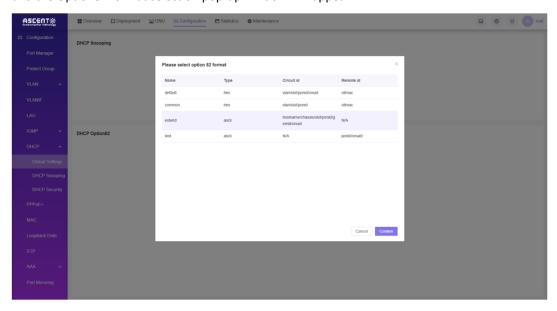
• Access path: Configuration ---->DHCP ---->Global Settings.





Option82 format selection

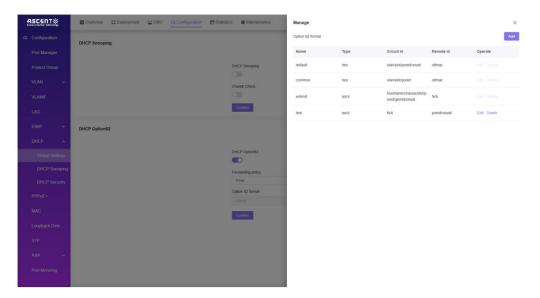
• Access path: **Configuration** ---->**DHCP** ---->**Global Settings** ---->Click the "**Select**" in the DHCP Option82 module, and the Option82 format selection pop-up window will appear.



Option82 format management

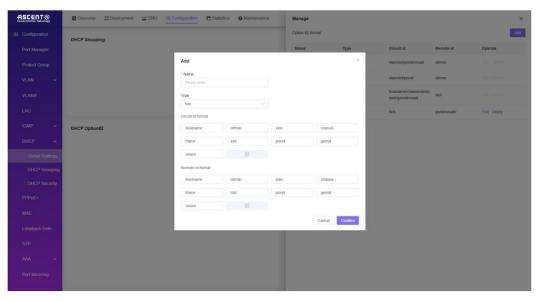
Access path: Configuration ---->DHCP ---->Global Configuration ---->Click the "Manage" in the DHCP Option82 module, and the Option82 format management drawer will pop up on the right side.





Add Option82 format

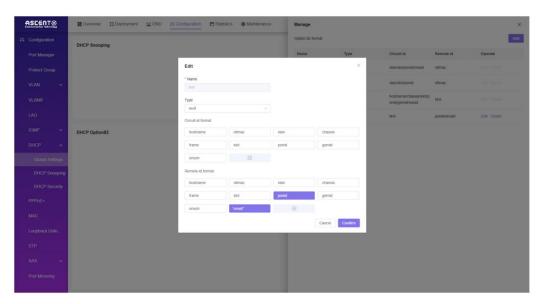
• Configuration---->DHCP ---->Global Configuration---->Click the "Manage" in the DHCP Option82 module, and the Option82 format management drawer pops up on the right side---->Click the "Add" and the Option82 format [Add] popup window will appear.



Edit Option82 format

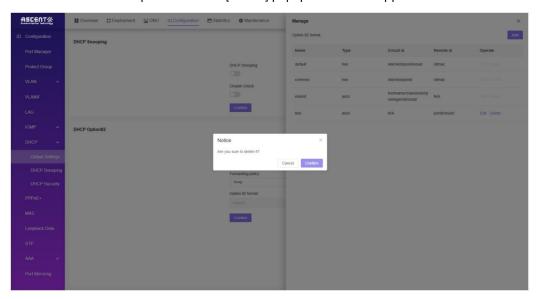
• Configuration---->DHCP ---->Global Configuration---->Click the "Manage" in the DHCP Option82 module, and the Option82 format management drawer pops up on the right side---->Click the "Edit" that need to be edited and the Option82 format [Edit] popup window will appear.





Delete Multicast VLAN Program

Access path: Configuration---->DHCP ---->Global Configuration---->Click the "Manage" in the DHCP Option82 module, and the Option82 format management drawer pops up on the right side---->Click the "Delete" that need to be deleted and the Option82 format [Delete] popup window will appear.



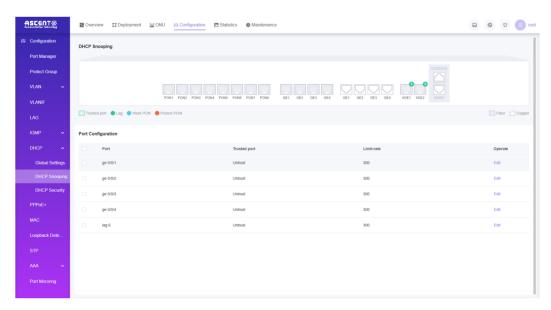
• Click the "Confirm" to delete it.

7.7.2 DHCP Snooping

DHCP Snooping List

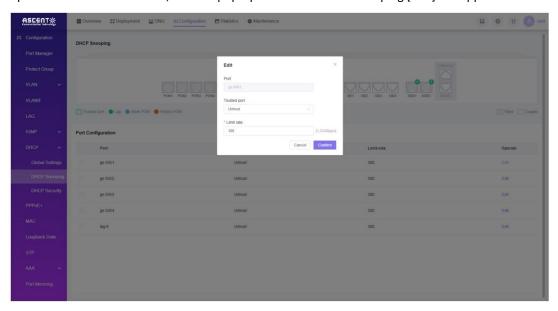
• Access path: Configuration ----> DHCP ----> DHCP Snooping.





Edit DHCP Snooping

Access path: Configuration ---->DHCP ---->DHCP Snooping ---->Select the DHCP Snooping list item needed to be
operated ---->Click the "Edit", and the pop-up window of DHCP Snooping [Edit] will appear.

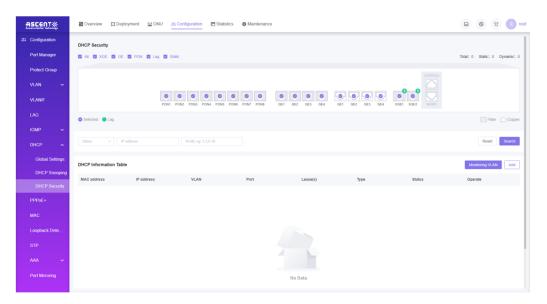


7.7.3 DHCP Security

DHCP Security List

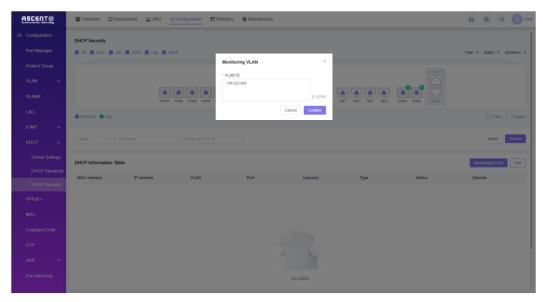
• Access path: Configuration ----> DHCP ----> DHCP Security.





Monitoring VLAN

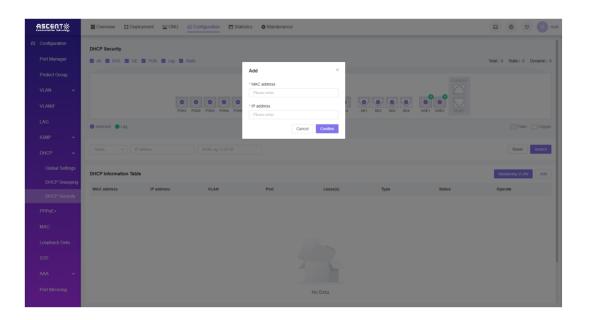
• Access path: **Configuration** ---->**DHCP** ---->**DHCP Security** ---->Click the "**Monitoring VLAN**", and the [Monitoring VLAN] pop-up window will appear.



Add Static DHCP Security

Access path: Configuration ---->DHCP ---->DHCP Security ---->Click the "Add", the static DHCP security [Add] pop-up window will appear.





7.8 PPPoE+

PPPoE+is a technology that extends the PPPoE protocol, known as PPPoE Intermediate Agent. It is similar to DHCP Option82, but its functionality is more in-depth. The core of this technology lies in enhancing the original PPPoE packets, especially during the search phase, where AN (which may refer to an access gateway or network device) adds specific port information to the received packets. In this way, PPPoE+can provide more accurate network management and positioning, which is of great significance for improving network efficiency and service quality.

Like DHCP Option82, PPPoE+ was introduced to support more complex network environment requirements. It embeds additional contextual information in PPP sessions, such as port information of access devices, enabling network administrators to track and manage user connections. This is a powerful tool for areas such as network troubleshooting, billing, and security auditing. In this way, network administrators can better understand the detailed situation of user connections, thereby optimizing network configuration and improving user experience.

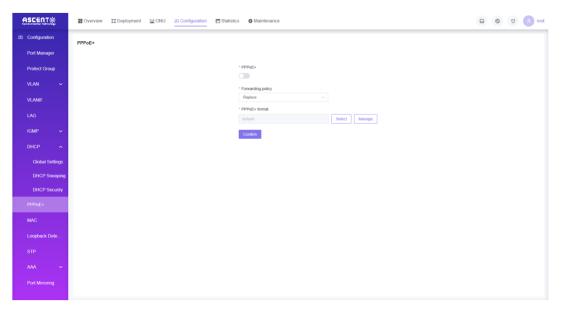
Overall, PPPoE+ is an important enhanced version of the PPPoE protocol, which enhances network management functionality by extending protocol packets, providing more data support for network service providers and administrators, and helping to build more efficient, flexible, and secure network environments.

PPPoE+ supports set PPPoE+ switching, Forwarding policy, PPPoE+ format.

PPPoE+

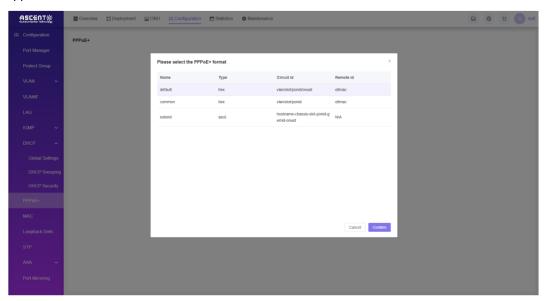
Access path: Configuration ---->PPPoE+.





