

# **AWAP601HW**

## **Installation Guide**

Version 1.1.3 (6/13/2006)

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## 1 Installation

### 1.1 Package list

- ◎ AWAP601HW × 1
- ◎ Power Adapter (Input : 100~240V Output : 18V 1.0A) × 1
- ◎ RJ45 cable × 1
- ◎ 2dBi Antenna × 1
- ◎ APOE02 Passive power over Ethernet X 1



### 1.2 Hardware Installation



## 2 How to Start

### 2.1 Before start to configure

- ◎ Default IP : 192.168.1.250  
Default Mask : 255.255.255.0
- ◎ Default DHCP is running , client range : 192.168.1.100~192.168.1.200  
(If there is a DHCP server existing in the network, disable the DHCP server of AP)
- ◎ Default User Name/Password : admin/12345
- ◎ Configure AP by typing <http://192.168.1.250> in the address field of Internet Explorer or Netscape Navigator  
Notices AP and computer must in the same network subnet.

### 2.2 What the AWAP601HW acts

#### 2.2.1 Access Point

An Access Point is a specially configured node on a wireless network that bridges the wireless LAN and a wired LAN.

#### 2.2.2 Client

Client mode allows AWAP601HW connect to AP.

Attach wireless ability to personal computer or laptop by connecting Ethernet port directly.

#### 2.2.3 WDS

Wireless Distribution System is a system that enables the interconnection of Access Points wirelessly.

Notice the client can't survey and connect to WDS stations.

#### 2.2.4 WDS +AP

This is a hybrid mode that combines WDS and AP functions.

#### 2.2.5 AP +Repeater

Besides the AP functions, it acts as an infrastructure-client, which is able to link to another AP

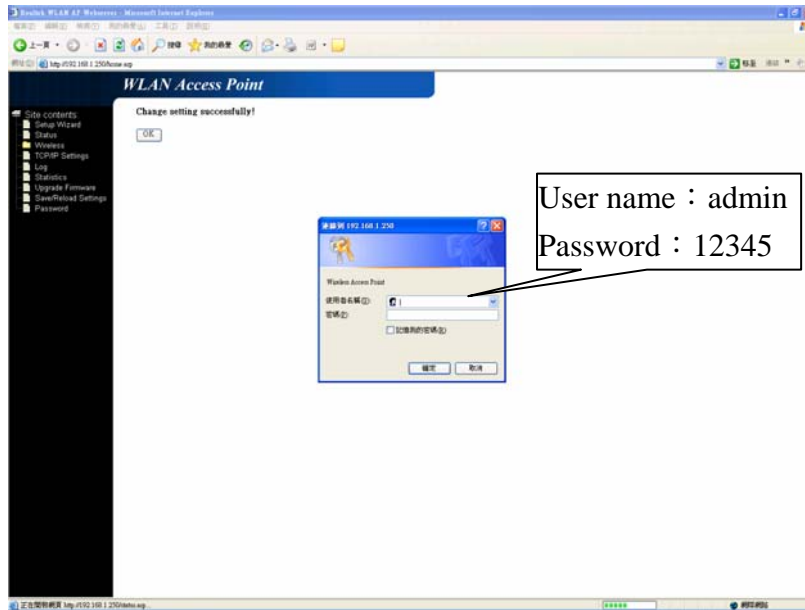
### 3 Configuration

#### 3.1 Configure AP by Wizard

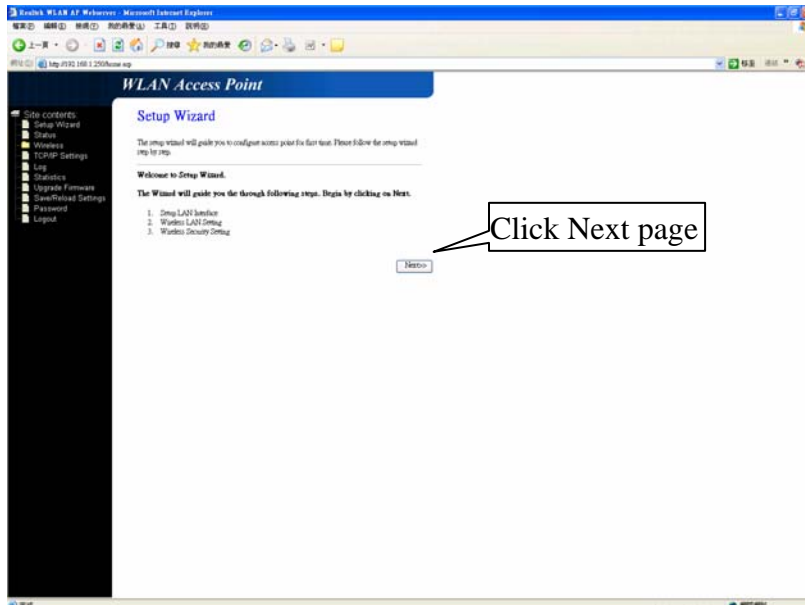
3.1.1 Open configuration page <http://192.168.1.250> ,

It will pop out a dialogue window.

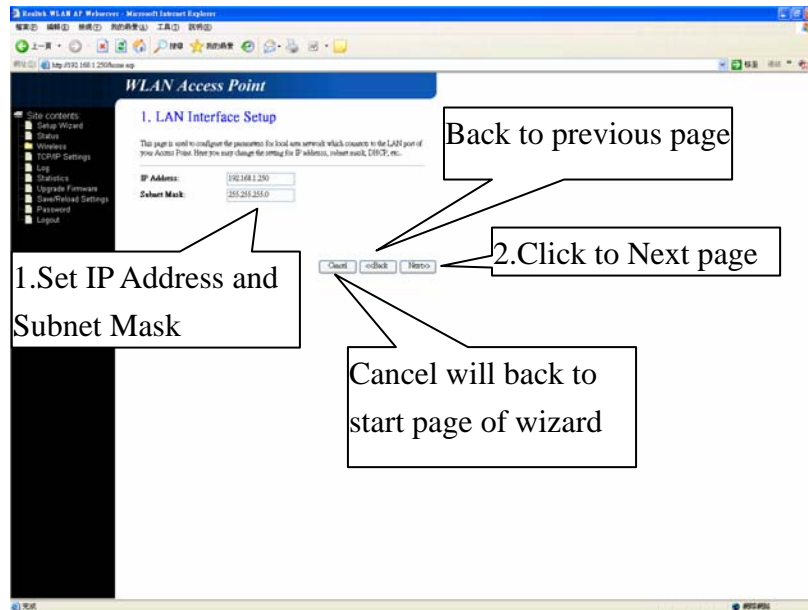
Default user name is **admin** and password is **12345**



