

AirLive OLT EMS Cloud Platform

AirLive EMS Cloud



Dash
Board

Live Status
Monitor

Device
Alarm Notify

OLT
Configure

ONU
Configure

Local Server
Or Cloud

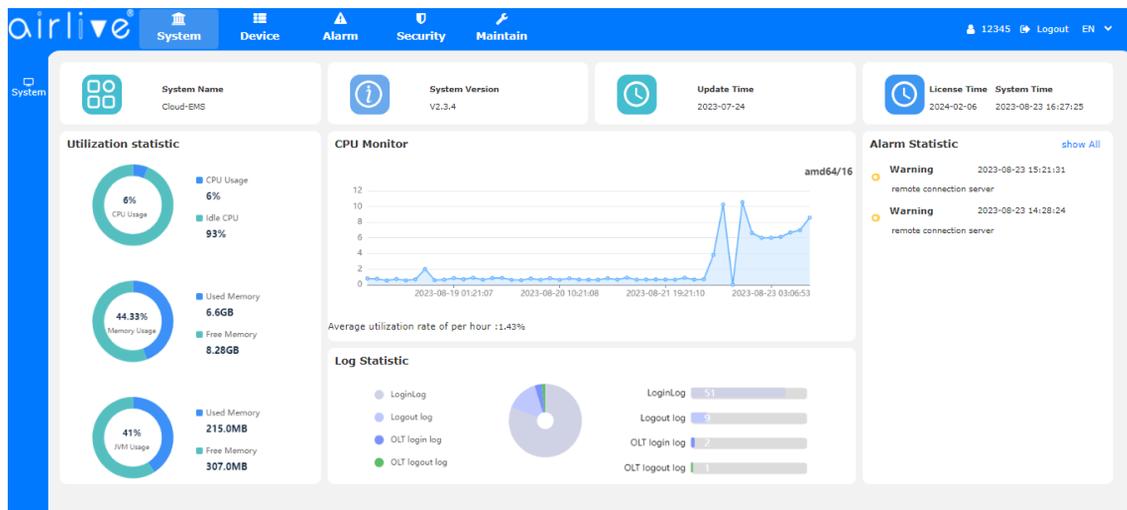
EMS Cloud Overview

AirLive EMS Cloud (Element Management System) is a network element management system and cloud platform for centralized remote unified management of OLT and ONU for administrators. The platform is based on advanced browser/server (B/S) architecture and can be deployed in both cloud or private network setups.

Users can unify the network management of OLT and ONU through a WEB browser, this includes Data config, Fault diagnosis, Performance statistics and other management functions, with an easy-to-use interface, which can greatly reduce the setup and maintenance cost.

EMS Cloud works with all the AirLive OLT and ONU devices and offers a great centralized platform for administrators to manage and monitor multiple units from a single location, without the need for on-premises access. The AirLive EMS Cloud can be accessed from local connection or anywhere with an internet connection, making it ideal for remote management of distributed networks.

It is a powerful tool for managing networks, particularly for organizations with locations or distributed workforces. The solution can be applied for, ISP, large scale campus, hotel & shopping mall.



Key function of AirLive EMS Cloud

Free EMS Cloud Service: Binding up to 10000 devices*.
*depending on server specifications.

Centralized Management: AirLive EMS Cloud provides a centralized platform for managing and monitoring multiple OLT and ONU's a local or remote location, simplifying network management and reducing the need for specialized IT staff.

Uniform Configuration: Support OLT, ONU management, the management interface is consistent with the WEB interface, so there is no new UI to learn and use.

Data Security features: AirLive EMS Cloud offers a range of security features, including Permission management, Data backup and Data transfer encryption.

Key function of AirLive EMS Cloud

Real-time Network monitoring: AirLive EMS Cloud provides real-time monitoring of network performance, including traffic analysis and device health status, allowing administrators to quickly identify and troubleshoot issues.

Different access levels: AirLive EMS Cloud offers different access roles for management of the platform; these roles can be for viewing or full control of the platform.