PPPoE+ Format Selection

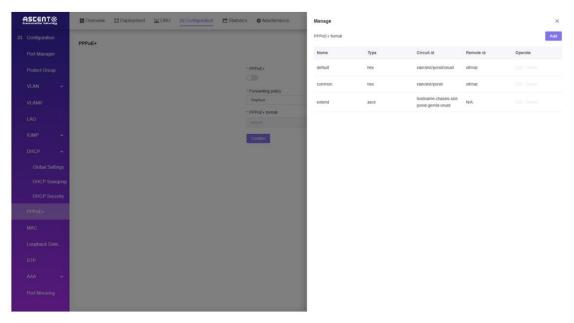
Access path: Configuration ---->PPPoE+ ---->Click the "Select" and the PPPoE+ format selection pop-up window will
appear.



PPPoE+ Format Management

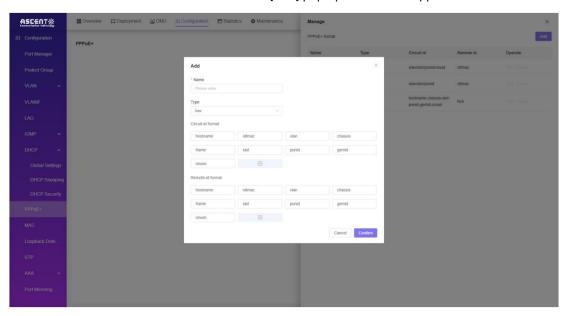
Access path: Configuration ---->PPPoE+ ---->Click the "Manage" and the PPPoE+ format management drawer will pop
up on the right side.





Add PPPoE+ format

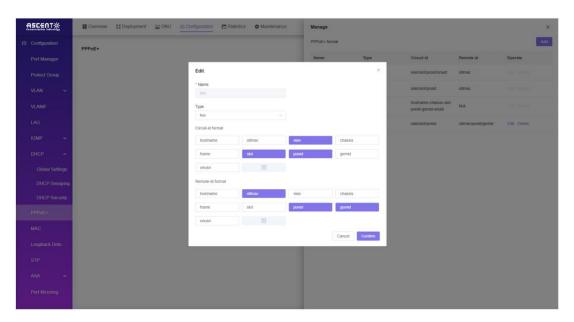
• Configuration----> PPPoE+ ----> Click the "Manage" and the PPPoE+ format management drawer pops up on the right side----> Click the "Add" and the PPPoE+ format [Add] pop-up window will appear.



Edit PPPoE+ format

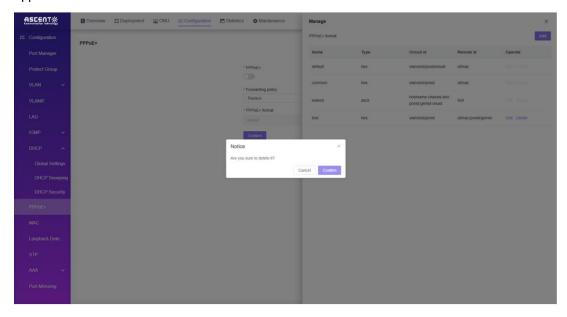
• Configuration----> PPPoE+ ----> Click the "Manage" and the PPPoE+ format management drawer pops up on the right side----> Click the "Edit" that need to be edited and the PPPoE+ format [Edit] popup window will appear.





Delete PPPoE+ format

Access path: Configuration---->PPPoE+ ----> Click the "Manage" and the PPPoE+ format management drawer pops up
on the right side----> Click the "Delete" that need to be edited and the PPPoE+ format [Delete] popup window will
appear.



• Click the "Confirm" to delete it.

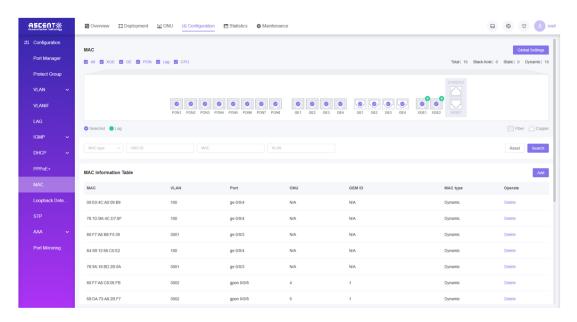
7.9 MAC

The OLT Web Management System supports configuring the OLT's MAC address aging time and MAC address cleanup, as well as viewing the MAC address information learned by the OLT.

MAC List

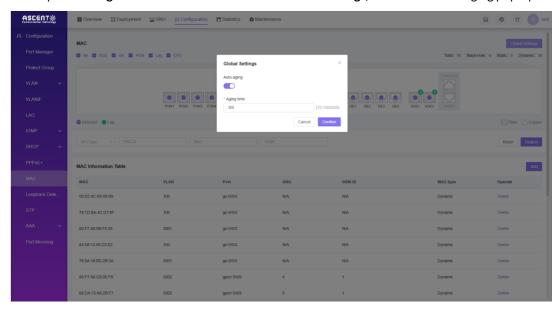
• Access path: Configuration ---->MAC.





Global Setting -- MAC Address Aging

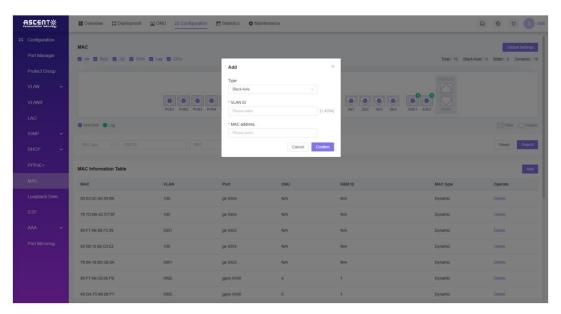
• Access path: Configuration ---->MAC ---->Click the "Global Setting", the MAC address aging pop-up window will appear.



Add Static/Black-Hole MAC Address

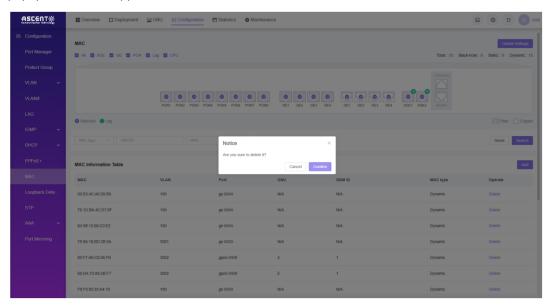
 Access path: Configuration ---->MAC ---->Click the "Add", the static/black-hole MAC address adding pop-up window will appear.





Delete MAC Address

Access path: Configuration ---->MAC ---->Click the "Delete" that need to be deleted and the MAC Address [Delete] popup window will appear.



• Click the "Confirm" to delete it.

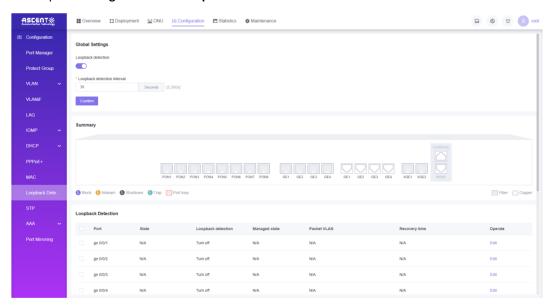
7.10 Loopback Detection

The existence of loops in a network can lead to devices repeatedly sending broadcast, multicast, and unknown unicast messages, causing wastage of network resources and even network paralysis. To promptly identify loops in a Layer 2 network and prevent severe network disruption, you can configure the Loopback Detection (LBDT) feature. The LBDT periodically sends loopback detection packets to check for the presence of loops in the network. If a loop is detected in a specific interface's network, the interface can be configured to be closed or blocked to eliminate the loop. If the loop in the interface's network disappears subsequently, the LBDT can automatically restore the interface to normal status.



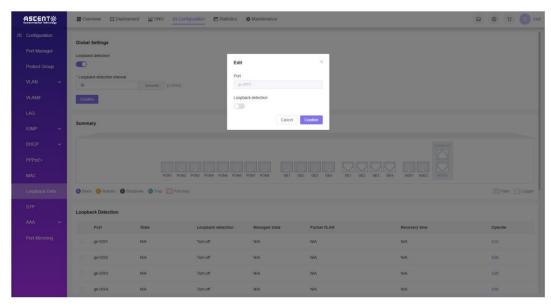
Loopback Detection List

• Access path: Configuration ---->Loopback Detection.



Edit Loopback Detection Configuration

Access path: Configuration ---->Loopback Detection ---->Select the port needed to be edited ---->Click the "Edit",
 and a pop-up window will appear for editing the Loopback Detection configuration of the port.



7.11 STP

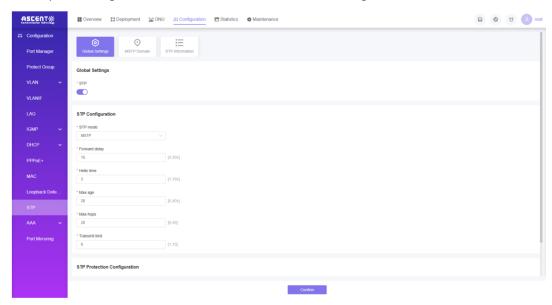
Spanning Tree Protocol (STP) is a network protocol used to prevent loops in local area networks and determine a logical network topology, which is an acyclic tree network topology. When certain parts of the network fail, STP can quickly recalculate the network topology and restore network connectivity.

Global Setting



The OLT Web Management System provides users to set STP switching, STP mode, BPDU protection, etc.

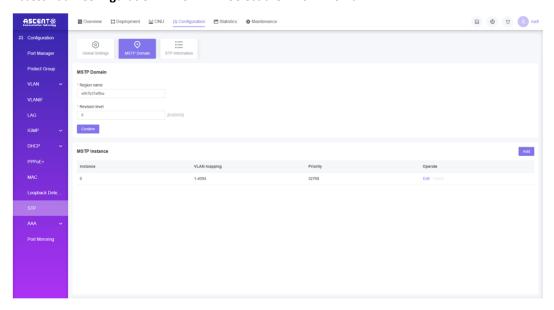
Access path: Configuration ---->STP ---->Select the "Global Setting".



MSTP Domain

The OLT Web Management System provides MSTP Domain config, such as Region name, Revision level, MSTP Instance, etc.

• Access Path: Configuration ---->STP ---->Select the "MSTP Domain".

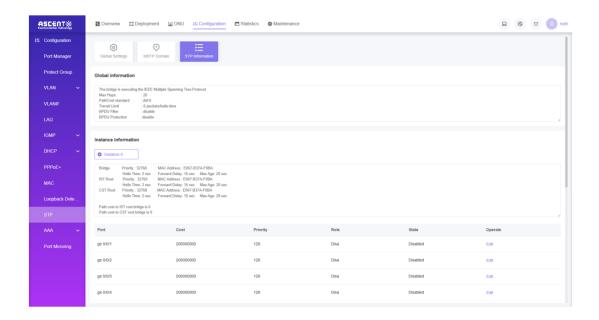


STP Information

The OLT Web Management System provides STP information, such as Global information, Instance information, port information, and the related parameters config etc.