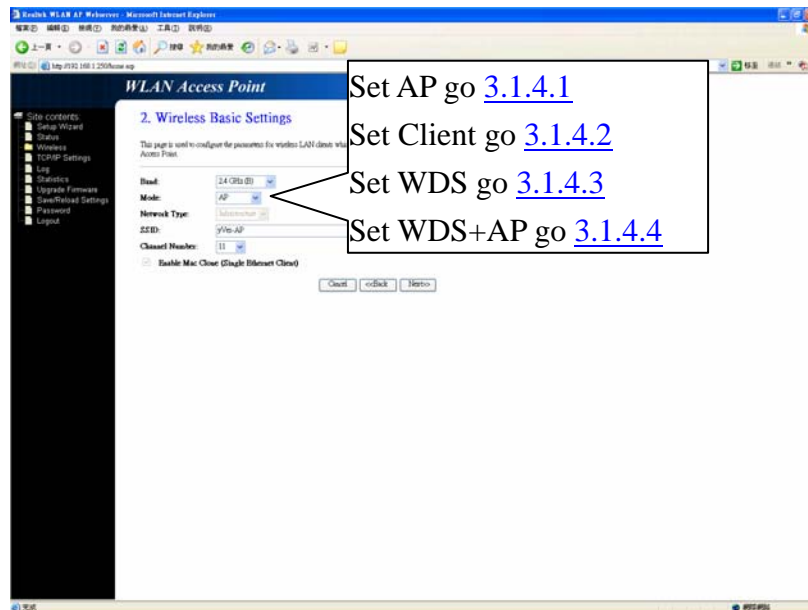
3.1.2 After password check, wizard will be executed.



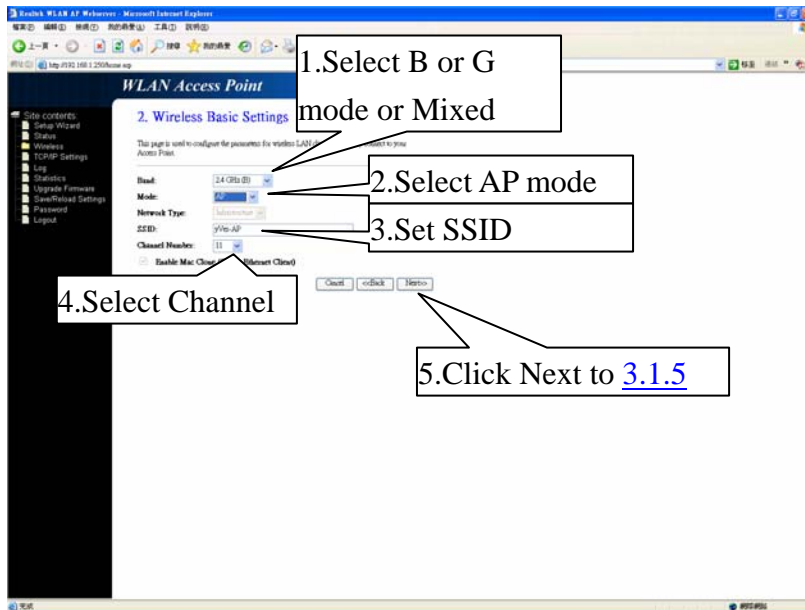
### 3.1.3 LAN Interface Setup



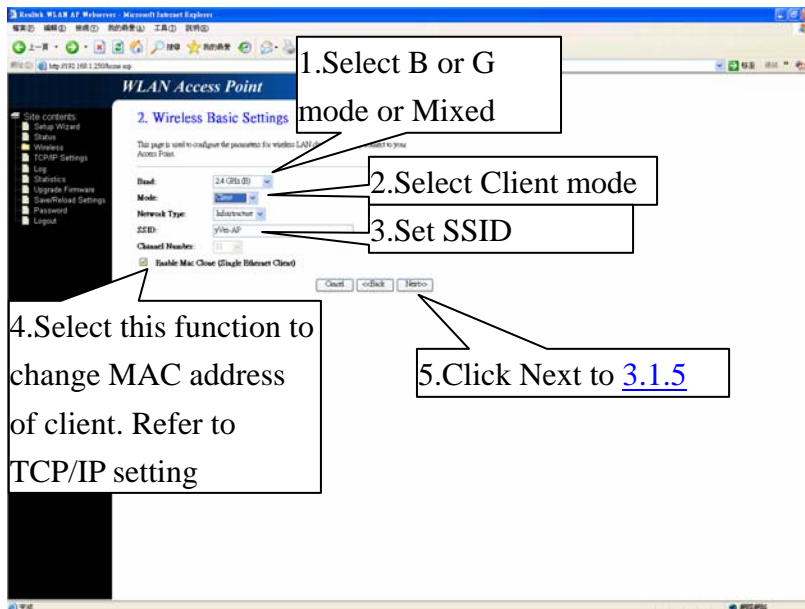
### 3.1.4 Wireless Basic Setting



### 3.1.4.1 AP setting



### 3.1.4.2 Client Setting



### 3.1.4.3 WDS Setting

The screenshot shows the 'WLAN Access Point' configuration page in a web browser. The 'Mode' dropdown is set to 'WDS'. The 'Channel' is set to '11'. The 'Next' button is highlighted. Annotations include:

- 1. Select B or G mode or Mixed
- 2. Wireless Basic Settings
- 2. Select WDS mode
- 3. Set Channel
- 5. Click Next to [3.1.5](#)

PS. This step just change the operation mode of AWAP601HW, the WDS setup is not completed. For more details, please read [WDS configuration](#)

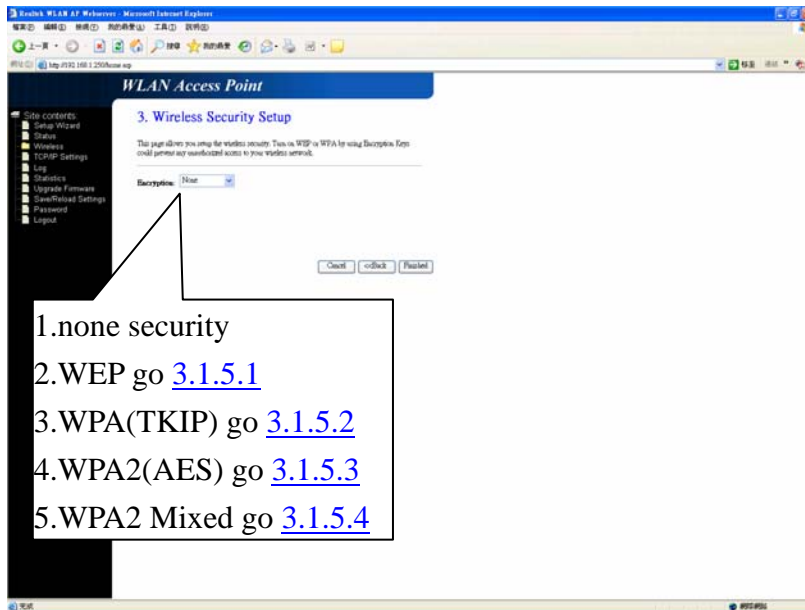
### 3.1.4.4 WDS+AP Setting

The screenshot shows the 'WLAN Access Point' configuration page in a web browser. The 'Mode' dropdown is set to 'WDS+AP'. The 'SSID' is set to 'WDS-AP'. The 'Channel' is set to '11'. The 'Next' button is highlighted. Annotations include:

