Quick Installation Guide

EAP210 or OWL530 Handbook

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 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.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

Professional installation instruction

1. Installation personal

> 4ipnet OWL530 is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

2. Installation location

> 4ipnet OWL530 shall be installed at a location where the radiating antenna can be kept **20** cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

3. External antenna

> Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of **VZ9130002** limit and is prohibited.

4. Installation procedure

> Please refer to user's manual for the detail.

5. Warning

> Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

CE CAUTION

Declaration of Conformity with Regard to the 1999/5/EC (R&TTE Directive) for

European Community, Switzerland, Norway, Iceland, and Liechtenstein

Model: OWL530

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 EAP210 or OWL530 is a high-end 802.11a/b/g/n 2.4GHz/ 5GHz MIMO Selectable Dual Band Access Point (AP) designed to maximize deployment flexibility and feasibility for IT administrators.

The difference of EAP210 and OWL530 are the mounting method. EAP210 is a desktop device while OWL530 is designed to be pole-mount.

Complying with the latest industrial wireless security standards that are required in the tightly secured enterprise network environments, the AP makes the wireless communication fast, secure and easy. It supports business-grade secure encryption - 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 OWL530s for forming a wider wireless network coverage.

EAP210 or OWL530 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 LAN port is able to receive power from Power over Ethernet (PoE) sourcing devices. Its metal case is IP68, which means that the is well suited to WLAN deployment in industrial environments.

This Quick Installation Guide provides instructions and reference materials to get you started with 4ipnet EAP210 or OWL530.

Package Contents

1. 4ipnet OWL530 x 1 or EAP210 x 1
2. Quick Installation Guide (QIG) x 1
3. CD-ROM (with User's Manual and QIG) x 1
4. AC-DC Adaptor (EAP210 only)
5. Power Sourcing Equipment (PSE) with AC cable x 1 (Optional)
6. Mounting Kit x 1 (OWL530 only)
7. Ground Cable x 1 (OWL530 only)

