



**AEOC Series**  
**AM200 & AC100**

**User Guide**

**Revision B**

# ACT Ethernet over Coax (EoC) Series

## EoC Master (AM200) & EoC Client (AC100)

### User Guide

ACT Document Number: AEOC EoC UG Revision B

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### Revision History

Revision	Date	Reason for Change
A	08/01/2012	Initial Release
B	02/01/2014	Hardware Revision and Add WiFi Client

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# Chapter 1 Overview

## 1. Overview

### 1.1. Introduction

ACT EoC Master and Client (AM200 and AC100) are a series of Ethernet over Coax (EoC) networking devices designed for next generation IPTV over PON and P2P systems via cost effective CATV coaxial network, delivering multi-media services into the multi-dwelling units (MDUs). AM200 EoC Master and AC100 Client units are compatible with traditional CATV network, Gigabit EPON and Active Ethernet (P2P) networks.

AM200 EoC Master and AC100 Client provide the migration path from traditional HFC to PON/P2P type of Fiber to the Building (FTTB) application. It offers high quality CATV signal together with high speed broadband data access, which can be managed through the SNMP management system.

The AM200 and AC100 EoC units are fully compliant with IEEE802.3, 802.3x, 802.3au, 802.1P and 802.1Q standards. It provides great flexibility to network service operator to connect MDUs with multiple low cost CPE unit. With outstanding performance, quality, and features packed in a compact sized device, these EoC series units are a great selection for Network Operators and Services Providers in Fibre to the Building and business networks.

#### Features and Benefits

- Advanced Multi-Access Platform designed for Fiber to the Building (MDU) application
- Suitable for short Coax (few hundred meters) HFC system
- Deliver high speed internet, VoIP and CATV services
- High performance CATV RF spectrum from 87 to 1002MHz
- Support NTSC, PAL, DVB-C, DVB-T video standards
- Support VLAN (802.1q), QoS(802.1p), IGMP
- Optimize the service performance as well as utilization of limited IP resource for service providers
- AM200 Ethernet over Coax (EoC) Master unit can support up to 253 EoC Clients CPE units
- Network monitoring and management through SNMP

## 1.2. Specifications

### Indoor AM200 EoC Master and AC100 EoC Client

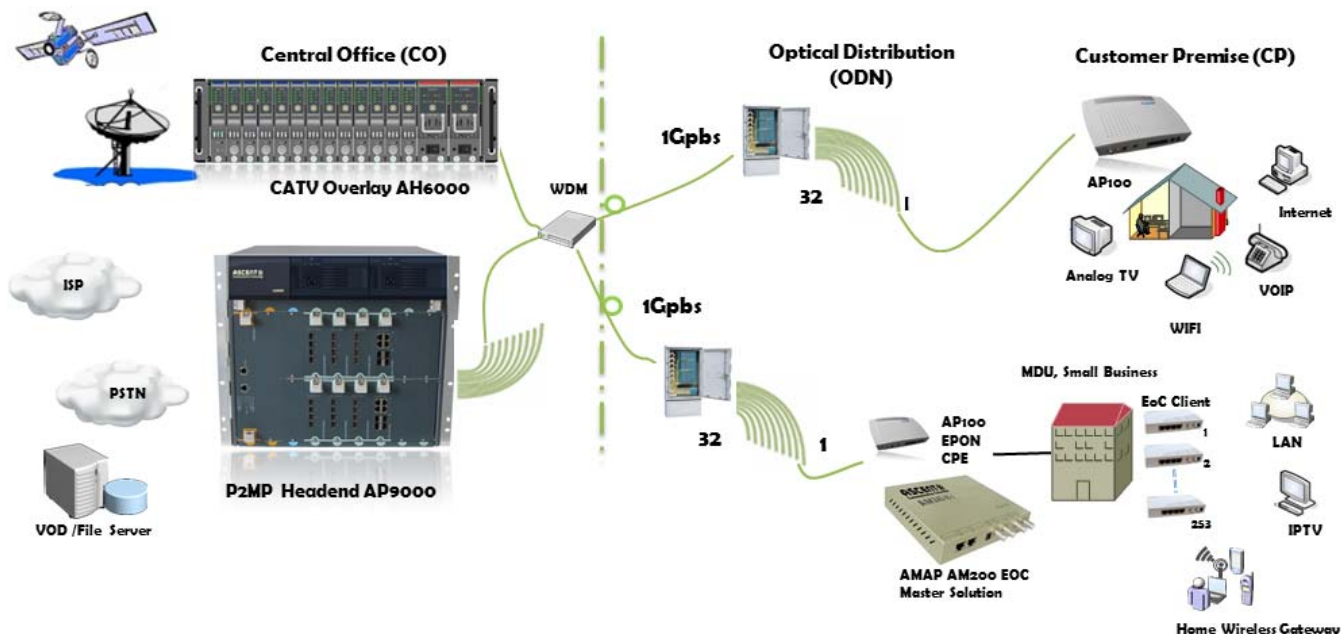


#### AM242-HP-65-1 AMAP EoC Indoor Master Device

#### AC124-HP-65-1 AMAP EoC Client CPE Device (Optional WIFI)

Fast Ethernet Ports	2x 10/100/1000Mbps Upstream	4x 10/100bps LAN port WIFI(2.4GHz) with PPOE
CATV RF Output	1 or 2 CATV Coaxial F Connector	1 x CATV Coaxial F Connector
CATV RF Input	1 or 2 CATV Coaxial F Connector	1 x CATV Coaxial F Connector
<b>EoC Specification</b>		
Protocol	P1901/HomePlug AV	P1901/HomePlug AV
Modulation	CSMA/CA	CSMA/CA
RF Bandwidth	1024/256/64/16/8-QAM, QPSK, BPSK, ROBO	1024/256/64/16/8-QAM, QPSK, BPSK, ROBO
Typical EoC Link Range	7.5~65MHz	7.5~65MHz
Output Power	1km	1km
<b>Data Performance</b>		
MAC Speed	120dBuV per Carrier	
Physical Layer Speed	350Mbps	350Mbps
IEEE	500Mbps	500Mbps
Protocol	IEEE 802.3, IEEE 802.3x	IEEE 802.3, IEEE 802.3x
VLAN/QoS	IEEE 802.u Auto MDI(X), 802.1x	IEEE 802.u Auto MDI(X), 802.1x
Encryption	TDMA, CSMA/CA	TDMA, CSMA/CA
	IEEE 802.1P, IEEE 802.1Q	IEEE 802.1P, IEEE 802.1Q
	128-bit AES	128-bit AES
<b>General Specifications</b>		
Operating Temp	-15 to 60 °C	-15 to 60°C
Storage Temp	-40 to 70°C	-40 to 70°C
Power Supply	12V, 100~240 VAC Adaptor	12V, 100~240 VAC Adaptor
Operating relative humidity,	10 to 90%	10 to 90%
Power Consumption	<=9 W	<6 W
Dimensions (W x D x H)	162x 168 x 34 mm	155x 108 x 27 mm
Weight, kg	0.5 kg	0.4 kg

## 1.3. Application Diagram



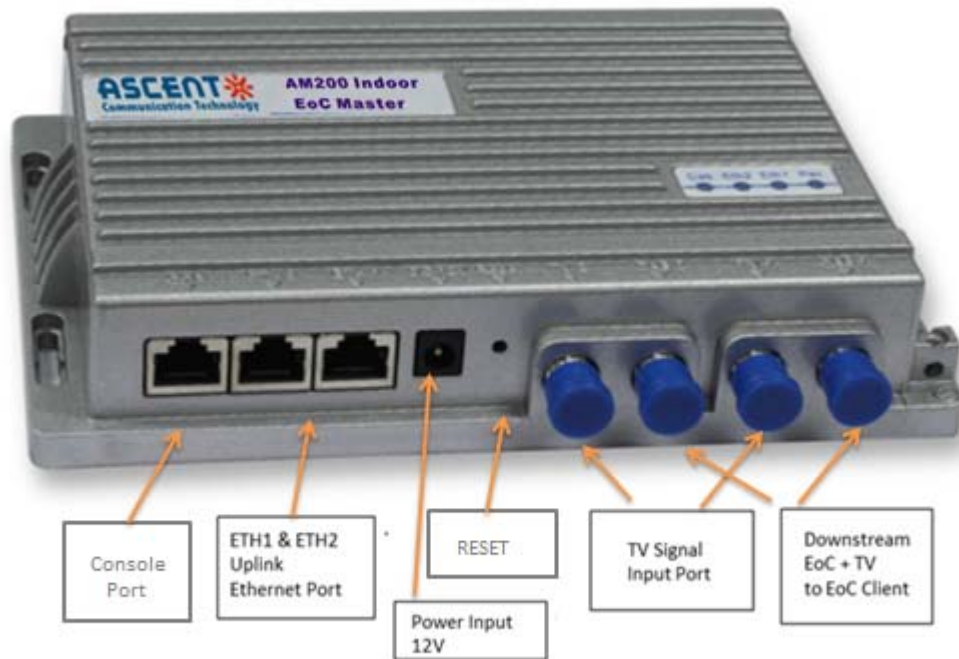
## 1.4. Ordering Information

AM242-HP-65-1	AM200 EoC Indoor Master Unit, 2 RF Input Ports, 2 RF Output Ports, 2 GE Data Upstream Ports, Home Plug, 7.5 to 65MHz, 100 to 240VAC Adapter included
AC124-HP-65-1	AC100 EoC Client CPE Unit, 1 RF Input Port, 1 RF Output Port, 4 FE Data Ports, Home Plug, 7.5 to 65MHz, 100 to 240VAC Adapter included
AC124W-HP-65-1	AC100 EoC Client CPE Unit, 1 RF Input Port, 1 RF Output Port, 4 FE Data Ports, WIFI, Home Plug, 7.5 to 65MHz, Power Adapter included

**\*Contact Ascent Local Representative for additional EoC Product Information**

## 1.5. Product Description

### AM200 EoC Master Top panel



LED	Descriptions	Function	
Power	Power indicator light	OFF	Power is OFF
		ON	Power is ON.
ETH1	Uplink Ethernet 1 indicator light	OFF	Ethernet Port is not connected
		ON	Ethernet Port Connection Normal
		Blinking	Ethernet Port Communication Normal
ETH2	Uplink Ethernet 2 indicator light	OFF	Ethernet Port is not connected
		ON	Ethernet Port Connection Normal
		Blinking	Ethernet Port Communication Normal
CABLE	Cable Network light	OFF	No EoC Client connected
		ON	EoC Client Connected
		Blinking	Data Communication with EoC Client

## AM200 EoC Master Side Panel



Connection	Description	Function
ETH1	Uplink Ethernet 1	Uplink Connection to WAN or Web Management Trunk Port, Same as ETH2
ETH2	Uplink Ethernet 2	Uplink Connection to WAN or Web Management Trunk Port, Same as ETH1
CON	Console Port	Console port for Local Management
POWER	Power Input	Power Supply Input Port 12V
CABLE 1	Cable Network 1	F Connector, Downstream EoC + TV signal to Distribution Network
TV1	TV Input 1	F Connector, TV Signal Input
CABLE 2	Cable Network 2	F Connector, Downstream EoC + TV signal to Distribution Network
TV2	TV Input 2	F Connector, TV Signal Input
RESET	Reset	To reset the EoC Master Unit. Press reset button for 3 seconds, the unit will restart, press reset button for more than 5 seconds, the EoC Master unit will restore to factory default settings.