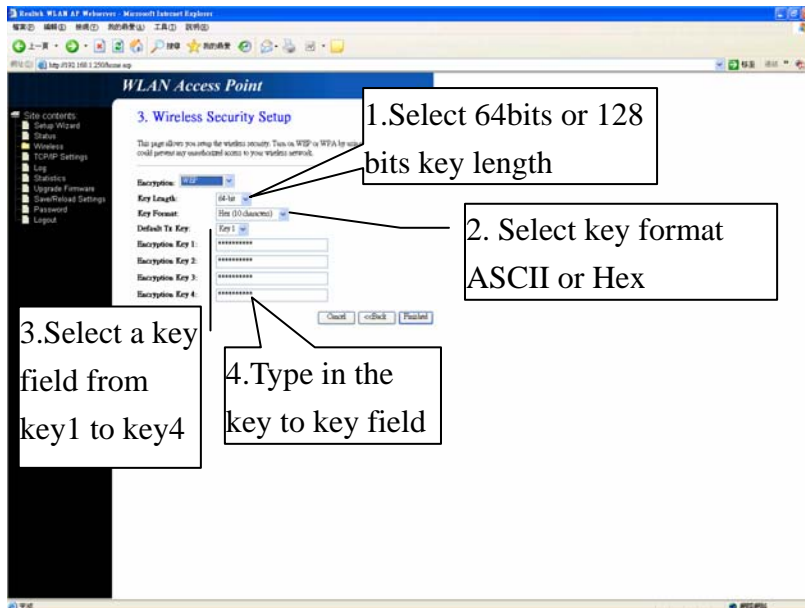
- 1. Select B or G mode or Mixed
- 2. Wireless Basic Settings
- 2. Select WDS+AP mode
- 2. Set SSID
- 3. Set Channel
- 5. Click Next to [3.1.5](#)

PS. This step just change the operation mode of AWAP601HW the WDS setup is not completed. For more details, please read [WDS configuration](#)

### 3.1.5 Wireless Security Setup



#### 3.1.5.1 Security (WEP)



### 3.1.5.2 Security WPA(TKIP)

1. Select Passphrase  
2. Type in a string of characters into Pre-Shared key field

1. Select Hex(64 characters)  
2. Type in 64 hex characters into Pre-Share key field

### 3.1.5.3 Security WPA2 (AES)

1. Select Passphrase  
2. Type in a string of characters into Pre-Shared key field

1. Select Hex(64 characters)  
2. Type in 64 hex characters into Pre-Share key field

### 3.1.5.4 Security WPA2 (Mixed)

1. Select Passphrase  
2. Type in a string of characters into Pre-Shared key field

1. Select Hex(64 characters)  
2. Type in 64 hex characters into Pre-Share key field

### 3.1.6 Finish

Change setting successfully!  
OK

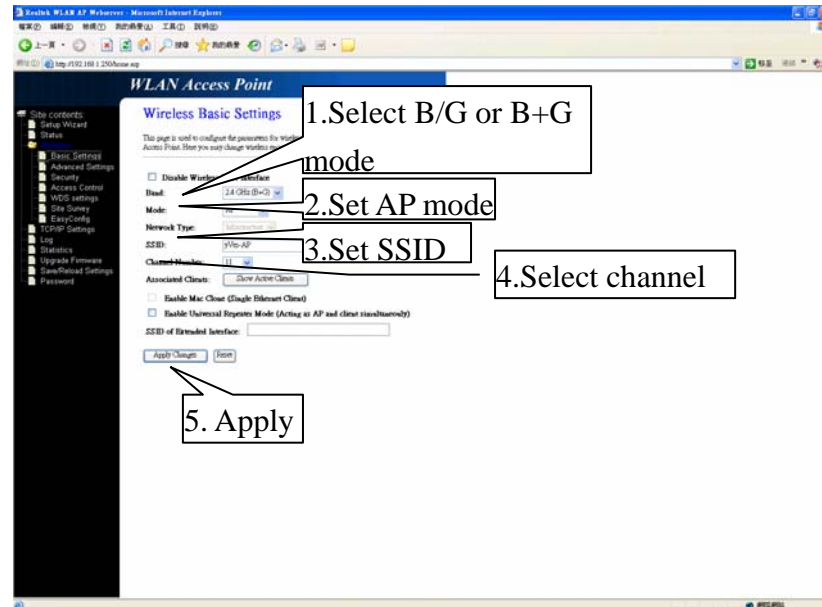
## 3.2 Configure manually

### 3.2.1 AP Configuration

Here describes how to setup AP without security setting.

To setup AP with security, please read 3.3.3.

At Basic Setting page :

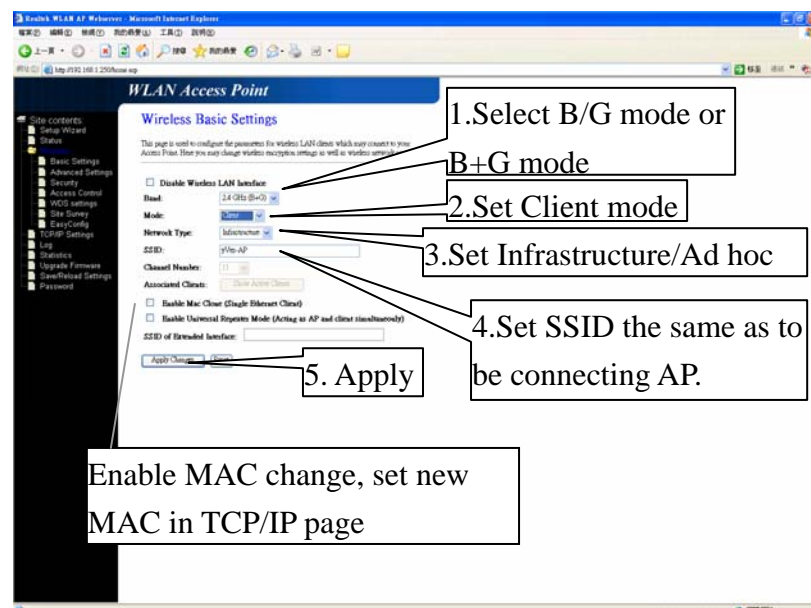


### 3.2.2 Client Configuration

Notice : Step 3. Infrastructure is for connecting AP and Ad hoc is for connecting another client.