⚠ *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.*

Hardware Overview of EAP210

Front Panel

Figure 1 EAP210 Front Panel

Rear Panel
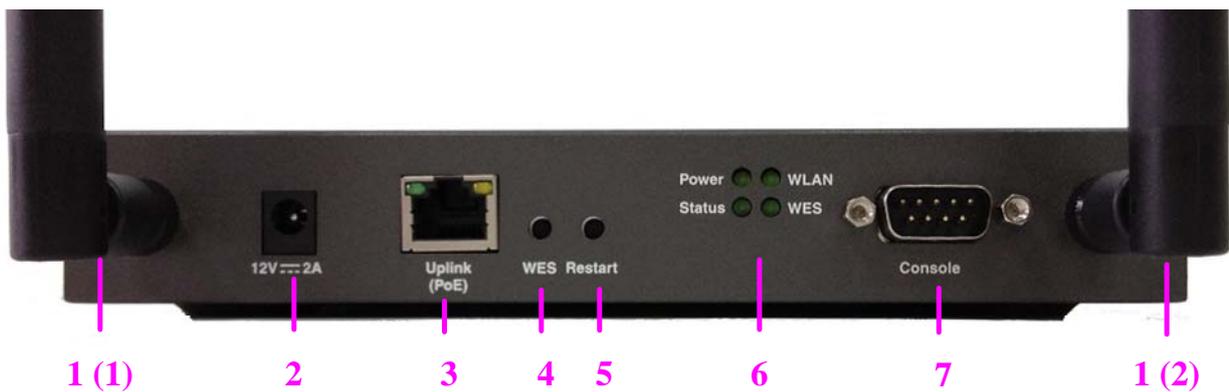
Figure 2 EAP210 Rear Panel

1	**Antenna Connector**	Reverse SMA connectors for attaching antennas. 1 (1) is the primary antenna connector and 1 (2) is the secondary. Utilize both connectors for 802.11n MIMO optimized performance.		
2	**12V ⎓ 2A**	Power Socket for the power adaptor.		
3	**Uplink Port**	The port for uplink connection to another gateway or device. PoE (802.3af/at) is supported.		
4	**WES Button**	WDS Easy Setup. Press the button to build up a WDS link with another peer. 4 WDS links can be set up.		
5	**Restart Button**	Press to restart the system		
6	**LED Indicators**	**Power**	On indicates power on.	
		Status	On indicates the system is ready.	
		WLAN	On indicates wireless network interface is ready for service.	
		WES	For indicating WDS connection status.	
				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 (Green) BLINKS SLOWLY
			WES Negotiate	BLINKING SLOWLY (Green)	BLINKING RAPIDLY (Green)
			WES Success	LED (Green) ON	LED (Green) ON
			WES Fail/Timeout	LED (Green) OFF	LED (Green) OFF
7	**Console Port**	To access EAP210 via the console interface		

Right-Side Panel

On the right side of the panel there is a Kensington slot. Admin can also fill it with a rubber plug.

Hardware Overview of OWL530

OWL530

1	Ventilation Valve	Due to extreme weather conditions, water vapor in the OWL530 may condense. The valve allows ventilation to prevent moisture buildup within the OWL530.
2	Ground Connector	For connecting the ground wire.
3	PoE Connector	For connecting to the Power Sourcing Equipment (PSE).
4	N-type Connector x 2	For connecting to an antenna 4 (1) is the primary antenna connector and 4 (2) is the secondary. Utilize both connectors for 802.11n MIMO optimized performance.

Parts

5	Detachment Tool	For detaching the RJ45 connector from the PoE Port
6	Pole Mount Kit	Includes two U-shaped bolts, 8 hex nuts and 8 split washers
7	Ground Wire	For ground connection as mentioned in **2**

Hardware overview of OWL530

OWL530

The following diagram is a **basic network topology** which can be used for testing and configuring the OWL530.
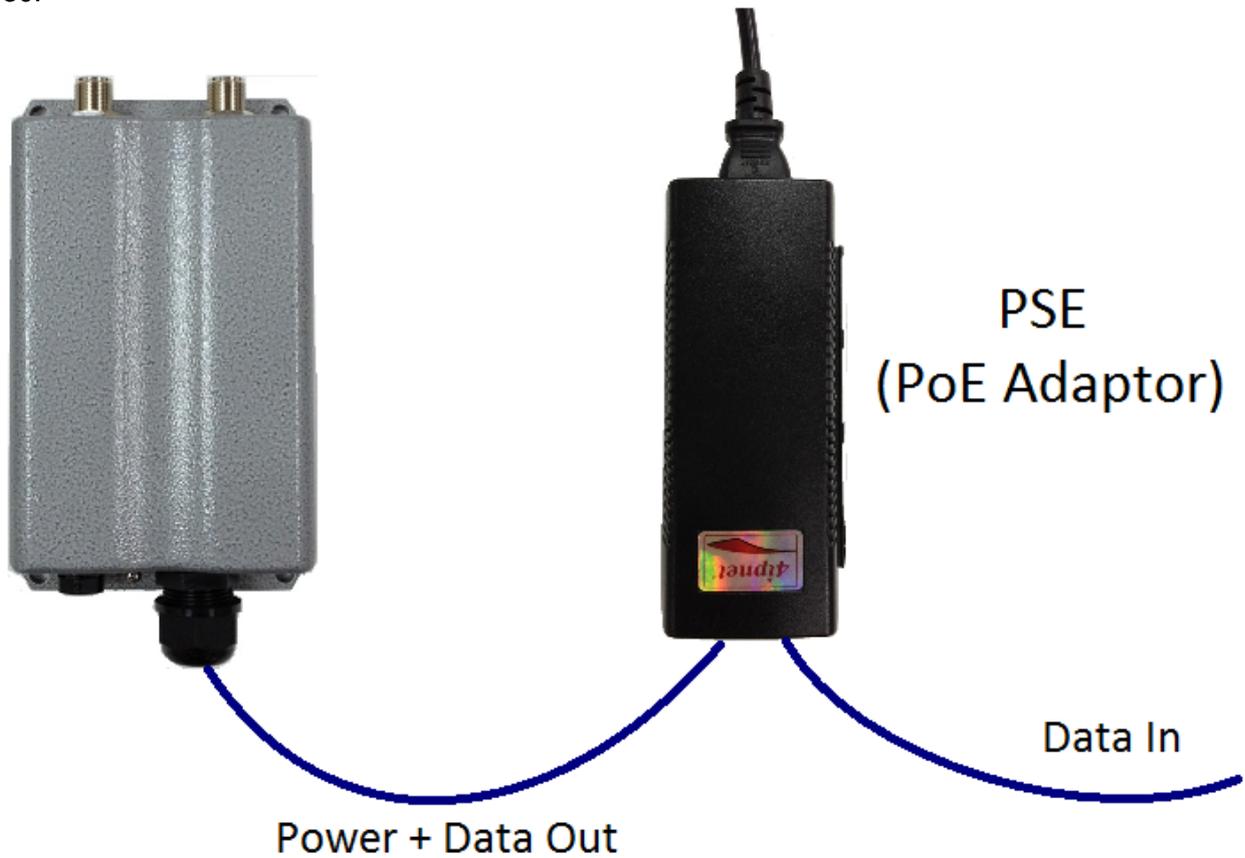
Installation Steps:

Step 1. Connect two N-type antennas to the N-type connectors

Step 2. Connect one end of an Ethernet cable to the PSE (POWER & DATA OUT) to the PSE and one end to the OWL530.

Inserting the RJ45 connector to the OWL530
- Unscrew the cap on the PoE Port (C)
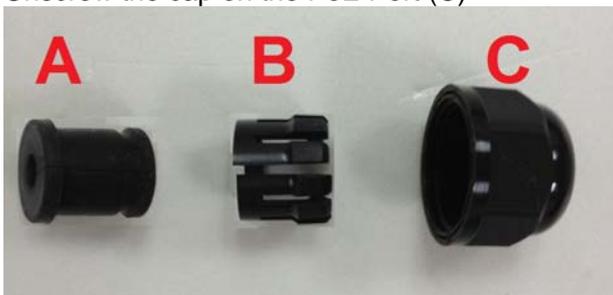
- Insert the RJ45 cable through the outer opening of cap (C)

- Insert the RJ45 connector and wrap (A) around the Ethernet cable through the slit between the connector and cap (C)

- Wrap (B) around (A) through the slit on (B)

- Insert Parts (A) and (B) together into the PoE Port

- Screw cap (C) onto the PoE Port

Step 3. Connect one end of another Ethernet cable to the PSE (Data Link) and the other end to a computer.
Step 4. Connect the power cord to the PSE.
Step 5. Power on the PSE in order to supply power to the OWL530.

▶▶ **Note:** Please do NOT remove or tamper with the ventilation valve as it has been pre-installed and secured.

Mounting the OWL530

The diameter of poles mountable by the OWL530 mounting kit is from 40mm ~ 60mm

Step 1. Screw nuts onto the U-shaped bolts and insert bolts through the split washers.

Step 2. Align the front of OWL530 with the pole and insert the U-shaped bolts into the 4 holes on the corners of the OWL530.

40mm ~ 60mm

Step 3. Secure the OWL530 by screwing on the nuts after the inserting the washers for all four corners.

Basic setting of EAP210 or OWL530

4ipnet EAP210 or OWL530 supports web-based configuration. It is required to follow the respective installation procedures provided to properly set up the desired mode for this system.

- **Default IP Address of Web Management Interface:**

The default IP address and Subnet Mask for the AP is as follows:

Mode	AP Mode
IP Address	192.168.1.1
Subnet Mask	255.255.255.0

Step 1: IP Segment Setup for Administrator PC

Set a static IP address on the same subnet mask as the AP in TCP/IP of the administrator PC, such as the following example. Do not duplicate the IP address used here with the IP address of the APor any other devices within the same network.

