



Quick Installation Guide

EAP260 V1.00

Enterprise Access Point

Copyright Notice

This document is protected by USA copyright laws and other laws. Besides, the document is the property of 4IPNET, INC. You may not copy, reproduce, distribute, publish, display, perform, or modify any part of this publication in any form or by any means without prior written permission from 4IPNET, INC. You may not alter or remove any copyright or other notice from copies of the content. All other brand and product names are claimed or registered marks of their respective companies or organizations.

All rights reserved.

To download up-to-date version, please visit www.4ipnet.com.

FCC CAUTION

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 equipment has been tested and proven 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.**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The device contains a low power transmitter which will send out Radio Frequency (RF) signal when transmitting. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

CE CAUTION

Declaration of Conformity with Regard to the 1999/5/EC (R&TTE Directive) for European Community, Switzerland, Norway, Iceland, and Liechtenstein

Model: EAP260

For 2.4 GHz radios, the device has been tested and passed the requirements of the following standards, and hence fulfills the EMC and safety requirements of R&TTE Directive within the CE marking requirement.

- Radio: EN 300.328.
- EMC: EN 301.489-1, EN 301.489-17,
- EMC: EN 55022 Class B, EN 55024.+ A1 + A2 including the followings:
 - EN 61000-3-2, EN 61000-3-3.
 - EN 61000-4-2, EN 61000-4-3, EN 61000-4-4,
 - EN 61000-4-5, EN 61000-4-6, EN 61000-4-11
- Safety: EN 60950-1 + A11,

Caution:

- This declaration is only valid for configurations (combinations of software, firmware, and hardware) provided and supported by 4ipnet Inc. The use of software or firmware not provided and supported by 4ipnet Inc. may result in the equipment no longer being compliant with the regulatory requirements.

European standards dictate maximum radiated transmit power of 100mW EIRP and frequency range 2.400-2.4835 GHz. This equipment is intended to be used in all EU and EFTA countries. Outdoor use may be restricted to certain frequencies and/or may require a license for operation. Contact your local regulatory authority for compliance.

Taiwan NCC Statement

根據 NCC 低功率電波輻射性電機管理辦法 規定:

- | | |
|------|---|
| 第十二條 | 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。 |
| 第十四條 | 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時應立即停用，並改善至無干擾時方得繼續使用。 前項合法通信，指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之擾。 |

Preface

4ipnet EAP260 is a high-end 802.11n/b/g 2.4GHz MIMO Access Point (AP) with the best price/performance for business and industrial applications and is compliant with the latest industrial wireless security standards that are required in the tightly secured enterprise network environments.

EAP260 makes the wireless communication fast, secure and easy. It supports business grade security such as 802.1X, and Wi-Fi Protected Access (WPA and WPA2). By pushing a purposely built button, the **4ipWES (Press-n-Connect)** feature makes it easy to bridge wireless links of multiple EAP260s for forming a wider wireless network coverage.

EAP260 also features multiple ESSIDs with VLAN tags and multiple Virtual APs; great for enterprise applications, such as separating traffic from different departments using different ESSIDs. The PoE Uplink port is able to receive power from Power over Ethernet (PoE) sourcing devices. Its metal case is IP50 anti-dust compliant, which means that EAP260 is well suited to WLAN deployment in industrial environments.

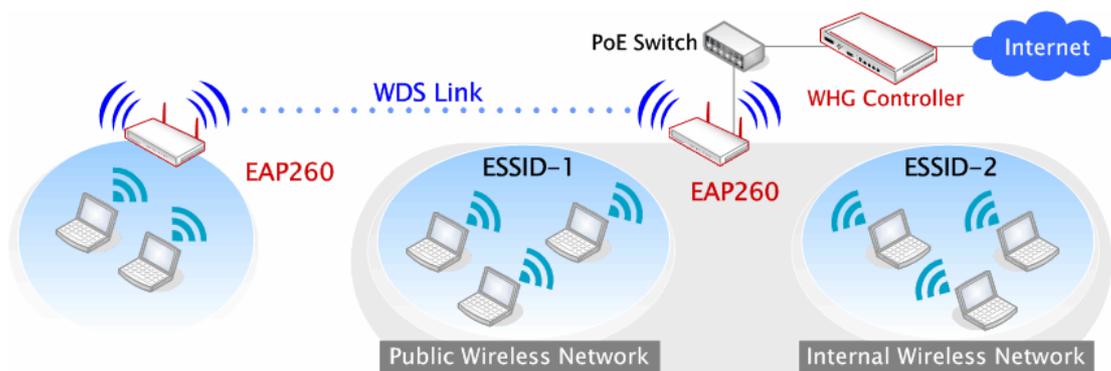
This Quick Installation Guide provides instructions and reference materials to get you started with 4ipnet EAP260.