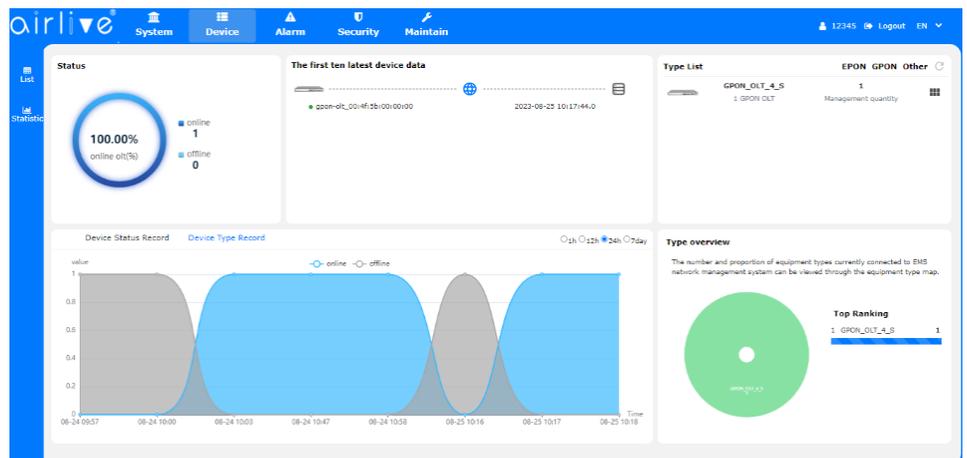
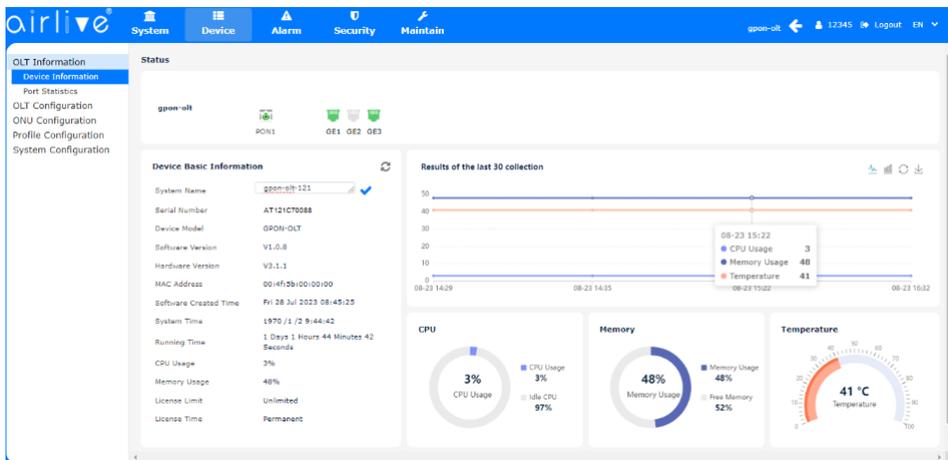
Future Support for APP: AirLive EMS Cloud will have Support for Android APP, handheld management, operation and maintenance anytime & anywhere.

AirLive EMS Cloud Major Function Introduction

The AirLive EMS Cloud provides easy-of-use function for administrators to manage as well as troubleshoot network problem cost-effectively. The strong function include real-time monitoring via a user-friendly web-based dashboard, and an easy setup with the same layout as the OLT equipment.

Real-time Live Status Monitor and Alarm notification via user-friendly Dashboard

The Web-based dashboard can provide real-time monitoring of device traffic, helping end clients troubleshoot network congestion. The alarm notification feature can warn end clients when a device experiences heavy CPU or memory loading or connection conflicts, allowing them to take prompt action and minimize the risk of prolonged downtime or data loss. It can also assist end clients in making informed decisions about their network systems' performance and stability.



AirLive EMS Cloud Dashboard for Real-time Live Status Monitor

Easy to Use OLT and ONU Control

The Web-based dashboard makes it easy to control both the OLT and ONU devices. The AirLive EMS Cloud platform follows the same layout as the OLT itself. This means there is no need to relearn the setup. All the same configuration buttons and function in the AirLive EMS Cloud are the same. This ease-of-use control saves the administrator and maintenance support time and money.