>> Example of IP Segment:

The valid range of IP address is 1 ~ 254. However, **1** must be avoided as it is already used by the AP. Below depicts an example of using **100** (the underlined value can be changed as desired).

IP Address: 192.168.1.__100__
Subnet Mask: 255.255.255.0

Step 2: Launch Web Browser

Launch a web browser to access the web management interface of AP mode by entering the default IP address, **http://192.168.1.1/**, in the URL field, and then press **Enter**.
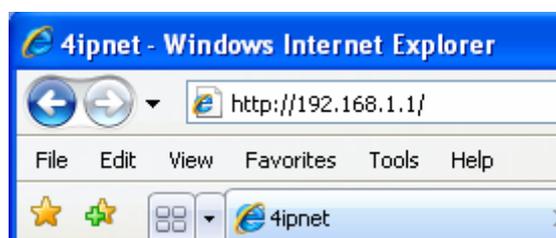
Step 3:   System Login

The system manager Login Page will then appear.

Enter **"admin"** in the *User name* field and **"admin"** in the *Password* field, and then click ***Login*** to log in.

Step 4:   Login Success

After a successful login to EAP210 or OWL530, a **System Overview** page of web management interface will appear,

To logout, simply click on the *Logout* button at the upper right hand corner of the interface.

System	Wireless	Firewall	Utilities	Status

Overview | Associated Clients | Repeater Status | Event Log

Home > Status > System Overview

System Overview

System

System Name	Enterprise Access Point
Firmware Version	1.00.00
Build Number	1.3-1.6337
Location	
Site	EN-A
Device Time	1970/01/02 10:35:01
System Up Time	1 days, 2:35:01
Operating Mode	AP

Radio Status

MAC Address	00:1F:D4:86:12:24
Band	802.11g+n
Channel	6
TX Power	21 dBm

LAN Interface

MAC Address	00:1F:D4:86:12:23
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Gateway	192.168.1.254

AP Status

Profile Name	BSSID	ESSID	Security Type	Online Clients	Tun
VAP-1	00:1F:D4:86:12:24	4ipnetAP-A1	None	0	

CAPWAP

Status	Disabled

IPv6

Status	Disabled

▶▶ **Note:**	AP mode is the default mode. The administrator must access the system via the AP mode login page first before switching modes.

Common Settings   - 12 -

Step 1:   Mode Confirmation

➤   Ensure the *Operating Mode* is currently in **AP** mode.

➤   Click on the **Status** button and then select the **System Overview** tab. The *Operating Mode* is at the **System** section on the **System Overview** page.

- 13 -

Step 2: Change Password

➤ Click on the **Utilities** button and then select the **Password** tab.

➤ Enter a new password in the *New Password* field and retype it in the *Re-enter New Password* field.

➤ Click *SAVE* to save the changes.

Step 3:   Network Settings

【Example Settings】

➤   Click on the **System** button and then select the **Network Interface** tab.

➤   Click the *Static* radio button and enter the related information in the fields marked with red asterisks.

➤   Click *SAVE* to save the settings.

