Office 1-2-3

User Manual

11-2020 / v1.1

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OVERVIEW

The Edimax Office 1-2-3 is a complete and expandable Wi-Fi system designed to meet the needs of small to medium offices. With easy setup, friendly operation user interface, super-fast wireless speed, an extensive feature set and a practical, ceiling-mount design, it is ideal for modern business environments – in working areas, meeting rooms, lobby, or open spaces.

Office 1-2-3 kit includes 3 pre-configured Access Points (expandable with Office +1 AP to up to a total of 8 APs), each allowing a capacity of up to 100 simultaneous users. The kit can setup multiple SSIDs (up to 32) to suit different user environments such as departmental groups or user groups. A built-in RADIUS server provides additional verification with a scalable AP array architecture, as well as a centralized management system for multiple access points. Power over Ethernet (PoE) support allows for deployment flexibility and extensive network options for company MIS departments and network administrators.

I Quick Summary & Reminder

1. You can find all supporting documents, video, and programs, we advise you to upgrade to the latest firmware first:
http://office123.edimax.com

2. This is a Quick Install Guide. For complete user manual or QIG in other languages, please check the included CD or visit the link below:
www.edimax.com/edimax_pro/download/Office1-2-3

3. During the initial power up, please wait 10 minutes for APs to communicate with each other.

4. Download our **IP Finder** from the link below to search and find the master AP for configurations.
www.edimax.com/edimax_pro/download/IPfinder

5. To setup Office 1-2-3 using a mobile device, **IP Finder** mobile app can be downloaded and used. Please III-2 ***Initial Setup – Mobile Device*** below.

6. If you are unable to load IP Finder: **Right-click** on the IP Finder and choose "Property". Click **Unblock** on the bottom selection and click "OK".

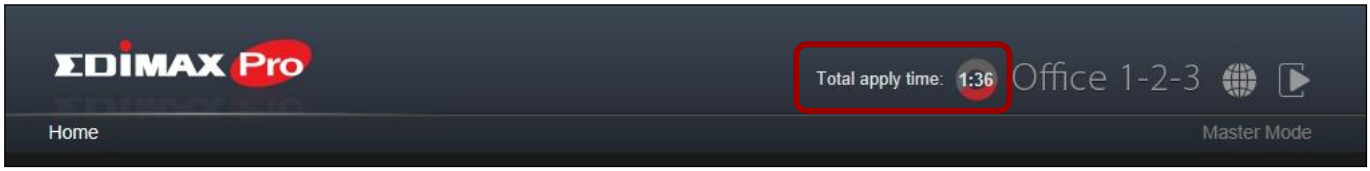
7. The Office 1-2-3 will create 3 wireless network initially for each AP.

8. The default *username* and *password* are **admin** and **1234** respectively. Changing password on the Master AP will also change the password of the Slave APs.

9. It is recommended that you use the default settings whenever possible. Refer to later sections of this manual for more information on the settings

10. It is recommended to use **import** and **export list** for simple management of guest and office accounts.

11. When configuring, please check for a "Progress Circle" on the upper right hand side of the page. Please wait until the progress circle is finished before further configurations.



12. The RADIUS function used by Office network works directly with most OS except Windows versions older than Win 8.0. For instructions on setting up RADIUS function, please refer to 1) VII-7-1 ***RADIUS Authentication for Office Network under Win 7*** on *page 76*; 2) the included A4 Sheet; or 3) download "RADIUS Authentication for Office Network" from the link:

www.edimax.com/edimax_pro/download/Office1-2-3

13. This product supports multiple devices per login account.

14. Clicking **Apply** during any of the configuration will ***reboot*** the AP, which takes time, it is recommended that you use **Apply** only after changing all settings.

15. Should you connect to the guest network, **open a browser** to trigger the login page. If no login page is shown, try entering www.edimax.com.

16. A maximum of 128 Guest accounts and 256 Office accounts are supported. Multiple logins (of the same account/password) are accounted as using multiple accounts.

17. The **frontdesk account** is for **creation of guest accounts** only. It cannot make changes to other settings.

18. To connect Office 1-2-3 to your VLAN Network, Management VLAN ID (under System Settings) must be configured to be the same as the one on your switch. All the wireless SSID and LAN can only share one VLAN ID. It is recommended to put the AP on the VLAN that can access both LAN and Internet network. The Guest network in Office 1-2-3 can prohibit guest accessing the Intranet network by IP filtering.

19. If you wish to add more APs to **expand** your office coverage, please consult your representative and refer to the "**Office +1 AP**" package.

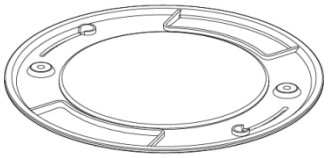
Attention / Beachtung / Atención / Attention / Attenzione / Attentie

English:	The socket-outlet/power adapter shall be installed near the equipment and shall be easily accessible.
Deutsch:	Die Steckdose/das Netzteil muss in der Nähe des Geräts installiert werden und leicht zugänglich sein.
Español:	La toma de corriente/adaptador debe estar ubicado cerca del equipo y ser de fácil acceso.
Français:	La prise de courant/l'adaptateur doit être situé près de l'équipement et facilement accessible.
Italiano:	La presa/adattatore di alimentazione deve essere posizionata vicino all'apparecchiatura ed essere facilmente accessibile.
Nederlands:	Het stopcontact/stroomadapter moet in de buurt van de apparatuur worden geïnstalleerd en moet gemakkelijk toegankelijk zijn.

II Product Information

II-1 Package Contents

1



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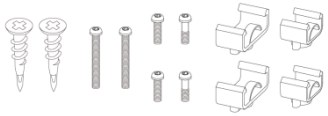

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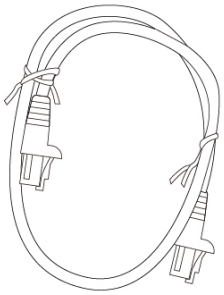

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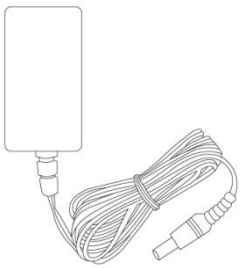

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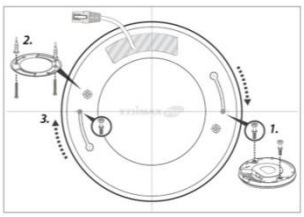


8

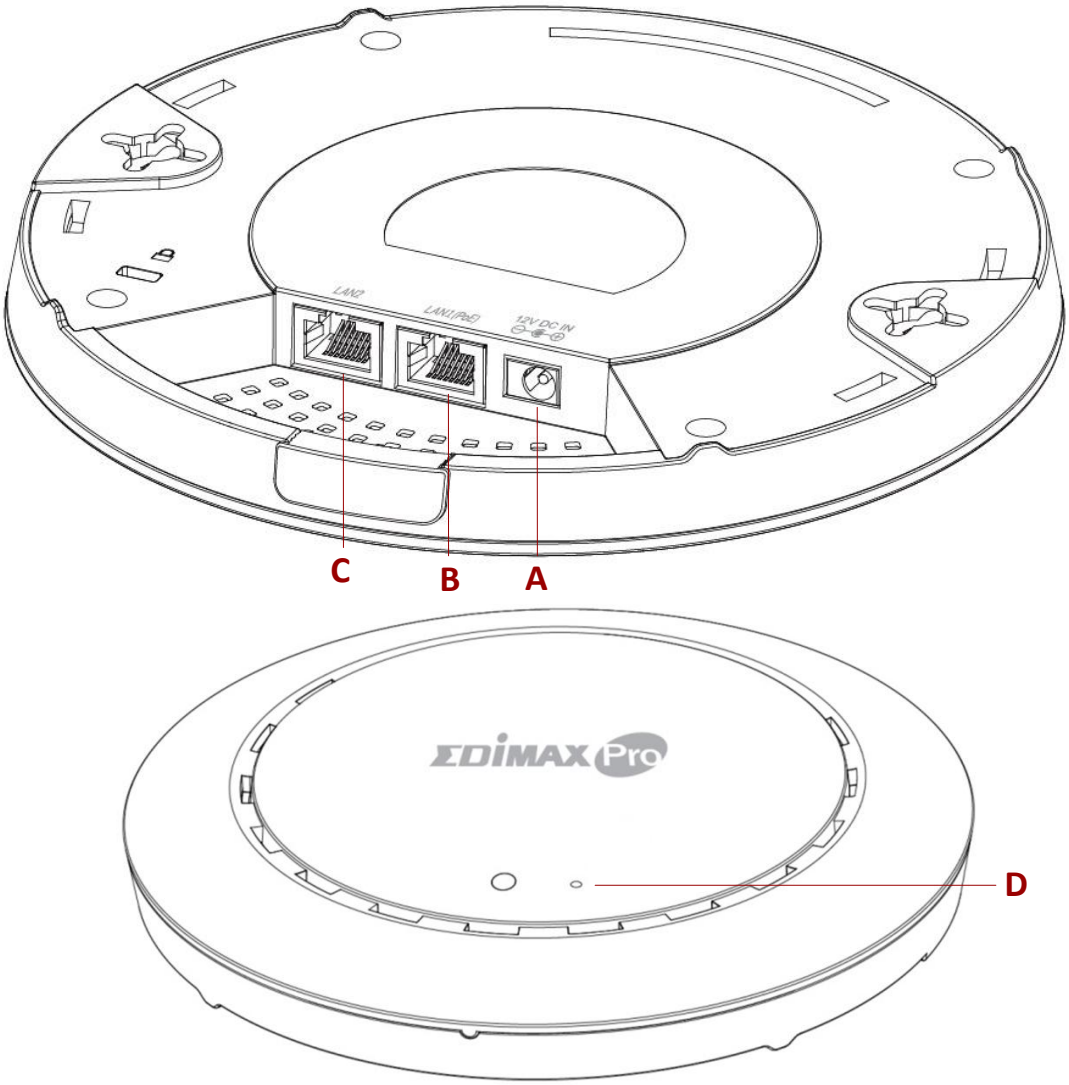
1. Office 1-2-3 Access Point x 3 (1 Master, 2 Slaves)
2. Ceiling Mount Bracket x 3
3. T-Rail Mounting Kit & Screws x 3
4. CD
5. Quick Installation Guide
6. Ethernet Cable x 3
7. Power Adapter
8. Ceiling Mount Screw Template x 3

NOTE: One of the APs has a **Master** sticker while the other two have **Slave** stickers, indicating their relationships.

II-2 System Requirements

- Existing cable/DSL modem & router.
- Existing PoE Switch connected to the router
- Computer with web browser for access point configuration

II-3 Hardware Overview



A	12V DC IN	12V DC port to connect the power adapter
B	LAN 1 (PoE)	LAN port with Power over Ethernet (PoE) IN
C	LAN 2	LAN port
D	Reset	Resets the device to factory default settings

II-4 LED Status

LED Color	LED Status	Description
Blue	**On**	The access point is on.
	Flashing Slowly	Upgrading firmware.
	Flashing Quickly	Resetting to factory defaults.
Amber	**On**	Starting up.
	Flashing	Error.
Off	**Off**	The access point is off.

II-5 Reset

If you experience problems with your access point, you can reset the device back to its factory settings. This resets all settings back to default.

1. Press and hold the reset button on the access point for at least 10 seconds then release the button.

NOTE: You may need to use a pin or similar sharp object to push the reset button.

2. Wait for the access point to restart. The access point is ready for setup when the LED is **blue**.

III Quick Setup

This quick setup is a guide to setting up your Office 1-2-3 high speed Wi-Fi network. Please note that these sections can be revisited later on for further configurations, but will serve as the basics of the system.

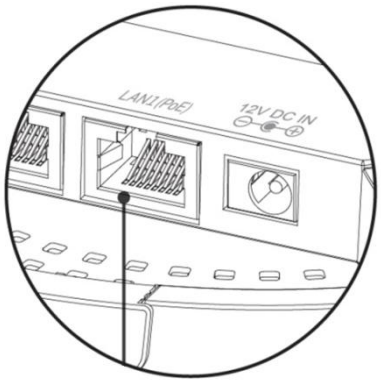
III-1 Initial Setup – Computer

The computer initial setup is a simple step-by-step process to start up the web user interface. Please follow the steps below:

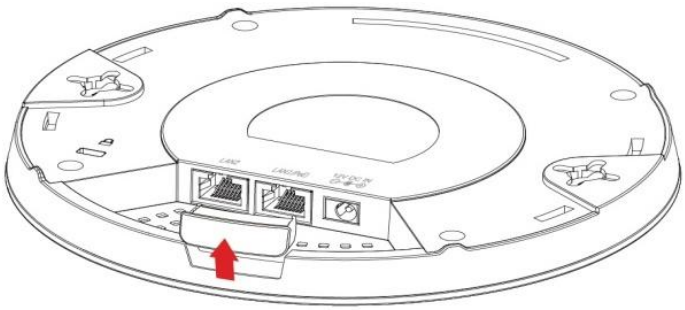
1. Connect your computer to the PoE Switch using an Ethernet cable.

2. Connect the 3 access points to the PoE Switch using Ethernet cables. Please make sure the Ethernet cable is connected to the PoE port of the access point as shown below:

NOTE: One of the APs has a **Master** sticker while the other two have **Slave** stickers, indicating their relationships.



If you need to, remove the cap from the underside of the access point. This creates extra space for your cables to pass through.

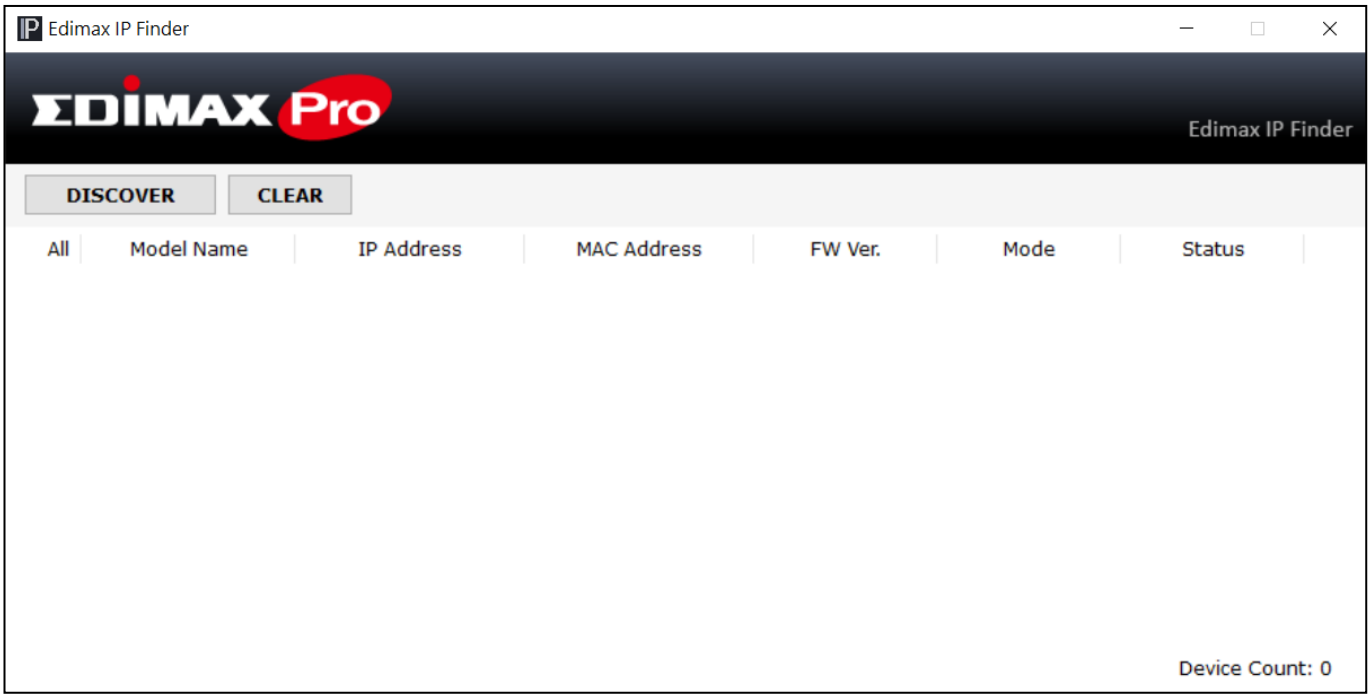


3. Please wait for 10 minutes for the APs to communicate between themselves.

4. Download and Install the Edimax Cloud Discovery Tool (IP Finder) on your computer from the link below:

www.edimax.com/edimax_pro/download/IPfinder

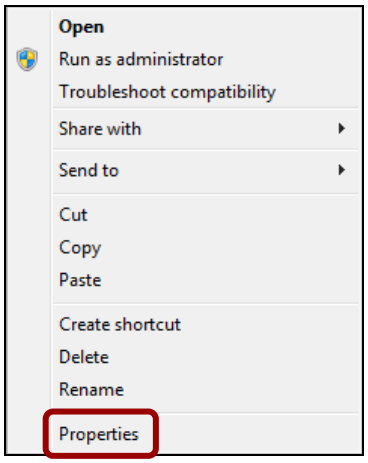
5. Open the “EdimaxCloudDiscoveryTool”:



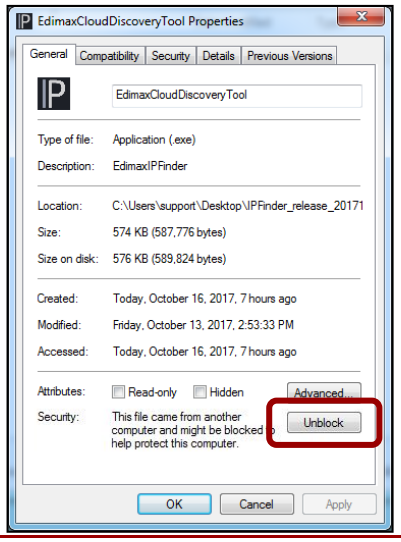
Unable to open IP Finder Tool

If you were unable to open the IP Finder Tool, it may be because the antivirus on your system is blocking it. To unblock, please see below:

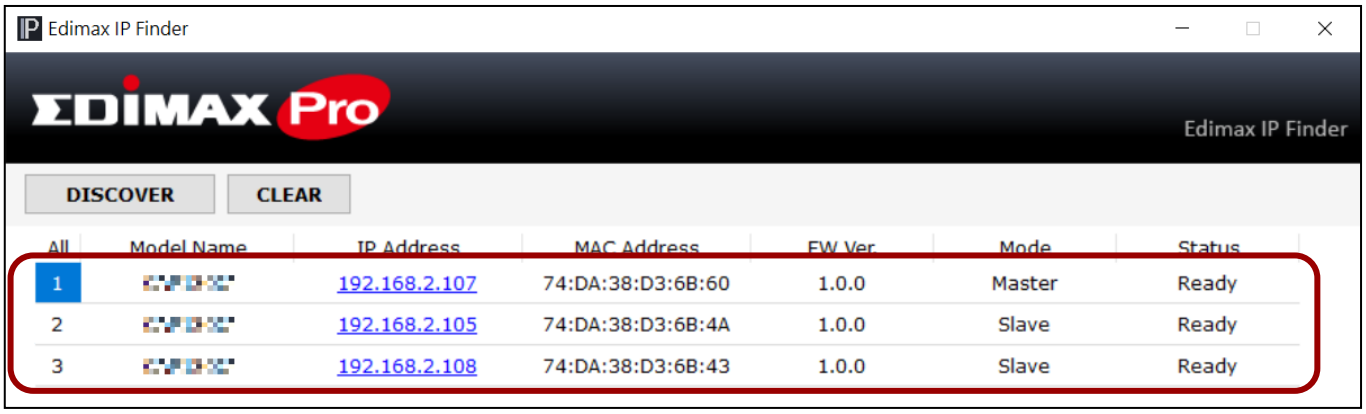
1. Right-click on the IP Finder tool and click “Properties”



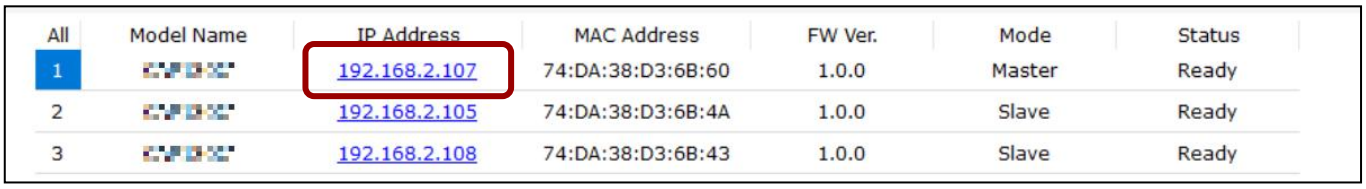
2. Locate “Security” at the bottom of the window. Click the **Unblock** button.



6. Locate your master access point by clicking “Discover” DISCOVER on the IP finder.

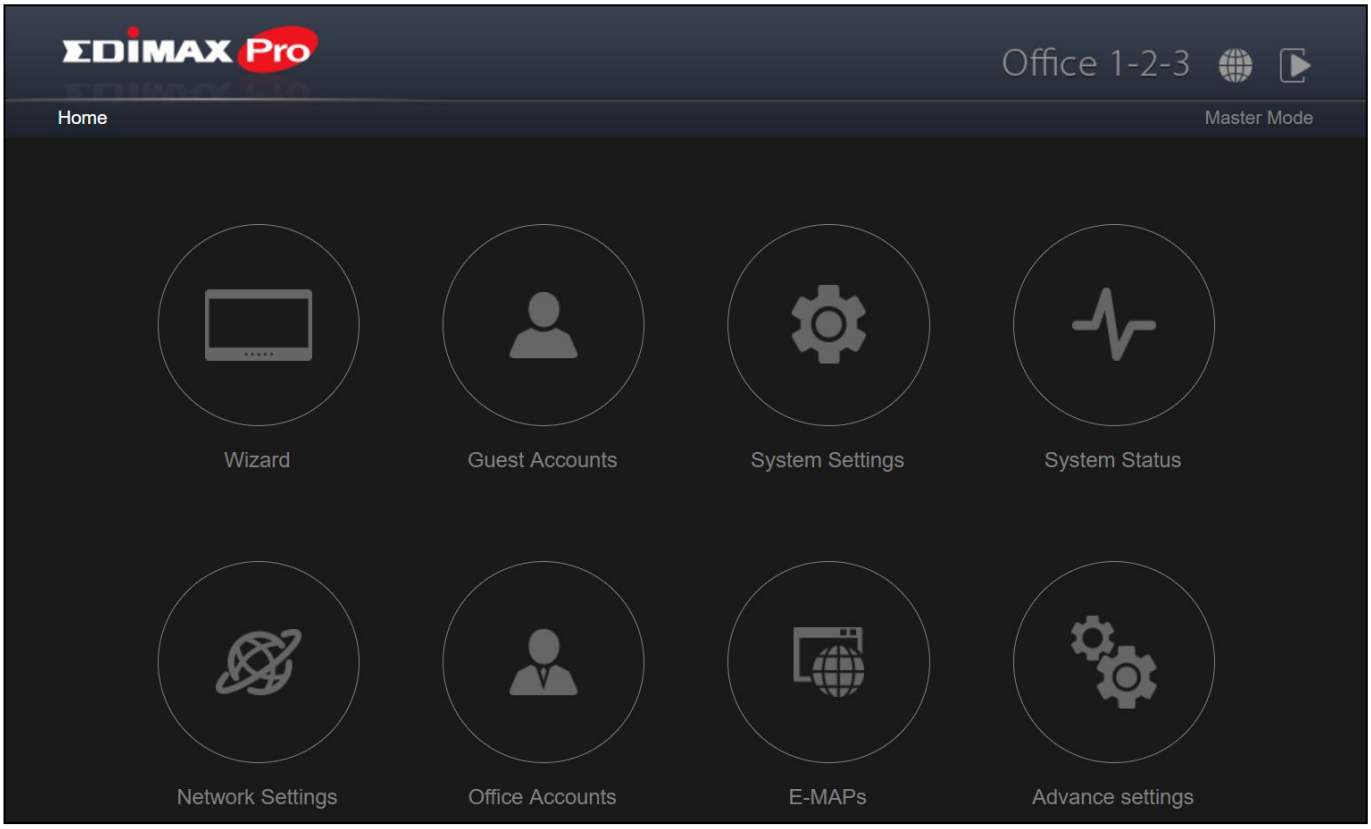


7. Click the IP address of the master access point to go into the web user interface.



Upon entering the webpage, you should be prompted to enter the username and password, enter them (default username: **admin**, password: **1234**) to proceed:

The web user interface is shown below:



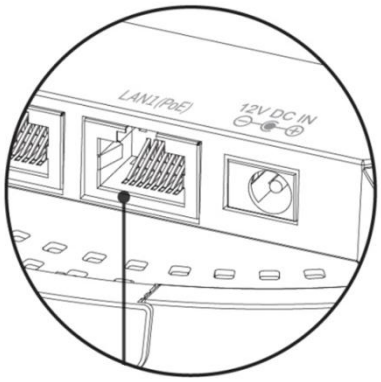
8. Click “Wizard” and go to the next section to go through the setup wizard.

III-2 Initial Setup – Mobile Device

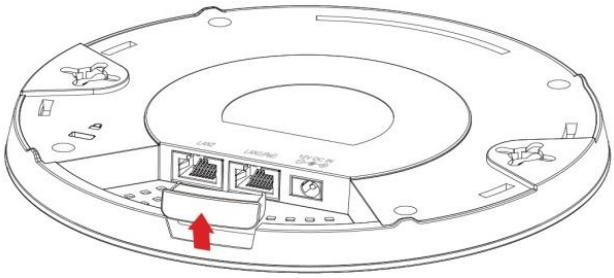
The initial setup for mobile device is a simple step-by-step process to start up the mobile web user interface.

1. Connect the 3 access points to the PoE Switch using Ethernet cables. Please make sure the Ethernet cable is connected to the PoE port of the access point as shown below:

NOTE: One of the APs has a **Master** sticker while the other two have **Slave** stickers, indicating their relationships.



If you need to, remove the cap from the underside of the access point. This creates extra space for your cables to pass through.



2. Please wait for 10 minutes for the APs to communicate between themselves.

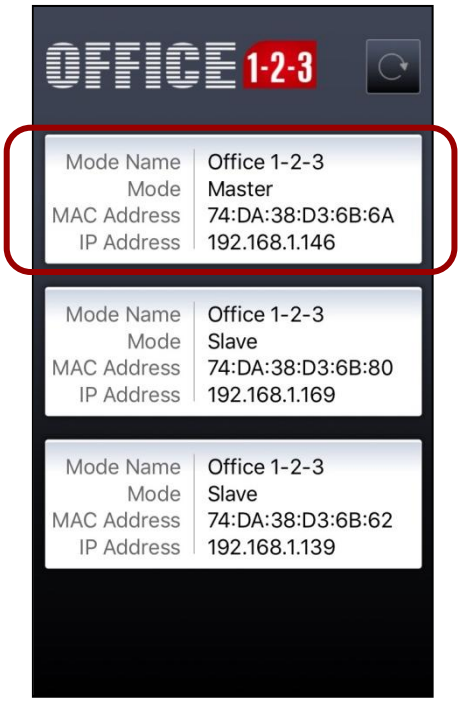
3. Please scan the QR Code below to download the mobile app "Office123".

iOS **Android**

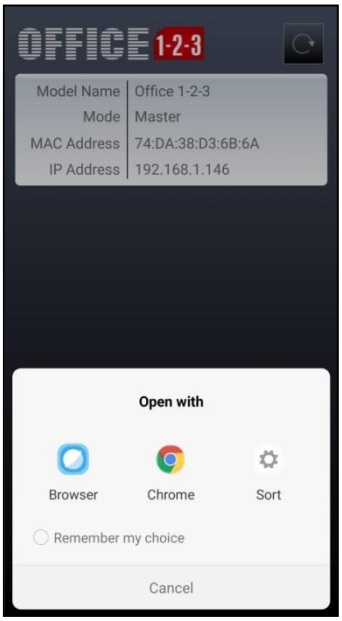
4. On your mobile device, connect to the device network. The device network SSID is “device”.

5. Open the “Office123” app.

6. Locate the Master AP and tap it.



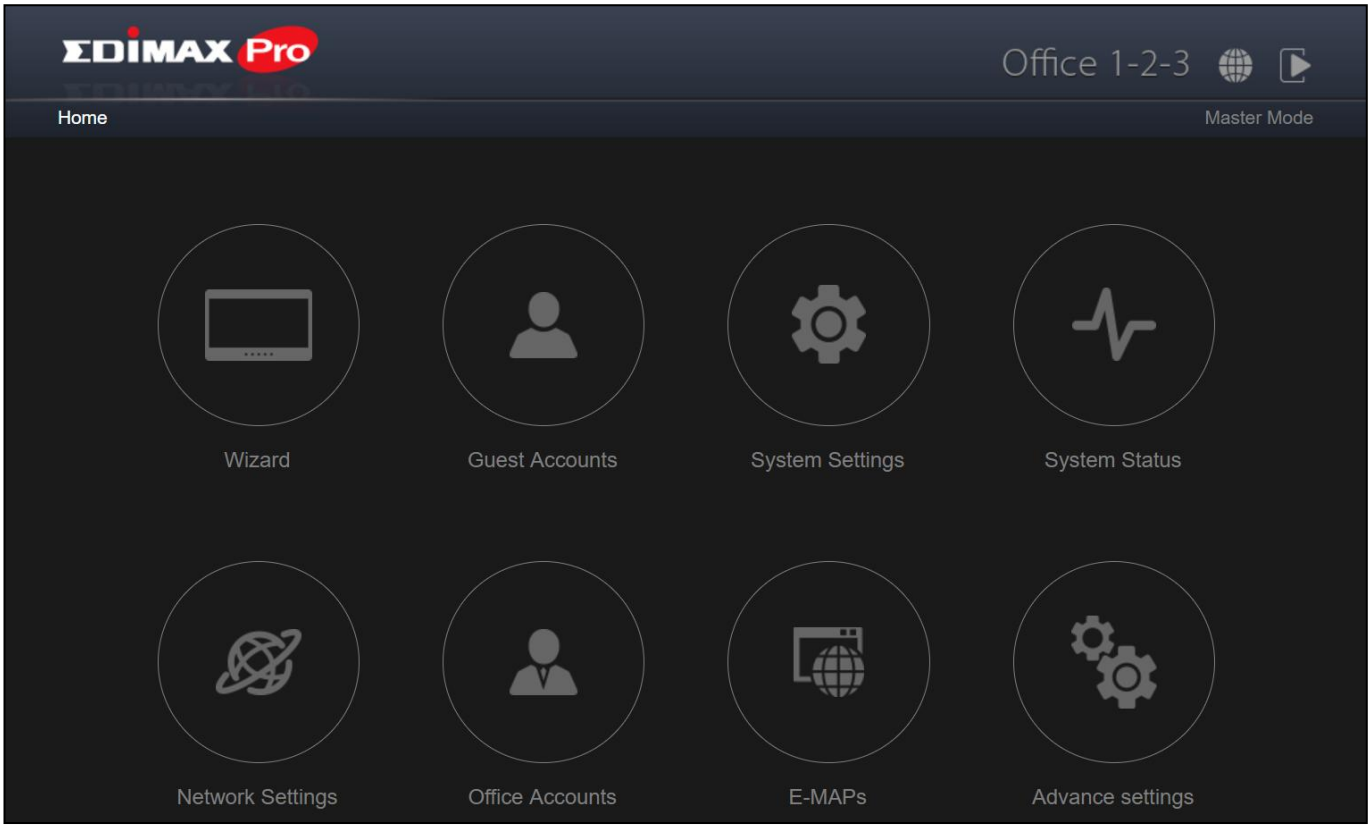
The system may prompt you to select a desired browser as shown below:



7. The browser will be at the login page of Office 1-2-3.

Upon entering the webpage, you should be prompted to enter the username and password, enter them (default username: **admin**, password: **1234**) to proceed:

The web user interface is shown below:



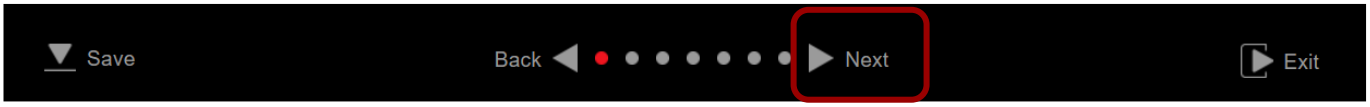
8. Tap “Wizard” and go to the next section to go through the setup wizard.

NOTE: Please remember to assign a WPA-PSK2 password to the Device Network later to prevent others from accessing the network freely.

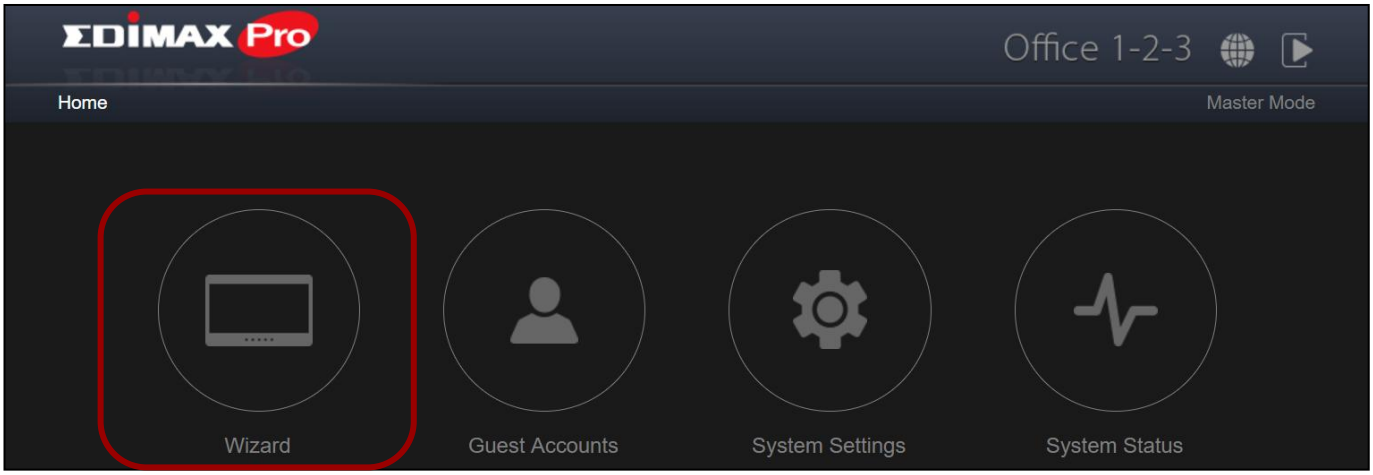
III-3 Setup Wizard

The wizard aims to help you with setting the basic settings of the Office 1-2-3 network including **Office Accounts**, **Guest Accounts** and **Device Network**, etc.

NOTE: In most cases, simply go through the steps below by clicking "Next", although adding / editing password, Wi-Fi-key, and accounts are recommended.



1. Click "Wizard" on the web interface to start the setup wizard:

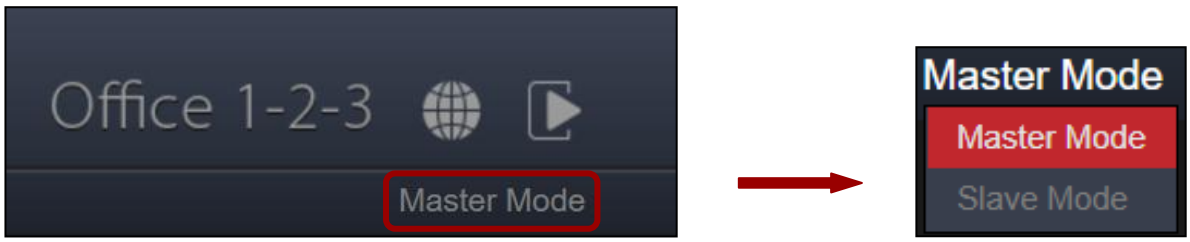


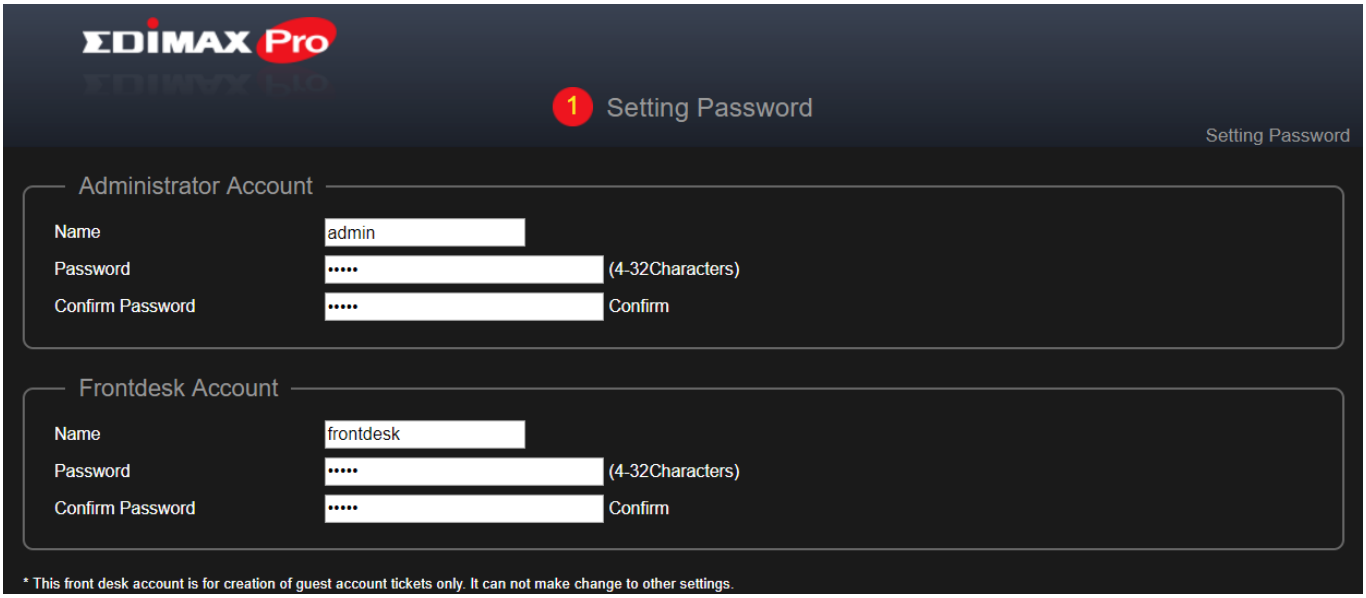
2. Change the password for Administrator and Frontdesk account.

NOTE: The Frontdesk account is for creating guest accounts and ticket printing only.

Once the change is made on the master, the slave's username and password will be changed also.

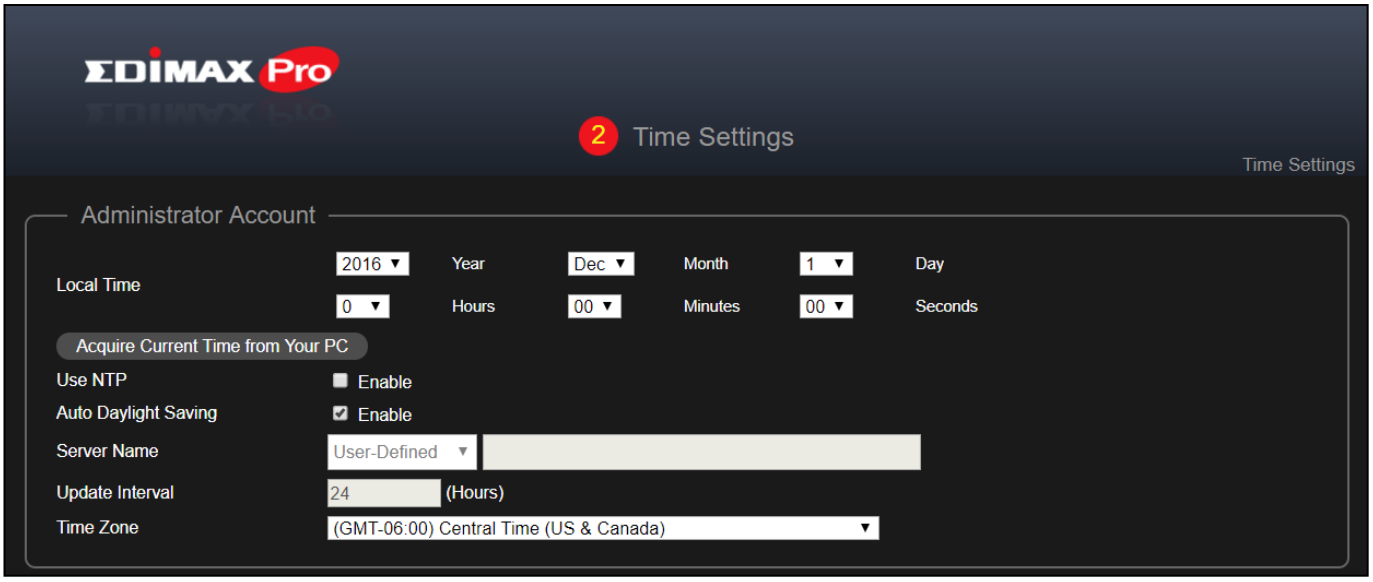
NOTE: You can change between master and slave modes at will by clicking the current mode (outlined area below). It is, however, not recommended except for the recovery of master AP.





3. Time Settings: Set the time of your access point.

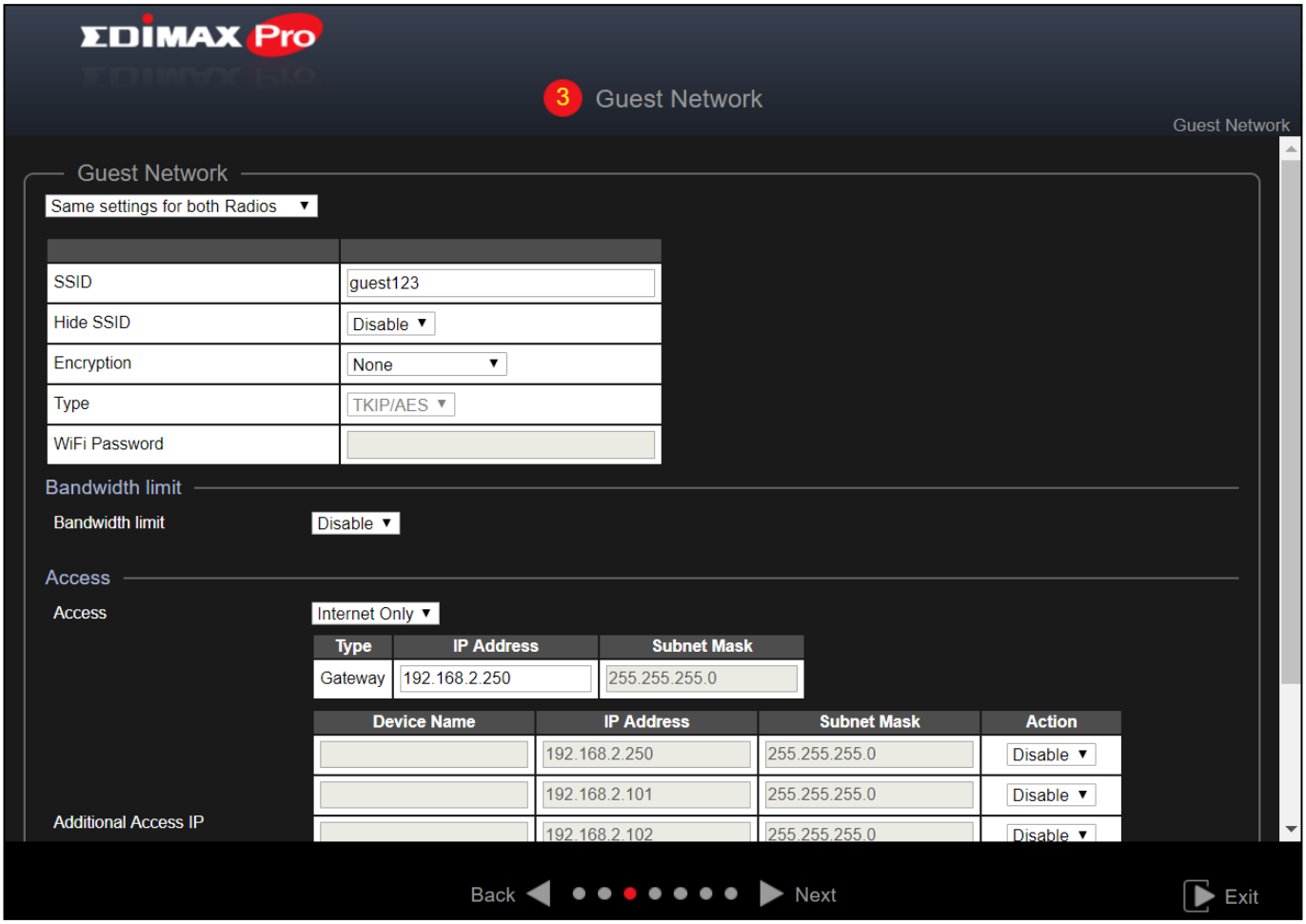
NOTE: It is highly recommended to turn on the NTP server so the device can remain on time even after power recycling. Choose an NTP server that is close to your country.



Date and Time Settings	
Local Time	Set the system's date and time manually using the drop down menus.
Acquire Current Time from your PC	Click to acquire time and date automatically from your PC.
Use NTP	Check to enable automatic time and date sync to an NTP server.

Auto Daylight Saving	Check / uncheck to enable / disable daylight saving function.
Server Name	Use the drop down menu to select a region. A server will be shown after selecting the region. Choose the region according to your location.
Update Interval	Specify how often (in hours) the access point synchronizes with the NTP server.
Time Zone	Select the time zone of your country/region. If your country/region is not listed, please select another country/region whose time zone is the same as yours.

4. Guest Network: Configure the guest network settings

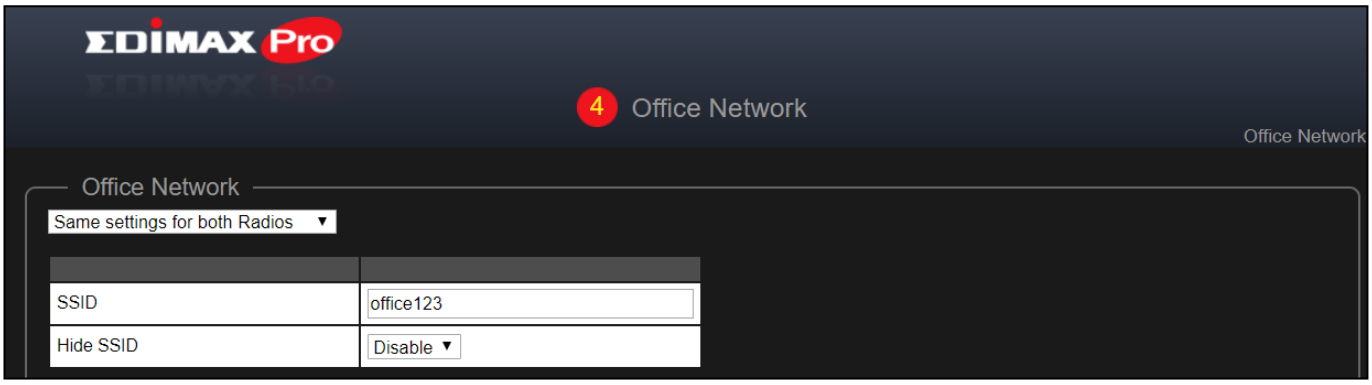


For more information on the settings, please refer to VII-5-5 ***Guest Network*** on *page 61*.

Press “Next” to continue.

5. Office Network: Configure the office network settings.

NOTE: It is recommended to leave the settings as it is (default values).

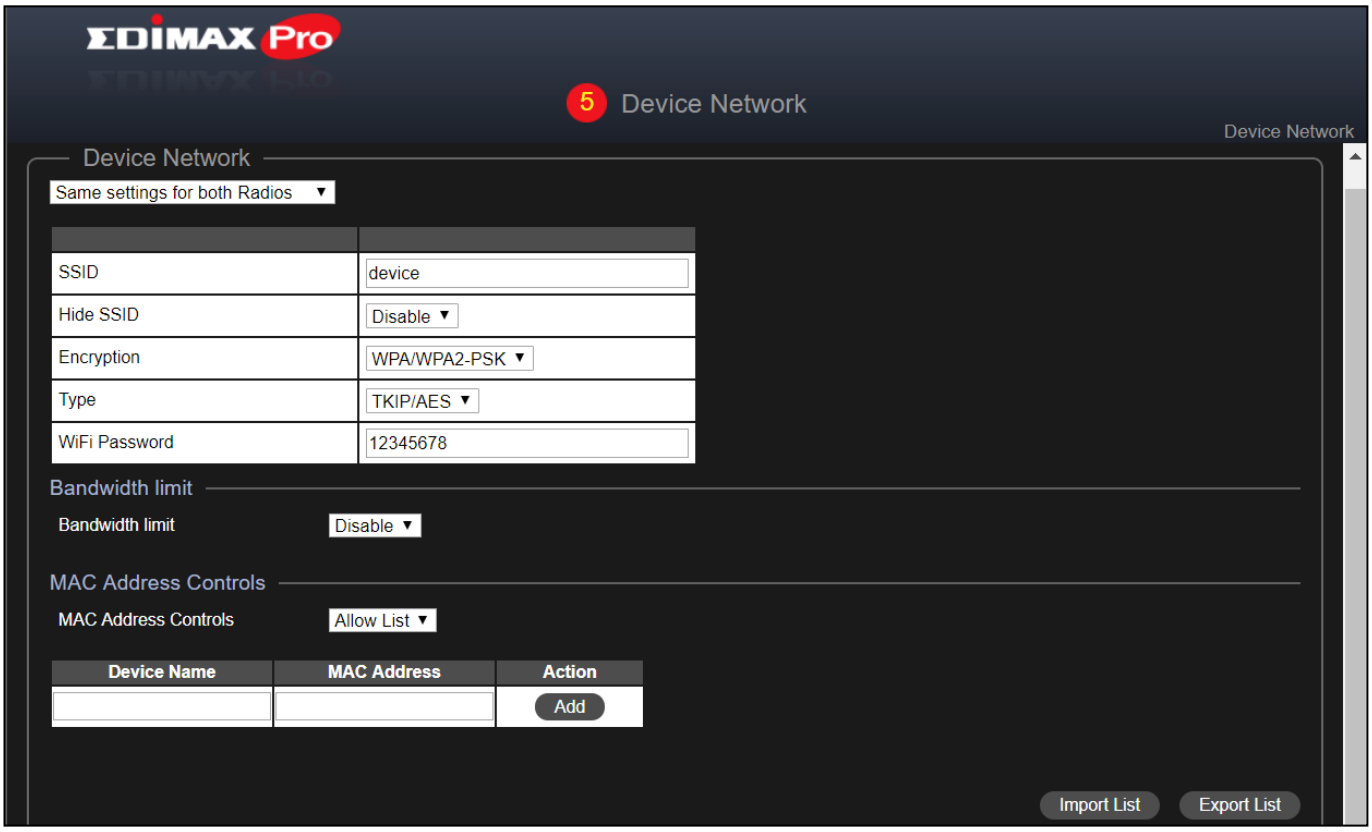


For more information on the settings, please refer to VII-5-2 ***Office Network*** on *page 54*.

Press "Next" to continue.

6. Device Network: Configure the device network settings.

NOTE: It is recommended to only change the Wi-Fi password.

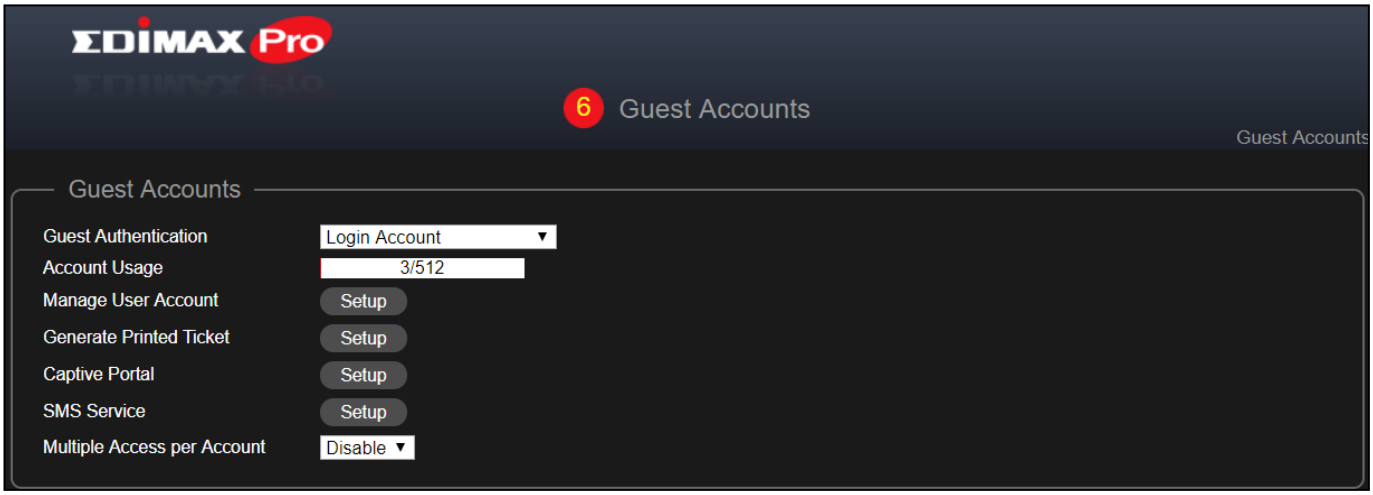


Select WPA-PSK2 for encryption field and enter a Wi-Fi Password.

For more information on the settings, please refer to VII-5-3 ***Device Network*** on *page 56*.

Press "Next" to continue.

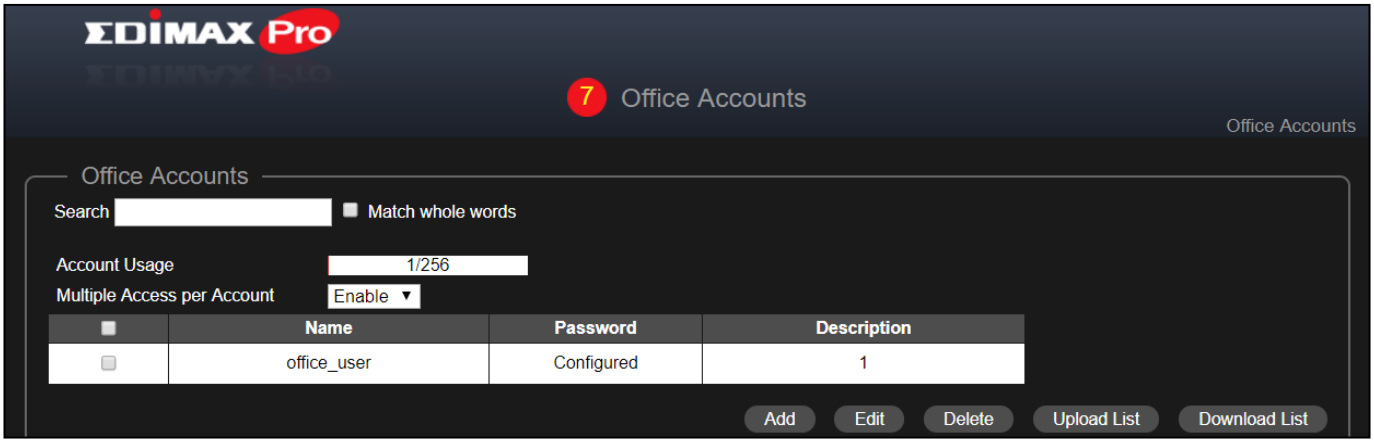
7. Guest Accounts: Configure the guest account settings.



For more information on the settings, please refer to VII-6 ***Guest Accounts*** on *page 64*.

Press “Next” to continue.

8. Office Accounts: Configure the Office Accounts settings.

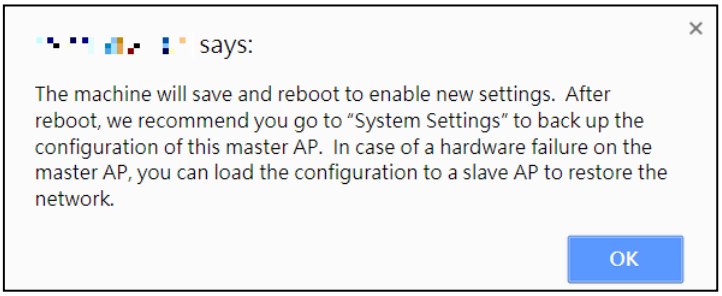


For more information on the settings, please refer to VII-7 ***Office Accounts*** on *page 74*.

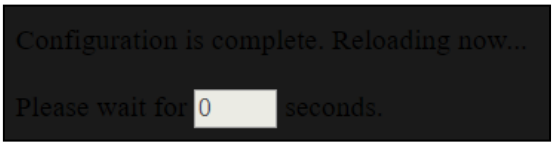
Press “Next” to continue.

9. Click “Save & Exit” to complete the wizard.

An advice message will be shown before saving and rebooting:



Click “OK” to continue (with message shown below):



10. Please wait for ~10 minutes to apply the settings to the Slave APs.

IV Further Expansion

The Office 1-2-3 comes with 3 Office 1-2-3 Access Points that are pre-configured. Expansion is very easy with additional Office 1-2-3 Access Points (available as Office +1 AP) of up to 8 access points in total. An example is shown below:

The master Office 1-2-3 AP is designated as the Master ap to manage other connected Office 1-2-3 APs as they are automatically designated as Managed APs (slaves).

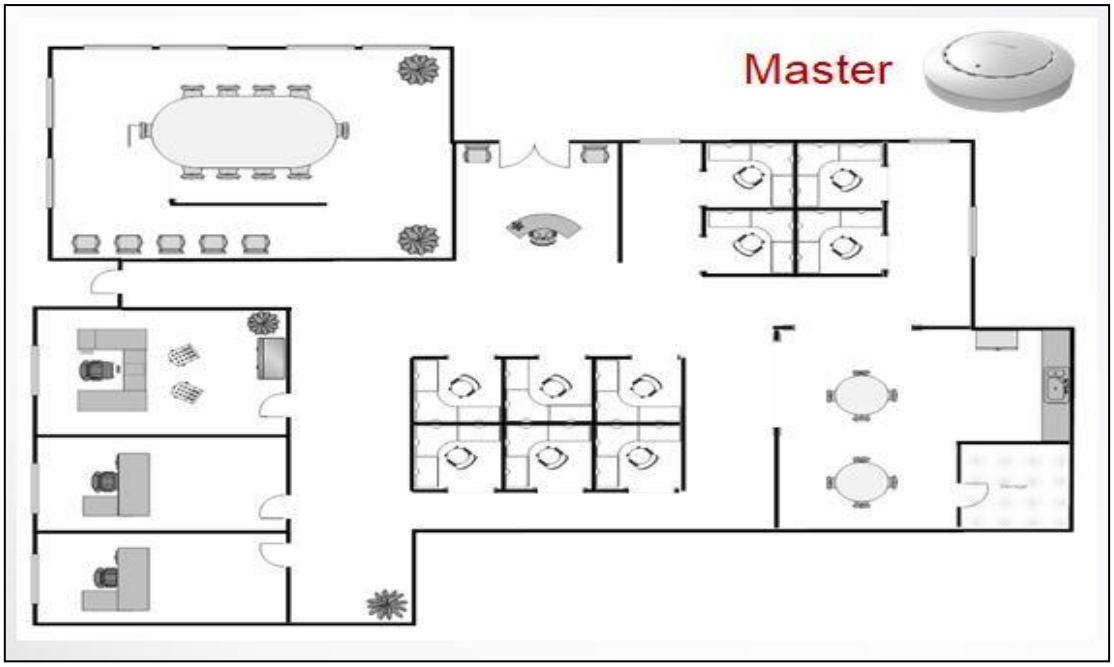
V Hardware Installation / Deployment

Once you have completed the setup wizard outlined in Quick Setup, you will have to determine how you will deploy your Office 1-2-3 Access Points.

V-1 Office 1-2-3 Deployment

1. Install the Master AP in a less crowded area.

This will reduce the loading of the Master AP. Due to the fact that the Master AP being the controller of the network, having a reduced loading will benefit. For example, you can install the Master AP in a corner of your office, where there will be less users attempting to connect to it.

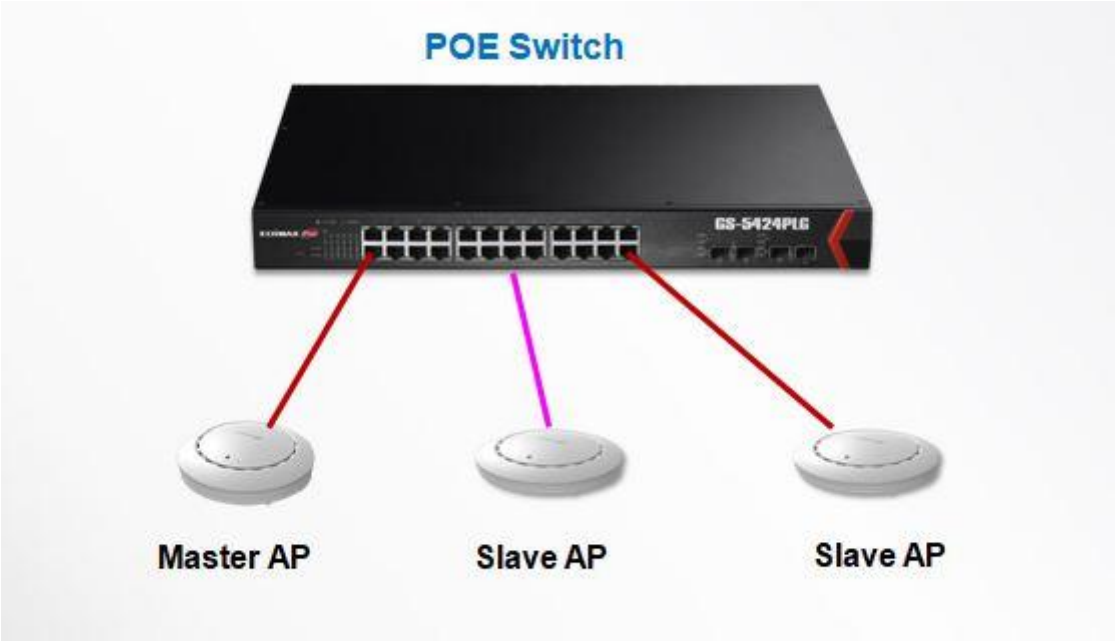


2. Install the slave APs in more crowded areas.

Since the APs will only be extending the Wi-Fi signals (no need to manage the network), they can be installed where connections are in greater demand.
The distance between the Master AP and the Slave APs is recommended to be between 20-25 meters.

3. Install Master/Slave AP Hardware on the POE switch.

Connect a PoE switch to the Master and Slave AP's **LAN 1** (PoE) port using an Ethernet cable.