• Access Path: Configuration ---->STP ---->Select the "STP Information".





7.12 AAA

AAA(Authentication, Authorization, Accounting);

Authentication: Verify the user's identity and available network services;

Authorization: Open network services to users based on authentication results;

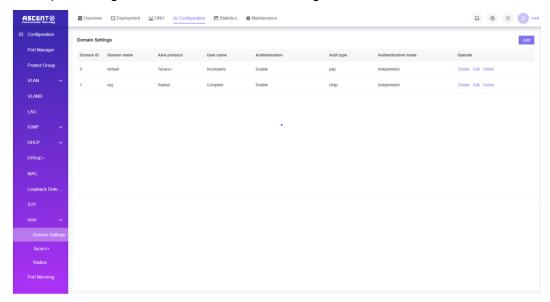
Accounting: Record the usage of various network services by users and provide it to the billing system.

The OLT Web Management System provides Domain Setting, Tacacs+, Radius features.

7.12.1 Global Settings

Domain Setting List

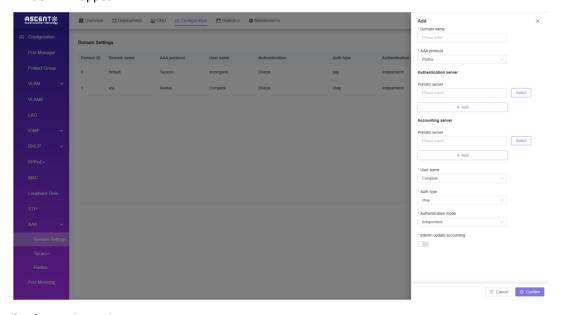
Access path: Configuration ---->AAA ---->Domain Settings.





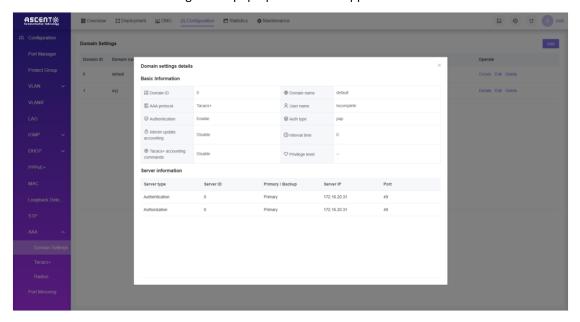
Add Domain Settings

• Access path: **Configuration** ---->**AAA** ---->**Domain Settings** ---->Click the "**Add**" and the Adding selection pop-up window will appear.



Details of Domain Setting

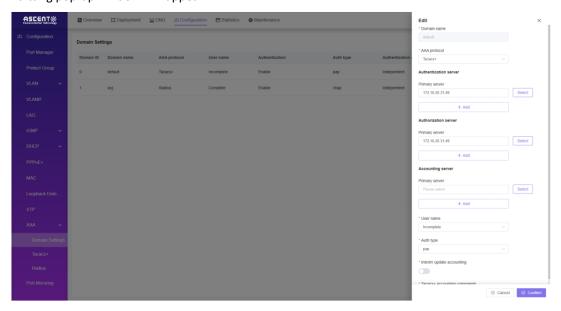
Access path: Configuration ---->AAA ---->Domain Settings ---->Click the "Details" that need to check the details
information and a domain setting details pop-up window will appear.





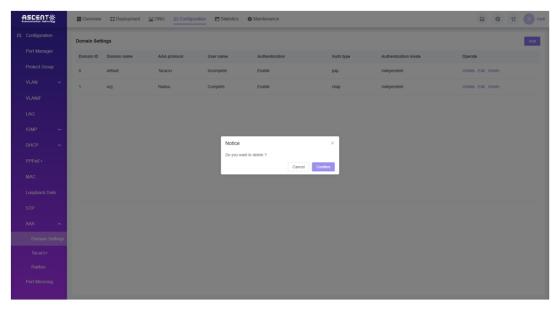
Edit Domain Settings

• Access path: **Configuration** ---->**AAA** ---->**Domain Setting** ---->Click the "**Edit**" that the item need to check and the Editting pop-up window will appear.



Delete Domain Settings

Access path: Configuration ---->AAA ---->Domain Setting ---->Click the "Delete" that the item need to delele and
the deleting pop-up window will appear.



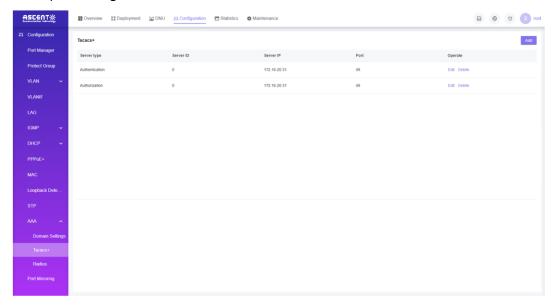
• Click the "Confirm" to delete it.



7.12.2 Tacacs+

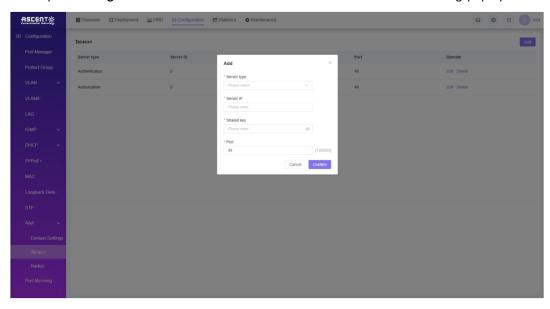
Tacacs+ List

• Access path: Configuration ---->AAA ---->Tacacs+.



Add Tacacs+

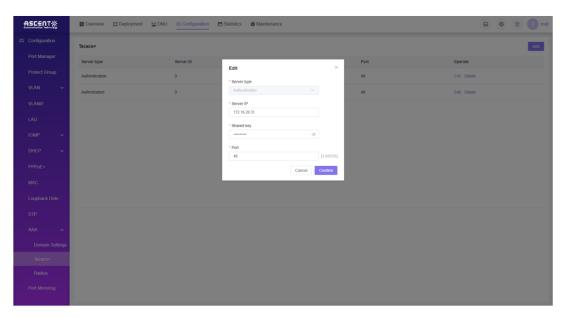
• Access path: Configuration ---->AAA ---->Tacacs+ ---->Click the "Add" and the Adding pop-up window will appear.



Edit Tacacs+

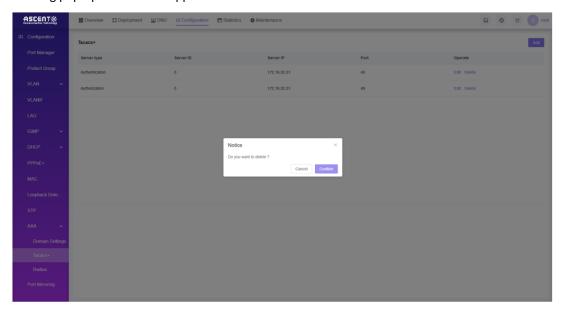
Access path: Configuration ---->AAA ---->Tacacs+ ---->Click the "Edit" that the item need to check and the Editting
pop-up window will appear.





Delete Tacacs+

• Access path: **Configuration** ---->**Tacacs+** ---->Click the "**Delete**" that the item need to delele and the deleting pop-up window will appear.



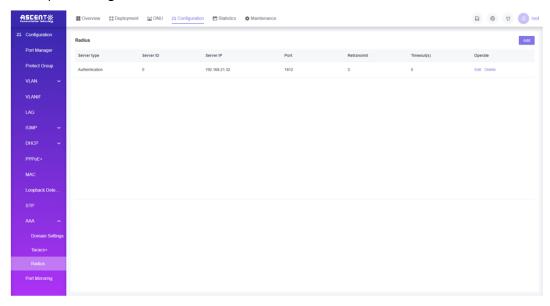
• Click the "Confirm" to delete it.



7.12.3 Radius

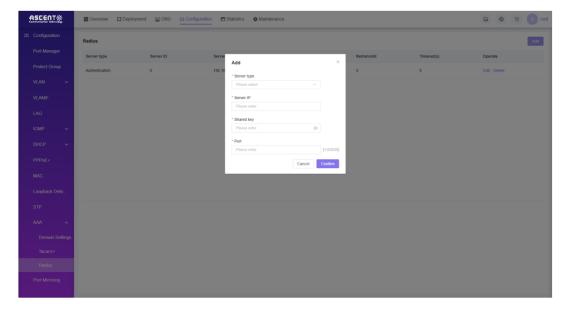
Radius List

• Access path: Configuration ----> AAA ----> Radius.



Add Radius

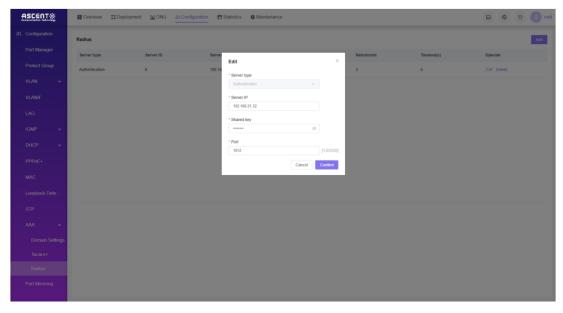
• Access path: Configuration ---->AAA ---->Radius ---->Click the "Add" and the Adding pop-up window will appear.





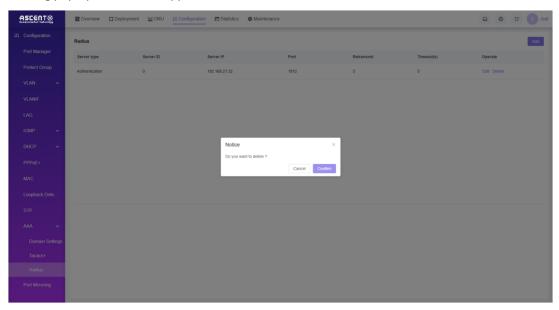
Edit Radius

Access path: Configuration ---->AAA ---->Radius ---->Click the "Edit" that the item need to check and the Editting
pop-up window will appear.



Delete Tacacs+

Access path: Configuration ---->AAA ---->Radius ---->Click the "Delete" that the item need to delete and the
deleting pop-up window will appear.



• Click the "Confirm" to delete it.