Step 4: SSID Settings
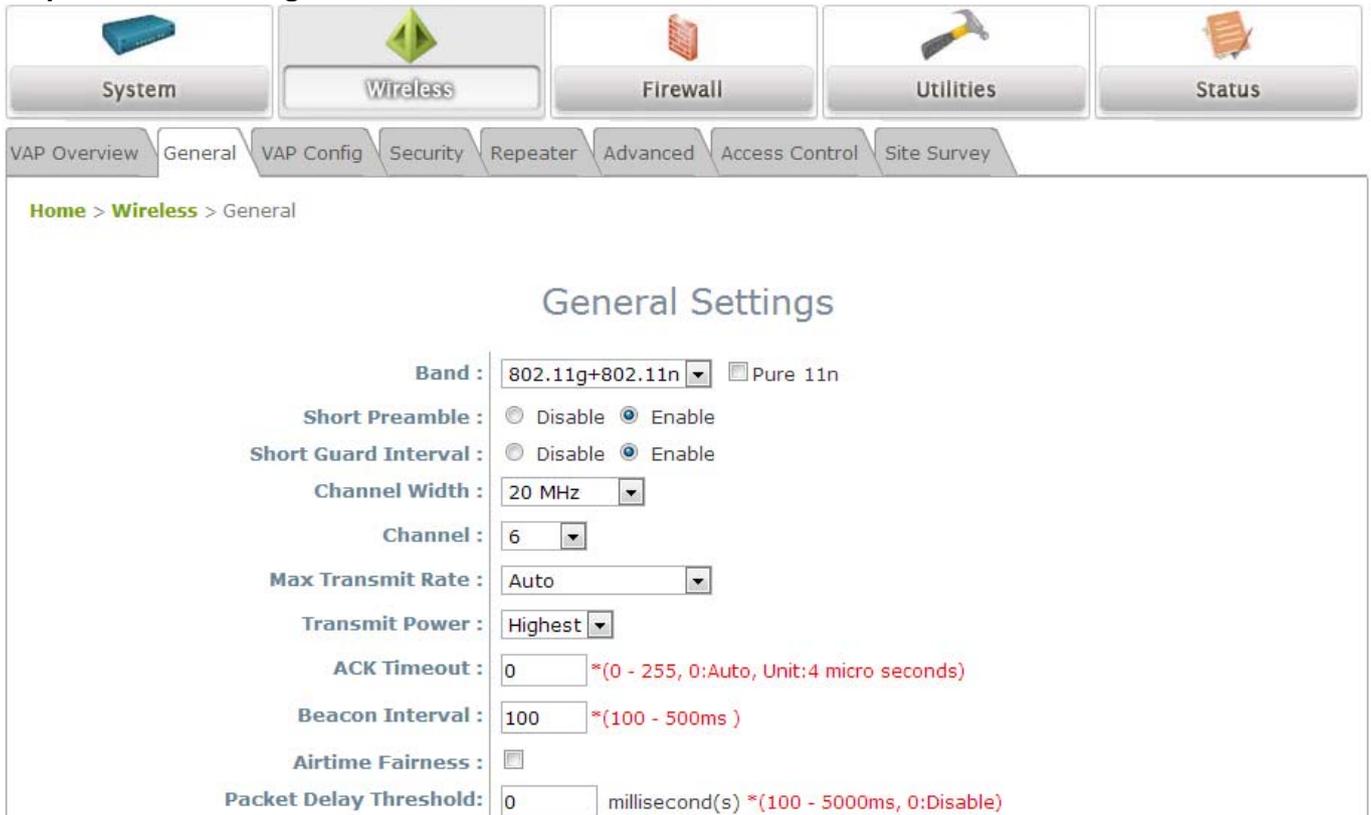
➤ Click on the **Wireless** button and select the **General** tab.

