

Quick Installation Guide

EAP300 v2.00

Enterprise Access Point

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FCC CAUTION

FCC Class B Statement:

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.

FCC Radiation Exposure Statement:

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.

According to FCC 15.407(e), the device is intended to operate in the frequency band of 5.15GHz to 5.25GHz under all conditions of normal operation. Normal operation of this device is restricted to indoor used only to reduce any potential for harmful interference to co-channel MSS operations.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

CE CAUTION

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

Model: EAP300

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 301 893
- 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.
- 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 EAP300 is a high-end 802.11n/a/b/g dual-band MIMO Access Point (AP) with the best price/ performance for enterprise and industrial applications and is compliant with the latest industrial wireless security standards that are required in the tightly secured enterprise network environments. EAP300 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 4ipnet WES feature makes it easy to bridge wireless links of multiple EAP300s for forming wider wireless network coverage. EAP300 also features multiple ESSIDs with VLAN tags; one EAP300 can emulate up to eight 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) device. Its metal case is IP50 anti-dust compliant, which means that EAP300 is well suited to WLAN deployment in industrial environments.

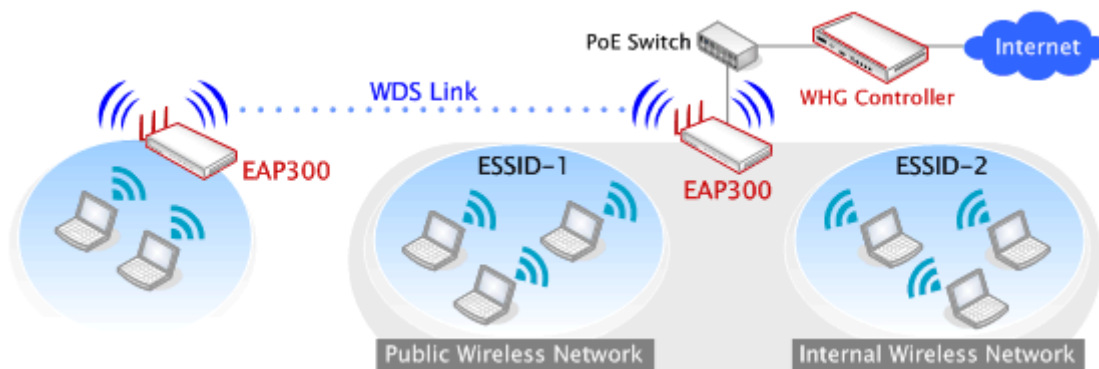
This Quick Installation Guide provides instructions and reference materials for getting started with 4ipnet EAP300.

Package Contents

1. EAP300 x 1
2. Quick Installation Guide x 1
3. CD-ROM (with User's Manual and QIG) x 1
4. Power Adapter (DC 12V) x 1
5. Cat. 5e Ethernet cable x 1
6. Antenna x 3



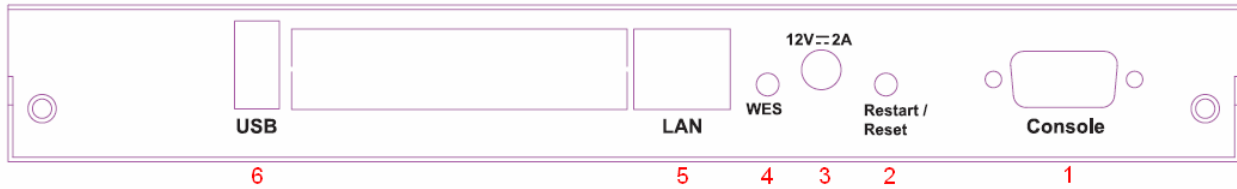
It is recommended to keep the original packing material for possible future shipment when repair or maintenance is required. Any returned product should be packed in its original packaging to prevent damage during delivery.



Wired and Wireless Network Layout with EAP300s

System Overview

Connector Panel



EAP300 Connector Panel

1	Console	Attach the serial cable here.
2	Restart/Reset Button	Press once to restart the system; Press and hold for more than 5 seconds to reset to factory default.
3	12 = 2A	Attach the power adapter here.
4	WES Button	Press to start running WES process.
5	LAN	Attach the Ethernet cable here for connecting to wired local network,
6	USB	For future use.

Antenna Panel








EAP300 Antenna Panel

Antenna Connector:	Attach the antennas to the above 3 connectors.
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LED Panel



Figure 1 EAP300 LED Panel

1		LED ON indicates power on; OFF indicates power off.																		
2		LED OFF indicates RF is not ready; ON indicates RF is ready; CLINKING indicates transmitting/receiving data.																		
3		LED ON indicates Ethernet cable connected; OFF indicates no connection.																		
4		For future use.																		
5		To indicate WES status. <table border="1" data-bbox="323 1077 1412 1413"> <thead> <tr> <th></th> <th>Master</th> <th>Slave</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 Negotiate 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	Slave	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 Negotiate Timeout	LED (Green) ON	LED (Red) ON	WES Success	LED (Red) ON	LED (Green) ON	WES Fail	LED (Green) ON	LED (Red) ON
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Hardware Installation

Please follow the steps mentioned below to install the hardware of EAP300:

1. Place the EAP300 at a best location.

The best location for EAP300 is usually at the center of your wireless network.