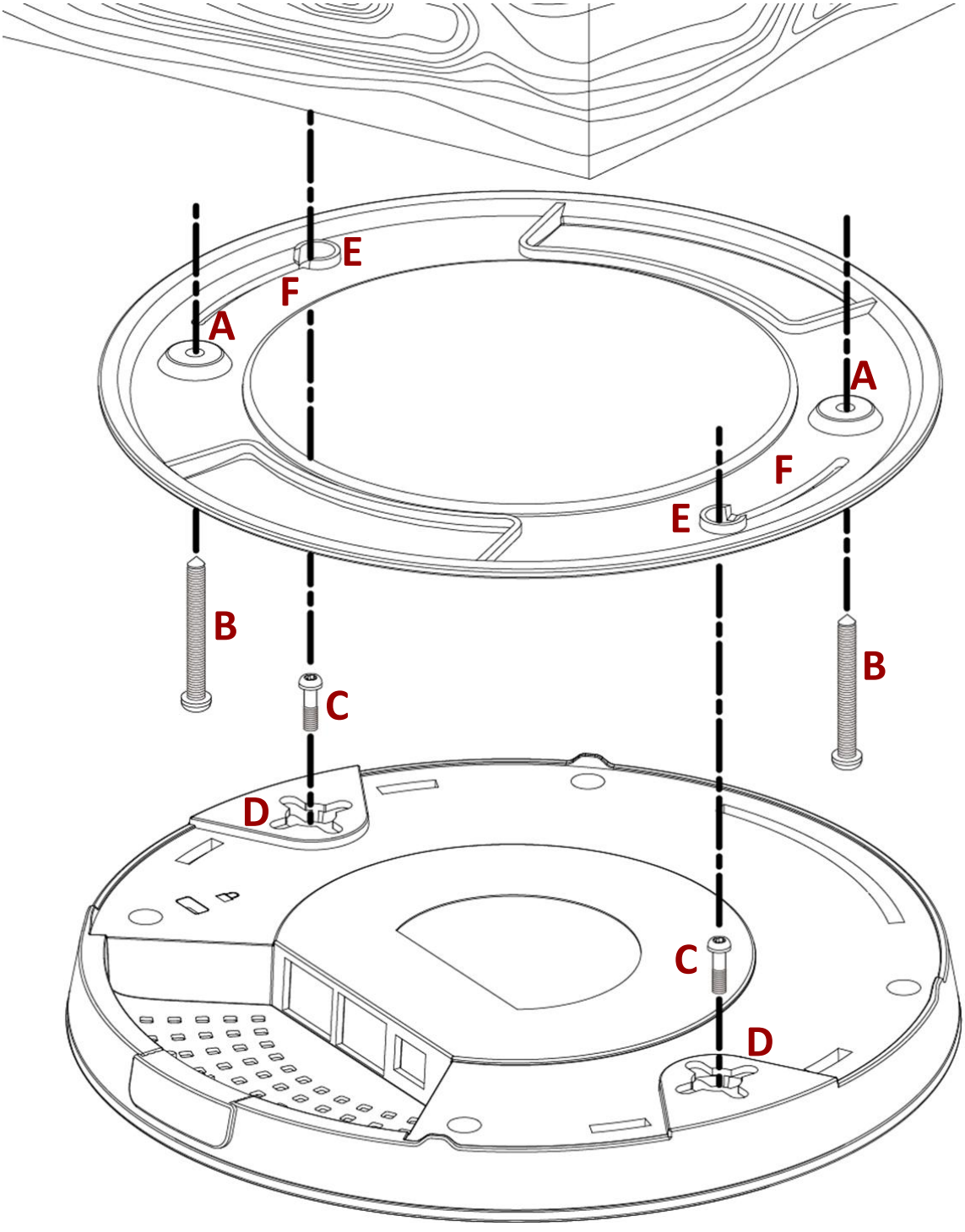


V-2 Mounting

When deployment plan is sorted, please refer to the instructions below on how to mount each of your Office 1-2-3 Access Points to a ceiling.

V-2-1 Wooden Ceiling

Please refer to the figure below:



1. By using the holes **A** on the ceiling bracket, identify and mark correct screw positions of the desired mounting location.

2. Where necessary, drill a hole (of radius smaller than the radius of the provided screws) on each of the marked screw positions.

3. Fix the ceiling mount bracket to the desired location by inserting the ceiling fixing screws **B** through the bracket ceiling holes **A**. Tighten the ceiling fixing screws **B** to the marked screw position using a screw driver to fix the bracket in place.

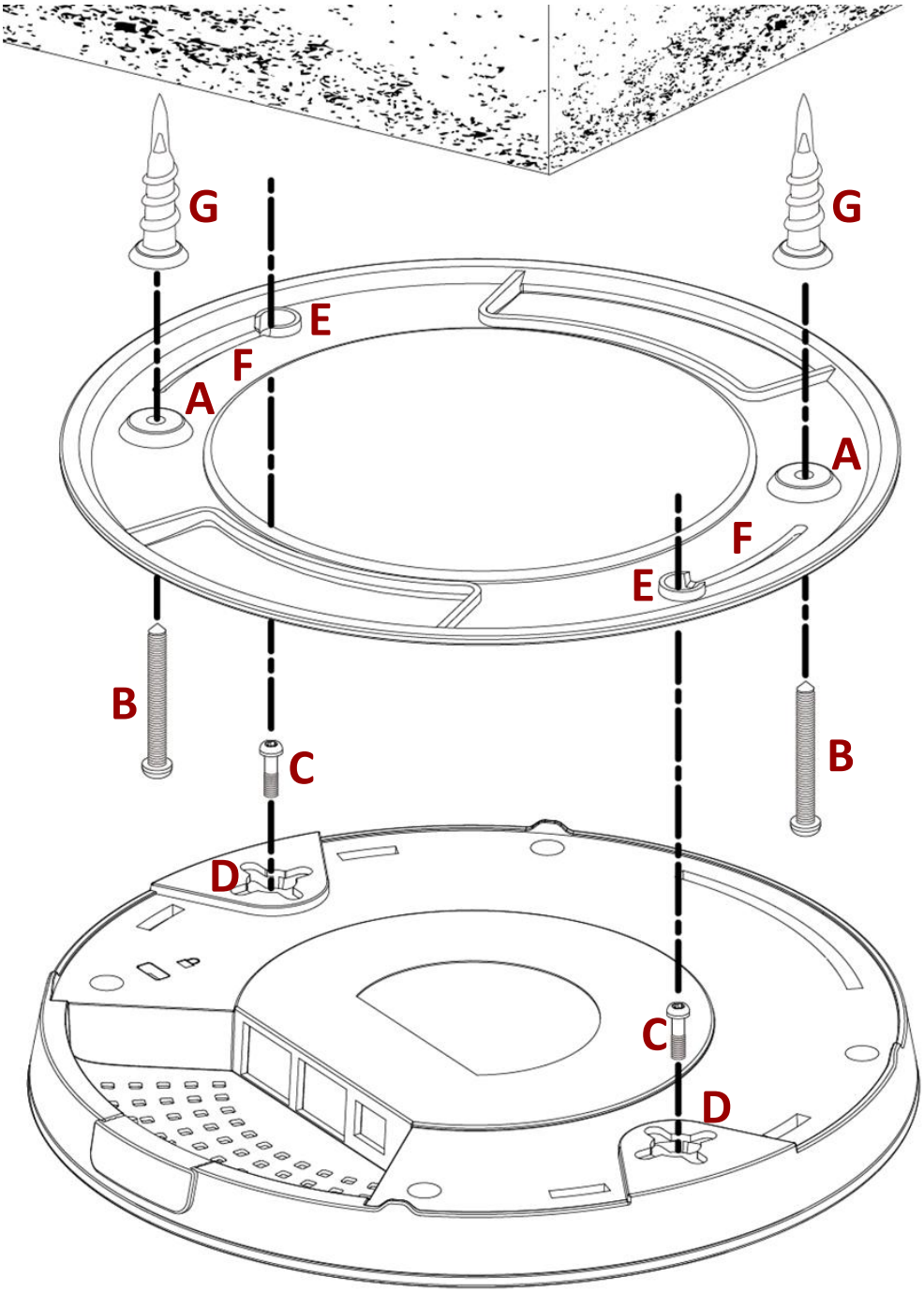
4. Fix the bracket rail screws **C** into the holes **D** on the device using a screw driver. The cap of the screws should be protruding outwardly from the holes **D**.

5. Insert the bracket rail screws **C** into the device fixing holes **E**.

6. Twist the device as the bracket rail screws **C** slide through the bracket rail **F**.
   Twist the device all the way until you feel that it is fixed in position.

V-2-2 Other Ceiling

Please refer to the figure below:



1. By using the holes **A** on the ceiling bracket, identify and mark correct screw positions of the desired mounting location.

2. Where necessary, drill a hole on each of the marked screw positions.

3. Insert the anchors **G** into the holes (use a screw driver where necessary) at the marked screw positions.

4. Fix the ceiling mount bracket to the desired location by inserting the ceiling fixing screws **B** through the bracket ceiling holes **A**. Tighten the ceiling fixing screws **B** onto the anchors **G** using a screw driver to fix the bracket to the ceiling.

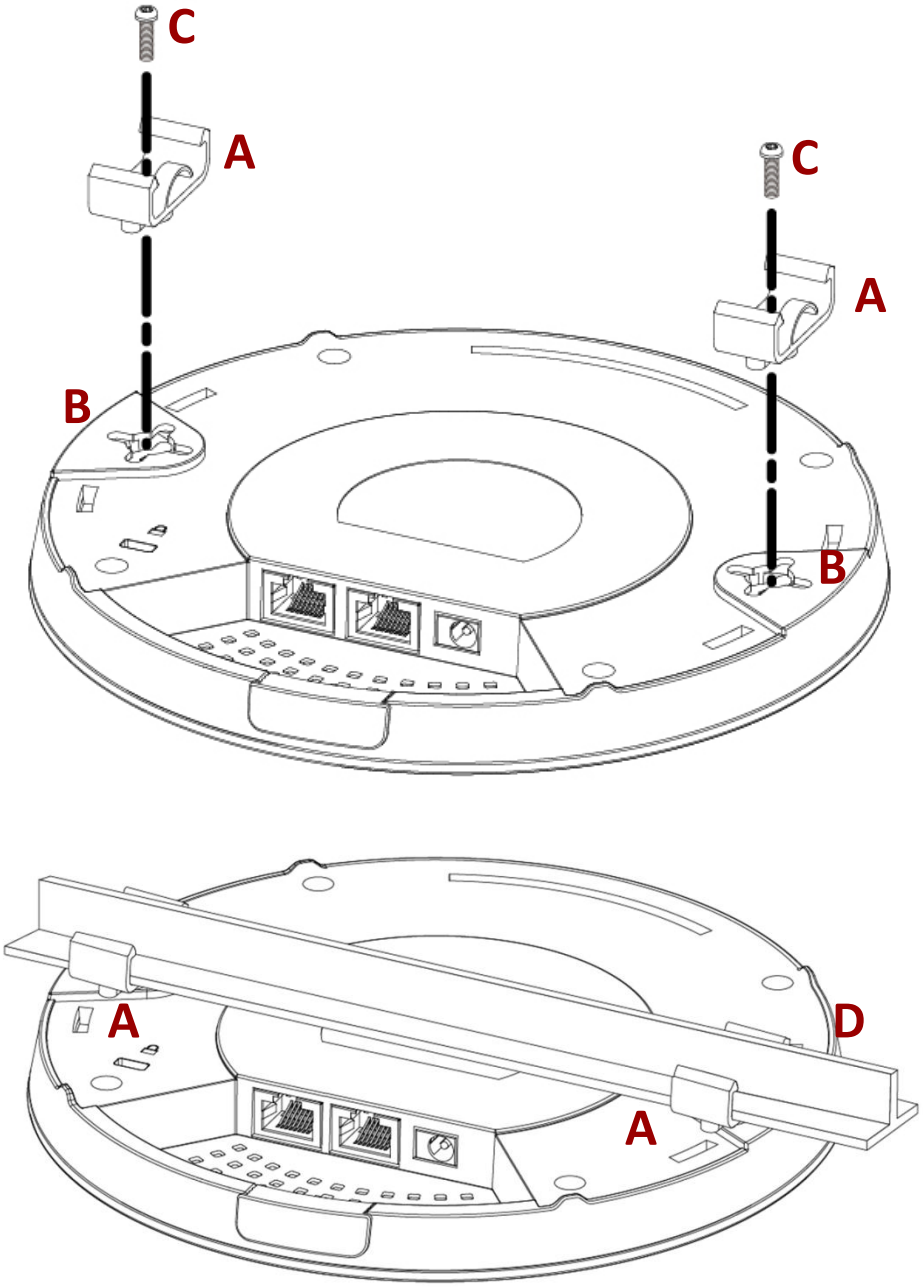
5. Fix the bracket rail screws **C** into the holes **D** on the device using a screw driver. The cap of the screws should be protruding outwardly from the holes **D**.

6. Insert the bracket rail screws **C** into the device fixing holes **E**.

7. Twist the device as the bracket rail screws **C** slide through the bracket rail **F**.
   Twist the device all the way until you feel that it is fixed in position.

V-2-3 T-Rail Mount

To mount the device to a T-Rail, please follow the instructions below and refer to the diagrams below.

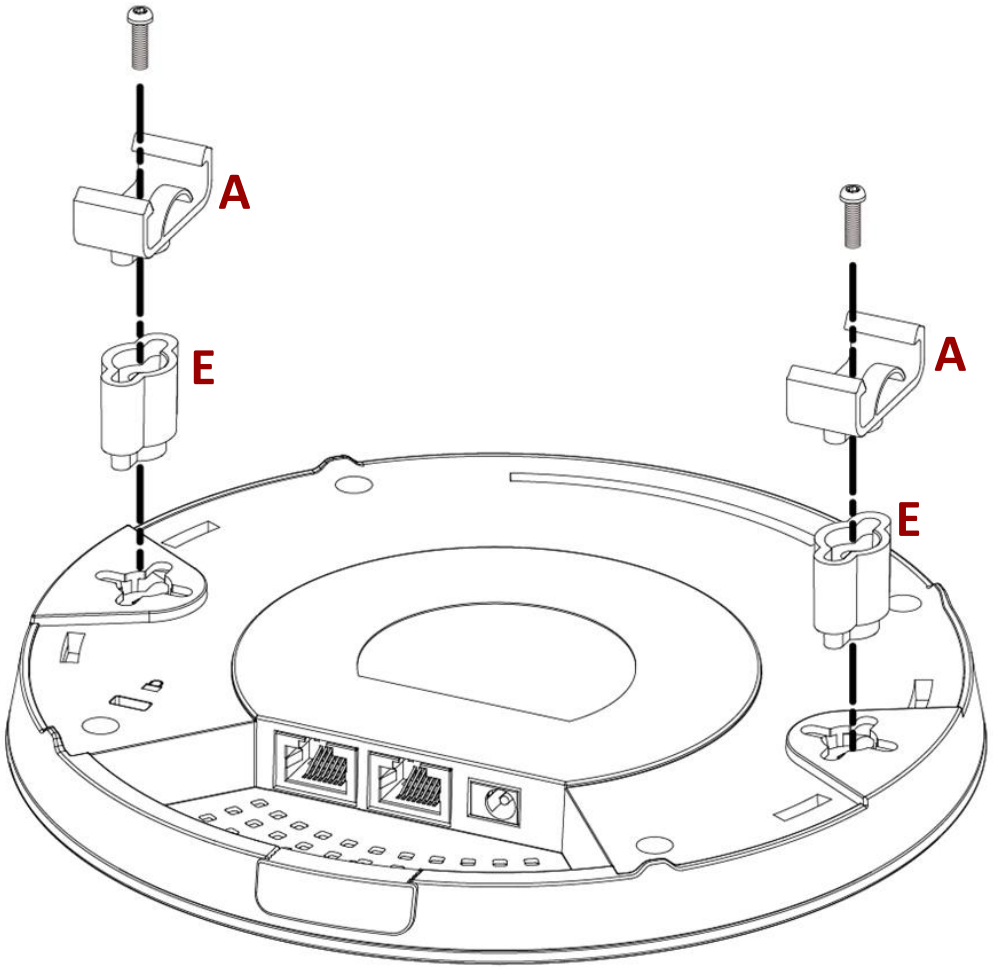


1. Select the correct size T-Rail bracket included in the package contents.

2. Attach the selected T-Rail brackets **A** to holes **B** using bracket fixing screws **C**.

3. Clip the device onto the T-Rail **D** using the now attached T-Rail brackets **A**.

If you need more space between the device and the T-Rail, additional cushion bracket E can be added between T-Rail brackets A and holes B (use the longer screws included).



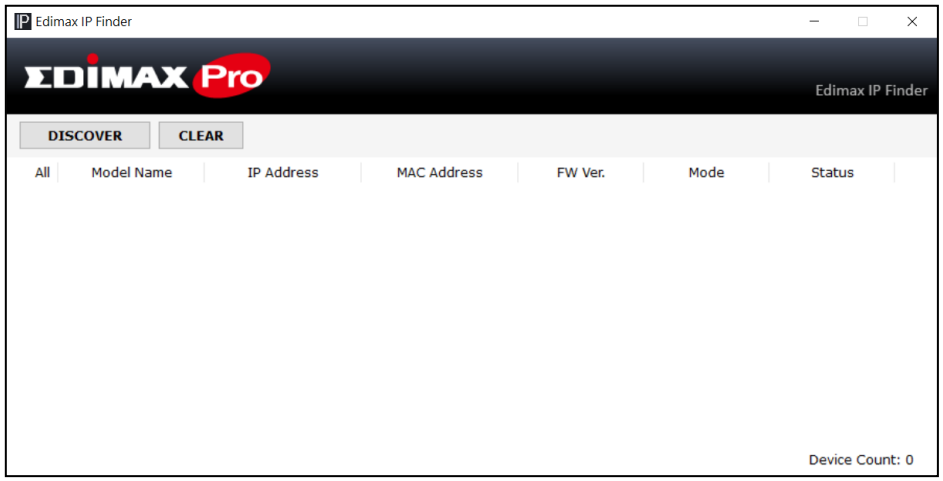
VI Replacing Master AP

NOTE: there can only be ***ONE*** Master AP inside your network. Use this procedure only if your master AP is down and need a replacement.

This section will be a step-by-step procedure guiding you through replacing the original Master AP, where you will be upgrading to the Master AP's firmware, followed by recovering previously saved system settings.
Please make sure you have:

- **The Master AP firmware (downloadable from Edimax website)**
- **The Master AP's settings (backed up from the system on a regular basis)**

1. Open the "EdimaxCloudDiscoveryTool":

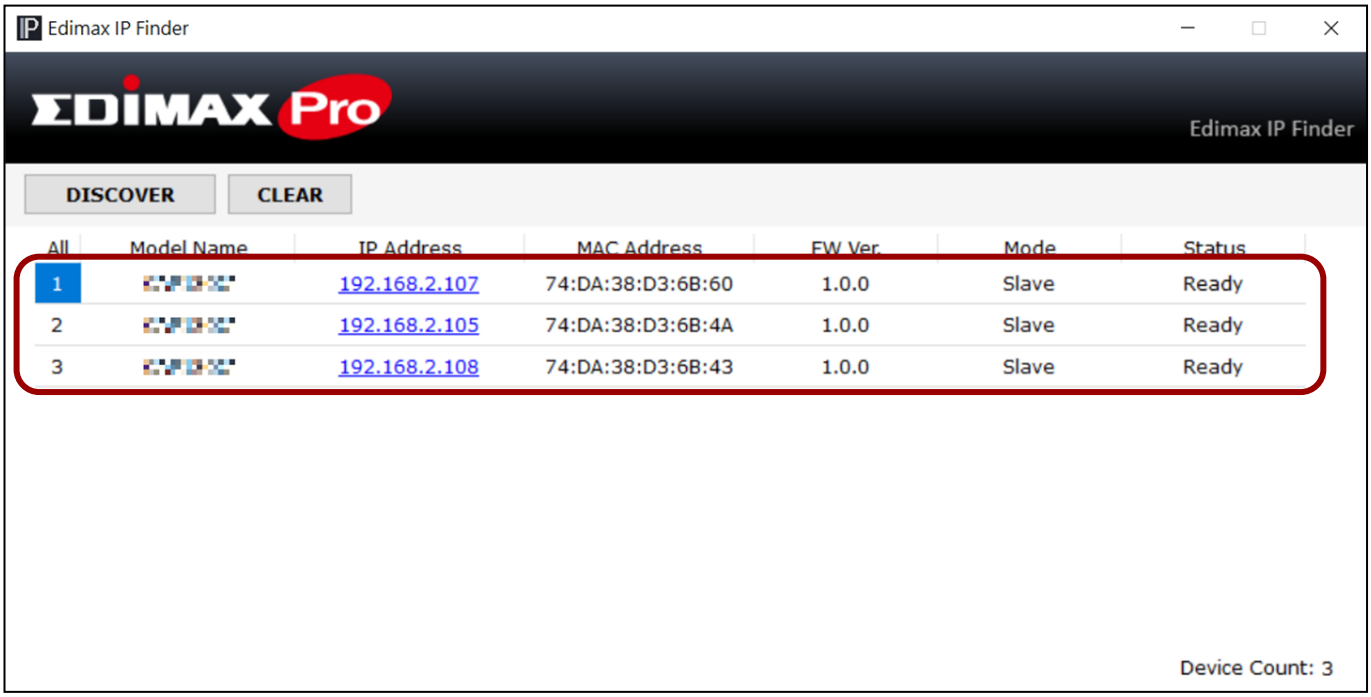


Reminder:
Download and Install the Edimax Cloud Discovery Tool (IP Finder) on your computer from the link below:

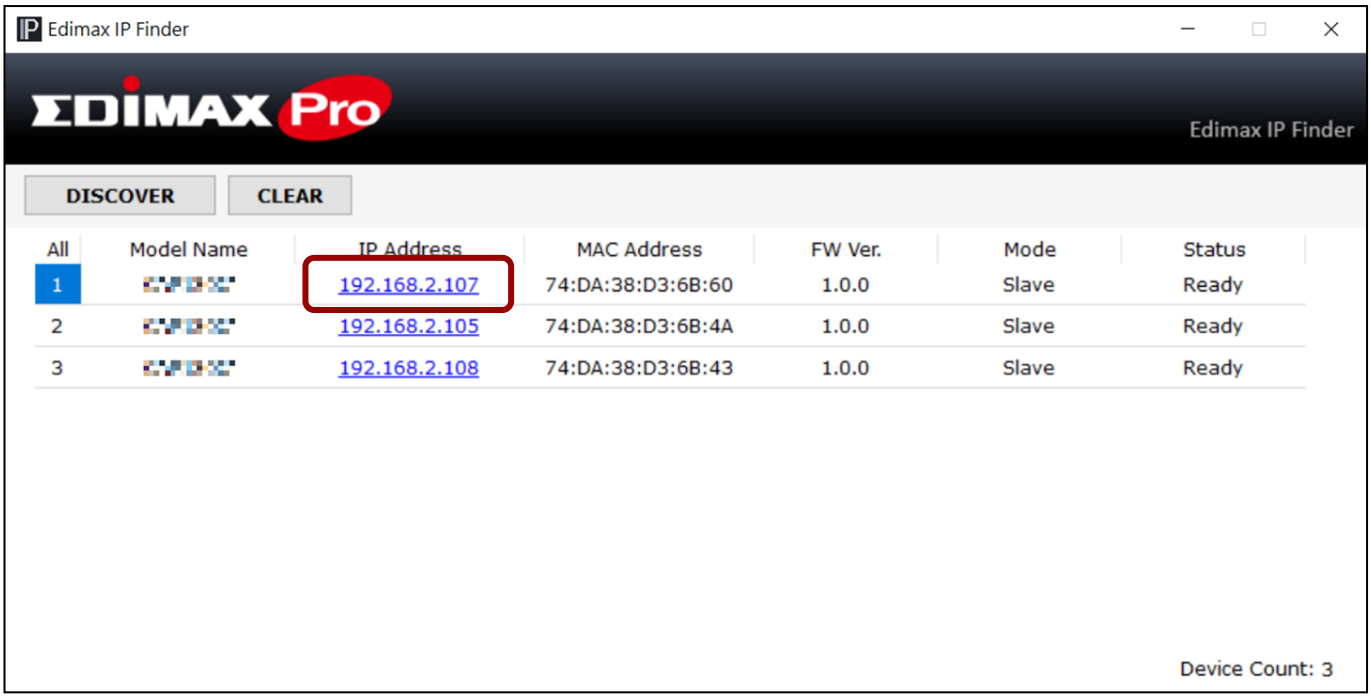
www.edimax.com/edimax_pro/download/IPfinder

If you are unable to open the IP Finder Tool, please refer to the included IP Finder document in the Office 1-2-3 Kit Box or III-1 ***Initial Setup – Computer***.

2. Locate your Office +1 AP by clicking “Discover” DISCOVER on the IP finder.

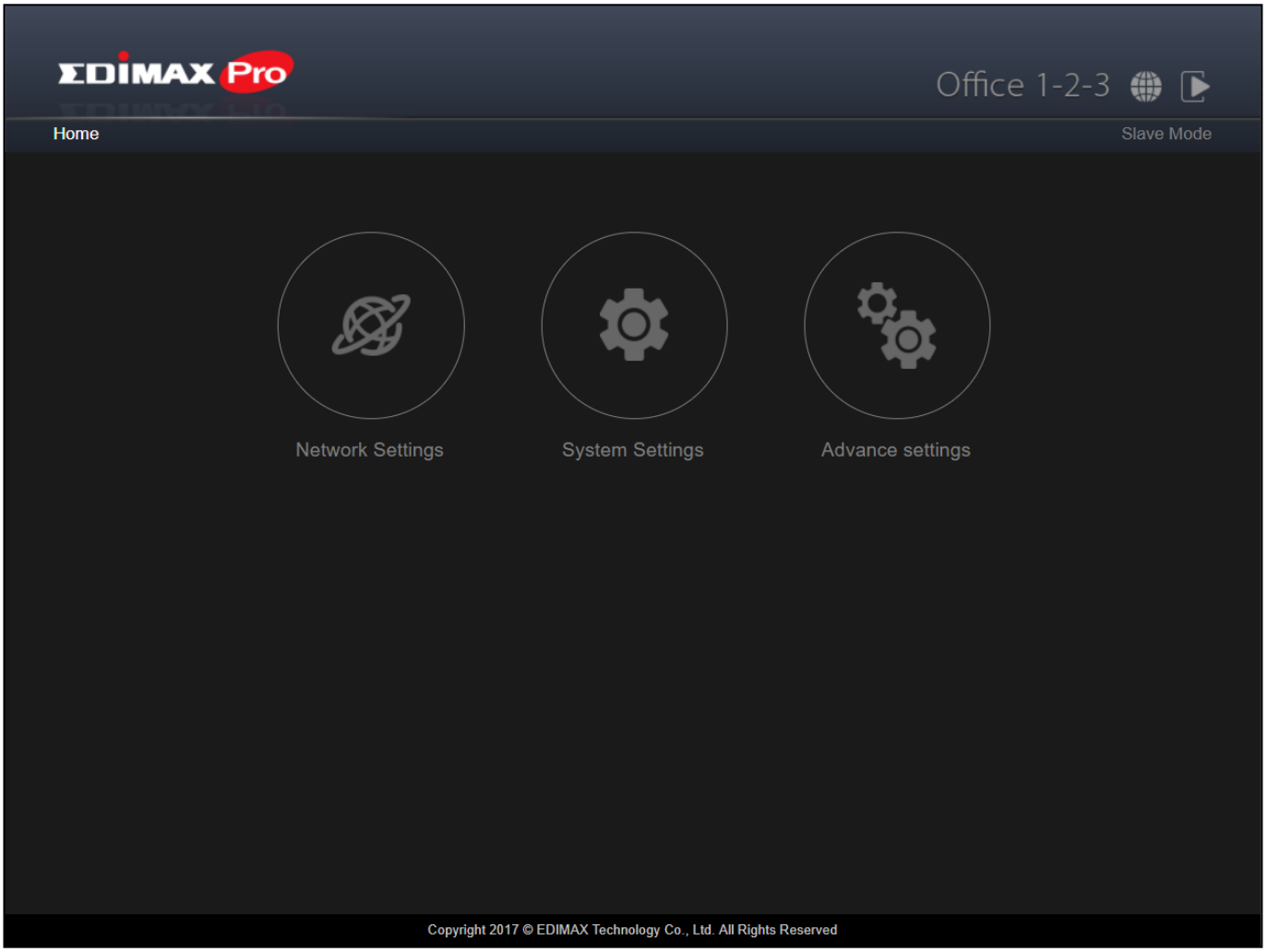


3. Click the IP address of the access point designated to be the master AP and go into the web user interface.

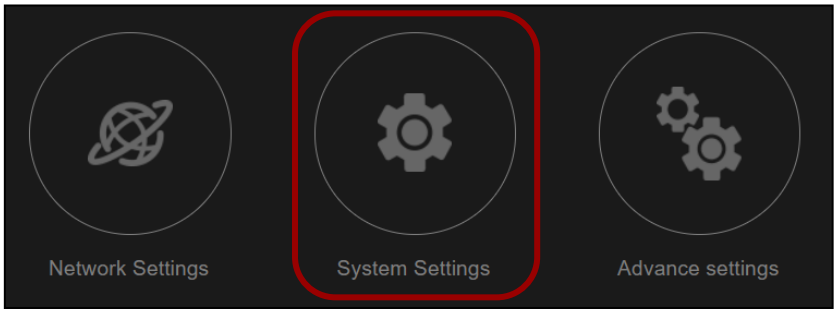


Upon entering the webpage, you should be prompted to enter the username and password, enter them (default username: **admin**, password: **1234**) to proceed:

The web user interface is shown below:



4. Click on “System Settings” icon.



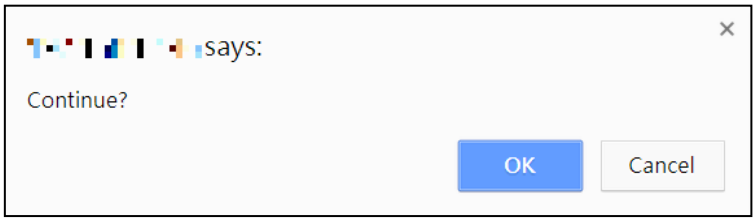
Upgrading Firmware

5. Scroll down to the bottom of the page to find “Firmware Upgrade”.

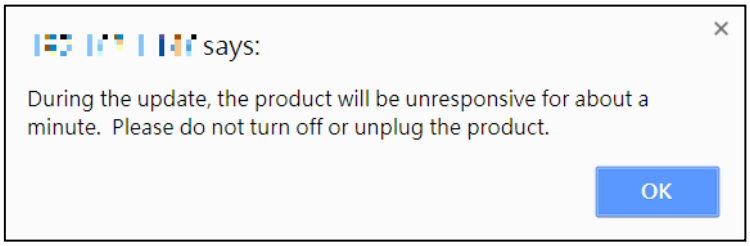
If you haven’t already, please go to the URL link below to download the newest Master firmware:
www.edimax.com/edimax_pro/download/Office1-2-3
Locate the Master firmware and click on the download icon to download.

6. Click “Choose File” to select the master firmware file.

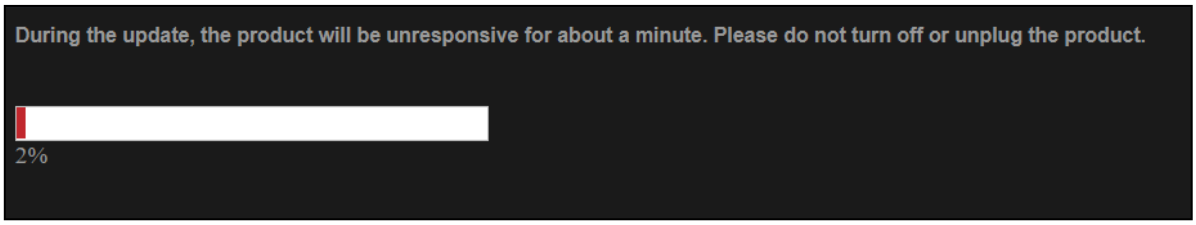
7. Click “Update” to update the unit to the master firmware version. The system will ask you whether to continue, click “OK”.



A reminder message will be displayed, click “OK” to continue.

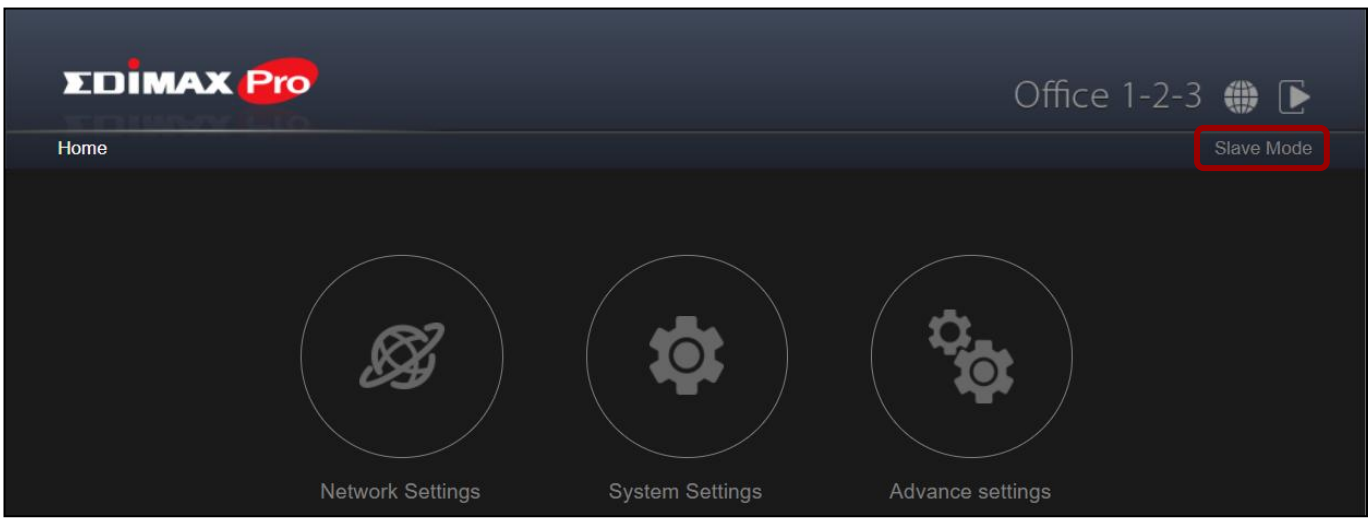


The system will be updating, please wait…

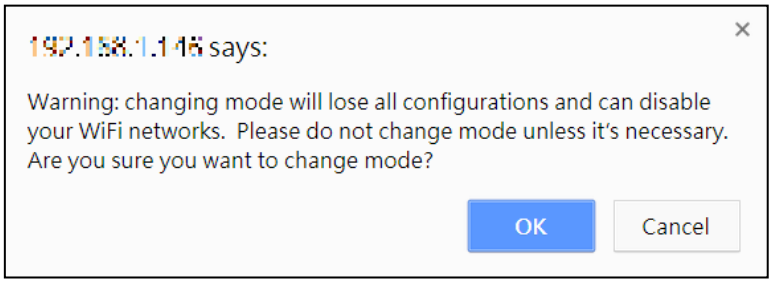


8. After the firmware upgrade, the system will prompt you to enter the username and password, enter them (default username: **admin**, password: **1234**) to proceed:

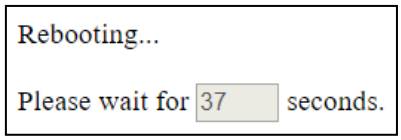
9. The system is still in slave mode, click on the outlined “Slave Mode” icon and click “Master Mode”:



More system message will be displayed, click “OK” to continue”

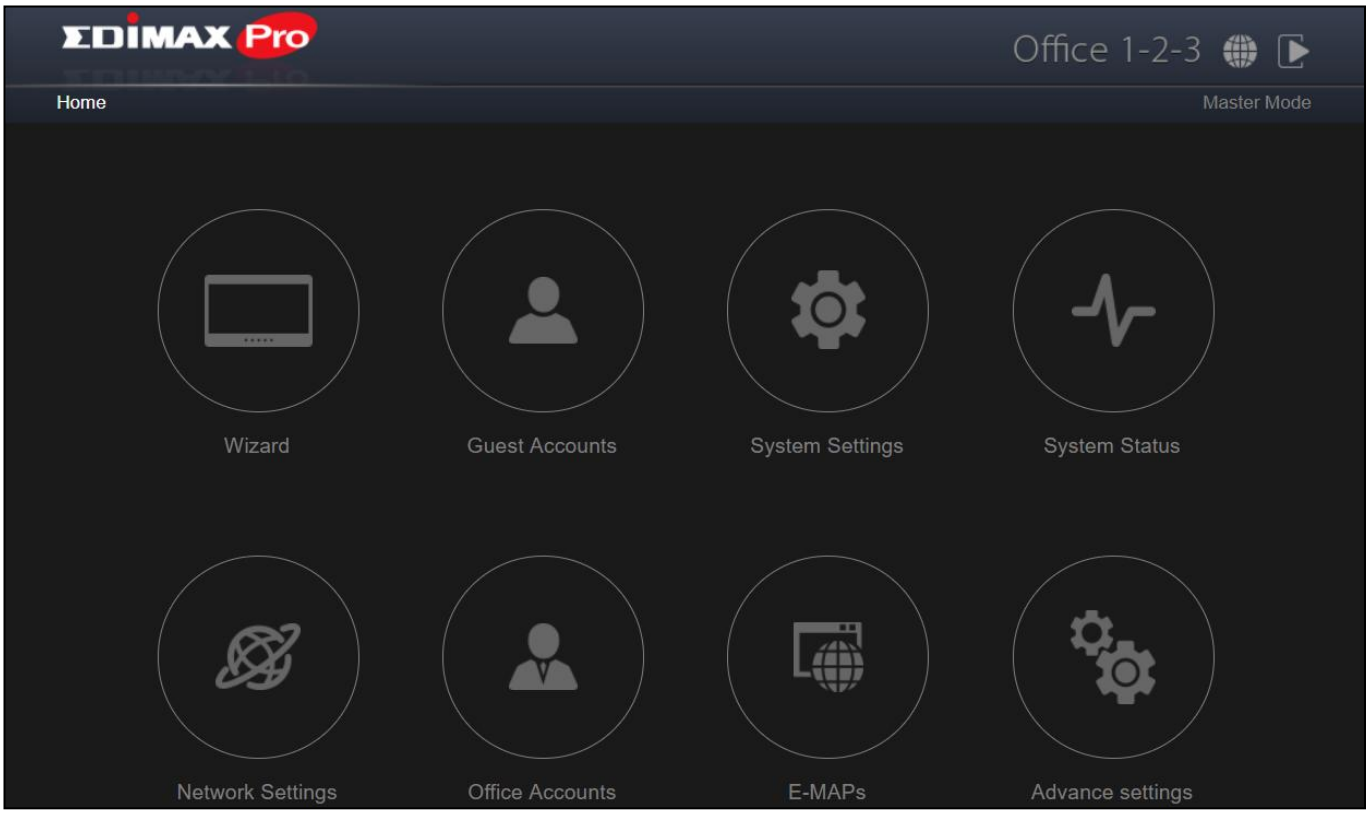


The system is now rebooting, please wait…

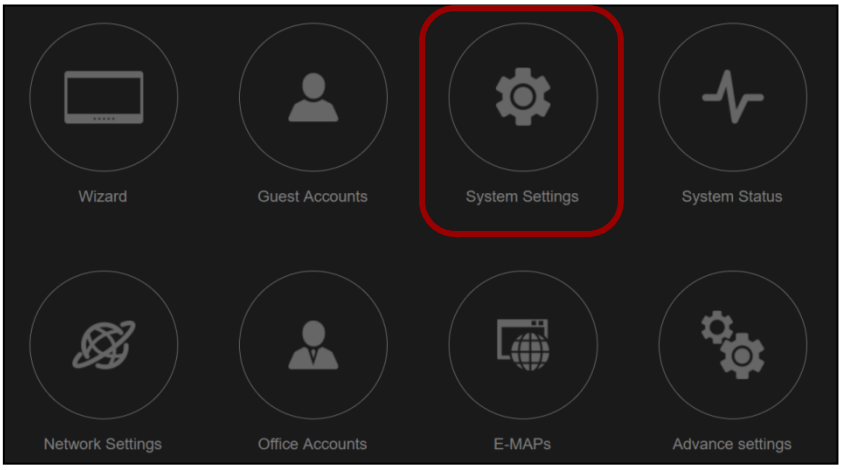


10. After the firmware upgrade, the system will prompt you to enter the username and password again, enter them (default username: **admin**, password: **1234**) to proceed:

The Master AP web user interface will be displayed:

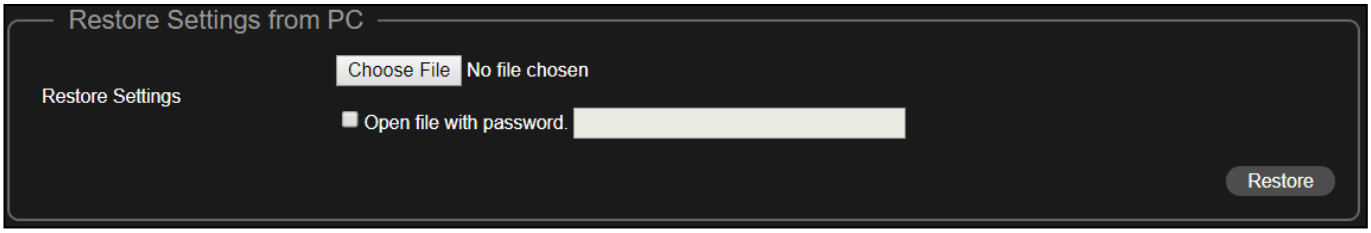


11. Click on “System Settings” icon.



Restore Previous Settings

12. Scroll down to find “Firmware Upgrade”.



13. Click the “Choose File” button to find a previously saved settings file on your computer.

14. Click “Restore” to replace your current settings.

If your settings file is encrypted with a password, check the “Open file with password” box and enter the password in the following field.

The system will show that restoring the settings is complete and is rebooting:

Congratulations! You have successfully replaced the previous Master AP!

VII Office 1-2-3 Interface

Office 1-2-3 offers friendly interface that are easy to use and intuitive for administrators.

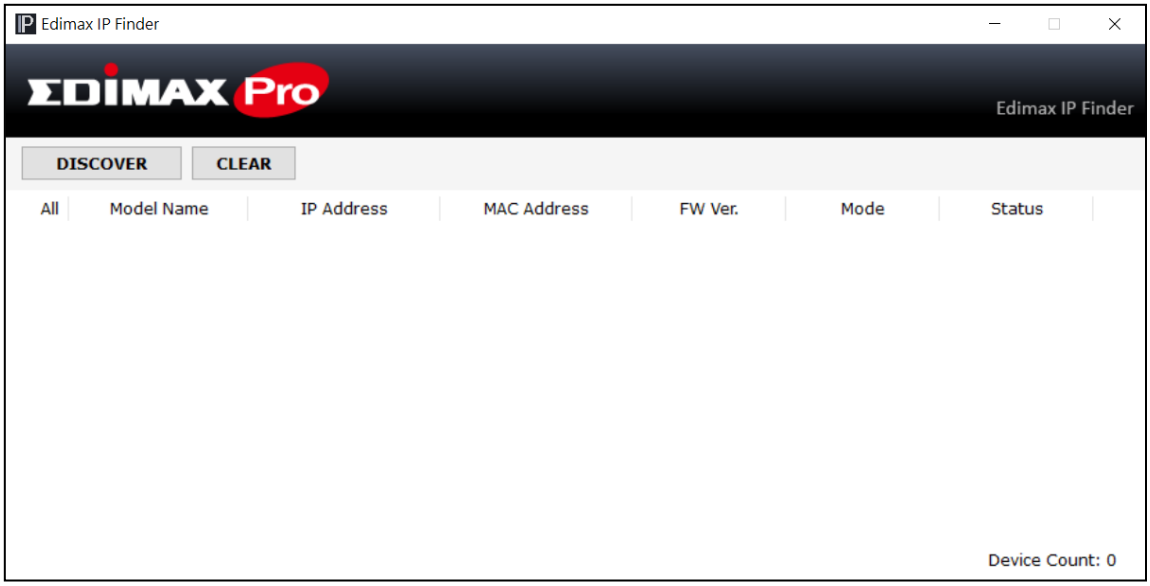
VII-1 IP Finder

IP Finder is a tool to help you discover Office 1-2-3 Access Points currently connected to your network. It will display the Access Points' *IP Addresses*, *MAC Addresses*, *Firmware Version*, *Current Mode* and *Current Status*.

- Download and Install the Edimax Cloud Discovery Tool (IP Finder) on your computer from the link below:

  www.edimax.com/edimax_pro/download/IPfinder

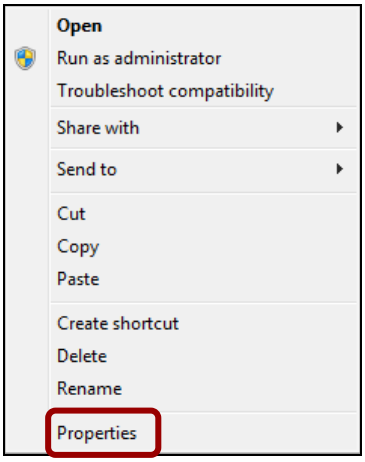
- Once downloaded, double-click the file to open the tool. The finder interface is as shown below:



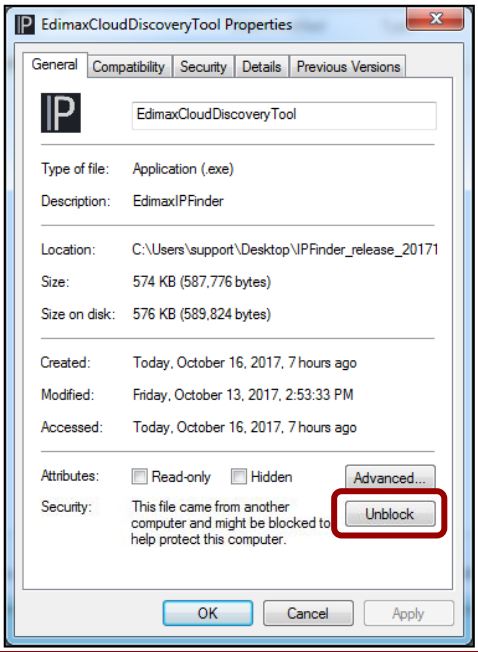
Unable to open IP Finder Tool

If you were unable to open the IP Finder Tool, it may be because the antivirus on your system is blocking it. To unblock, please see below:

1. Right-click on the IP Finder tool and click "Properties"

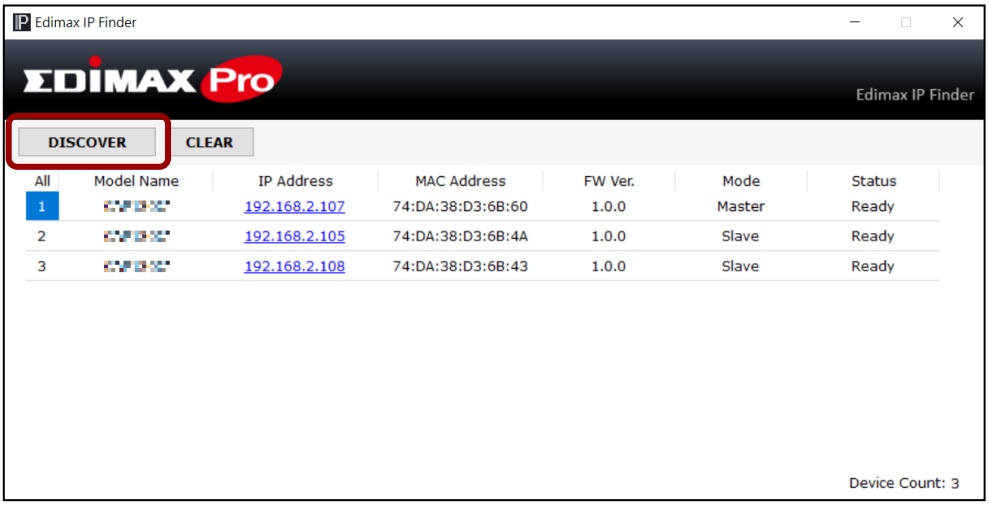


2. Locate "Security" at the bottom of the window. Click the **Unblock** button.



Discover

Clicking the DISCOVER button will display all Access Points in your network.

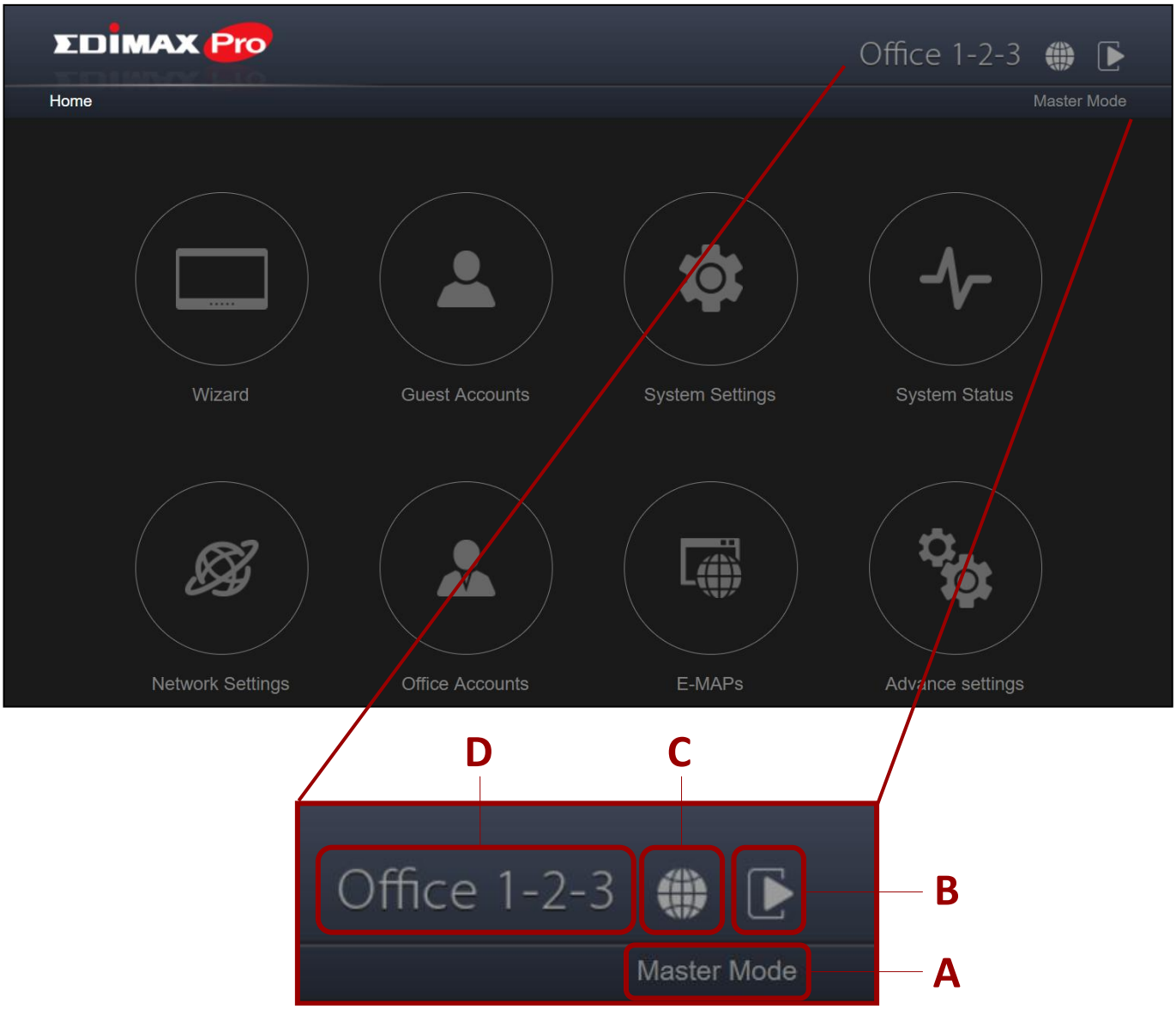


Enter Office 1-2-3 Setup Page

Clicking on the IP Address of an Access Point allows you to go into its setup page.

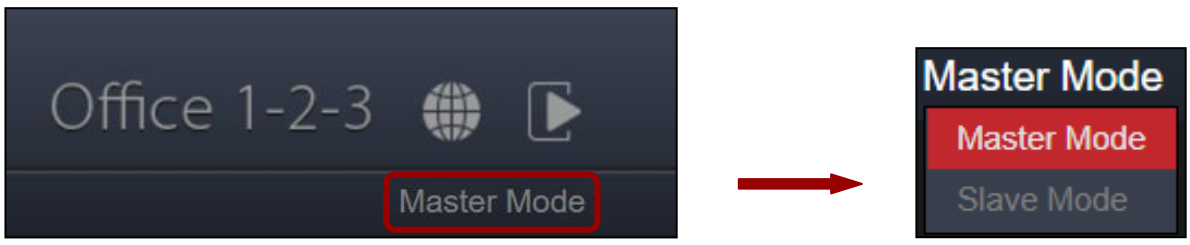
VII-2 Home

This is the dashboard or home of the Office 1-2-3 interface.



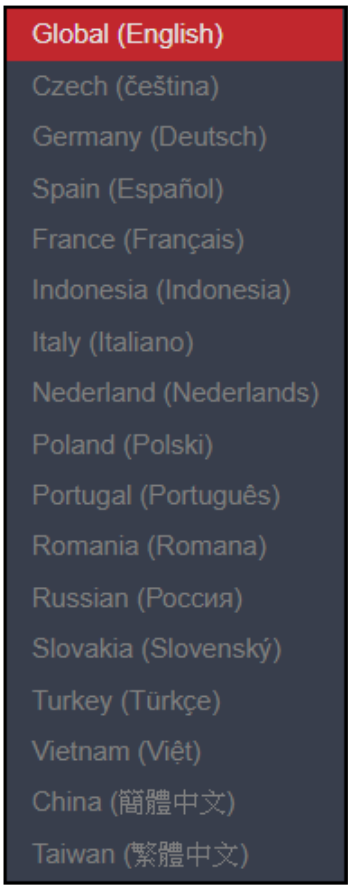
To ***select the mode*** of the access point, click **A** and select the mode:

NOTE: You can change between master and slave modes at will by clicking the current mode (outlined area below). It is, however, not recommended except for the recovery of master AP.



To ***log out*** of the web user interface, click  (or **B**).

To select a different ***language***, click  (or **C**) and select the language of the interface:



If you wish to return to this home page during any of the navigation through the interface, click  (or **D**) to ***return home***.

VII-3 Wizard

Click the “Wizard” icon to go through the setup wizard of office 1-2-3. Refer to III-3 ***Setup Wizard*** on the setup process.

VII-4 Navigation

When using the user interface, navigation can also be achieved by selecting the navigation icons on the left, as demonstrated below:

Wizard

Network Settings

Guest Accounts

Office Accounts

System Settings

E-Maps

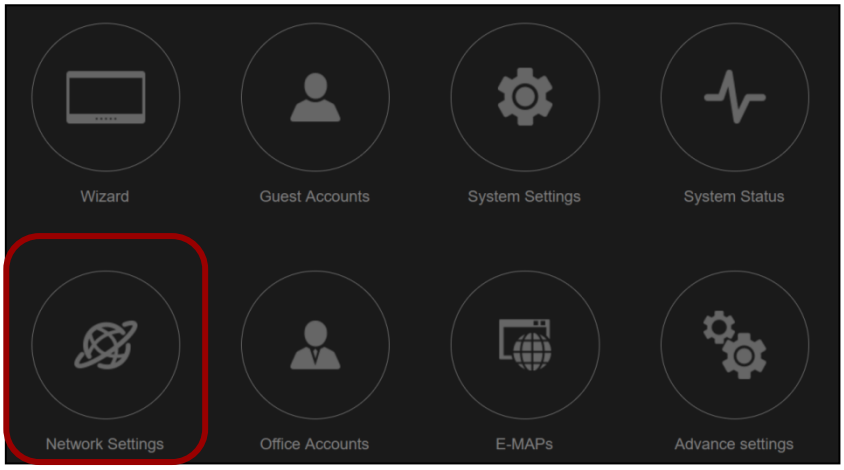
System Status

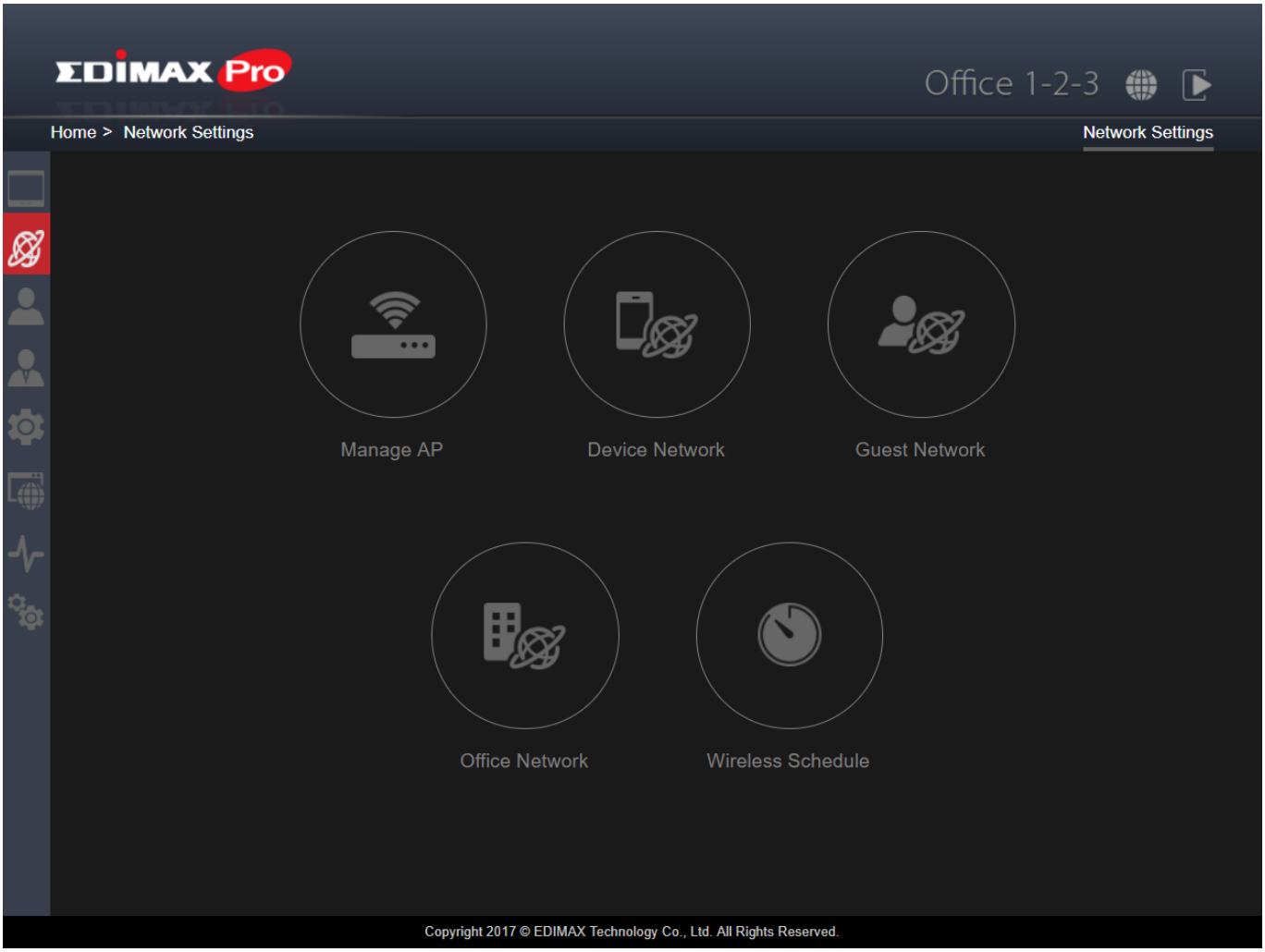
Advanced Settings

VII-5 Network Settings

This is the general **network** settings of your Office 1-2-3 system. You can *Manage APs*, *Manage AP group*, configure *Office Network*, *Device Network*, *Guest Network* and setup a *Wireless Schedule* for your system.

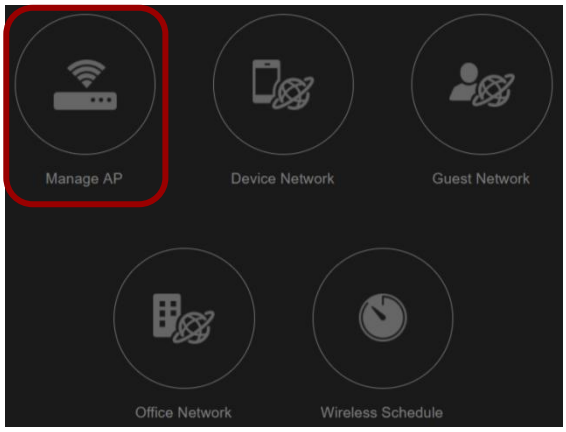
Click the “Network Settings” icon.