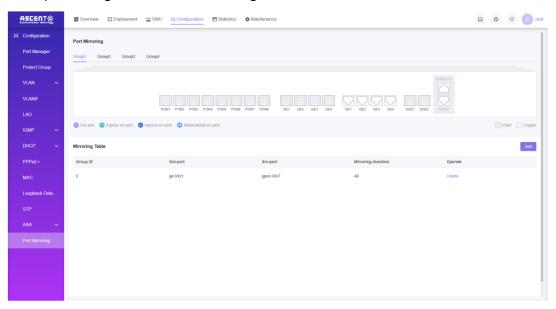


7.13 Port Mirroring

The Port Mirroring feature involves copying the packets from a designated port (source port) to other ports (destination ports). This allows users to monitor the copied packets on the destination ports for network monitoring and troubleshooting purposes

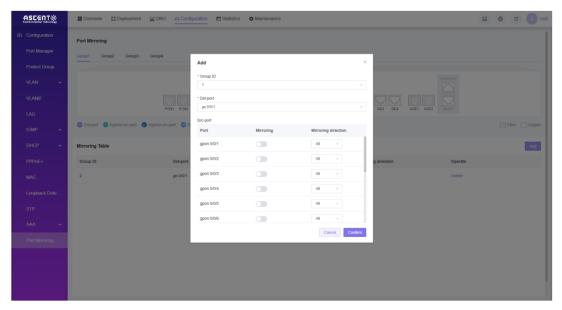
Port Mirroring List

Access path: Configuration ---->Port Mirroring.



Add Port Mirroring

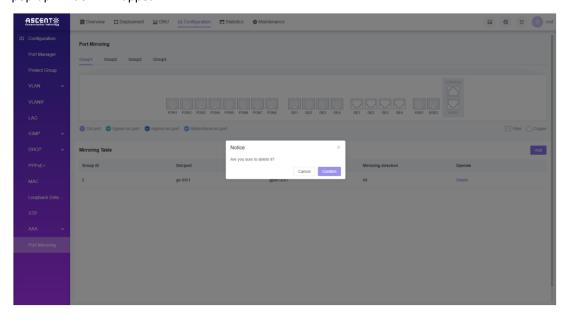
 Access path: Configuration ---->Port Mirroring ---->Click the "Add", and the Port Mirroring adding pop-up window will appear.





Delete Port Mirroring

• Access path: **Configuration** ---->**Port Mirroring** ---->Click the "**Delete**" that the item need to delele and the deleting pop-up window will appear.



Click the "Confirm" to delete it.



8 Statistics

This chapter contains the following topics:

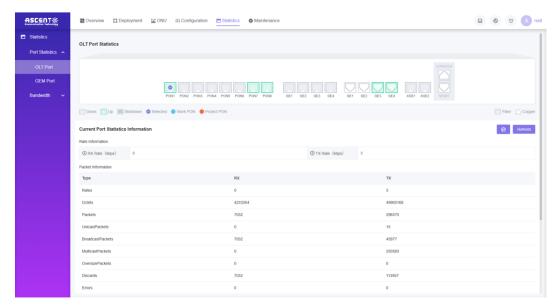
- Port Statistics
- Bandwidth

8.1 Port Statistics

Port statistics display port rate information and packets statistics of port received and transmitted. It is helpful for debugging and maintenance.

8.1.1 OLT Port

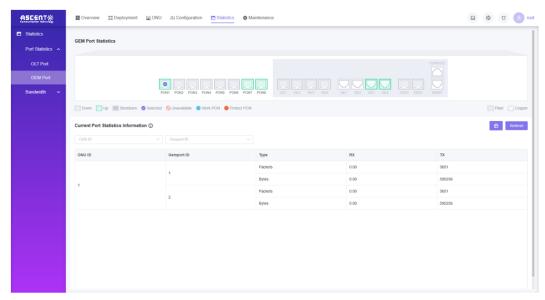
Access path: Statistics ---->Port Statistics ---->OLT Port, click icon of uplink or pon port to display statistics information.





8.1.2 GEM Port

• Access path: Statistics ---->Port Statistics ---->GEM Port, click icon of pon port to display statistics information.

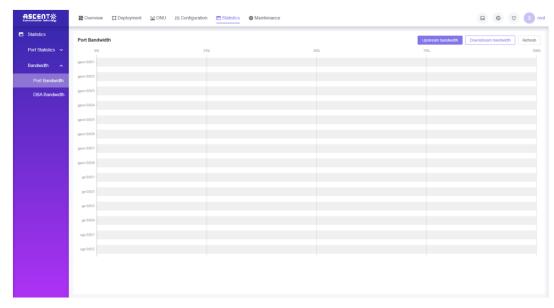


8.2 Bandwidth

Bandwidth displays port bandwidth information, such as total bandwidth, used bandwidth and residual bandwidth. It is helpful for debugging and maintenance.

8.2.1 Port Bandwidth

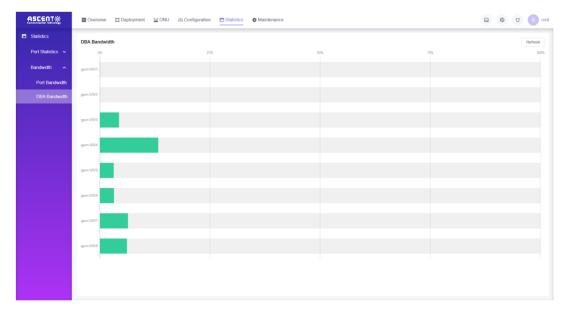
Access path: Statistics ---->Bandwidth ---->Port Bandwidth, click "Upstream bandwidth" or "Download bandwidth" to display the bandwidth information.





8.2.2 DBA Bandwidth

Access path: Statistics ---->Bandwidth ---->DBA Bandwidth, it displays DBA bandwidth information of every pon port.





9 Maintenance

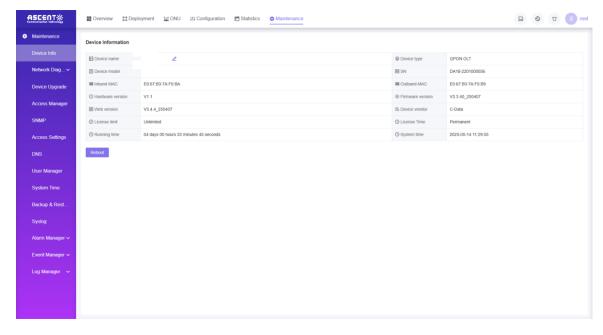
This chapter contains the following topics:

- Device Information
- Network diagnosis
- Device Upgrade
- Access Manager
- SNMP
- Access Settings
- DNS
- User Manager
- System Time
- Backup and Restore
- Syslog
- Alarm Manager
- Event Manager
- Log Manager

9.1 Device Information

Allowing the user to check information such as OLT model, MAC address, and vendor name, and providing the operation feature of the device reboot.

Access path: Maintenance ---->Device Information.





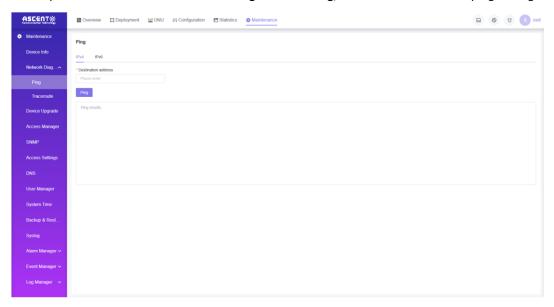
9.2 Network Diagnosis

Network Diagnosis provides ping and traceroute tool for debugging and maintenance.

9.2.1 Ping

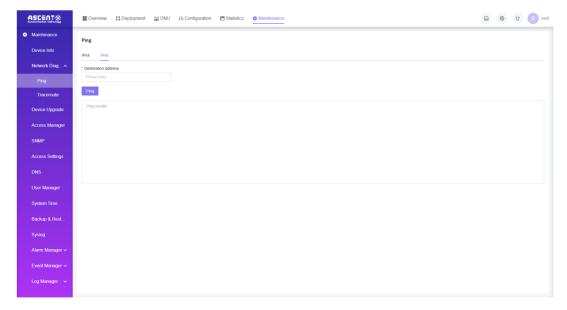
IPv4 Ping

Access path: Maintenance ---->Network Diagnosis ---->Ping, click "IPv4" and do IPv4 ping testing.



IPv6 Ping

Access path: Maintenance ---->Network Diagnosis ---->Ping, click "IPv6" and do IPv6 ping testing.

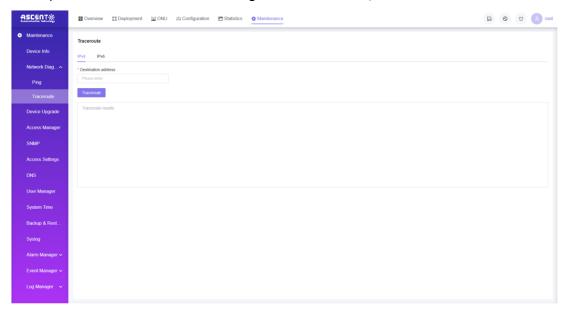




9.2.2 Traceroute

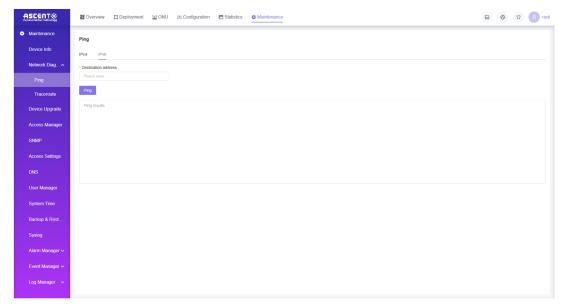
IPv4 Traceroute

• Access path: Maintenance ---->Network Diagnosis ---->Traceroute, click "IPv4" and do IPv4 traceroute testing.



IPv6 Traceroute

Access path: Maintenance ---->Network Diagnosis ---->Traceroute, click "IPv6" and do IPv6 traceroute testing.





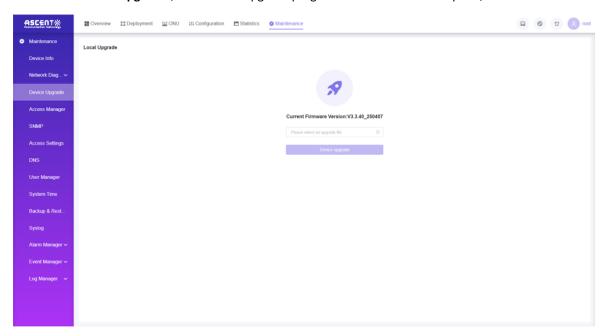
9.3 Device Upgrade

Allowing to upgrade the firmware of OLT devices.