Package Contents

1. 4ipnet EAP260 x 1
2. Quick Installation Guide (QIG) x 1
3. CD-ROM (with User's Manual and QIG) x 1
4. Ethernet Cable x 1
5. Console Cable x 1
6. Power Adapter (DC 5V) x 1
7. Detachable Antenna x 2



It is recommended to keep the original packing material for possible future shipment when repair or maintenance is required. Any returned product should be packed in its original packaging to prevent damage during delivery.



Network Layout with EAP260s

System Overview

Front Panel

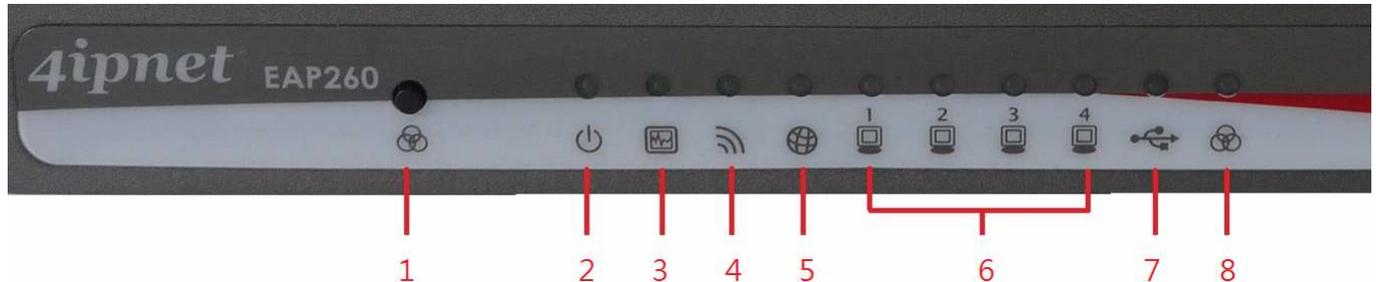


Figure 1 EAP260 Front Panel

| 1 |  | WES button | Press and hold for 5 seconds to initiate Master WES process. Press and release to initiate Slave WES process. | | | | | | | | | | | | | | | | | | |
|---------------|---|--|--|--|--|--|-----------|--|--|---------------|---------------------------|-------------------------|-------------|----------------|--------------|-------------|--------------|----------------|----------|----------------|--------------|
| 2 |  | Power LED | On indicates power on. | | | | | | | | | | | | | | | | | | |
| 3 |  | Status LED | On indicates the system is ready. | | | | | | | | | | | | | | | | | | |
| 4 |  | Wireless LED | On indicates wireless network interface is ready for service. | | | | | | | | | | | | | | | | | | |
| 5 |  | Uplink LED | On indicates the Uplink is connected. | | | | | | | | | | | | | | | | | | |
| 6 |  | LAN1 - 4 LED | Indicates the connection status of each LAN. | | | | | | | | | | | | | | | | | | |
| 7 |  | USB LED | Indicates the status of USB connection. The USB port is reserved for future use. | | | | | | | | | | | | | | | | | | |
| 8 |  | WES LED | <p>For indicating WDS connection status.</p> <table border="1"> <thead> <tr> <th></th> <th>Master (Press for more than 3 seconds)</th> <th>Slave (Press once and then release right away)</th> </tr> </thead> <tbody> <tr> <td>WES Start</td> <td>LED (Green) OFF and then BLINKING SLOWLY</td> <td>LED (Red) OFF and then BLINKING SLOWLY</td> </tr> <tr> <td>WES Negotiate</td> <td>BLINKING NORMALLY (Green)</td> <td>BLINKING NORMALLY (Red)</td> </tr> <tr> <td>WES Timeout</td> <td>LED (Green) ON</td> <td>LED (Red) ON</td> </tr> <tr> <td>WES Success</td> <td>LED (Red) ON</td> <td>LED (Green) ON</td> </tr> <tr> <td>WES Fail</td> <td>LED (Green) ON</td> <td>LED (Red) ON</td> </tr> </tbody> </table> | | Master (Press for more than 3 seconds) | Slave (Press once and then release right away) | WES Start | LED (Green) OFF and then BLINKING SLOWLY | LED (Red) OFF and then BLINKING SLOWLY | WES Negotiate | BLINKING NORMALLY (Green) | BLINKING NORMALLY (Red) | WES Timeout | LED (Green) ON | LED (Red) ON | WES Success | LED (Red) ON | LED (Green) ON | WES Fail | LED (Green) ON | LED (Red) ON |
| | Master (Press for more than 3 seconds) | Slave (Press once and then release right away) | | | | | | | | | | | | | | | | | | | |
| WES Start | LED (Green) OFF and then BLINKING SLOWLY | LED (Red) OFF and then BLINKING SLOWLY | | | | | | | | | | | | | | | | | | | |
| WES Negotiate | BLINKING NORMALLY (Green) | BLINKING NORMALLY (Red) | | | | | | | | | | | | | | | | | | | |
| WES Timeout | LED (Green) ON | LED (Red) ON | | | | | | | | | | | | | | | | | | | |
| WES Success | LED (Red) ON | LED (Green) ON | | | | | | | | | | | | | | | | | | | |
| WES Fail | LED (Green) ON | LED (Red) ON | | | | | | | | | | | | | | | | | | | |

Rear Panel

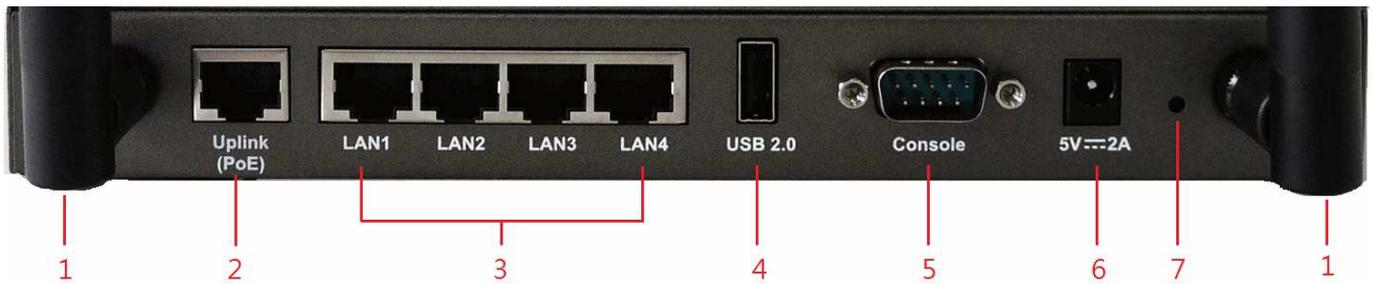


Figure 2 EAP260 Rear Panel

| | | |
|---|--------------------------|--|
| 1 | Antenna connector | Reverse SMA connectors for attaching antenna as shown in figure 2. |
| 2 | Uplink (PoE) | Offers uplink connection. This port can be used to connect to a controller, gateway, or directly to the Internet with 802.3af PoE compliant. |
| 3 | LAN 1- 4 | Attach Ethernet cables here for connecting to the wired local network. |
| 4 | USB 2.0 | Reserved for future use. |
| 5 | Console | Attach the serial cable here to access console interface. |
| 6 | 5V 2 A | Attach the power adapter here. |
| 7 | Restart / Reset | Press once to restart the system; Press and hold for more than 5 seconds to reset to factory default. |

Right-Side Panel



There is a hole on the right side for Kensington lock. If it is not used, admin can fill the hole with the rubber plug given.