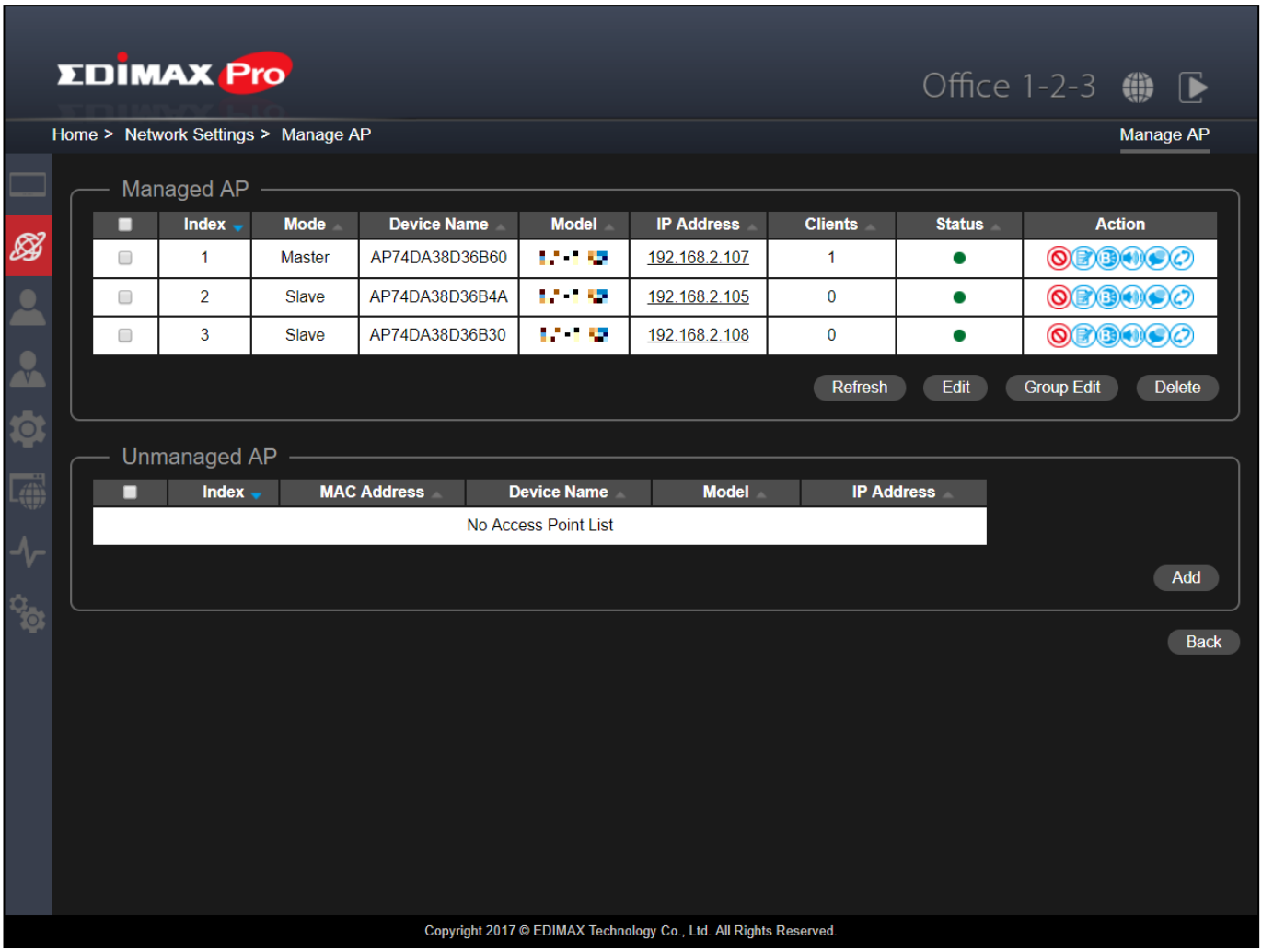




VII-5-1 Manage AP

Click the “Manage AP” icon.





This page displays information about each Managed AP in the local network: *Index (reference number), Mode, Device Name (MAC Address), Model, IP Address, No. of Clients connected to each access point, Status,* and *Actions.*

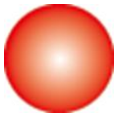
Click the “Refresh” button to refresh the managed AP list.

Click the “Edit” button to edit the checked AP’s settings (see ***Edit*** below).

Click the “Group Edit” button to edit the group settings (see ***Group Edit*** below).

Click the “Delete” button to delete the checked AP(s).

The **Status** icon displays the status of each Managed AP.

Status Icons			
Icon	**Color**	**Status**	**Definition**
	Grey	Disconnected	Managed AP is disconnected. *Please check the network connection and ensure the Managed AP is in the same IP subnet as the Master AP.*
	Red	Authentication Failed Or Incompatible AP Version	System security must be the same for all access points in the AP array. *Please check security settings.* All access points must have the same firmware version. *Please use the Master AP’s firmware upgrade function*.
	Orange	Configuring or Upgrading	*Please wait while the Managed AP makes configurations or while the firmware is upgrading.*
	Yellow	Connecting	*Please wait while the Managed AP is connecting.*
	Green	Connected	*Managed AP is connected.*
	Blue	Waiting for Approval	Managed AP is waiting for approval. *Note: Up to 7 Managed APs are supported. Additional APs will have this status until an existing Managed AP is removed.*

Each Managed AP has “**Action**” icons with the following functions:

1. **Disallow**
   Remove the Managed AP from the AP array and disable connectivity.

2. **Edit**
   Edit various settings for the Managed AP (see ***Edit*** below).

3. **Blink LED**
   The Managed AP’s LED will flash temporarily to help identify & locate access points.

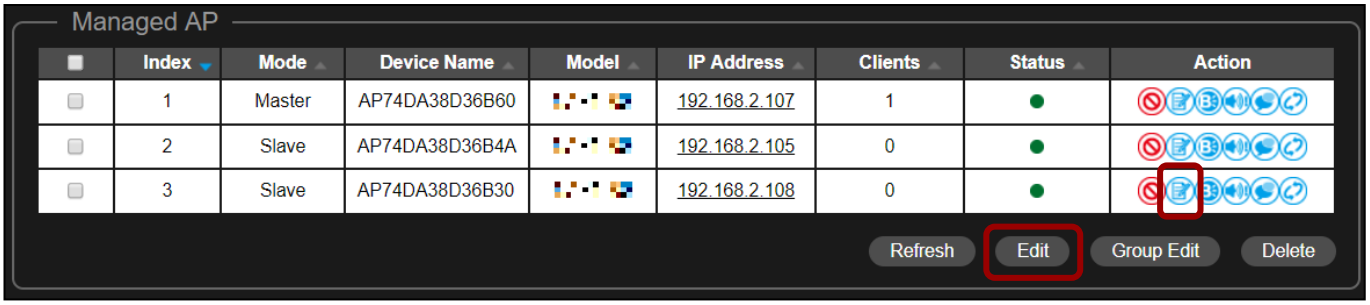
4. **Buzzer**
   The Managed AP’s buzzer will sound temporarily to help identify & locate access points.

5. **Network Connectivity**
   Go to the “Network Connectivity” panel to perform a ping or traceroute.

6. **Restart**
   Restarts the Managed AP.

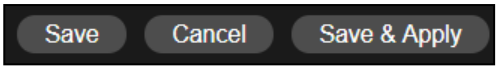
VII-5-1-1 Edit Managed AP

To Edit a managed AP, either **1)** check the checkbox of said AP, and click the "Edit" button;



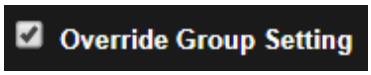
Or **2)** click the  Edit icon.

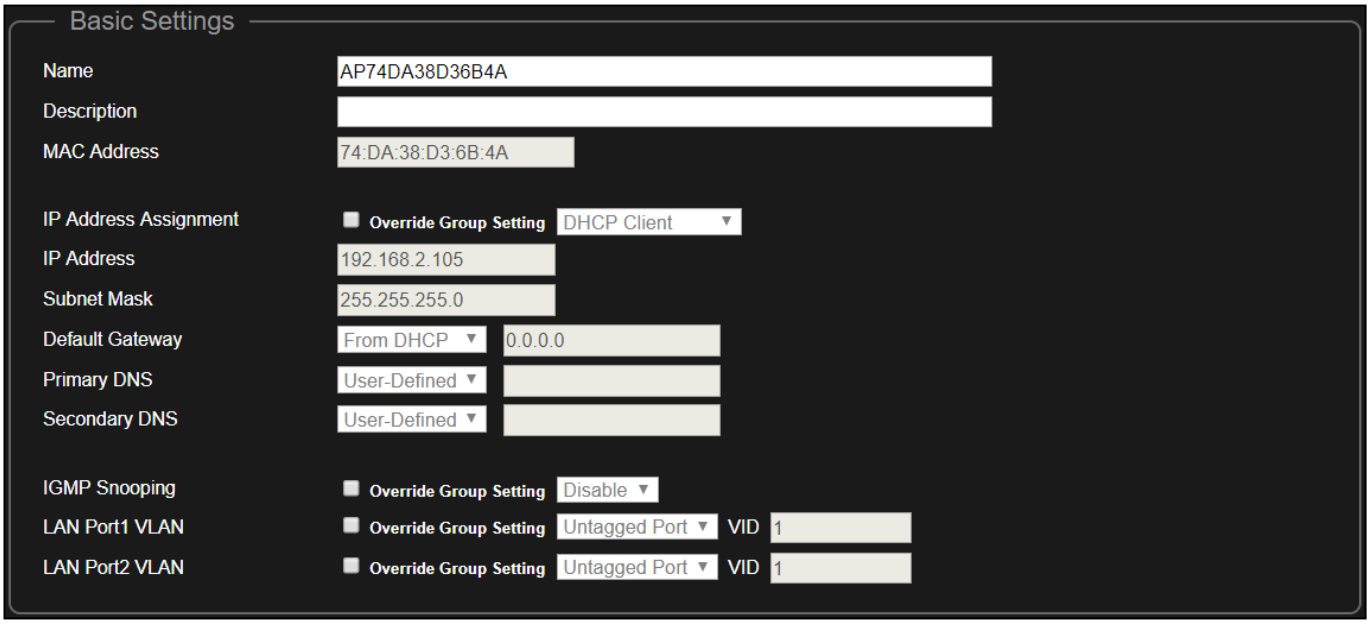
Click "Save" to save the settings. Click "Cancel" to forfeit the changes. Click "Save and Apply" to save and apply the settings.



VII-5-1-1-1 Basic Settings

If the AP is a member of an AP Group and you wish to use a different setting than the AP Group setting, check "**Override Group Setting**" for the options / fields to turn white to allow adjustments.



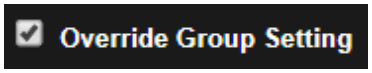


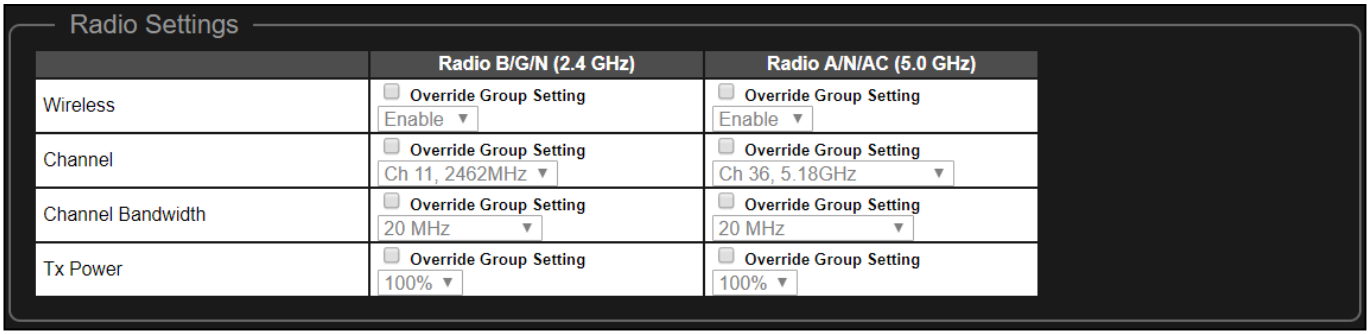
Basic Settings	
Name	Edit the access point name. The default name is AP + MAC address.
Description	Enter a description of the access point for reference e.g. 2nd Floor Office.
MAC Address	Displays MAC address.
IP Address Assignment	"DHCP Client" or "Static IP Address" are the two options. Select "DHCP Client" for automatic assignment of a dynamic IP address from your router's DHCP server. Select "Static IP Address" to manually specify a static/fixed IP address for your access point.
IP Address	If "Static IP Address" is selected in the option above, specify an IP address in the field. This IP address will be assigned to your access point and will replace the default IP address. If "DHCP Client" is selected, no entry will be required.
Subnet Mask	If "Static IP Address" is selected in the option above, specify a subnet mask. The default value is 255.255.255.0. If "DHCP Client" is selected, no entry will be required.
Default Gateway	For DHCP users, select "From DHCP" to get default gateway from your DHCP server or "User-Defined" to enter a gateway manually. For static IP users, the default value is blank. DHCP users can select "From DHCP" to get default gateway from DHCP. No entry will be required. Select "User-Defined" to manually enter a value. If "Static IP Address" is selected in the option above, enter a value in the field that follows.
Primary DNS	DHCP users can select "From DHCP" to get primary DNS server's IP address from DHCP. No entry will be required. Select "User-Defined" to manually enter a value. If "Static IP Address" is selected in the option above, enter a value in the field that follows.
Secondary DNS	DHCP users can select "From DHCP" to get secondary DNS server's IP address from DHCP. No entry will be required. Select "User-Defined" to manually enter a value. If "Static IP Address" is selected in the option above, enter a value in the field that follows.

IGMP Snooping	Enable / Disable the IGMP Snooping function. IGMP snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic.

VII-5-1-1-2 Radio Settings

Check "**Override Group Setting**" for options/fields to turn white to allow adjustments.



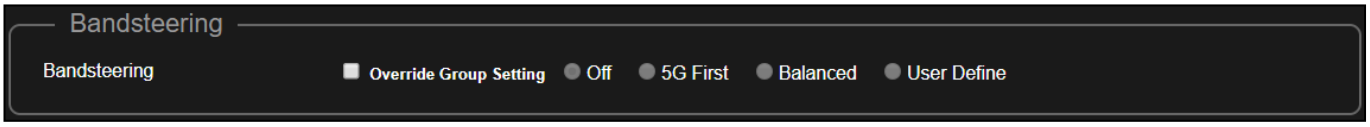


Radio Settings	
Wireless	Enable or disable the access point's 2.4GHz or 5GHz wireless radio. When disabled, no SSIDs on that frequency will be active.
Channel	Select a channel manually.
Channel Bandwidth	Select a channel bandwidth.
Tx Power	Set the power output of the wireless radio. You may not require 100% output power. Setting a lower power output can enhance security since potentially malicious/unknown users in distant areas will not be able to access your signal.

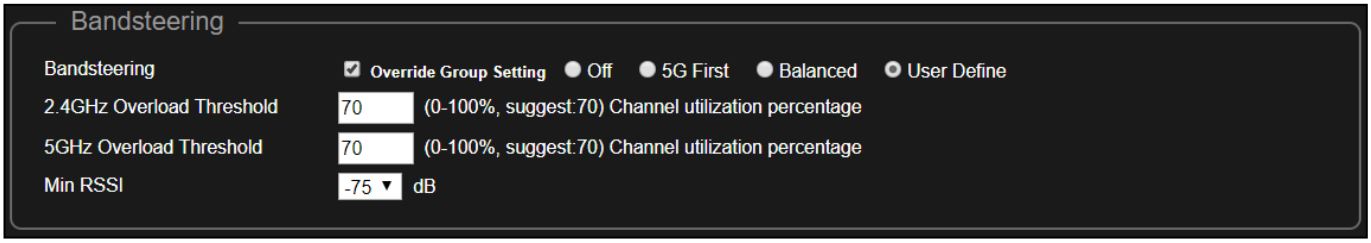
VII-5-1-1-3 Bandsteering

Band steering detects clients capable of 5GHz operation and steers them there to make the more crowded 2.4 GHz band available for clients only capable of connecting to 2.4GHz band. This helps improve end user experience by reducing channel utilization, especially in high density environments.

Check "**Override Group Setting**" for options/fields to turn white to allow adjustments.



If user defined is selected, enter the threshold values and RSSI as desired.



VII-5-1-1-4 Airtime Fairness

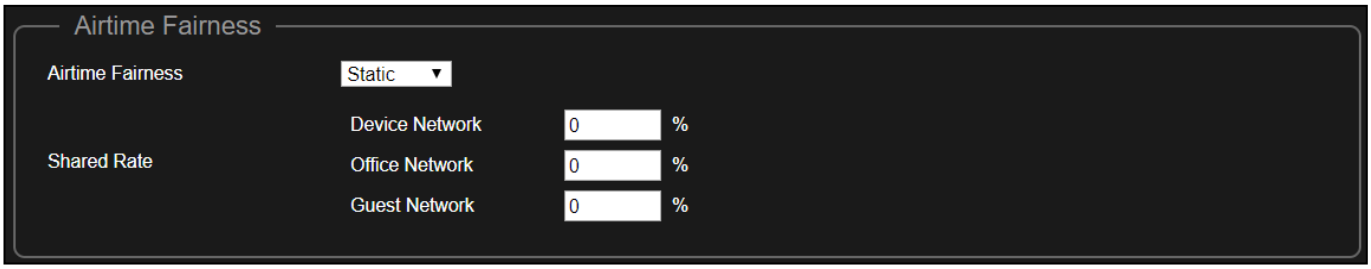
Enable / Disable this function by using the drop down menu.

Enable - Auto

The shared rate is automatically chosen by the system when "Auto" is selected.

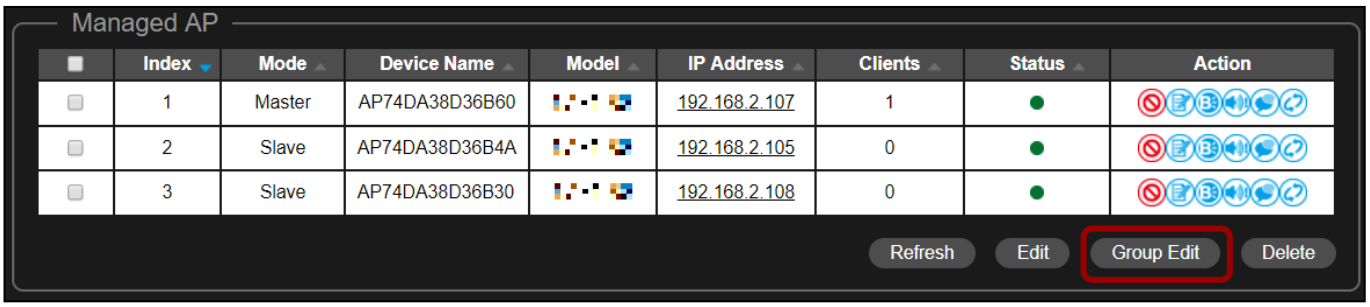
Enable - Static

When “Static” is selected, enter the shared rates of the networks.

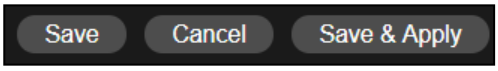


VII-5-1-2 Group Edit Managed AP

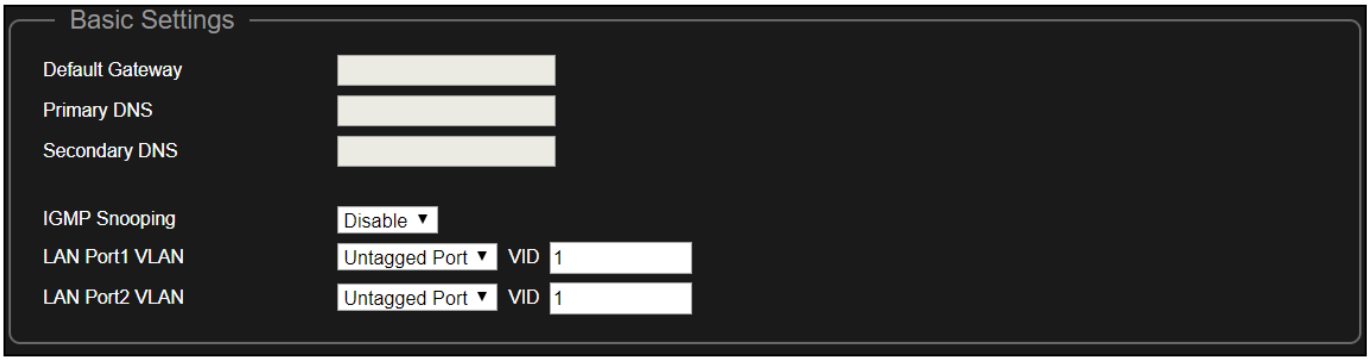
Click the “Group Edit” button to manage the AP group.



Click “Save” to save the settings. Click “Cancel” to forfeit the changes. Click “Save and Apply” to save and apply the settings.



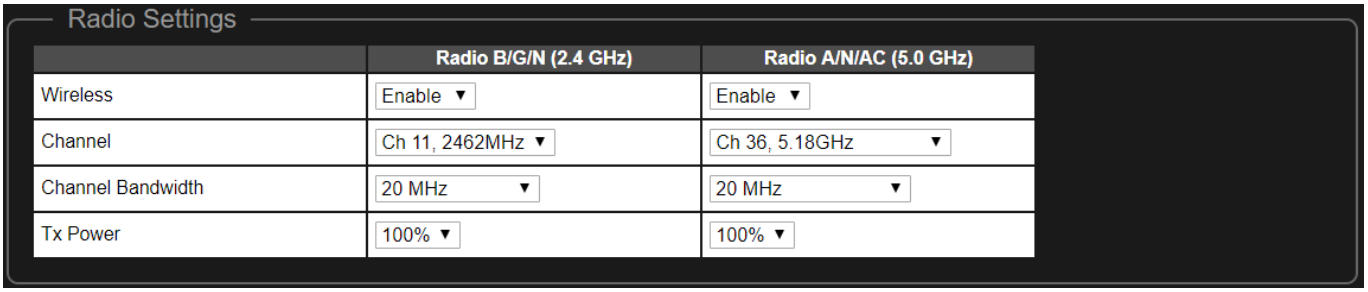
VII-5-1-2-1 Basic Settings



Default Gateway, Primary DNS and Secondary DNS will be assigned by the DHCP Server.

Basic Settings	
IGMP Snooping	Enable / Disable the IGMP Snooping function. IGMP snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic.

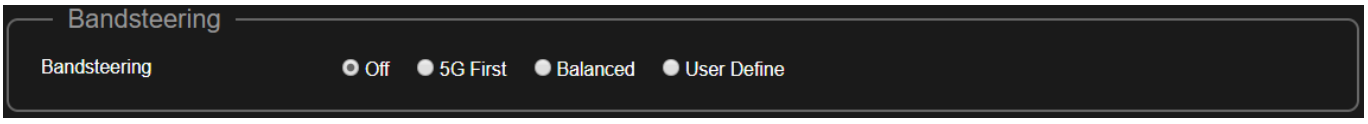
VII-5-1-2-2 Radio Settings



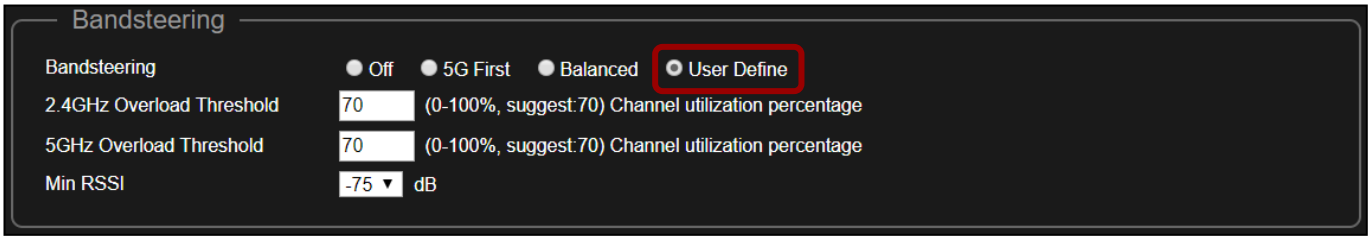
Radio Settings	
Wireless	Enable or disable the access point's 2.4GHz or 5GHz wireless radio. When disabled, no SSIDs on that frequency will be active.
Channel	Select a channel manually.
Channel Bandwidth	Select a channel bandwidth.
Tx Power	Set the power output of the wireless radio. You may not require 100% output power. Setting a lower power output can enhance security since potentially malicious/unknown users in distant areas will not be able to access your signal.

VII-5-1-2-3 Bandsteering

Band steering detects clients capable of 5GHz operation and steers them there to make the more crowded 2.4 GHz band available for clients only capable of connecting to 2.4GHz band.



If "User Defined" is selected, enter the threshold values and RSSI as desired.



VII-5-1-2-4 Airtime Fairness

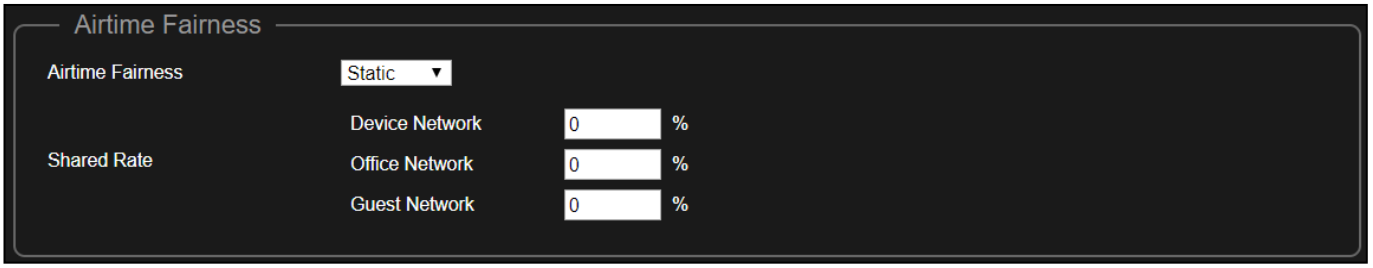
Enable / Disable this function by using the drop down menu.

Enable - Auto

The shared rate is automatically chosen by the system when “Auto” is selected.

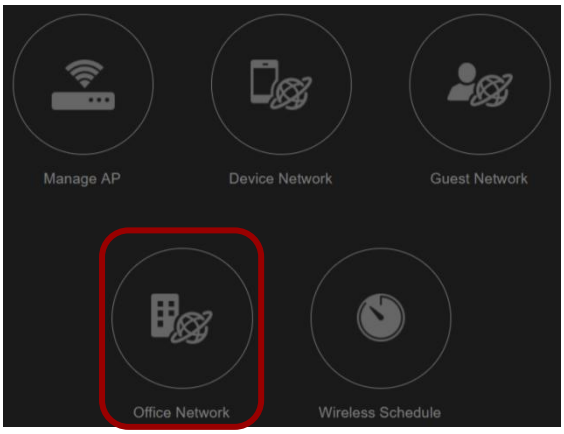
Enable - Static

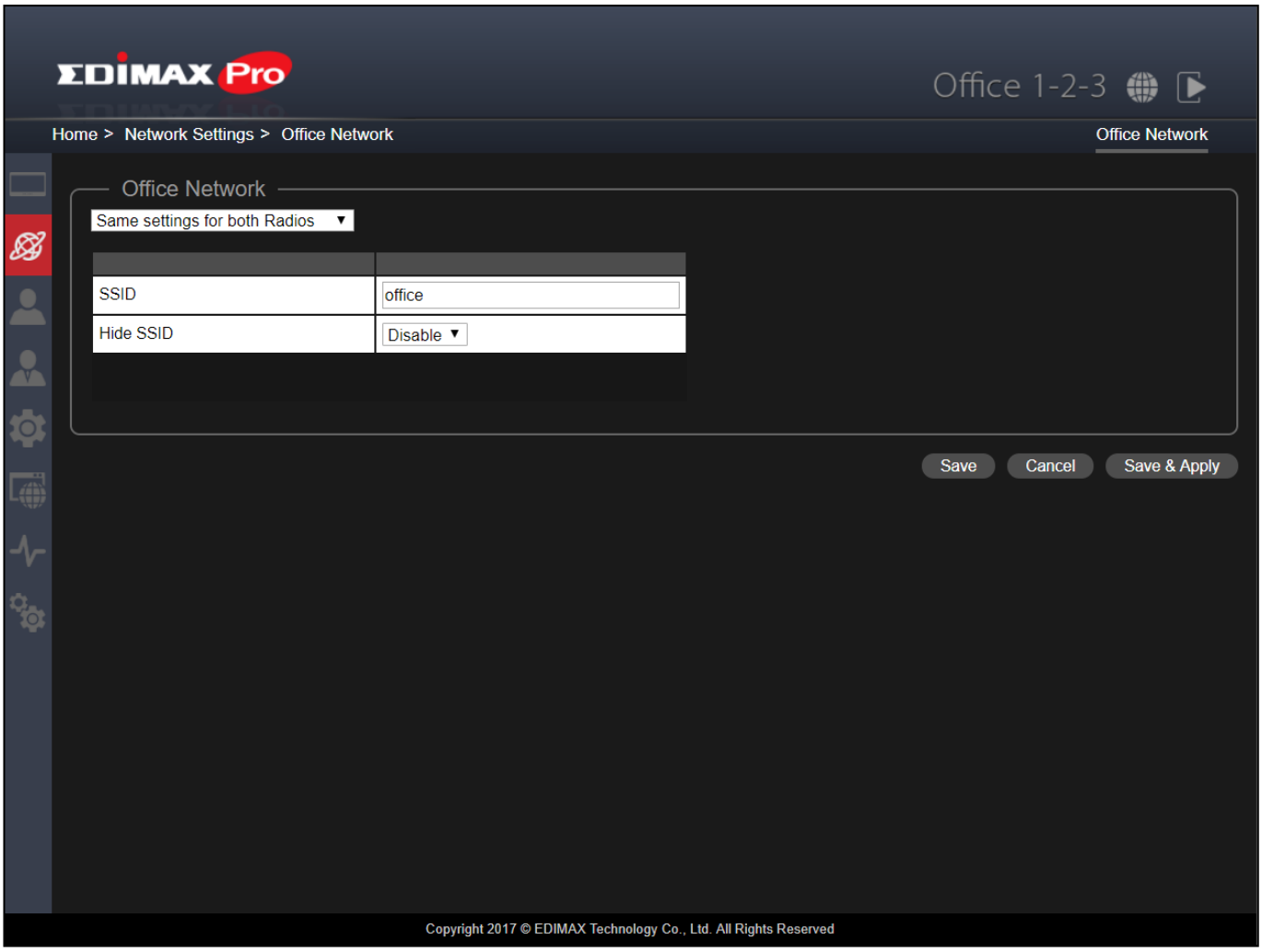
When “Static” is selected, enter the shared rates of the networks.



VII-5-2 Office Network

Click the “Office Network” icon.



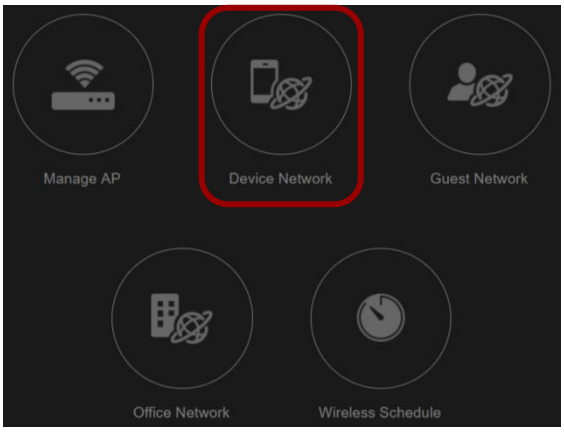


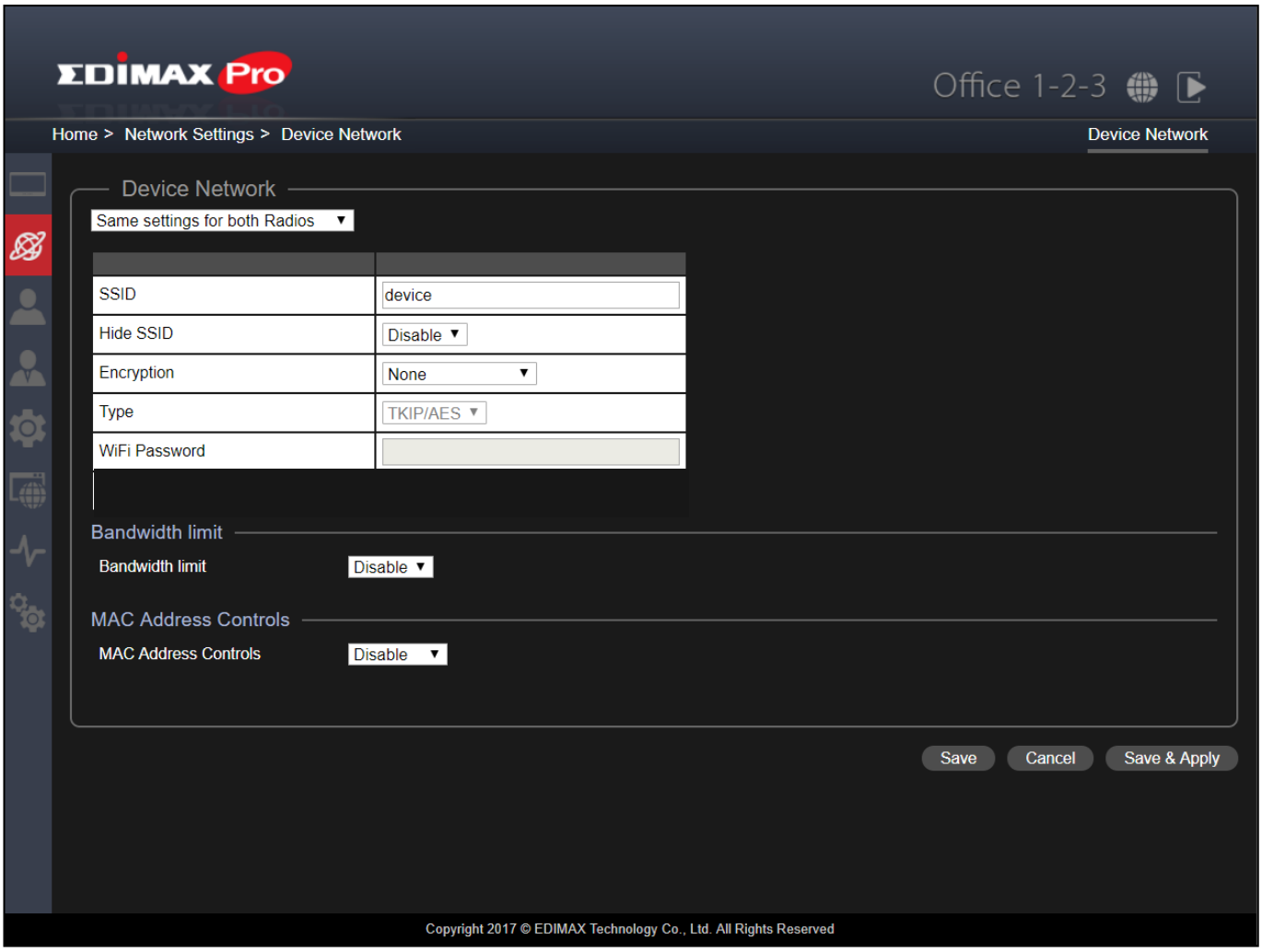
Use the drop down menu to select whether you want “Same settings for both Radios” or “Different settings for each Radio” (“Different settings for each Radio” is displayed).

SSID	Enter an SSID name for the guest network.
Hide SSID	**Enable**: the SSID will be hidden. Clients must manually enter the SSID in order to connect. **Disable**: the SSID will be visible (default)

VII-5-3 Device Network

Click the “Device Network” icon.



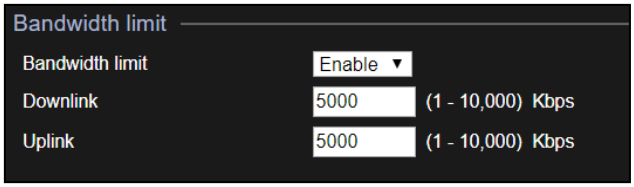


Use the drop down menu to select whether you want “Same settings for both Radios” or “Different settings for each Radio” (“Different settings for each Radio” is displayed).

SSID	Enter an SSID name for the Device network.
Hide SSID	**Enable**: the SSID will be hidden. Clients must manually enter the SSID in order to connect. **Disable**: the SSID will be visible (default)
Encryption	Select from WPA/WPA2-PSK, WPA2-PSK, WPA-PSK or None.
Type	Select “TKIP/AES”, “TKIP” or “AES” encryption type. The “TKIP/AES” is the default encryption type.
WiFi Password	Please enter a Wi-Fi password.

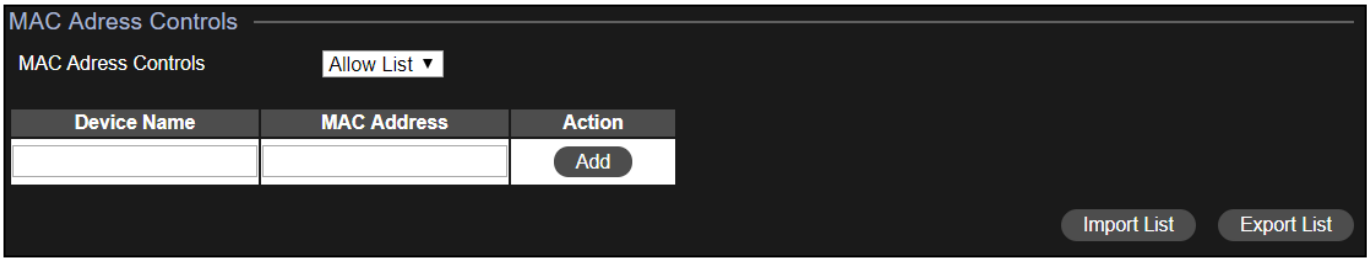
Bandwidth Limit

This function limits the aggregated speed of the entire SSID.
When enabled, Downlink and Uplink fields will become available. Enter a value for each field.



MAC Address Controls

Select “Allow List” from the drop down menu to have an “Allow List”.
Enter the Device Name, MAC Address and click “Add” to add the device into the allow list.



Import List

If you have a previously saved Allow List, click “Import List” to enter the page below:

Click “Choose File”, select the list file (*.csv document format) and click “Upload”.

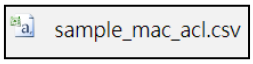
NOTE: Please wait for a few seconds for the upload task.

NOTE: Uploading a new list ***will replace*** the current list. If you wish to keep all listed details, please download your current list, add it to the desired list and upload.

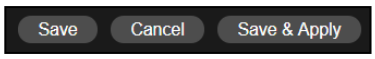
Click “Cancel” to cancel the actions and return to the previous page.

Export List

If you wish to save your current Allow List, click “Export List”. Your browser should prompt you download the list in *.csv document format.
An example is shown below:



Click “Save” to save the settings. Click “Cancel” to forfeit the changes. Click “Save and Apply” to save and apply the settings to the system.



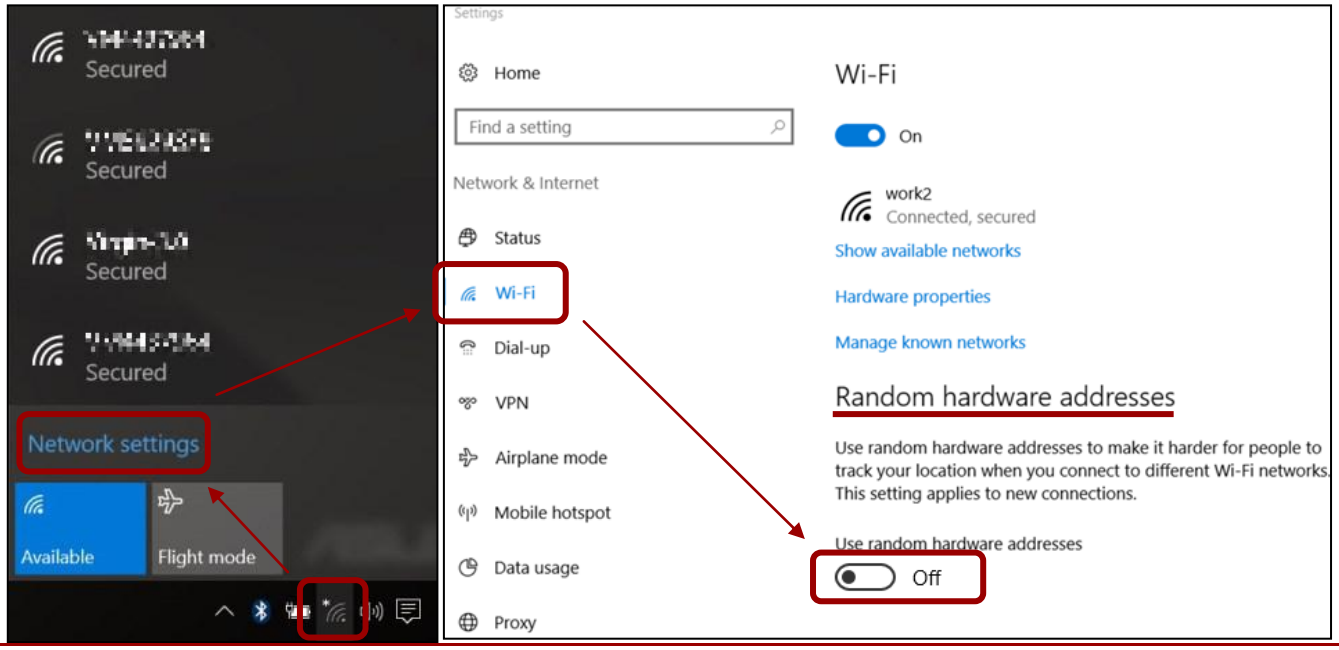
Random Hardware Addresses

For Win 10 users, if you have trouble staying connected to the Device Network, please ***Disable*** the “Random Hardware Addresses” function. Follow the instructions below:

1. Click on the network icon and click “Network Settings”

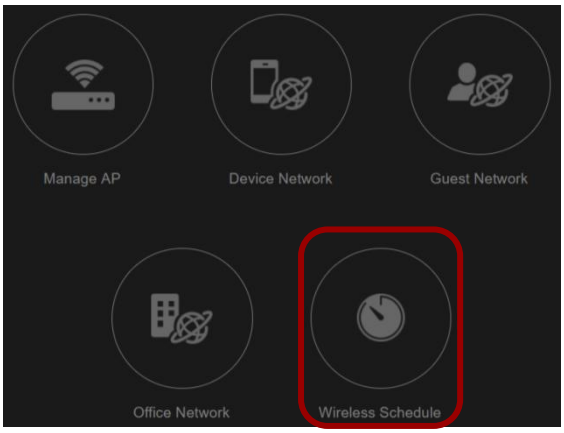
2. Click “Wi-Fi” on the left-side panel.

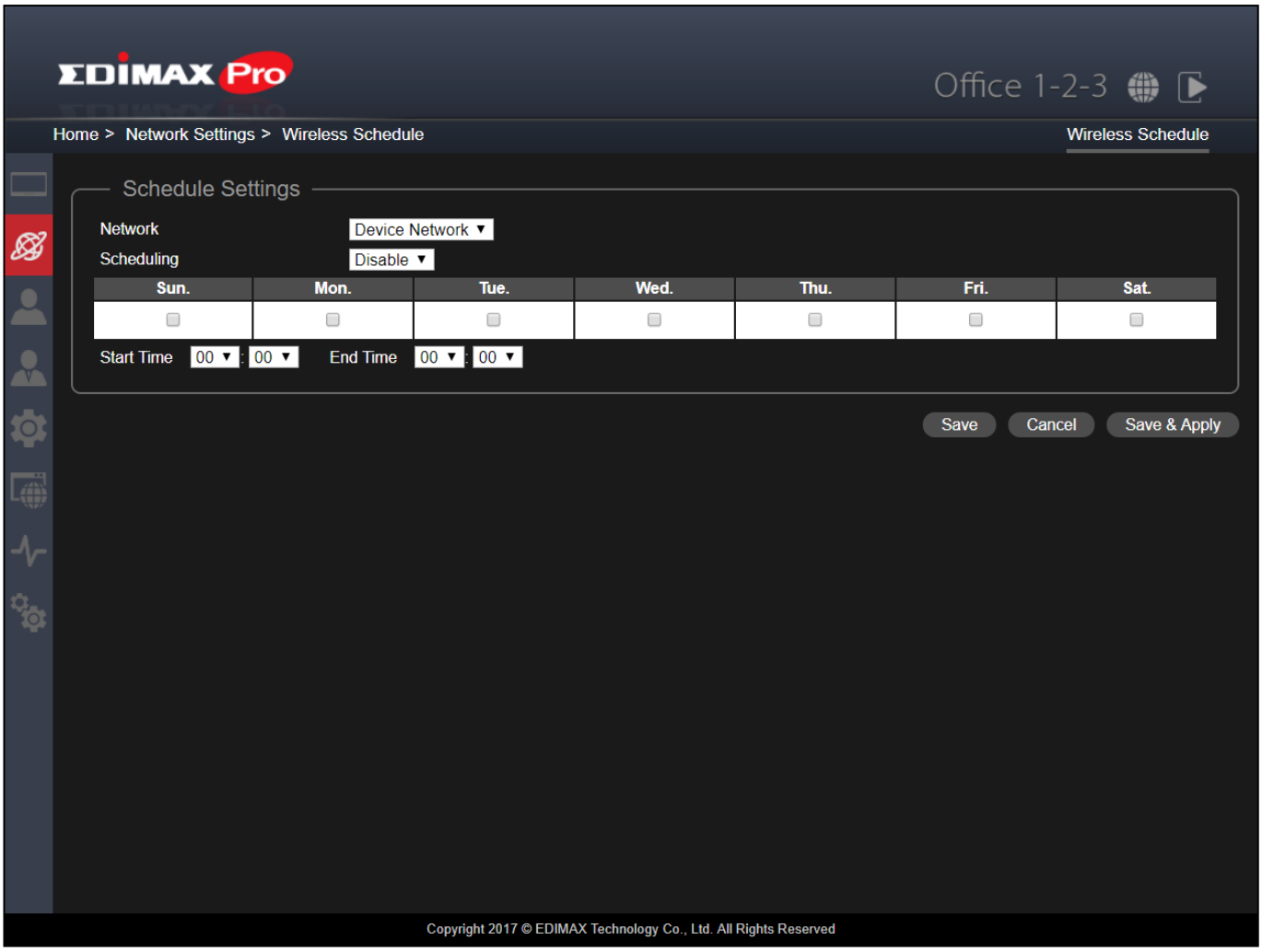
3. Locate “Random hardware addresses” and click the enable / disable icon. Make sure it is “Off”.



VII-5-4 Wireless Schedule

Click the “Device Network” icon.





The schedule feature allows you to automate the wireless network for the specified time ranges. Wireless scheduling can save energy and increase the security of your network.

To schedule:

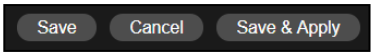
1. Select the network (**Device**, **Office** or **Guest**) to be scheduled by using the drop down menu.

2. Select enable by using the drop down menu.

3. Select the day(s) you wish to put a schedule to by checking the checkbox of the day(s).

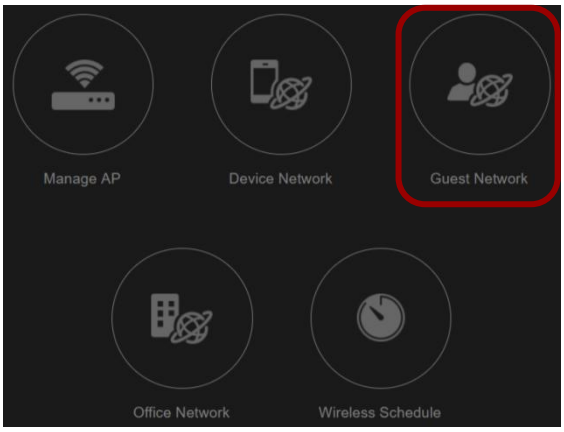
4. Select the “Start Time” and “End Time” using the drop down menus.

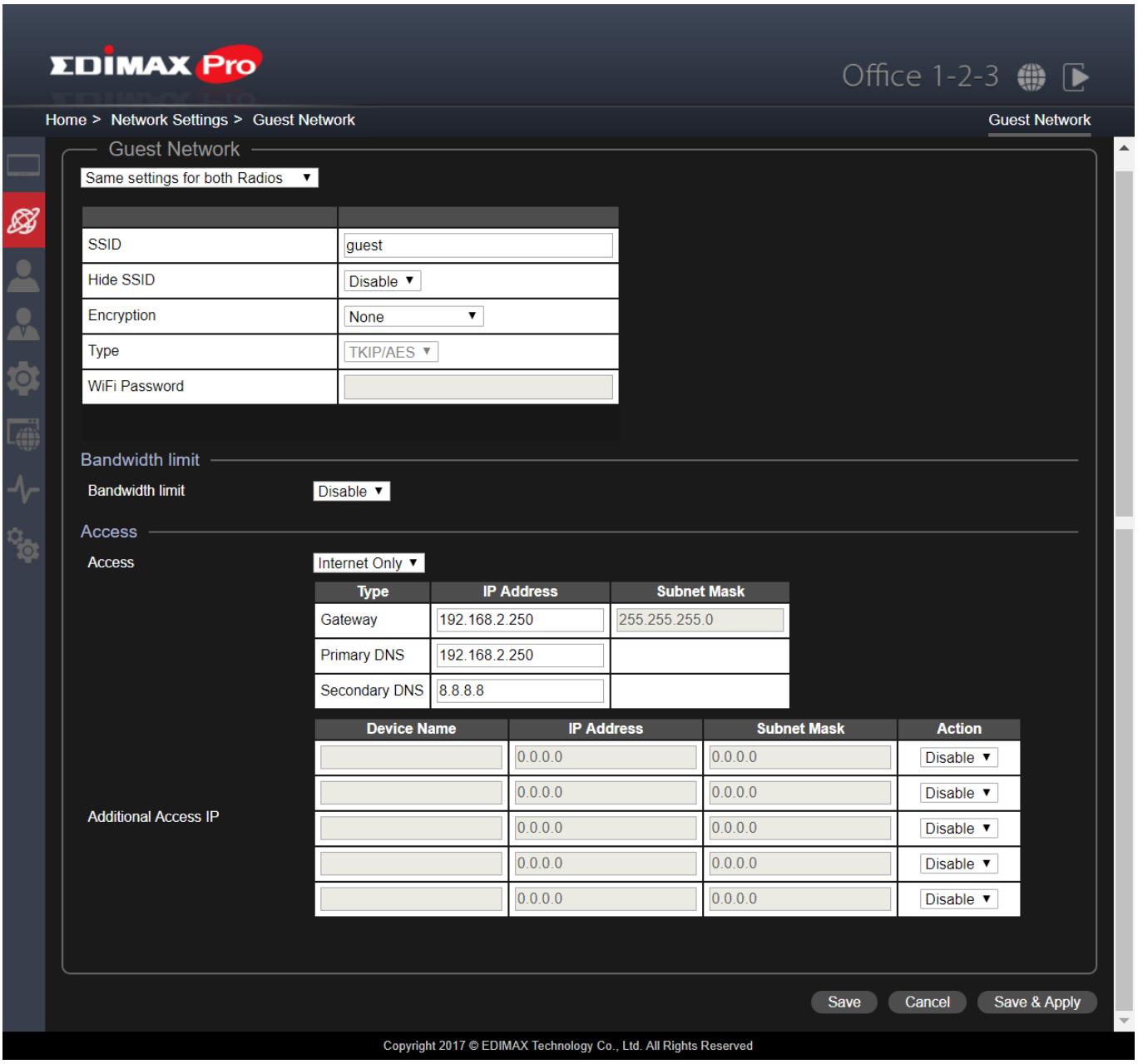
Click “Save” to save the settings. Click “Cancel” to forfeit the changes. Click “Save and Apply” to save and apply the settings to the system.



VII-5-5 Guest Network

Click the “Guest Network” icon.



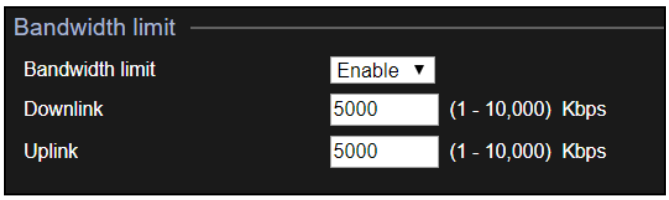


Use the drop down menu to select whether you want “Same settings for both Radios” or “Different settings for each Radio” (“Different settings for each Radio” is displayed).

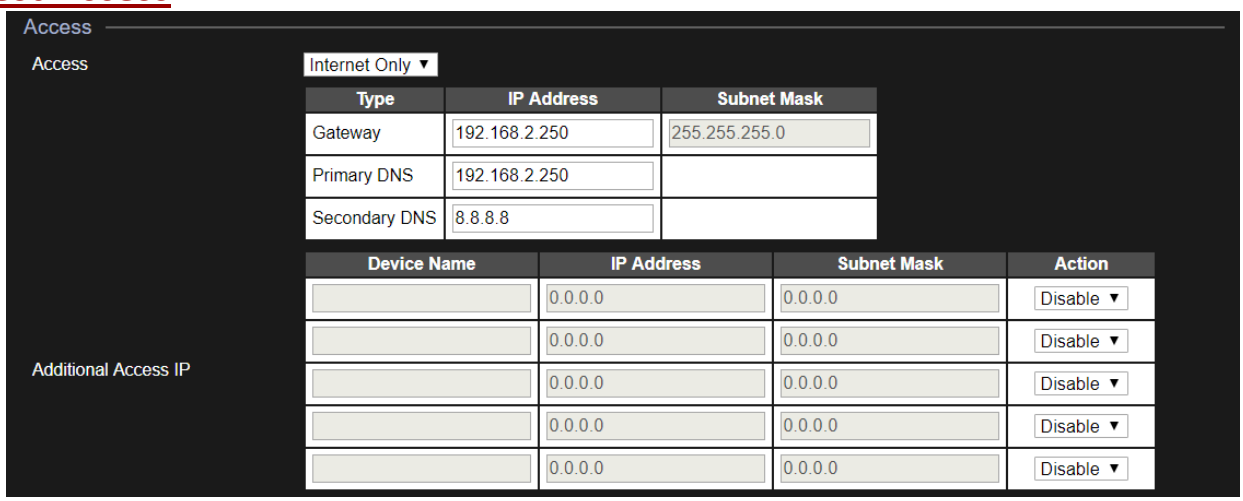
SSID	Enter an SSID name for the guest network.
Hide SSID	**Enable**: the SSID will be hidden. Clients must manually enter the SSID in order to connect. **Disable**: the SSID will be visible (default)
Encryption	Select from WPA/WPA2-PSK, WPA2-PSK, WPA-PSK or None.
Type	Select “TKIP/AES”, “TKIP” or “AES” encryption type. The “TKIP/AES” is the default encryption type.
WiFi Password	Please enter a Wi-Fi password.

Bandwidth Limit

This function limits the aggregated speed of the entire SSID.
When enabled, Downlink and Uplink fields will become available. Enter a value for each field.



Guest Access



Access:

Internet Only	Guests have Internet access only (**Default Setting**).
Full Access	Guests have full access to your network.

Access	
Gateway	Your router's IP address and subnet mask.
Primary DNS	The Primary DNS Server
Secondary DNS	The Secondary DNS Value.

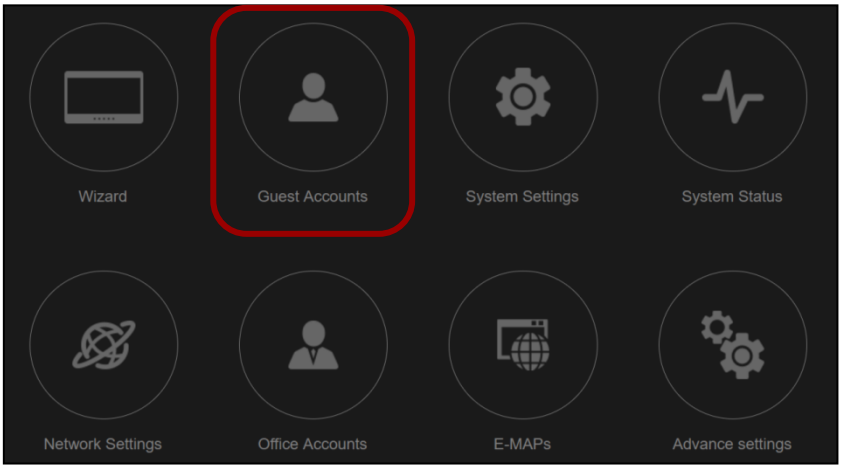
Office 1-2-3 will automatically get the Gateway and DNS data from the router.

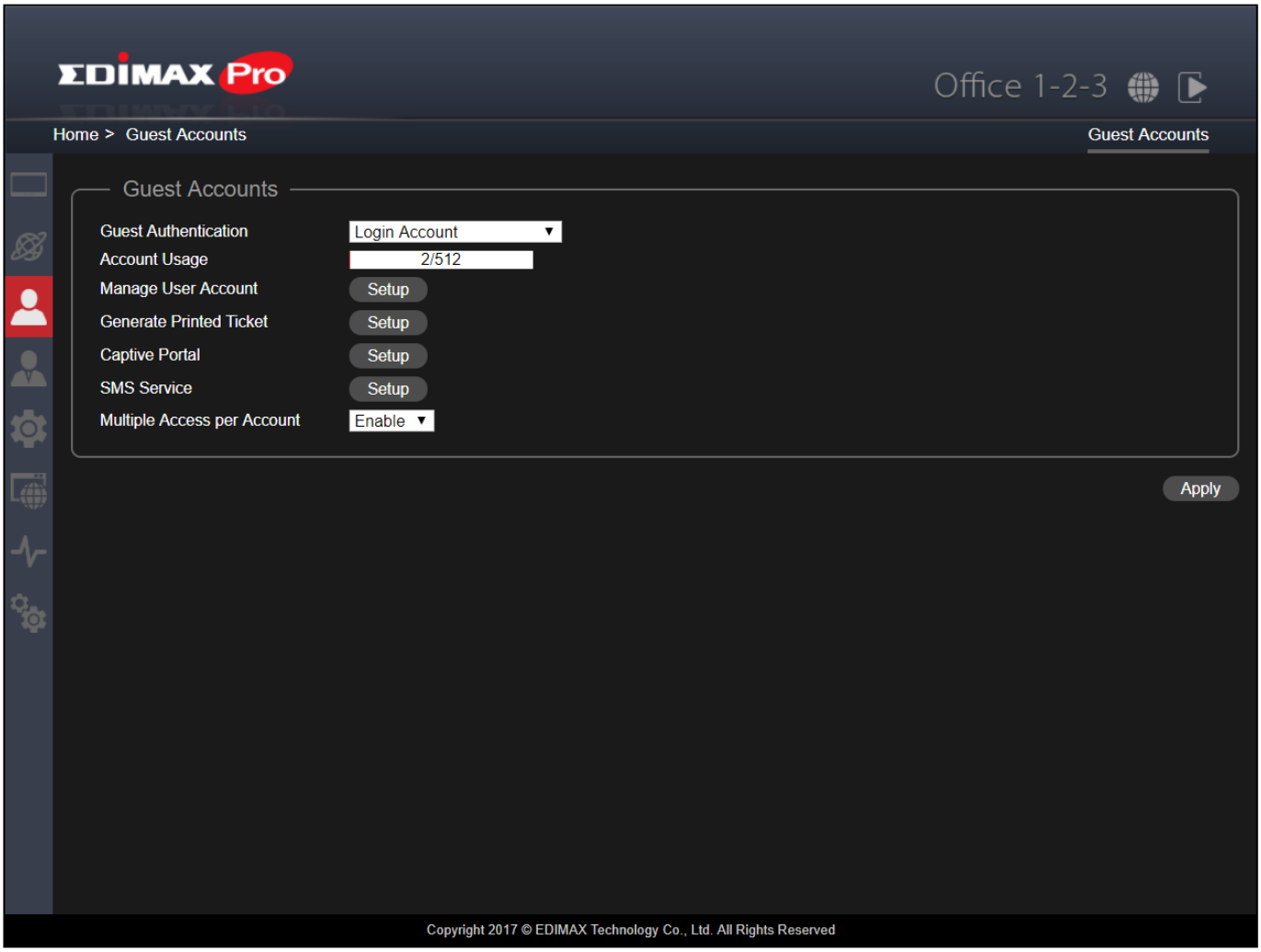
Additional Access IP	
Additional Access IP	If you have devices (e.g. printer, scanner, etc.) that are within the network and wish these to be made available to the guests, select **Allow** in the "Action" column. Enter *Device Names, IP Addresses* and *Subnet Masks*.

VII-6 Guest Accounts

This section allows you to configure settings related to Guest Accounts. You can determine *Guest Authentication Method*, view *Account Usage*, *Manage User Account*, configure *Generate Printed Ticket*, *Captive Portal*, and *SMS Service* settings.

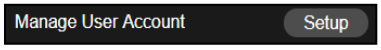
Click “Guest Accounts” icon for guest account settings.



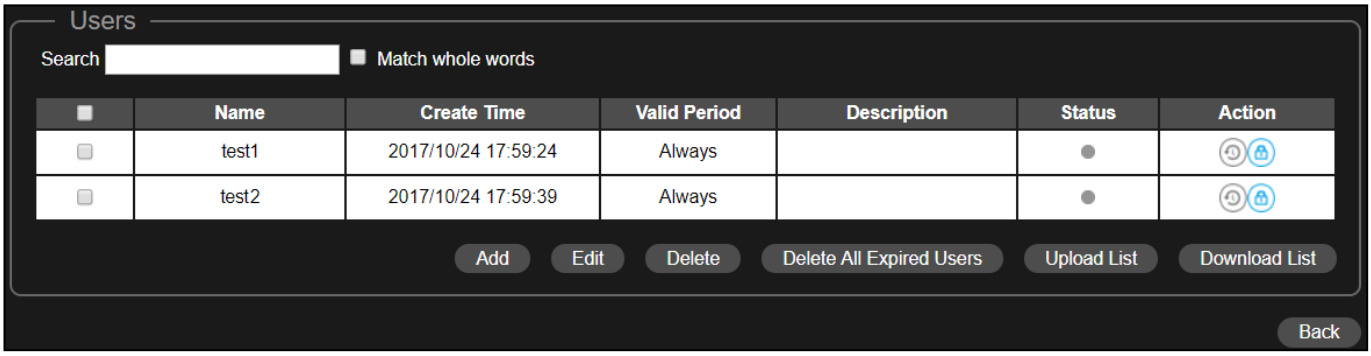


Guest Authentication	You have 4 choices for Guest Authentication: ● **Free**: Guests can access your network freely without an account. ● **Service Level Agreement**: Guests need to read a disclaimer and click okay in order to access the network. ● **Login Account (Default)**: Guests need to enter username and password for access. ● **Login Account+SMS**: Guests can enter their phone number and the system will send the account information to their mobile phone via SMS.
Multiple Access per Account	Enable to allow the use of one account information on multiple devices.

VII-6-1 Manage User Account

Click “Setup” 

for the page options below:



Add or Edit

Click “Add” to add a new user, or “Edit” to edit an existing user:

Name	Enter a user name.
Description	Enter a description for possible future reference
Password	Enter a password
Confirm Password	Enter the same password as above
Valid Time	Select a valid time in days or hours. Or you can select "Always" to always allow this account's access to the network.

Delete or Delete All Expired Users

If you wish to delete certain users, check the user entries and click "Delete". If you wish to delete expired users, click "Delete All Expired Users".

Upload List or Download List

You can upload or down list of user accounts. The list is in .CSV format so you can edit it using a spread sheet program such as Microsoft Excel.

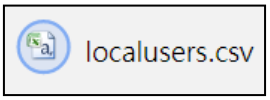
Import List

If you have a previously saved User List, click "Import List" to enter the page below:

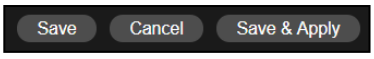
Click "Choose File", select the list file (*.csv document format) and click "Upload".
Click "Cancel" to cancel the actions.

Export List

If you wish to save your current User List, click "Export List". Your browser should prompt you download the list in *.csv document format.
An example is shown below:

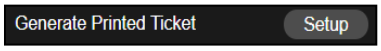


Click "Save" to save the settings. Click "Cancel" to forfeit the changes. Click "Save and Apply" to save and apply the settings.