## AC100 EoC Client Top panel



## Side panel



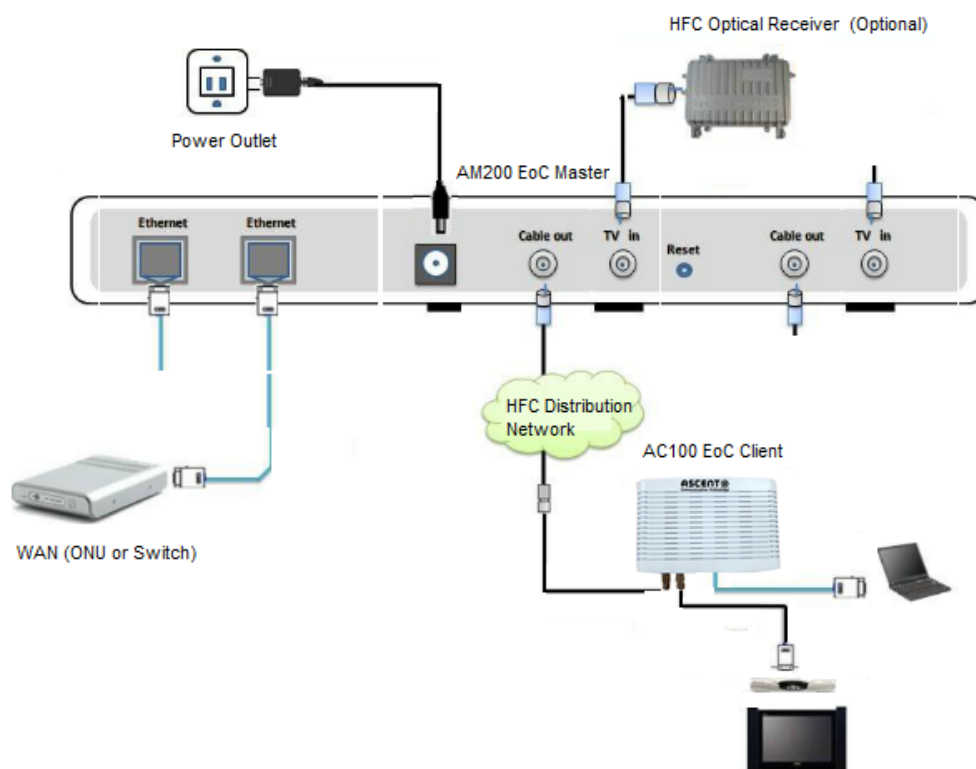
Connection	Description	Function
Cable	Network Input Port	Network Receiver Port to receive the EoC + TV signal from the EoC Master
TV	TV Signal Port	Connector to the TV Set or STB
ETH 1	Local Network Port 1	Connect to Local Area Network or PC
ETH 2	Local Network Port 2	Connect to Local Area Network or PC
ETH 3	Local Network Port 3	Connect to Local Area Network or PC
ETH 4	Local Network Port 4	Connect to Local Area Network or PC
POWER	Power Input	12V Power Input from the Adaptor
RESET	Reset the EoC Client	Press >5 seconds or more, factory default setting will be restored
On/Off	Power On / Off	Turn On and Off the EoC Client
WIFI	WIFI antenna	Optional WIFI antenna

## LED Light



LED	Descriptions	Function	
Power	Power indicator light	OFF	Power is OFF
		ON	Power is ON.
WLAN	Uplink Network light	OFF	Ethernet Port is not connected
		ON	Ethernet Port Connection Normal
		Blinking	WLAN Port Communication Normal
ETH 1	Local Ethernet 1 indicator light	OFF	Ethernet Port is not connected
		ON	Ethernet Port Connection Normal
		Blinking	Ethernet Port Communication Normal
ETH 2	Local Ethernet 2 indicator light	OFF	Ethernet Port is not connected
		ON	Ethernet Port Connection Normal
		Blinking	Ethernet Port Communication Normal
ETH 3	Local Ethernet 3 indicator light	OFF	Ethernet Port is not connected
		ON	Ethernet Port Connection Normal
		Blinking	Ethernet Port Communication Normal
ETH 4	Local Ethernet 4 indicator light	OFF	Ethernet Port is not connected
		ON	Ethernet Port Connection Normal
		Blinking	Ethernet Port Communication Normal
COAX/ DIAG	Cable Network Connection Status light	OFF	No EoC Master connected
		Green Blinking	EoC Master Connected Normal, Data Connection Normal
		Green On	EoC Master Connected with no communication

## 1.6. Quick Installation



1. Connect the TV signal ( RF cable ) to the AM200 EoC Master unit.
2. Connect the EoC Master Unit to the Cable TV Distribution network through the “Cable 1 or 2 Port”.
3. The output frequency range is from 7.5MHz to 65MHz. Output (Narrowcast signal) level is at around 120dBuV. ( User adjustable from 95dB to 120dBuV in the Web GUI)

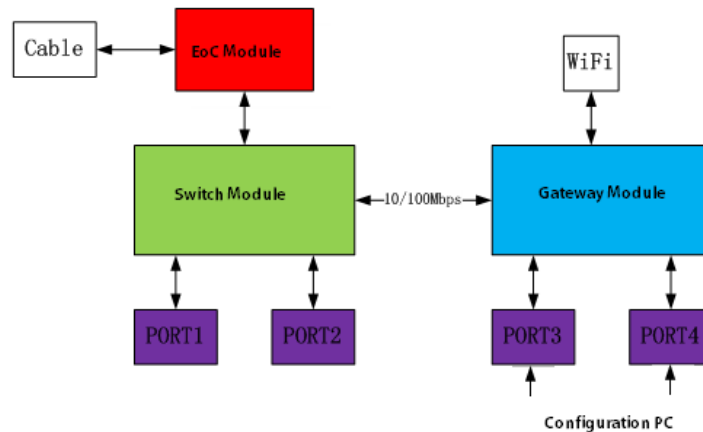
**Note:** Make sure that the total RF link loss is less than 50dB for proper reception at the EoC Client side. SNR should be above 20dB. Please also refer to the section 2.2.5.4.

**Note:** When measuring the RF output power of EoC master, it is recommended to use a Spectrum Analyser for accurate reading.

**Note:** While connecting, always keep the RF connectors tightly fastened.

4. Connect the uplink EoC Master Unit to the WAN network through either ETH1 or ETH2 port. On WAN side, it could be a Data Switch or Router. For some applications, the EoC master can also be connected to the WAN through the ONU at the same location. The “CON” (Console) port is for the local management purpose only.
5. Plug the power adapter to the wall outlet and also the 12V power input port of EoC Master.
6. After the power is ON, LED indicators should light up as for normal operation. Check whether the POWER status LED is on continuously. And the Cable LED is one for active RF output to the distribution network.
7. Connect RF input to the AC100 Network Port

8. Connect the TV port to either the set top box or TV set
9. Connect the LAN port 1 – 4 to the Home network, router or Personal Computer
  - For AC124W WIFI Client: The port1 and port2 are connected to the switch chip which could be configured by EoC master for VLAN setting and rate limit etc. (same as the standard EoC Client.)
  - For AC124W WIFI Client: The port3 and port4 are connected to the gateway module as below. The Configuration PC with IP address 192.168.0.X will need to be connected to the EoC wifi client through these two ports for proper management.



10. Plug the power adapter to the wall outlet and also the 12V power input port of EoC Client.
11. After the EoC Master is ON, LED indicators should light up as for normal operation. Check whether the Ethernet and Cable status LED is on continuously. If yes, the connection is normal; otherwise there is either issue with the physical connection or the RF levels at either end. This may be caused by either too much or too little attenuation over the RF cable. Please refer to the Layout Description section of this installation manual for nominal LED activity.
12. Check all signal levels and services on all the communication ports.
13. Go to the next step to configure the EoC Master and Client using the WEB GUI
14. PC Computer minimum requirement for management
  - CPU: 233MHz and above
  - MEM:128MB or above
  - Ethernet Port: 10M/100MBase-T
  - Operating System: WIN2000、WINXP、WIN7、WINNT

## **Note: EoC Client Unit Installation Adjustment**

### **1. Installing the AC100 on a horizontal surface (Bench top)**

Put the EoC Client on a clean, flat, sturdy bench top. Suggest keep the clearance for all sides of the unit to more than 10cm for heat dissipation.

### **2. Installing the AC100 on a vertical surface (Hanging on a wall)**

You can install the EoC Client on a vertical surface by using the moulded mounting holes on the bottom of the unit chassis (refer to Figure below) and two flat-head wood screws.



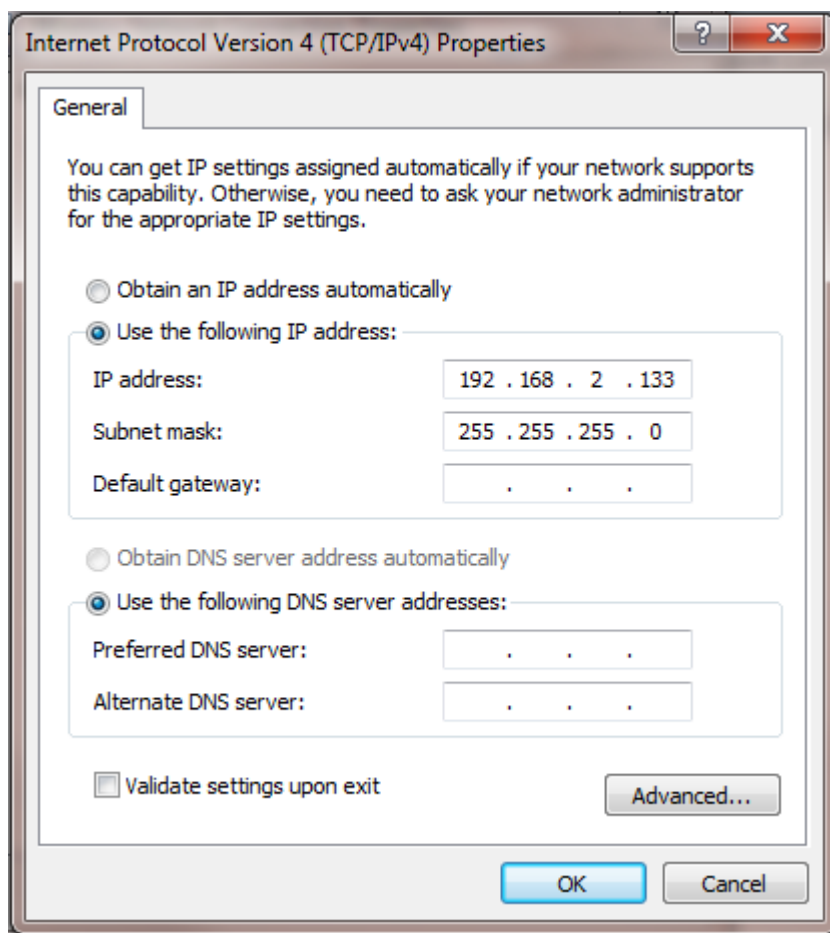
# Chapter 2 EoC Master Configuration

## 2. EoC Master and Client Configuration

### 2.1. EoC Master Web Interface Login

The EoC Master and Client devices are configured using the web GUI interface. The EoC Master has a default IP Address of 192.168.2.100 and subnet mask of 255.255.255.0. The following steps will enable the administrator to login:

- 1、 Config the management computer in the same LAN network with IP address in the same subnet 192.168.2.xxx.



