



Quick Installation Guide

EAP200 V1.00

Enterprise Access Point

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FCC CAUTION

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.

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: EAP200

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.
- Radio: EN 50392
- 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 EAP200 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.

EAP200 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 EAP200s for forming wider wireless network coverage.

EAP200 also features multiple ESSIDs with VLAN tags and multiple Virtual APs; great for enterprise applications, such as separating the traffics of different departments using different ESSIDs. The PoE LAN port can receive power from Power over Ethernet (PoE) sourcing device. Its metal case is IP50 anti-dust compliant, which means that EAP200 is well suited to WLAN deployment in industrial environments.

This Quick Installation Guide provides instructions and reference materials for getting started with 4ipnet EAP200.

Package Contents

1. 4ipnet EAP200 x 1
2. Quick Installation Guide (QIG) x 1
3. CD-ROM (with User's Manual and QIG) x 1
4. Console Cable x 1
5. Ethernet Cable x 1
6. Power Adapter (DC 12V) x 1
7. Antenna x 2
8. Screw Pack x 1
9. Ground Cable x 1



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.

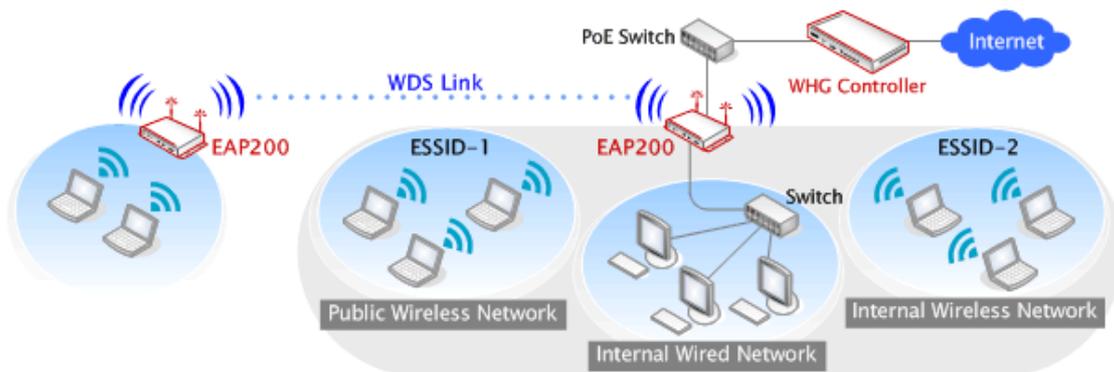


Figure 1 Wired and Wireless Network Layout with EAP200s

System Overview

Connector Panel



Figure 2 EAP200 Connector Panel

1	USB	Disabled for future usage only.
2	WES	Press to start running WES process.
3	Console	Attach the serial cable here.
4	LAN1 / LAN2	Attach the Ethernet cable here for connecting to wired local network,
5	Reset	Hardware reset button, press once to restart the system.
6	DC 12V	Attach the power socket here.
7	12V 1.5A	Attach the power adapter here.

Antenna Panel



Figure 3 EAP200 Antenna Panel

Antenna Connector:	Attach the antennas here. The system supports one RF interface with two SMA connectors.
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LED Panel