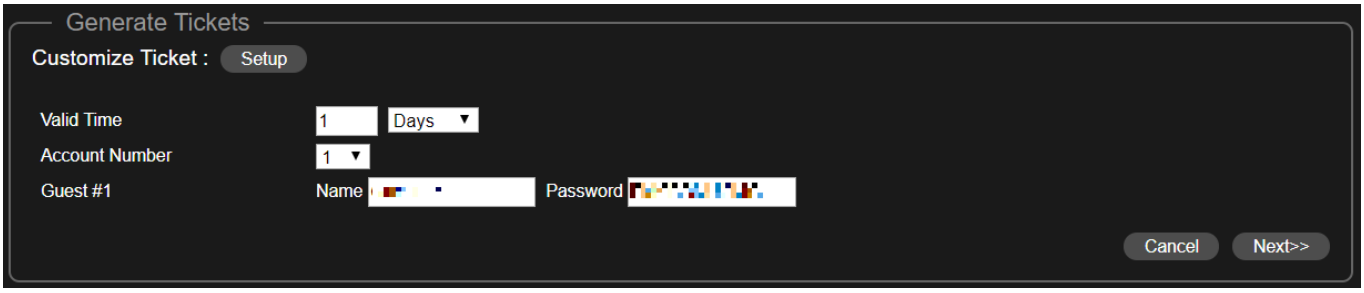


VII-6-2 Generate Printed Ticket

This section configures the information required to generate random accounts to be printed out. The print out is the easiest way to create account for your guests on demand.

Click “Setup” 

for the page options below:

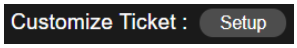


Valid Time	Select a valid time in days or hours. Or you can select “Always” to always allow this account’s access to the network.
Account Number	Select a number from the drop down menu for the number of guest accounts to generate.
Guest #1-10	Depends on the “Account Number” above, name(s) and password(s) of the Guest will be displayed. You can edit the fields available.

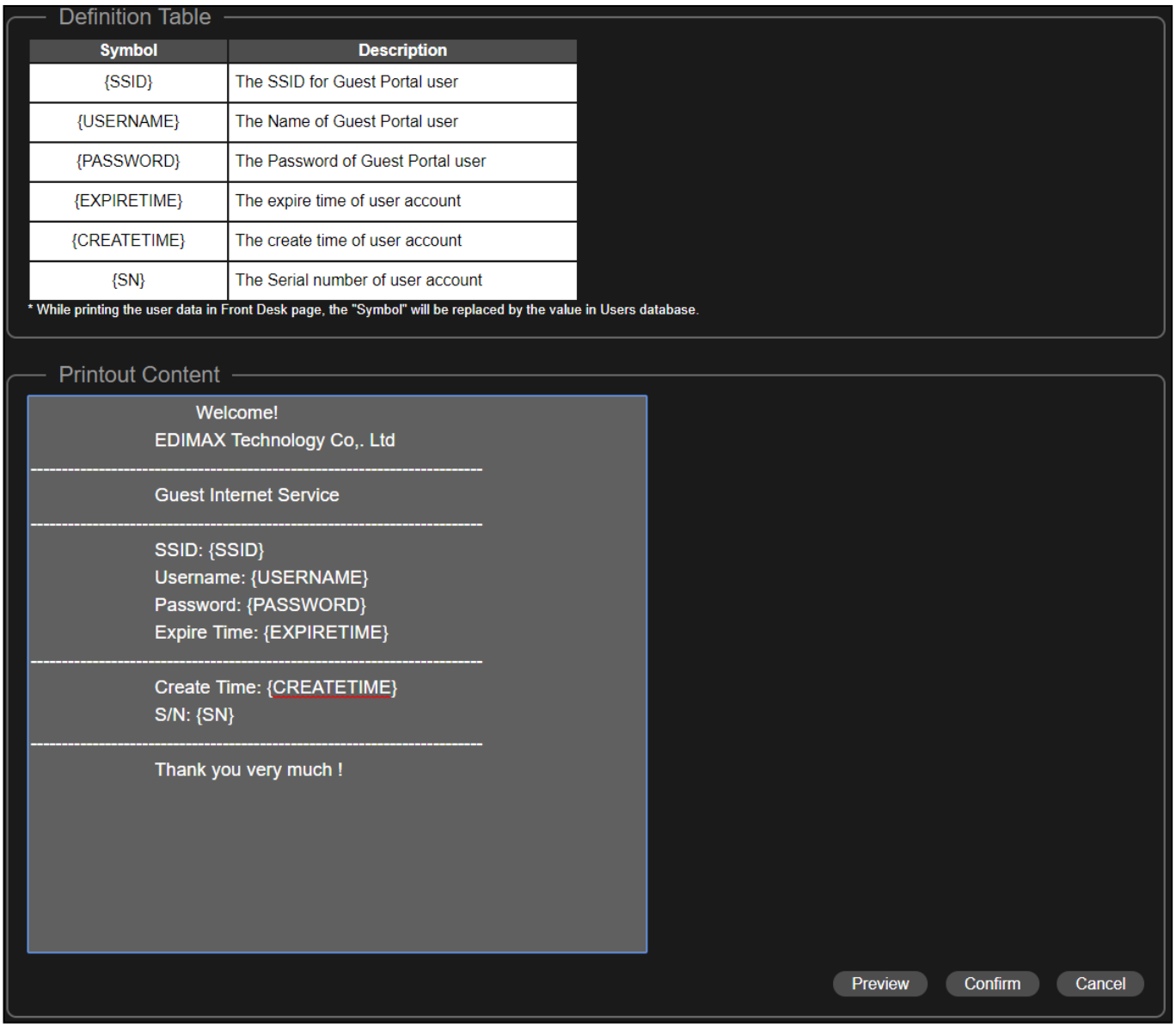
Click “Next” for the page below:

Click “Print All” to print all available tickets out, or click “Back” to go back to the previous page for more configuration.

Customized Ticket

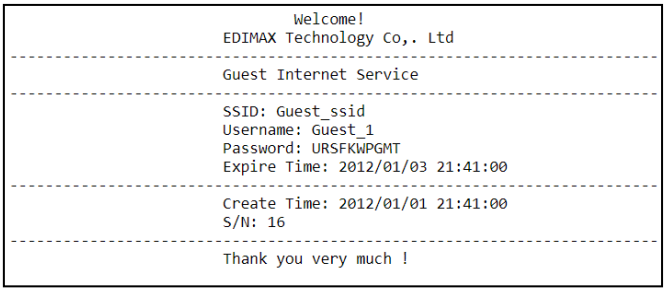
Click “Setup” 

to see / configure the content of the printed ticket.



In the “Printout Content” section, enter / edit your desired messages.

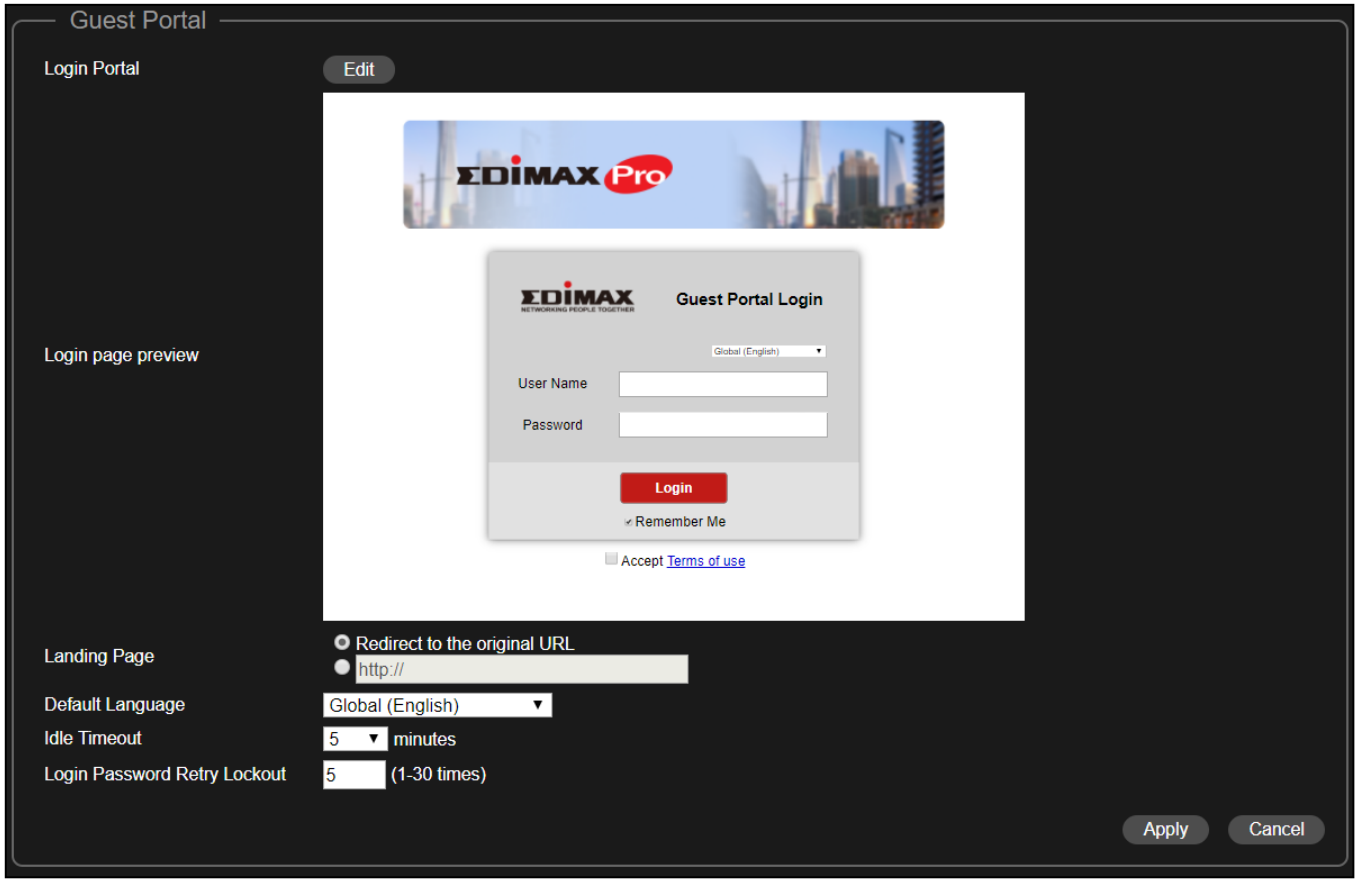
You can preview the message by clicking the “Preview” button. A window will pop up with the preview. An example is shown below:



VII-6-3 Captive Portal

Click “Setup” 

for the page options below:

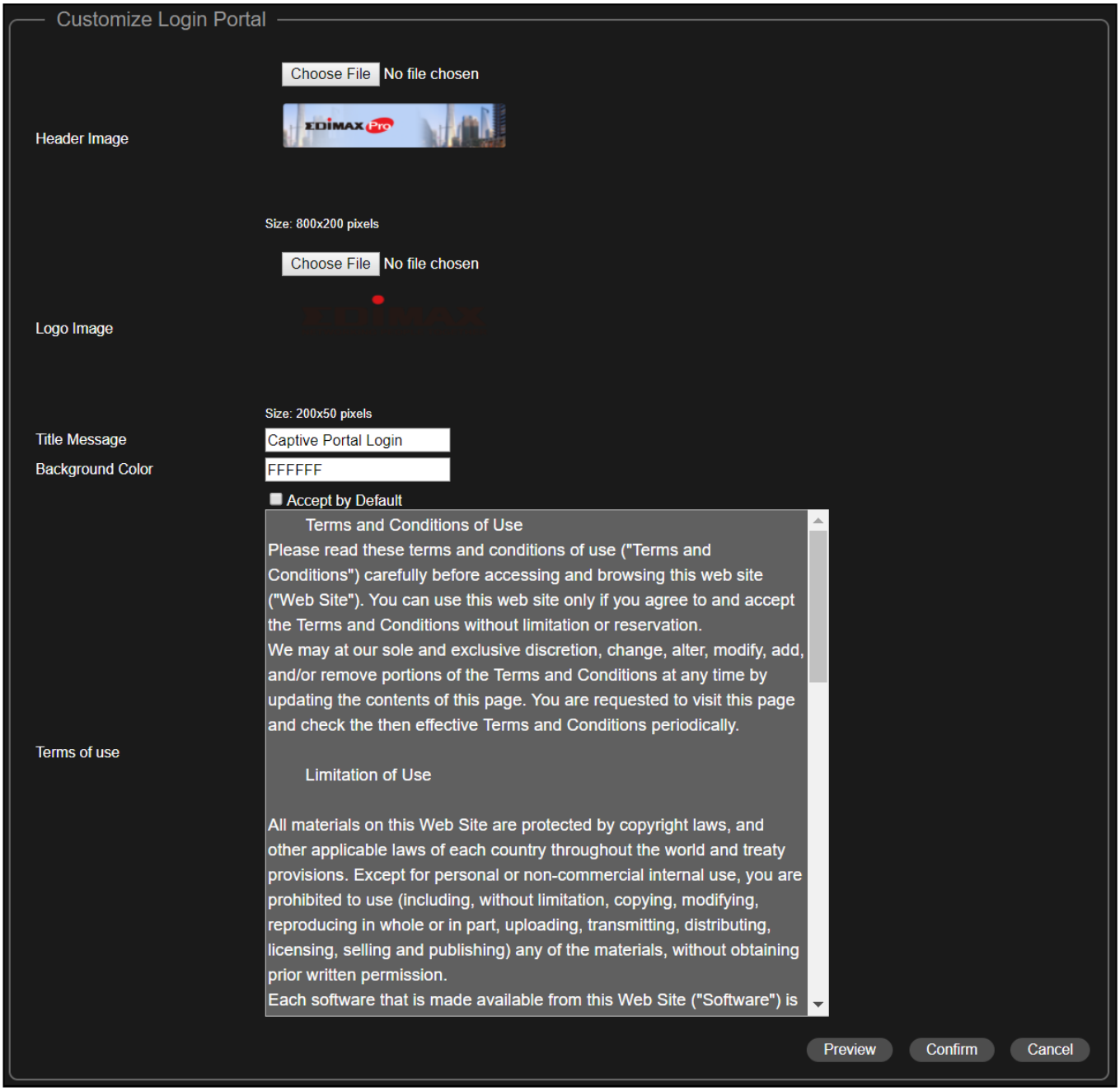


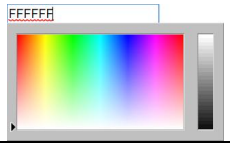
Landing Page	Check either “Redirect to the original URL” or the http:// field. If http:// field is checked, enter a website such as your company’s website.
Default Language	Choose a default language.
Idle Timeout	Select an idle timeout time from the drop down menu.
Login Password Retry Lockout	Enter a number (between 1 and 30) for the number of login password retry. If login password has been entered incorrectly for the number entered here, it will be locked.

Customize Login Portal

Click “Edit” 

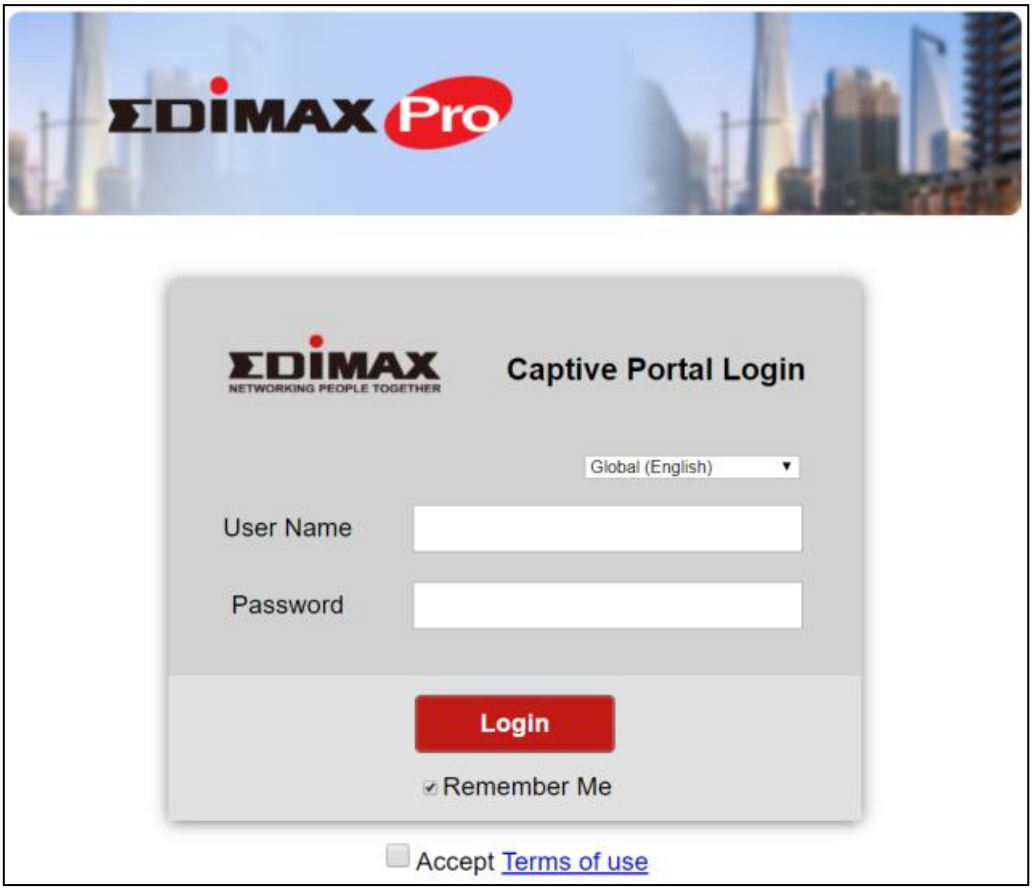
for the page below:



Header Image	Click “Choose File” to select a file as the header image.
Logo Image	Click “Choose File” to select a file as the logo image.
Title Message	Enter / edit a title message.
Background Color	Click on the field where color selection will be available. Select a desired color. 

Accept by Default	Check / uncheck to enable / disable auto-accepting terms of use agreement.
Terms of use	Enter / edit the terms of use message

Click “Preview” for captive portal preview in another page (example below).



If you are sure of the content, click “Confirm” to confirm customization of the captive portal, or “Cancel” to forfeit the changes.

VII-6-4 SMS Service

Click “Setup” 

for the page options below:

Provider	Select a service provider from the drop down menu. Pilivo and Stream Telecom are the available options.

Pilivo:

Username	Enter the username for the service provider.
Password	Enter the password for the service provider.
Phone Number	Enter the phone number.
SMS Quota Limit	Enter a number for SMS quota limit.
Number of SMS Sent	This keeps track of the number of sent SMS. Click “Reset” to restart the sent SMS count.

Click “Test Account” to test the validity of the above-entered fields.

Stream Telecom:

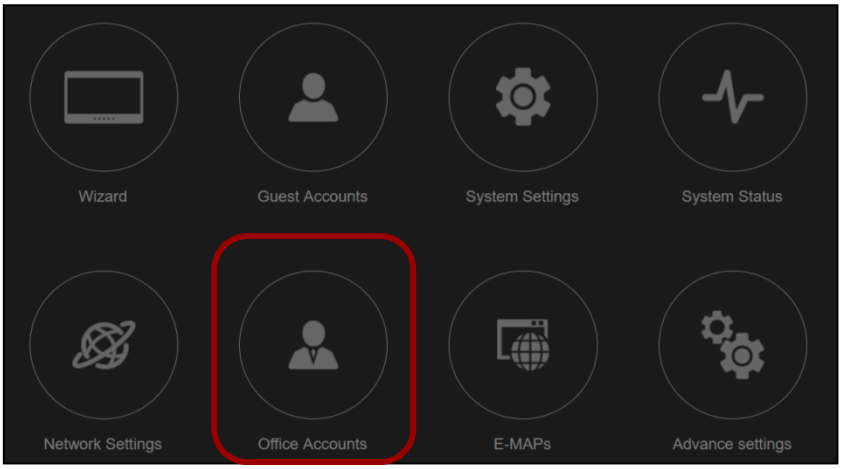
Username	Enter the username for the service provider.
Password	Enter the password for the service provider.
Sender Name	Enter the sender's name.
SMS Quota Limit	Enter a number for SMS quota limit.
Number of SMS Sent	This keeps track of the number of sent SMS. Click "Reset" to restart the sent SMS count.

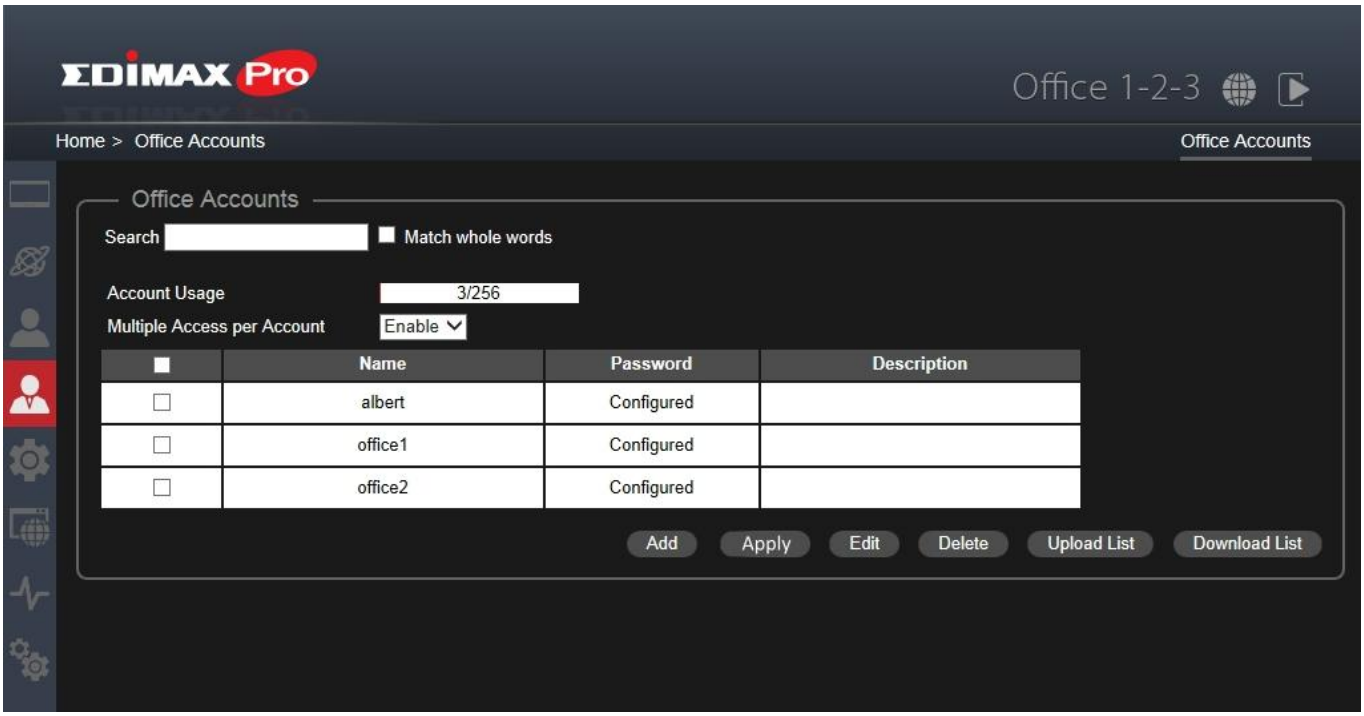
Click "Test Account" to test the validity of the above-entered fields.
Click "Apply" to apply the settings, or "Cancel" to forfeit the changes.

VII-7 Office Accounts

This section allows you to configure settings related to Office Accounts. You can determine add / edit / delete *Office Accounts* and its settings, *Upload* and *Download* account list.

Click “Office Accounts” icon for office account settings.



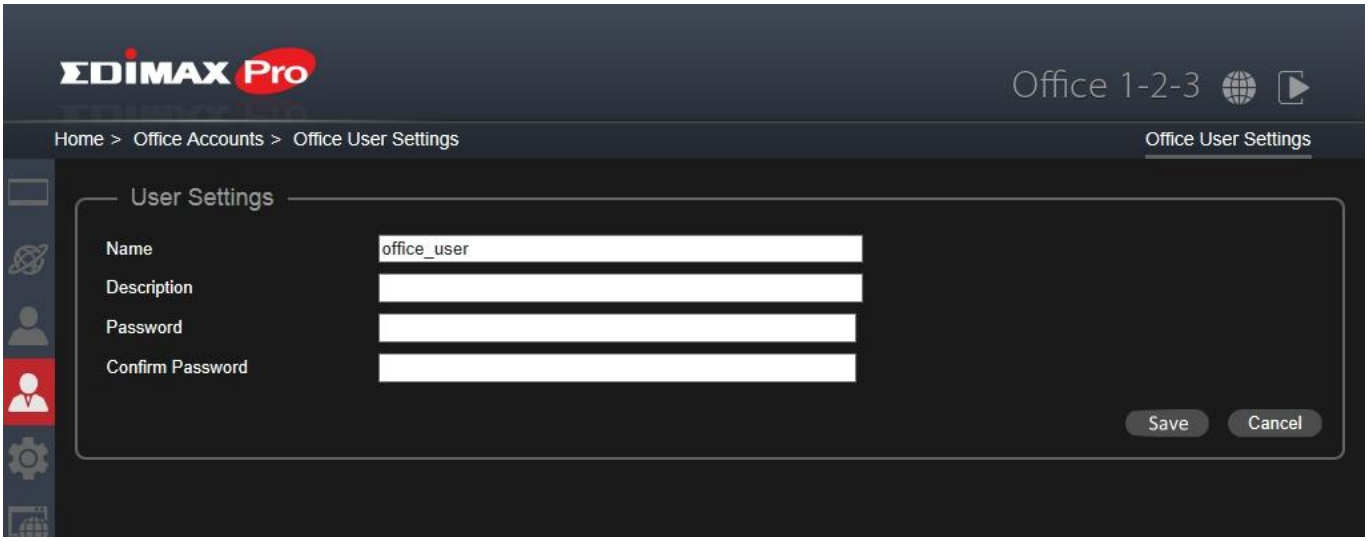


Users can ***connect to the office accounts*** using the account information created in this section.

It is recommended to use **Upload List** and / or **Download List** for simple management of office accounts. The list is in .CSV format so you can edit it using a spread sheet program such as Microsoft Excel.

Add or Edit User

Add or edit an user account for the office network. Click “Add” to add a new user or “Edit” to edit an existing user.



Enter / edit the fields and click “Save” to save the settings, or “Cancel” to forfeit. Once you have created all the accounts, please remember to “**Apply**” for the new accounts to take effect. Otherwise, the setting will not take effect.

Apply

Please remember to click on Apply once you have created and saved your accounts.

Delete

If you wish to delete certain users, check the user entries and click “Delete” (multiple selections possible).

Upload List

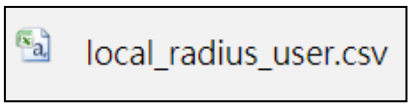
Click “Upload List” to enter the page below:

Click “Choose File”, select the list file (*.csv document format) and click “Upload”.

Click “Cancel” to cancel the actions.

Download List

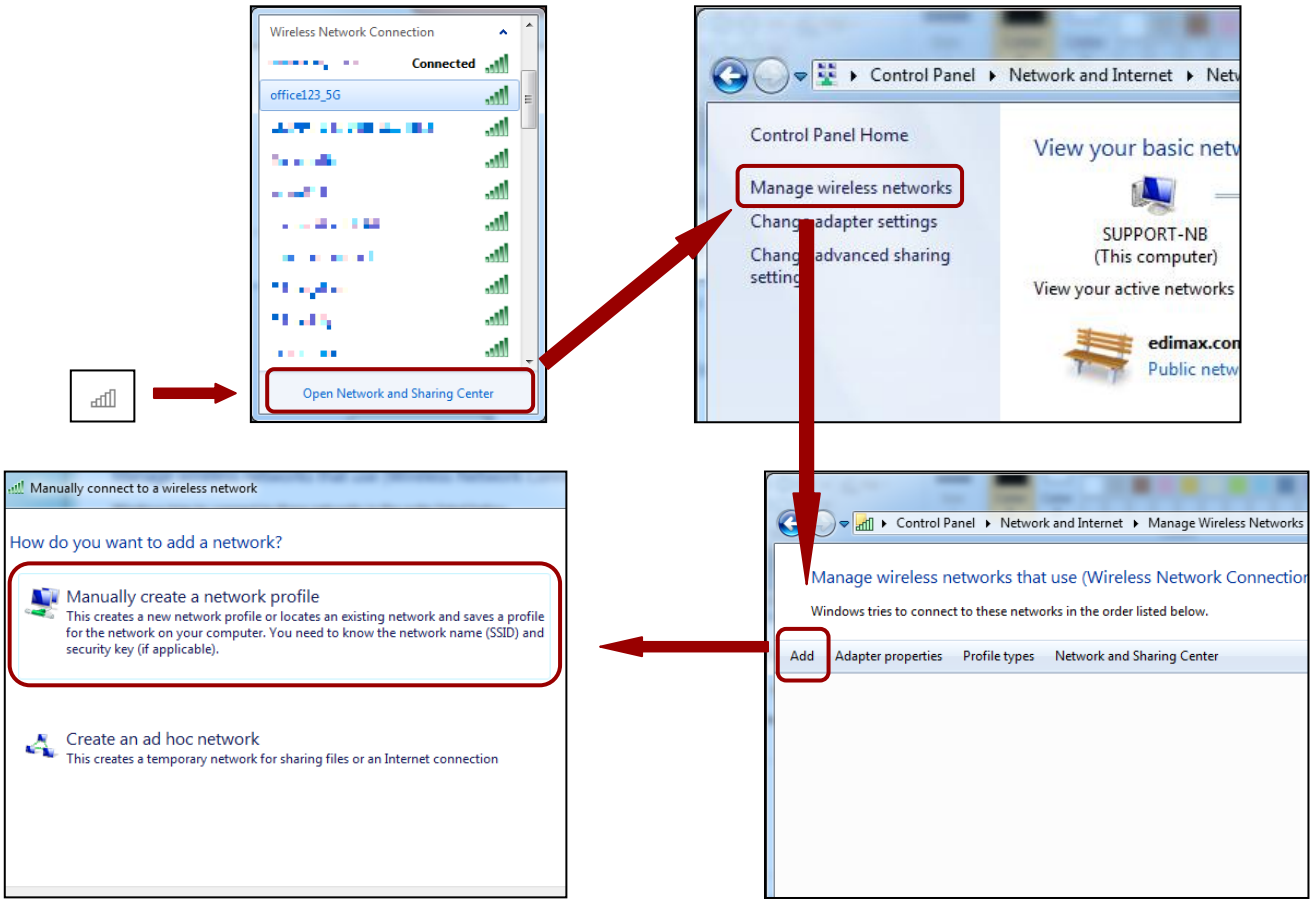
If you wish to save your current User List, click “Download List”. Your browser should prompt you download the list. The list is in *.csv document format. An example is shown:



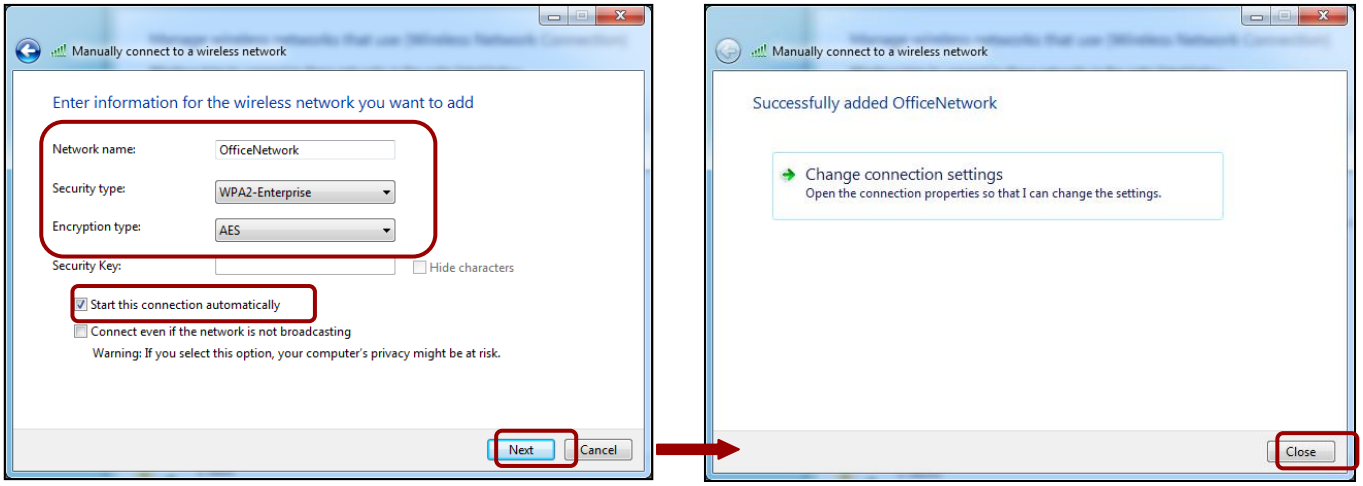
VII-7-1 RADIUS Authentication for Office Network under Win 7

The Office 1-2-3 uses RADIUS authentication for Office Network. For Win 7, Vista or OS version before, specific configuration is mandatory to enable radius login. Please follow the instructions below:

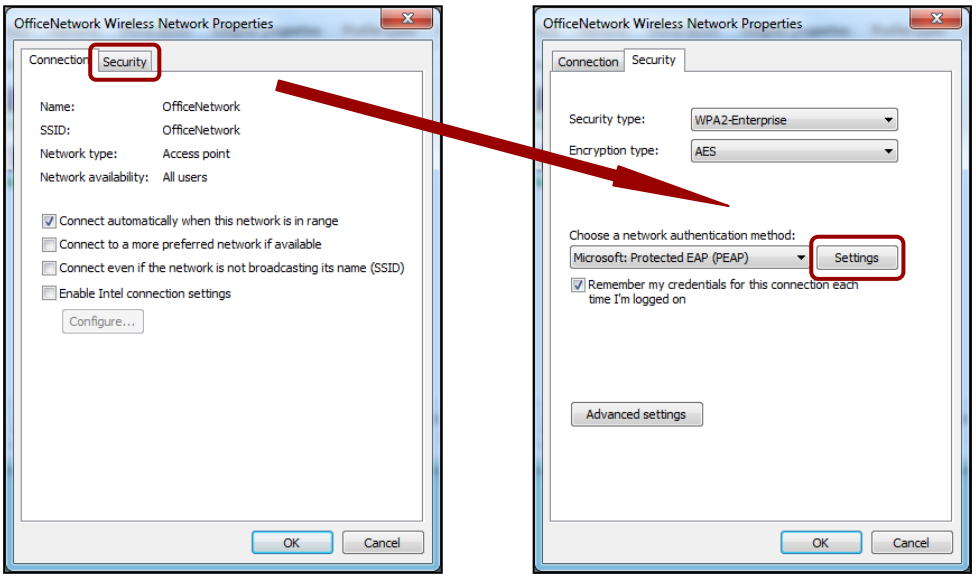
1. Find and click the network icon on the bottom right of the desktop and click **Open Network and Sharing Center**. Click **Manage wireless networks → Add → Manually create a network profile**.



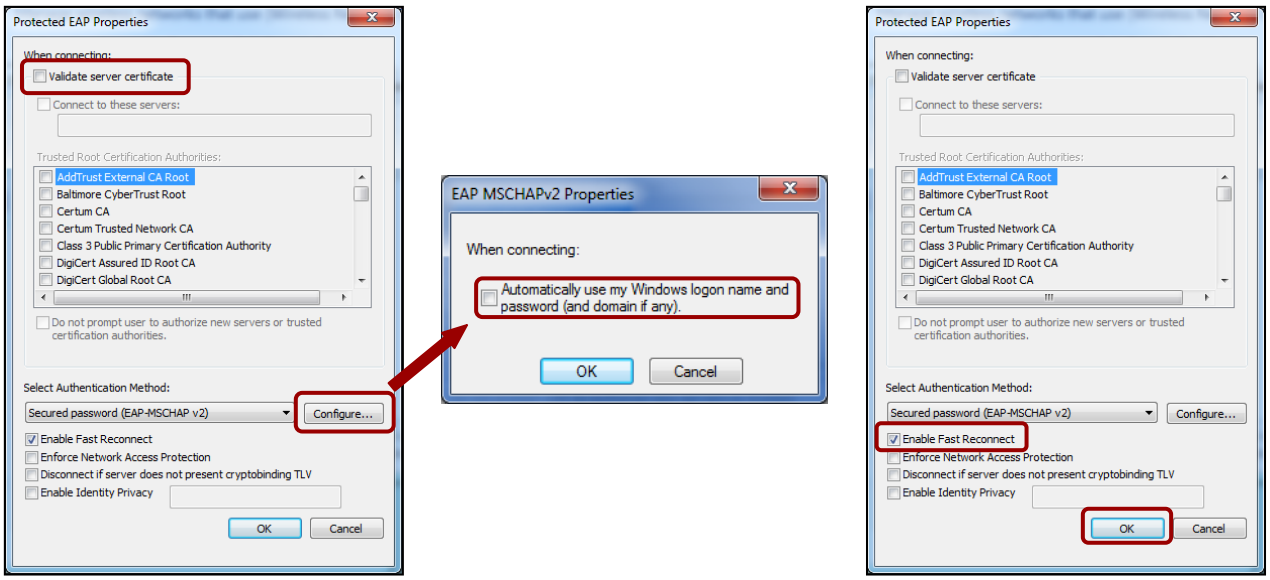
2. Enter a network name in the field after “Network name”, select **WPA2-Enterprise** for “Security type”, select **AES** for “Encryption type”, and make sure to check the “Start this connection automatically” checkbox. Click “Next” for a successfully added network message and click “Close” to close the window.



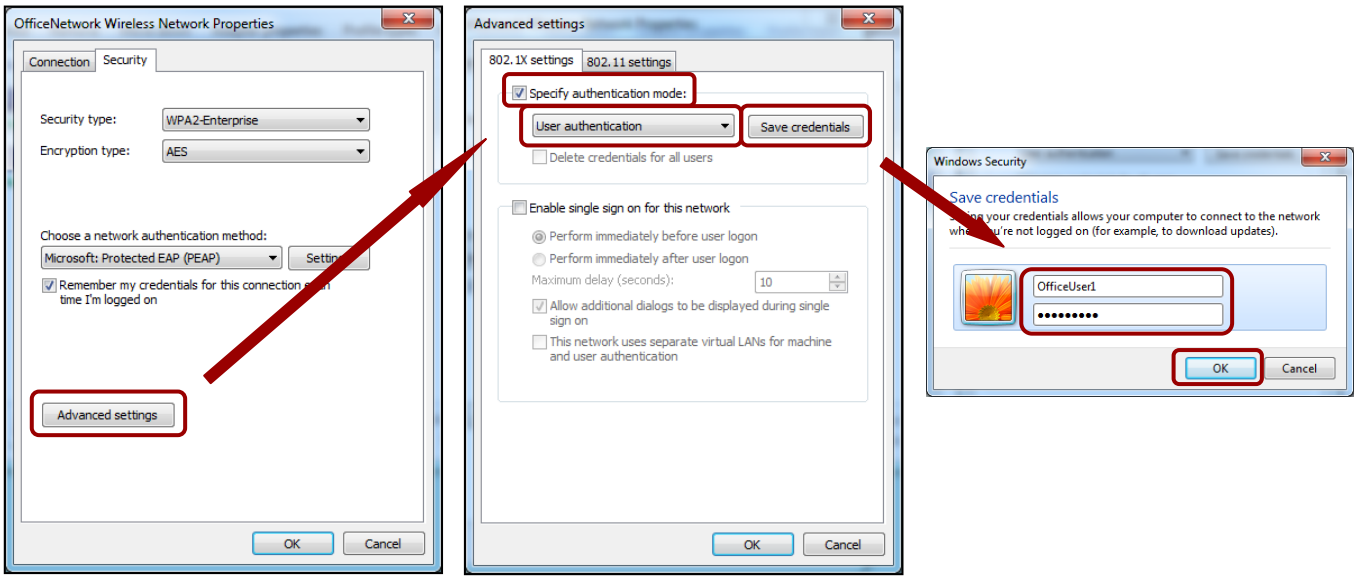
3. Double-click the newly created network to “Properties” page. Click **Security → Settings**.



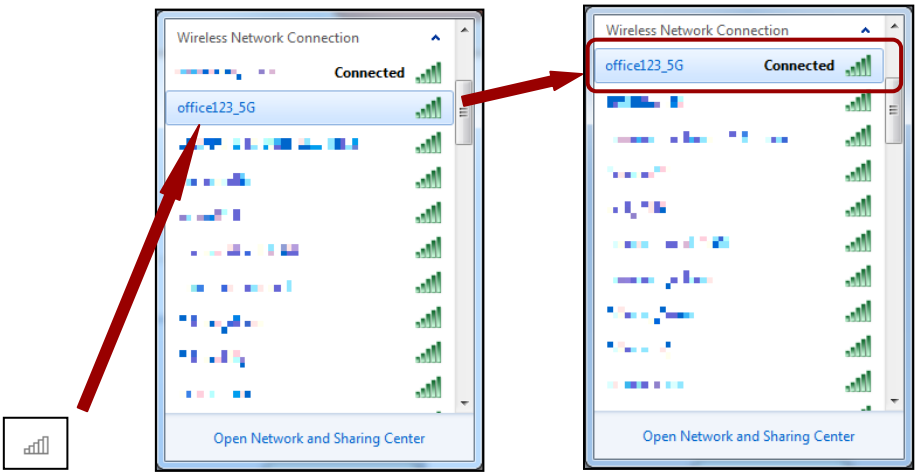
4. Uncheck “Validate server certificate” and click “Configure”. Make sure “Automatically use …” is unchecked and click “OK”.
Check “Enable Fast Reconnect” (if unchecked) and click “OK” to return to the “Security” tab.



5. Click “Advanced settings”. Check “Specify authentication mode”, select User authentication from the dropdown menu and click “Save credentials”. Enter an office account username and password. Confirm the newly created network by clicking “OK” until returning to the “Managed Wireless Network” page.



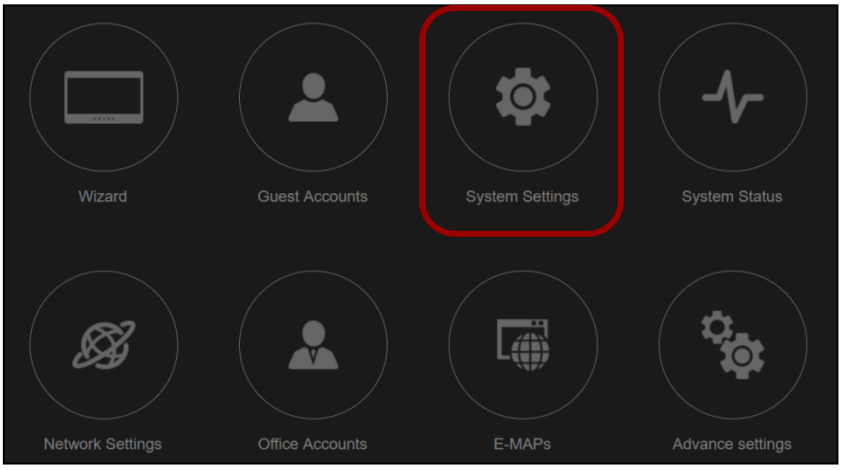
6. Find and click the network icon on the bottom right of the desktop. Select the office network of your Office 1-2-3 and connect to it.

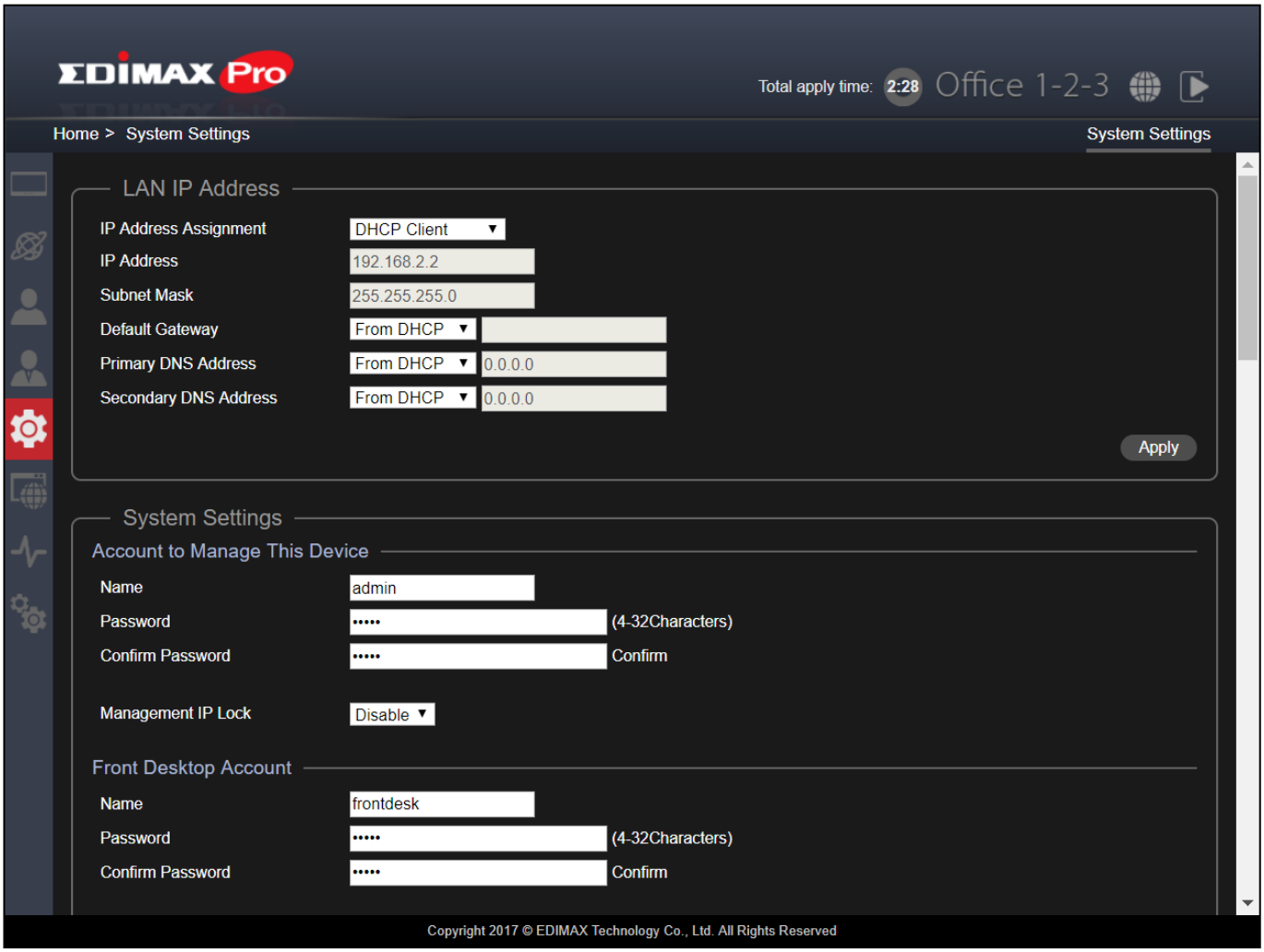


VII-8 System Settings

This section allows you to configure the system settings. These settings include *LAN IP Address*, *Management Account*, *Frontdesk Account*, *Advanced Settings*, *Date & Time*, *System Logs / Log Server*, *VLAN Management*, *Save / Restore Settings from PC*, and *Master / Slave Firmware Upgrade*.

Click the “System Settings” icon.





VII-8-1 LAN IP Address

Enable the access point to dynamically receive an IP address from your router's DHCP server or specify a static IP address, as well as configure DNS servers.

DHCP Client

The access point will be assigned a dynamic IP address from the DHCP server of your network.

DHCP Client	
IP Address	This field cannot be modified if "DHCP Client" is selected.
Subnet Mask	This field cannot be modified if "DHCP Client" is selected.
Default Gateway	This field cannot be modified if "From DHCP" is selected. Select "User-Defined" and enter a default gateway.
Primary DNS Address	This field cannot be modified if "From DHCP" is selected. Select "User-Defined" and enter a primary DNS address.
Secondary DNS Address	This field cannot be modified if "From DHCP" is selected. Select "User-Defined" and enter a secondary DNS address.

Static IP Address

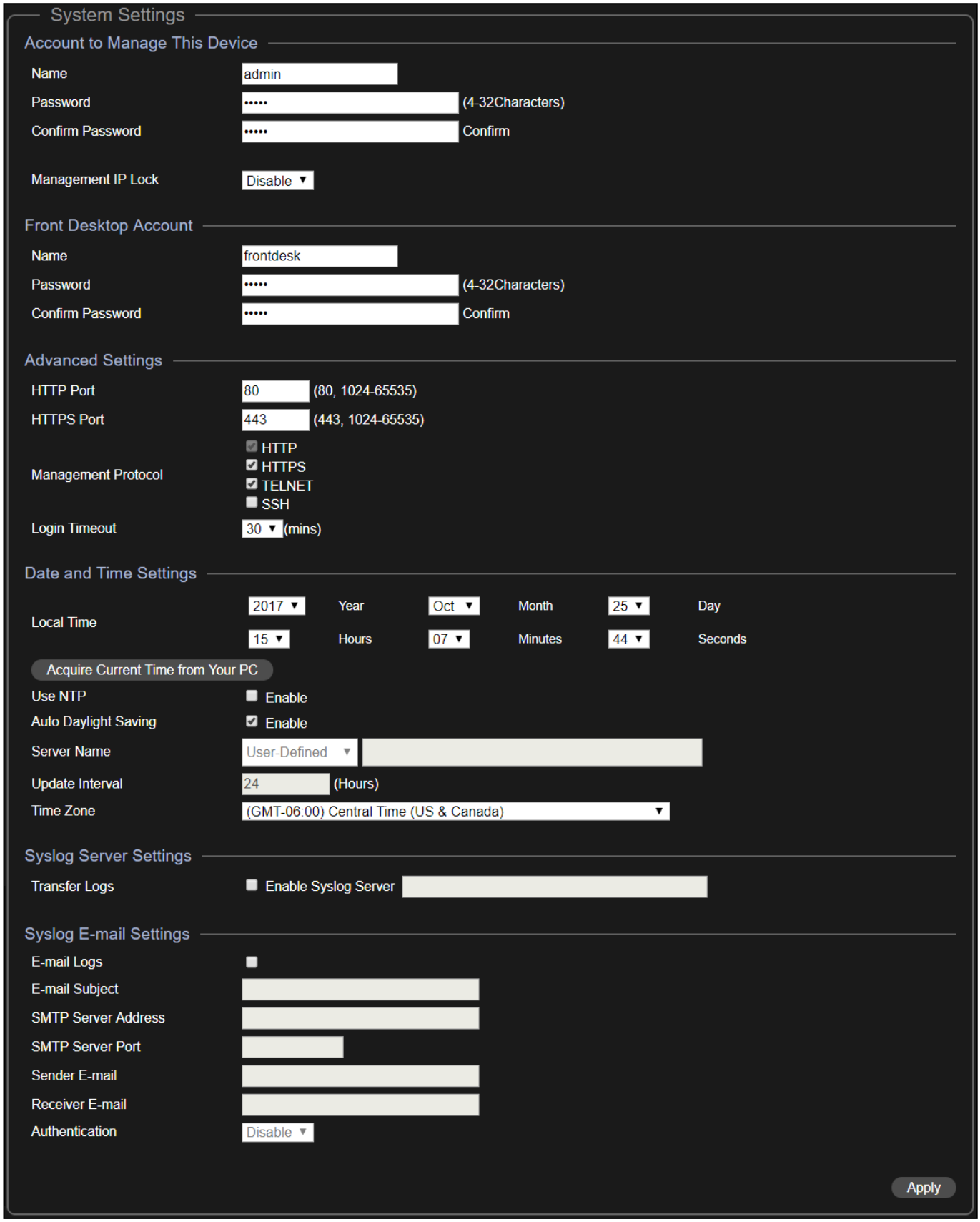
Manually specify a static/fixed IP address for your access point.

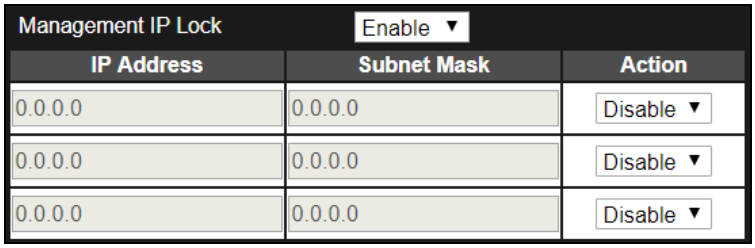
NOTE: If **Static IP Address** is selected, system settings of all APs of Office 1-2-3 must also be configured.

Static IP Address	
IP Address	Specify the IP address here. This IP address will be assigned to your access point and will replace the default IP address.
Subnet Mask	Specify a subnet mask. The default value is 255.255.255.0
Default Gateway	For DHCP users, select “From DHCP” to get default gateway from your DHCP server or “User-Defined” to enter a gateway manually. For static IP users, the default value is blank.
Primary DNS Address	For static IP users, the default value is blank.
Secondary DNS Address	For static IP users, the default value is blank.

Click “Apply” to apply the changes.

VII-8-2 System Settings



Account to Manage This Device	
Administrator Name	Set the access point's administrator name. This is used to log in to the browser based configuration interface and must be between 4-16 alphanumeric characters (case sensitive).
Administrator Password	Set the access point's administrator password. This is used to log in to the browser based configuration interface and must be between 4-32 alphanumeric characters (case sensitive).
Management IP Lock	This feature allows you to determine who is able to manage the whole system. **Disable** (Default): All that have the administrator name and password can manage the system. **Enable**: Up to 3 computers / devices can manage the system. The 3 computers / devices are allocated according to the settings shown below:  Use the drop down menu in the Action column to enable / disable the IP addresses. When Enable is selected, enter the IP Address and Subnet Mask.

The Frontdesk account is for creating guest accounts and ticket printing only.

Front Desktop Account	
Name	Set the system's front desktop account name.
Password	Set the system's front desktop account password.

Advanced Settings	
HTTP Port	Specify an HTTP Port
HTTPS Port	Specify an HTTPS Port
Management Protocol	Check/uncheck the boxes to enable/disable specified management interfaces (see below).
Login Timeout	Specify the idle time (in minutes) before being kicked from the server.

HTTP

Internet browser HTTP protocol management interface

TELNET

Client terminal with telnet protocol management interface

Date and Time Settings	
Local Time	Set the system's date and time manually using the drop down menus.
Acquire Current Time from your PC	Click to acquire time and date automatically from your PC.
Use NTP	Check to enable automatic time and date sync to an NTP server.
Auto Daylight Saving	Check / uncheck to enable / disable daylight saving function.
Server Name	Use the drop down menu to select a region. A server will be shown after selecting the region. Choose the region according to your location.
Update Interval	Specify how often (in hours) the access point synchronizes with the NTP server.
Time Zone	Select the time zone of your country/region. If your country/region is not listed, please select another country/region whose time zone is the same as yours.

Syslog Server Settings	
Transfer Logs	Check the box to enable the use of a syslog server, where system logs are sent to the designated server. Enter a host name, domain or IP address for the server, consisting of up to 128 alphanumeric characters.

Syslog E-mail Settings	
E-mail Logs	Check the box to enable/disable e-mail logs.
E-mail Subject	Specify the subject line of log emails.
SMTP Server Address	Specify the SMTP server address used to send log emails.
SMTP Server Port	Specify the SMTP server port used to send log emails.
Sender E-mail	Specify the sender email address.
Receiver	Specify the email to receive log emails.

E-mail	
Authentication	Disable or select authentication type: SSL or TLS. When using SSL or TLS, enter the username and password.

Click “Apply” to apply the changes.

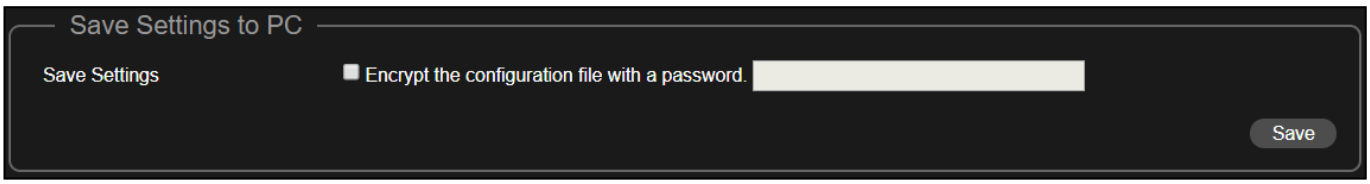
VII-8-3 Management VLAN ID

To connect Office 1-2-3 to your VLAN Network, Management VLAN ID (under System Settings) must be configured to be the same as the one on your switch. All the wireless SSID and LAN can only share one VLAN ID. It is recommended to put the AP on the VLAN that can access both LAN and Internet network. The Guest network in Office 1-2-3 can prohibit guest accessing the Intranet network by IP filtering.

Click “Apply” to apply the changes.

VII-8-4 Save Settings to PC

This section enables you to save / backup the device’s current settings as a file to your local computer.

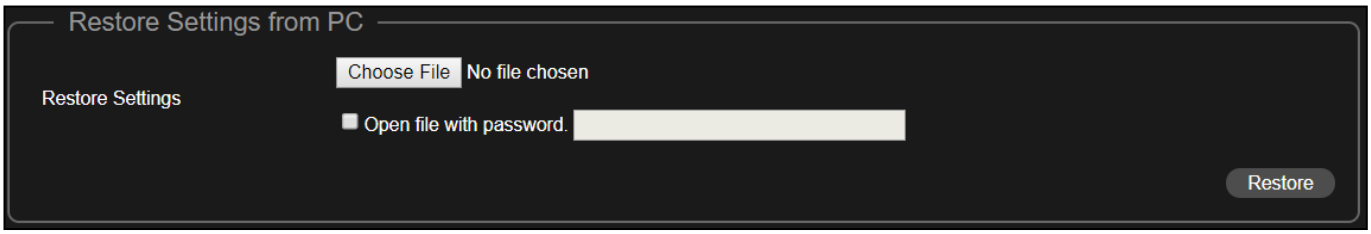


Click “Save” to save current settings.

Encryption: If you wish to encrypt the configuration file with a password, check the “Encrypt the configuration file with a password” box and enter a password.

VII-8-5 Restore Settings from PC

This section enables you to restore the device's current settings from a file in your local computer.



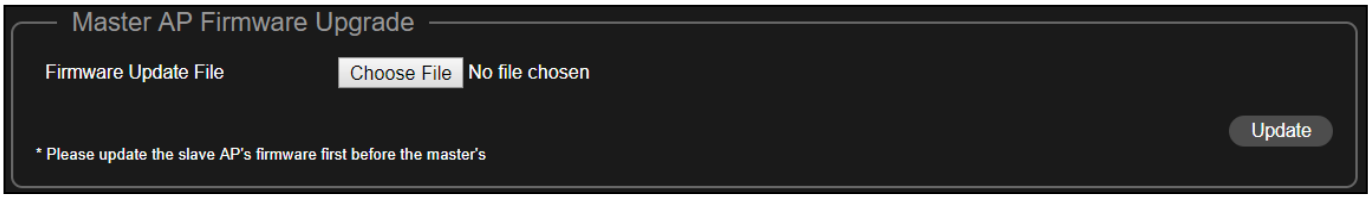
Click the "Choose File" button to find a previously saved settings file on your computer.

Click "Restore" to replace your current settings.

If your settings file is encrypted with a password, check the "Open file with password" box and enter the password in the following field.

VII-8-6 Master AP Firmware Upgrade

This section allows you to update the firmware of the Master AP. Updated firmware versions often offer increased performance and security, as well as bug fixes. Download the latest firmware from the Edimax website.

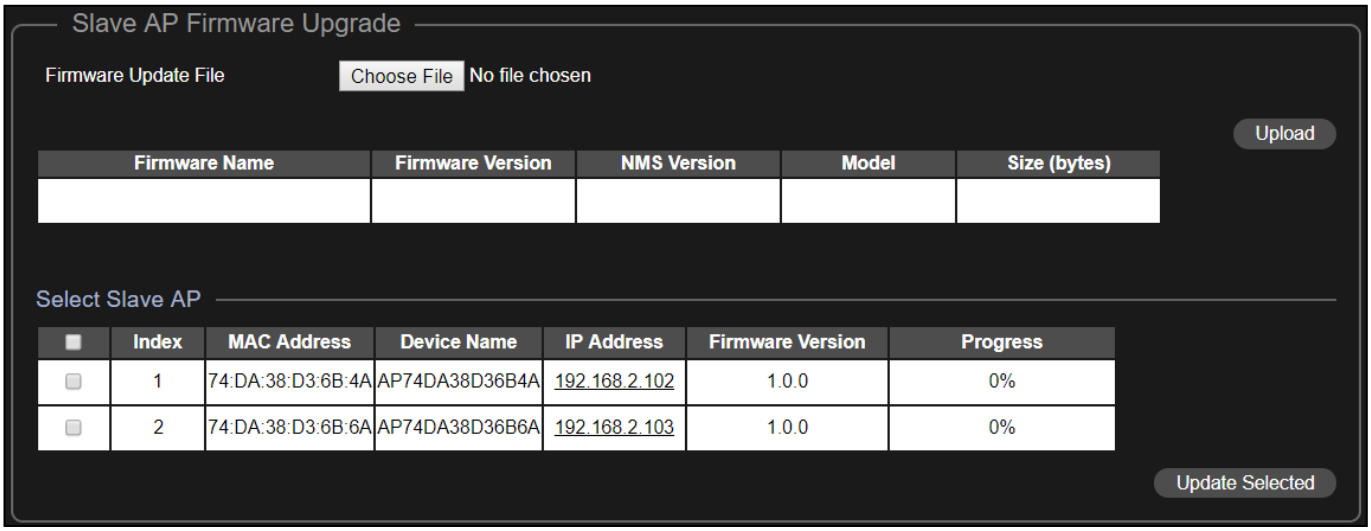


Click "Choose File" to upload firmware from your local computer and click "Update" to start firmware upgrade.

NOTE: Please upgrade the firmware of the slave APs before the master AP. See next section.

VII-8-7 Slave AP Firmware Upgrade

This section allows you to update the firmware of the Slave AP using the master AP's interface. Updated firmware versions often offer increased performance and security, as well as bug fixes. Download the latest firmware from the Edimax website.



Click "Choose File" to upload firmware from your local computer and click "Upload" to upload the firmware to the interface.

Check the checkbox of the slave AP you want to upgrade and click "Update Selected" to start firmware upgrade.