- 2、 Connected both EoC Master and Client as described in section "1.6 Quick Installation" ;
- 3、 Ping EoC Master 192.168.2.100. If successful, go to next step.
- 4、 Open the IE web browser, type the device IP address 192.168.2.100 in address bar;
- 5、 Entry of the username and password will be prompted. Enter the default login User Name and Password:



The default login User Name of the administrator is "**admin**", and the default login Password is "**admin**".

## 2.2. EoC Master Information and Configuration

This section shows you how to use the EoC Web Management GUI Software.

### 2.2.1. EoC Master Device Information

After successful logging in, the first page is “Device info”.

This Device Information page shows EoC Master information. You can modify the unit specific information such as Device name, description etc.

Click “Device info” in the left menu, it shows same page.

Device Information	
Device Name	ACT EoC Master <input type="button" value="Apply"/>
Device Aliases	AM200-101 <input type="button" value="Apply"/>
Logic Device Identifier	Ascent
Description of Technical Solutions	HOMEPLUG AV
Manufacturer Information	Ascent
EoC Type of Equipment	AC100
EoC Device's Serial Number	v1.00
Firmware Version Number	AC100.v1.14 release build date May 5 2014 time 16:33:36
Hardware Version Number	av_v2.00
Other Information	0

Figure 2.2.1.1: Device information

When you click “Running Status” in the left menu, the page shows the EoC Master network configuration information and running time (once the EoC Master is restarted, the time will restart from zero)

Network Connection Status	
Connected Type	STATIC
IP Address	192.168.2.169
Subnet Mask	255.255.255.0
MAC Address	00:0F:32:00:00:02
Running Time	0 day 0 hour 24 minute

Figure 2.2.1.2: Running Status



## 2.2.2. Uplink Network Configuration

Click “Uplink Network Configuration” in the top menu, and then click “VLAN Configuration” in the left menu, the page shows Port status, VLAN settings such as below.

**ASCENT** Communication Technology **EoC Web Management**

Navigation: EoC Master Device Info | **Uplink Network Configuration** | EoC Master Configuration | RF Card Configuration | EoC Client Configuration | System Configuration | Contact Information | Language Selection

**VLAN Configuration**

**Port Status**

Port Status	
ETH1	LinkUp 100M
ETH2	LinkUp 100M

**VLAN Settings**

**VLAN Settings**

VLAN Mode: VLAN Transmission Mode

**Local Port Settings**

Local Port: ALL

Management VLAN ID: 0 (0-4095, 0 represents no management VLAN)

Buttons: Apply, Cancel

Figure 2.2.2.1: Uplink Network information

The VLAN Mode can be set as “VLAN transmission Mode” or “802.1Q VLAN Mode”, Local Port can be set as “ALL”, or “ETH1”, or “ETH2”. After these settings, please enter “Management VLAN ID”, and click “Apply” to complete the configuration.

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Navigation: EoC Master Device Info | **Uplink Network Configuration** | EoC Master Configuration | RF Card Configuration | EoC Client Configuration | System Configuration | Contact Information | Language Selection

**VLAN Configuration**

**Port Status**

Port Status	
ETH1	LinkUp 100M
ETH2	LinkUp 100M

**VLAN Settings**

**VLAN Settings**

VLAN Mode: 802.1Q VLAN Mode

**Local Port Settings**

Local Port: ETH1

Management VLAN ID: 60 (0-4095, 0 represents no management VLAN)

Allowed VLAN ID (separated by ', ' if multiple):

Buttons: Apply, Cancel

### 2.2.3. EoC Master Configuration

In the “EoC Master Configuration” setting, user can change the default IP address of the EoC Master. Click “IP Settings” in the left Menu, this page shows the IP Setting function.

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Navigation: EoC Master Device Info | Uplink Network Configuration | **EoC Master Configuration** | RF Card Configuration | EoC Client Configuration | System Configuration | Contact Information | Language Selection

Left Menu: **IP Settings** | Time Setting | SNMP Setting

### IP Settings

Connection Mode: Static Manual Configuration

**Static Mode**

IP Address	192.168.2.169
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.1
MAC Address	00:0F:32:00:00:02
Spanning Tree Protocol	Disable

Buttons: Apply, Cancel

Figure 2.2.3.1: IP Setting Information

Click “Time Setting”, user can setup the system time. This page shows the time setting function.

**ASCENT** Communication Technology **EoC Web Management**

Navigation: EoC Master Device Info | Uplink Network Configuration | **EoC Master Configuration** | RF Card Configuration | EoC Client Configuration | System Configuration | Contact Information | Language Selection

Left Menu: IP Settings | **Time Setting** | SNMP Setting

### NTP Settings

Current Time	Thu Jan 1 08:48:12 GMT 1	Sync With Host
Time Zone:	(GMT+08:00) China Coast, Hong Kong	
NTP Server	time.nist.gov ex: time.nist.gov ntp0.broad.mit.edu time.stdtime.gov.tw	
NTP Synchronization(hours)	1	

Buttons: Apply, Cancel

Figure 2.2.3.2: Time Setting Information

Click “SNMP Setting” in the left menu. This page shows SNMP information for the EoC Master Device. When the “SNMP Control” and “Trap control” are enabled, and the master will sent the alarms to the Trap IP address set on this page.

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[IP Settings](#)  
[Time Setting](#)  
[SNMP Setting](#)

### SNMP setting

**SNMP Control**

SNMP Control: Enable Apply Cancel

**Community Setting**

Readonly Community Name:

Read-write Community Name:

**Contact Settings**

Contact:

Contact Address:

**TRAP Setting**

TRAP Control: Enable

TRAP IP Address:

Restrict Access by IP Settings

Figure 2.2.3.3: SNMP Information

## 2.2.4. RF Card Configuration

Click “RF Card Configuration” in the top menu, and then click “CBAT Information” in the left menu, it shows EoC master RF related settings and information such as output power.

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[CBAT Information](#)

### CBAT Card Information

Index	MAC Address	Status	Type	Version Number	Number of Radio Channels	RF Output Power Level (dBuV)	Starting Frequency (Hz)	Stopping Frequency (Hz)	Restart CBAT
0	00:0f:32:00:00:03	online	AM200EOC	AR-7400-MAC-7-1-7131-00-13-20130617-FINAL-D	2589	130	7500	65000	<span>Restart</span>

Figure 2.2.4.1: RF Card information

Click MAC address you can do some setting of the EoC master.

**ASCENT** Communication Technology **EoC Web Management**

EoC Master Device Info Uplink Network Configuration EoC Master Configuration RF Card Configuration **EoC Client Configuration** System Configuration Contact Information Language Selection

[CBAT Information](#)

**CBAT setting**

Index	0
MAC Address	00:0F:32:00:00:03
Number of Radio Channels	2589
RF Output Power Level(dBuV)	130 [105-130]
Starting Frequency(Hz)	7500
Stopping Frequency(Hz)	65000 [30000-67000]
CBATCard Hidden Nodes:	Disabled
Conservative ToneMap	Low Anti-Interference
MAC Learning	Enable MAC Learning
Update CBATCard FW to Latest	Disabled

Apply Cancel

Figure 2.2.4.2: CBAT setting

The RF output power level and working frequency can be fine-tuned in their normal operating range. CBAT card hidden nodes, conservative ToneMap and MAC learning are usually not needed to be changed, you can keep the factory default value unless there are special requirements.

## 2.2.5. EoC Client Configuration

### 2.2.5.1. User Management

Click “EoC Client Configuration” in the top menu, and then click “User Management” in the left menu, it shows all user information under the current EoC master, such as MAC address, uplink and downlink speed, online or offline, EOC CLIENT type, Template name, Vlan ID, Restart and Force offline.

**ASCENT** Communication Technology **EoC Web Management**

EoC Master Device Info Uplink Network Configuration EoC Master Configuration RF Card Configuration **EoC Client Configuration** System Configuration Contact Information Language Selection

[User Management](#)  
[Template Management](#)  
[Traffic Statistics](#)  
[Link Quality Statistics](#)

**User Management**

Add User

Add User:  Add User

CNU Index	MAC Address	Loop Status	Uplink(Mbps)	Downlink(Mbps)	Status	Cnu Type	Template Name	PVID(1,2,3,4)	Restart	Force Offline
CBAT Index: 0	MAC: 00:0F:32:00:00:03									
1	06:0f:32:92:04:10	no loop	393	317	online	CNU404		1111,3333,2222,4000	Restart	Force Offline
2	04:0f:32:90:27:ab	no loop	373	322	online	CNU404	AC124	1,1,1,1	Restart	Force Offline
3	04:0f:32:90:27:a1	no loop	0	0	offline		AC124	1,1,1,1	Restart	Force Offline
4	04:0f:32:90:27:aa	no loop	0	0	offline		AC124	1,1,1,1	Restart	Force Offline

Figure 2.2.5.1.1.: User Management



Click MAC address you can do some setting of the EoC client.