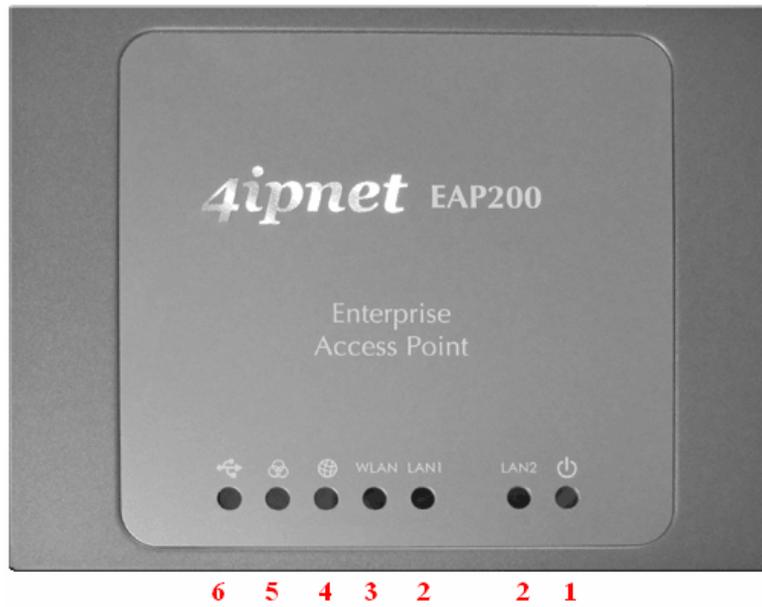


Figure 4 EAP200 LED Panel

1	Power LED	LED ON indicates power on; OFF indicates power off.												
2	LAN LED	LED ON indicates LAN cable connected; OFF indicates no connection; BLINKING indicates transmitting data.												
3	WLAN LED	LED ON indicates wireless ready.												
4	WDS LED	LED ON indicates WDS ready.												
5	WES LED	To indicate WES status. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th>Master</th> <th>Slave</th> </tr> </thead> <tbody> <tr> <td>WES Start</td> <td>LED BLINKING SLOWLY</td> <td>LED BLINKING QUICKLY</td> </tr> <tr> <td>WES Success</td> <td>LED ON constantly for 5 seconds</td> <td>LED ON constantly for 5 seconds</td> </tr> <tr> <td>WES Fail</td> <td>LED OFF</td> <td>LED OFF</td> </tr> </tbody> </table>		Master	Slave	WES Start	LED BLINKING SLOWLY	LED BLINKING QUICKLY	WES Success	LED ON constantly for 5 seconds	LED ON constantly for 5 seconds	WES Fail	LED OFF	LED OFF
	Master	Slave												
WES Start	LED BLINKING SLOWLY	LED BLINKING QUICKLY												
WES Success	LED ON constantly for 5 seconds	LED ON constantly for 5 seconds												
WES Fail	LED OFF	LED OFF												
6	USB LED	Disabled for future usage only.												

Hardware Installation

Please follow the steps mentioned below to install the hardware of EAP200:

1. Place the EAP200 at a best location.

The best location for EAP200 is usually at the center of your wireless network.

2. Connect EAP200 to your network device.

Connect one end of the Ethernet cable to the LAN port of EAP200 and the other end of the cable to a switch, a router or a hub. EAP200 is then connected to your existing wired LAN network.

3. There are two ways to supply power over to EAP200.

(a) Connect the **DC power adapter** to the EAP200 power socket.



Please only use the power adapter supplied with the EAP200 package. Using a different power adapter may damage this system.

(b) EAP200 LAN port is capable of transmitting DC currents. Connect an IEEE 802.3af-compliant PSE device, e.g. a PoE-switch, to the LAN port of EAP200 by the Ethernet cable.

Now, the Hardware Installation is completed.



To double verify the wired connection between EAP200 and your switch/router/hub, please check the LED status indication of these network devices.

Getting Started

4ipnet EAP200 supports web-based configuration. Upon the completion of hardware installation, EAP200 can be configured through a PC by using its web browser such as Mozilla Firefox 2.0 or Internet Explorer version 6.0 and above.

The default values of LAN IP address and subnet mask of EAP200 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 LAN port of EAP200 via an Ethernet cable. Then, set a static IP address on the same subnet mask as EAP200 in TCP/IP of your PC, such as the following example:

IP Address: 192.168.1.100

Subnet Mask: 255.255.255.0

2. Launch the web browser on your PC by entering the IP address of EAP200 (**http://192.168.1.1**) at the address field, and then press **Enter**.

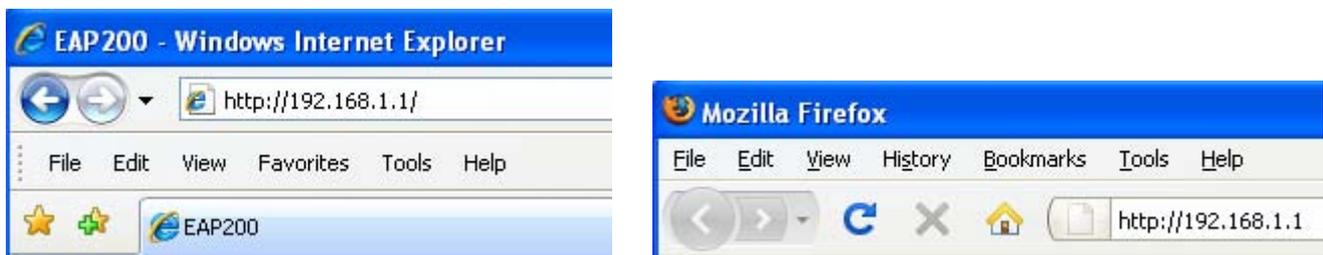


Figure 5 Example of entering EAP200's default IP Address via a web browser

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



Figure 6 Administrator Login Page

- After a successful login into EAP200, a **System Overview** page of web management interface will appear, as depicted below.