VII-8-8 Firmware Upgrade (Slave-Only Interface)

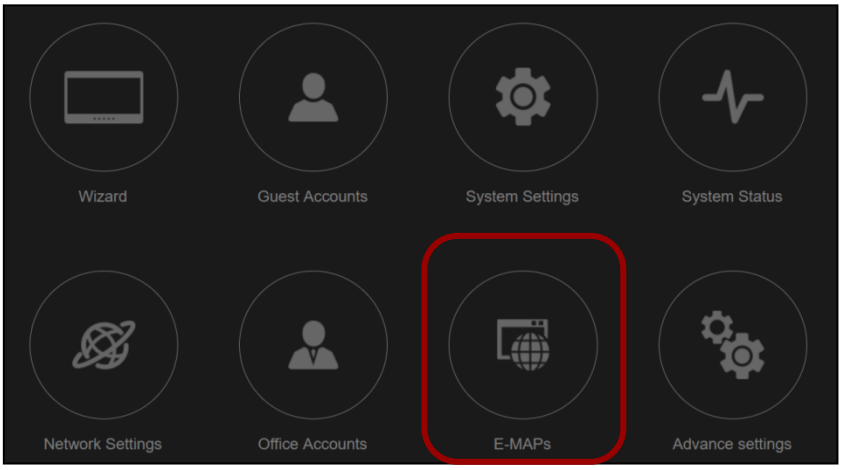
This section allows you to update the firmware of the Access Point. Updated firmware versions often offer increased performance and security, as well as bug fixes. Download the latest firmware from the Edimax website.

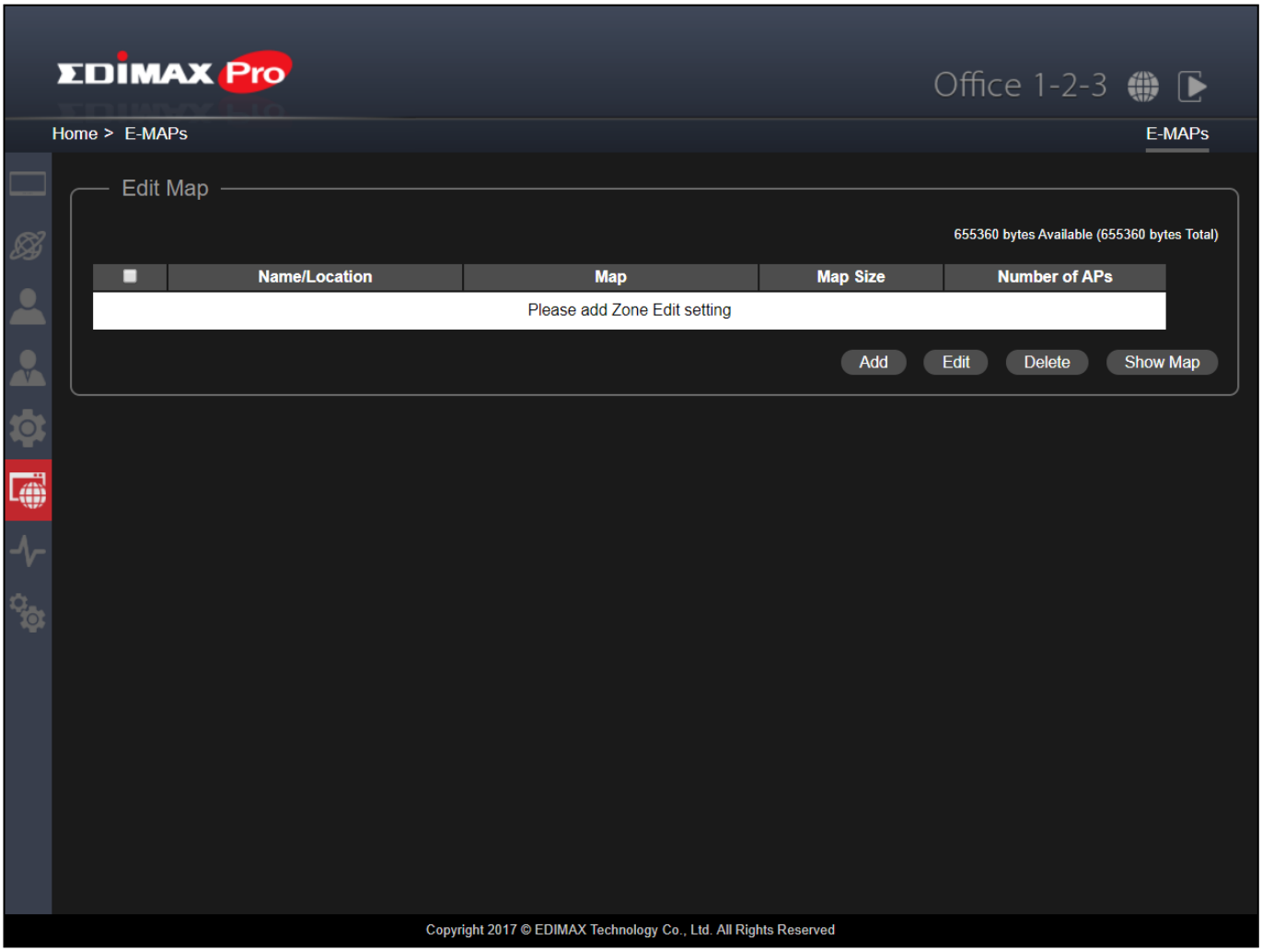
Click "Choose File" to upload firmware from your local computer and click "Update" to start firmware upgrade.

VII-9 E-MAPs

This section allows you to simulate how you would deploy the Office 1-2-3 APs and provides a pictorial presentation of various information for each AP.
For a general rule of deployment, please also refer to V-1 ***Office 1-2-3 Deployment***.

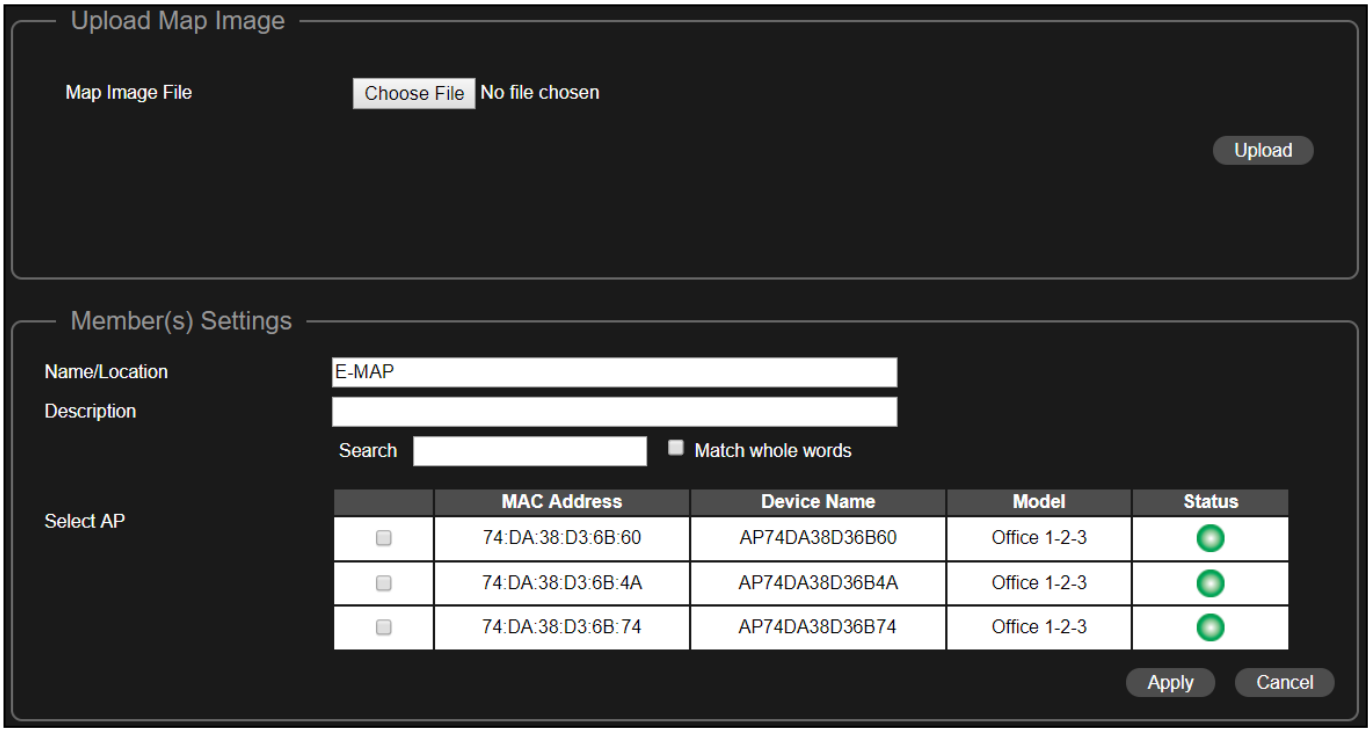
Click “E-MAPs” icon for E-Map settings.





VII-9-1 Add / Edit Zone

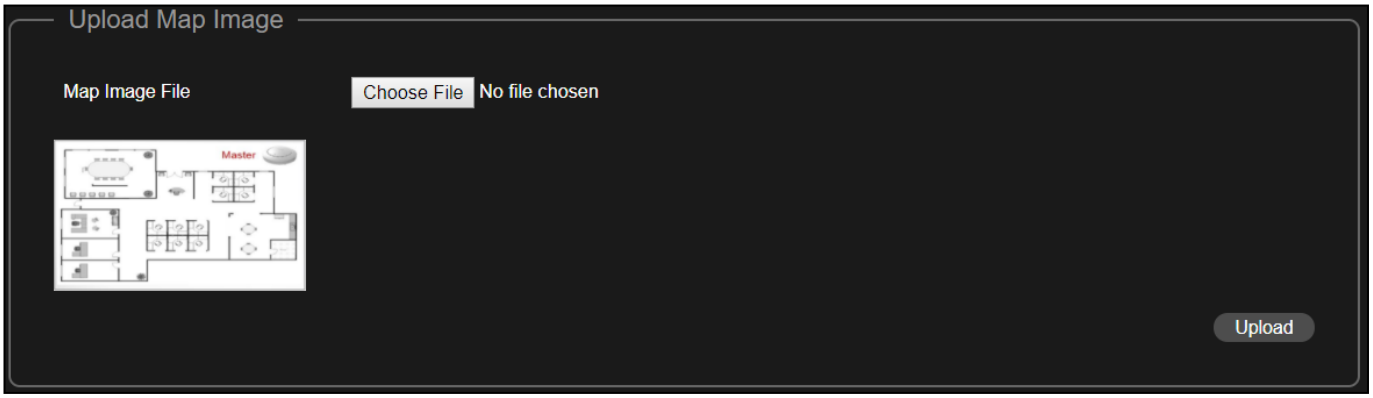
Click “Add” for the page shown below:



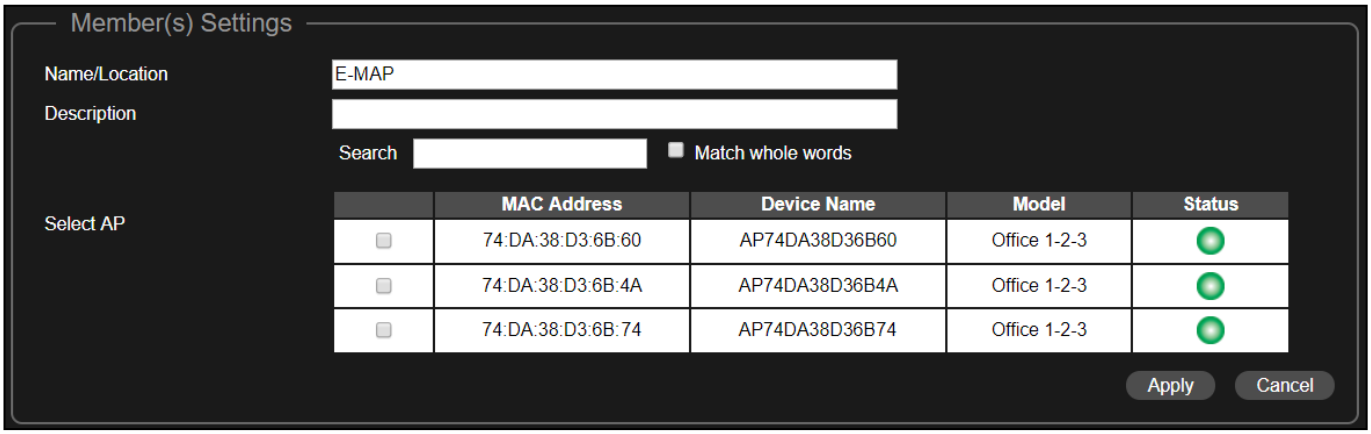
Upload Map Image

Upload Zone Image	
Choose File	Click to locate an image file to be displayed as a map. Typically a floor plan image is useful.

Click “Upload” to upload the image.
An example of an image being uploaded is shown below:

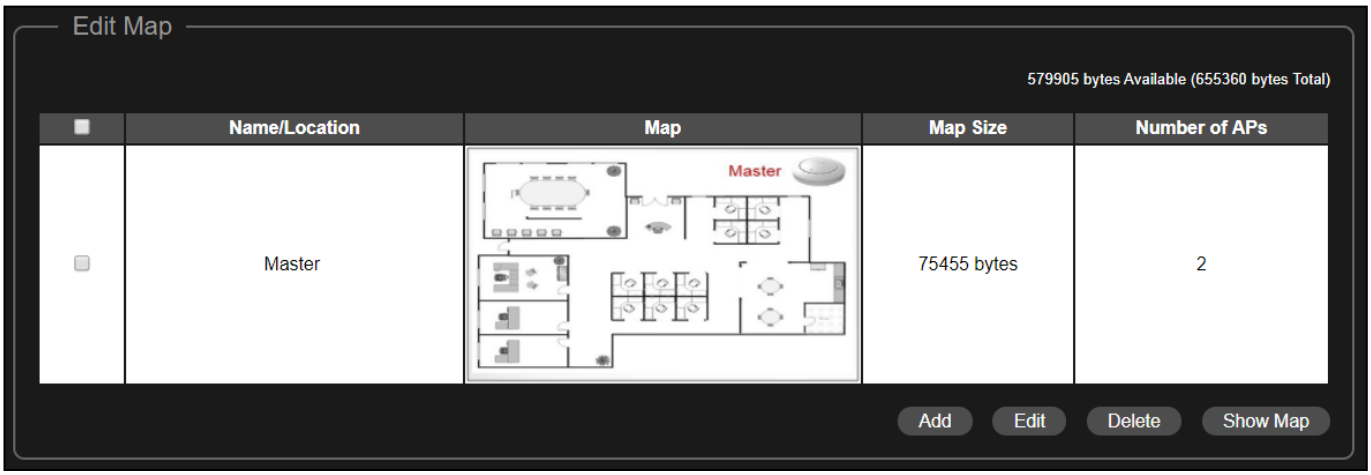


Member(s) Settings



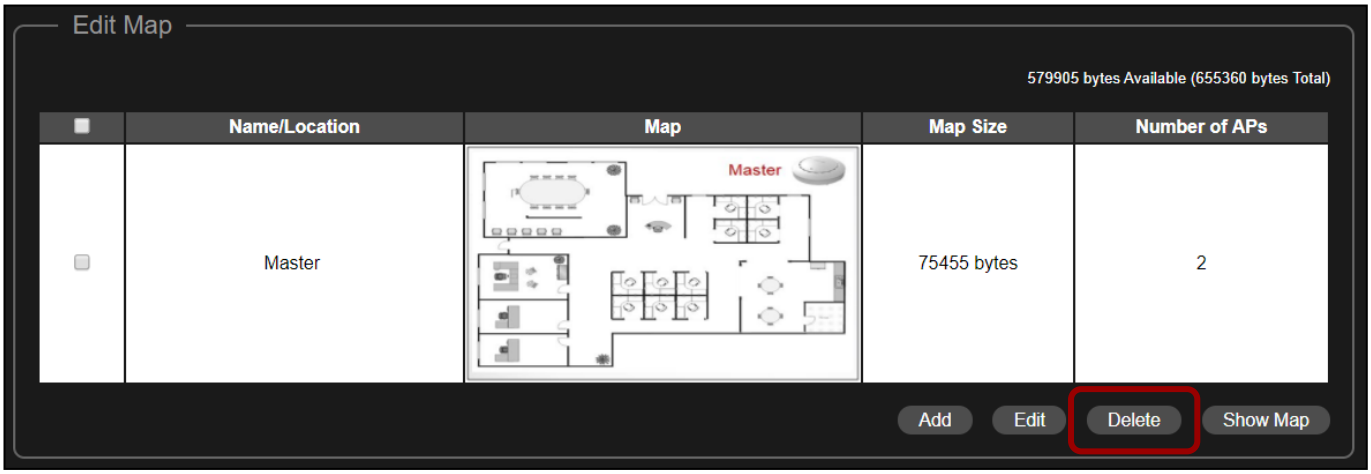
Member(s) Setting	
Name/Location	Name the location or simply enter the name of the location.
Description	Enter a description of the zone/location for reference.
Members	Assign access points to the specified zone/location for use with the feature.

Click “Apply” to complete your zone addition. An example of adding the zone is shown below:



VII-9-2 Delete Zone

Check the checkbox of the zone you wish to delete and click “Delete” to delete the zone.



VII-9-3 Show Map

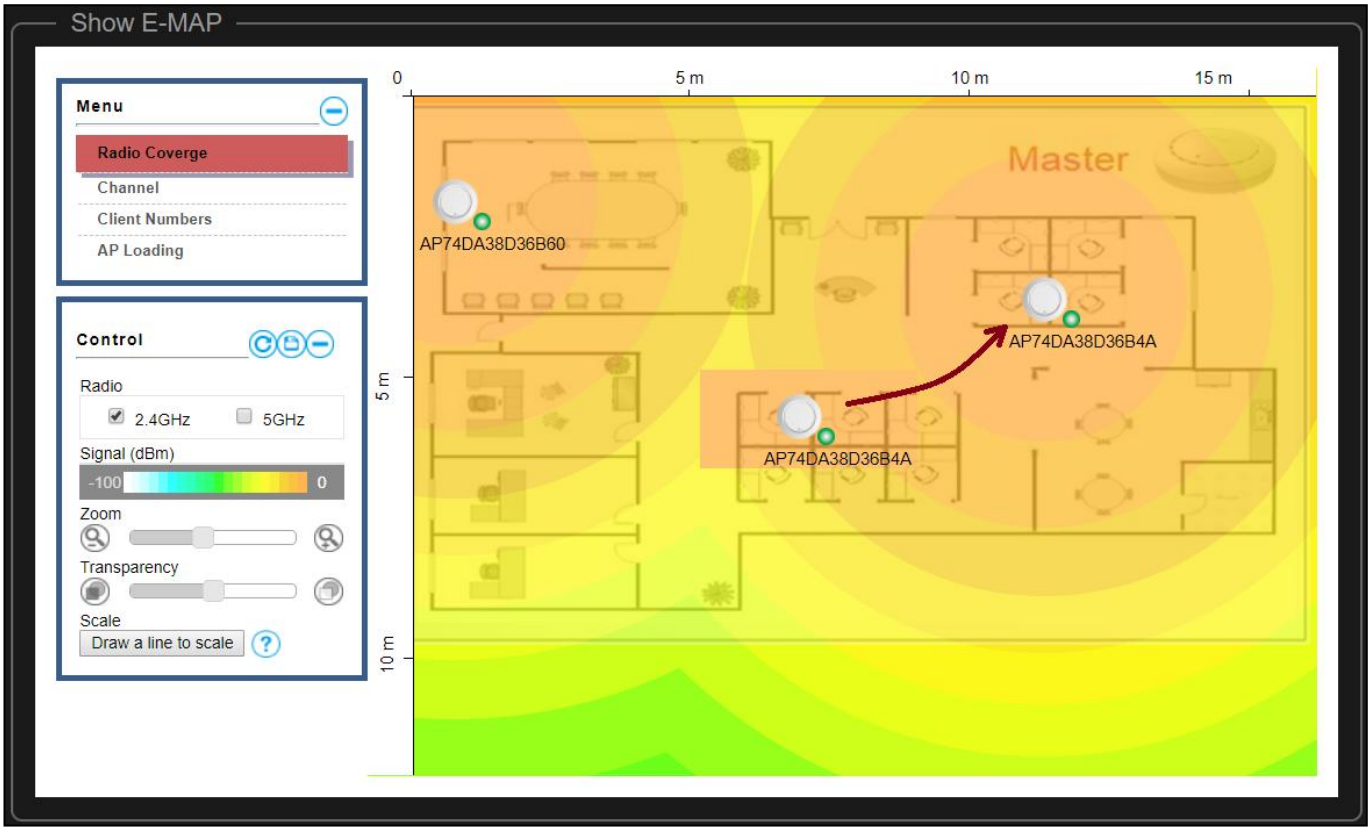
When “Show Map” is clicked, the uploaded map image will be displayed. An example is shown below:

Move the cursor over an Access Point will display certain information.

Simulate Floor Plan

Moving the Access Point

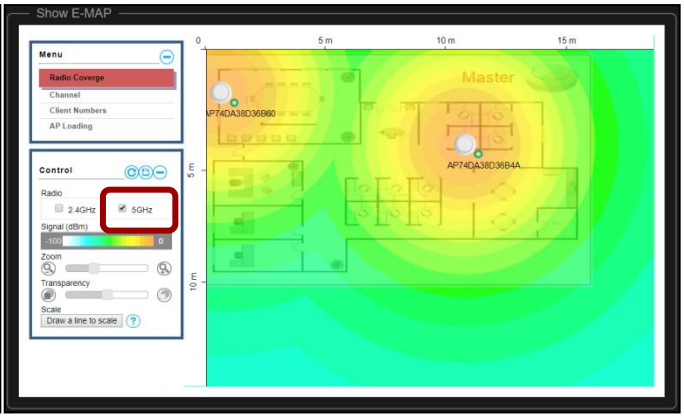
On this page, the system planner can move the Access Points around to simulate the floor plan. Simply click the AP and drag it along. An example is shown:



Radio Coverage

Information such as radio coverage (in both 2.4GHz and 5GHz) can be displayed to allow the planner to plan where to put the access points.

2.4GHz Radio Coverage

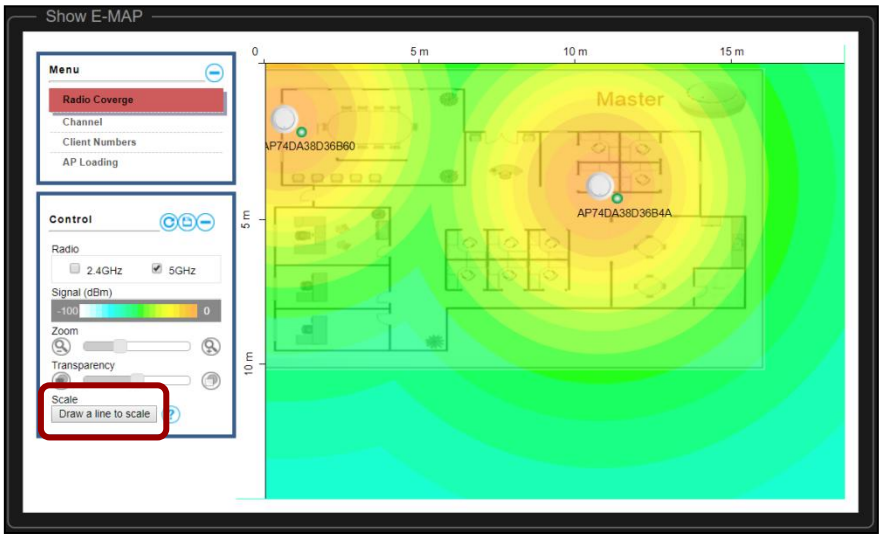


5GHz Radio Coverage

Draw to Scale

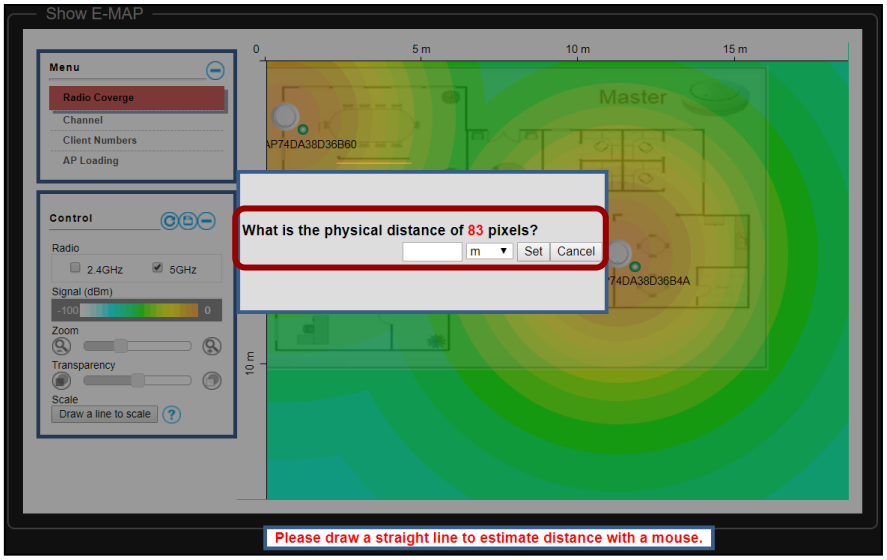
Actual scale of the floor plan can also be drawn on this page to have a much more relative, and thus more accurate, signal distribution and planning.

1. Click on “Draw a line to scale” button.

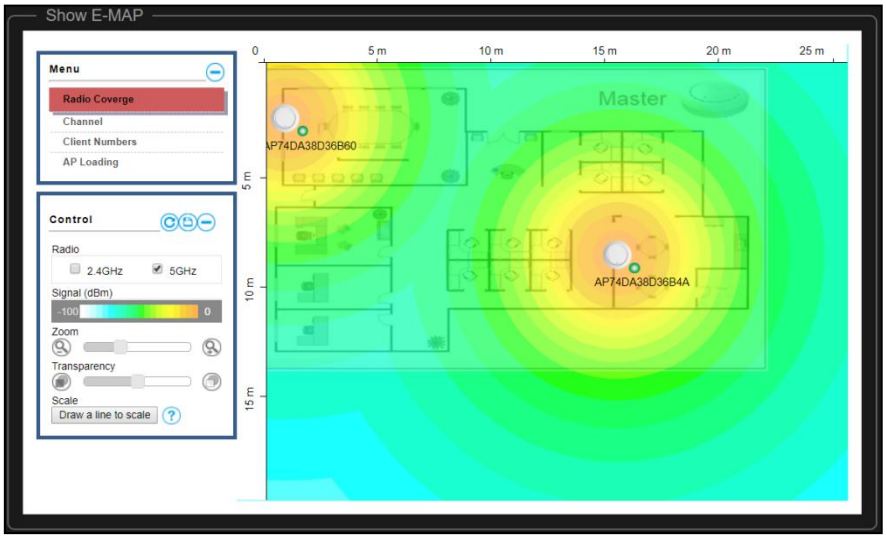


2. Draw a line on the map.

3. Enter the physical distance. Use the drop down menu to select the unit. Click “Set” after confirming the entry / selection.



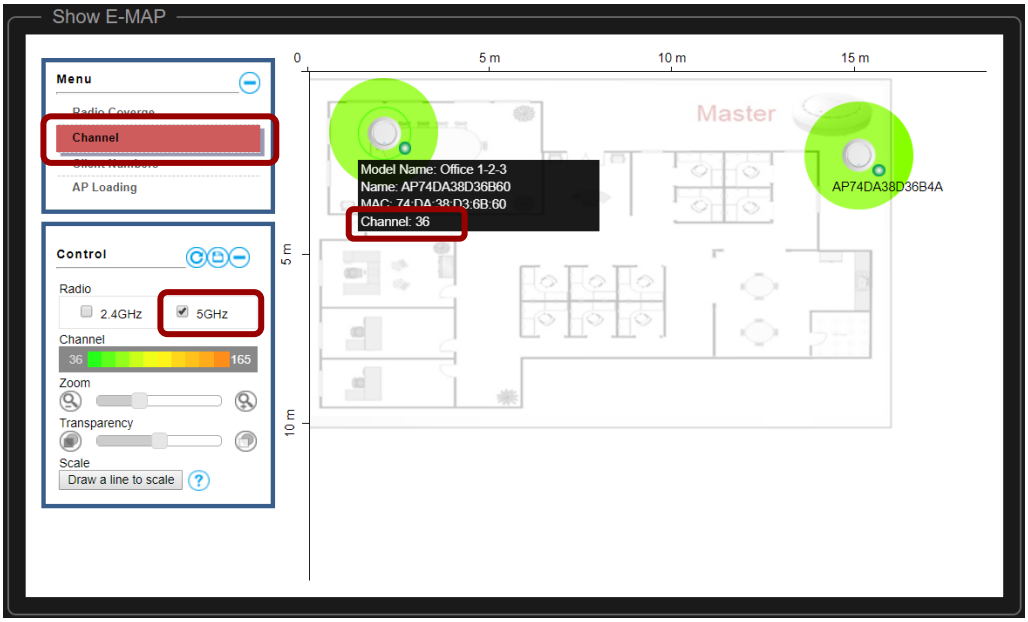
The scale will change in response to the entered scale. An example is below, as the scale differs from the previous pictures



Channel

When “Channel” is selected, the cursor will also display the channel of the radio network.

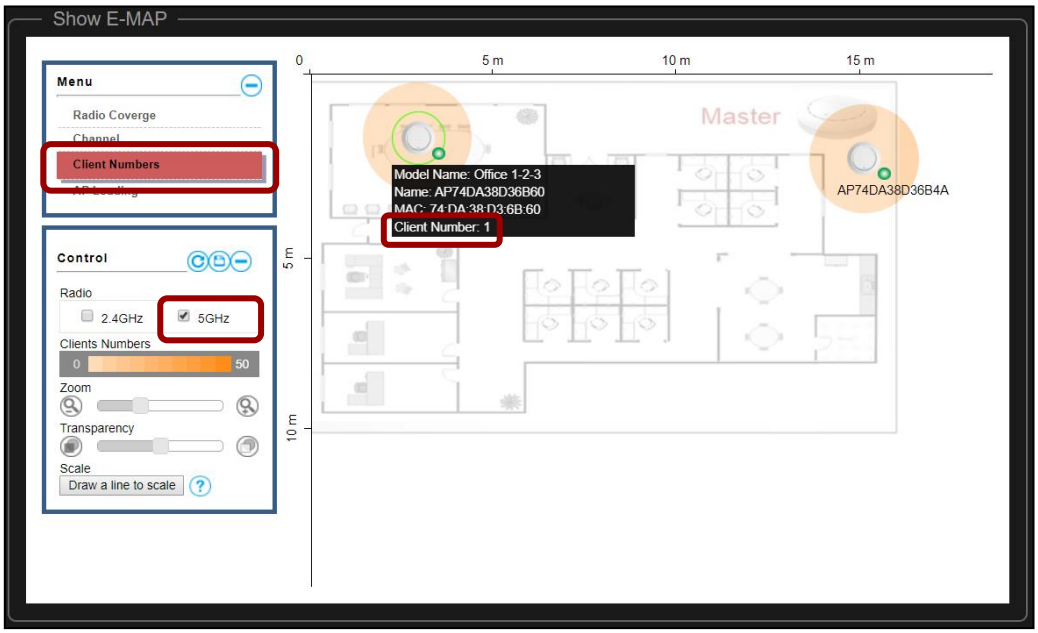
An example is displayed below, where the 5GHz network is on channel 36.



Client Numbers

When “Client Number” is selected, the cursor will display the client number.

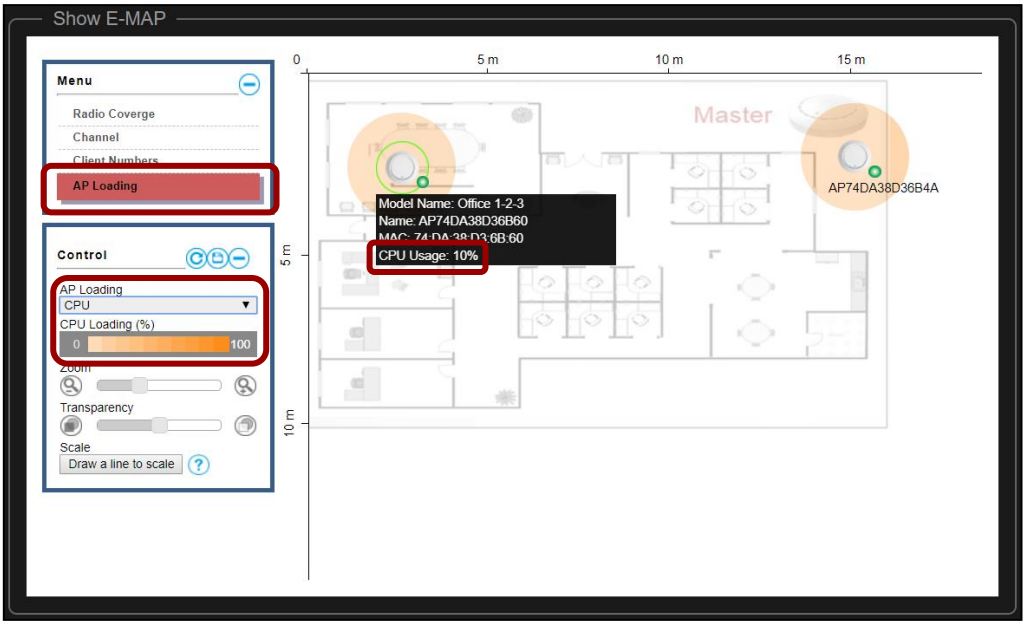
An example is displayed below, where 1 client is connected.



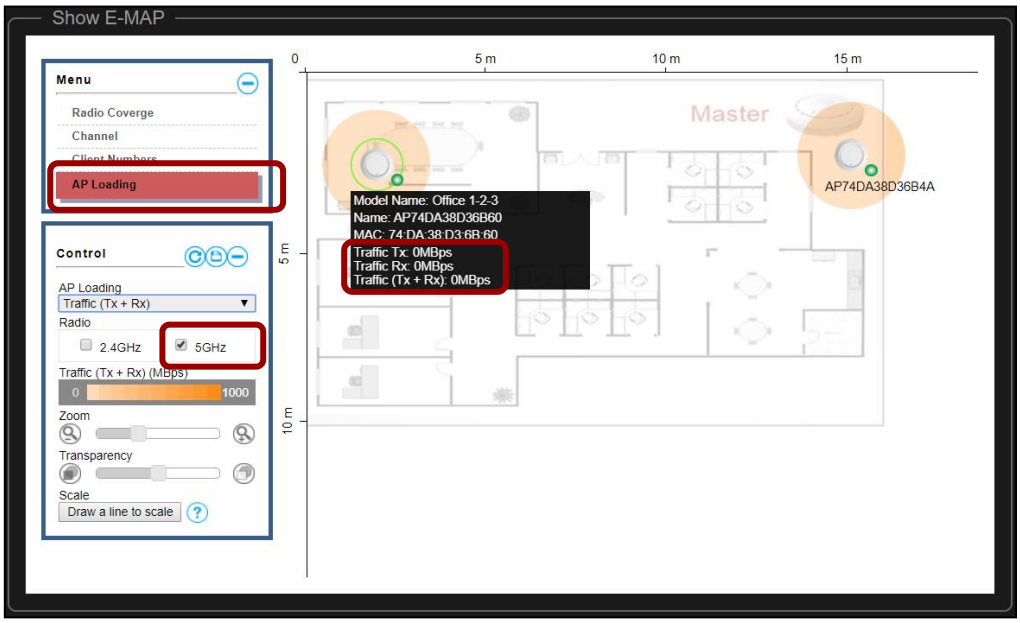
AP Loading

When “AP Loading” is selected, the cursor will display the either CPU Usage as a percentage, or Traffic (Tx + Rx).

An example of CPU Usage is displayed below, where 10% of CPU is used.



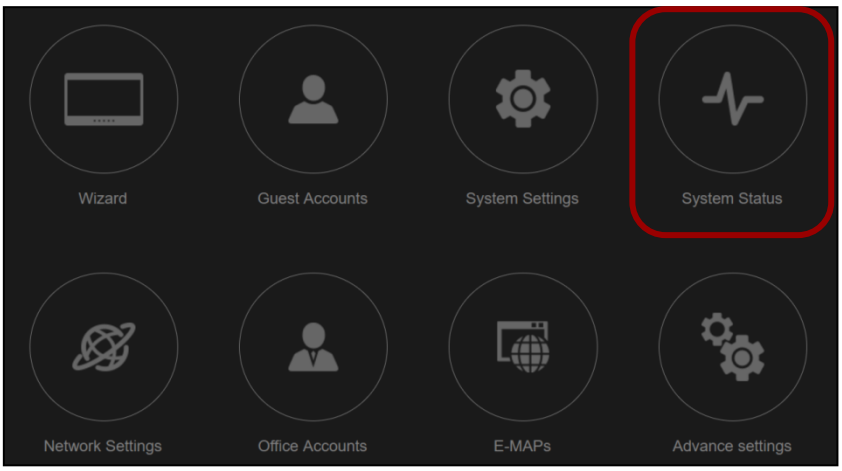
An example of Traffic (Tx + Rx) is displayed below.



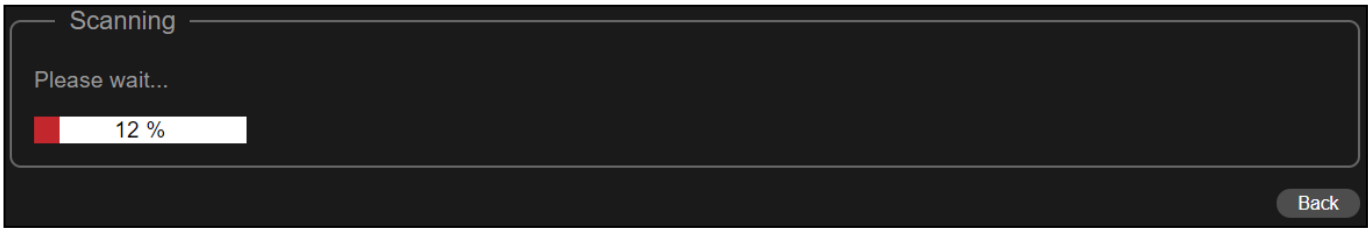
VII-10 System Status

This section allows you to check information related to *Managed APs*, *Wireless Client*, *Guests*, *System Logs*, *Office Workers*, and *User Logs*.

Click the “System Status” icon.

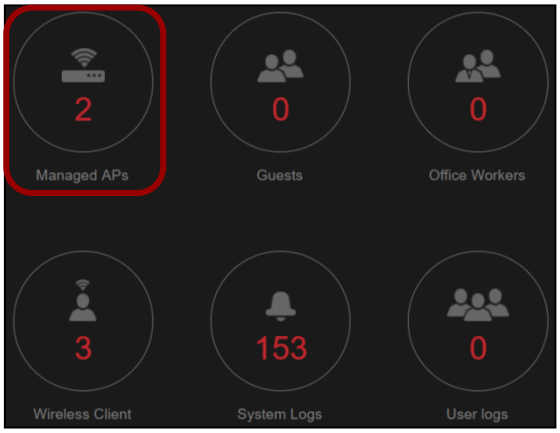


Click an icon for the information you want.
The system will scan the detailed information when an icon is clicked:

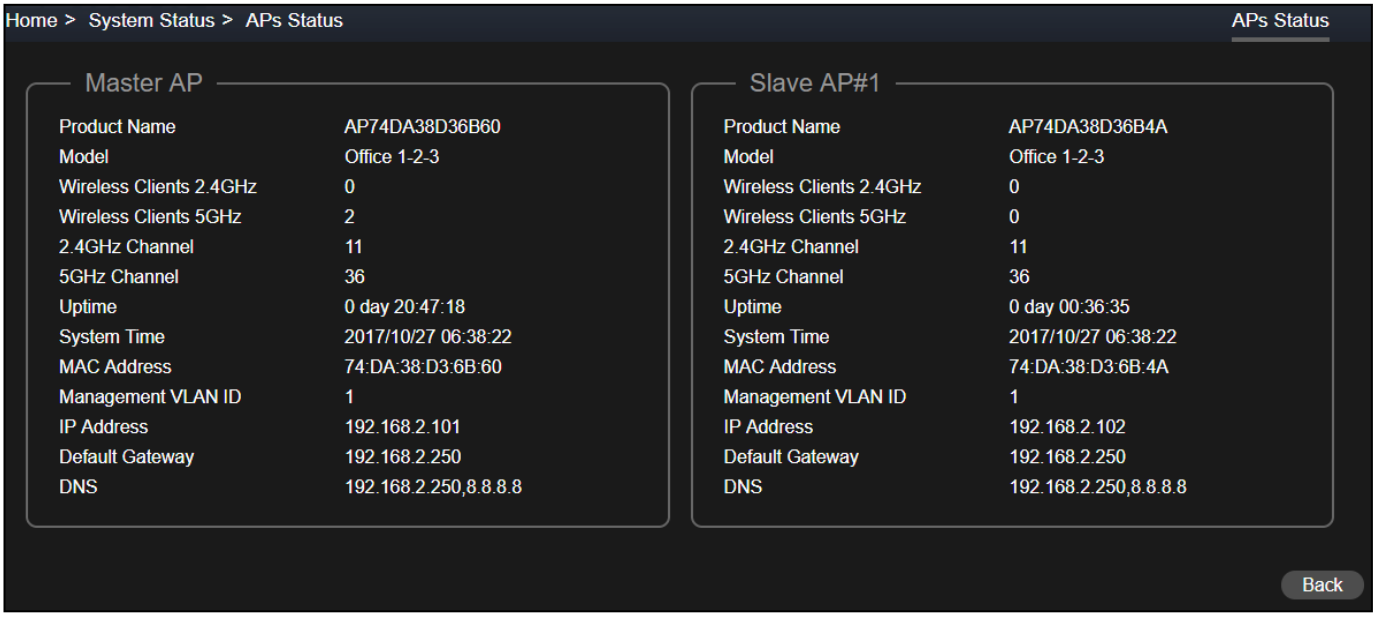


Managed APs

If you wish to know the current status of the APs, click the “Managed APs” icon.

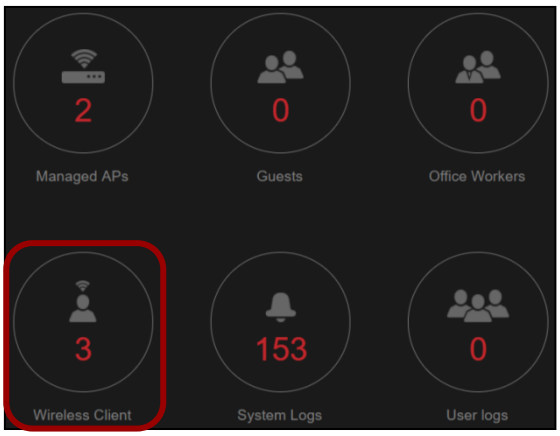


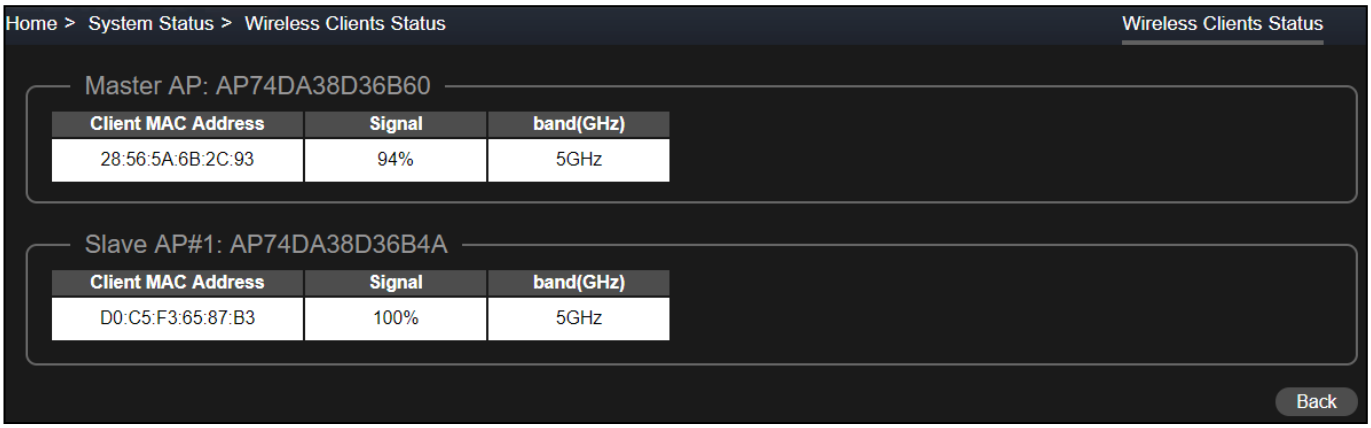
Information of the APs will be shown. An example is displayed below:



Wireless Client

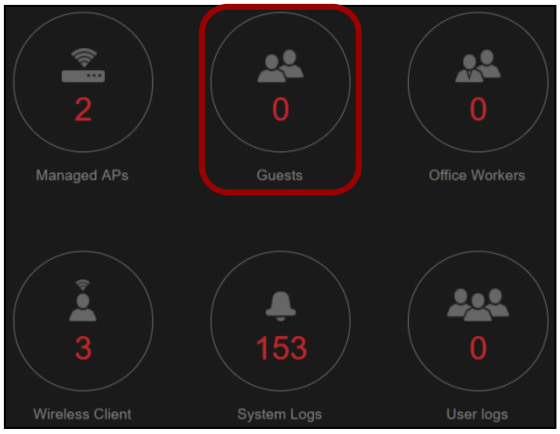
If you wish to know the information on the wireless clients, click the “Wireless Client” icon.

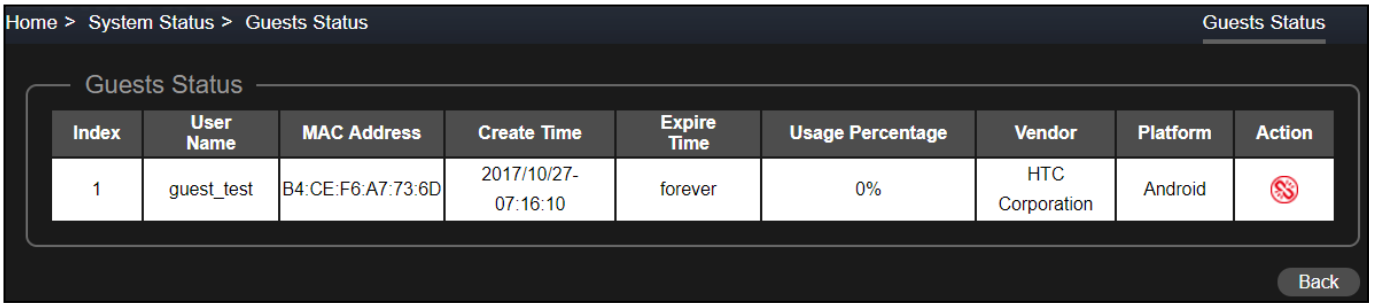




Guests

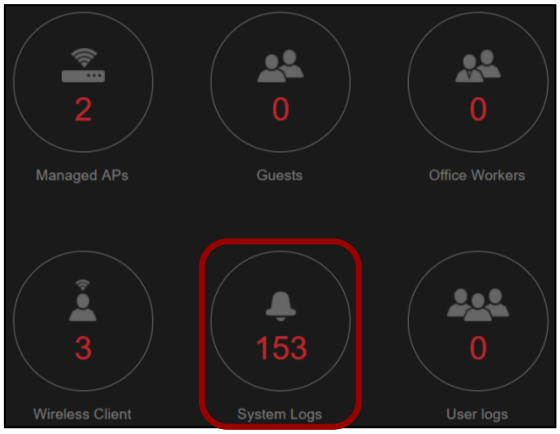
If you wish to know the information of the guests connected to the network, click the “Guests” icon.

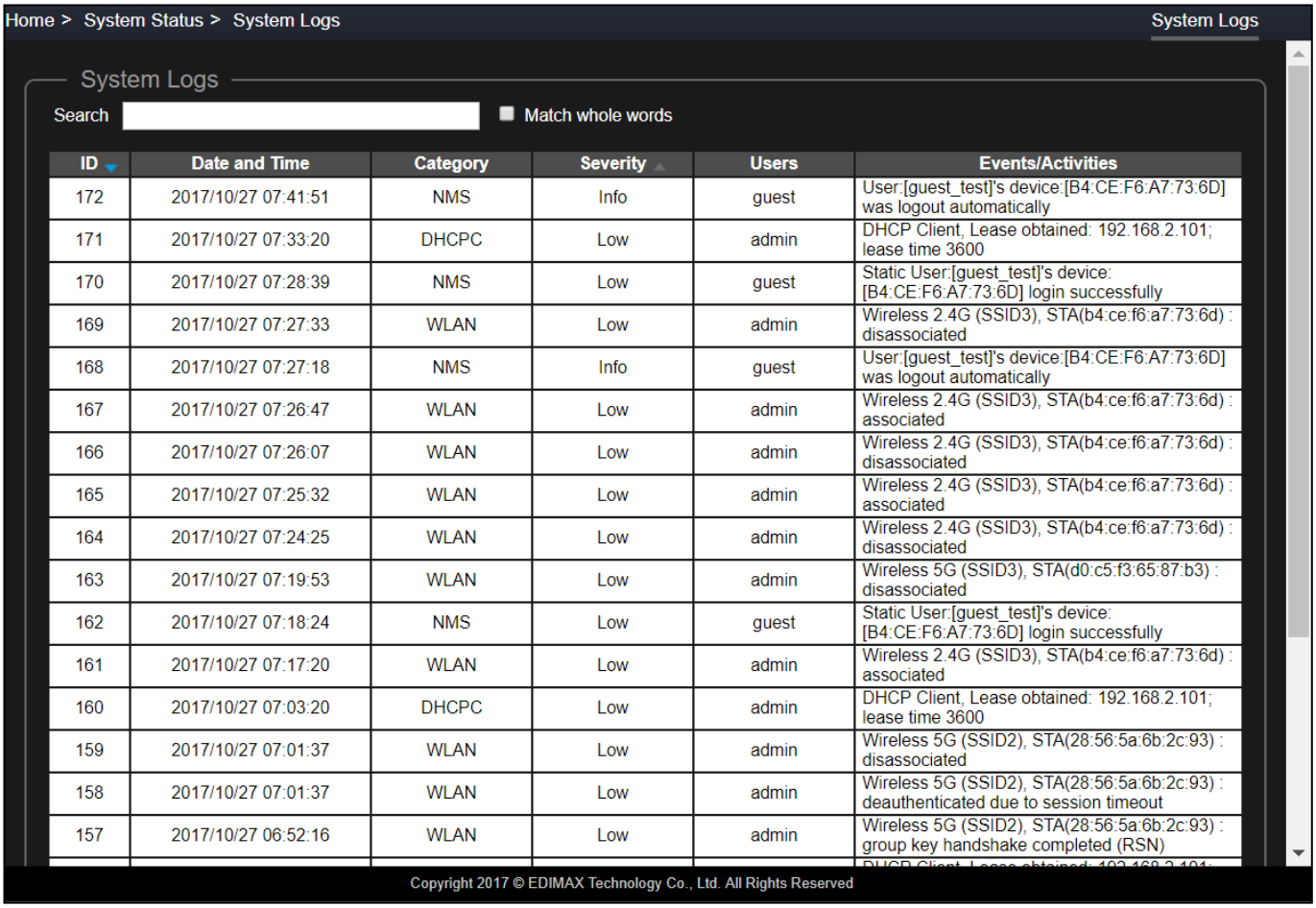




System Logs

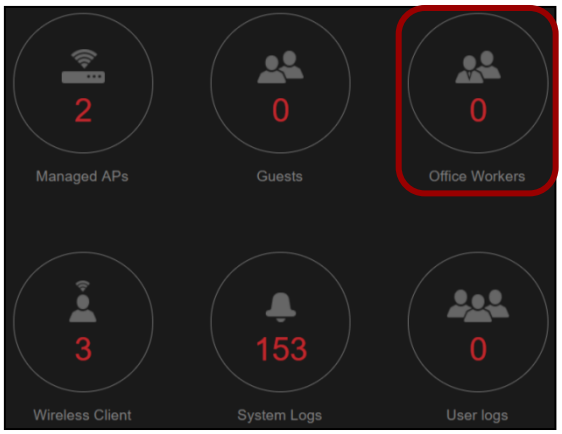
If you wish to view the system logs of the network, click the “System Logs” icon.

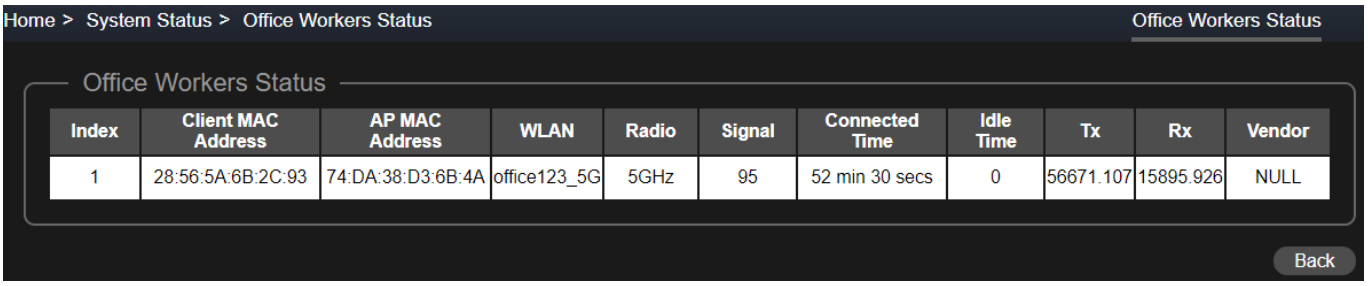




Office Workers

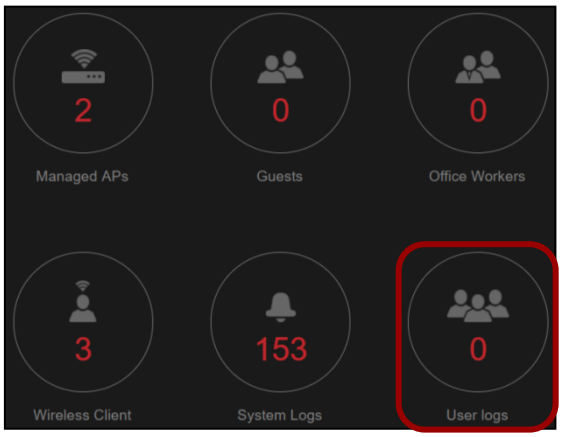
If you wish to view the information of the office workers connected to the network, click the “Office Workers” icon.



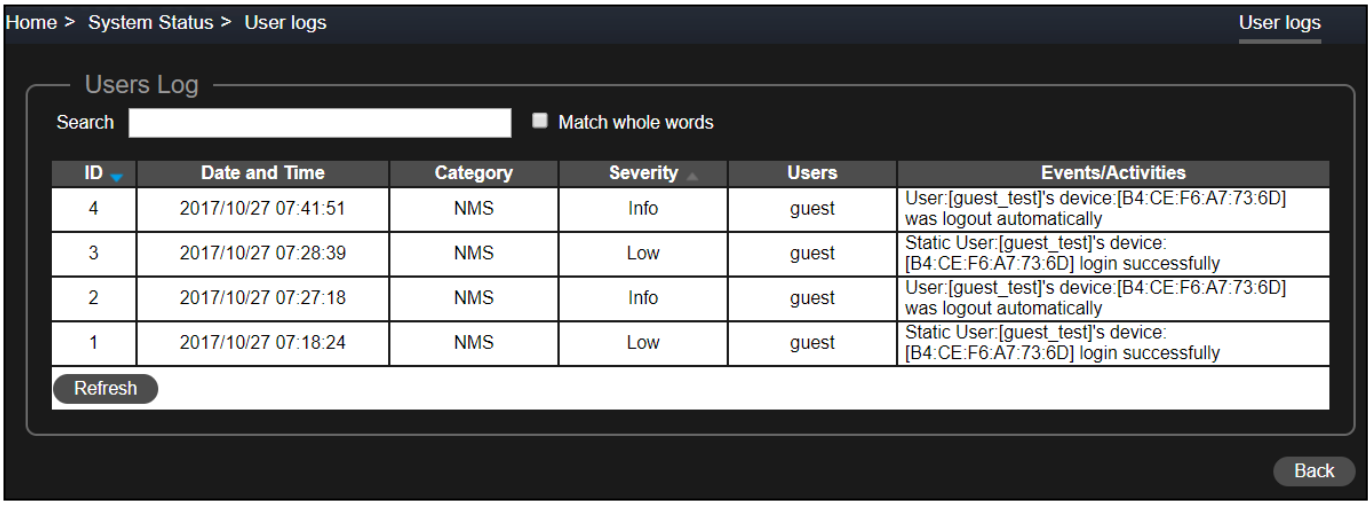


User Logs

If you wish to view the user logs of the network, click the “User logs” icon.



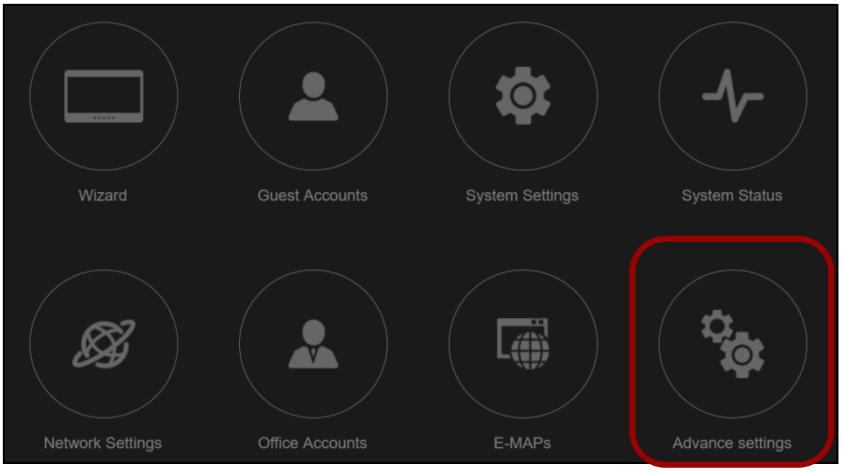
These logs include the login / logout actions.


Home > System Status > User logs
User logs
Users Log
Search
Match whole words
ID
Date and Time
Category
Severity
Users
Events/Activities
4
2017/10/27 07:41:51
NMS
Info
guest
User:[guest_test]'s device:[B4:CE:F6:A7:73:6D] was logout automatically
3
2017/10/27 07:28:39
NMS
Low
guest
Static User:[guest_test]'s device: [B4:CE:F6:A7:73:6D] login successfully
2
2017/10/27 07:27:18
NMS
Info
guest
User:[guest_test]'s device:[B4:CE:F6:A7:73:6D] was logout automatically
1
2017/10/27 07:18:24
NMS
Low
guest
Static User:[guest_test]'s device: [B4:CE:F6:A7:73:6D] login successfully
Refresh
Back

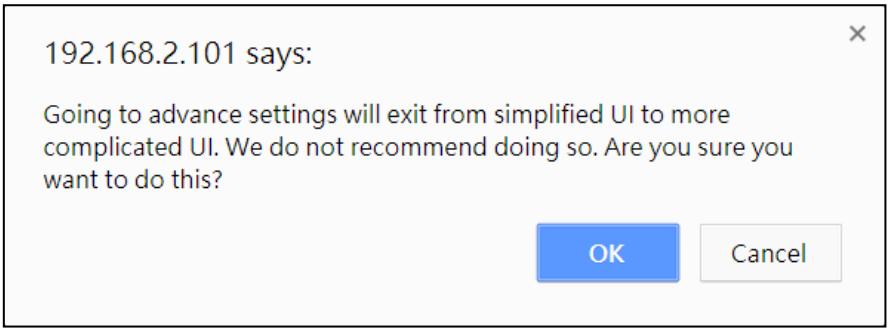
VII-11 Advance Settings

NOTE: It is NOT recommended to go to advance settings as the UI is a bit more complicated (although more detailed).

For Advance settings, click the “Advance settings” icon.



A pop-up message will be shown (the format will depend on your browser):



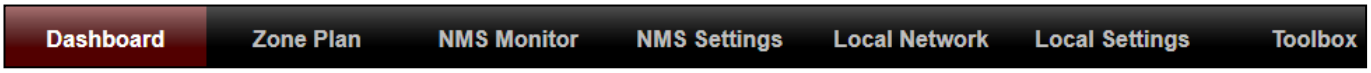
Refer to the next section on the advance settings and its options.

VIII Advanced Settings

NOTE: It is NOT recommended to go to advance settings as the UI is a bit more complicated (although more detailed).

The advanced settings include the top panel menu. When a category is selected, a left panel will appear for detailed configurations.

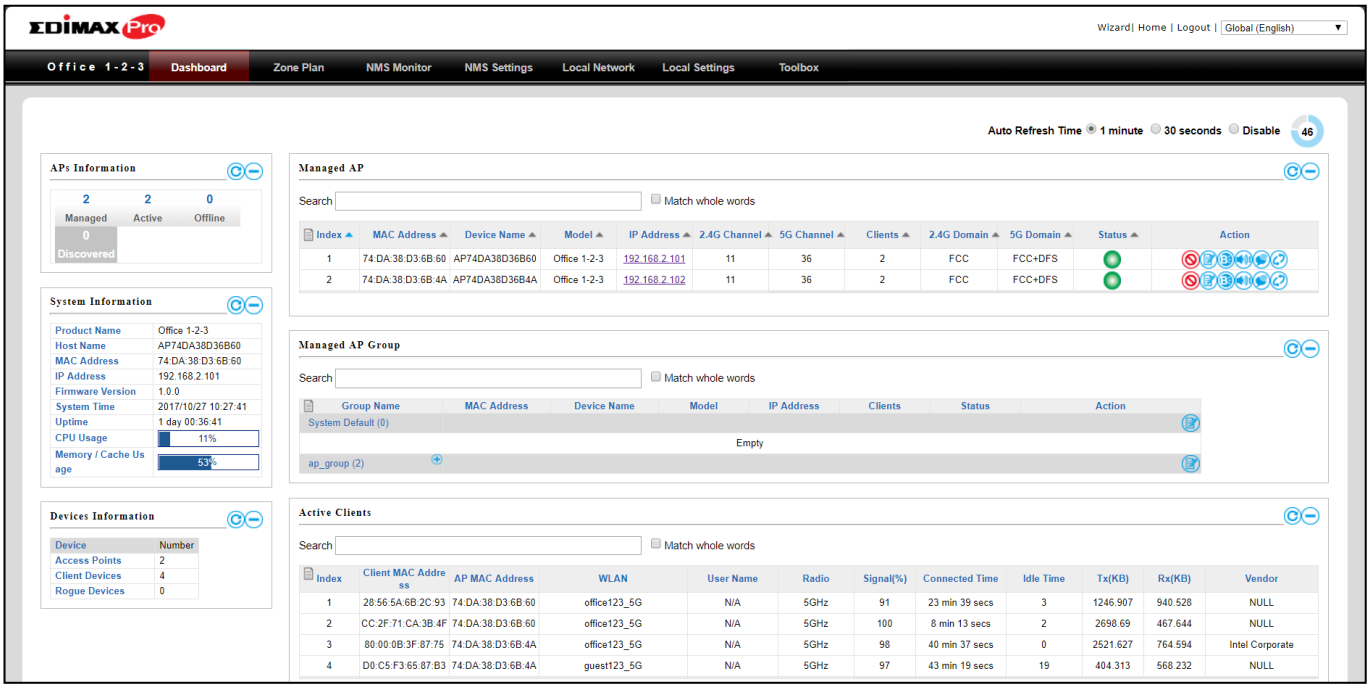
The top panel menu includes: *Dashboard, Zone Plan, NMS Monitor, NMS Settings, Local Network, Local Settings & Toolbox.*



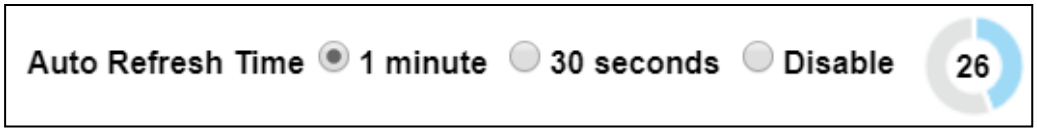
VIII-1 Dashboard

The **Dashboard** panel displays an overview of your network and key system information, with quick links to access configuration options for Managed APs and Managed AP groups. Each panel can be refreshed, collapsed or moved according to your preference.