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### CNU settings

MAC Address	04:0f:32:90:27:ab
Username	ascent
User Description	for example
CNU Authorization	<input checked="" type="radio"/> Allowed <input type="radio"/> Prohibition
On-Line Time	1Mon1Day8Hour0Min
Version	INT7400-MAC-7-1-7131-00-9-20130712-FINAL-B
Sync with Template when Changed	Enabled
Template	AC124

Figure 2.2.5.1.2.: EOC CLIENT settings

This page you can set Username and User Description for each client which can be used for user query and management. In EOC CLIENT Authorization, you can select Allowed or Prohibition for different users. When select the Prohibition, the EoC client can't be used as normal. On-Line Time will be synchronous updated when the EOC CLIENT back online every time. Version shows the firmware version of the EOC CLIENT. The next two lines will be Template configuration. The master will hand out a default template to each EOC CLIENT when it gets first online. You can decide whether to use the template depends on your requirements. If you don't choose any template, you can do personalized configuration of the EoC Client, see below:

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[Traffic Statistics](#)  
[Link Quality Statistics](#)

### EoC Client settings

On-Line Time	1Mon1Day8Hour0Min
Version	INT7400-MAC-7-1-7131-00-9-20130712-FINAL-B
Sync with Template when Changed	Enabled
Template	Do Not Use Template

#### Cable Speed

Uplink:	0	Kbps (0 to 16384 in multiples of 64 only, 0 for unlimited-speed)
Downlink:	0	Kbps (0 to 16384 in multiples of 64 only, 0 for unlimited-speed)

#### Detail Config

Broadcast Storm Suppression:	Disabled
CNU Hidden Nodes:	Disabled
802.1Q VLAN:	Enabled
Limit the Amount of MAC Addresses:	0 (0~8,0 for no limit)

Port	Speed	Priority	Flow Control	In Speed (Kbps)	Out Speed (Kbps)	Port Status	PVID
lan1	Negotiation	0	Disabled	0	0	Enabled	1

Figure 2.2.5.1.3.: EOC CLIENT settings

### 2.2.5.2. Template Management

Click “Template Management” in the left menu, this page shows EoC Client Template List.



Figure 2.2.5.2.1: Template Management

It lists all existing templates. The EoC Client can have different services levels which can be achieved by applying different EoC Client template. Click New you can create a new template, and click template name you can do modification for it.

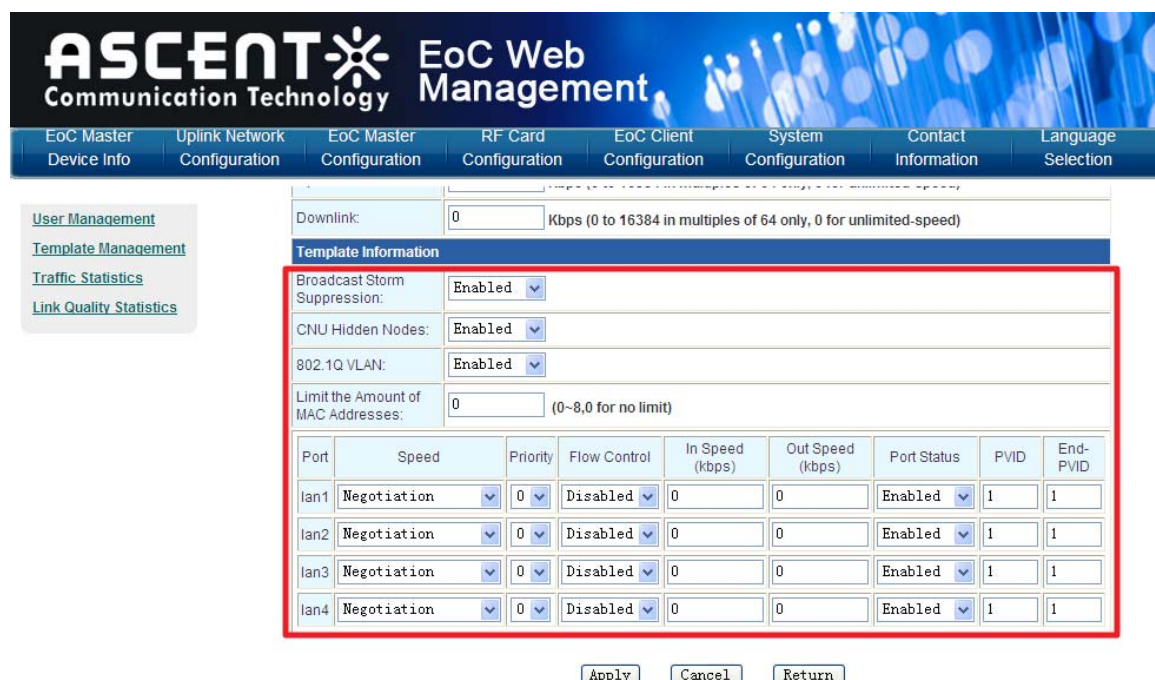


Figure 2.2.5.2.2: Modification of EoC Client Template

Most of parameters can use the default, usually only In Speed, Out Speed and PVID need to be configured. Set In Speed and Out Speed will limit the downlink and uplink maximum speed of EoC Client. If you need, you can allocate VLAN pool in the Template. When “End-PVID” is 1, the VLAN pool is not

being used; When “END-PVID” is not 1 ( $PVID < \text{End PVID}$ ), the VLAN pool is being used, and the Template will auto allocate VLAN ID to EOC CLIENT when it login and chooses the Template.

### 2.2.5.3. Traffic Statistics

Click “Traffic Statistics” in the left menu, this page shows the real-time traffic information.

ASCENT

Communication Technology

EoC Web Management

EoC Master Device Info

Uplink Network Configuration

EoC Master Configuration

RF Card Configuration

EoC Client Configuration

System Configuration

Contact Information

Language Selection

User Management

Template Management

Traffic Statistics

Link Quality Statistics

Traffic Statistics

Sent and Received Statistics

CBAT Index	CNU Index	Port	Port Status	MAC	Bytes Sent	Bytes Received	Broadcast Packets Sent	Broadcast Packets Received	Multicast Packets Sent	Multicast Packets Received	CRC Packets Sent	CRC Packets Received	TX Loss Packets	RX Loss Packets	Reset
0	1	0	LinkDown	06:0F:32:92:04:10	0	0	0	0	0	0	0	0	0	0	Clean
0	1	1	LinkDown	06:0F:32:92:04:10	0	0	0	0	0	0	0	0	0	0	Clean
0	1	2	LinkDown	06:0F:32:92:04:10	0	0	0	0	0	0	0	0	0	0	Clean
0	1	3	LinkDown	06:0F:32:92:04:10	0	0	0	0	0	0	0	0	0	0	Clean
0	2	0	LinkDown	04:0F:32:90:27:AB	0	0	0	0	0	0	0	0	0	0	Clean
0	2	1	LinkDown	04:0F:32:90:27:AB	0	0	0	0	0	0	0	0	0	0	Clean
0	2	2	LinkDown	04:0F:32:90:27:AB	0	0	0	0	0	0	0	0	0	0	Clean
0	2	3	LinkDown	04:0F:32:90:27:AB	0	0	0	0	0	0	0	0	0	0	Clean
0	3	0	LinkDown	04:0F:32:90:27:A1	0	0	0	0	0	0	0	0	0	0	Clean
0	3	1	LinkDown	04:0F:32:90:27:A1	0	0	0	0	0	0	0	0	0	0	Clean

Figure 2.2.5.3.: Traffic Statistics

### 2.2.5.4. Link Quality Statistics

Click “Link Quality Statistics” in the left menu, this page shows the Link Quality Statistics of each EOC CLIENT.



Link Quality Statistics								
CBAT Index	CNU Index	MAC	Bit Error Rate%	Bits Carrier Numbers	MPDUs Collided Rate of Efficacy%	MPDUs Failed Rate of Efficacy%	SNR(db)	Link Attenuation(db)
0	1	06:0F:32:92:04:10	0.06182	7.18	0.02883	0	0.01827	17
0	2	04:0F:32:90:27:AB	0.0726	7.291	0.04899	0	0.01858	9

Figure 2.2.5.4.: Link Quality Statistics

NOTE: The key parameters will be SNR and Link Attenuation. To ensure the normal communication between EoC Master and Client, the SNR should be above 20dB and the Link attenuation between 20 to 50dB.



## 2.2.6. System Configuration

### 2.2.6.1. Restart

Click “System Configuration” in the top menu, and then click “Restart” in the left menu, click Restart in the page, the EoC master will be restarted and it will take about 25 seconds.



Figure 2.2.6.1.: Restart EoC Master

### 2.2.6.2. Configuration Setting

Click “System Configuration” in the top menu, and then click “Configuration Setting” in the left menu.



Figure 2.2.6.2.: Configuration Setting

Click “Export” or “Import”, we can export or import EoC master settings. Click “Load Defaults”, all settings will be reset to factory defaults.

### 2.2.6.3. Software Upgrade

Click “Software Upgrade” in the left menu, you can do firmware upgrade in this page. Unless there is a special reminder, you don’t need restore the factory settings and reconfigure the EoC master.

The screenshot shows the ASCENT EoC Web Management interface. The top navigation bar includes links for EoC Master Device Info, Uplink Network Configuration, EoC Master Configuration, RF Card Configuration, EoC Client Configuration, System Configuration, Contact Information, and Language Selection. On the left, a sidebar menu has links for Restart, Configuration Setting, Software Upgrade (highlighted with a red box), and Account Management. The main content area is titled "Update Firmware" and contains a warning: "It takes about 1 minute to upload upgrade flash and do NOT interrupt. Caution! A corrupted image will hang up the system." Below the warning is a form with a "Location:" label, a text input field, a "Browse..." button (highlighted with a red box), and an "Apply" button (highlighted with a red box).

Figure 2.2.6.3.: Software Upgrade

### 2.2.6.4. Account Management

Click “Account Management” in the left menu, it shows the login page, both default account and password are “admin”, you can modify them.

The screenshot shows the ASCENT EoC Web Management interface. The top navigation bar is the same as in the previous figure. The left sidebar menu has links for Restart, Configuration Setting, Software Upgrade, and Account Management (highlighted with a red box). The main content area is titled "Adminstrator Settings" (note the typo). Below the title is a form with two fields: "Account" with the value "admin" and "Password" with masked characters "\*\*\*\*\*". Both fields are highlighted with red boxes. Below the fields are "Apply" and "Cancel" buttons, with the "Apply" button also highlighted with a red box.

Figure 2.2.6.4.: Account Management

### 2.2.7. Contact Information

Click “Contact Information” in the top menu, and then click “Contact Information” in the left menu. This page shows Ascent contact information.