The screenshots show the following configurations:

GE Configuration

Port ID	Description	Admin Status	Speed	Flow Control	PVID	Storm(0-13000kpbs)			Rate(0-100000kpbs)		MAC Limit(0-16384)
						Broadcast	Unicast	Ingress	Egress		
GE1		<input checked="" type="checkbox"/>	Auto	<input type="checkbox"/>	100	1496	1496	0	0	0	
GE2		<input checked="" type="checkbox"/>	Auto	<input type="checkbox"/>	1	1496	1496	0	0	0	
GE3		<input checked="" type="checkbox"/>	10g-full	<input type="checkbox"/>	100	1496	1496	0	0	0	

Optical Transceiver

Port ID	Temperature(°C)	Voltage(V)	Bias Current(mA)	Transmit Power(dBm)	Receive Power(dBm)
3	56.324	3.275	42.164	-2.402	-2.766

Traffic Statistics

Port ID	Link Status	Speed	Rx Bytes	Rx Packets				Tx Bytes	Tx Packets				Collisions	Errors
				Packets	Unicast	Broadcast	Multicast		Packets	Unicast	Broadcast	Multicast		
GE1	Up	1000M Full	30670862	210400	54234	22624	133542	45235131	321207	64674	130649	125894	0	0
GE2	Down	-	26277187	202382	83211	5768	113403	141370828	269059	134736	33746	100577	0	0
GE3	Up	10000M Full	3264337	27259	9444	2717	15098	43896851	409991	13010	148658	248323	0	0

Port Statistics

Real time performance query interval setting: Status (Note: When you leave the port performance statistics interface, please update the status to disabled)

Task Interval: 15 (15-900s) Submit

Port real time performance statistic:

ONU Autofind

Adding ONU's to the OLT using the AirLive EMS Cloud is as easy as doing it in the OLT itself. When the ONU is connected to the OLT, the Autofind function will automatically detect the ONU and the device can be added to the OLT network and be setup using the EMS Cloud.

The screenshot shows the following configuration and data:

ONU Authentication Info

PON: PON1
Auth Mode: All
Auth Info: [Search] [Clear] [Refresh]

ONU Total : 1 ONU Online : 1 ONU Offline : 0

PON ID	ONU ID	Admin Status	Descriptions	OMCC Status	Phase Status	ONU Profile	Auth Mode	Auth Info	Model	Action
1	1	ENABLE	GPON0/1:1	ENABLE	Working	default	Sn	GPON00d:7aa9	V802	Config Deactivate Delete Modify Reboot

ONU Setup with EMS Cloud

Because of the similar setup in the AirLive EMS Cloud and the OLT. The setup of the ONU is the same, it does not matter if an administrator is using the EMS Cloud or is directly connected to the OLT. After the ONU has been added all hardware and software features are displayed. Also, the ONU can be configured for the final setup. This includes settings up the WAN settings and any other features the ONU might have for example Wi-Fi or VoIP.

The screenshots show the AirLive EMS Cloud interface for configuring an ONU. The top navigation bar includes System, Device, Alarm, Security, and Maintain. The left sidebar lists various configuration options like OLT Information, ONU Configuration, and WAN Connect Parameter Configuration.

The main configuration area is divided into several sections:

- WAN Connect Parameter Configuration:** Includes fields for WAN Index (NEW), Mode (bridge), IP Version (IPv4), VLAN Mode (Disable), QoS Enable (Disable), Service Mode (Internet), and Port Binding (Lan1, Lan2).
- ONU Authentication Info:** Includes PON (PON), Auth Mode (All), and Auth Info fields.
- ONU List Table:**

PON ID	ONU ID	Admin Status	Descriptions	OMCC Status	Phase Status	ONU Profile	Auth Mode	Auth Info	Model	Action
1	1	ENABLE	GPON0/1/1	ENABLE	Working	default	Sn	GPON00dc7aa9	V802	Config Deactivate Delete Modify Reboot
- ONU Detail Info Table:**