Use Site Survey (3.3.3) to scan and connect to AP

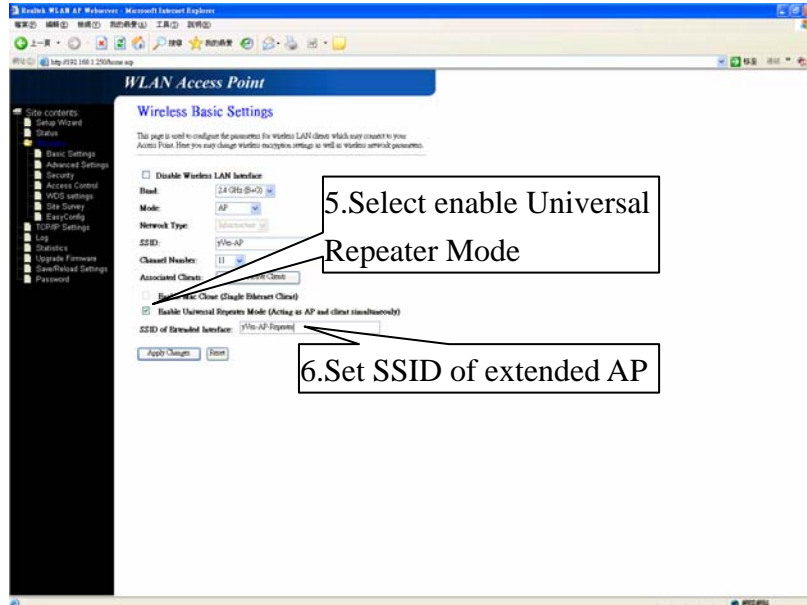
At Basic Setting page :



### 3.2.3 AP+Repeater Configuration

The step 1~4 is the same as AP setting.

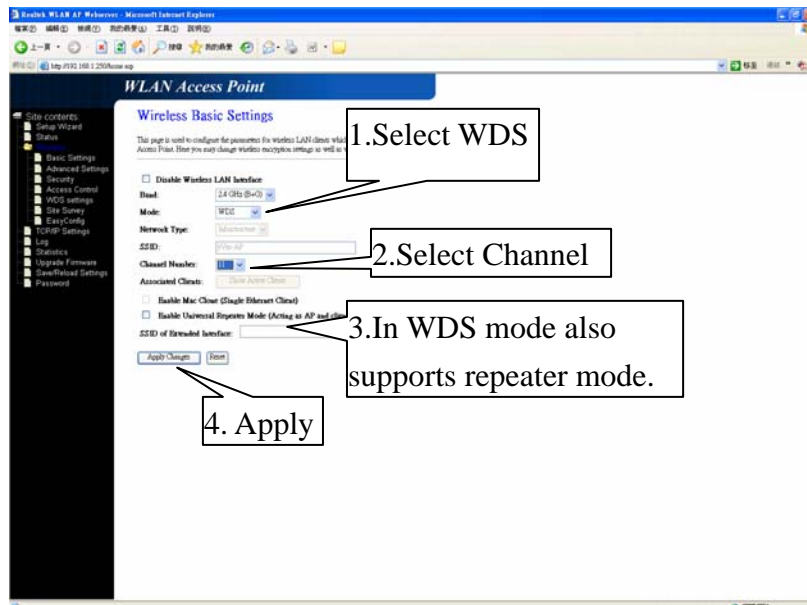
At Basic Setting page :



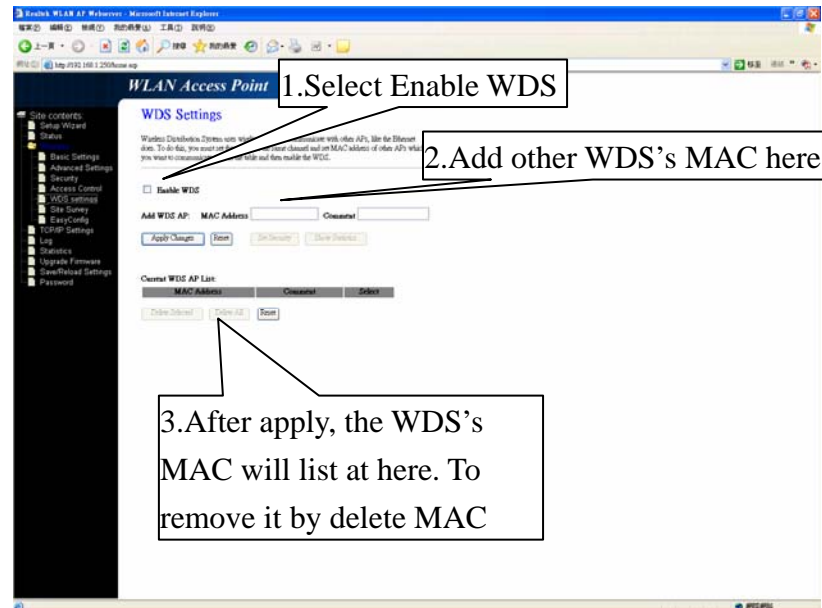
### 3.2.4 WDS Configuration

At least a pair of AP for setting WDS mode

Step 1. At Basic Setting page :