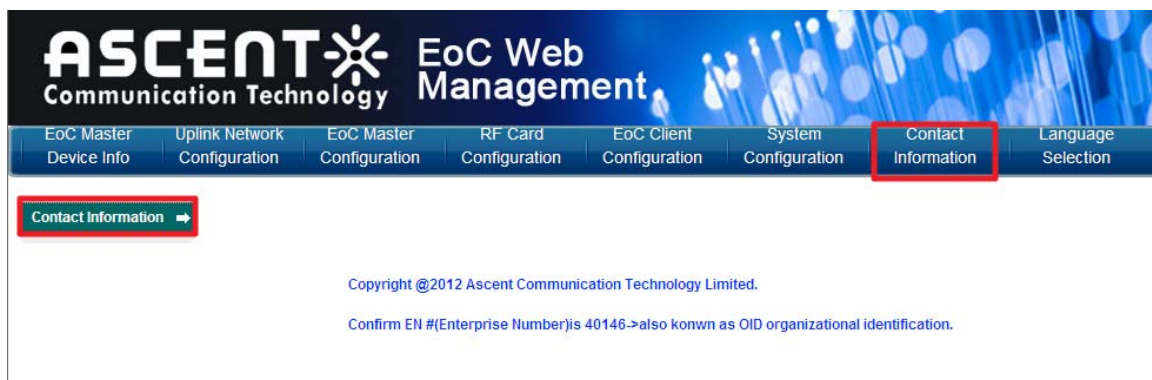


Figure 2.2.7.: Contact Information

## 2.2.8. Language Selection

Click "Language Selection" in the top menu, and then click "Language Setting" in the left menu. You can select the local language under the Language Menu.

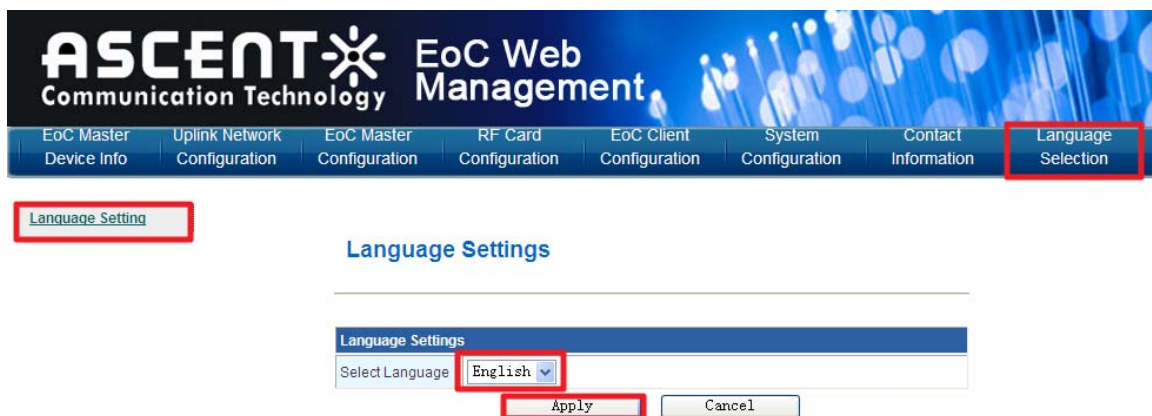


Figure 2.2.8.: Language Selection

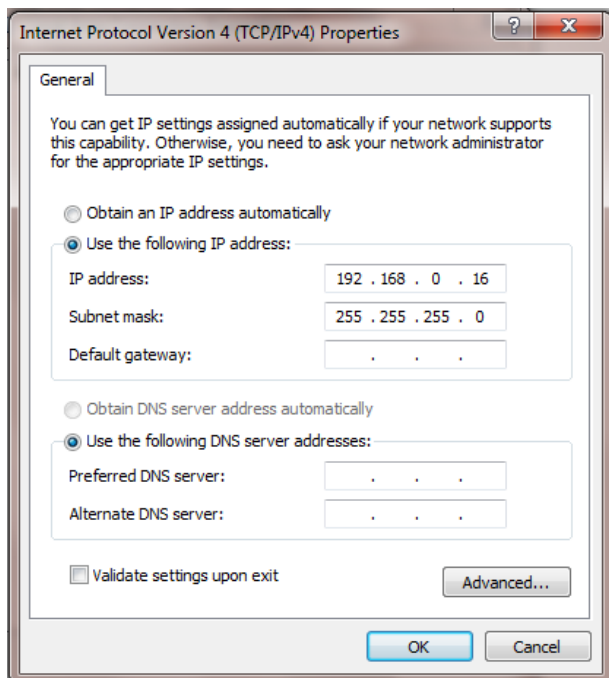
# Chapter 3 WIFI EoC Client Configuration

## 3. WIFI EoC Client Configuration

### 3.1. WIFI EoC Client Web Interface Login

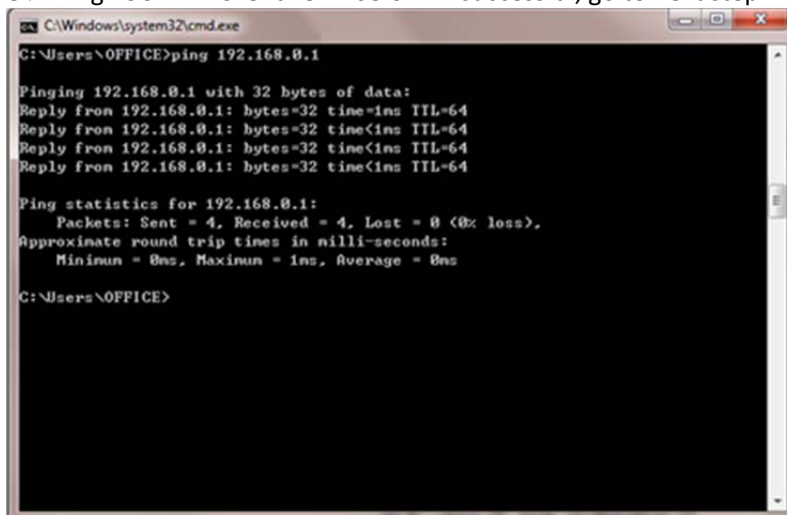
The Wifi EoC Client supports its own Web GUI for user configuration. The EoC client has a default IP Address of 192.168.0.1 and subnet mask of 255.255.255.0. The following steps will enable the administrator to login:

- 6、 Config the management computer in the same LAN network with IP address in the same subnet.



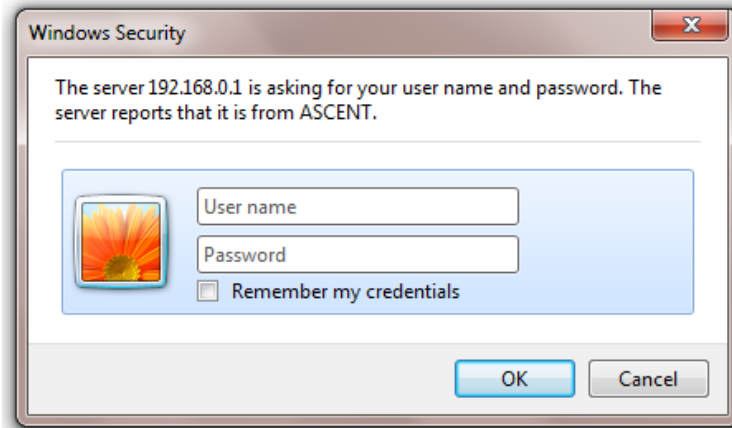
- 7、 Connected both EoC Master and Client as described in section “1.6 Quick Installation” ;

- 8、 Ping EoC WIFI Client 192.168.0.1. If successful, go to next step.



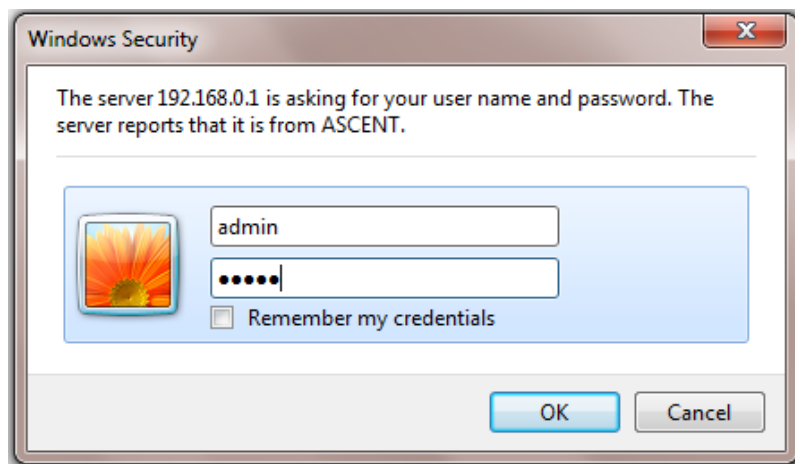
- 9、 Open the IE web browser, type the device IP address 192.168.2.100 in address bar;

- 10、 Entry of the username and password will be prompted. Enter the default administrator login User Name and Password:



The default login User Name of the administrator is **"admin"**, and the default login Password is **"admin"**.

The default login User Name of the user is **"useradmin"**, and the default login Password is **"useradmin"**.

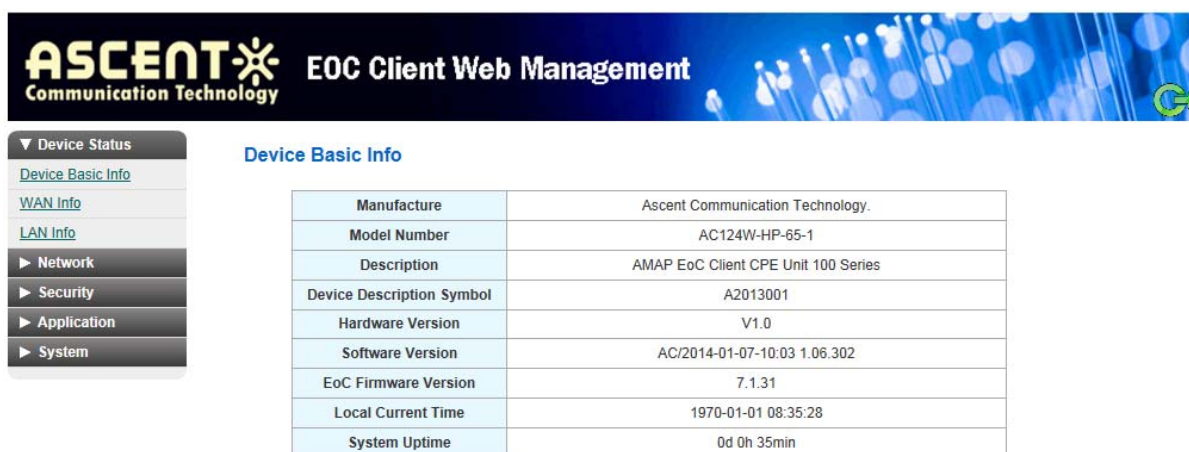


## 3.2. WIFI EoC Client Information and Configuration

This section shows you how to use the EoC Web Management GUI Software.

### 3.2.1. WIFI EoC Client Device Information

This Device Information page shows WIFI EoC Client information. You can modify the unit specific information such as Device name, description etc.

