



# User Manual

Document Rev. 1.0  
May-11

## Table of Contents

- 1 INTRODUCTION AND SCOPE ..... 3**
- 2 PRODUCT FEATURES..... 4**
- 3 INSTALLATION..... 5**
  - 3.1 INSTALLATION PROCEDURES..... 5
  - 3.2 QUICK START..... 6

## 1 Introduction and Scope

Access Point Unit (APU) is a carrier-grade 802.11b/g Wi-Fi access point with centralized management system. One device can masquerade up to 16 different access points. Each virtual access point can have its own security policy (e.g. WPA, WPA2, etc.) and authentication mechanism (e.g. 802.1x, open, captive portal, etc), to facilitate building your wholesale network much faster, easier and more cost-effective than ever before.

## 2 Product Features

Key features of devices:

- Designed for wholesale wireless networks with multiple SSID and VLAN support
- Independent security policies and encryption mechanisms per virtual AP
- Centralized managed via web based InControl
- High-power output enhances coverage and lowers cost of ownership
- WMM (Wi-Fi Multimedia) and QoS (Quality of Service) Support
- WDS (Wireless Distribution System) Support
- Captive Portal Support
- Mesh Connector Bridging

## 3 Installation

### 3.1 Installation Procedures

1. Attach the antenna to the device.
2. Connect the LAN port on the unit with the backbone network using an Ethernet cable.
3. Connect the power adapter to the power connector of the unit, and then plug in the power adapter.
4. Wait for the status LED to turn green.
5. Connect a PC to the backbone network, and configure the IP address of the PC to be any IP address between 192.168.0.4 and 192.168.0.254, with subnet mask of 255.255.255.0.
6. With Microsoft Internet Explorer 6 or above, or Mozilla Firefox 2.0 or above, connect to the URL `https://192.168.0.3`.
7. When prompted, enter the default admin login ID and password, `admin` and `public` respectively.
8. After logging in, a Main Menu page appears to facilitate further configuration of the unit:

The screenshot displays the web interface of the device. On the left is a navigation menu with categories: Information (System, Wireless, WDS, Event Log, Neighbor APs), Configure (System, Advanced, Wireless Networks, WDS, SNMP, Web Admin), and Commands. Below the menu is a 'Real Time Status' box showing 'Status: Running'. The main content area is titled 'System Information' and contains several sections:

- System Information:** A table of key system parameters.

AP Name	PePWavePolePoint
Location	Site1
Domain Name	
Network IP Address	10.8.100.99
Network Subnet Mask	255.255.0.0
Software Version	4.5.5
Serial Number	282F-1234-ABCD
Up Time	16 days, 22:06:17
System Time	Mon Jun 30 15:55:53 2008
Timezone	Asia/Hong Kong
MAC Address	00:11:22:33:44:55
- L2TP Tunnel:** A table showing tunnel configuration.

Status	disable
Tunnel IP Address	0.0.0.0
Tunnel Netmask	0.0.0.0
- Firmware / Flash:** A table comparing two flash memory slots.

	Flash 1	Flash 2
Firmware Version	4.5.5	4.5.0
Flash Status	Bootable	Bootable
Boot from	🟡	
Firmware Upgrade Target		🟡

## 3.2 Quick Start

By default, an access point is preset with SSID: **PEPWAVE\_XXXX**, where **XXXX** is the last 4 hex digits of the LAN MAC Address of the unit.

The screenshot shows the 'Wireless Information' page. On the left is a navigation menu with sections: Information (System, Wireless, WDS, Event Log, Neighbor APs), Configure (System, Advanced, Wireless Networks, WDS, SNMP, Web Admin), and Commands (Real Time Status, Status: Running). The main content area has two sections: 'Wireless Information' and 'Connected Clients'. 'Wireless Information' shows: Name: PLHQLAB, Number of WLANs: 14, Current Clients: 2, Current Channel: 11. 'Connected Clients' is a table with columns: Manufacturer, MAC Address, WLAN SSID, VID, Type, Authentication, Status, and a Details link.

Manufacturer	MAC Address	WLAN SSID	VID	Type	Authentication	Status	
PePWave Ltd	00:11:22:33:44:55	PLHQ_WEP	0	802.11g	WEP	associated (00:24:49)	<a href="#">Details</a>
PePWave Ltd	00:11:AA:22:BB:33	PLHQ_WPA2PSK	0	802.11g	WPA-AES:CCMP	associated (00:25:16)	<a href="#">Details</a>

The default access point bridges the Wi-Fi interface to the Ethernet port, with both encryption and VLAN tagging disabled.

To access the backbone network connected via the Ethernet port of the unit, establish a session at the Wi-Fi interface with a Wi-Fi client. After establishing a Wi-Fi client session, information about the established Wi-Fi session appears at the Web Administration Interface of APU device, under the section **Information-> Wireless**.

Clicking on the link labeled **Details** causes the following screen to be displayed:

The screenshot shows the 'Client Details' page. The left navigation menu is the same as in the previous screenshot. The main content area shows a list of client details for the selected client.

MAC Address	00:11:22:33:44:55
WLAN SSID	PePWavePolePoint
VLAN ID	0
Type	802.11g
Status	associated (00:00:05)
Authentication	WPA-AES:CCMP
Auth	authenticated
IP Address	10.8.9.10
Username	
Domain	
QoS Level	Bronze
Bytes Received	2139
Bytes Sent	851
Packets Received	1
Packets Sent	5
Receive Errors	0
Transmit Errors	0
Receive Duplicate	0
Receive Retries	2
Transmit Retries	1
Transmit Excessive_Retries	0
Receive Modulation Rate	54M
Transmit Modulation Rate	54M
RSSI	39

## **FCC WARNING**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE 3: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.