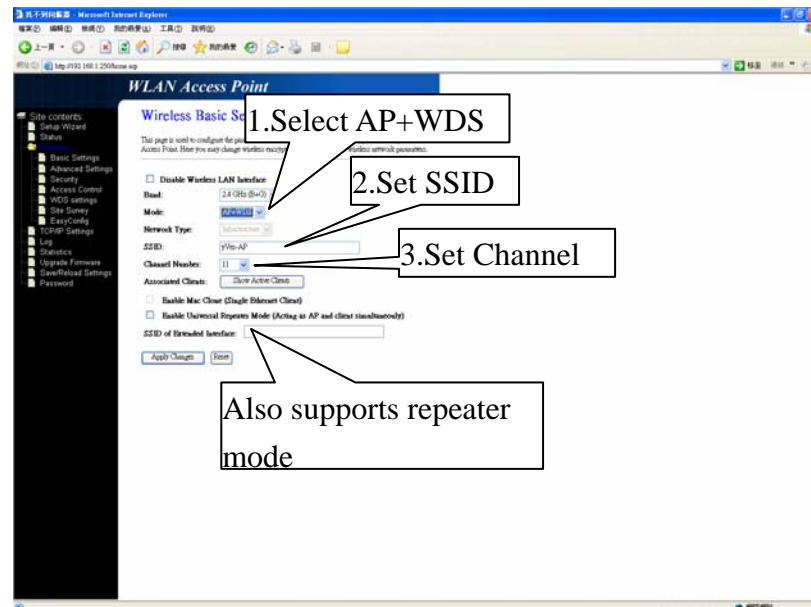
## Step 2. At WDS setting



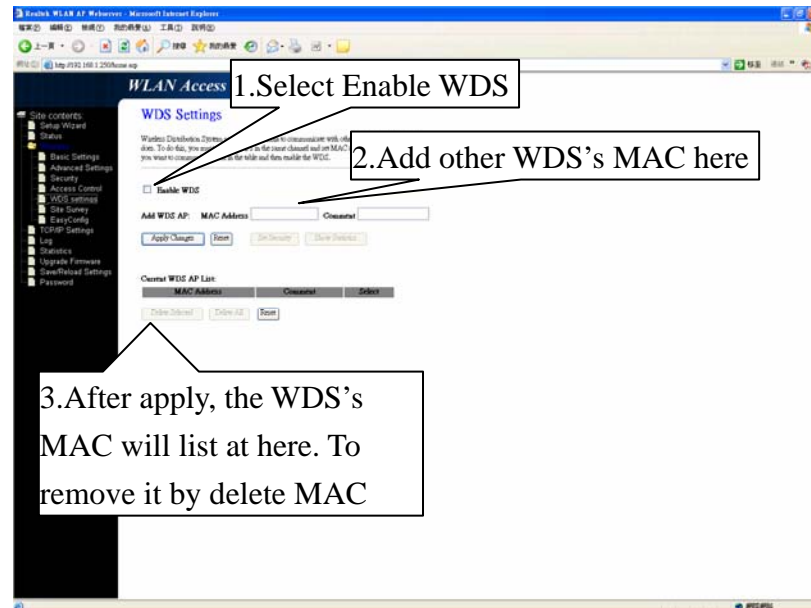
### 3.2.5 WDS+AP Configure

It combines WDS and AP function together.

Step 1. At Basic Setting page :

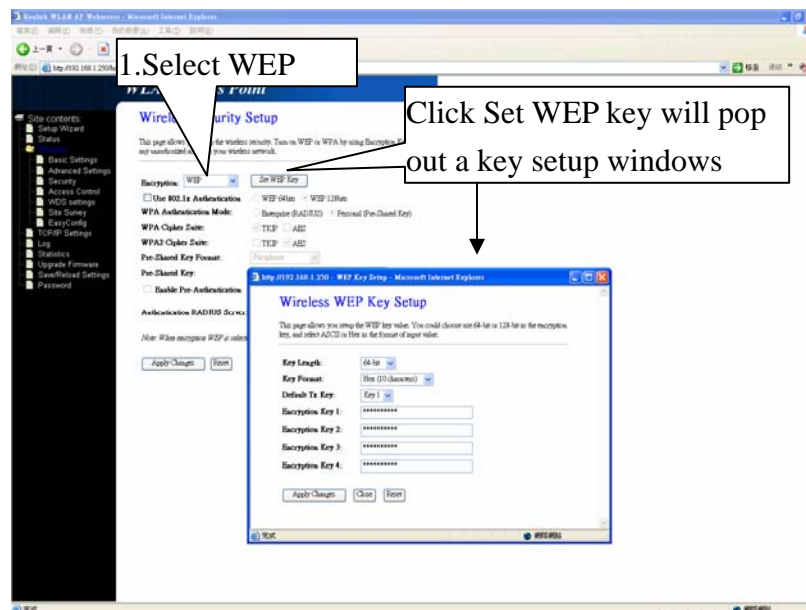


Step 2. At WDS Setting page :



### 3.2.6 Security Configuration

#### 3.2.6.1 Set WEP, at Security page



### 3.2.6.2 Set WEP, 802.1x authentication

The screenshot shows the 'Wireless Security Setup' page for a WLAN Access Point. The 'Encryption' dropdown is set to 'WEP'. The 'WPA Authentication Mode' is set to 'Use 802.1x Authentication'. The 'WPA Cipher Suite' is set to 'TKIP/AES'. The 'WPA2 Cipher Suite' is set to 'TKIP/AES'. The 'Pre-Shared Key' field is empty. The 'Authentication RADIUS Server' section has fields for 'Port', 'IP Address', and 'Password'. The 'Apply Changes' and 'Home' buttons are at the bottom.

1. Select WEP

2. Select 802.1x Authentication, if there is a RADIUS server in network.

3. Type in RADIUS server IP address and port number.

### 3.2.6.3 Set WPA, At Security page

The screenshot shows the 'Wireless Security Setup' page for a WLAN Access Point. The 'Encryption' dropdown is set to 'WPA'. The 'WPA Authentication Mode' is set to 'Use RADIUS Authentication'. The 'WPA Cipher Suite' is set to 'TKIP/AES'. The 'WPA2 Cipher Suite' is set to 'TKIP/AES'. The 'Pre-Shared Key' field is empty. The 'Authentication RADIUS Server' section has fields for 'Port', 'IP Address', and 'Password'. The 'Apply Changes' and 'Home' buttons are at the bottom.

1. select RADIUS

2. Cipher suite can choose TKIP/AES or both

### 3.2.6.4 Set WPA, At Security page

The screenshot shows the 'WLAN Access Point' configuration page in a web browser. The 'Wireless Security Setup' section is active. The 'Encryption' dropdown is set to 'WPA'. The 'WPA Authentication Mode' is set to 'Personal (Pre-Shared Key)'. The 'WPA Cipher Suite' is set to 'TKIP/AES'. The 'Pre-Shared Key' field is filled with a passphrase. The 'Enable Pre-Authentication' checkbox is unchecked. Callout boxes provide instructions: 1. Select pre-share key (pointing to the Pre-Shared Key field), 2. Cipher suite can choose TKIP/AES or both (pointing to the WPA Cipher Suite dropdown), and 3. Select passphrase/Hex(64 characters) and set key to Pre-Shared key field (pointing to the Pre-Shared Key field).