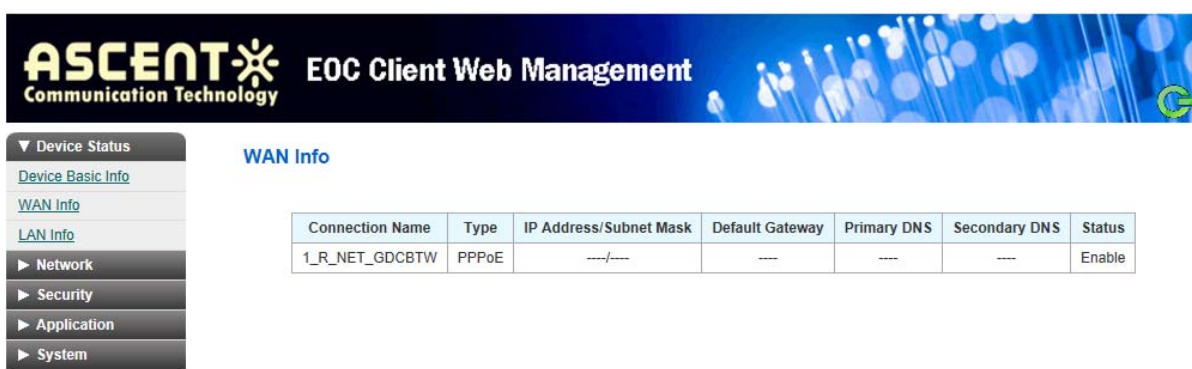


The screenshot displays the ASCENT EoC Client Web Management interface. On the left is a navigation menu with options: Device Status, Device Basic Info (selected), WAN Info, LAN Info, Network, Security, Application, and System. The main content area is titled 'Device Basic Info' and contains a table with the following data:

Field	Value
Manufacture	Ascent Communication Technology.
Model Number	AC124W-HP-65-1
Description	AMAP EoC Client CPE Unit 100 Series
Device Description Symbol	A2013001
Hardware Version	V1.0
Software Version	AC/2014-01-07-10:03 1.06.302
EoC Firmware Version	7.1.31
Local Current Time	1970-01-01 08:35:28
System Uptime	0d 0h 35min

Figure 3.2.1.1: Device information

The “WAN Information” page shows WAN IP address, MAC address information such as below.



The screenshot displays the ASCENT EoC Client Web Management interface. On the left is a navigation menu with options: Device Status, Device Basic Info, WAN Info (selected), LAN Info, Network, Security, Application, and System. The main content area is titled 'WAN Info' and contains a table with the following data:

Connection Name	Type	IP Address/Subnet Mask	Default Gateway	Primary DNS	Secondary DNS	Status
1_R_NET_GDCBTW	PPPoE	----	----	----	----	Enable

Figure 3.2.1.2: WAN Network information



The “LAN Information – Ethernet Info” page shows Ethernet IP address, MAC address information such as below.

The screenshot displays the 'Ethernet Info' tab of the EOC Client Web Management interface. The left sidebar shows a navigation menu with 'Device Status' expanded, containing links for 'Device Basic Info', 'WAN Info', 'LAN Info', 'Network', 'Security', 'Application', and 'System'. The main content area is titled 'Ethernet Interface Info' and contains three tables:

IP Address	LAN IPv4 Address	192.168.0.1/255.255.255.0
	LAN IPv6 Address	
MAC Address	00:0F:32:93:30:6A	

Below this is the 'Receive/Transmit Packet Statistics' table:

Interface	Rx				Tx			
	Bytes	Packets	Error	Drop	Bytes	Packets	Error	Drop
Eth0	0	0	0	0	1036480	9229	0	0
Eth1	0	0	0	0	1036480	9229	0	0
Eth2	0	0	0	0	1036480	9229	0	0
Eth3	1323525	11522	0	0	4057130	4124	0	0

Finally, the 'Network Device Info' table is shown:

Host Name	IP Address	Device Type	MAC Address
ro	192.168.0.16	pc	78:E3:B5:5B:04:33

Figure 3.2.1.3: LAN Network information

The “LAN Information – WLAN Info” page shows WIFI WLAN interface information such as below.

The screenshot displays the 'WLAN Info' tab of the EOC Client Web Management interface. The left sidebar is identical to the previous screenshot. The main content area is titled 'WLAN Interface Info' and contains two tables:

Basic Info

SSID Index	Status	SSID Name	Channel	Transmit Power	Authentication Method	Encryption
1	1	USER_933069	6	100	WPA-PSK/WPA2-PSK MIXED	TKIP+AES
2	0	EoC-WIFI	6	100	WPA-PSK/WPA2-PSK MIXED	TKIP+AES

Below this is the 'Receive/Transmit Packet Statistics' table:

Interface	Rx				Tx			
	Bytes	Packets	Error	Drop	Bytes	Packets	Error	Drop
USER_933069	0	0	0	0	98420	370	0	9229
EoC-WIFI	0	0	0	0	0	0	0	0

Figure 3.2.1.4: WLAN Network information

### 3.2.2. Network Configuration

In the “WIFI EoC Client Network Configuration” setting section, user can change WAN, DHCP, WiFi, and Router settings.

The screenshot displays the 'WAN Interface Configuration' page in the ASCENT EOC Client Web Management system. The left sidebar contains a navigation menu with options: Device Status, Network (expanded), WAN Configuration, DHCP Configuration, Client List, Wireless Configuration, Route Configuration, Security, Application, and System. The main content area is titled 'WAN Interface Configuration' and includes the following fields:

- Connection Name: 1\_R\_NET\_GOCBTW
- Enable: ☒
- Connection Mode: Router
- IP Assigned Mode: PPPoE(ADSL)
- Protocol Type: IPv4
- NAT: ☒
- PPPoE Type: Normal PPPoE
- PPPoE Status: 0. Link barrier.
- Username: test
- Password: \*\*\*\*
- Dial Mode: Auto-dial
- Enable VLAN: ☐
- Service Mode: Internet
- Port Binding: ☒ LAN1 ☒ LAN2 ☒ LAN3 ☒ LAN4
- ☒ SSID1 ☒ SSID2

A note below the port binding section states: "(if a port displays in gray, it means that the port has been bound to another connection)". At the bottom are buttons for Submit, Delete, and Cancel.

Figure 3.2.2.1: IP Setting Information

Under WAN interface configuration, user can select the different mode for Ethernet connection.

- Connection name: this is the network connection name automatically generated by system and each connection has its own name.
- Connection mode: there are two selection modes: Route and Bridge.

This screenshot shows the same 'WAN Interface Configuration' page, but with the 'IP Assigned Mode' set to 'DHCP(Obtain Automatically)'. The other settings remain identical to the previous figure. The 'Port Binding' section shows LAN1 through LAN4 and SSID1/SSID2 all selected. The same navigation menu and bottom buttons are present.

Figure 3.2.2.2: Router Connection Mode



Here below diagram shows the Bridge Mode. For the WAN connection with Bridge Mode, normally the VLAN will need to be configured for proper operation.

The screenshot shows the 'WAN Interface Configuration' page. The left sidebar has a menu with 'Device Status', 'Network' (expanded), 'WAN Configuration', 'DHCP Configuration', 'Client List', 'Wireless Configuration', 'Route Configuration', 'Security', 'Application', and 'System'. The main content area is titled 'WAN Interface Configuration'. It includes the following fields and options:

- Connection Name: **B ANY GDCBTW** (dropdown)
- Enable: ☒
- Connection Mode: **Bridge** (dropdown)
- IP Assigned Mode: **IPd** (dropdown)
- Protocol Type: ☒
- VLAN ID: **200** (text input)
- 802.1P: **0** (dropdown)
- Port Binding: ☐ LAN1 ☒ LAN2 ☐ LAN3 ☐ LAN4
- ☐ SSID1 ☐ SSID2
- ☒ SSID1 ☒ SSID2
- (If a port displays in gray, it means that the port has been bound to another connection)
- Buttons: **Submit**, **Delete**, **Cancel**

Figure 3.2.2.3: Bridge Connection Mode

With the router connection mode, user can select IP connection mode, such as Static IP, DHCP or PPPoE. When the DHCP is selected, the EoC client will get the IP address from the Uplink network DHCP server.

The screenshot shows the 'IP Address Configuration' page. The left sidebar is the same as in Figure 3.2.2.3. The main content area is titled 'IP Address Configuration'. It includes the following fields and options:

- IP Address: **192.168.0.1** (text input)
- Subnet Mask: **255.255.255.0** (text input)
- Domain Name: **ascent** (text input)
- DHCP Mode: **Enable DHCP Server Function** (dropdown)
- Start IP Address: **192.168.0.150** (text input)
- End IP Address: **192.168.0.200** (text input)
- Lease Time: **One Day** (dropdown)
- Manual DNS: ☐
- Primary DNS: **192.168.0.1** (text input)
- Secondary DNS: **8.8.8.8** (text input)
- Buttons: **Submit**, **Refresh**

Figure 3.2.2.4: DHCP Mode

The following diagram shows how to config a static IP mode.

- IP address: WAN port Static IP address
- Default Gateway: This gateway IP address should be in the same sub network as the WAN IP address as the above.

The screenshot displays the 'WAN Interface Configuration' page in the ASCENT EOC Client Web Management interface. The left sidebar shows a navigation menu with options: Device Status, Network (selected), WAN Configuration, DHCP Configuration, Client List, Wireless Configuration, Route Configuration, Security, Application, and System. The main content area is titled 'WAN Interface Configuration' and contains the following fields and settings:

- Connection Name: 1\_R\_NET\_GDCBTW
- Enable: ☒
- Connection Mode: Router
- IP Assigned Mode: Static IP(Configure Manually)
- Protocol Type: IPv4
- NAT: ☒
- IP Address: 172.16.100.21
- Subnet Mask: 255.255.255.0
- Default Gateway: 172.16.100.1
- Primary DNS: 8.8.8.8
- Secondary DNS: 4.4.4.4
- Enable VLAN: ☐
- Service Mode: Internet
- Port Binding: ☒ LAN1 ☒ LAN2 ☒ LAN3 ☒ LAN4
- ☒ SSID1 ☒ SSID2

A note at the bottom states: '(if a port displays in gray, it means that the port has been bound to another connection)'. At the bottom of the form are three buttons: Submit, Delete, and Cancel.

Figure 3.2.2.4: Static IP Mode

With the router connection mode, user can also select IP connection based on PPPoE. User will need to put in PPPoE user name and password.