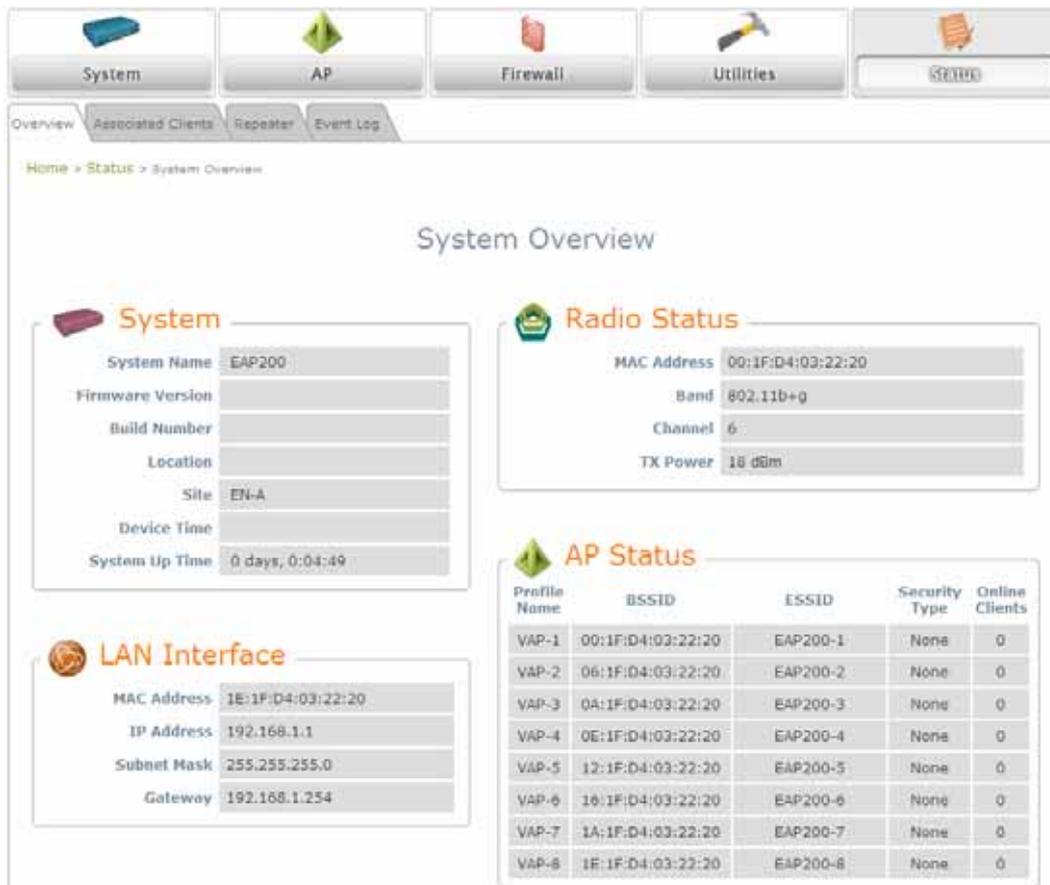


Figure 7 The Web Management Interface - System Overview Page

- 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.

Figure 8 Logout Prompt



Common Settings

Step 1. Change Administrator's Password

The screenshot shows the web interface for changing the administrator's password. At the top, there are five main menu buttons: System, AP, Firewall, Utilities, and Status. The Utilities button is highlighted with a red box. Below these, there are four sub-menu buttons: Change Password, Backup & Restore, System Upgrade, and Reboot. The Change Password button is also highlighted with a red box. The main content area shows the breadcrumb 'Home > Utilities > Change Password' and the title 'Change Password'. Below the title, there are four input fields: 'Name' with the value 'admin', 'Old Password' with five dots, 'New Password' with seven dots and a red asterisk note '*up to 32 characters', and 'Re-enter New Password' with seven dots.

Figure 9 Change Password Page

- Click on the **Utilities** main menu button, and then 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

The screenshot shows the configuration interface for the AP. At the top, there are five main menu buttons: System, AP, Firewall, Utilities, and Status. The 'AP' button is highlighted with a red box. Below these are sub-menu tabs: VAP Overview, General, VAP Config, Security, Repeater, Advanced, Access Control, and Site Survey. The 'General' tab is selected and highlighted with a red box. The breadcrumb path is 'Home > AP > General'. The main heading is 'General Settings'. The settings are as follows:

- Band:** 802.11b+802.11g (dropdown menu, highlighted with a red box)
- Short Preamble:** Disable Enable
- Channel:** 6 (dropdown menu, highlighted with a red box)
- Max Transmit Rate:** Auto (dropdown menu)
- Transmit Power:** Auto (dropdown menu)
- ACK Timeout:** 0 *(0 - 255, 0:Auto, Unit:4 micro seconds)
- Beacon Interval:** 100 *(100 - 500ms)

Figure 10 Wireless General Settings Page

- Click on the **AP** main menu button, 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 **802.11b+802.11g** for the band and **6** for the channel.