### 3.2.6.5 Set WPA2, At Security page

The screenshot shows the 'WLAN Access Point' configuration page in a web browser. The 'Wireless Security Setup' section is active. The 'Encryption' dropdown is set to 'WPA2'. The 'WPA Authentication Mode' is set to 'Enterprise (RADIUS)'. The 'WPA Cipher Suite' is set to 'TKIP/AES'. The 'Pre-Shared Key' field is empty. The 'Enable Pre-Authentication' checkbox is checked. The 'Authentication RADIUS Server' field is filled with an IP address and port number. Callout boxes provide instructions: 1. Select RADIUS (pointing to the WPA Authentication Mode dropdown), 2. Cipher suite can choose TKIP/AES or both (pointing to the WPA Cipher Suite dropdown), 3. Enable Pre-authentication or not (pointing to the Enable Pre-Authentication checkbox), and 4. Type in RADIUS server IP address and port number (pointing to the Authentication RADIUS Server field).

### 3.2.6.6 Set WPA2, At Security page

The screenshot shows the 'Wireless Security Setup' page in a web browser. The page title is 'WLAN Access Point'. The main heading is 'Wireless Security Setup'. Below this, there is a section for 'Encryption' with a dropdown menu set to 'WPA2'. A 'Show WPA2 Key' button is visible. Under 'Use RADIUS Authentication', there are radio buttons for 'WEP (Not)', 'WEP (128bit)', 'Enterprise (RADIUS)', and 'Personal (Pre-Shared Key)'. The 'WPA Authentication Mode' section has radio buttons for 'TKIP', 'AES', and 'TKIP/AES'. The 'WPA2 Cipher Suite' section has radio buttons for 'TKIP', 'AES', and 'TKIP/AES'. The 'Pre-Shared Key' field is set to 'Personal'. There is a 'Pre-Shared Key' input field and a 'Pre-Shared Key' label. Below this, there is a checkbox for 'Enable Pre-Authentication'. At the bottom, there are fields for 'Authentication RADIUS Server' (IP Address and Port) and a 'Password' field. A note at the bottom states: 'Note: When enterprise WPA2 is selected, you must set WPA2 key value.' There are 'Apply/Change' and 'Home' buttons at the bottom.

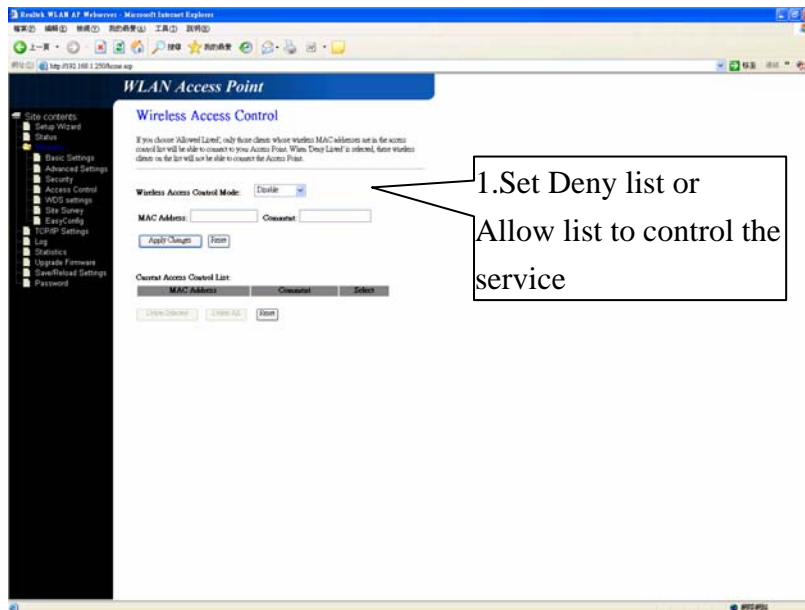
1. Select Pre-share key
2. Cipher suite can choose TKIP/AES or both
3. Select passphrase/Hex(64 characters) and set key to Pre-Shared key field

### 3.2.6.7 Set WPA2 mixed, At Security page

The screenshot shows the 'Wireless Security Setup' page in a web browser. The page title is 'WLAN Access Point'. The main heading is 'Wireless Security Setup'. Below this, there is a section for 'Encryption' with a dropdown menu set to 'WPA2 Mixed'. A 'Show WPA2 Key' button is visible. Under 'Use RADIUS Authentication', there are radio buttons for 'WEP (Not)', 'WEP (128bit)', 'Enterprise (RADIUS)', and 'Personal (Pre-Shared Key)'. The 'WPA Authentication Mode' section has radio buttons for 'TKIP', 'AES', and 'TKIP/AES'. The 'WPA2 Cipher Suite' section has radio buttons for 'TKIP', 'AES', and 'TKIP/AES'. The 'Pre-Shared Key' field is set to 'Personal'. There is a 'Pre-Shared Key' input field and a 'Pre-Shared Key' label. Below this, there is a checkbox for 'Enable Pre-Authentication'. At the bottom, there are fields for 'Authentication RADIUS Server' (IP Address and Port) and a 'Password' field. A note at the bottom states: 'Note: When enterprise WPA2 is selected, you must set WPA2 key value.' There are 'Apply/Change' and 'Home' buttons at the bottom.

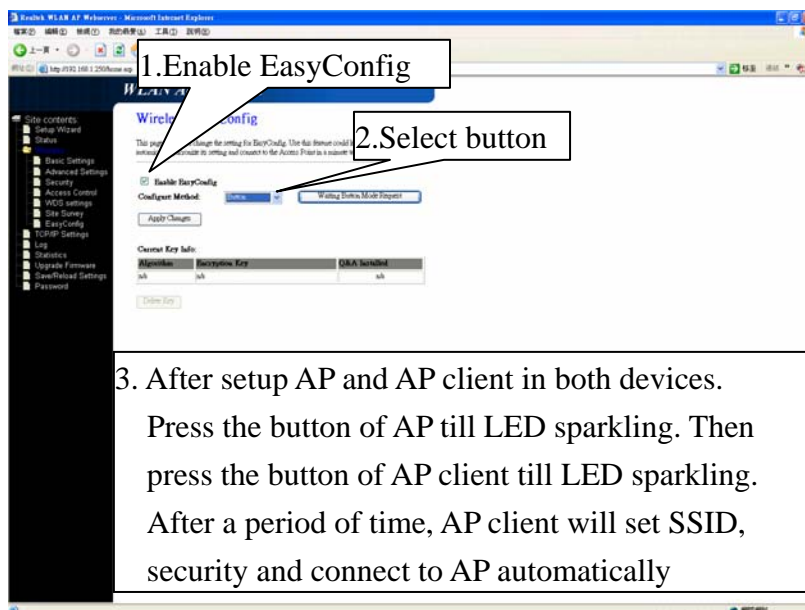
1. Select RADIUS
2. select TKIP/AES or both in WPA or WPA2
3. Enable Pre-authentication or not
4. Type in RADIUS server IP address and port number

### 3.2.7 Access Control At Access Control page



### 3.2.8 Easy Config EasyConfig only works in a pair of AWAP601HW It automatically setup two devices to AP and AP client. There are two methods to setup (button/Q&A)

#### 3.2.8.1 Button mode



### 3.2.8.2 Q&A mode

The follow setting is only for AP client. In AP only need set allow Q&A or button+Q&A.