The dashboard displays an overview of your AP array:

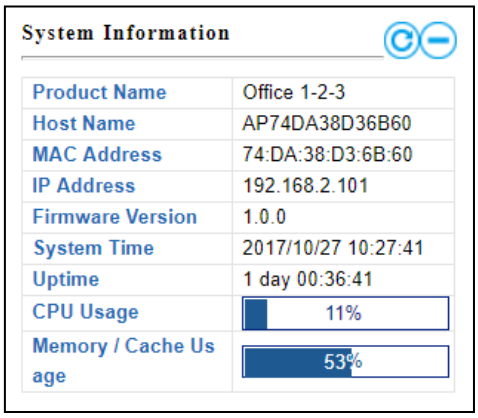


Use the blue icons above to refresh or collapse each panel in the dashboard. Click and drag to move a panel to suit your preference. You can set the dashboard to auto-refresh every 1 minute, 30 seconds or disable auto-refresh:



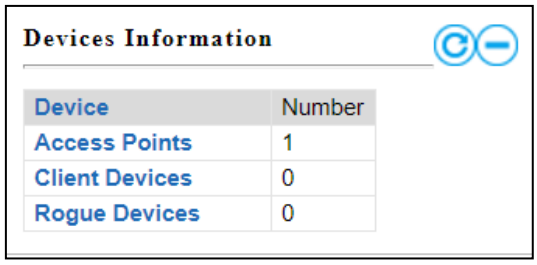
VIII-1-1 System Information

System Information displays information about the Master AP: *Product Name (model), Host Name, MAC Address, IP Address, Firmware Version, System Time, Uptime (time the access point has been on), CPU Usage* and *Memory / Cache Usage.*



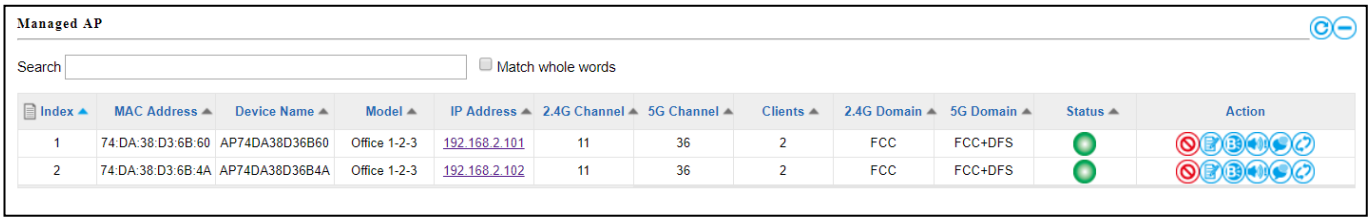
VIII-1-2 Devices Information

Devices Information is a summary of the number of all devices in the local network: *Access Points, Clients Connected, and Rogue (unidentified) Devices.*

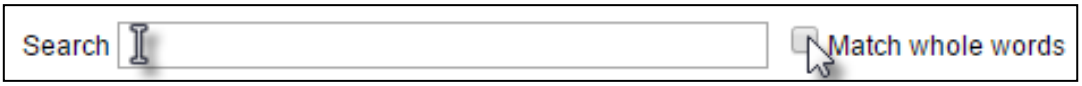


VIII-1-3 Managed AP

This page displays information about the Managed APs in the local network: *Index (reference number), MAC Address, Device Name, Model, IP Address, 2.4GHz & 5GHz Wireless Channel Number, No. of Clients connected to each access point, and Status (connected, connecting or disconnected).*



The **search** function can be used to locate a specific Managed AP. Type in the search box and the list will update:



The **Status** icon displays *grey* (disconnected), *yellow* (connecting) or *green* (connected) for each Managed AP.

Each Managed AP has "**Action**" icons with the following functions:

1. **Disallow**
   Remove the Managed AP from the AP array and disable connectivity.

2. **Edit**
   Edit various settings for the Managed AP.

3. **Blink LED**
   The Managed AP's LED will flash temporarily to help identify & locate the access point.

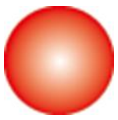
4. **Buzzer**
   The Managed AP's buzzer will sound temporarily to help identify/locate the access point.

5. Network Connectivity

Go to the "Network Connectivity" panel to perform a ping or traceroute.

6. Restart

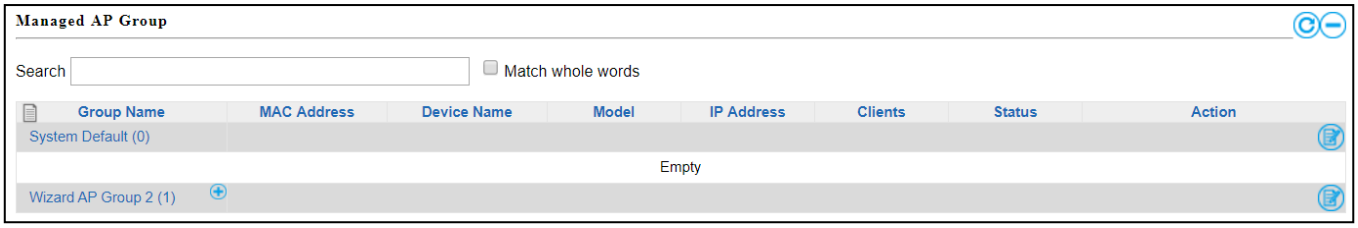
Restarts the Managed AP.

Status Icons			
Icon	**Color**	**Status**	**Definition**
	Grey	Disconnected	Managed AP is disconnected. *Please check the network connection and ensure the Managed AP is in the same IP subnet as the Master AP.*
	Red	Authentication Failed Or Incompatible NMS Version	System security must be the same for all access points in the AP array. *Please check security settings*. All access points must have the same firmware version. *Please use the Master AP's firmware upgrade function*.
	Orange	Configuring or Upgrading	*Please wait while the Managed AP makes configurations or while the firmware is upgrading.*
	Yellow	Connecting	*Please wait while Managed AP is connecting.*
	Green	Connected	*Managed AP is connected.*
	Blue	Waiting for Approval	Managed AP is waiting for approval. *Note: Up to sixteen Managed APs are supported. Additional APs will have this status until an existing Managed AP is removed.*

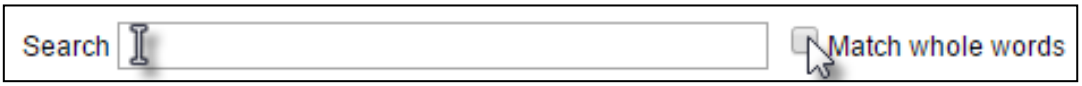
VIII-1-4 Managed AP Group

Managed APs can be grouped according to your requirements. **Managed AP Group** displays information about each Managed AP group in the local network: *Group Name, MAC Address, Device Name, Model, IP Address, 2.4GHz & 5GHz Wireless Channel Number, No. of Clients connected to each access point, and Status (connected or disconnected).*

To edit Managed AP Groups go to **NMS Settings → Access Point**.



The search function can be used to locate a specific Managed AP Group. Type in the search box and the list will update:



The **Status** icon displays *grey* (disconnected), *yellow* (connecting) or *green* (connected) for each individual Managed AP.

Each Managed AP Group has "**Action**" icons with the following functions:

1. **Disallow**
   Remove the Managed AP Group from the AP array and disable connectivity.

2. **Edit**
   Edit various settings for the Managed AP Group.

3. **Blink LED**
   The LED of all Managed APs in the group will flash temporarily to help identify & locate the access points.

4. Buzzer

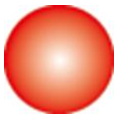
The buzzer of all Managed APs in the group will sound temporarily to help identify & locate the access points.

5. Network Connectivity

Go to the "Network Connectivity" panel to perform a ping or traceroute.

6. Restart

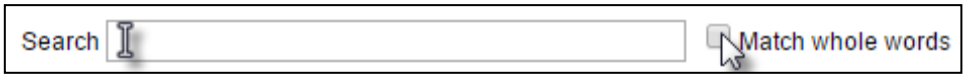
Restarts all Managed APs in the group.

Status Icons			
Icon	**Color**	**Status**	**Definition**
	Grey	Disconnected	Managed AP group is disconnected. *Please check the network connection and ensure the group is in the same IP subnet as the Master AP.*
	Red	Authentication Failed Or Incompatible NMS Version	System security must be the same for all access points in the AP array. *Please check security settings*. All access points must have the same firmware version. *Please use the Master AP's firmware upgrade function*.
	Orange	Configuring or Upgrading	*Please wait while the Managed AP makes configurations or while the firmware is upgrading.*
	Yellow	Connecting	*Please wait while Managed AP is connecting.*
	Green	Connected	*Managed AP is connected.*
	Blue	Waiting for Approval	Managed AP is waiting for approval. *Note: Up to sixteen Managed APs are supported. Additional APs will have this status until an existing Managed AP is removed.*

VIII-1-5 Active Clients

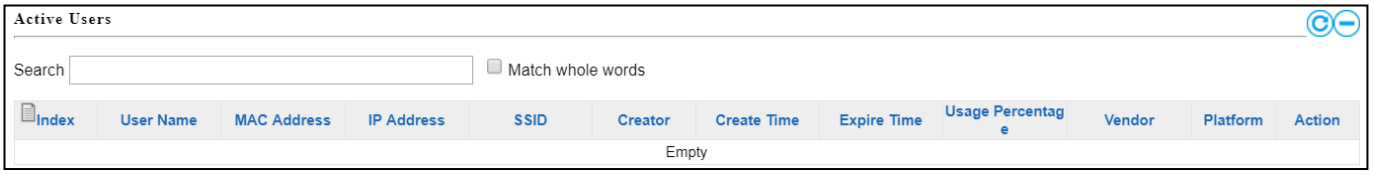
Active Clients displays information about each client in the local network: *Index (reference number), Client MAC Address, Device Name, Model, IP Address, 2.4GHz & 5GHz Wireless Channel Number, No. of Clients connected to each access point, and Status (on or off).*

The search function can be used to locate a specific client. Type in the search box and the list will update:

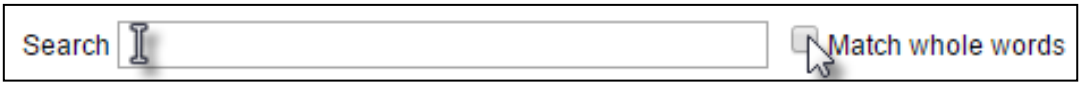


VIII-1-6 Active Users

Active Users displays information about users currently connected to the AP Array: *User Name, MAC Address, IP Address, SSID, Creator, Create Time , Expire Time, Usage Percentage, Vendor , Platform and Action.*



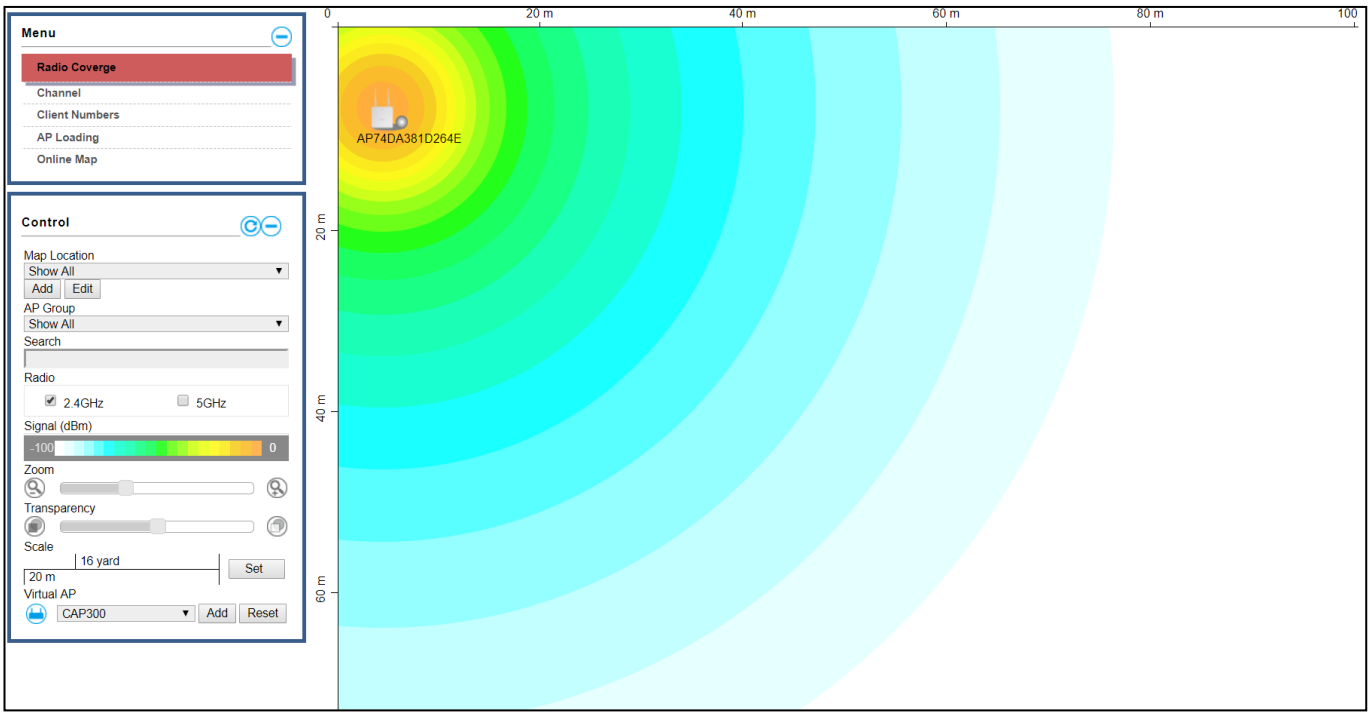
The search function can be used to locate a specific user. Type in the search box and the list will update:



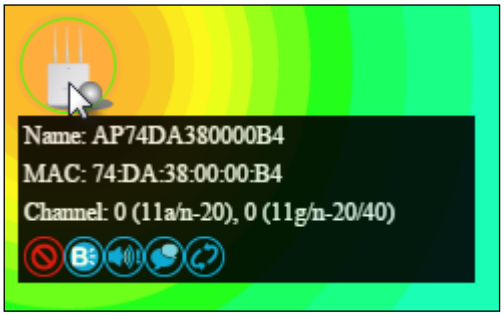
VIII-2 Zone Plan

Zone Plan displays a customizable live map of Managed APs for a visual representation of your network coverage. Each AP icon can be moved around

the map, and a background image can be uploaded for user-defined location profiles using **NMS Settings → Zone Edit**. Options can be configured using the menu on the right side and signal strength is displayed for each AP.

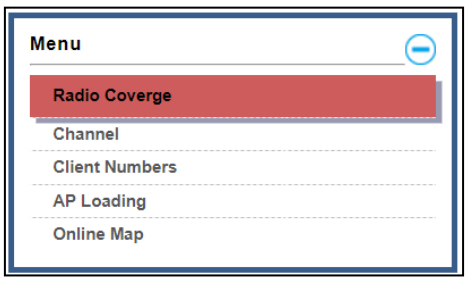


Use the menu on the left side to make adjustments and mouse-over an AP icon in the zone map to see more information. Click an AP icon in the zone map to select it and display action icons:



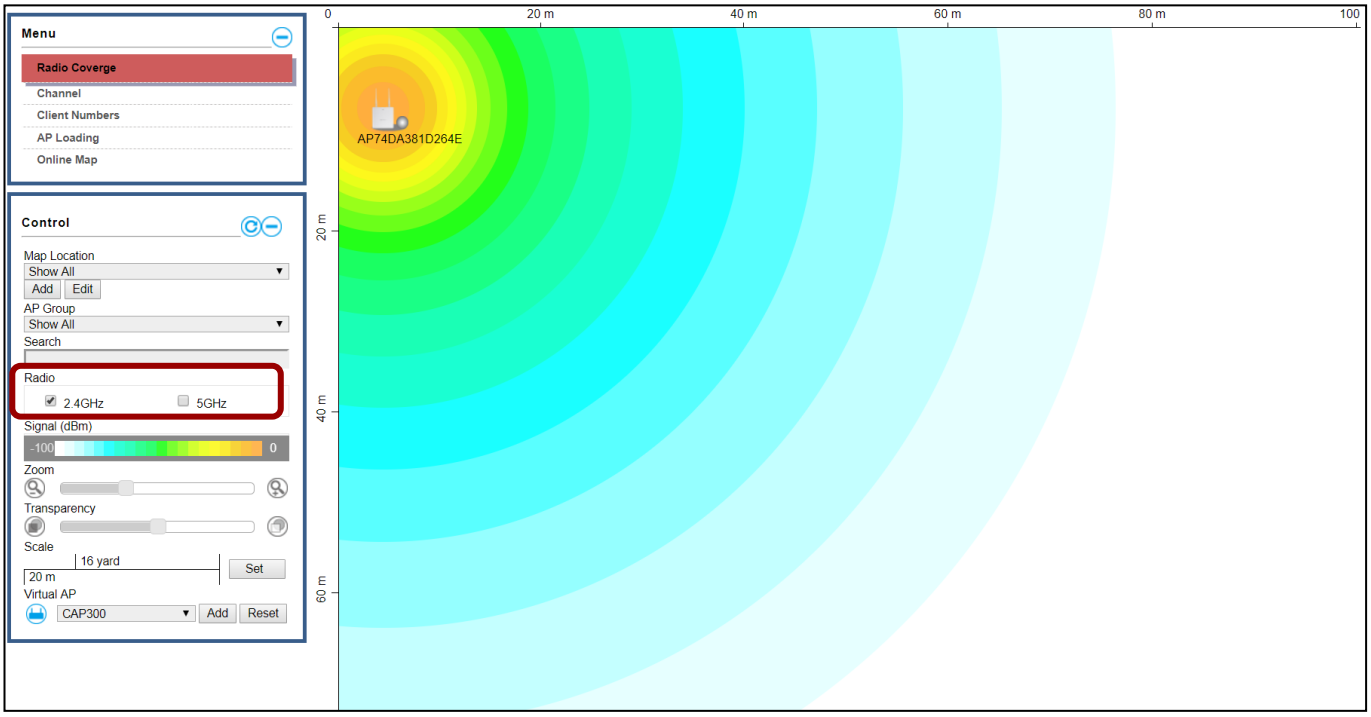
VIII-2-1 Menu

Menu allows you to keep track of the access points' information. Select between *Radio Coverage*, *Channel*, *Client Numbers*, *AP Loading*, and *Online Map*. When an option is selected, the zone plan and Control section will change accordingly.



Radio Coverage

Information such as radio coverage (in both 2.4GHz and 5GHz) can be displayed to allow the planner to plan where to put the access points. Select 2.4GHz or 5GHz as outlined below:



Channel

When “Channel” is selected, the cursor will also display the channel of the radio network.

Client Numbers

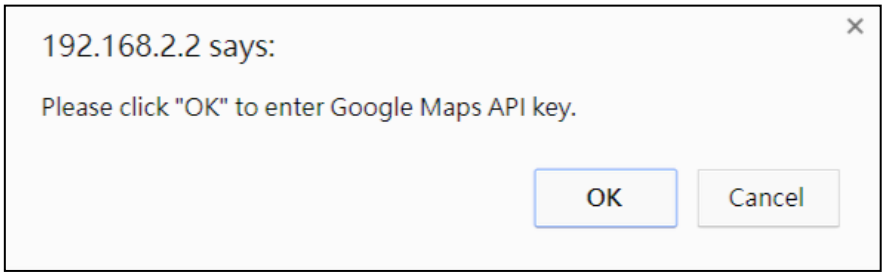
When “Client Number” is selected, the cursor will display the client number.

AP Loading

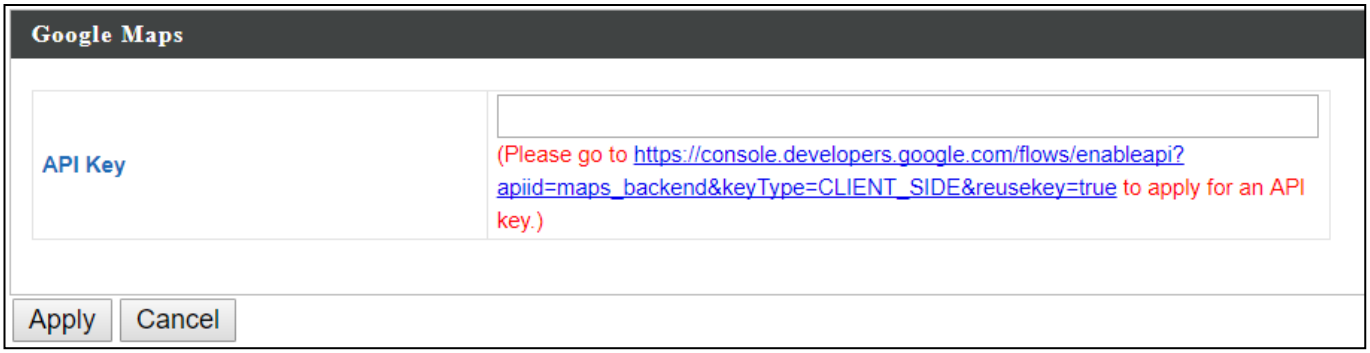
When “AP Loading” is selected, the cursor will display the either CPU Usage as a percentage, or or Traffic (Tx + Rx).

Online Map

When Online Map is selected, the message below is displayed:



Click “OK” and the interface will bring you to the page shown below to allow API key entry:

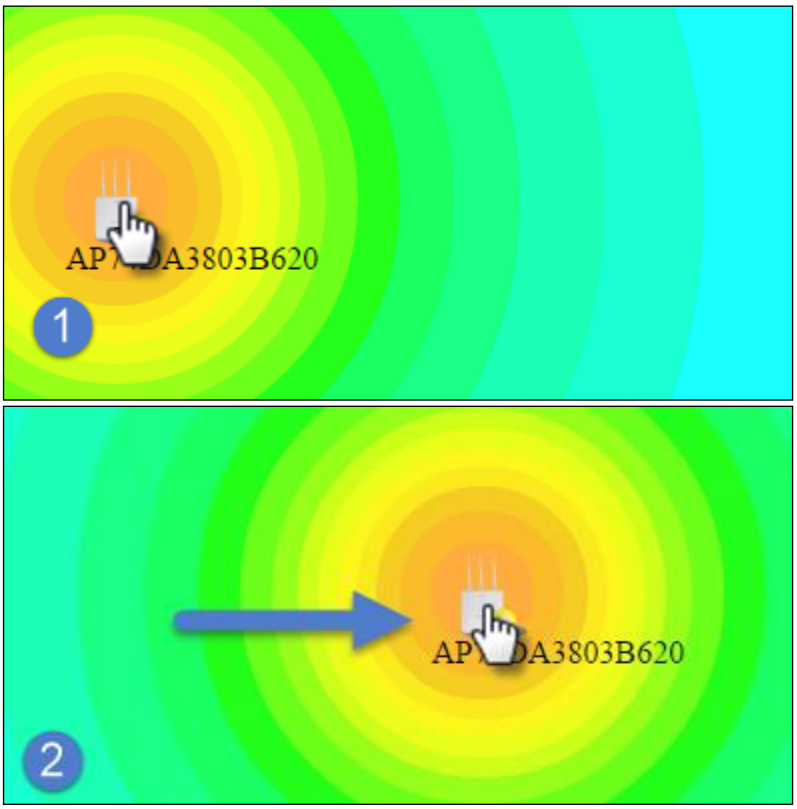


VIII-2-2 Control

The Control section will change according to the selection in the Menu section.

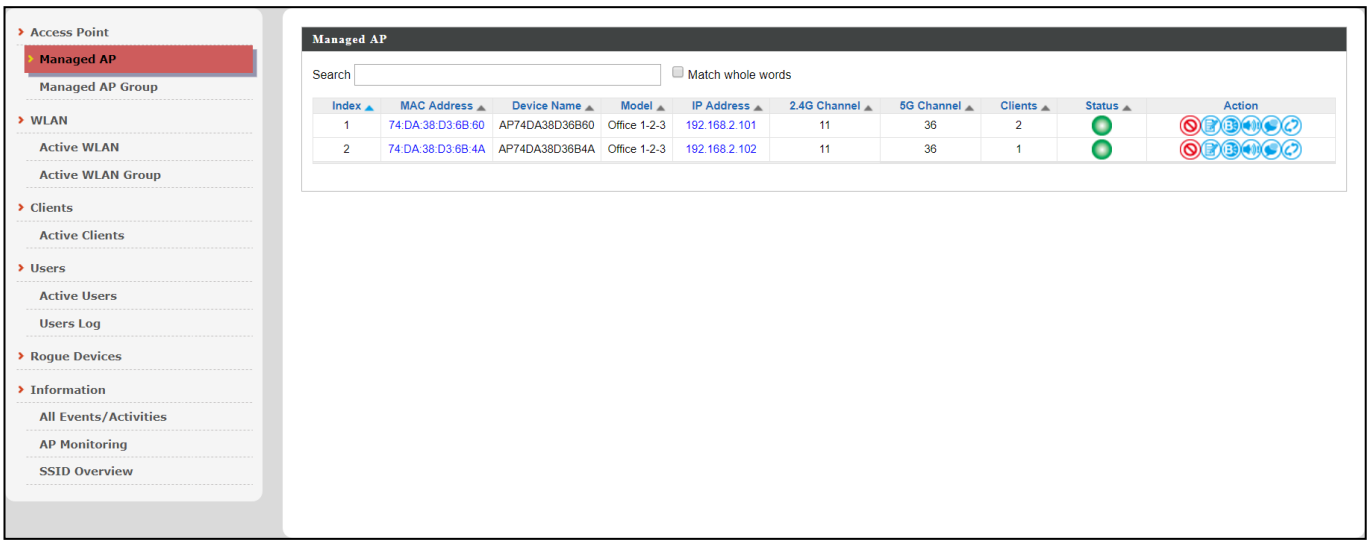
Map Location	Select a pre-defined location from the drop down menu. When you upload a location image in **NMS Settings → Zone Edit**, it will be available for selection here.
AP Group	You can select an AP Group to display in the zone map. Edit AP Groups in **NMS Settings → Access Point.**
Search	Use the search box to quickly locate an AP.
Radio	Use the checkboxes to display APs according to 2.4GHz or 5GHz wireless radio frequency.
Signal	When Radio Coverage is selected in Menu, signal strength is shown in the Control section below the “Radio” option. Signal strength chart displays the signal strength in dBm, and is also shown around each AP in the zone map.
Channel	When Channel is selected in Menu, channel is shown in the Control section below the “Radio” option.
Client Numbers	When Client Numbers is selected in Menu, client numbers is shown in the Control section below the “Radio” option.
AP Loading	When AP Loading is selected in Menu, AP loading is shown in the Control section below the “Search” option. Two options are available: “CPU” or “Traffic (Tx + Rx)”.
CPU Loading	This shows the CPU loading of the AP.
Traffic (Tx + Rx)	This shows the Traffic (Tx+Rx) loading.
Zoom	Use the slider to adjust the zoom level of the map.
Transparency	Use the slider to adjust the transparency of location images.
Scale	Zone map scale.
Device/Number	Displays number and type of devices in the zone map.

Click and drag an AP icon to move the icon around the zone map. The signal strength for each AP is displayed according to the “Signal” key in the menu on the right side:



VIII-3 NMS Monitor

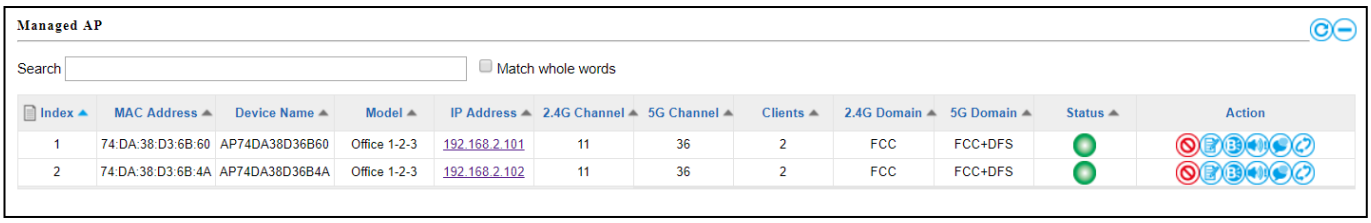
The **NMS Monitor** panel provides more detailed monitoring information about the AP Array than found on the Dashboard, grouped according to categories in the menu down the left side.



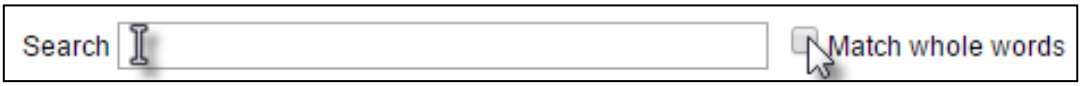
VIII-3-1 Access Point

VIII-3-1-1 Managed AP

This page displays information about the Managed APs in the local network: *Index (reference number), MAC Address, Device Name, Model, IP Address, 2.4GHz & 5GHz Wireless Channel Number, No. of Clients connected to each access point, and Status (connected, connecting or disconnected).*



The **search** function can be used to locate a specific Managed AP. Type in the search box and the list will update:



The **Status** icon displays *grey* (disconnected), *yellow* (connecting) or *green* (connected) for each Managed AP.

Each Managed AP has "**Action**" icons with the following functions:

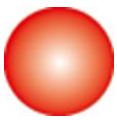
1. **Disallow**
   Remove the Managed AP from the AP array and disable connectivity.

2. **Edit**
   Edit various settings for the Managed AP.

3. **Blink LED**
   The Managed AP's LED will flash temporarily to help identify & locate the access point.

4. **Buzzer**
   The Managed AP's buzzer will sound temporarily to help identify/locate the access point.
5. **Network Connectivity**
   Go to the "Network Connectivity" panel to perform a ping or traceroute.

6. **Restart**
   Restarts the Managed AP.

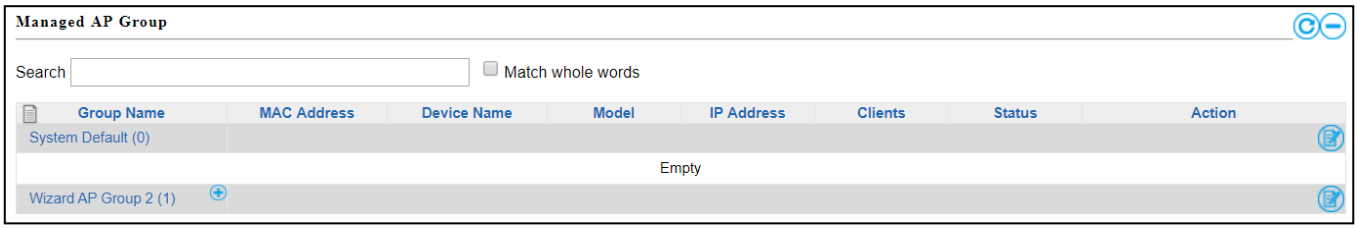
Status Icons			
Icon	**Color**	**Status**	**Definition**
	Grey	Disconnected	Managed AP is disconnected. *Please check the network connection and ensure the Managed AP is in the same IP subnet as the Master AP.*
	Red	Authentication Failed Or	System security must be the same for all access points in the AP array. *Please check security settings*. All access points must have the same

		Incompatible NMS Version	firmware version. *Please use the Master AP's firmware upgrade function*.
	Orange	Configuring or Upgrading	*Please wait while the Managed AP makes configurations or while the firmware is upgrading.*
	Yellow	Connecting	*Please wait while Managed AP is connecting.*
	Green	Connected	*Managed AP is connected.*
	Blue	Waiting for Approval	Managed AP is waiting for approval. *Note: Up to sixteen Managed APs are supported. Additional APs will have this status until an existing Managed AP is removed.*

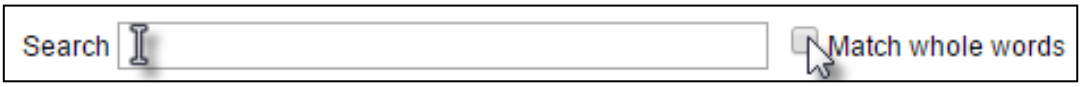
VIII-3-1-2 Managed AP Group

Managed APs can be grouped according to your requirements. **Managed AP Group** displays information about each Managed AP group in the local network: *Group Name, MAC Address, Device Name, Model, IP Address, 2.4GHz & 5GHz Wireless Channel Number, No. of Clients connected to each access point, and Status (connected or disconnected).*

To edit Managed AP Groups go to **NMS Settings → Access Point**.



The search function can be used to locate a specific Managed AP Group. Type in the search box and the list will update:



The **Status** icon displays *grey* (disconnected), *yellow* (connecting) or *green* (connected) for each individual Managed AP.

Each Managed AP Group has "**Action**" icons with the following functions:

1. **Disallow**
   Remove the Managed AP Group from the AP array and disable connectivity.

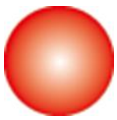
2. **Edit**
   Edit various settings for the Managed AP Group.

3. **Blink LED**
   The LED of all Managed APs in the group will flash temporarily to help identify & locate the access points.

4. **Buzzer**
   The buzzer of all Managed APs in the group will sound temporarily to help identify & locate the access points.

5. **Network Connectivity**
   Go to the "Network Connectivity" panel to perform a ping or traceroute.

6. **Restart**
   Restarts all Managed APs in the group.

Status Icons			
Icon	**Color**	**Status**	**Definition**
	Grey	Disconnected	Managed AP group is disconnected. *Please check the network connection and ensure the group is in the same IP subnet as the Master AP.*
	Red	Authentication Failed Or Incompatible	System security must be the same for all access points in the AP array. *Please check security settings.* All access points must have the same firmware version. *Please use the Master*

		NMS Version	*AP's firmware upgrade function*.
	Orange	Configuring or Upgrading	*Please wait while the Managed AP makes configurations or while the firmware is upgrading.*
	Yellow	Connecting	*Please wait while Managed AP is connecting.*
	Green	Connected	*Managed AP is connected.*
	Blue	Waiting for Approval	Managed AP is waiting for approval. *Note: Up to sixteen Managed APs are supported. Additional APs will have this status until an existing Managed AP is removed.*

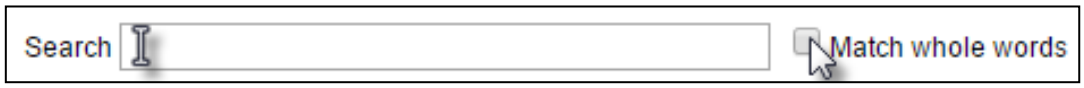
VIII-3-2 WLAN

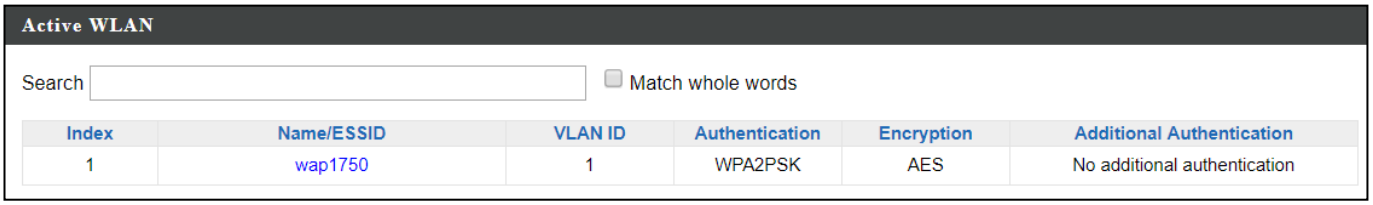
VIII-3-2-1 Active WLAN

Displays information about each SSID in the AP Array: *Index (reference number), Name/SSID, VLAN ID, Authentication, Encryption, IP Address and Additional Authentication.*

To configure encryption and VLANs for Managed APs go to **NMS Settings → WLAN**.

The search function can be used to locate a specific SSID. Type in the search box and the list will update:

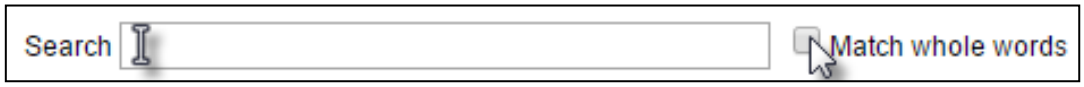




VIII-3-2-2 Active WLAN Group

WLAN groups can be created according to your preference. Active WLAN Group displays information about WLAN group: *Group Name, Name/SSID, VLAN ID, Authentication, Encryption, IP Address and Additional Authentication.*

The search function can be used to locate a specific Active WLAN Group. Type in the search box and the list will update:



Active WLAN Group

Search Match whole words

Group Name	Name/ESSID	VLAN ID	Authentication	Encryption	Additional Authentication
Wizard WLAN 2.4G Group 1 (1)					
	wap1750	1	WPA2PSK	AES	No additional authentication
Wizard WLAN 5G Group 2 (1)					
	wap1750	1	WPA2PSK	AES	No additional authentication

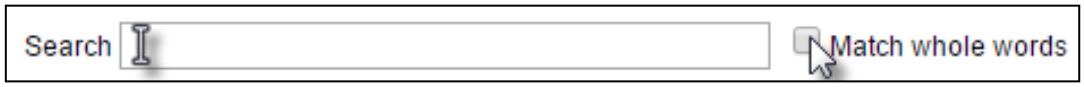
VIII-3-3 Clients

VIII-3-3-1 Active Clients

Displays information about clients currently connected to the AP Array: *Index (reference number), Client MAC Address, AP MAC Address, WLAN (SSID), Radio (2.4GHz or 5GHz), Signal Strength received by Client, Connected Time, Idle Time, Tx & Rx (Data transmitted and received by Client in KB), and the Vendor of the client device.*

You can set or disable the auto-refresh time for the client list or click “Refresh” to manually refresh.

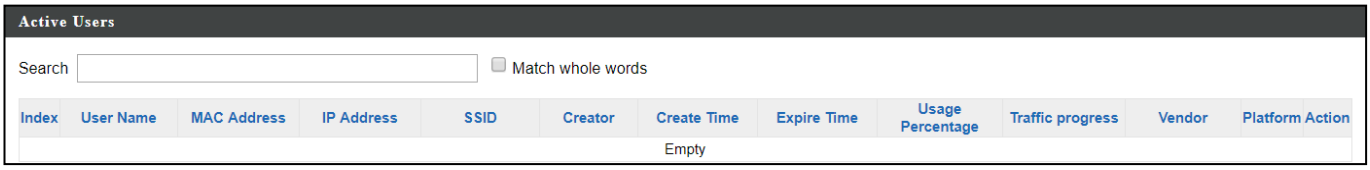
The search function can be used to locate a specific client. Type in the search box and the list will update:



VIII-3-4 Users

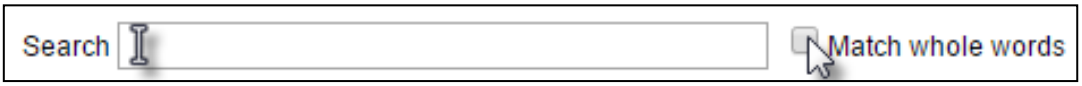
VIII-3-4-1 Active Users

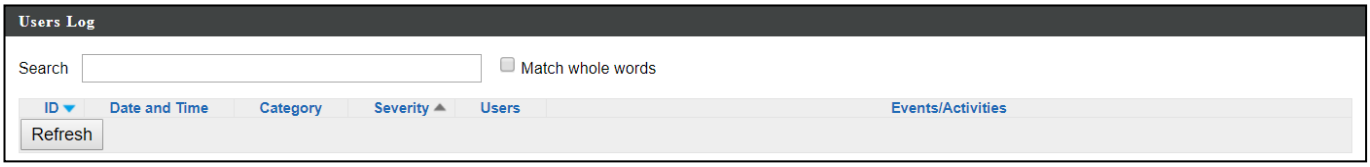
Displays information about users currently connected.



VIII-3-4-2 Users Log

Displays the log information about users currently connected.





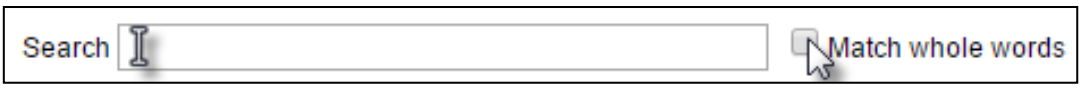
VIII-3-5 Rogue Devices

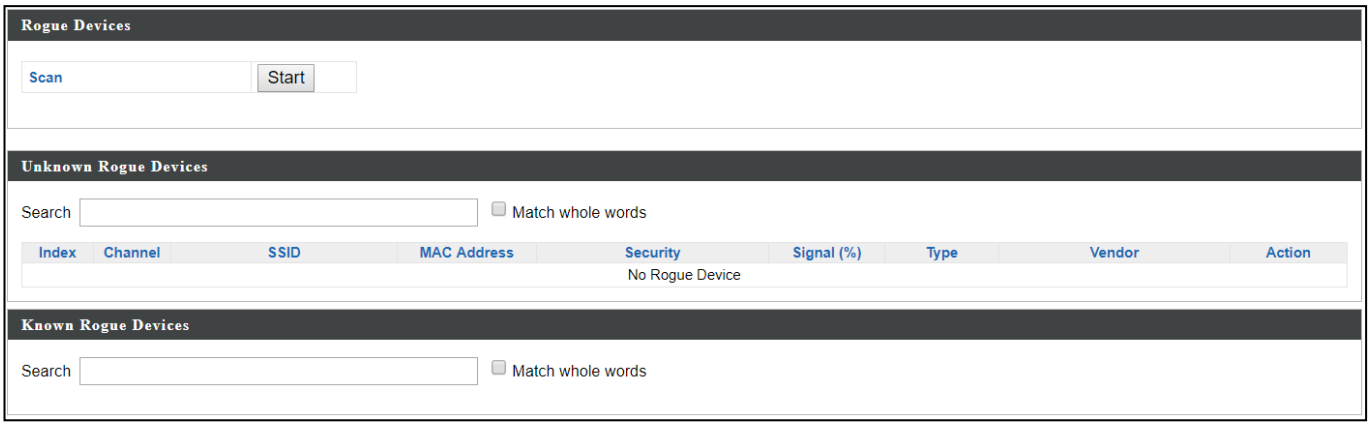
Rogue access point detection can identify any unauthorized access points which may have been installed in the network.

Click “Start” to scan for rogue devices:

Unknown Rogue Devices area displays information about rogue devices discovered during the scan*: Index (reference number), Channel, SSID, MAC Address, Security, Signal Strength, Type, Vendor and Action.*

The search function can be used to locate a known rogue device. Type in the search box and the list will update:

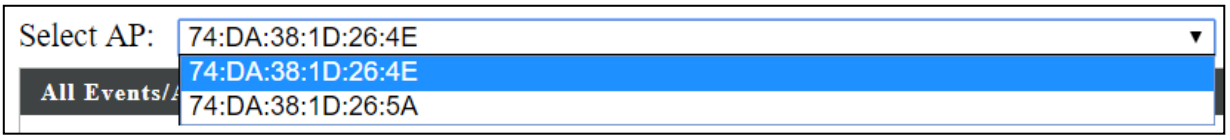


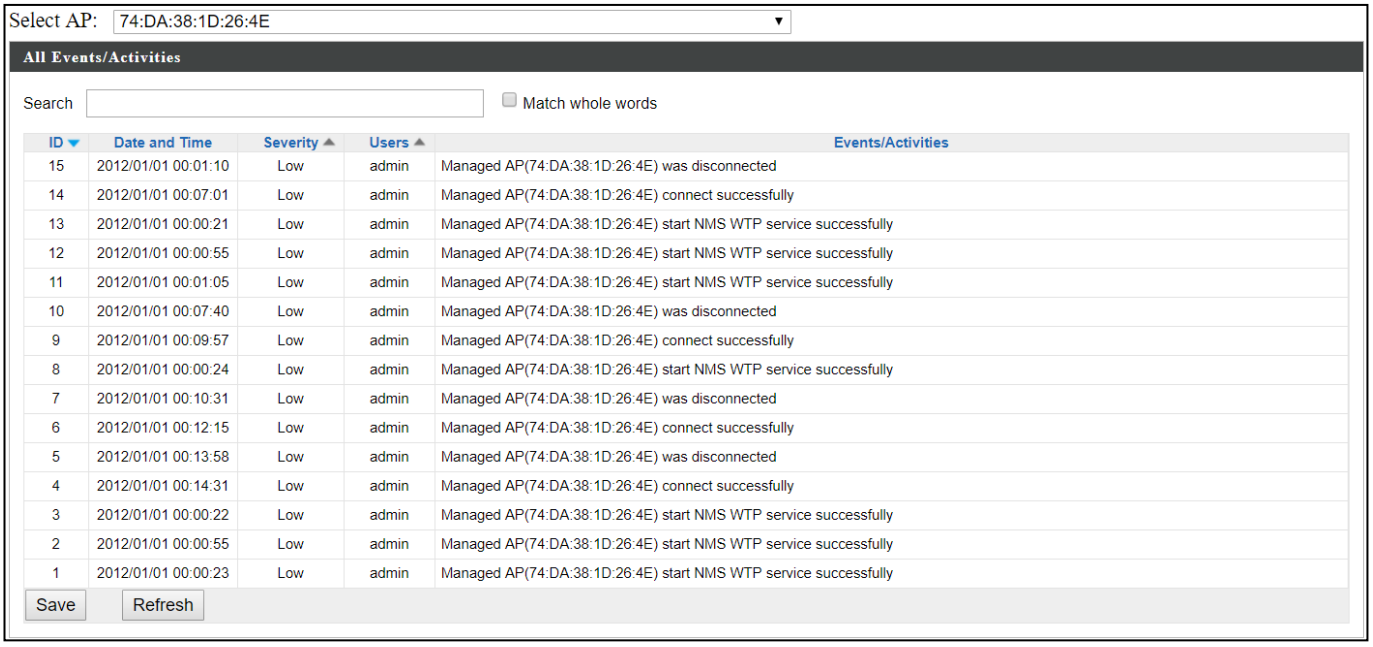


VIII-3-6 Information

VIII-3-6-1 All Events/Activities

Displays a log of time-stamped events for each access point in the Array – use the drop down menu to select an access point and view the log.





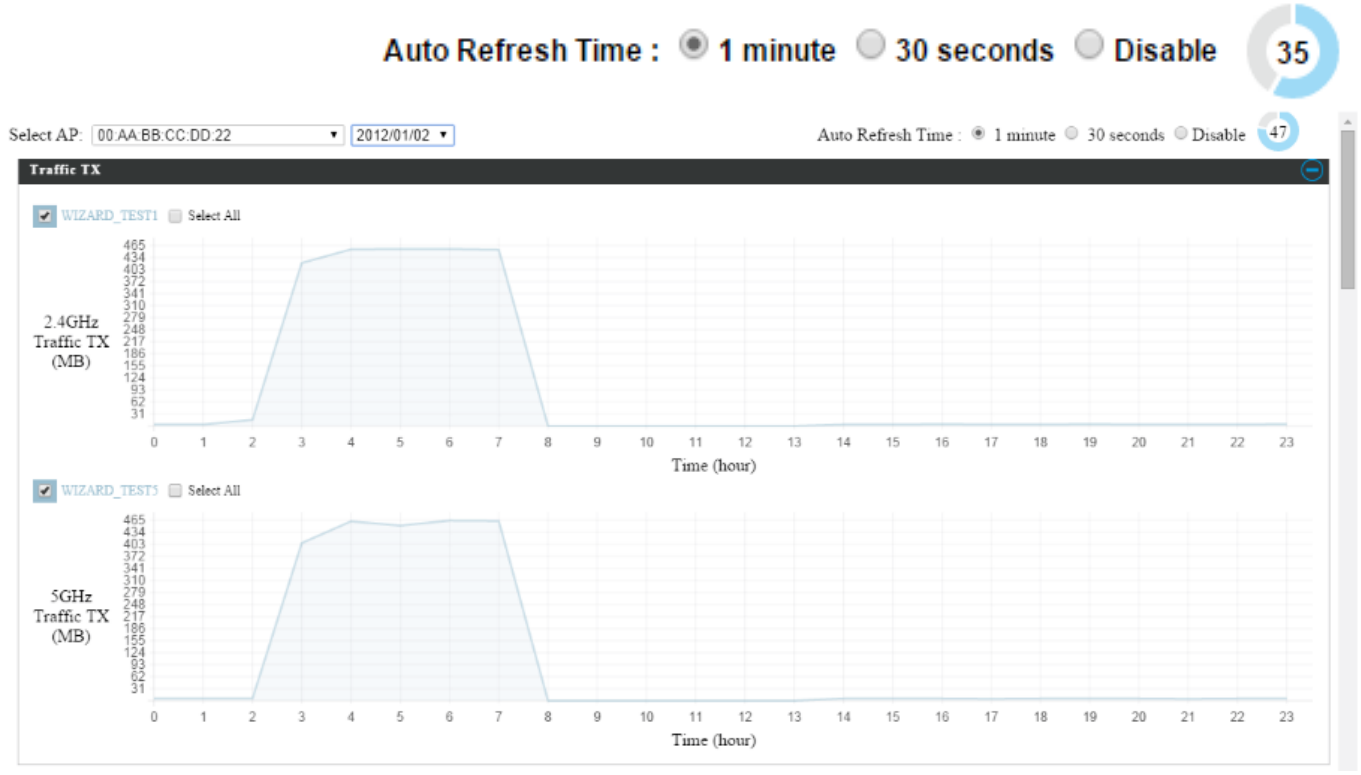
ID	Date and Time	Severity	Users	Events/Activities
15	2012/01/01 00:01:10	Low	admin	Managed AP(74:DA:38:1D:26:4E) was disconnected
14	2012/01/01 00:07:01	Low	admin	Managed AP(74:DA:38:1D:26:4E) connect successfully
13	2012/01/01 00:00:21	Low	admin	Managed AP(74:DA:38:1D:26:4E) start NMS WTP service successfully
12	2012/01/01 00:00:55	Low	admin	Managed AP(74:DA:38:1D:26:4E) start NMS WTP service successfully
11	2012/01/01 00:01:05	Low	admin	Managed AP(74:DA:38:1D:26:4E) start NMS WTP service successfully
10	2012/01/01 00:07:40	Low	admin	Managed AP(74:DA:38:1D:26:4E) was disconnected
9	2012/01/01 00:09:57	Low	admin	Managed AP(74:DA:38:1D:26:4E) connect successfully
8	2012/01/01 00:00:24	Low	admin	Managed AP(74:DA:38:1D:26:4E) start NMS WTP service successfully
7	2012/01/01 00:10:31	Low	admin	Managed AP(74:DA:38:1D:26:4E) was disconnected
6	2012/01/01 00:12:15	Low	admin	Managed AP(74:DA:38:1D:26:4E) connect successfully
5	2012/01/01 00:13:58	Low	admin	Managed AP(74:DA:38:1D:26:4E) was disconnected
4	2012/01/01 00:14:31	Low	admin	Managed AP(74:DA:38:1D:26:4E) connect successfully
3	2012/01/01 00:00:22	Low	admin	Managed AP(74:DA:38:1D:26:4E) start NMS WTP service successfully
2	2012/01/01 00:00:55	Low	admin	Managed AP(74:DA:38:1D:26:4E) start NMS WTP service successfully
1	2012/01/01 00:00:23	Low	admin	Managed AP(74:DA:38:1D:26:4E) start NMS WTP service successfully

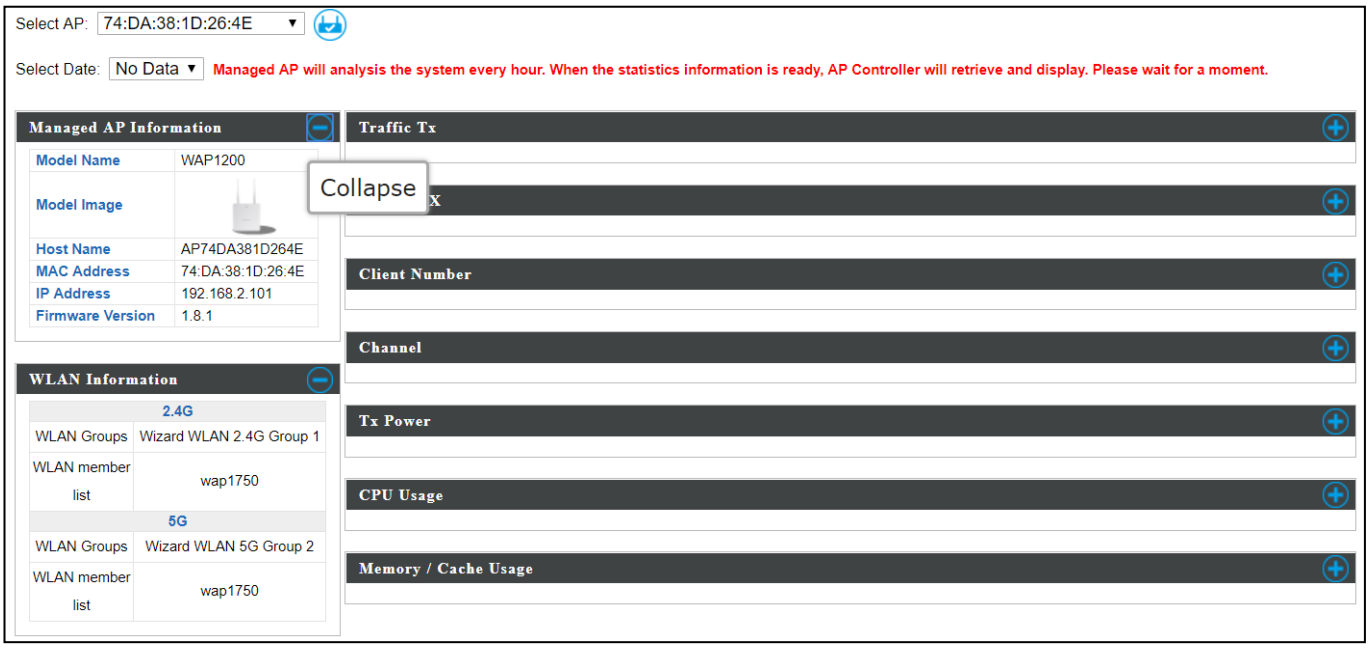
VIII-3-6-2 AP Monitoring

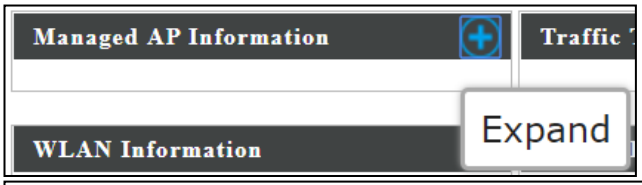
Displays graphical monitoring information about access points in the Array for 2.4GHz & 5GHz: *Traffic Tx (data transmitted in MB), Traffic Rx (data received in MB), No. of Clients, Wireless Channel, Tx Power (wireless radio power), CPU Usage and Memory Usage.*

Use the drop down menus to select an access point and date.

You can set or disable the auto-refresh time for the data:







Select AP: 74:DA:38:1D:26:4E

Select Date: No Data

Managed AP will analysis the system every hour. When the statistics information is ready, AP Controller will retrieve and display. Please wait for a moment.

Managed AP Information

Model Name	WAP1200
Model Image	
Host Name	AP74DA381D264E
MAC Address	74:DA:38:1D:26:4E
IP Address	192.168.2.101
Firmware Version	1.8.1

WLAN Information

2.4G	
WLAN Groups	Wizard WLAN 2.4G Group 1
WLAN member list	wap1750
5G	
WLAN Groups	Wizard WLAN 5G Group 2
WLAN member list	wap1750

Traffic Tx

Traffic RX

Client Number

Channel

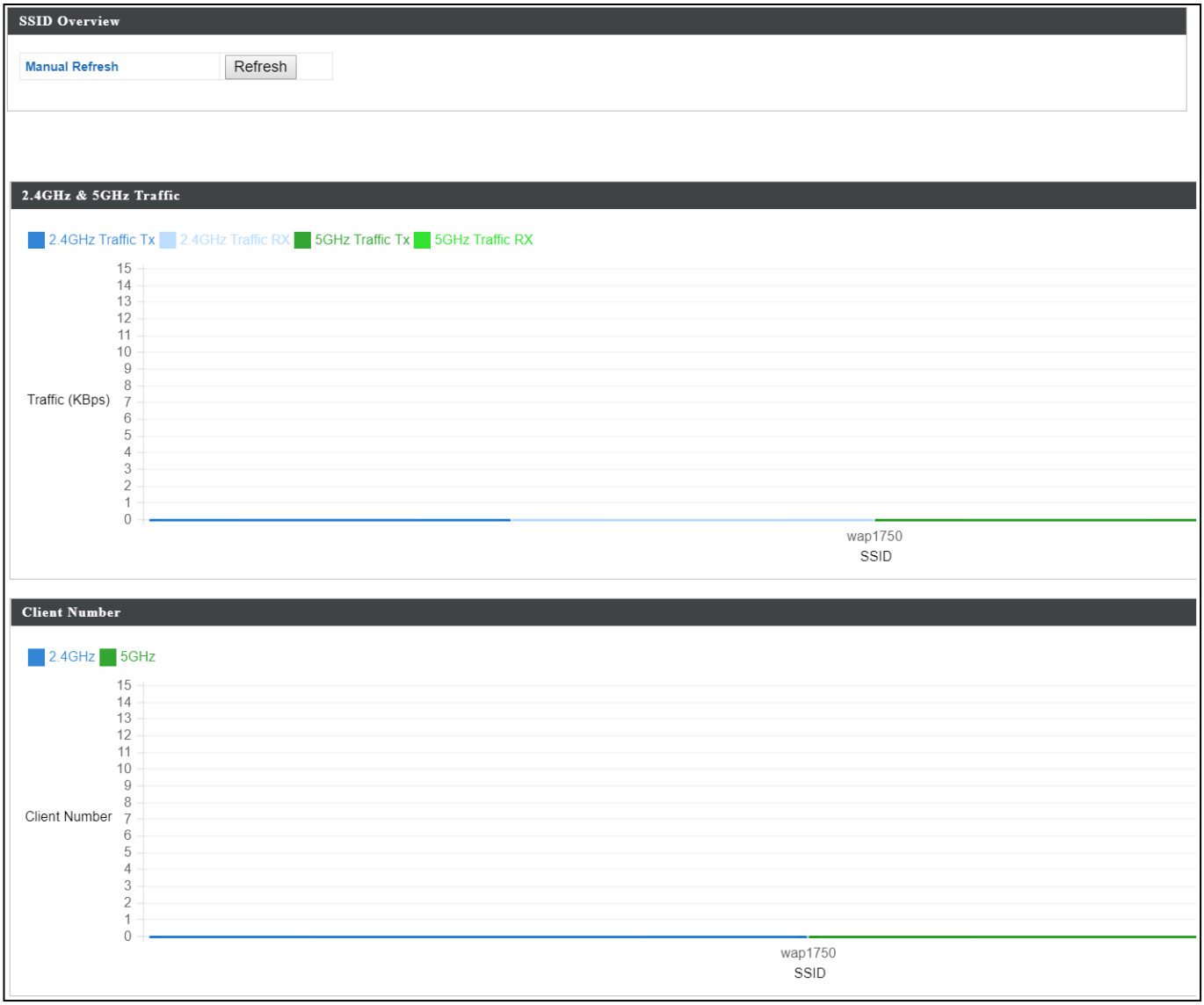
Tx Power

CPU Usage

Memory / Cache Usage

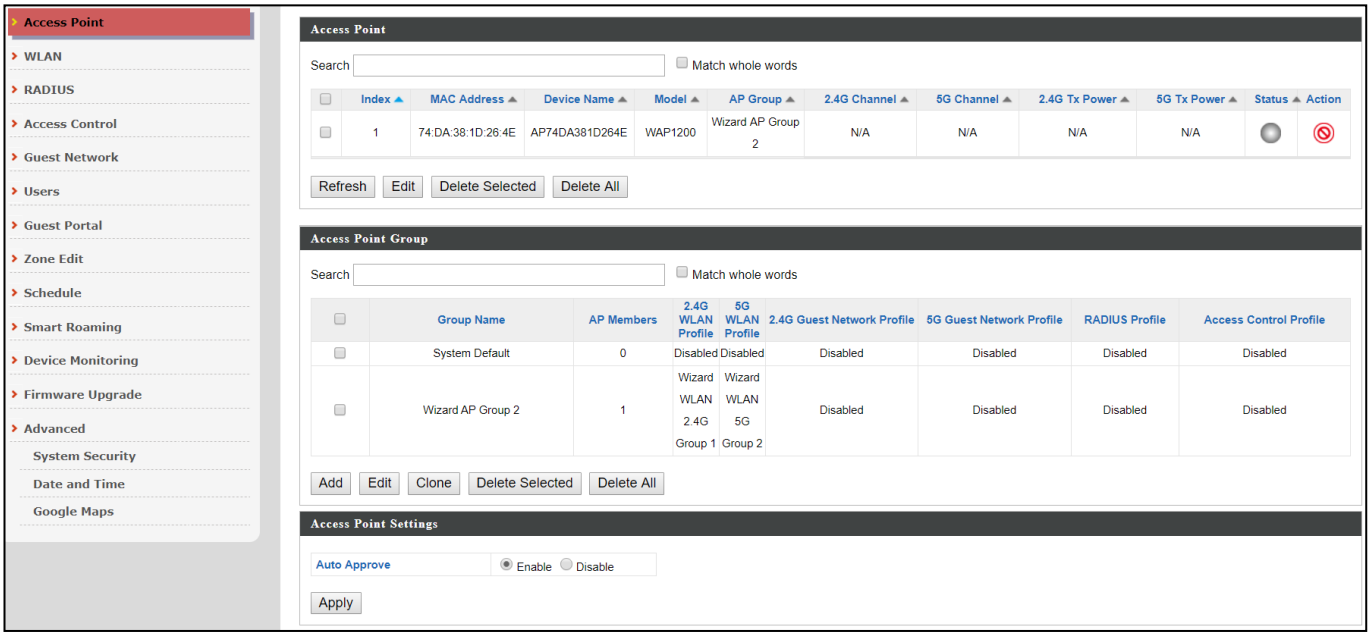
VIII-3-6-3 SSID Overview

Displays graphical monitoring information about access points in the Array for 2.4GHz & 5GHz.