The screenshot displays the 'WAN Interface Configuration' page in the ASCENT EOC Client Web Management interface, showing the PPPoE configuration mode. The left sidebar is identical to the previous screenshot. The main content area is titled 'WAN Interface Configuration' and contains the following fields and settings:

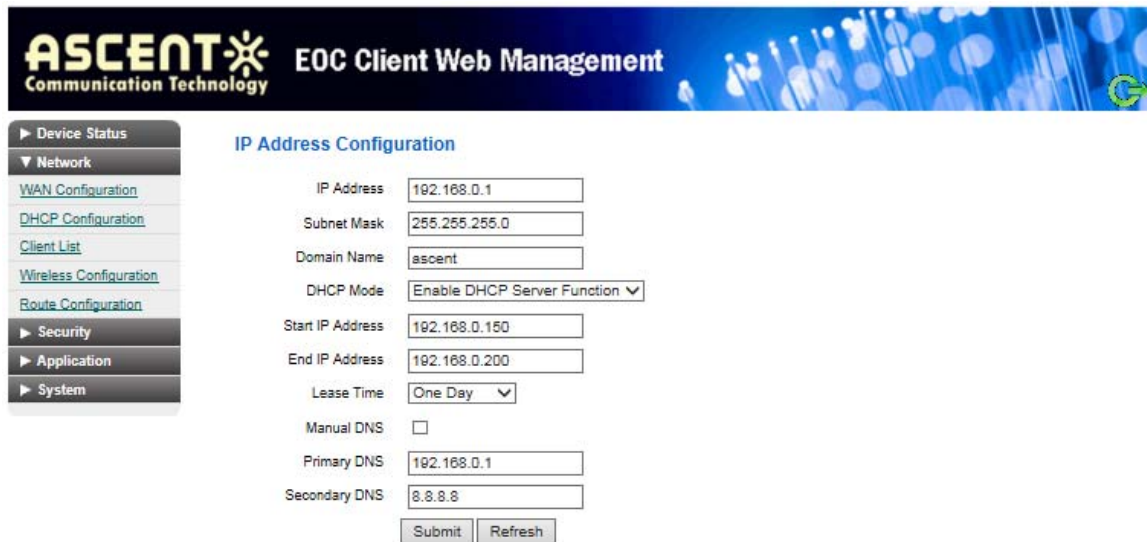
- Connection Name: 1\_R\_NET\_GDCBTW
- Enable: ☒
- Connection Mode: Router
- IP Assigned Mode: PPPoE(ADSL)
- Protocol Type: IPv4
- NAT: ☒
- PPPoE Type: Normal PPPoE
- PPPoE Status: 0. Link barrier.
- Username: test
- Password: ••••
- Dial Mode: Auto-dial
- Enable VLAN: ☐
- Service Mode: Internet
- Port Binding: ☒ LAN1 ☒ LAN2 ☒ LAN3 ☒ LAN4
- ☒ SSID1 ☒ SSID2

A note at the bottom states: '(if a port displays in gray, it means that the port has been bound to another connection)'. At the bottom of the form are three buttons: Submit, Delete, and Cancel.

Figure 3.2.2.5: PPPoE Mode

**DHCP Configuration:** Under this selection, user can configure the DHCP function for the EoC Wifi Client.

- IP address: the default IP address is 192.168.0.1 When the DHCP Server is enabled, if user need to change this IP address, the Start and End IP address will also need to be changed so that they are in the same sub network as the DHCP server.



The screenshot shows the 'IP Address Configuration' page in the ASCENT EOC Client Web Management interface. The left sidebar contains a navigation menu with options: Device Status, Network (selected), WAN Configuration, DHCP Configuration, Client List, Wireless Configuration, Route Configuration, Security, Application, and System. The main content area is titled 'IP Address Configuration' and contains the following fields:

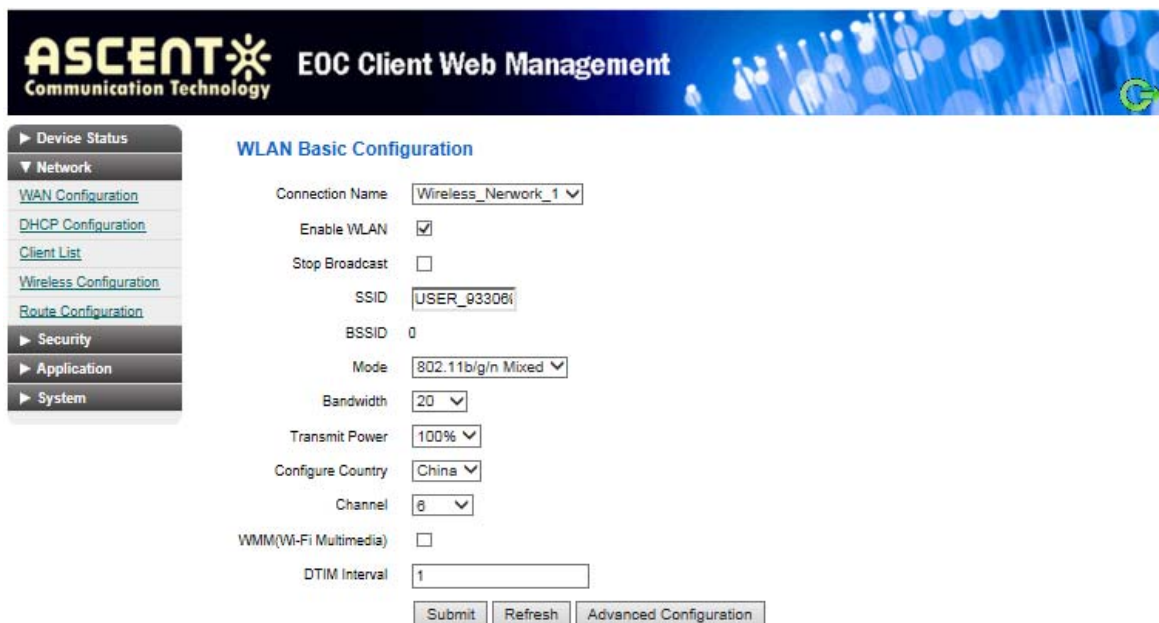
- IP Address: 192.168.0.1
- Subnet Mask: 255.255.255.0
- Domain Name: ascent
- DHCP Mode: Enable DHCP Server Function (dropdown)
- Start IP Address: 192.168.0.150
- End IP Address: 192.168.0.200
- Lease Time: One Day (dropdown)
- Manual DNS: ☐
- Primary DNS: 192.168.0.1
- Secondary DNS: 8.8.8.8

At the bottom of the form are 'Submit' and 'Refresh' buttons.

Figure 3.2.2.6: DHCP Configuration

**WLAN Basic Configuration:** Under this selection, user can configure the wireless LAN function for the EoC Wifi Client.

- SSID: When WIFI WLAN is enabled, user can change the SSID to the name that they prefer.



The screenshot shows the 'WLAN Basic Configuration' page in the ASCENT EOC Client Web Management interface. The left sidebar is the same as in the previous figure. The main content area is titled 'WLAN Basic Configuration' and contains the following fields:

- Connection Name: Wireless\_Network\_1 (dropdown)
- Enable WLAN: ☒
- Stop Broadcast: ☐
- SSID: USER\_93306
- BSSID: 0
- Mode: 802.11b/g/n Mixed (dropdown)
- Bandwidth: 20 (dropdown)
- Transmit Power: 100% (dropdown)
- Configure Country: China (dropdown)
- Channel: 8 (dropdown)
- WMM(Wi-Fi Multimedia): ☐
- DTIM Interval: 1

At the bottom of the form are 'Submit', 'Refresh', and 'Advanced Configuration' buttons.

Figure 3.2.2.7: Basic WLAN Configuration

**WLAN Security Configuration:** Under this selection, user can configure the wireless LAN Security setting for the EoC Wifi Client.

- WPA/WPA2: WPA pre shared key is the one that user need to login to the EoC wifi Client. The password key has a minimum requirement for 8 digits.

Figure 3.2.2.8: WLAN Security Configuration

**Routing Configuration:** Under this selection, user can configure the Router setting for the EoC Wifi Client. There are two setting options: Static Route and Dynamic Route.

Figure 3.2.2.9: Routing Configuration

### 3.2.3. Security Setting

This page shows Security setting information for the WIFI EoC Client device. There are three sub pages: URL Filtering, Port Filtering, MAC Filtering.

**URL Filtering:** User can config the URL filtering rules under this web page. If URL mode is Blacklist, all the URL in the list can not pass, all other URLs can pass. If URL mode is Whitelist, all the URL in the list can pass and all other URLs cannot pass.

The screenshot shows the 'URL Filtering' page in the ASCENT EOC Client Web Management interface. The left sidebar contains navigation links: Device Status, Network, Security (selected), WAN Security, Application, and System. The main content area has three tabs: URL Filtering (active), Port Filtering, and MAC Filtering. Under 'URL Filtering', there is a checkbox for 'Enable URL Filter' which is unchecked. Below it, the 'Filter Mode' is set to 'Blacklist' (selected) with 'Whitelist' as an option. A section titled 'URL Address List' contains a table with columns: No., URL Address, and Select. The table is currently empty. Above the table are 'Delete' and 'Add New' buttons. A 'Submit' button is located at the bottom left of the table area.

Figure 3.2.3.1: URL Filtering Information

**Port Filtering:** User can config the Port filtering function under this web page. If Port filtering mode is Blacklist, all the IP address and port in the list can not pass, all others can pass. If Port mode is Whitelist, all the IP address and port in the list can pass and all other URLs cannot pass.

The screenshot shows the 'Port Filtering' page in the ASCENT EOC Client Web Management interface. The left sidebar is the same as in Figure 3.2.3.1. The main content area has three tabs: URL Filtering, Port Filtering (active), and MAC Filtering. Under 'Port Filtering', there is a warning message: 'Warning: if the whitelist is enabled with no rules, it can cause the page to be not accessible.' Below this, there is a section 'Enable IP Filter Function' with an 'Enable' checkbox which is unchecked. Underneath, there is a section 'WAN - LAN Filtering' with 'Filter Mode' set to 'Blacklist' (selected) and 'Whitelist' as an option. A table with columns: No., Enable, Source(IP/Port)Range, Destination(IP/Port)Range, Protocol, Description, Connection Name, and Select. The table is currently empty. Above the table are 'Delete' and 'Add New' buttons. Below the table, there is a section 'LAN - WAN Filtering' with 'Filter Mode' set to 'Blacklist' (selected) and 'Whitelist' as an option. Another table with the same columns as the one above is shown, also empty, with 'Delete' and 'Add New' buttons above it. A 'Submit' button is located at the bottom left of the page.

Figure 3.2.3.2: Port Filtering Information



**MAC Filtering:** User can config the MAC filtering function under this web page. If MAC filtering mode is Blacklist, all the MAC in the list can not pass, all other MAC address can pass. If MAC mode is Whitelist, all the MAC in the list can pass and all other MAC address cannot pass.

Caution: If the designated PC in the whitelist is no longer in service, the wifi client will not be accessible. User will need to reset the unit to the factory default.

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EOC Client Web Management

▶ Device Status

▶ Network

▼ Security

WAN Security

▶ Application

▶ System

URL Filtering

Port Filtering

MAC Filtering

MAC Filtering

Enable MAC Filter ☐

Filter Mode ☒ Blacklist ☐ Whitelist

MAC Address List

No.