The screenshot shows the 'Wireless EasyConfig' interface in Q&A mode. The 'Configure Method' is set to 'Q&A'. There are two questions: 'Pick up our question: [You lucky number (no score less 4 right)]?' and 'Pick up our question: [You favorite price?]'. Callouts indicate: 1. Select Q&A (pointing to the 'Configure Method' dropdown), 2. Enter four digits number (pointing to the first question's input field), and 3. Answer favorite name (pointing to the second question's input field). A large text box at the bottom contains the following instructions:

3. After setup AP and AP client in both side.  
Press the button of AP till LED sparkling. Then press the button of AP client till LED sparkling. After a period of time, AP client will set SSID, security and connect to AP automatically

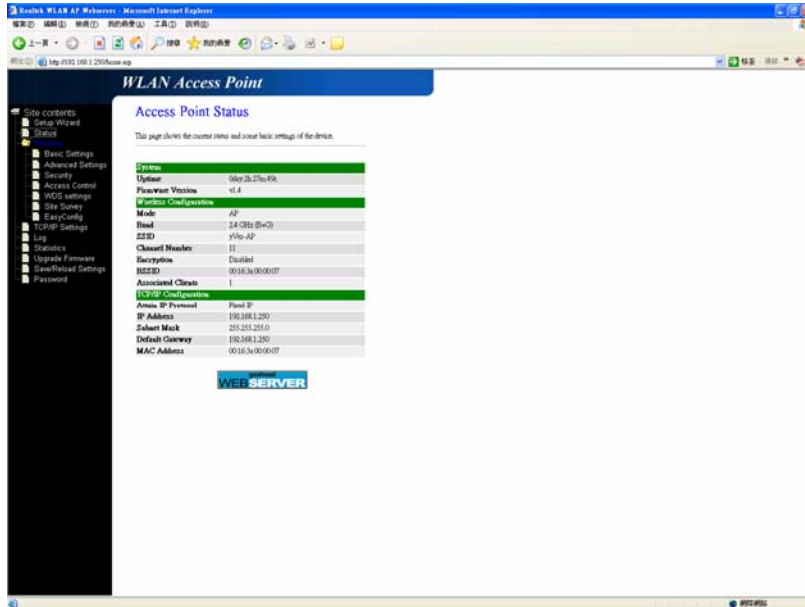
### 3.2.9 TCP/IP

The screenshot shows the 'LAN Interface Setup' interface. Callouts indicate the following configuration steps: 'Set IP Address' (pointing to the IP Address field), 'Subnet Mask' (pointing to the Subnet Mask field), 'Default Gateway' (pointing to the Default Gateway field), 'Set DHCP mode to DHCP server or set as a client or disable' (pointing to the DHCP mode dropdown), 'Input DNS server and domain name' (pointing to the DNS Server field), 'Set MAC clone if necessary' (pointing to the Clone MAC Address field), and 'Enable 802.11d spanning tree to protect loop' (pointing to the 802.11d Spanning Tree checkbox).