➤ **Band:** Select an appropriate band from the drop-down list box.
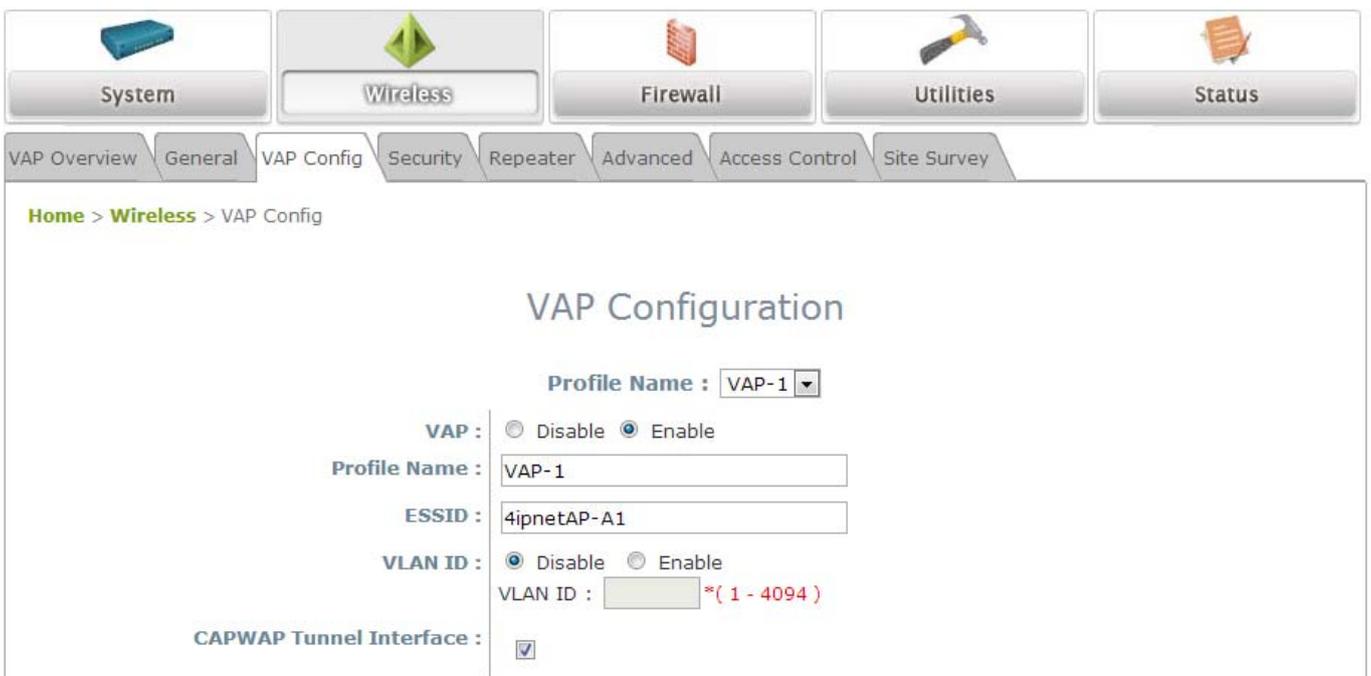
➤ Click on the **Wireless** button and select the **VAP Config** tab.

➤ **ESSID:** Enter respective ESSID for each VAP in the *ESSID* field or use the default. **ESSID** (**E**xtended **S**ervice **S**et **Id**entifier) is a unique identifier used for networking devices to get associated with th AP.

➤ Click *SAVE* to save the settings.

Step 5: Security Settings

System	Wireless	Firewall	Utilities	Status

VAP Overview \ General \ VAP Config \ Security \ Repeater \ Advanced \ Access Control \ Site Survey

Home > **Wireless** > Security

Security Settings

Profile Name : VAP-1 ▾

Security Type : WEP ▾

Note! The WEP keys are global setting for all virtual APs. The key value will apply to all VAPs.

802.11 Authentication: ◉ Open System ○ Shared Key ○ Auto

WEP Key Length : ◉ 64 bits ○ 128 bits ○ 152 bits

WEP Key Format : ○ ASCII ◉ Hex

WEP Key Index : 1 ▾

WEP Keys : 1 [ ]
2 [ ]
3 [ ]
4 [ ]

➤ Click on the **Wireless** button and then select the **Security** tab.

➤ Select the desired *VAP Profile and Security Type* from the drop-down list boxes. The system supports various WiFi standard security such as WEP, WPA Personal, WPA Enterprise, and 802.1X. The above figure depicts an example of selecting VAP-1 and **WEP**.

➤ Enter the information required in the blank fields.

➤ Click *SAVE* to save all settings configured so far; all updated settings will take effect upon reboot.

Congratulations!

The EAP210 or OWL530 is now successfully configured.

⚠ *After OWL530's network configuration completes, 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 configuration settings.*
● *For further configuration and backup information, please refer to the User's Manual.*

P/N: V10020140626