2. Connect EAP300 to your network device.

Connect one end of the Ethernet cable to the LAN port of EAP300 and the other end of the cable to a switch, a router or a hub. EAP300 is then connected to your existing wired LAN network.

3. There are two ways to supply power over to EAP300.

(a) Connect the **DC power adapter** to the EAP300 power socket.



Please only use the power adapter supplied with the EAP300 package. Using a different power adapter may damage this system.

(b) EAP300 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 EAP300 by the Ethernet cable.

Now, the Hardware Installation is completed.



To double verify the wired connection between EAP300 and your switch/router/hub, please check the LED status indication of these network devices.

Getting Started

4ipnet EAP300 supports web-based configuration. Upon the completion of hardware installation, EAP300 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 EAP300 are:

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

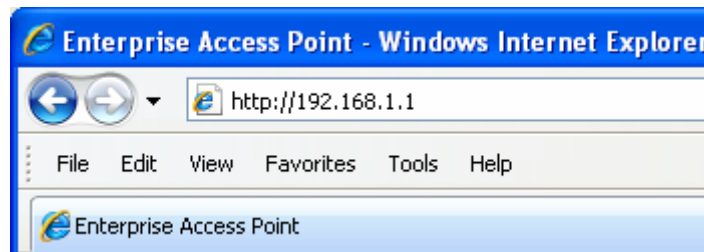
Steps:

1. To access the web management interface, connect the administrator PC to the LAN port of EAP300 via an Ethernet cable. Then, set a static IP address on the same subnet mask as EAP300 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 EAP300 (**http://192.168.1.1**) at the address field, and then press **Enter**.



Example of entering EAP300'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**.



4. After a successful login into EAP300, a **System Overview** page of web management interface will appear, as depicted below.

Home > Status > System Overview

System Overview

System

System Name: Enterprise Access Point

Firmware Version: []

Build Number: []

Location: []

Site: EN-A

Device Time: 1970/01/01 08:00:30

System Up Time: 0 days, 0:00:30

Radio Status

MAC Address: 00:1F:D4:83:96:02

Band: 802.11g+n

Channel: 1

TX Power: 19 dBm

LAN Interface

MAC Address: 00:1F:D4:83:96:01

IP Address: []

Subnet Mask: 255.255.0.0

Gateway: []

AP Status

Profile Name	BSSID	ESSID	Security Type	Online Clients	GRE
VAP-1	00:1F:D4:83:96:02	EAP-1	None	0	✓
VAP-2	06:1F:D4:83:96:02	EAP-2	None	0	✗
VAP-3	0A:1F:D4:83:96:02	EAP-3	None	0	✓

GRE Tunnel

Status: Connected

Remote IP: 192.168.3.3

Key: 12345

5. 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 are five main menu buttons: System, AP, Firewall, Utilities, and Status. Below these, there are four sub-menu buttons: Change Password, Backup & Restore, System Upgrade, and Reboot. The 'Change Password' sub-menu is selected. The breadcrumb trail shows 'Home > Utilities > Change Password'. The main heading 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** 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

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 : 1

Max Transmit Rate : Auto

Transmit Power : Auto

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

Beacon Interval : 100 *(100 - 500ms)

Wireless General Settings Page

- Click on the **Wireless** 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 *802.11n+802.11g* for the band and *1* for the channel.

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

Home > Wireless > VAP Config

VAP Configuration

Profile Name :

VAP : Disable Enable

Profile Name :

ESSID :

VLAN ID : Disable Enable

VLAN ID : *(1 - 4094)

- EAP300 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	EAP200-1	Enabled	None	Disabled	Edit
2	EAP200-2	Disabled	None	Disabled	Edit
3	EAP200-3	Disabled	None	Disabled	Edit
4	EAP200-4	Disabled	None	Disabled	Edit
5	EAP200-5	Disabled	None	Disabled	Edit
6	EAP200-6	Disabled	None	Disabled	Edit
7	EAP200-7	Disabled	None	Disabled	Edit
8	EAP200-8	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, EAP300 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** main menu button.
- Select the **Repeater Settings** tab.
- Choose **WDS** as the **Repeater Type**.
- Choose the desired WDS profile:
 - (a) Enable the **WDS**.
 - (b) Enter the **MAC Address** (peer AP) and then Click **SAVE**.

If you use another EAP300 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 EAP300 is installed and configured successfully.



After EAP300'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.***

P/N: V20020110305