Hardware Installation

Please follow the steps mentioned below to install the hardware of EAP260:

1. Place the EAP260 at the best location.

The best location for EAP260 is usually at the center of your intended wireless network.

2. Connect EAP260 to your network device.

Connect one end of the Ethernet cable to the Uplink port of EAP260 and the other end of the cable to a switch, a router or a hub. EAP260 is then connected to your existing wired LAN network.

3. There are two ways to supply power over to EAP260.

(a) Connect the **DC power adapter** to the EAP260 power socket.



Please use only the power adapter supplied with the EAP260 package. Using a different power adapter may damage this system.

(b) EAP260 Uplink port is capable of receiving DC currents. Connect an IEEE 802.3af-compliant PSE device, e.g. a PoE-switch, to the Uplink port of EAP260 with the Ethernet cable.

Now, the Hardware Installation is completed.



To verify the wired connection between EAP260 and your switch/router/hub, please check the LED status indication of these network devices.

Getting Started

4ipnet EAP260 supports web-based configuration. When hardware installation is complete, EAP260 can be configured through a PC by using a web browser such as Mozilla Firefox 2.0 or Internet Explorer version 6.0 and above.

The default values of UPLINK IP address and subnet mask of EAP260 are:

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

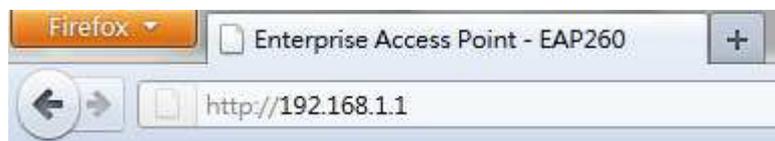
Steps:

1. To access the Web Management Interface, connect the administrator PC to the UPLINK port of EAP260 via an Ethernet cable. Then, set a static IP address on the same subnet mask as EAP260 in TCP/IP of your PC, such as the following example:

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

2. Launch the web browser on your PC by entering the IP address of EAP260 (**https://192.168.1.1**) at the address field, and then press **Enter**.



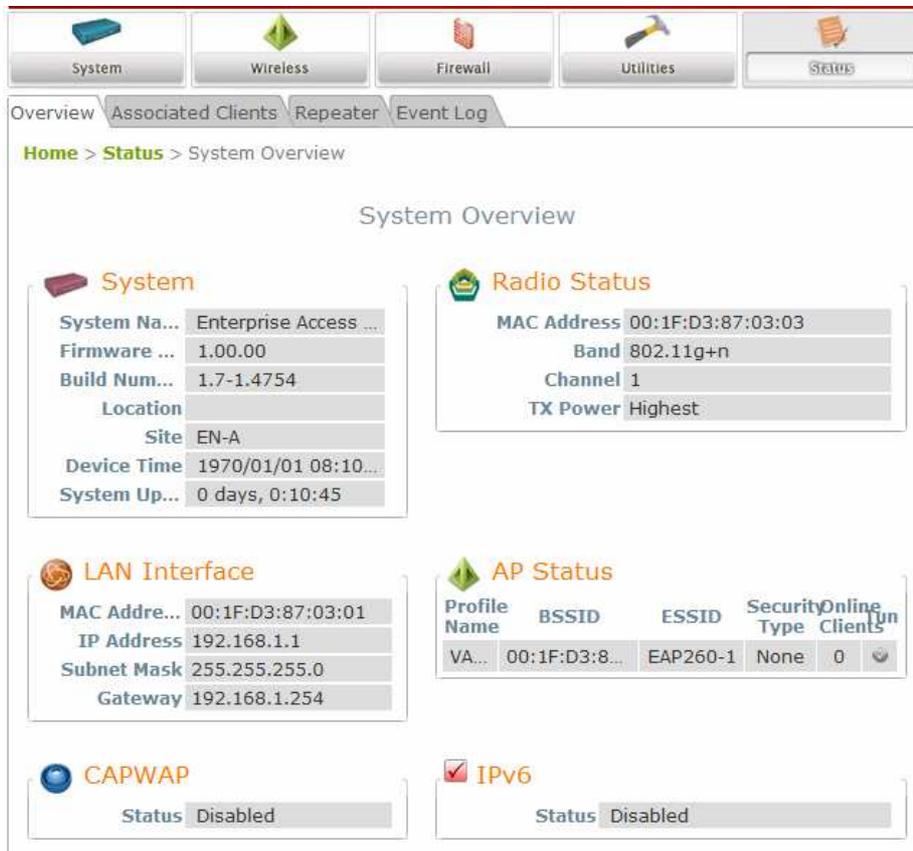
Example of entering EAP260's default IP Address via a web browser