Access path: Maintenance ----> Device Upgrade.

Operational Steps:

- 1. Click the "Select File" selection box;
- 2. Select the upgrade firmware adapted to this OLT and confirm;
- 3. Click the "Device Upgrade", wait for the upgrade progress of the device to complete, and then reboot the device;



9.4 Access Manager

Allowing to configure remote access to OLT devices, and support out-of-band web access and CMS remote access configuration.

• Access path: Maintenance ---->Access Manager.

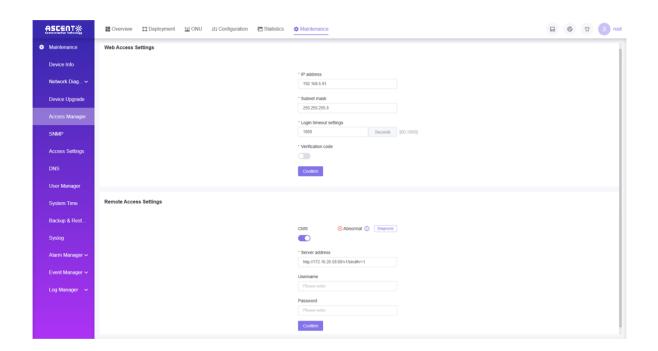
Web Access Settings

Allowing to configure out-of-band management IP and web login timeout settings for connecting to MGMT ports.

Remote Access Settings

Allowing to configure the channel configuration for connecting to the CMS webmaster (currently only supported for privately deployed CMS).



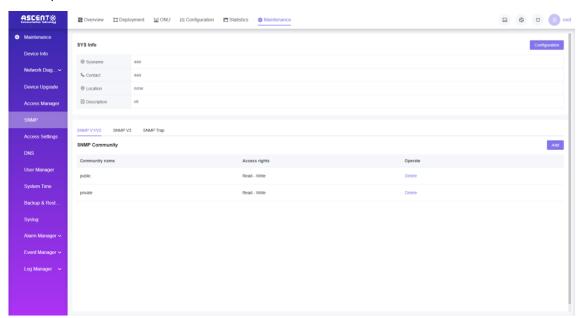


9.5 SNMP

SNMP is a Simple Network Management Protocol that makes it easy for OLT to remotely manage and monitor, and is compatible with third-party management systems.

SNMP System Information

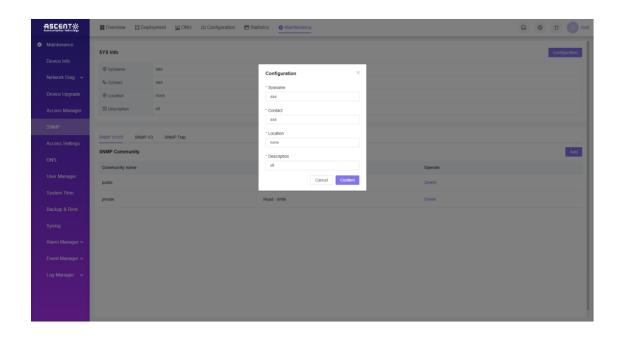
Access path: Maintenance ---->SNMP.



SNMP System Information Configuration

Access path: Maintenance ---->SNMP ---->Click the "Configuration" button and the [Configuration] pop-up window will appear for setting snmp system information, such as Sysname, Contact, Location, Description.

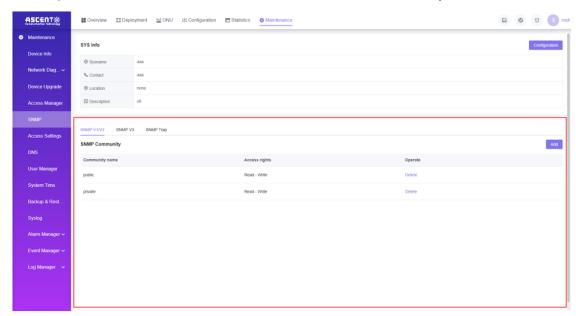




9.5.1 SNMP V1/V2

SNMP V1/V2 Community List

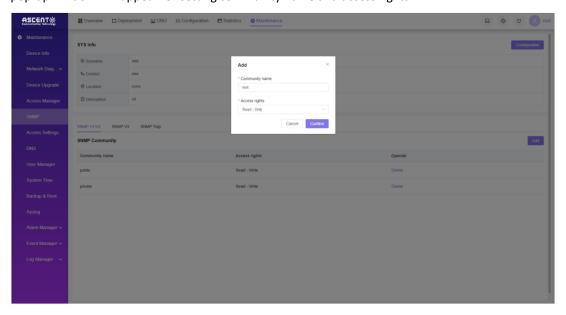
Access path: Maintenance ---->SNMP ---->SNMP V1/V2---->SNMP Community.





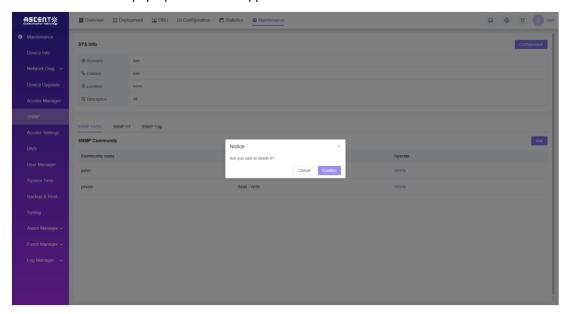
Add SNMP Community

Access path: Maintenance ---->SNMP ---->SNMP V1/V2---->SNMP Community, click "Add" button and an [Add] pop-up window will appear for setting community name and access rights.



Delete SNMP Community

• Access path: Maintenance ---->SNMP ---->SNMP V1/V2---->SNMP Community, click "Delete" that community need to delete and an pop-up window will appear.



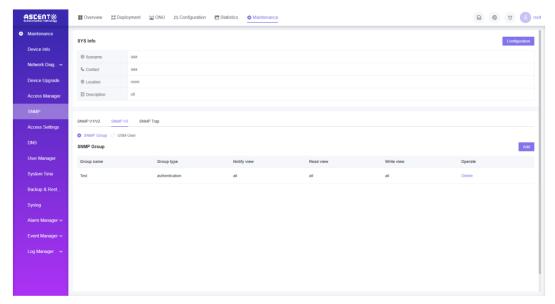
• Click the "Confirm" to delete it.



9.5.2 SNMP V3

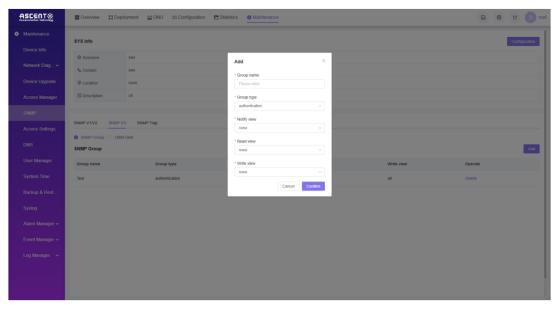
SNMP V3----SNMP Group List

• Access path: Maintenance ---->SNMP ---->SNMP V3---->SNMP Group.



Add SNMP Group

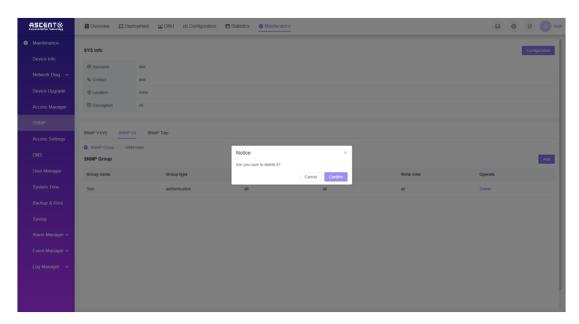
Access path: Maintenance ---->SNMP ---->SNMP V3---->SNMP Group, click "Add" button and an [Add] pop-up window will appear for SNMP group settings, such as Group name, Group type, Notify view, Read view, Write view.



Delete SNMP Group

Access path: Maintenance ---->SNMP ---->SNMP V3---->SNMP Group, click "Delete" that the group need to delete
and an pop-up window will appear.

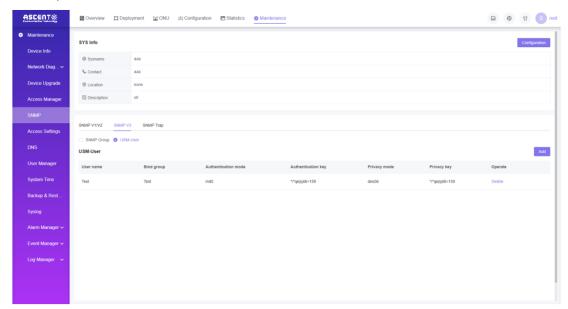




Click the "Confirm" to delete it.

SNMP V3----USM-User

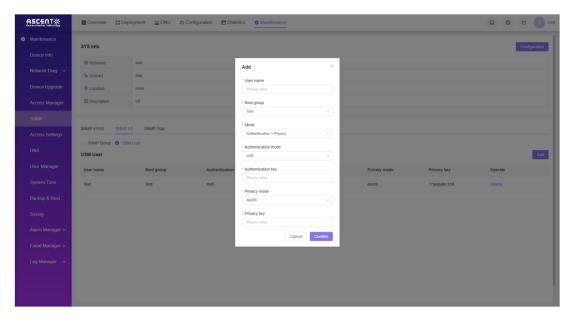
Access path: Maintenance ---->SNMP ---->SNMP V3---->USM-User.



Add USM-User

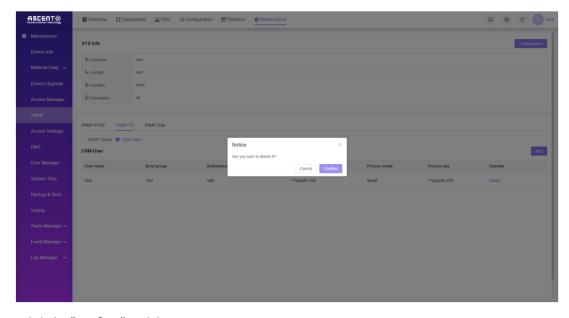
Access path: Maintenance ---->SNMP ---->SNMP V3---->USM-User, click "Add" button and an [Add] pop-up window will appear for USM-User settings, such as User name, Bind group, Mode, Authentication mode, Authentication key, Privacy mode, Privacy key.





Delete USM-User

Access path: Maintenance ---->SNMP ---->SNMP V3---->USM-User, click "Delete" that the group need to delete
and an pop-up window will appear.