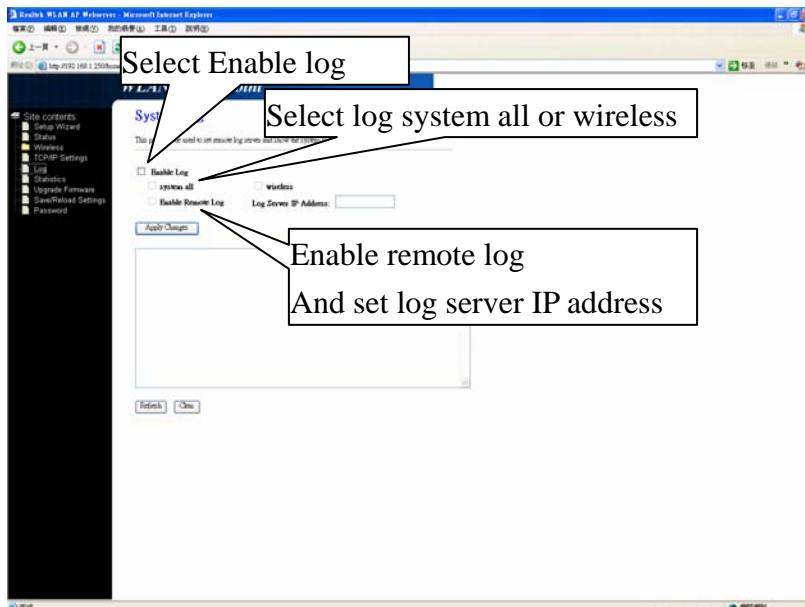
## 4 System Tools

### 4.1 Status

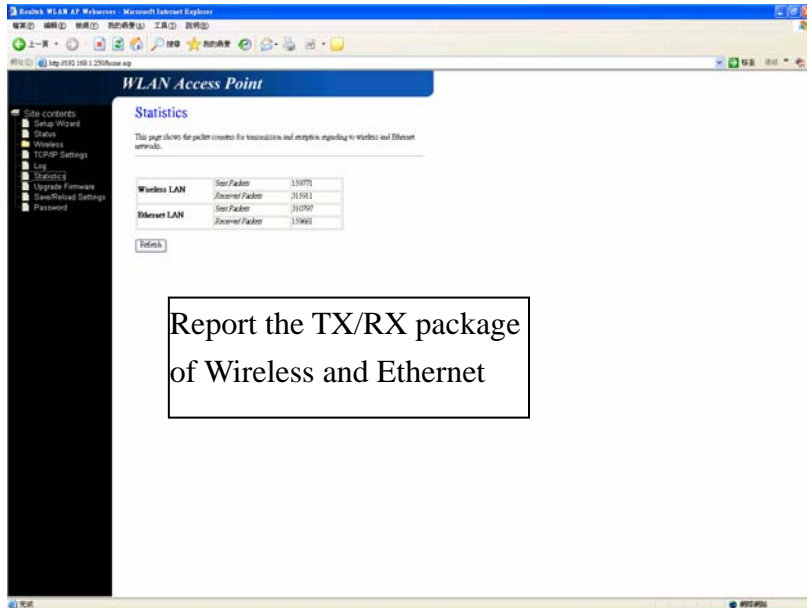
Get system status by reading this page



### 4.2 Log



### 4.3 Statistic

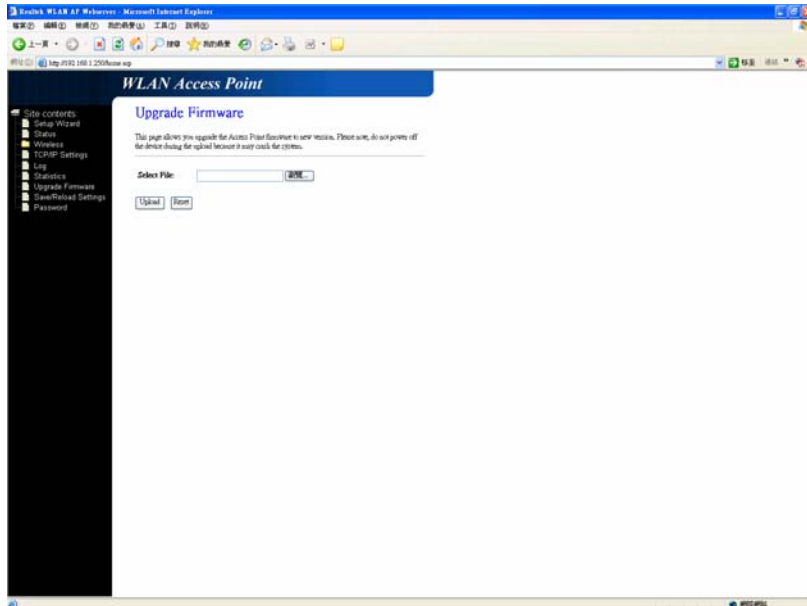


The screenshot shows the 'Statistics' page of the WLAN Access Point web interface. The page title is 'WLAN Access Point' and the sub-header is 'Statistics'. Below the sub-header, there is a brief description: 'This page shows the packet counts for transactions and reception regarding to wireless and Ethernet networks.' A table displays the following data:

Interface	Type	Count
Wireless LAN	Send/Packet	159775
	Receive/Packet	261541
Ethernet LAN	Send/Packet	262797
	Receive/Packet	159483

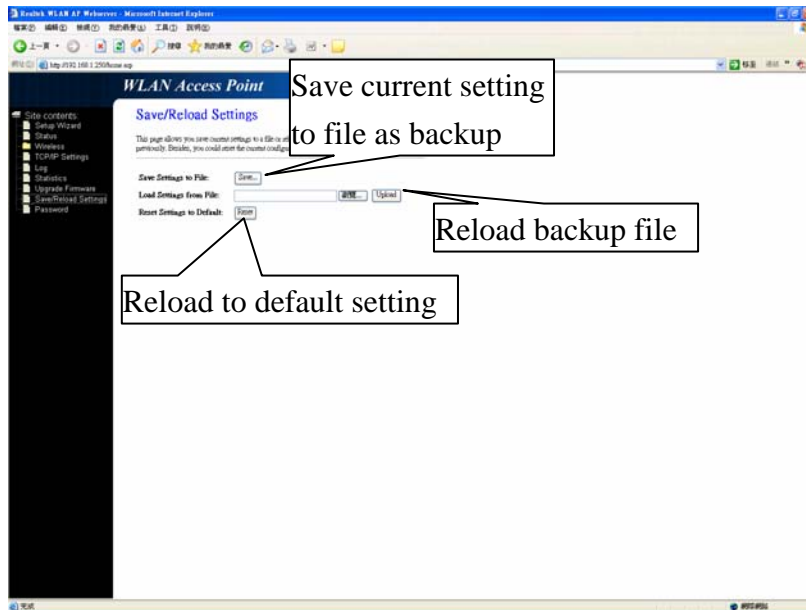
Below the table, there is a 'Refresh' button. A text box is overlaid on the screenshot with the text: 'Report the TX/RX package of Wireless and Ethernet'.

### 4.4 Upgrade Firmware

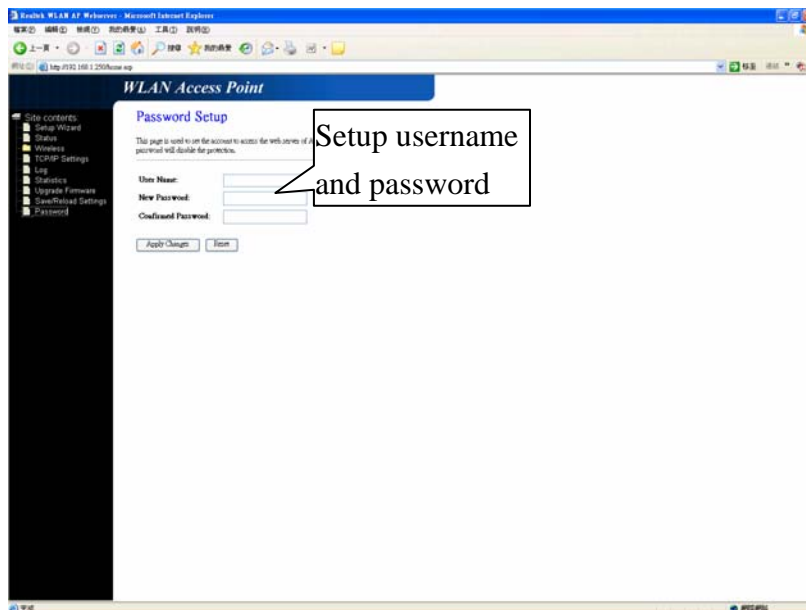


The screenshot shows the 'Upgrade Firmware' page of the WLAN Access Point web interface. The page title is 'WLAN Access Point' and the sub-header is 'Upgrade Firmware'. Below the sub-header, there is a brief description: 'This page allows you upgrade the Access Point firmware to your version. Please note, do not power off the device during the upload because it may crash the system.' A 'Select File' field is present, followed by an 'Upload' button. Below the field and button, there are 'Upload' and 'Reset' buttons.

#### 4.5 Save/Reload Setting



#### 4.6 Password



#### 4.7 Hardware Reset/Reload default

**Reset :** Press the reset button till the reset light is shining, then release the button quickly. The system will reboot.

**Reload :** Press the reset button and notice the change of reset light.

After the reset light from dark to bright and returns to dark, release the reset button. The system will reload the default setting.