Description	Value	Main software version	V1.1.0
Standby software version	V1.1.0	Vendor ID	MONU
Version	V1.1	SN	GPON00dc7aa9
Admin Status	unlock	Battery Monitor	0
Security Mode	aes	Product Code	0
Total Priority Queue	152	Total Traffic Schedule	16
Traffic Management Option	priority/brata controlled	Operate Status	enable
Equipment ID	MONU/V802	OMCC Version	128
Security Capability	aes	Model	N/A
Survival Time	N/A	Total GemPort	64
SysUpTime	93648 s	Region Code	0
Product SN	N/A	Chip Info	0
Capability Info			
T-CONT	16	GEM Port	64

Alarm Monitoring

Real-Time Alarm Monitoring, alarm collection, large scale collection of practical data and log records are also offered in the AirLive EMS Cloud. This to aid in keeping the network and device health status running and have the lowest downtime possible. As problems will be detected and a notification will be sent.

The screenshots show the AirLive EMS Cloud interface for monitoring alarms. The top navigation bar includes System, Device, Alarm, Security, and Maintain. The left sidebar lists various monitoring options like List, Analyze, and Alarm.

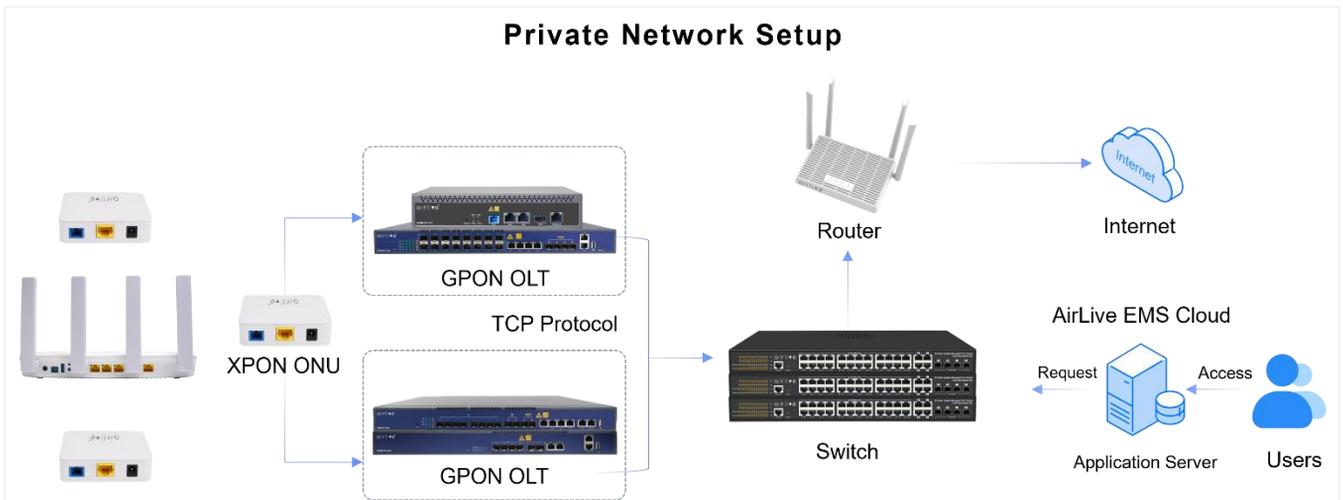
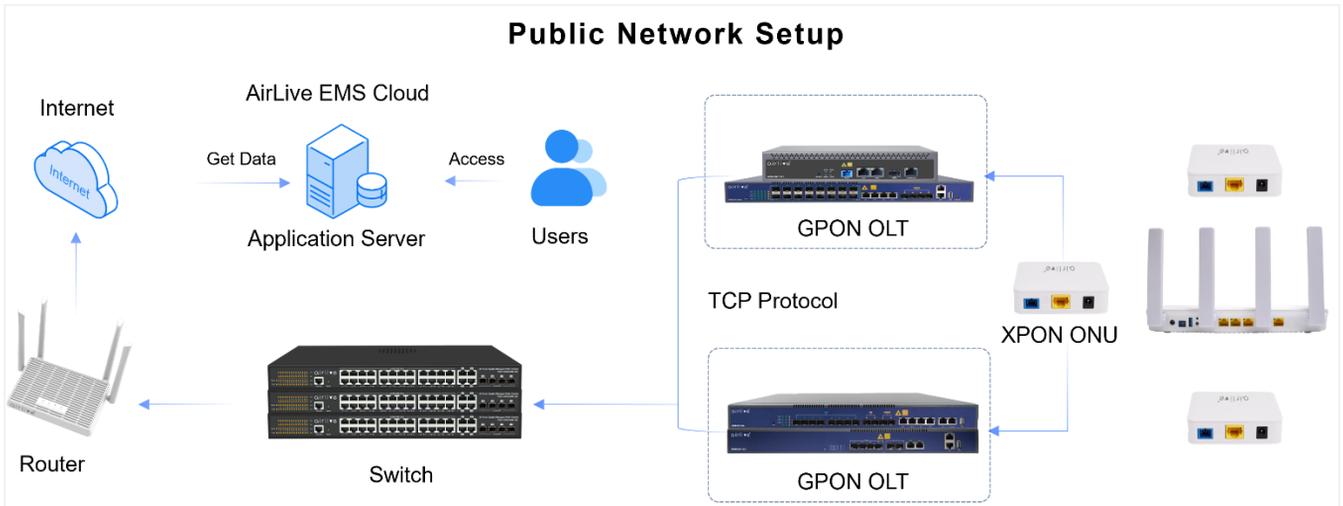
The main monitoring area includes:

- Alarm Filter:** Classification (ALL), Severity (ALL), AlarmType (ALL), ProbableCause (ALL), Device Type (ALL).
- Alarm List Table:**

Index	Host/IP Name	DeviceMac	Device Model	Description	ProbableCause	Severity	AlarmType	AlarmState	Operator	CreateTime	Action
1	gpon-olt	00:4f:5b:00:00:00	GPON-OLT	remote connection server	OLT_REGISTER	Warning	Communication	Active		2023-08-23 15:21:31	Check Delete
2	gpon-olt	00:4f:5b:00:00:00	GPON-OLT	remote connection server	OLT_REGISTER	Warning	Communication	Checked	12345	2023-08-23 14:28:24	Delete
- Alarm Statistic:** A line graph showing alarm counts over time (2023-08-23 14:00:00 to 15:00:00).
- Alarm Severity:** A bar chart showing the number of warnings (2).
- Alarm Summary:** A donut chart showing 50% History Alarm (1) and 50% Current Alarm (1).

Powerful Tool for Large Scale deployment and Application

The AirLive EMS Cloud is based on advanced browser/server (B/S) architecture and can be deployed in both cloud or private network setups. Meaning it can be used on a local server for a smaller network like a hotel or campus or even for larger ISP network with Cloud access. Giving administrators a full range of options to work from.



Model	AirLive EMS Cloud Platform
<p>Host</p> <ul style="list-style-type: none">• Main Host: Server depended on number of OLT• Minimum 4-Core CPU and ≥8G Memory• Internet Connection: 5000mbps <p>Operation System</p> <ul style="list-style-type: none">• OS:• Window7-64bit• Window10-64bit• Windows Server 2008-64bit• CentOS7 64bit <p>Site Map</p> <ul style="list-style-type: none">• Access OLT Device to EMS GPON OLT remotely connect to EMS Switch remotely connect to EMS Query OLT/switch• GPON OLT Configuration OLT Management-GPON OLT Information-GPON OLT Configuration-GPON ONU List-GPON Profile Configuration-GPON System Configuration-GPON• EMS System Info• EMS Security Manage Users Role Online Login Log OLT Log• Device Alarm List<ul style="list-style-type: none">✓ Single device alarm✓ Check the Alarm✓ The Alarm Filtering✓ Clean AlarmAnalyze• Maintain List<ul style="list-style-type: none">✓ EMS Data Backup✓ EMS Data UploadTask<ul style="list-style-type: none">✓ Device Automatic Backup✓ Download Device Backup File	

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