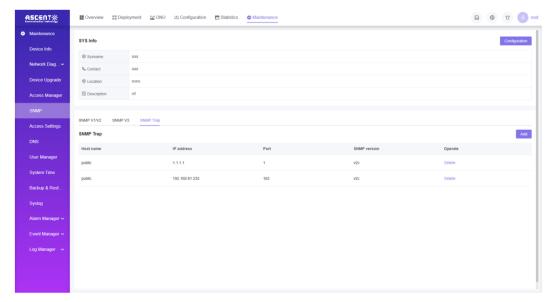
• Click the "Confirm" to delete it.



9.5.3 SNMP Trap

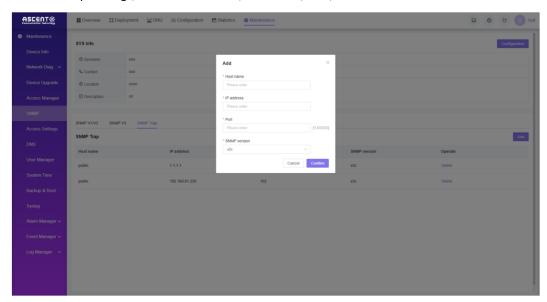
SNMP V3----SNMP Trap List

Access path: Maintenance ---->SNMP ---->SNMP Trap.



Add SNMP Trap

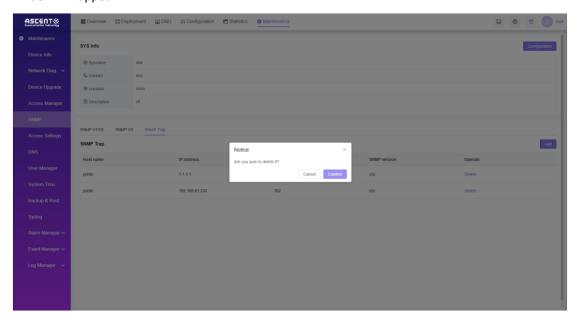
Access path: Maintenance ---->SNMP ---->SNMP Trap, click "Add" button and an [Add] pop-up window will appear
for SNMP trap settings, such as Host name, IP address, Port, SNMP version.





Delete SNMP Trap

Access path: Maintenance ---->SNMP ---->SNMP Trap, click "Delete" that the trap need to delete and an pop-up window will appear.



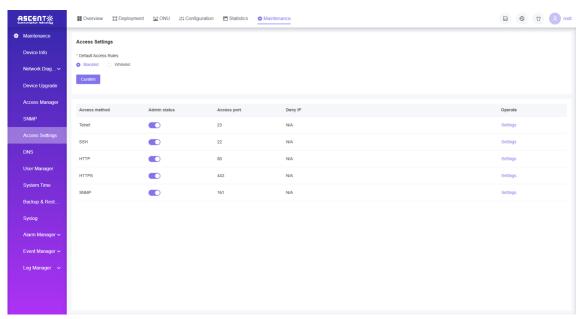
• Click the "Confirm" to delete it.

9.6 Access Settings

Access settings provides blacklist and whitelist access rules settings. It supports settings for Telnet, SSH, HTTP, HTTPS, SNMP. For security, it allows to limit the specific IP address or IP address range to access the OLT.

Access Settings

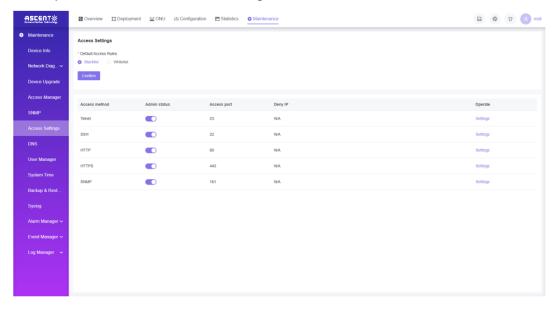
Access path: Maintenance ---->Access Settings.





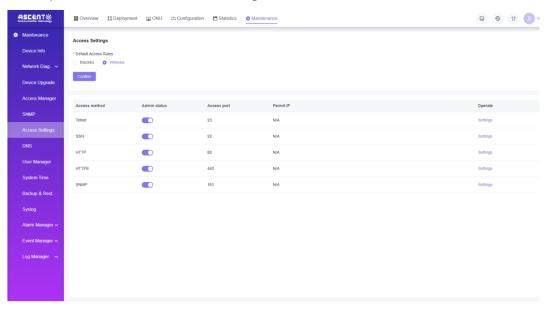
Access Settings----Blacklist

• Access path: Maintenance ----> Access Settings ----> click "Blacklist" and "Confirm" button to set default access rules.



Access Settings----Whitelist

Access path: Maintenance ---->Access Settings ----> click "Whitelist" and "Confirm" button to set default access rules.

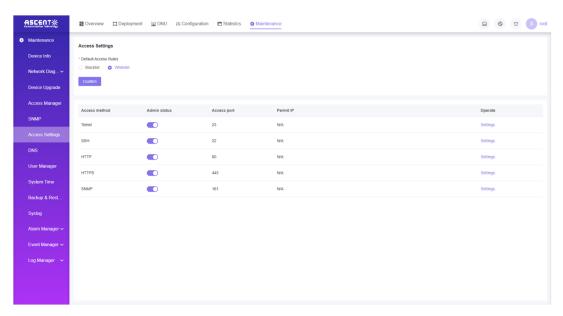


Access Settings----Access port and IP Address Settings

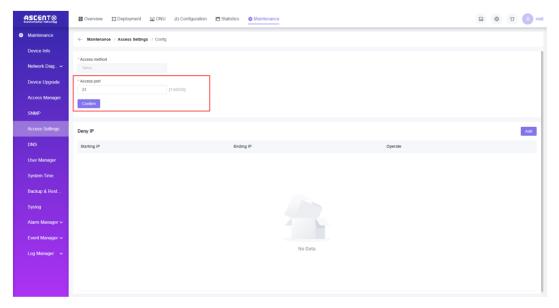
Note: It supports Telnet, SSH, HTTP, HTTPS, SNMP and the settings is the same. Here we make Telnet as an example.

• Step 1: Access path: Maintenance ----> Access Settings ----> click "Settings" that the protocol need to set and enter config page .



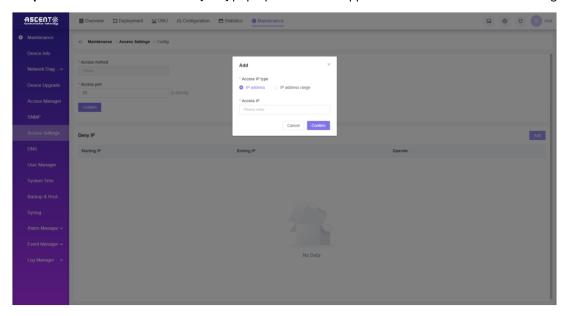


• Step 2: In config page, set "Access port" option and click "Confirm" button.



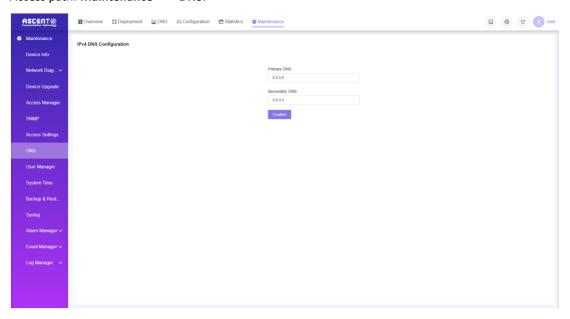


Step 3: click "Add" button and an [Add] pop-up window will appear for IP address or IP address range settings.



9.7 DNS

- 1. The system supports configuring the Domain Name System (DNS), allowing users to access the system using domain names. If the system's IP address changes, the DNS server supports automatic data updating, ensuring uninterrupted access through domain name. If the DNS server doesn't support automatic updating, please manually update the correspondence between the system domain name and IP address.
- 2. By configuring the DNS server IP address, users can resolve server domain names to IP addresses, enabling access to the server.
- 3. In the [DNS Configuration] interface, you can view the current DNS configuration information of the system and make modifications if needed.
- Access path: Maintenance ---->DNS.

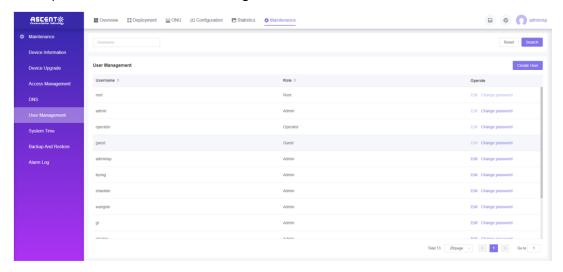




9.8 User Manager

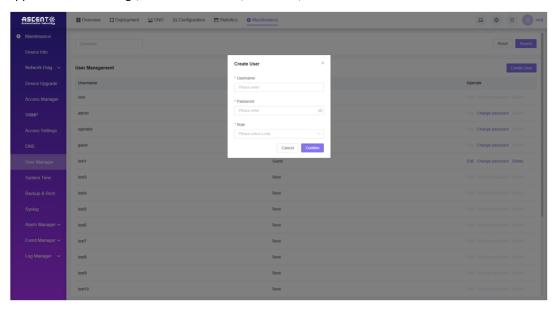
The OLT Web Management System supports multi-user operation and enables different users to have distinct operational permissions, thereby enhancing the operation security of the system.

• Access path: Maintenance ---->User Manager.



Create User

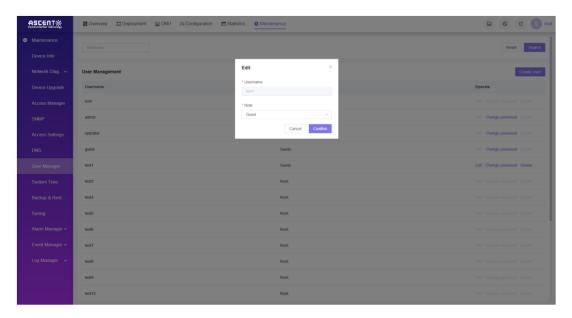
Access path: Maintenance ---->User Manager ---->Click the "Create User", a pop-up window for creating user will
appear for user settings, such as Username, Password, Role.