VIII-4 NMS Settings

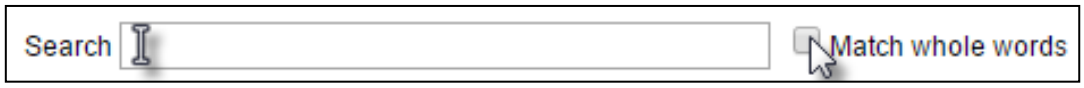
NMS Settings provides extensive configuration options for the AP Array. You can manage each access point, assign access points into groups, manage WLAN, RADIUS & guest network settings as well as upgrade firmware across multiple access points. The Zone Plan can also be configured using “Zone Edit”.

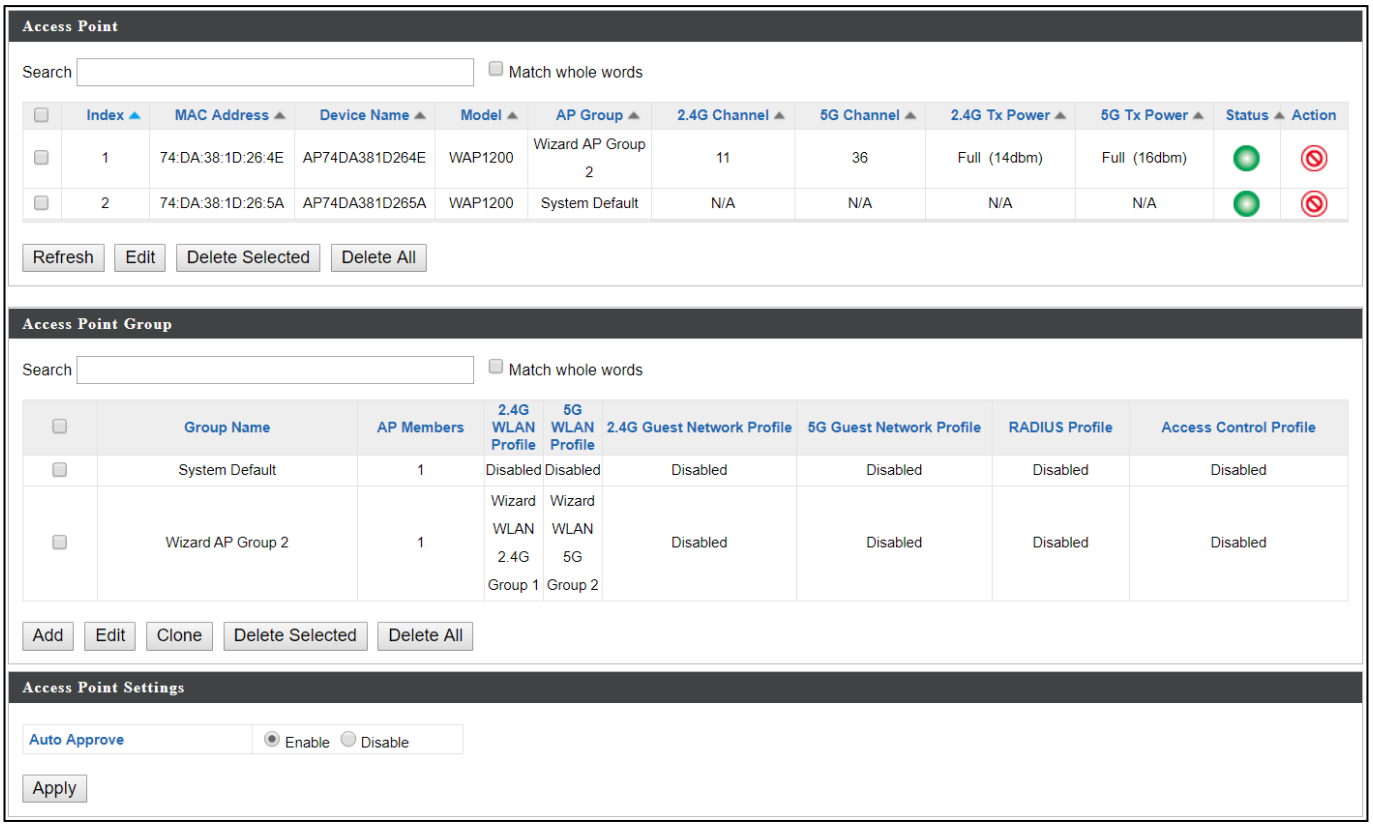


VIII-4-1 Access Point

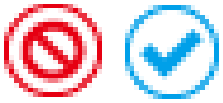
Displays information about each access point and access point group in the local network and allows you to edit access points and edit or add access point groups.

The **search** function can be used to locate an access point or access point group. Type in the search box and the list will update:





The **Status** icon displays *grey* (disconnected), *red* (authentication failed/incompatible NMS version), *orange* (upgrading firmware), *yellow* (connecting), *green* (connected) or *blue* (waiting for approval) for each individual Managed AP. Refer to the *Status Icons in* VIII-1-3 ***Managed AP*** for full descriptions.

The **"Action"** icons enable you to allow or disallow an access point: 

Select an access point or access point group using the check-boxes and click “**Edit**” to make configurations, or click “**Add**” to add a new access point group:

The **Access Point Settings** panel can enable or disable Auto Approve for all Managed APs. When enabled, Managed APs will automatically join the AP Array with the Master AP. When disabled, Managed APs must be manually approved to join the AP Array with the Master AP.

Access Point Settings	
Auto Approve	Enable or disable Auto Approve for all Managed APs.

To manually approve a Managed AP, use the *allow* “Action” icon for the specified access point:

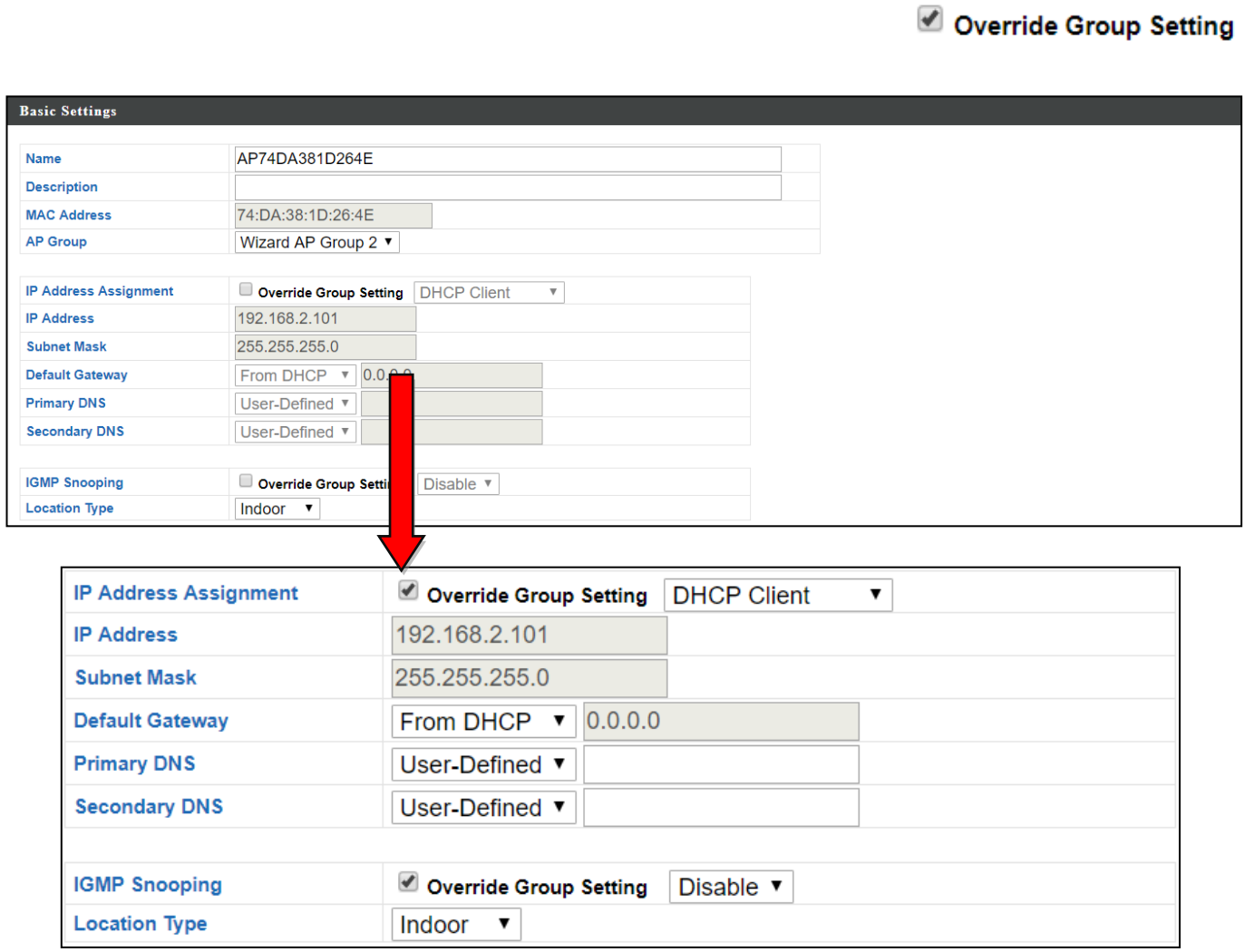
VIII-4-1-1 Edit Access Point

Configure your selected access point on your LAN. You can set the access point as a DHCP client or specify a static IP address for your access point, and assign the access point to an AP group, as well as edit 2.4GHz & 5GHz wireless radio settings. Event log is displayed at the bottom of the page.

You can also use **Profile Settings** to assign the access point to WLAN, Guest Network, RADIUS and Access Control groups independently from Access Point Group settings.
Click “Save” to save the settings. Click “Cancel” to forfeit the changes. Click “Save and Apply” to save and apply the settings.

VIII-4-1-1-1 Edit Basic Settings

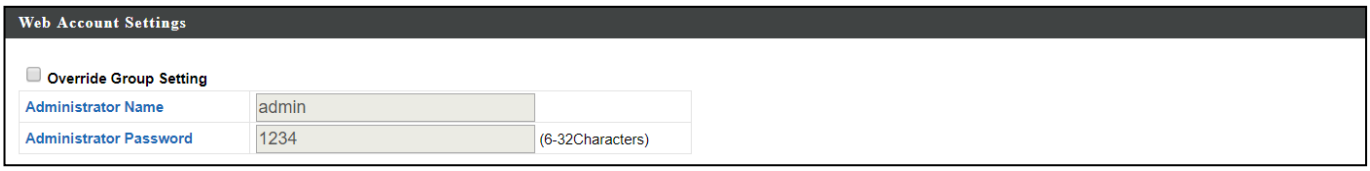
When "**Override Group Setting**" is checked, options/fields will turn white to allow adjustments.



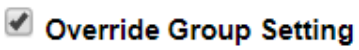
Basic Settings	
Name	Edit the access point name. The default name is AP + MAC address.
Description	Enter a description of the access point for reference e.g. 2nd Floor Office.
MAC Address	Displays MAC address.
AP Group	Use the drop down menu to assign the AP to an AP Group. You can edit AP Groups from the **NMS Settings → Access Point** page.
IP Address Assignment	Select "DHCP Client" for your access point to be assigned a dynamic IP address from your router's DHCP server, or select "Static IP" to manually specify a static/fixed IP address for your access point (below). Check the box "Override Group

	Setting" if the AP is a member of an AP Group and you wish to use a different setting than the AP Group setting.
IP Address	Specify the IP address here. This IP address will be assigned to your access point and will replace the default IP address.
Subnet Mask	Specify a subnet mask. The default value is 255.255.255.0
Default Gateway	For DHCP users, select "From DHCP" to get default gateway from your DHCP server or "User-Defined" to enter a gateway manually. For static IP users, the default value is blank.
Primary DNS	DHCP users can select "From DHCP" to get primary DNS server's IP address from DHCP or "User-Defined" to manually enter a value. For static IP users, the default value is blank.
Secondary DNS	DHCP users can select "From DHCP" to get secondary DNS server's IP address from DHCP or "User-Defined" to manually enter a value. For static IP users, the default value is blank.
IGMP Snooping	Enable / Disable the IGMP Snooping function. IGMP snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic.
Location Type	Select the location of the AP (indoor or outdoor).

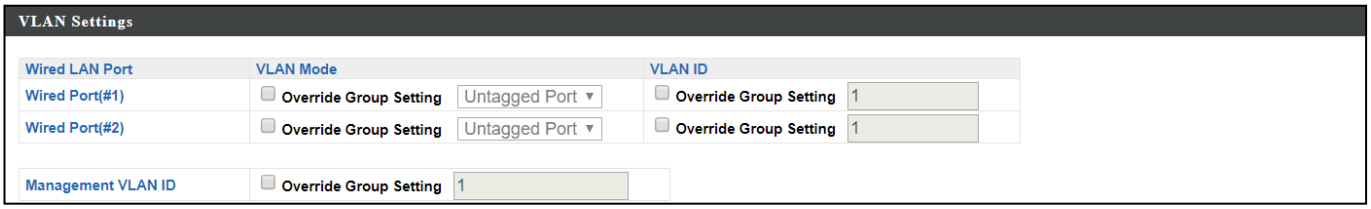
VIII-4-1-1-2 Edit Web Account Settings



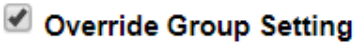
When "**Override Group Setting**" is checked, options/fields will turn white to allow adjustments.



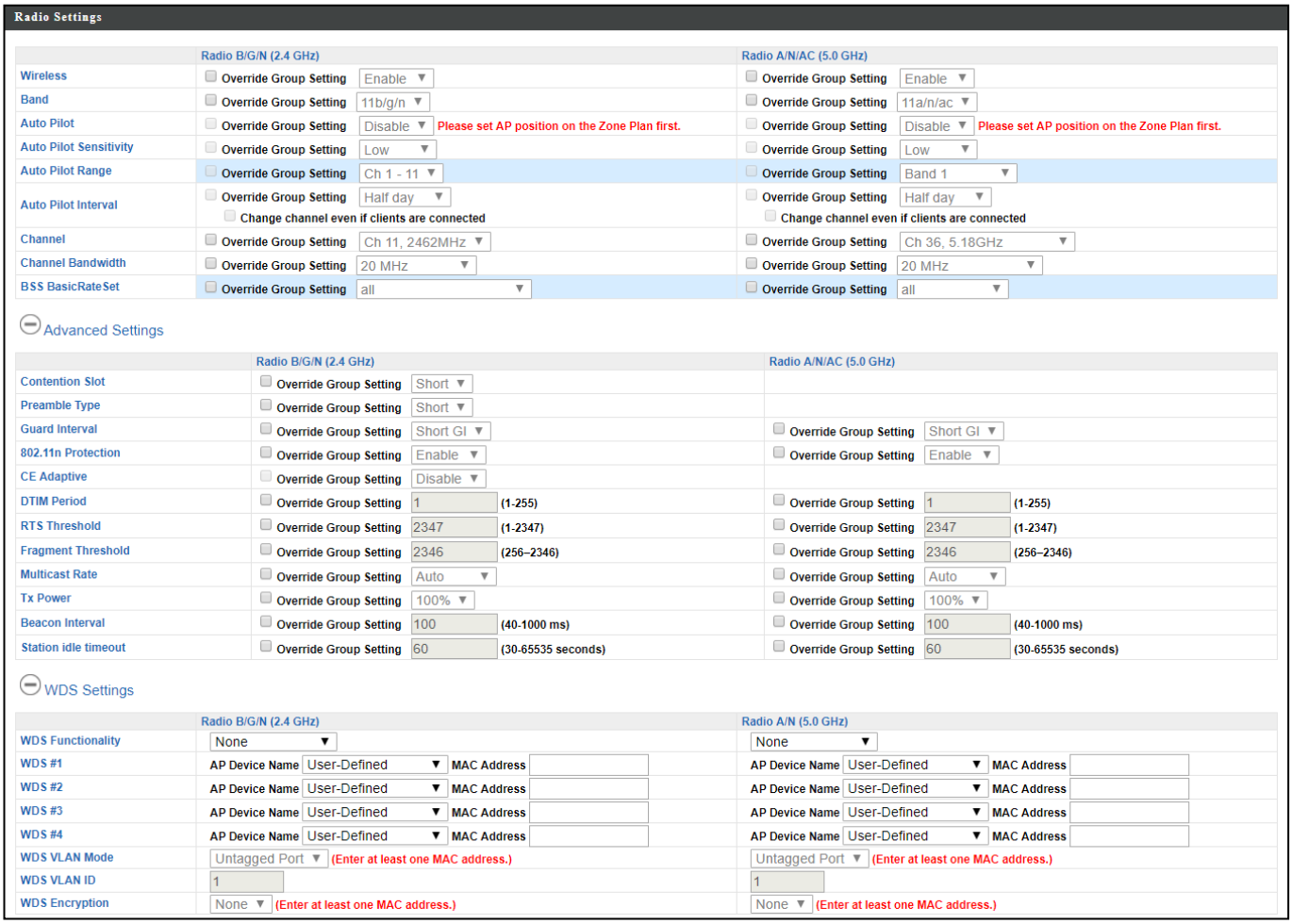
VIII-4-1-1-3 Edit VLAN Settings



When "**Override Group Setting**" is checked, options/fields will turn white to allow adjustments.



VIII-4-1-1-4 Edit Radio Settings



Radio Settings	
Wireless	Enable or disable the access point's 2.4GHz or 5GHz wireless radio. When disabled, no SSIDs on that frequency will be active.
Band	Select the wireless standard used for the access point. Combinations of 802.11b, 802.11g, 802.11n & 802.11ac can be selected.
Auto Pilot	Enable/disable auto channel selection. Auto channel selection will automatically set the wireless channel for the access point's 2.4GHz or 5GHz frequency based on availability and potential interference. When disabled, select a channel manually.
Auto Pilot Sensitivity	Select sensitivity of Auto Pilot.
Auto Pilot Range	Select a range from which the auto channel setting (above) will choose a channel.

Auto Pilot Interval	Specify a frequency for how often the auto channel setting will check/reassign the wireless channel. Check/uncheck the "Change channel even if clients are connected" box according to your preference.
Channel	When Auto Pilot is disabled, select a channel (1-11) manually.
Channel Bandwidth	Set the channel bandwidth or use Auto (automatically select based on interference level).
BSS BasicRateSet	Set a Basic Service Set (BSS) rate: this is a series of rates to control communication frames for wireless clients.

These settings are for experienced users only. Please do not change any of the values on this page unless you are already familiar with these functions.

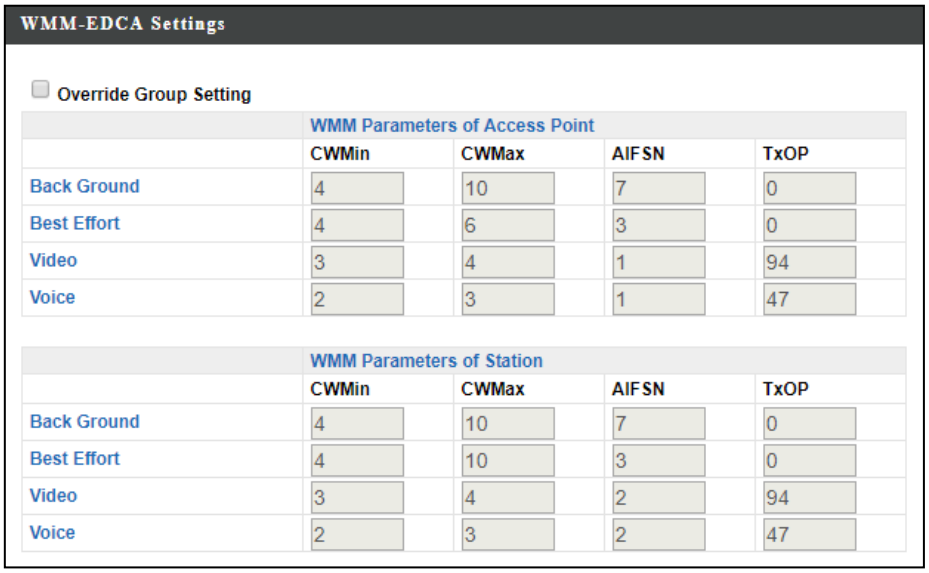
Changing these settings can adversely affect the performance of your access point.

Advanced Settings	
Contention Slot	Select "Short" or "Long" – this value is used for contention windows in WMM (see 錯誤! 找不到參照來源。 錯誤! 找不到參照來源。).
Preamble Type	Set the wireless radio preamble type. The preamble type in 802.11 based wireless communication defines the length of the CRC (Cyclic Redundancy Check) block for communication between the access point and roaming wireless adapters. The default value is "Short Preamble".
Guard Interval	Set the guard interval. A shorter interval can improve performance.
802.11n Protection	Enable/disable 802.11n protection, which increases reliability but reduces bandwidth (clients will send Request to Send (RTS) to access point, and access point will broadcast Clear to Send (CTS), before a packet is sent from client.)
CE Adaptive	The measurement procedure follows clause 5.3.11.2.2 of the ETSI EN 300 328 V1.8.1
DTIM Period	Set the DTIM (delivery traffic indication message) period value of the wireless radio. The default value is 1.
RTS Threshold	Set the RTS threshold of the wireless radio. The default value is 2347.

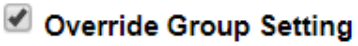
Fragment Threshold	Set the fragment threshold of the wireless radio. The default value is 2346.
Multicast Rate	Set the transfer rate for multicast packets or use the “Auto” setting.
Tx Power	Set the power output of the wireless radio. You may not require 100% output power. Setting a lower power output can enhance security since potentially malicious/unknown users in distant areas will not be able to access your signal.
Beacon Interval	Set the beacon interval of the wireless radio. The default value is 100.
Station idle timeout	Set the interval for keepalive messages from the access point to a wireless client to verify if the station is still alive/active.

WDS Settings	
WDS Functionality	A wireless distribution system (WDS) is a system enabling the wireless interconnection of access points in an IEEE 802.11 network. It allows a wireless network to be expanded using multiple access points without the traditional requirement for a wired backbone to link them.
AP Device Name	Set AP Device Name.
MAC Address	Set MAC Address of AP.
WDS VLAN Mode	Enable / Disable VLAN function.
WDS VLAN ID	Set VLAN ID of WDS.
WDS Encryption	Set WDS Encryption.

VIII-4-1-1-5 Edit WMM-EDCA Settings

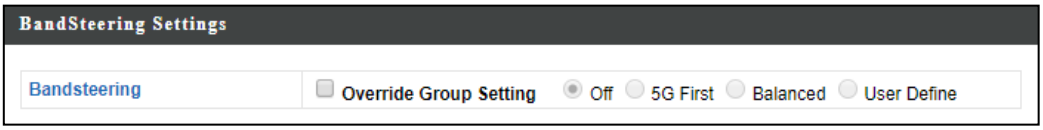


When "**Override Group Setting**" is checked, options/fields will turn white to allow adjustments.

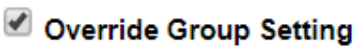


WMM-EDCA Settings:	
Back Ground	Access Category (AC) is Back Ground
Best Effort	Access Category (AC) is Best Effort
Video	Access Category (AC) is video
Voice	Access Category (AC) is voice

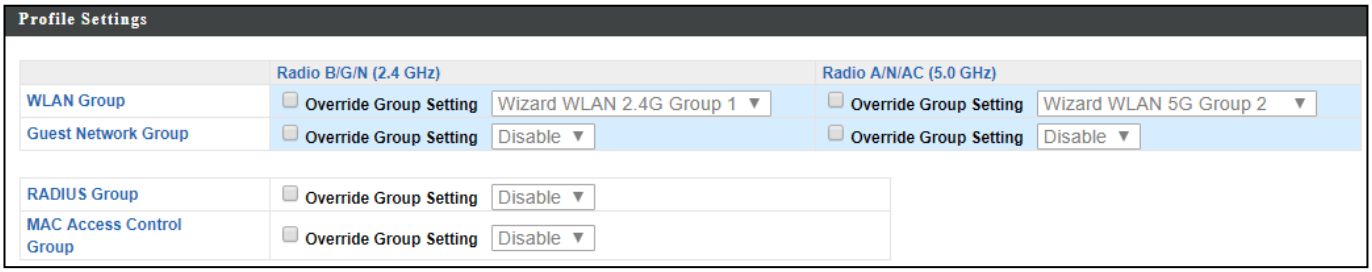
VIII-4-1-1-6 Edit BandSteering Settings



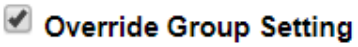
When "**Override Group Setting**" is checked, options/fields will turn white to allow adjustments.



VIII-4-1-1-7 Edit Profile Settings



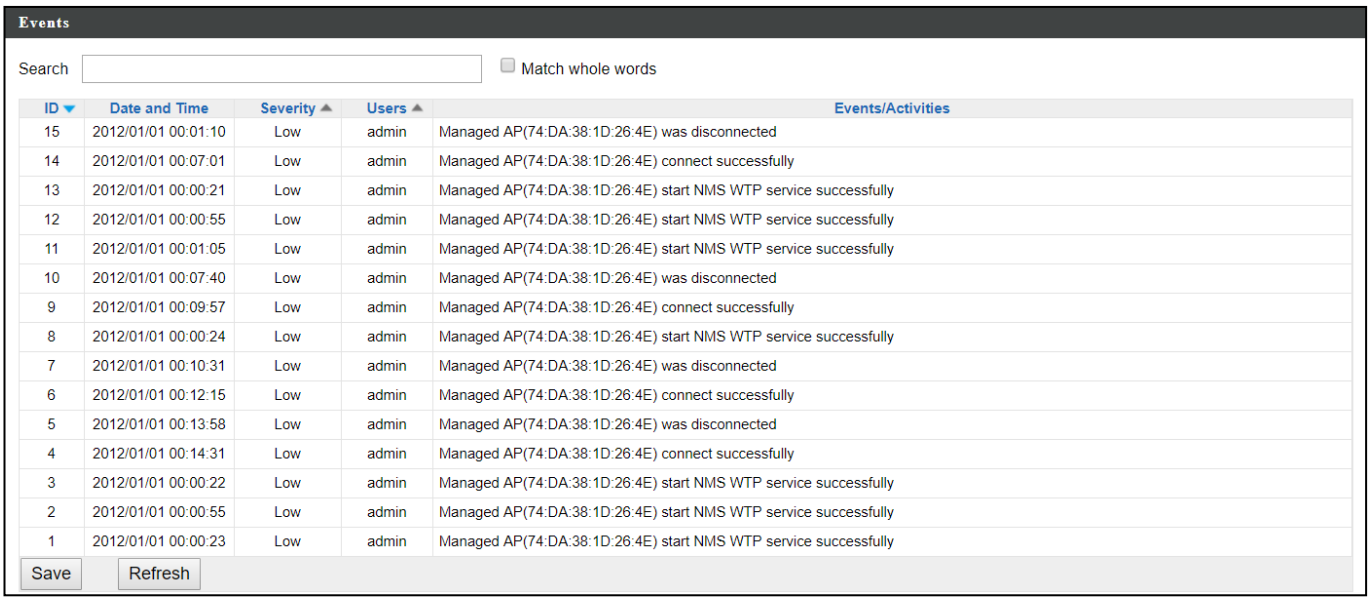
When "**Override Group Setting**" is checked, options/fields will turn white to allow adjustments.



Profile Settings	
WLAN Group	Assign the access point's 2.4GHz or 5GHz SSID(s) to a WLAN Group. You can edit WLAN groups in **NMS Settings → WLAN**.
Guest Network Group	Assign the access point's 2.4GHz or 5GHz SSID(s) to a Guest Network Group. You can edit Guest Network groups in **NMS Settings → Guest Network**.
RADIUS Group	Assign the access point's 2.4GHz SSID(s) to a RADIUS group. You can edit RADIUS groups in **NMS Settings → RADIUS**.
MAC Access Control Group	Assign the access point's 2.4GHz SSID(s) to a RADIUS group. You can edit RADIUS groups in **NMS Settings → Access Control**

VIII-4-1-1-8 Events

Press “Refresh” to refresh the event log
Press “Save” to save the event log as .log file.



VIII-4-1-2 Add/Edit Access Point Group

Configure your selected access point group. Access point group settings apply to all access points in the group, unless individually set to override group settings.

You can use **Profile Group Settings** to assign the access point group to WLAN, Guest Network, RADIUS and Access Control groups.

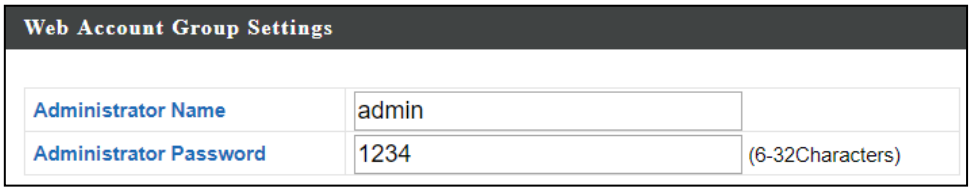
Click “Save” to save the settings. Click “Cancel” to forfeit the changes. Click “Save and Apply” to save and apply the settings.

VIII-4-1-2-1 Edit Basic Group Settings

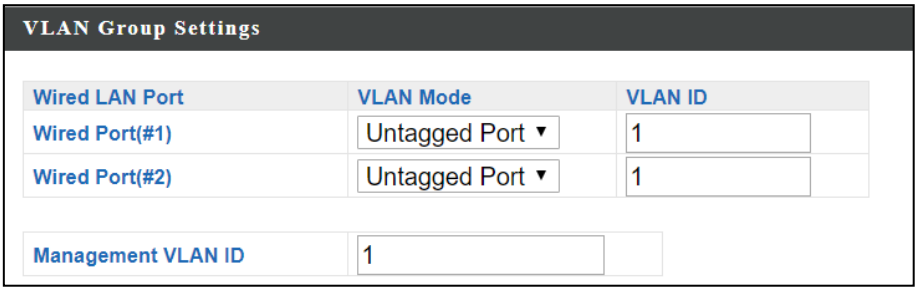
The **Group Settings** panel can be used to quickly move access points between existing groups: select an access point and use the drop down menu or search to select access point groups and use << and >> arrows to move APs between groups.

Basic Group Settings	
Name	Edit the access point group name.
Description	Enter a description of the access point group for reference e.g. 2nd Floor Office Group.
IGMP Snooping	Enable / Disable the IGMP Snooping function. IGMP snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic.

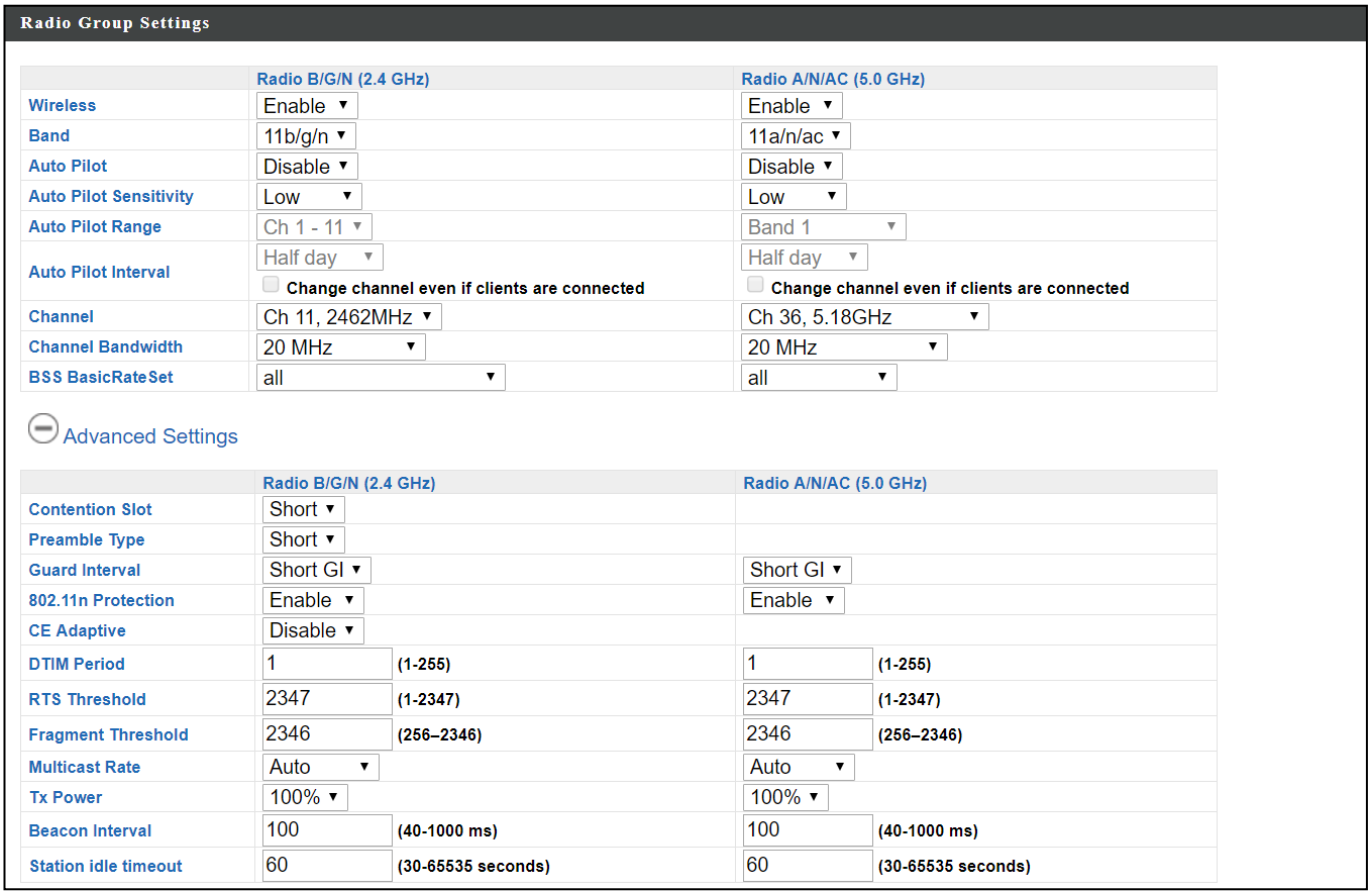
VIII-4-1-2-2 Edit Web Account Group Settings



VIII-4-1-2-3 Edit VLAN Group Settings



VIII-4-1-2-4 Edit Radio Group Settings



Radio Group Settings	
Wireless	Enable or disable the access point group's 2.4GHz or 5GHz wireless radio. When disabled, no SSIDs on that frequency will be active.
Band	Select the wireless standard used for the access point group. Combinations of 802.11b, 802.11g, 802.11n & 802.11ac can be selected.
Auto Pilot	Enable/disable auto channel selection. Auto channel selection will automatically set the wireless channel for the access point group's 2.4GHz or 5GHz frequency based on availability and potential interference. When disabled, select a channel manually.
Auto Pilot Sensitivity	Select sensitivity of Auto Pilot.
Auto Pilot Range	Select a range from which the auto channel setting (above) will choose a channel.
Auto Pilot Interval	Specify a frequency for how often the auto channel setting will check/reassign the wireless channel. Check/uncheck the "Change channel even if clients are connected" box according to your preference.
Channel	When Auto Pilot is disabled, select a channel (1-11) manually.
Channel Bandwidth	Set the channel bandwidth or use Auto (automatically select based on interference level).
BSS BasicRateSet	Set a Basic Service Set (BSS) rate: this is a series of rates to control communication frames for wireless clients.

These settings are for experienced users only. Please do not change any of the values on this page unless you are already familiar with these functions.

Changing these settings can adversely affect the performance of your access points.

Advanced Settings	
Contention Slot	Select "Short" or "Long" – this value is used for contention windows in WMM (see 錯誤! 找不到參照來源。 錯誤! 找不到參照來源。).

Preamble Type	Set the wireless radio preamble type. The preamble type in 802.11 based wireless communication defines the length of the CRC (Cyclic Redundancy Check) block for communication between the access point and roaming wireless adapters. The default value is “Short Preamble”.
Guard Interval	Set the guard interval. A shorter interval can improve performance.
802.11n Protection	Enable/disable 802.11n protection, which increases reliability but reduces bandwidth (clients will send Request to Send (RTS) to access point, and access point will broadcast Clear to Send (CTS), before a packet is sent from client.)
CE Adaptive	The measurement procedure follows clause 5.3.11.2.2 of the ETSI EN 300 328 V1.8.1
DTIM Period	Set the DTIM (delivery traffic indication message) period value of the wireless radio. The default value is 1.
RTS Threshold	Set the RTS threshold of the wireless radio. The default value is 2347.
Fragment Threshold	Set the fragment threshold of the wireless radio. The default value is 2346.
Multicast Rate	Set the transfer rate for multicast packets or use the “Auto” setting.
Tx Power	Set the power output of the wireless radio. You may not require 100% output power. Setting a lower power output can enhance security since potentially malicious/unknown users in distant areas will not be able to access your signal.
Beacon Interval	Set the beacon interval of the wireless radio. The default value is 100.
Station idle timeout	Set the interval for keepalive messages from the access point to a wireless client to verify if the station is still alive/active.

VIII-4-1-2-5 Edit WMM-EDCA Settings

WMM-EDCA Settings

	WMM Parameters of Access Point			
	CWMin	CWMax	AIFSN	TxOP
Back Ground	4	10	7	0
Best Effort	4	6	3	0
Video	3	4	1	94
Voice	2	3	1	47

	WMM Parameters of Station			
	CWMin	CWMax	AIFSN	TxOP
Back Ground	4	10	7	0
Best Effort	4	10	3	0
Video	3	4	2	94
Voice	2	3	2	47

VIII-4-1-2-6 Edit BandSteering Settings

BandSteering Group Settings

Bandsteering	(•) Off ( ) 5G First ( ) Balanced ( ) User Define

VIII-4-1-2-7 Edit Profile Settings

Profile Group Settings

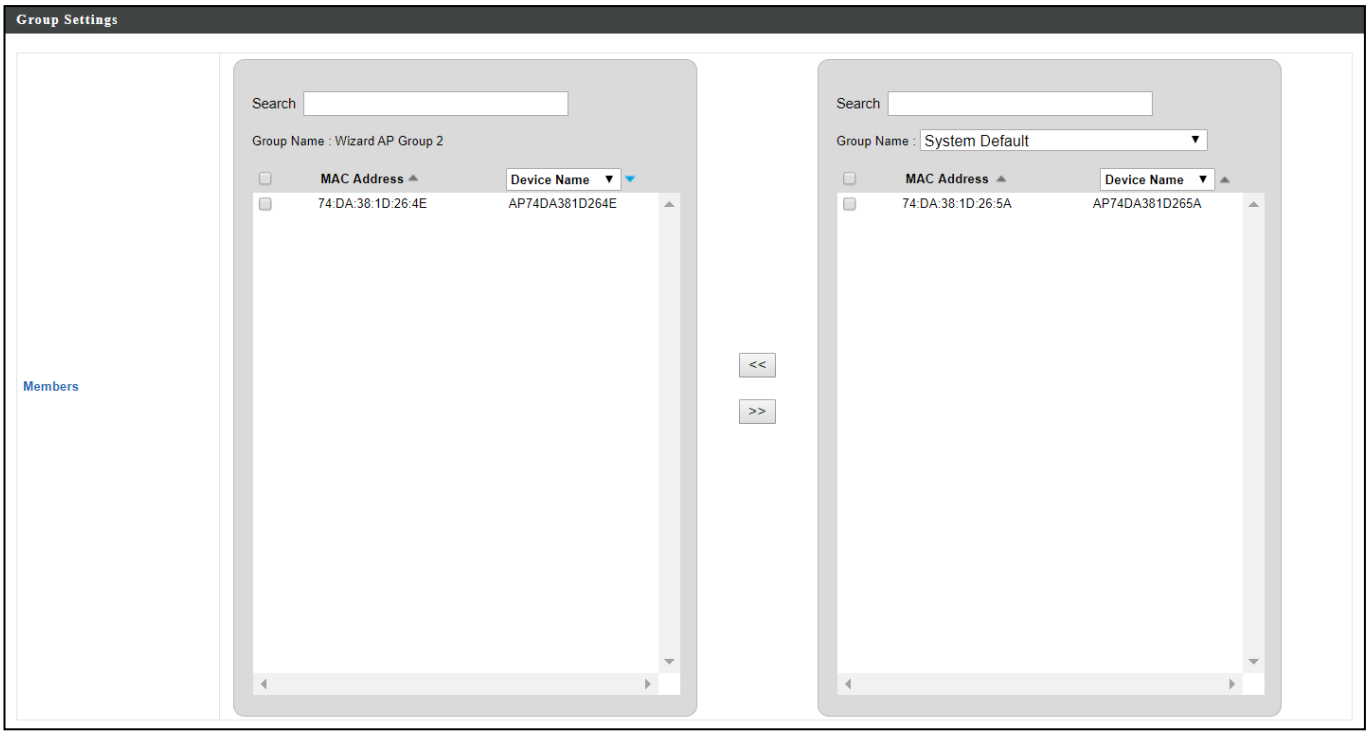
	Radio B/G/N (2.4 GHz)	Radio A/N/AC (5.0 GHz)
WLAN Group	Disable	Disable
Guest Network Group	Disable	Disable

RADIUS Group	Disable
MAC Access Control Group	Disable

Profile Group Settings	
WLAN Group	Assign the access point group's 2.4GHz or 5GHz SSIDs to a WLAN Group. You can edit WLAN groups in **NMS Settings → WLAN**.
Guest	Assign the access point group's 2.4GHz or 5GHz SSIDs to a

Network Group	Guest Network Group. You can edit Guest Network groups in **NMS Settings → Guest Network**.
RADIUS Group	Assign the access point group's 2.4GHz SSIDs to a RADIUS group. You can edit RADIUS groups in **NMS Settings → RADIUS**.
MAC Access Control Group	Assign the access point's 2.4GHz SSIDs to a RADIUS group. You can edit RADIUS groups in **NMS Settings → Access Control.**

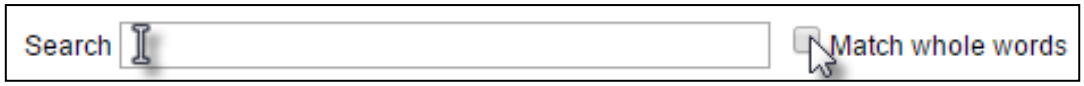
VIII-4-1-2-8 Edit Group Settings

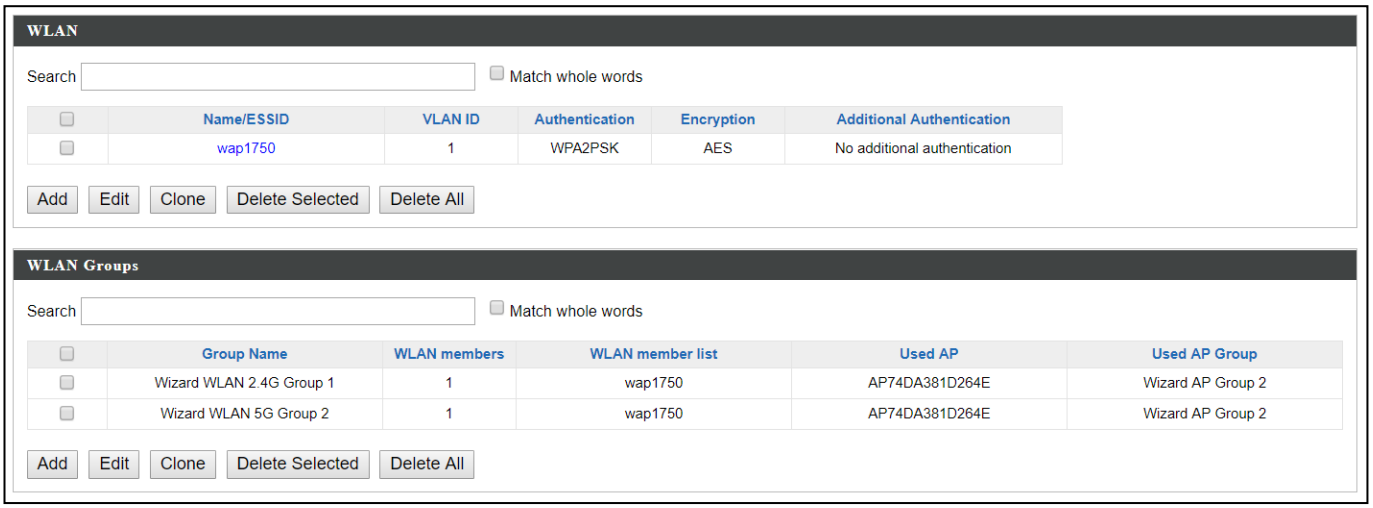


VIII-4-2 WLAN

Displays information about each WLAN and WLAN group in the local network and allows you to add or edit WLANs & WLAN Groups. When you add a WLAN Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.

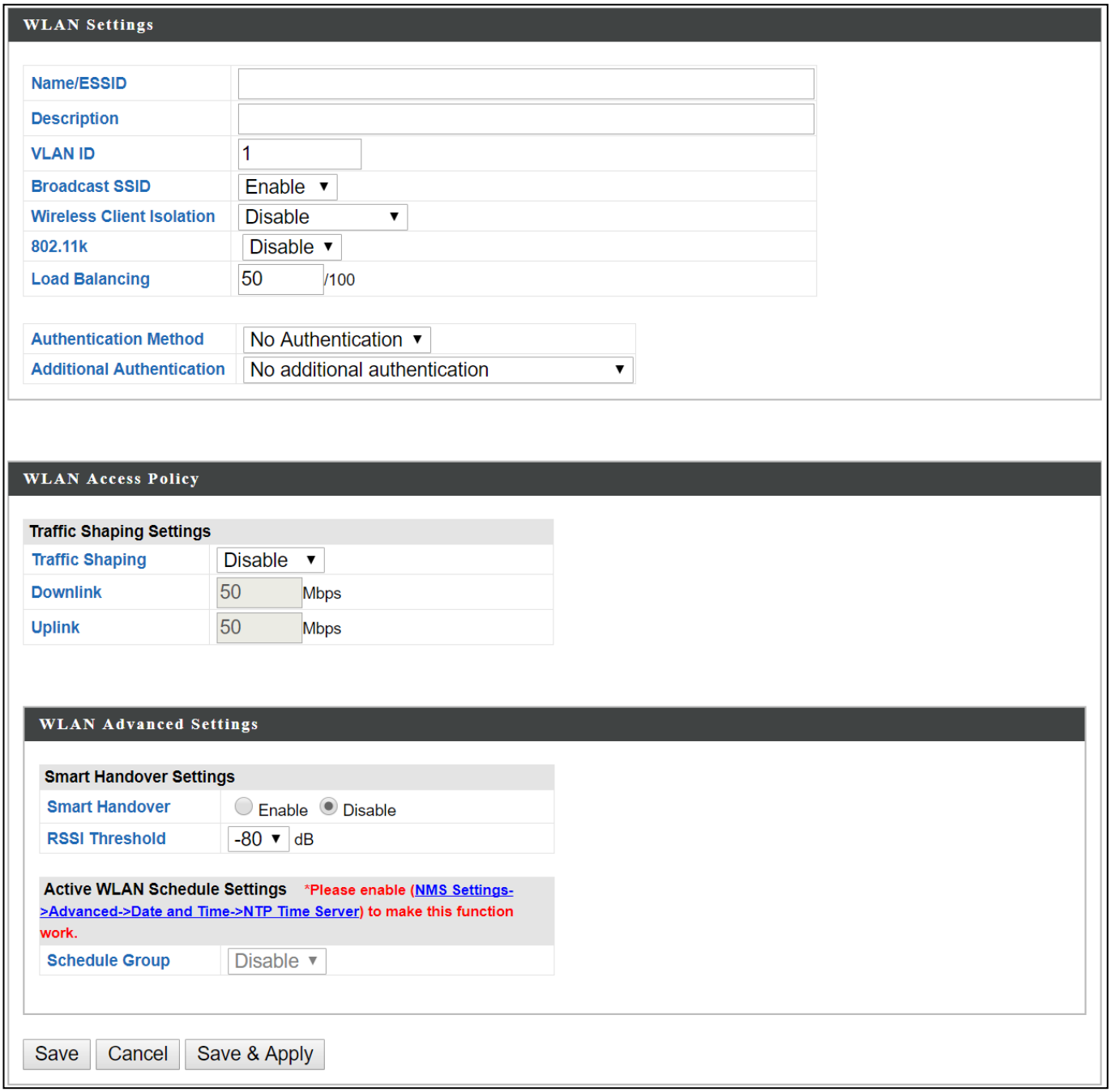
The **search** function can be used to locate a WLAN or WLAN Group. Type in the search box and the list will update:





Select a WLAN or WLAN Group using the check-boxes and click "**Edit**" or click "**Add**" to add a new WLAN or WLAN Group:

VIII-4-2-1 Add/Edit WLAN



WLAN Settings	
Name/ESSID	Edit the WLAN name (SSID).
Description	Enter a description of the SSID for reference e.g. 2nd Floor Office HR.
VLAN ID	Specify the VLAN ID.
Broadcast SSID	Enable or disable SSID broadcast. When enabled, the SSID will be visible to clients as an available Wi-Fi network. When disabled, the SSID will not be visible as an available Wi-Fi network to clients – clients must manually enter the SSID in

	order to connect. A hidden (disabled) SSID is typically more secure than a visible (enabled) SSID.
Wireless Client Isolation	Enable or disable wireless client isolation. Wireless client isolation prevents clients connected to the access point from communicating with each other and improves security. Typically, this function is useful for corporate environments or public hot spots and can prevent brute force attacks on clients' usernames and passwords.
802.11k	Enable / Disable to define and expose radio and network information (helps facilitate the management and maintenance of a mobile wireless LAN).
Load Balancing	Load balancing limits the number of wireless clients connected to an SSID. Set a load balancing value (maximum 100).
Authentication Method	Select an authentication method from the drop down menu.
WPA Type	It can select WPA only or WPA2 only or WPA/WPA2 Mixed Mode-PSK
Encryption Type	Select TKIP/AES Mixed Mode or AES
Key Renewal Interval	Set the renewal internal time
Pre-Shared Key Type	Set Passphrase or Hex (64 characters)
Pre-Shared Key	Set a pre-shared key of 8-64 characters
Additional Authentication	Select an additional authentication method from the drop down menu.

Various security options (wireless data encryption) are available. When data is encrypted, information transmitted wirelessly cannot be read by anyone who does not know the correct encryption key.

It is essential to configure wireless security in order to prevent unauthorised access to your network.

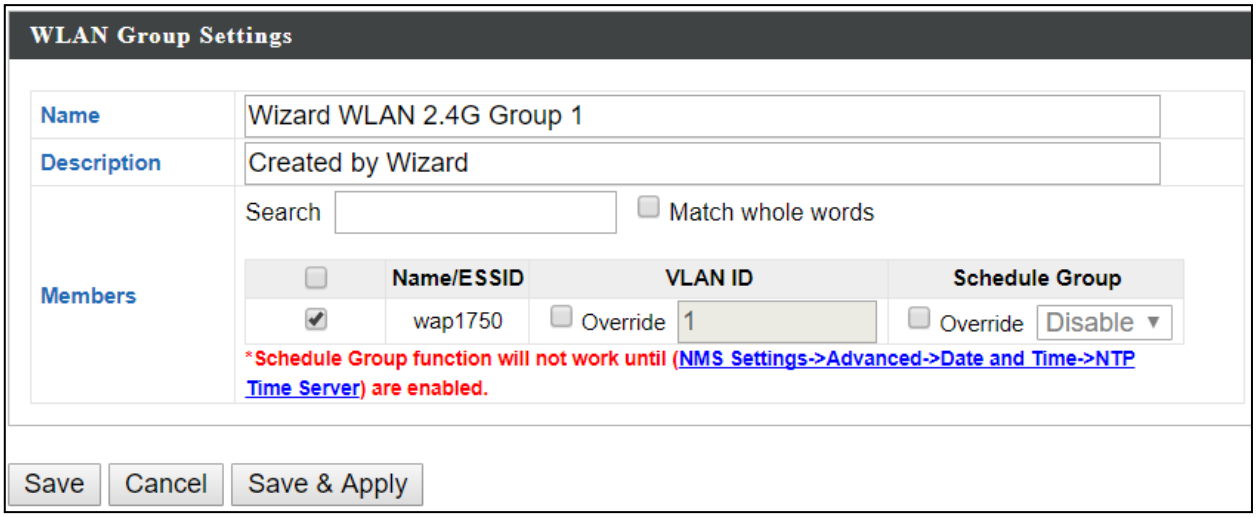
Select hard-to-guess passwords which include combinations of numbers, letters and symbols, and change your password regularly.

WLAN Access Policy	
Traffic Shaping	Enable / Disable traffic shaping.
Downlink	Set downlink between 1-200Mbps
Uplink	Set uplink between 1-200Mbps

WLAN Advanced Settings	
Smart Handover	Enable or disable Smart Handover.
RSSI Threshold	Set a RSSI Threshold level.

VIII-4-2-2 Add/Edit WLAN Group

When you add a WLAN Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.

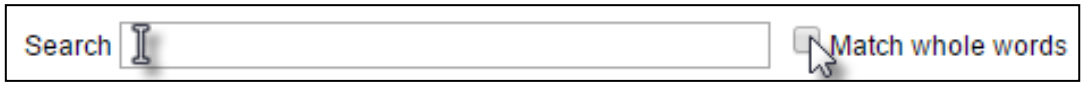


WLAN Group Settings	
Name	Edit the WLAN Group name.
Description	Enter a description of the WLAN Group for reference e.g. 2nd Floor Office HR Group.
Members	Select SSIDs to include in the group using the checkboxes and assign VLAN IDs.

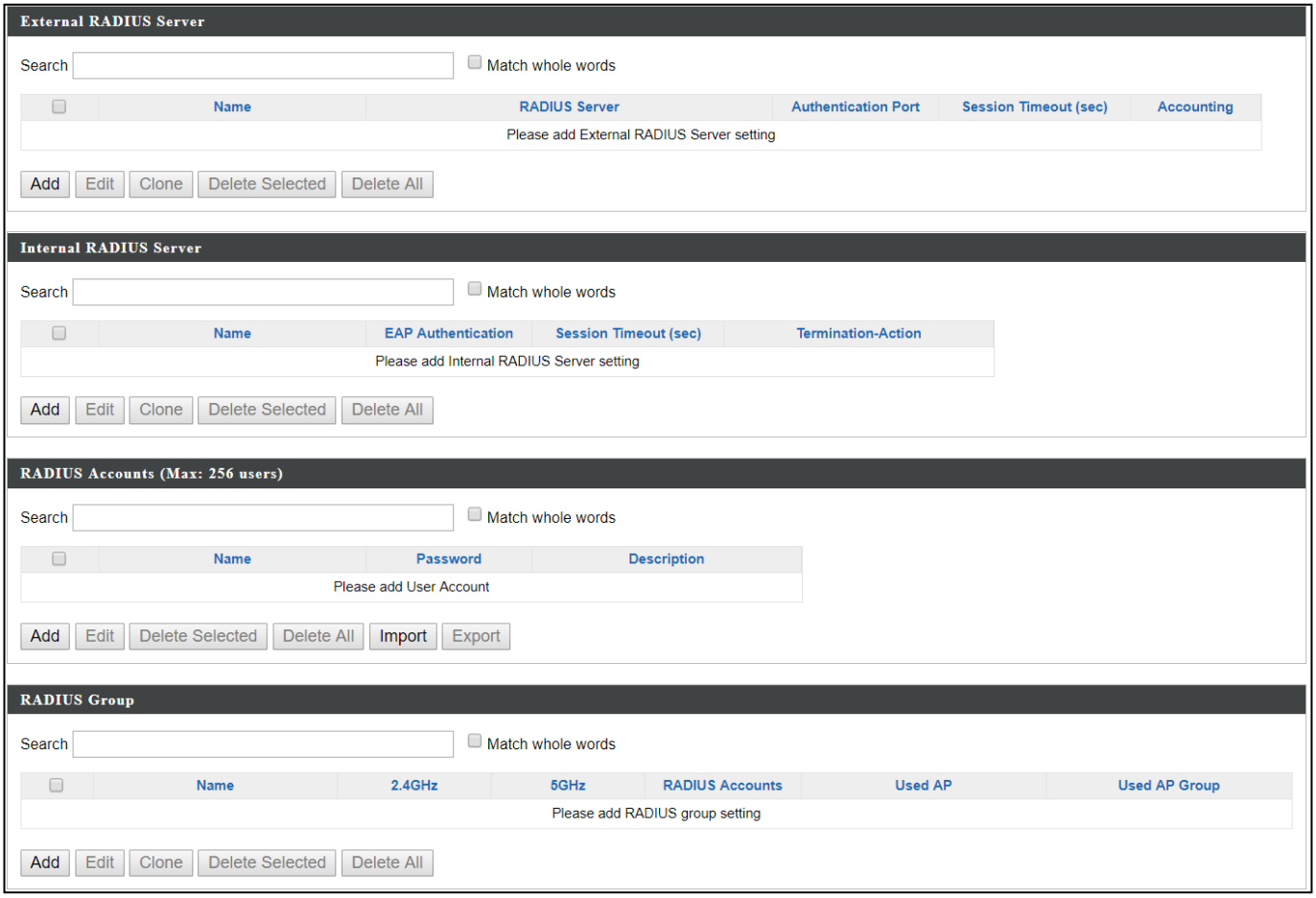
VIII-4-3 RADIUS

Displays information about External & Internal RADIUS Servers, Accounts and Groups and allows you to add or edit RADIUS Servers, Accounts & Groups. When you add a RADIUS Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.

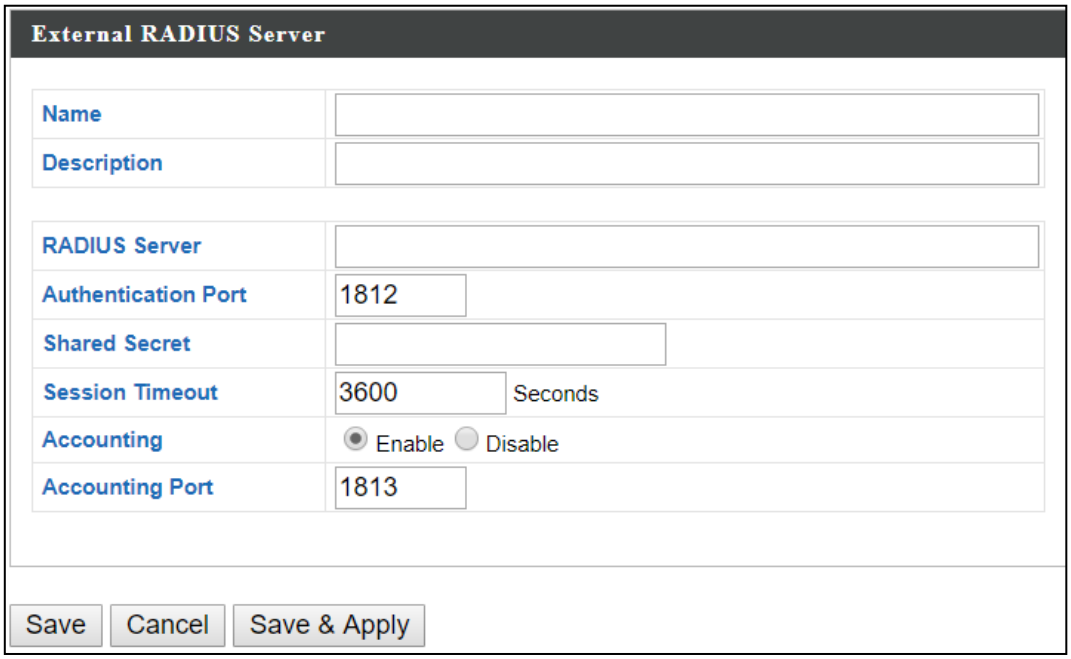
The **search** function can be used to locate a RADIUS Server, Account or Group. Type in the search box and the list will update:



Make a selection using the check-boxes and click "**Edit**" or click "**Add**" to add a new WLAN or WLAN Group:

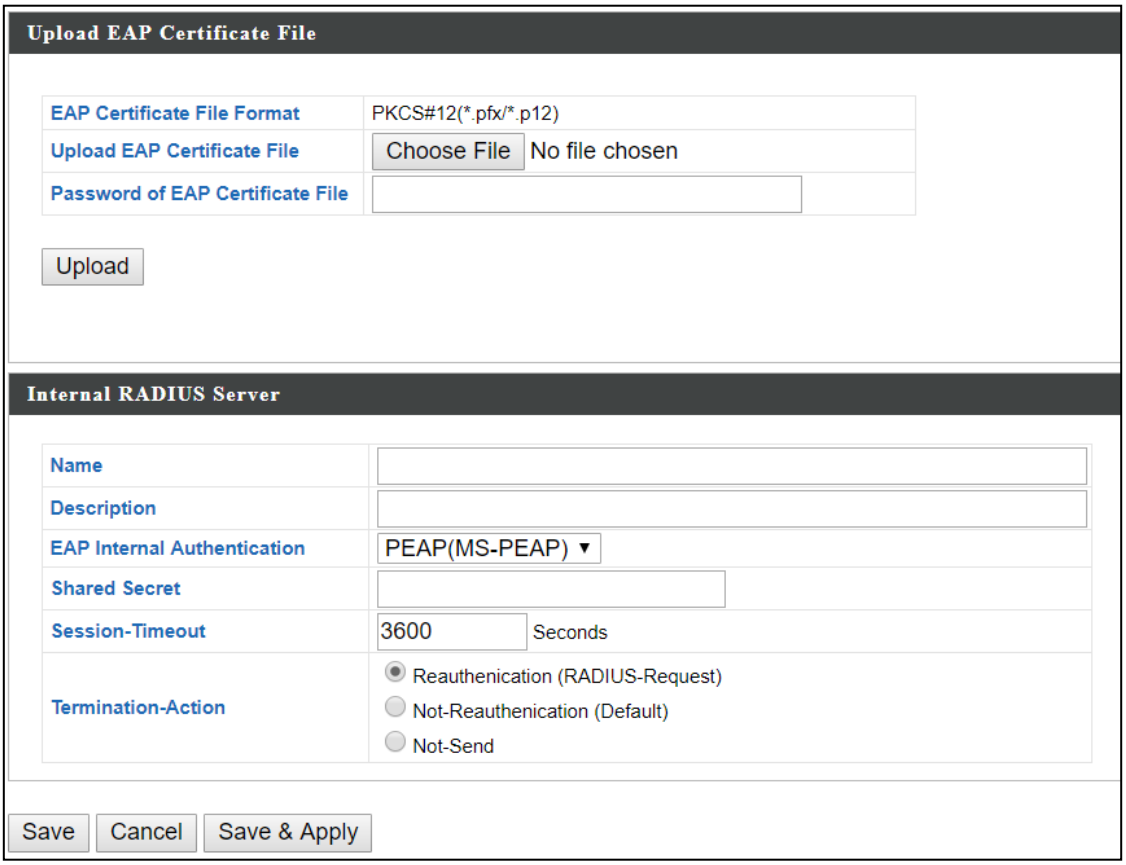


VIII-4-3-1 Add/Edit External RADIUS Server



Name	Enter a name for the RADIUS Server.
Description	Enter a description of the RADIUS Server for reference.
RADIUS Server	Enter the RADIUS server host IP address.
Authentication Port	Set the UDP port used in the authentication protocol of the RADIUS server.
Shared Secret	Enter a shared secret/password between 1 – 99 characters in length. This should match the “MAC-RADIUS” password.
Session Timeout	Set a duration of session timeout in seconds between 0 – 86400.
Accounting	Enable or disable RADIUS accounting.
Accounting Port	When accounting is enabled (above), set the UDP port used i n the accounting protocol of the RADIUS server.