3. The following Admin Login Page will appear. Enter “**admin**” for both the *Username* and *Password* fields, and then click **Login**.



Administrator Login Page

- After a successful login to EAP260, a **System Overview** page of the Web Management Interface will appear, as depicted below.



The Web Management Interface - System Overview Page

- To logout, simply click on the **Logout** button at the upper right hand corner of the interface to return to the Administrator Login Page. Click **OK** to logout.

Common Settings

Step 1. Change Administrator's Password

The screenshot shows the web interface for changing the administrator's password. At the top, there is a main menu with icons for System, Wireless, Firewall, Utilities, and Status. Below this is a sub-menu with tabs for Change Password, Backup & Restore, System Upgrade, Reboot, and Upload Certificate. The 'Change Password' tab is selected. The page title is 'Change Password'. The form contains the following fields:

- Name :** admin
- Old Password :**
- New Password :** *up to 32 characters
- Re-enter New Password :**

Change Password Page

- Click on the **Utilities** icon on the main menu, and select the **Change Password** tab.
- Enter the old password and then a new password with a length of up to 32 characters, and retype it in the **Re-enter New Password** field.
- Click **SAVE** to save the changes.

Step 2. Configure General AP (Access Point) Settings

Home > Wireless > General

General Settings

Band : 802.11g+802.11n Pure 11n

Short Preamble : Disable Enable

Short Guard Interval : Disable Enable

Channel Width : 20 MHz

Channel : 6

Max Transmit Rate : Auto

Transmit Power : Highest

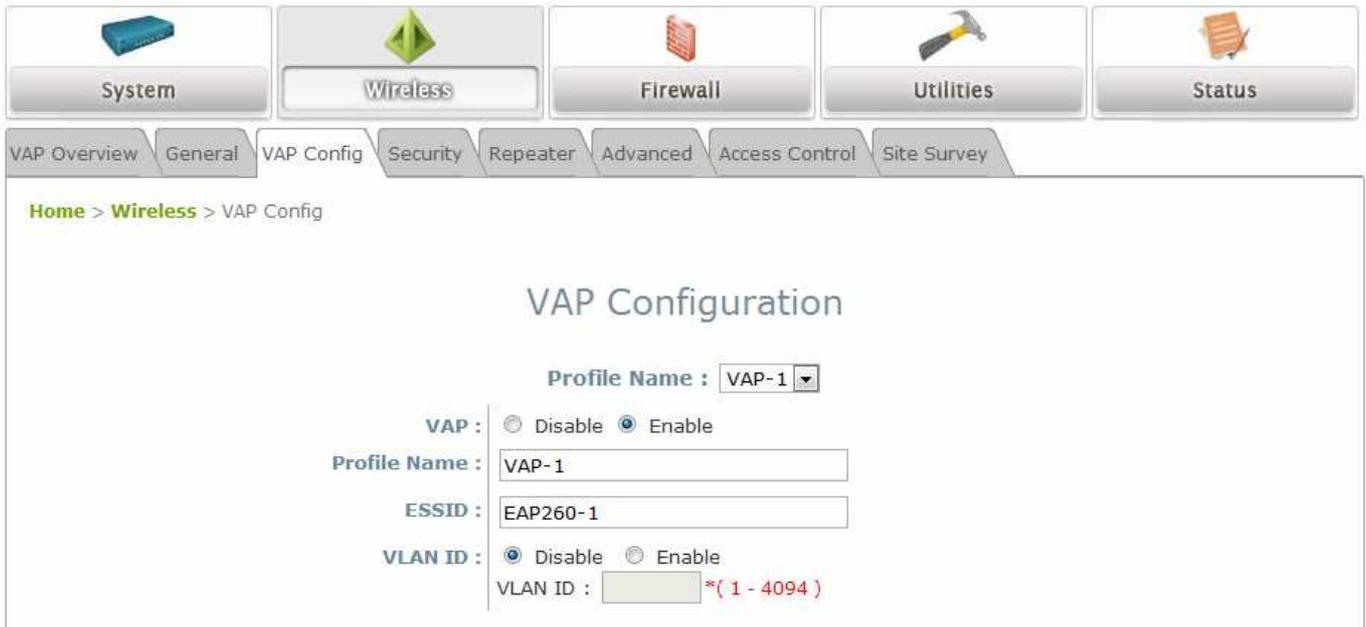
ACK Timeout : 0 *(0 - 255, 0:Auto, Unit:4 micro seconds)