Edit User

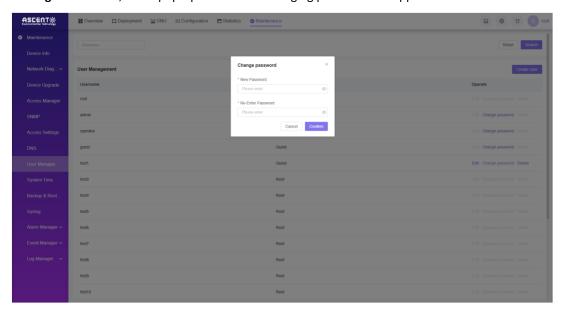
Access path: Maintenance ---->User Manager ---->Select the user needed to be edited ---->Click the "Edit", and a pop-up window for editing will appear.





Change Password

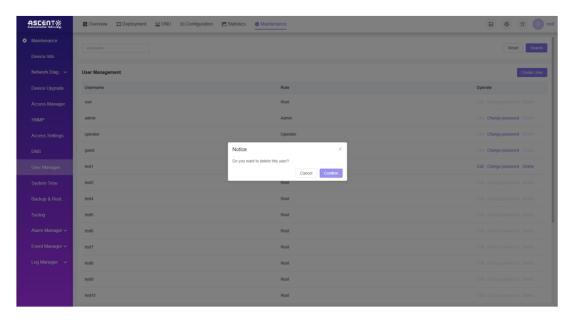
Access path: Maintenance ---->User Manager ---->Select the user who needs to change the password ---->Click the
 "Change Password", and a pop-up window for changing password will appear.



Delete User

Access path: Maintenance ---->User Manager ---->Select the user needed to be deleted ---->Click the "Delete", and a
pop-up window for deleting will appear.



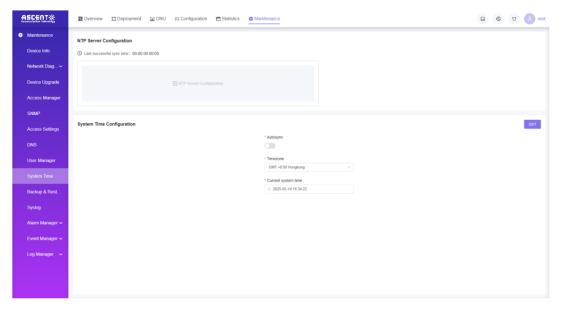


• Click the "Confirm" to delete it.

9.9 System Time

Allowing to configure the time of the OLT device, it supports synchronizing with the time of the NTP server

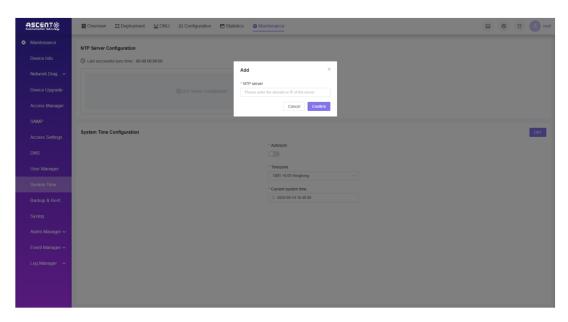
Access path: Maintenance ---->System Time.



Add NTP Server Configuration

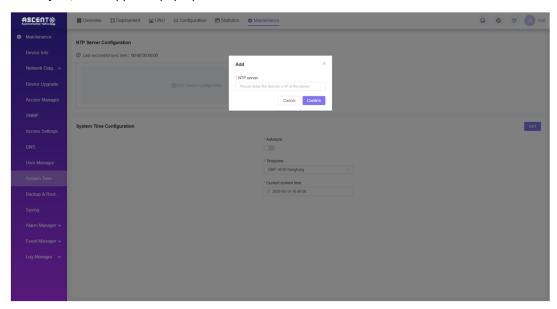
Access path: Maintenance ---->System Time ---->Click the "NTP Server Configuration", and a pop-up window will
appear for adding NTP server.





System Time Configuration

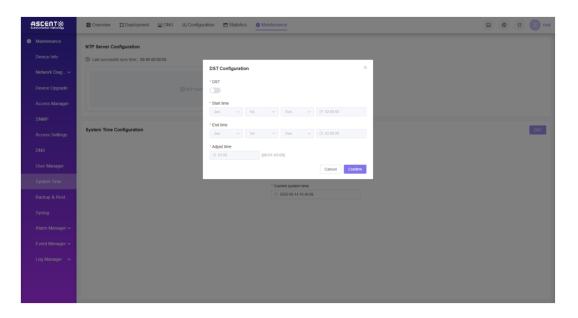
Access path: Maintenance ---->System Time ----> set "Timezone" and "Current system time" options. If click "Autosync", it will appear a pop-up window to add NTP Server.



Daylight Saving Time(DST)

Access path: Maintenance ---->System Time ----> click "DST" button, it will appear a pop-up window for DST configuration.

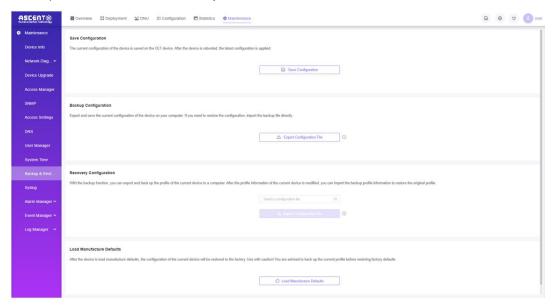




9.10 Backup and Restore

Provides operations for Save Configuration, Backup Configuration, Recovery Configuration, Load Manufacture Defaults.

Access path: Maintenance ---->Backup and Restore.

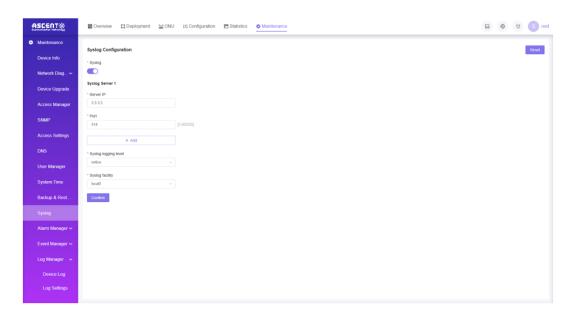


9.11 Syslog

The SysLog protocol is a widely used standard for logging and transmission of network devices and servers. It allows system administrators to centrally manage log information, facilitating monitoring and troubleshooting.

• Access path: Maintenance ---->Syslog.





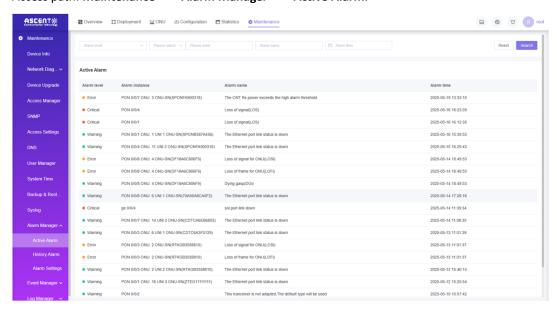
9.12 Alarm Manager

The system or management objects detect significant changes in their own status, whether it's an anomaly or normal operation. These changes are displayed as alarms in the management interface of the alarm manager. Management objects refer to entities or network elements connected to the alarm management system.

9.12.1 Active Alarm

Active Alarm

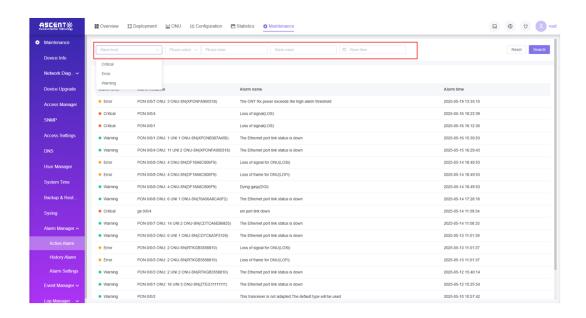
Access path: Maintenance ----> Alarm Manager----> Active Alarm.



Active Alarm Search

Access path: Maintenance ----> Alarm Manager----> Active Alarm----> click top options bar to search active alarm,
 such as Alarm level, Alarm type, Alarm name, Alarm time options.

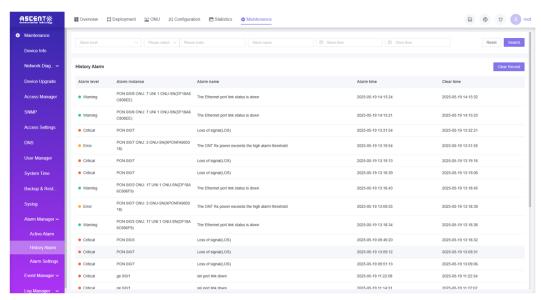




9.12.2 History Alarm

History Alarm

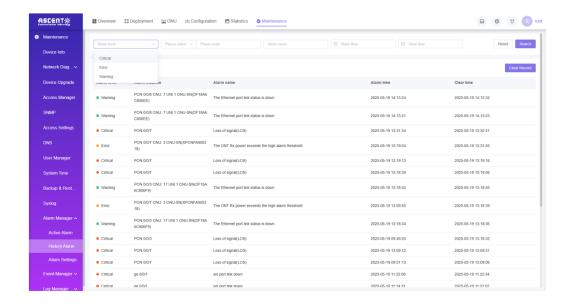
Access path: Maintenance ---->Alarm Manager----> History Alarm.



Active Alarm Search

Access path: Maintenance ---->Alarm Manager----> History Alarm----> click top options bar to search history alarm, such as Alarm level, Alarm type, Alarm name, Alarm time, Clear time options.

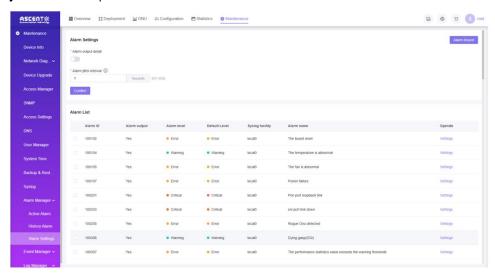




9.12.3 Alarm Settings

Alarm Settings

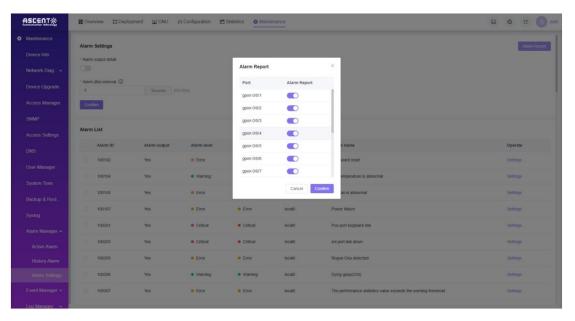
Access path: Maintenance ---->Alarm Manager----> Alarm Settings----> Set "Alarm output detail" and "Alarm jitter-interval" options.