MAC Address

Select

1

11:22:33:44:55:66

☐

Delete

Add New

Submit

Figure 3.2.3.3: MAC Filtering Information

### 3.2.4. Application Management

Under “Application Configuration” page, it shows WIFI EoC Client application management function, such as DNS, MAC address clone, NAT etc.

**Dynamic DNS Config:** User can config the DNS under this web page.

Attribute	Description
DDNS	Enable / Disable DDNS Service
Service Provider	Provider for the DDNS service
DDNS Data	Host Name ( PhLinux3.Oray.Net )
	User Name
	Password

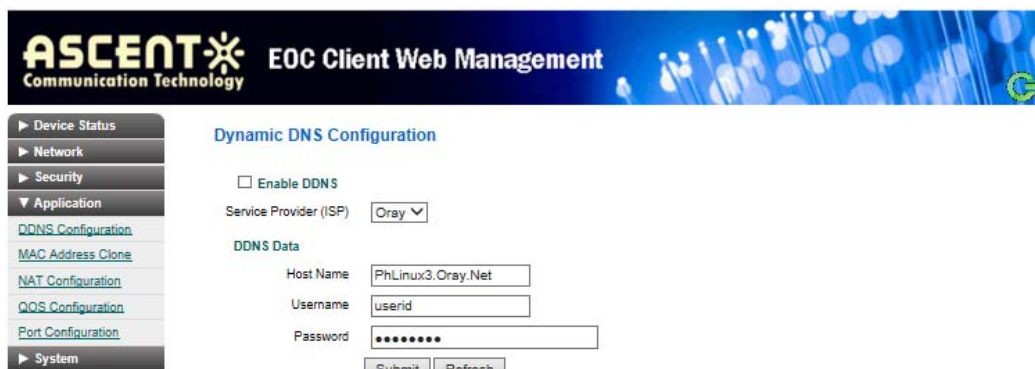


Figure 3.2.4.1: Dynamic DNS configuration

**MAC address Clone:** User can clone the MAC address under this web page.

Original MAC address is the MAC address that is used by the current WAN port.

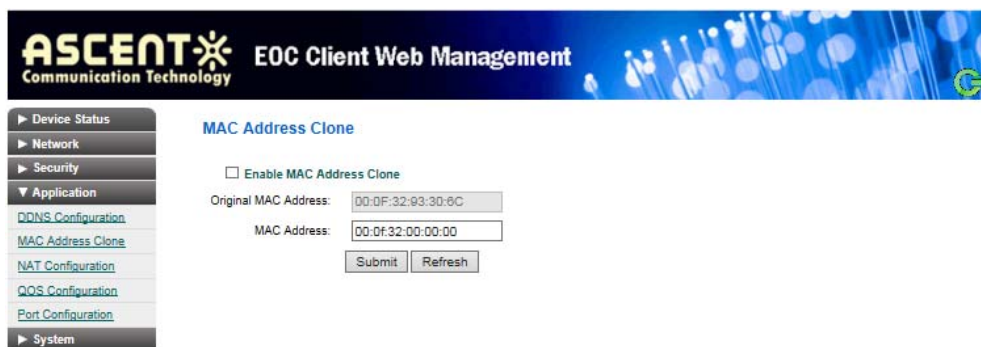


Figure 3.2.4.2: MAC address Clone configuration

**NAT DMZ Configuration:** User can set the DMZ settings under this web page.

The screenshot shows the 'DMZ Configuration' page. On the left is a sidebar menu with options: Device Status, Network, Security, Application (expanded), DDNS Configuration, MAC Address Clone, NAT Configuration, QoS Configuration, Port Configuration, and System. The main content area has a header 'DMZ Configuration' and the following fields: 'WAN Connection' set to '1\_R\_NET\_GDCBTW', 'Enable DMZ' with an unchecked checkbox, and 'DMZ Host Address' set to '192.168.0.13'. At the bottom are 'Submit' and 'Refresh' buttons.

Figure 3.2.4.3: NAT configuration

**QoS Configuration:** User can setup the QoS under this web page.

The screenshot shows the 'QoS Configuration' page. The sidebar menu is identical to the previous figure, with 'QoS Configuration' highlighted. The main content area has a header 'QoS Configuration' and the following fields: 'Enable QoS' with an unchecked checkbox, 'QoS Type' set to 'Based on Port', and 'QoS Scheduling Mode' set to 'Weighted Priority'. Below this is a 'Port Priority Configuration' section with four ports (Port1 to Port4), each with a dropdown menu set to '0'. At the bottom are 'Submit' and 'Refresh' buttons.

Figure 3.2.4.4: QoS configuration

**Port Configuration:** User can setup the Speed limit for each port under this web page.

The screenshot shows the 'Port Configuration' page. The sidebar menu is identical to the previous figures, with 'Port Configuration' highlighted. The main content area has a header 'Port Rate-limiting' and the following fields: 'Enable Port Rate-limiting' with an unchecked checkbox, 'WAN Interface Rate-limiting' with 'WAN Interface Rate' set to '0', 'LAN Rate-limiting' with four ports (Port1 to Port4) each set to '0', 'Enable Limiting of Port's MAC Address Number' with an unchecked checkbox, and 'Number of MAC Address' with four ports (Port1 to Port4) each set to '0'. At the bottom are 'Submit' and 'Refresh' buttons.

Figure 3.2.4.5: Port configuration



### 3.2.5. Application Management

Under “Application Configuration” page, user can load factory default settings, setup the system time, user account and log files.

**Device Reboot:** User can load factory default setting and reboot under this web page.

**Caution:** All the current settings will be erased after resetting default setting. User will need to backup the configuration in advance.

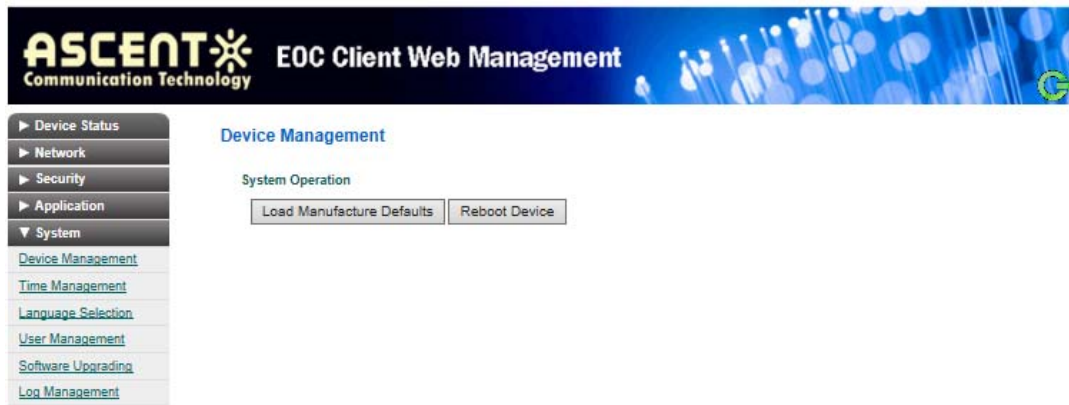


Figure 3.2.5.1: Device Reboot configuration

**Time Setting:** User can setup system time under this web page.



Figure 3.2.5.2: system time configuration

**User Account Configuration:** User can manage user account under this web page.

Caution: Admin account can not be edited by the subscriber. This is to setup the user account information.

The screenshot shows the ASCENT EOC Client Web Management interface. The sidebar on the left contains the following links: Device Status, Network, Security, Application, System, Device Management, Time Management, Language Selection, User Management, Software Upgrading, and Log Management. The main content area is titled 'User' and contains a table with the following data:

No.	Username	User Level	Operation
1	admin	Administrator	<input type="button" value="Edit"/>
2	useradmin	User	<input type="button" value="Edit"/>

Below the table, there is a form for adding a new user with the following fields: Original Username (useradmin), New Username (useradmin), New Password, and Confirm Password. There are 'Submit' and 'Refresh' buttons at the bottom of the form.

Figure 3.2.5.3: user account configuration

**Firmware Upgrade:** User can upload the client software under this web page.

Caution: Use only official firmware from Ascent. Make sure the link to the PC is in good connection and the whole process will take 1 or 2 minutes.

The screenshot shows the ASCENT EOC Client Web Management interface. The sidebar on the left contains the following links: Device Status, Network, Security, Application, System, Device Management, Time Management, Language Selection, User Management, Software Upgrading, and Log Management. The main content area is titled 'Software Upgrading' and contains a message: 'The firmware upgrading will take about a minute, please wait patiently after clicking the button [Submit], the page will jump automatically, do not interrupt it.' Below the message, there is a form for uploading software with the following fields: Upgrade Software, Location, and a 'Browse...' button. There is a 'Submit' button at the bottom of the form.

Figure 3.2.5.4: firmware configuration

**System Log:** User can check the log information under this web page, such as system reboot, upgrade, WAN port modification etc.

- Device Status
- Network
- Security
- Application
- ▼ System
  - [Device Management](#)
  - [Time Management](#)
  - [Language Selection](#)
  - [User Management](#)
  - [Software Upgrading](#)
  - [Log Management](#)

#### System Log

```

1970-01-01 08:24:06 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:25:12 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:25:12 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:26:19 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:26:19 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:27:25 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:27:25 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:28:31 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:28:31 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:29:38 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:29:38 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:30:44 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:30:44 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:31:51 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:31:51 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:32:48 [Informational] ? daemon.info webs[2137]: ifconfig: ppp0: error fetching interface
information: Device not found
1970-01-01 08:32:57 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
1970-01-01 08:32:57 [Error] ? local2.err pppd[259]: Unable to complete PPPoE Discovery
1970-01-01 08:34:03 [Warning] ? local2.warn pppd[259]: Timeout waiting for FADO packets
    
```

[Refresh](#)

Figure 3.2.5.5: system log information

## 4. Trouble shooting

### **NO LED Light**

If none of the LED light is on, check the power adapter and power plug to make sure the EoC master or client is properly powered. Check the power on/off button on client is pushed on.

### **VLAN Setting**

If the EoC Client can communicate with EoC Master but not the the uplink WAN network, the problem may reside at the VLAN setting for the Client. Please check the client template VLAN setting. See section 2.2.4

### **LAB Test Setting**

During the initial lab testing, if the same computer is used to setup the EoC Master and then used to test the EoC Client through the Client LAN port, it will take about 10 mins for the EoC Client to sync the MAC address with the EoC master.

Solution: Power cycle the EoC Client can refresh the MAC and expedite the process.

### **Restore Factory Default Setting**

To reset the EoC master or client to factory default setting, press the RESET button for more than 5 seconds. Check EoC Master and Client configuration for default IP address and user login information.



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