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

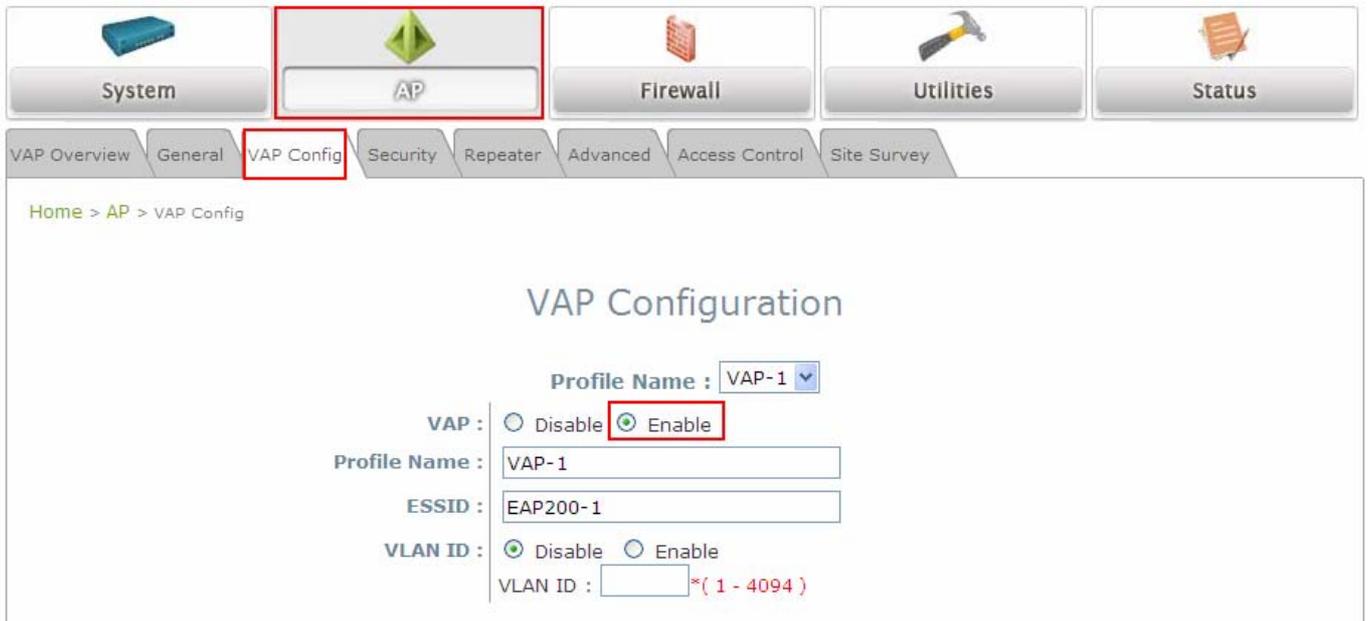


Figure 11 VAP Configuration Page (VAP-1 shown)

- EAP200 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.

VAP No.	ESSID	State	Security Type	MAC ACL	Advanced Settings
1	EAP200-1	Enabled	None	Disabled	Edit
2	EAP200-2	Enabled	None	Disabled	Edit
3	EAP200-3	Enabled	None	Disabled	Edit
4	EAP200-4	Enabled	None	Disabled	Edit
5	EAP200-5	Enabled	None	Disabled	Edit
6	EAP200-6	Enabled	None	Disabled	Edit
7	EAP200-7	Enabled	None	Disabled	Edit
8	EAP200-8	Enabled	None	Disabled	Edit

Figure 12 Virtual AP Overview Page

If you use another EAP200 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, but you must reboot the system upon the completion of all configuration settings for the changes to take effect. When clicking **SAVE**, the following message will appear: **“Some modifications have been saved and will take effect after Reboot.”**

Congratulation!

Now, 4ipnet EAP200 is installed and configured successfully.

After EAP200'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 the configuration settings.**
- **For further configuration and backup information, please refer to the User's Manual.**