Beacon Interval : 100 *(100 - 500ms)

Wireless General Settings Page

- Click on the **Wireless** icon on the main menu, and then select the **General** tab.
- Determine the **Band** and **Channel** settings:
 Select your preferred **Band** and **Channel** for you wireless connection. For example, select **802.11g+802.11n** for the band and 6 for the channel.

Step 3. Configure VAP (Virtual Access Point) Profile Settings



VAP Configuration Page (VAP-1 shown)

- EAP260 supports up to 8 virtual APs (VAPs).
- Configure VAP profile settings :
 - (a) Select the **VAP Configuration** tab to configure the settings of the desired VAP.
 - (b) Enable a specific VAP from the drop-down menu of **Profile Name** and configure related settings below.
- Check VAP status :

After finishing VAP configuration, the status of enabled Virtual APs shall be reflected on the VAP Overview page.

Home > Wireless > VAP Overview

VAP Overview

| VAP No. | ESSID | State | Security Type | MAC ACL | Advanced Settings |
|---------|----------|----------|---------------|----------|-------------------|
| 1 | EAP260-1 | Enabled | None | Disabled | Edit |
| 2 | EAP260-2 | Disabled | None | Disabled | Edit |
| 3 | EAP260-3 | Disabled | None | Disabled | Edit |
| 4 | EAP260-4 | Disabled | None | Disabled | Edit |
| 5 | EAP260-5 | Disabled | None | Disabled | Edit |
| 6 | EAP260-6 | Disabled | None | Disabled | Edit |
| 7 | EAP260-7 | Disabled | None | Disabled | Edit |
| 8 | EAP260-8 | Disabled | None | Disabled | Edit |

Virtual AP Overview Page

Step 4. Configure WDS (Wireless Distribution System) Settings (Optional)

Home > Wireless > Repeater Config

Repeater Settings

Repeater Type : WDS WES

WDS Profile : RF Card : WDS Link 1

WDS : Disable

MAC Address :

Security type : None

To extend the wireless coverage, EAP260 supports up to 4 WDS links for connecting wirelessly to other WDS-capable APs (peer APs). By default, all WDS profiles are disabled.

- Click on the **Wireless** button on the main menu.
- Select the **Repeater Settings** tab.
- Choose **WDS** as the **Repeater Type**.
- Choose the desired WDS profile:

- (a) Enable **WDS**.
- (b) Enter the **MAC Address** (peer AP) and then Click **SAVE**.

If you are using another EAP260 as the peer AP, simply repeat the above-mentioned steps to configure another peer AP(s).

► **Note:**

On each and every configuration page, you may click **SAVE** to save the changes of your configured settings, but you must reboot the system for the changes to take effect. After clicking **SAVE**, the following message will appear: “**Some modifications have been saved and will take effect after Reboot.**”

Congratulations!

Now, 4ipnet EAP260 is installed and configured successfully.



After EAP260's network configuration is completed, please remember to change the IP Address of your PC Connection Properties back to its original settings in order to ensure that your PC functions properly in its real network environments.

- ***It is strongly recommended to make a backup copy of your configuration settings.***
- ***For further configuration and backup information, please refer to the User's Manual.***