Alarm Report Settings

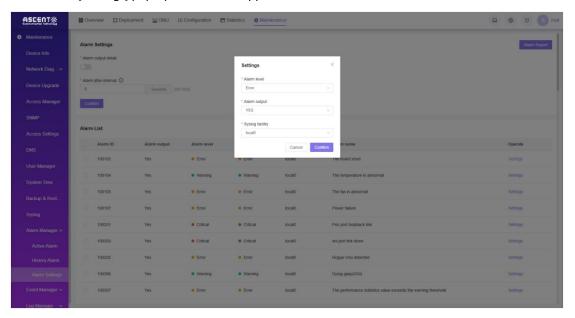
• Access path: Maintenance ----> Alarm Manager----> Alarm Settings----> click "Alarm Report" button and a [Alarm Report] pop-up window will appear to set port alarm switch.





Alarm List Settings

• Access path: Maintenance ----> Alarm Manager----> Alarm Settings----> click "Settings" that the alarm id need to be set and a [Settings] pop-up window will appear.





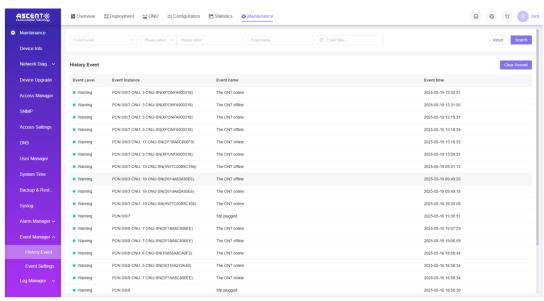
9.13 Event Manager

The system or management objects detect significant changes in their own status, whether it's an anomaly or normal operation. These changes are displayed as event in the management interface of the event manager. Management objects refer to entities or network elements connected to the event management system.

9.13.1 History Event

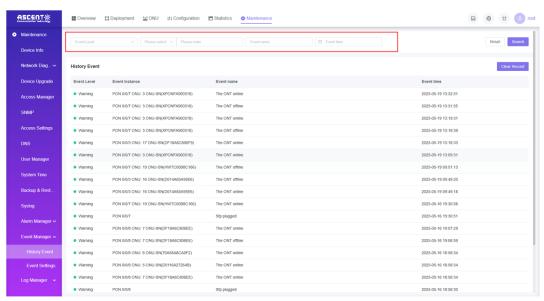
History Event

Access path: Maintenance ----> Event Manager----> History Event.



History Event Search

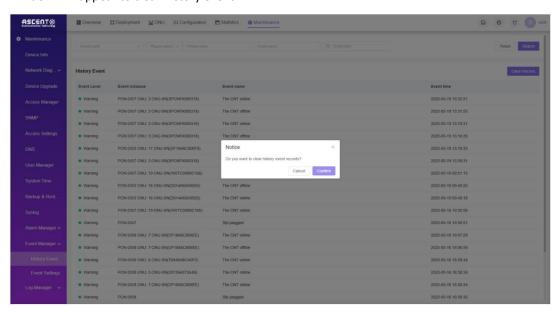
Access path: Maintenance ----> Event Manager----> History Event----> click top options bar to search history event,
 such as Event level, Event type, Event name, Event time options.





Clear History Event Record

• Access path: Maintenance ---->Event Manager----> History Event----> click "Clear Record" button and a pop-up window will appear to clear history event.

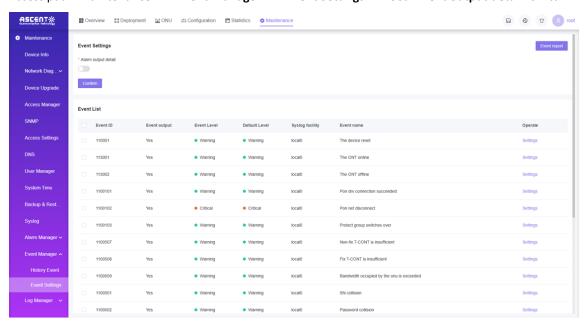


• Click the "Confirm" to clear it.

9.13.2 Event Settings

Event Settings

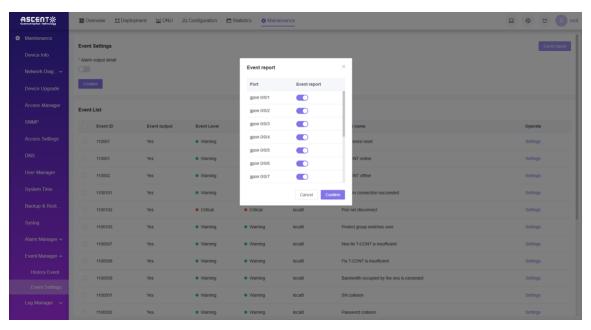
• Access path: Maintenance ----> Event Manager----> Event Settings----> Set "Event output detail" switch.



Event Report Settings

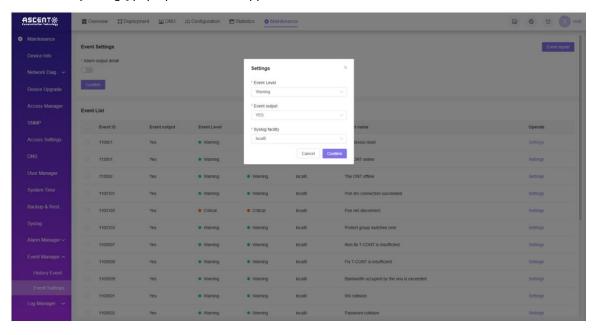
Access path: Maintenance ---->Event Manager----> Event Settings----> click "Event Report" button and a [Event Report] pop-up window will appear to set port event switch.





Alarm List Settings

• Access path: Maintenance ---->Event Manager----> Event Settings----> click "Settings" that the event id need to be set and a [Settings] pop-up window will appear.





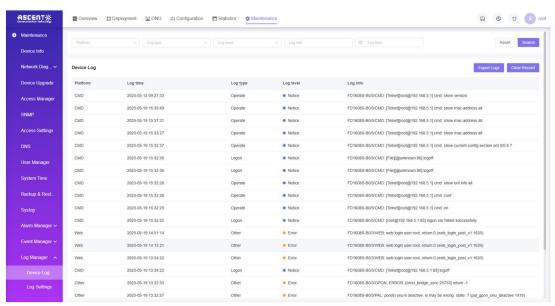
9.14 Log Manager

The device manager system log is an important tool used to monitor and manage the operating status of computer hardware devices, diagnose faults, and ensure system stability. The key functions include real-time monitoring, fault diagnosis, performance analysis, and historical record management.

9.14.1 Device Log

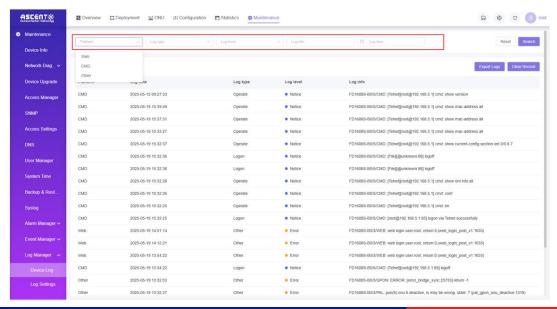
Device Log

Access path: Maintenance ---->Log Manager----> Device Log.



Device Log Search

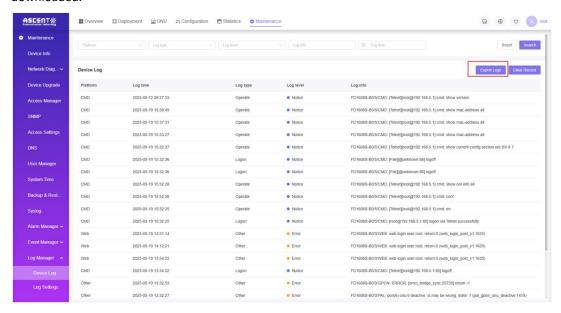
Access path: Maintenance ---->Log Manager----> Device Log----> click top options bar to search device log, such
as Platform, Log type, Log level, Log info, Log time options.





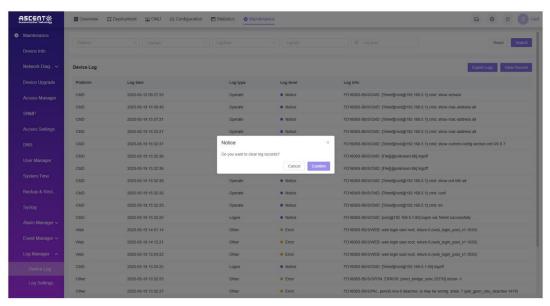
Export Logs

 Access path: Maintenance ---->Log Manager----> Device Log----> click "Export Logs" button and the logs will be downloaded.



Clear Device Log Record

Access path: Maintenance ---->Log Manager----> Device Log----> click "Clear Record" button and a pop-up window will appear to clear the logs.



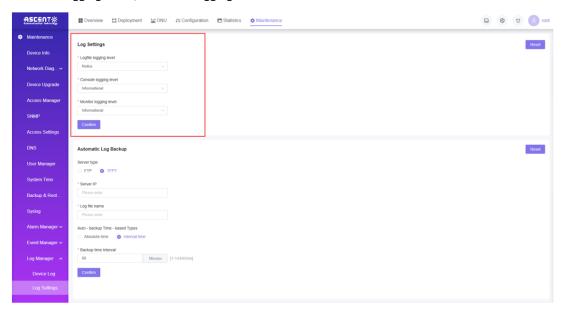
• Click the "Confirm" to clear it.



9.14.2 Log Settings

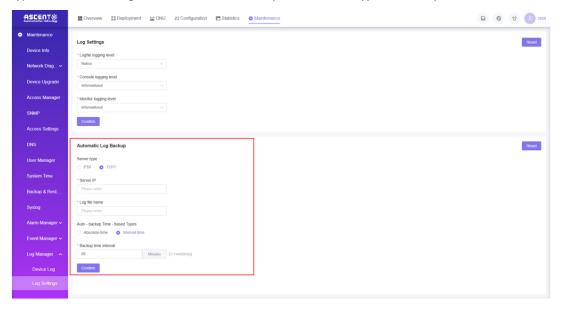
Log Settings

Access path: Maintenance ---->Log Manager----> Log Settings----> Set log level, such as "Logfile logging level",
 "Console logging level", "Monitor logging level".



Automatic Log Backup

• Access path: Maintenance ---->Log Manager----> Log Settings----> Set Automatic Log Backup, such as "Server type", "Server IP", "Log file name", "Auto - backup Time - based Types", "Backup time interval".









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