VIII-4-3-2 Add/Edit Internal RADIUS Server



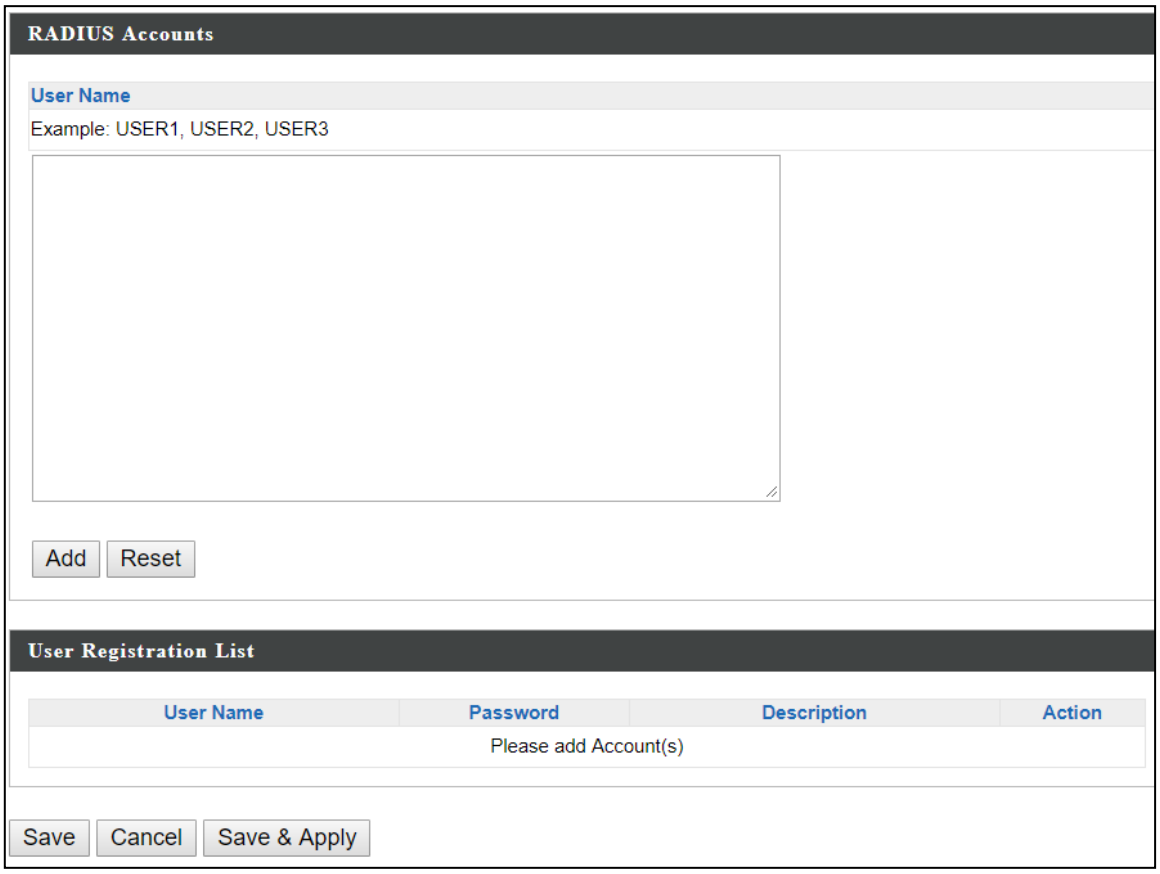
Upload EAP Certificate File	
EAP Certificate File Format	Displays the EAP certificate file format: PKCS#12(*.pfx/*.p12)
EAP Certificate File	Click “Upload” to open a new window and select the location of an EAP certificate file to use. If no certificate file is uploaded, the internal RADIUS server will use a self-made certificate.

Internal RADIUS Server	
Name	Enter a name for the Internal RADIUS Server.
Description	Enter a description of the Internal RADIUS Server for reference.
EAP Certificate File Format	Displays the EAP certificate file format: PCK#12(*.pfx/*.p12)
EAP Certificate File	Click “Upload” to open a new window and select the location of an EAP certificate file to use. If no certificate file is uploaded, the internal RADIUS server will use a self-made certificate.

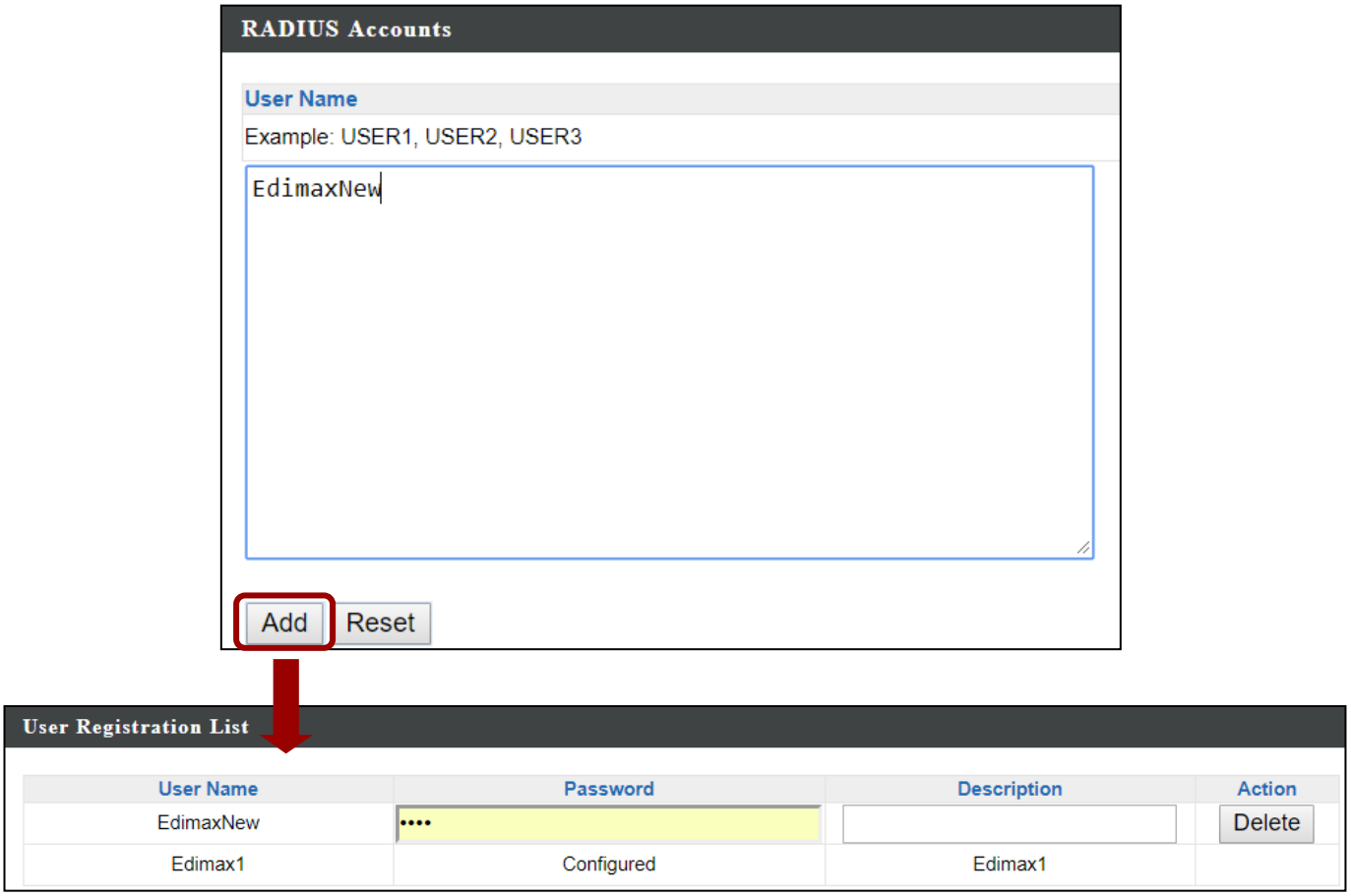
EAP Internal Authentication	Select EAP internal authentication type from the drop down menu.
Shared Secret	Enter a shared secret/password for use between the internal RADIUS server and RADIUS client. The shared secret should be 1 – 99 characters in length.
Session Timeout	Set a duration of session timeout in seconds between 0 – 86400.
Termination Action	Select a termination-action attribute: “Reauthentication” sends a RADIUS request to the access point, “Not-Reauthentication” sends a default termination-action attribute to the access point, “Not-Send” no termination-action attribute is sent to the access point.

VIII-4-3-3 Add/Edit/Import/Export RADIUS Accounts

The internal RADIUS server can authenticate up to 256 user accounts. The “RADIUS Accounts” page allows you to configure and manage users.



Add

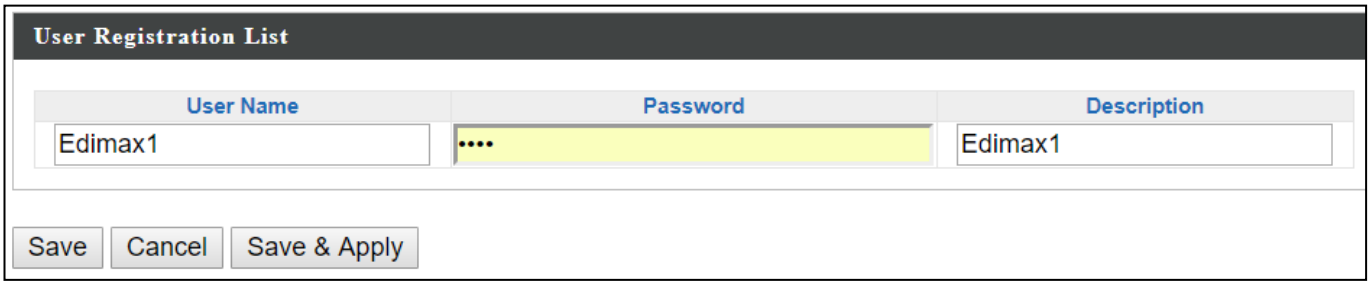


RADIUS Accounts	
User Name	Enter the user names here, separated by commas.
Add	Click “Add” to add the user to the user registration list.
Reset	Clear text from the user name box.

User Registration List	
User Name	Displays the user name.
Password	Enter a password.
Description	Enter a description of the user.
Delete	Delete the user.

Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

Edit

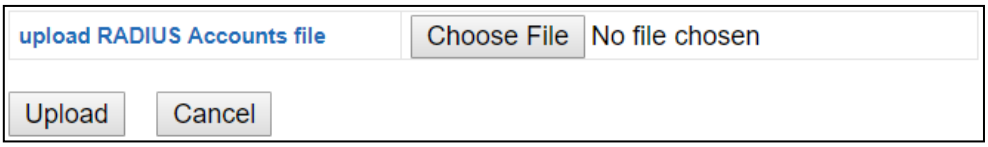


Edit User Registration List	
User Name	Existing user name is displayed here and can be edited according to your preference.
Password	Enter or edit a password for the specified user.
Description	Displays current description of the user and can be edited.

Delete Selected	Delete selected user from the user registration list.
Delete All	Delete all users from the user registration list.

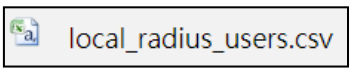
Import

If you wish to import RADIUS accounts, press “Import”. The following page is displayed below. Choose a file from a file and press “Upload” to import RADIUS accounts.



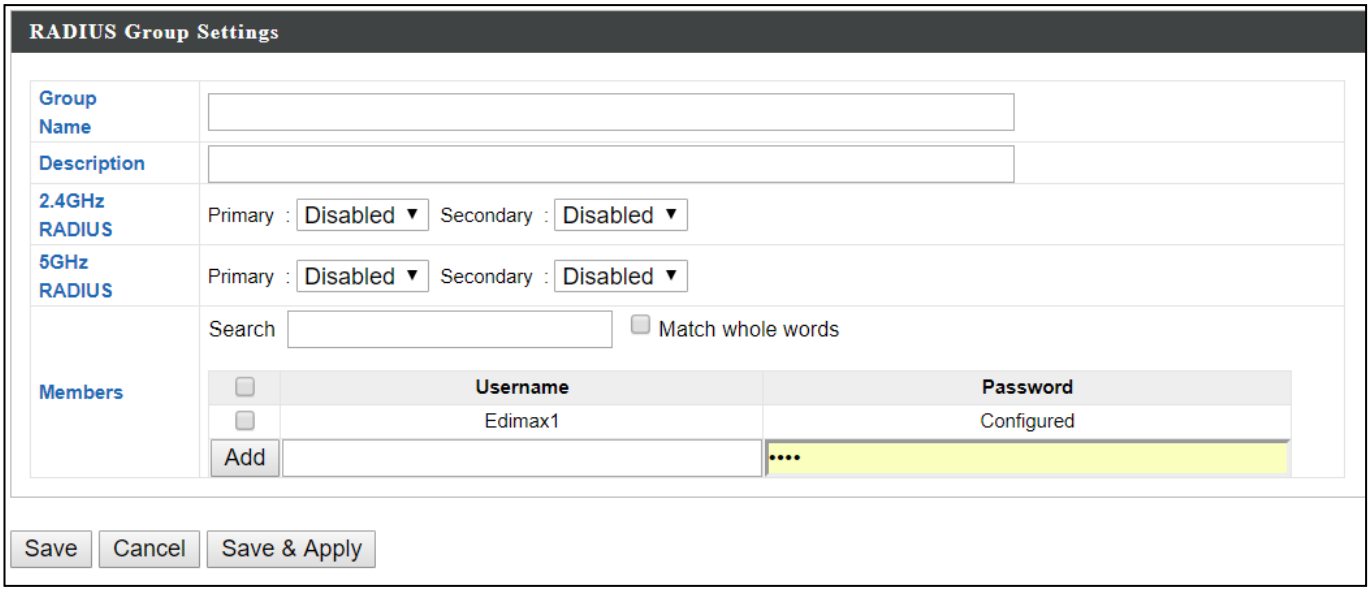
Export

If you wish to export your current list of RADIUS accounts, press “Export”. Your list will be saved in a format similar to the one below:



VIII-4-3-4 Add/Edit RADIUS Group

When you add a RADIUS Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.



RADIUS Group Settings	
Group Name	Edit the RADIUS Group name.
Description	Enter a description of the RADIUS Group for reference.
2.4GHz RADIUS	Enable/Disable primary & secondary RADIUS servers for 2.4GHz.
5GHz RADIUS	Enable/Disable primary & secondary RADIUS servers for 5GHz.
Members	Add RADIUS user accounts to the RADIUS group.

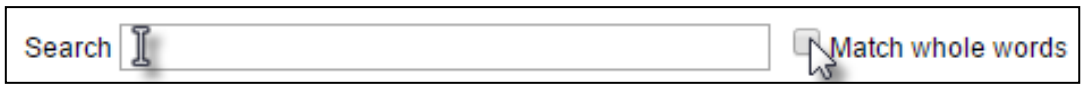
VIII-4-4 Access Control

MAC Access Control is a security feature that can help to prevent unauthorized users from connecting to your access point.

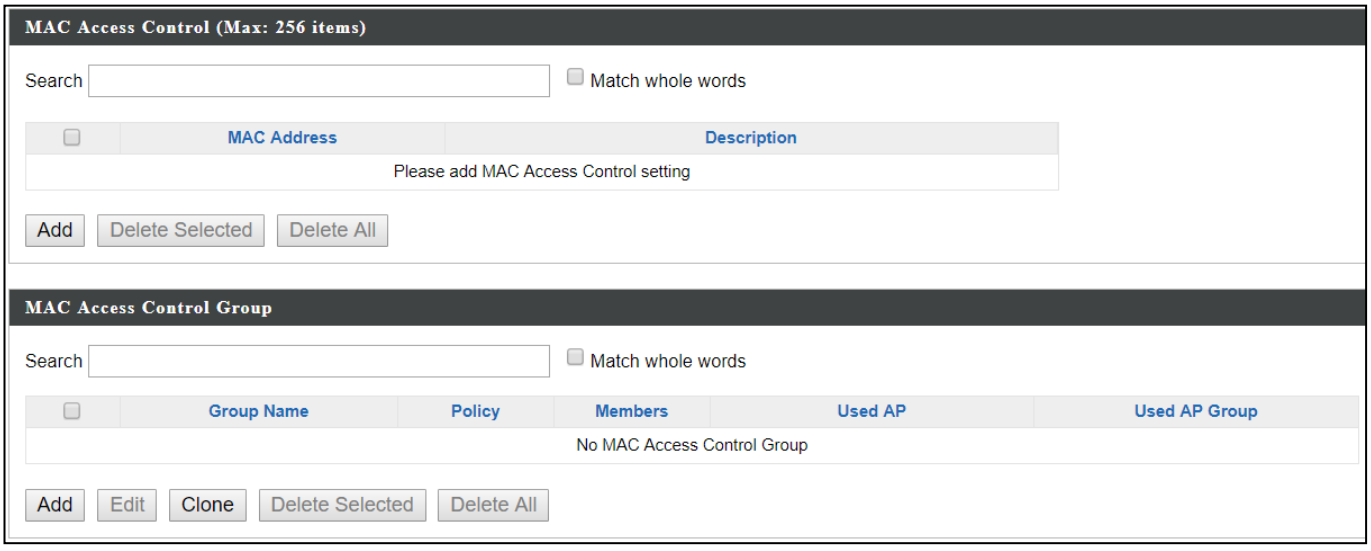
This function allows you to define a list of network devices permitted to connect to the access point. Devices are each identified by their unique MAC address. If a device not on the list of permitted MAC addresses attempts to connect to the access point, it will be denied.

The Access Control panel displays information about MAC Access Control & MAC Access Control Groups and Groups and allows you to add or edit MAC Access Control & MAC Access Control Group settings. When you add an Access Control Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.

The **search** function can be used to locate a MAC address or MAC Access Control Group. Type in the search box and the list will update:



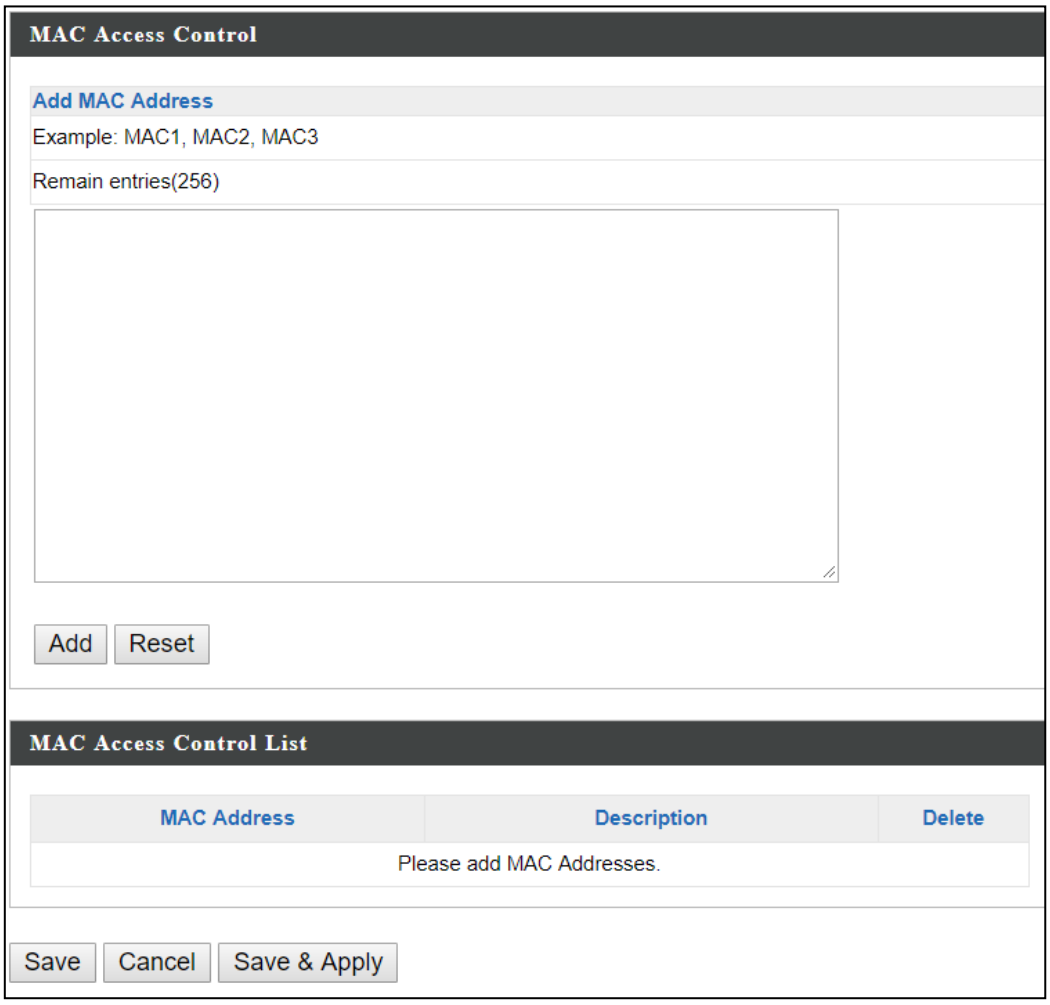
Make a selection using the check-boxes and click "**Edit**" or click "**Add**" to add a new MAC Address or MAC Access Control Group:



Delete Selected	Delete the selected entry(s) from the list.
Delete All	Delete all entries from the table.

VIII-4-4-1 Add/Edit MAC Access Control

Click “Add” to enter the page shown below:



Add MAC Address	Enter a MAC address of computer or network device manually e.g. ‘aa-bb-cc-dd-ee-ff’ or enter multiple MAC addresses separated with commas, e.g. ‘aa-bb-cc-dd-ee-ff,aa-bb-cc-dd-ee-gg’
Add	Click “Add” to add the MAC address to the MAC address filtering table.
Reset	Clear all fields.

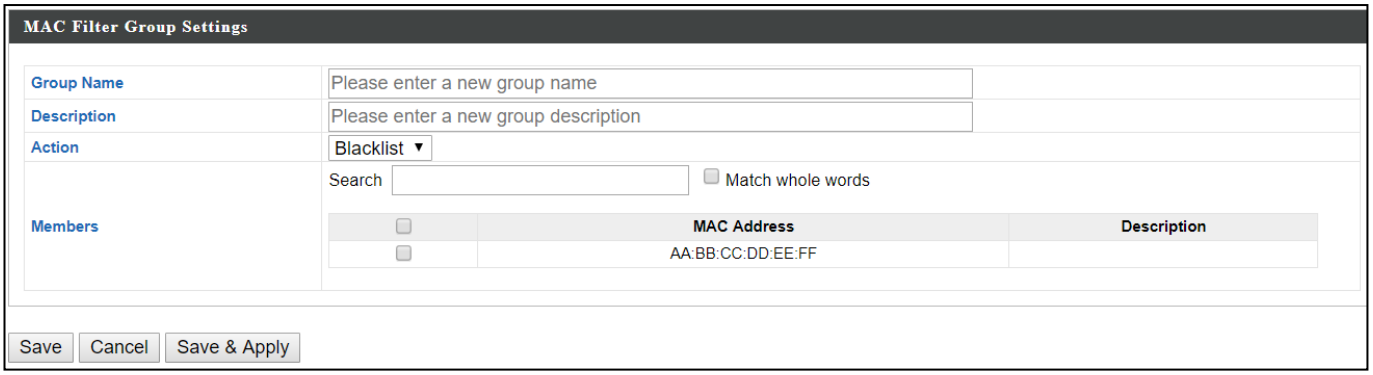
MAC address entries will be listed in the “MAC Address Filtering Table”. Select an entry using the “Select” checkbox.

Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

VIII-4-4-2 Add/Edit/Clone MAC Access Control Group

When you add an Access Control Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.

Click “Add” to enter the page shown below:



MAC Filter Group Settings	
Group Name	Edit the MAC Access Control Group name.
Description	Enter a description of the MAC Access Control Group for reference.
Action	Select “Blacklist” to deny access to specified MAC addresses in the group, and select “Whitelist” to permit access to specified MAC address in the group.
Members	Check the checkbox to add MAC addresses to the group.

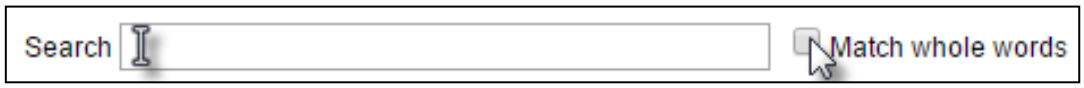
Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

VIII-4-5 Guest Network

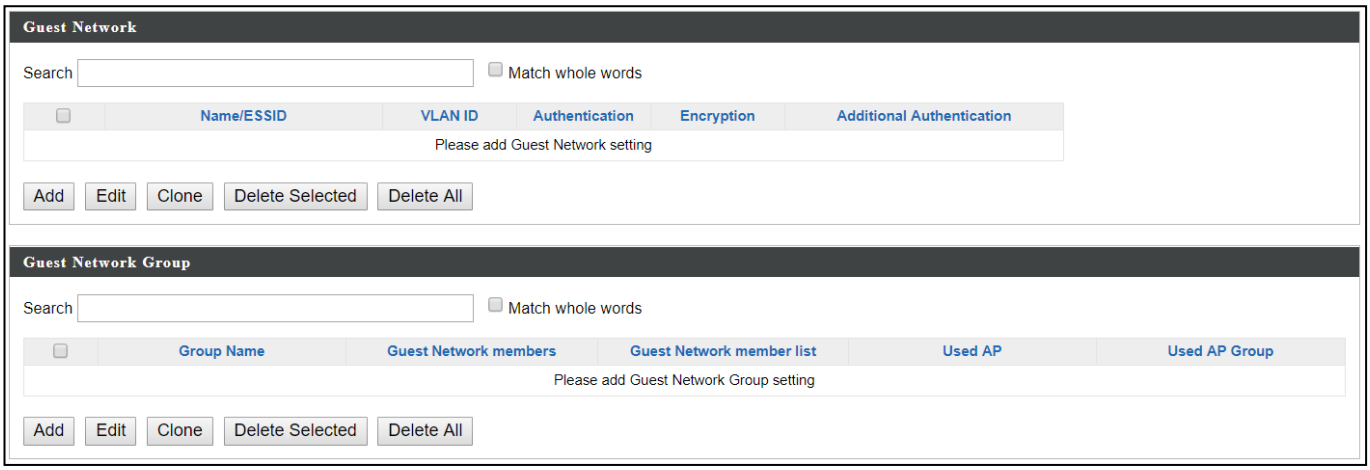
You can setup an additional “Guest” Wi-Fi network so guest users can enjoy Wi-Fi connectivity without accessing your primary networks. The “Guest” screen displays settings for your guest Wi-Fi network.

The Guest Network panel displays information about Guest Networks and Guest Network Groups and allows you to add or edit Guest Network and Guest Network Group settings. When you add a Guest Network Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.

The **search** function can be used to locate a Guest Network or Guest Network Group. Type in the search box and the list will update:



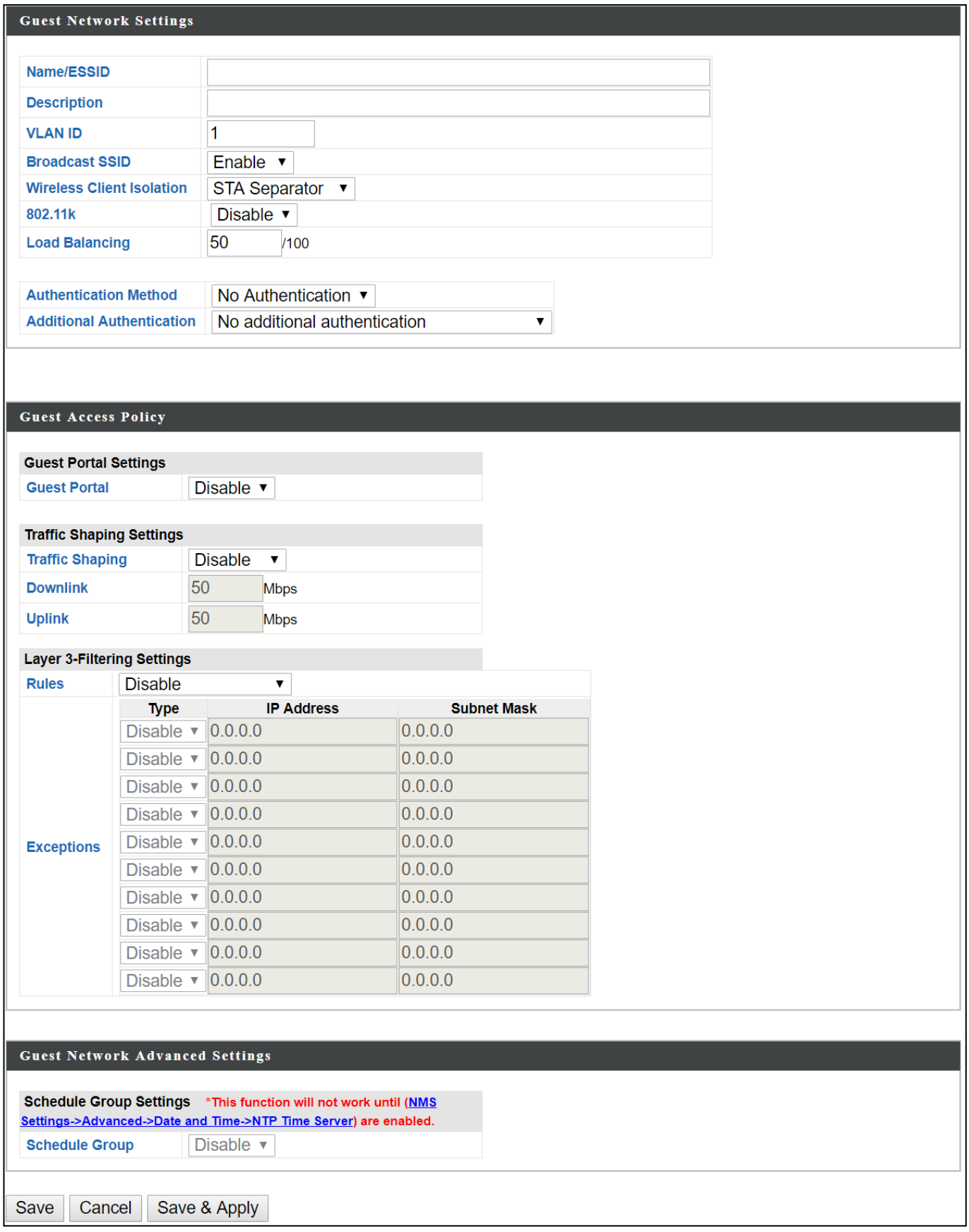
Make a selection using the check-boxes and click “**Edit**” or click “**Add**” to add a new Guest Network or Guest Network Group.



Delete Selected	Delete the selected entry(s) from the list.
Delete All	Delete all entries from the table.

VIII-4-5-1 Add/Edit Guest Network

Click “Add” to enter the page shown below:



Guest Network Settings	
Name/ESSID	Edit the Guest Network name (SSID).
Description	Enter a description of the Guest Network for reference e.g. 2nd Floor Office HR.
VLAN ID	Specify the VLAN ID.
Broadcast SSID	Enable or disable SSID broadcast. When enabled, the SSID will be visible to clients as an available Wi-Fi network. When disabled, the SSID will not be visible as an available Wi-Fi network to clients – clients must manually enter the SSID in order to connect. A hidden (disabled) SSID is typically more secure than a visible (enabled) SSID.
Wireless Client Isolation	Enable or disable wireless client isolation. Wireless client isolation prevents clients connected to the access point from communicating with each other and improves security. Typically, this function is useful for corporate environments or public hot spots and can prevent brute force attacks on clients' usernames and passwords.
802.11k	Enable / Disable to define and expose radio and network information (helps facilitate the management and maintenance of a mobile wireless LAN).
Load Balancing	Load balancing limits the number of wireless clients connected to an SSID. Set a load balancing value (maximum 100).
Authentication Method	Select an authentication method from the drop down menu.
Additional Authentication	Select an additional authentication method from the drop down menu.

Various security options (wireless data encryption) are available. When data is encrypted, information transmitted wirelessly cannot be read by anyone who does not know the correct encryption key.

It is essential to configure wireless security in order to prevent unauthorised access to your network.

Select hard-to-guess passwords which may include combinations of numbers, letters and symbols, and change your passwords regularly.

Guest Access Policy	
Guest Portal	Enable or disable guest portal for the guest network.
Traffic Shaping	Enable or disable traffic shaping for the guest network.
Downlink	Enter a downlink limit in MB.
Uplink	Enter an uplink limit in MB.
Rules	Enter IP addresses to be filtered according to the drop down menu: “Allow all by Default”, “Deny all by Default”, “Internet Only” and “Disable”
Exceptions	After selecting the rule above, exceptions can be setup to allow / deny guest access.

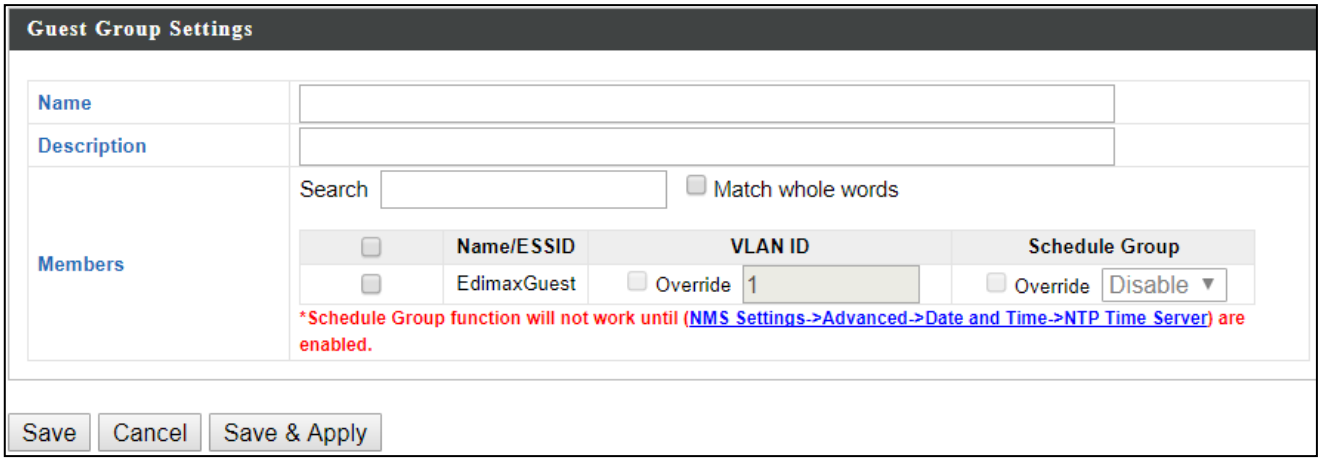
Guest Network Advanced Settings	
Schedule Group	Select a schedule group.

Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

Clone	Select an entry and clone its settings. You will be taken to the add guest network settings page shown above. Enter / edit the fields and save your selection.

VIII-4-5-2 Add/Edit Guest Network Group

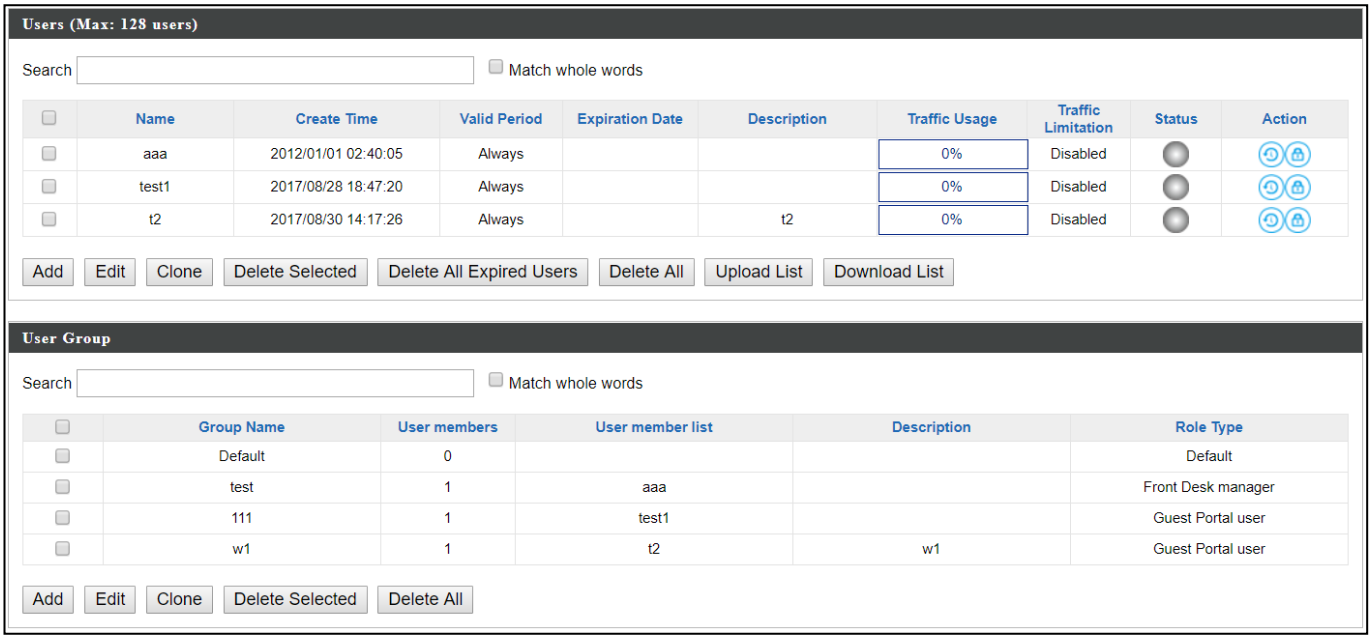
When you add a Guest Network Group, it will be available for selection in **NMS Settings → Access Point** access point **Profile Settings** & access point group **Profile Group Settings**.



Guest Network Group Settings	
Group Name	Edit the Guest Network Group name.
Description	Enter a description of the Guest Network for reference.
Members	Add SSIDs to the Guest Network group.

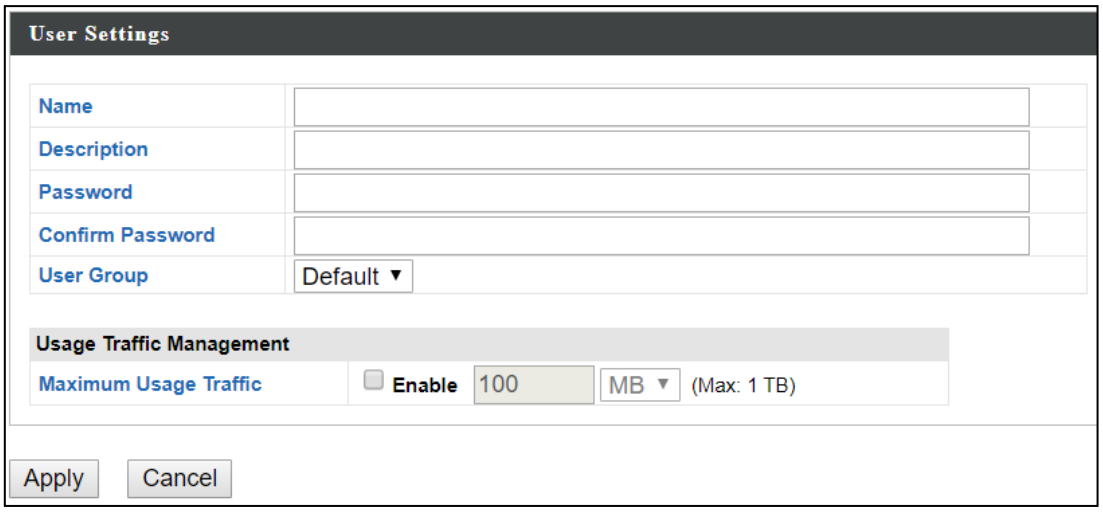
Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

VIII-4-6 Users



User Panel

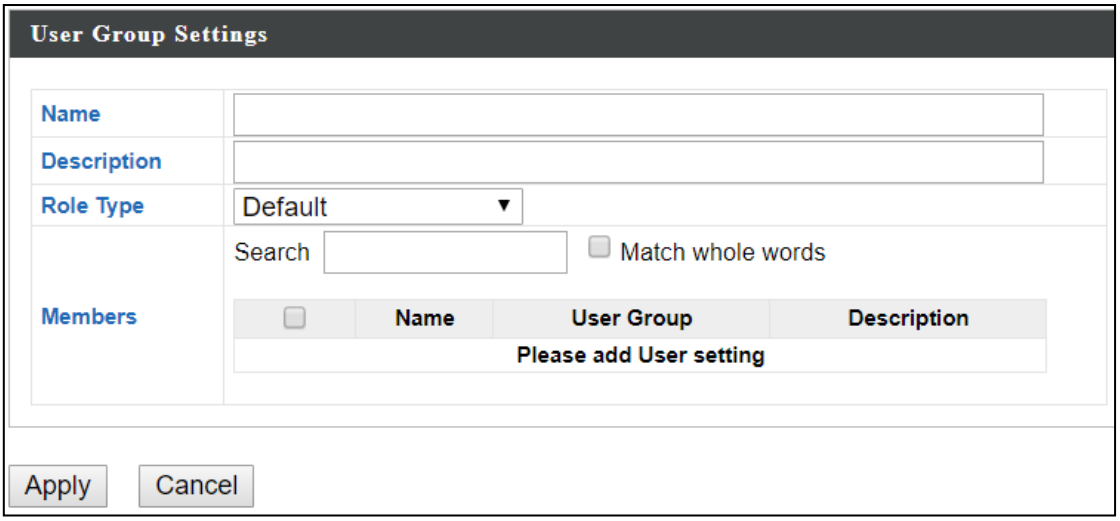
Press “Add” to add a new user, or “Edit” to edit an existing user, or “Clone” to clone an existing user’s settings. For the 3 options specified above, enter the fields below:



Press “Save” to save the above actions, or “Cancel” to forfeit the changes.
Check the checkbox of the user(s) you wish to delete and press “Delete Selected” to delete (multiple selections possible).
Press “Delete All Expired Users” to delete the expired users.
Press “Delete All” to delete all users.
Use “Upload List” to upload a user list.
Use “Download List” to download existing list for possible future reference.

User Group Panel

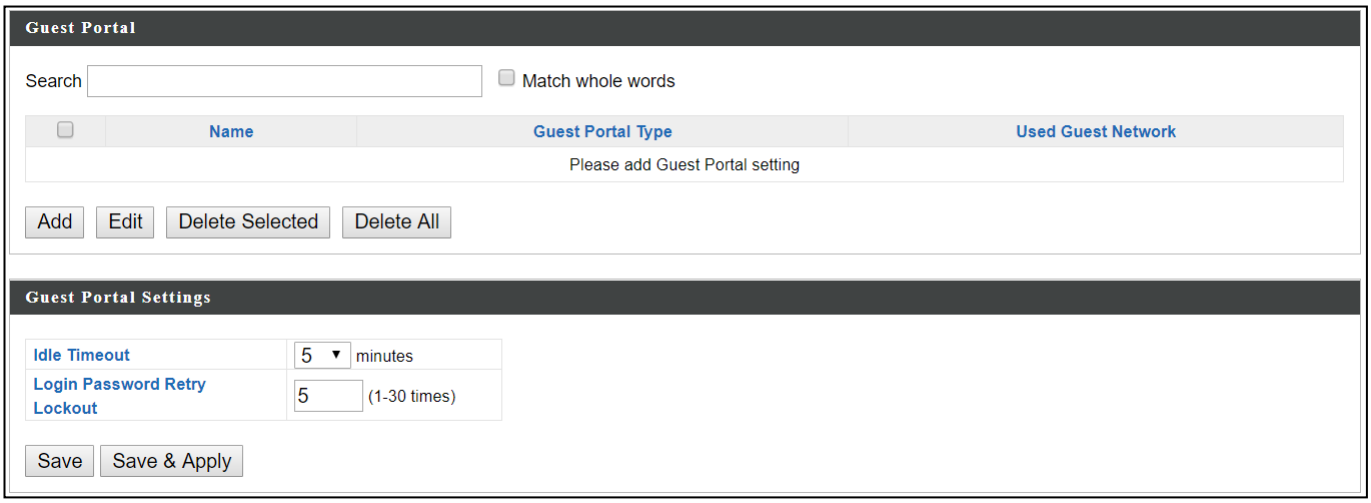
Click “Add” to add a new user group, or “Edit” to edit an existing user group, or “Clone” to clone an existing user group’s settings. For the 3 options specified above, enter the fields below:



Press “Save” to save the above actions, or “Cancel” to forfeit the changes.
Check the checkbox of the user group(s) you wish to delete and press “Delete Selected” to delete (multiple selections possible).
Press “Delete All” to delete all user groups.

VIII-4-7 Guest Portal

A guest portal is a web page which is displayed to newly connected users before they are granted broader access to network resources.

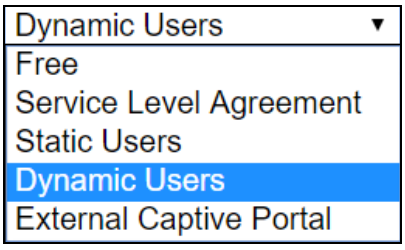


Check the checkbox of the portal(s) you wish to delete and press “Delete Selected” to delete (multiple selections possible).
Press “Delete All” to delete all portals.

Guest Portal Settings	
Idle Timeout	Select an idle timeout time from the drop down menu.
Login Password Retry Lockout	Enter a number (between 1 and 30) for the number of login password retry. If login password has been entered incorrectly for the number entered here, it will be locked.

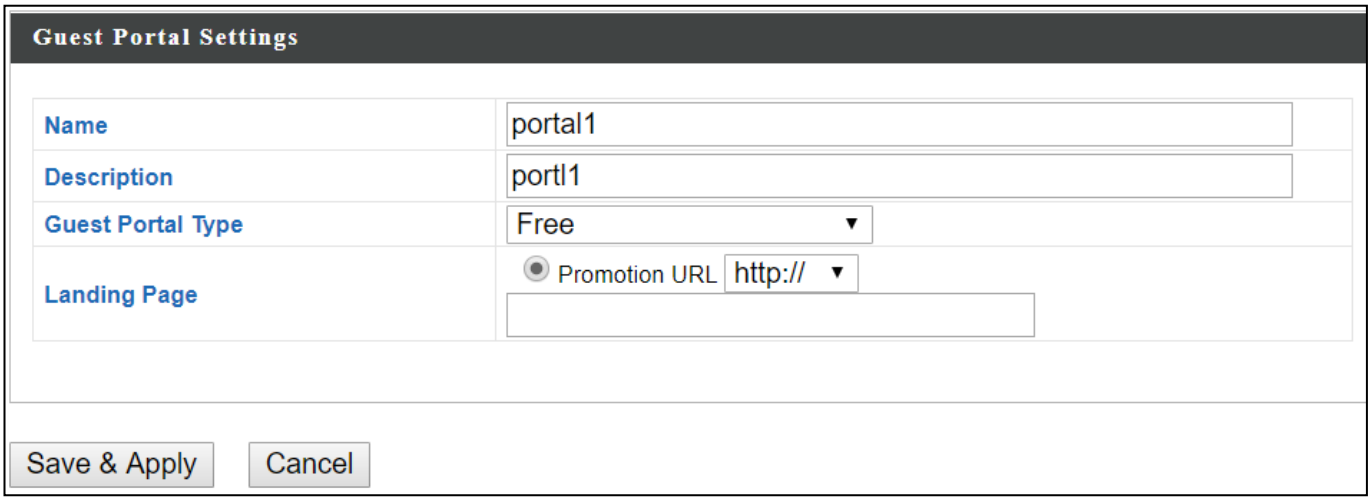
Add / Edit

Enter the fields according to the selected “Guest Portal Type” below:



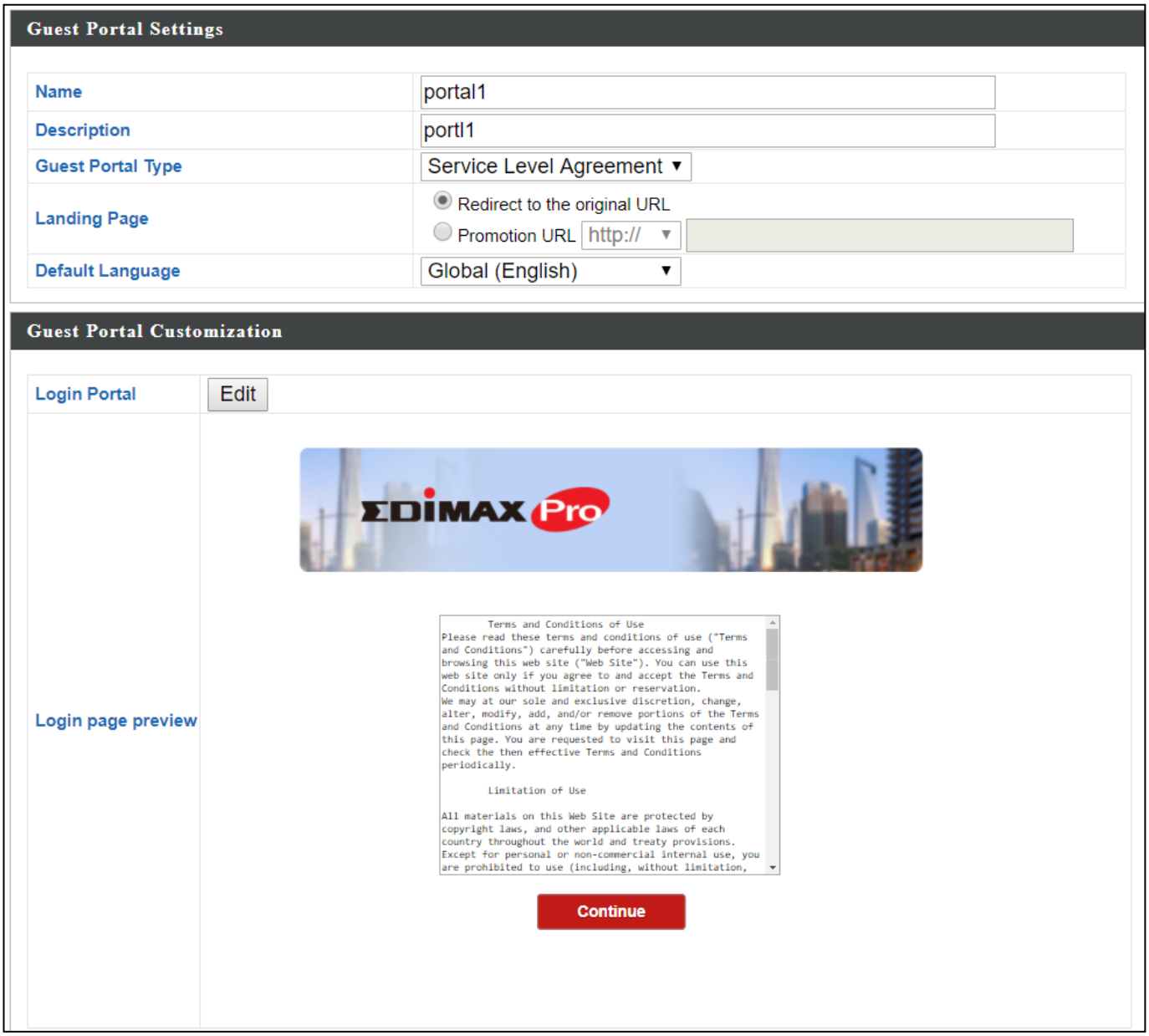
Press “Save & Apply” to save the above actions, or “Cancel” to forfeit the changes.

VIII-4-7-1 Free Guest Portal Type



Guest Portal Settings	
Name	Enter / edit portal name.
Description	Enter / edit description of the portal for reference.
Landing Page	Enter a “Promotion URL”.

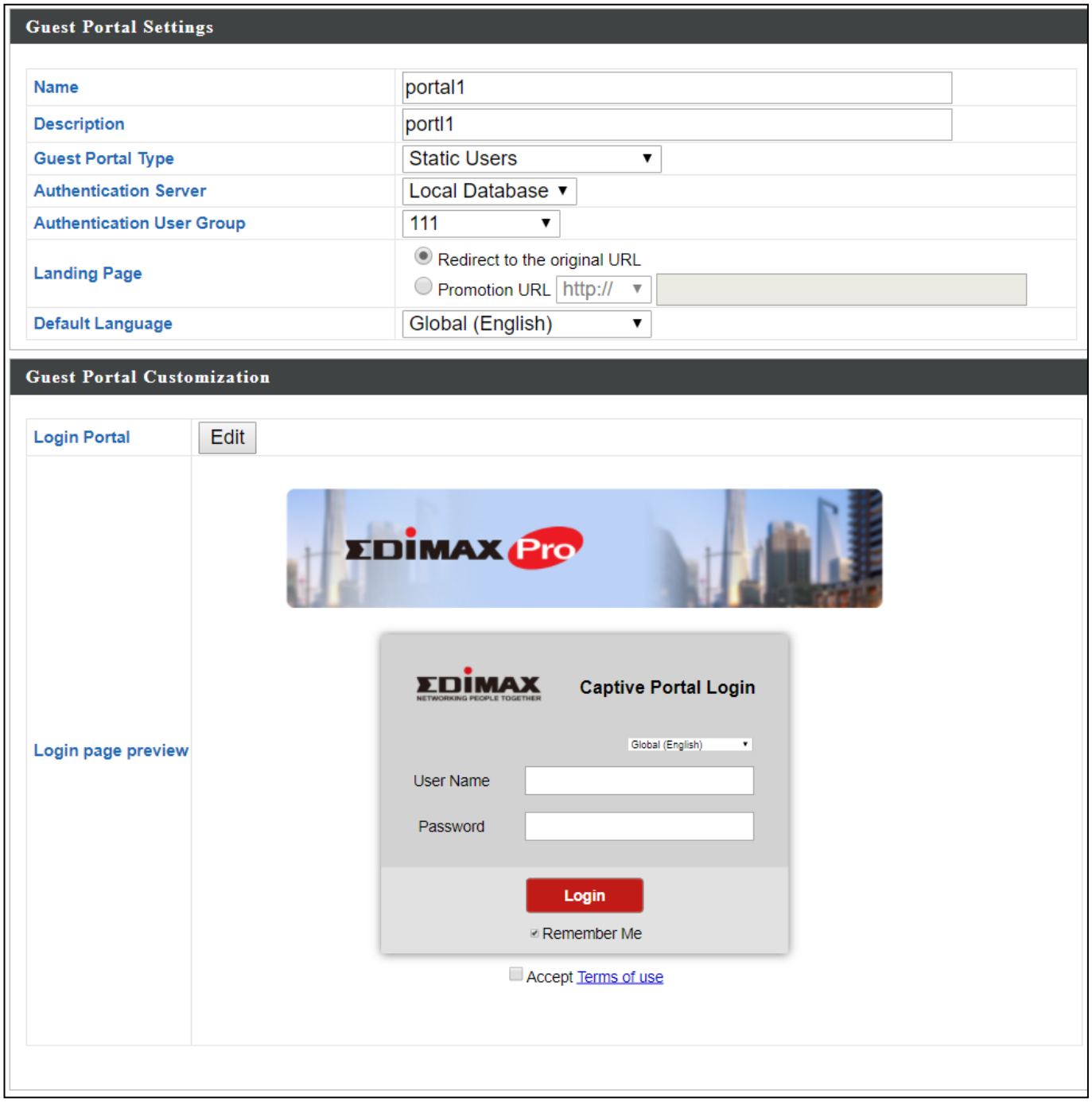
VIII-4-7-2 User Level Agreement Guest Portal Type



Guest Portal Settings	
Name	Enter / edit portal name.
Description	Enter / edit description of the portal for reference.
Landing Page	Select between “Redirect to the original URL” or “Promotion URL” (enter the promotion URL).
Default Language	Choose a default language.

For **Login Portal**, click “Edit” and see below to edit the login portal.

VIII-4-7-3 Static Users Guest Portal Type

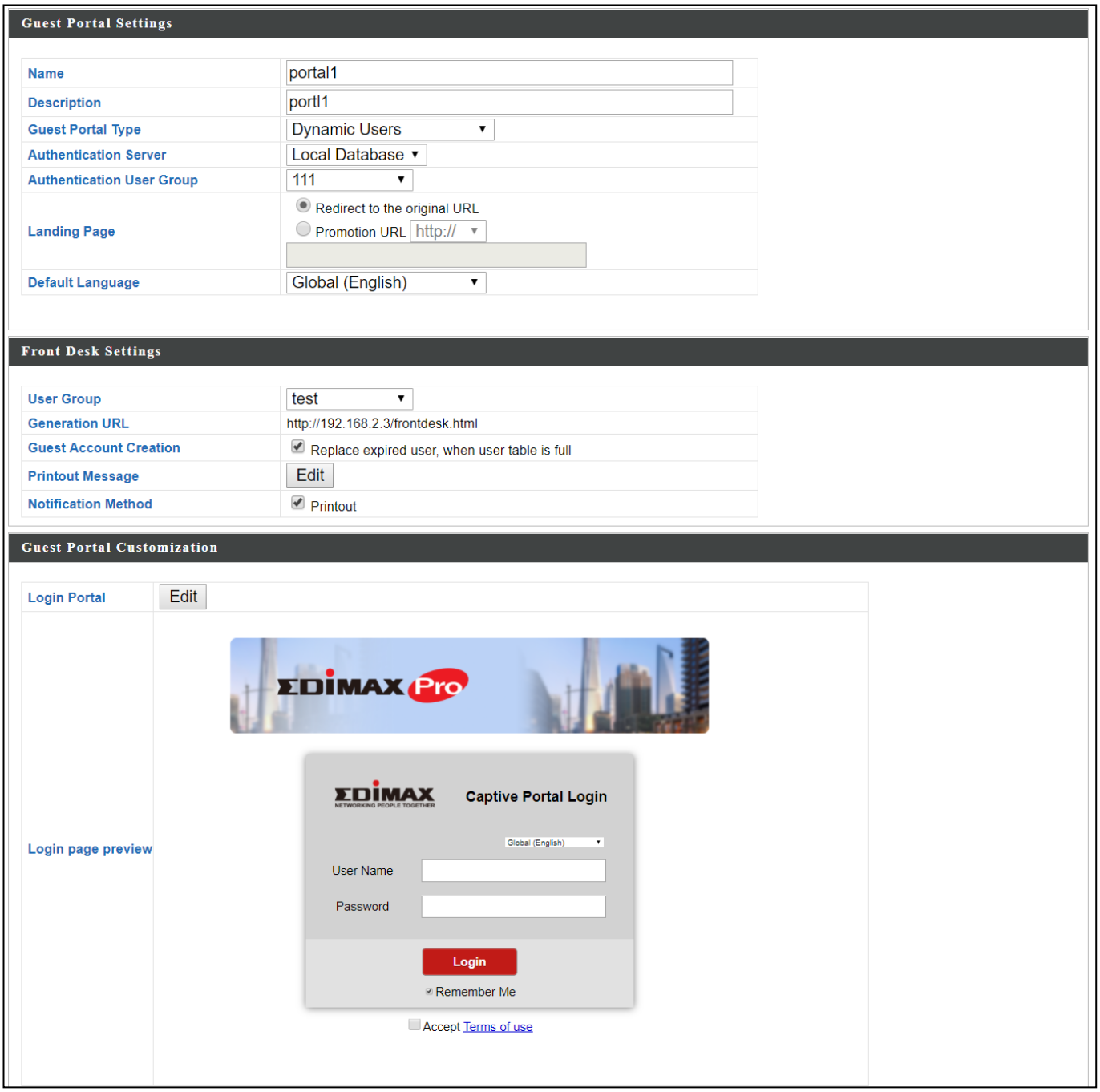


Guest Portal Settings	
Name	Enter / edit portal name.
Description	Enter / edit description of the portal for reference.
Authentication Server	Select an authentication server.
Authentication User Group	Select an authentication user group.
Landing Page	Select between “Redirect to the original URL” or “Promotion

	URL" (enter the promotion URL).
Default Language	Choose a default language.

For **Login Portal**, click "Edit" and see below to edit the login portal.

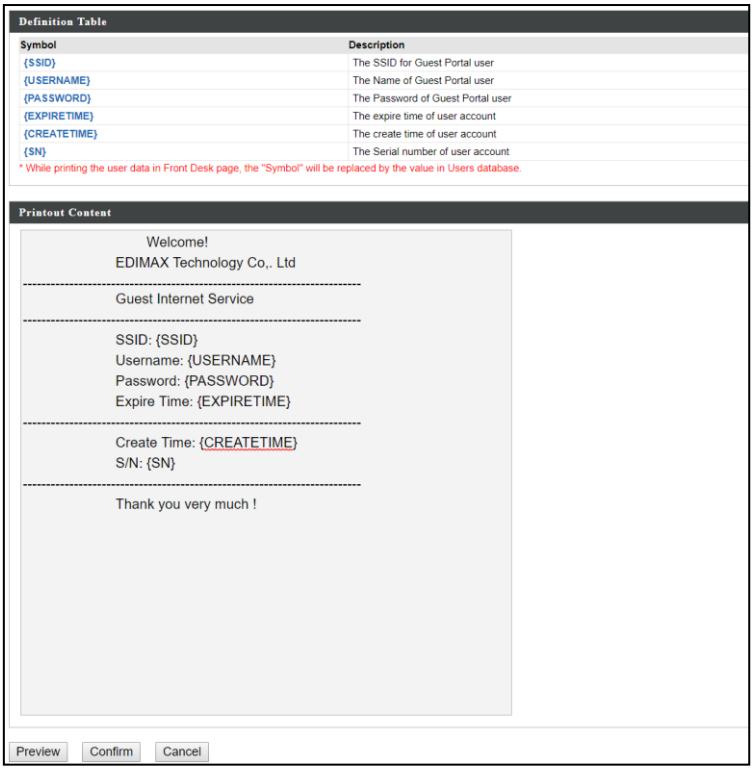
VIII-4-7-4 Dynamic Users Guest Portal Type



Guest Portal Settings	
Name	Enter / edit portal name.

Description	Enter / edit description of the portal for reference.
Authentication Server	Select an authentication server.
Authentication User Group	Select an authentication user group.
Landing Page	Select between “Redirect to the original URL” or “Promotion URL” (enter the promotion URL).
Default Language	Choose a default language.

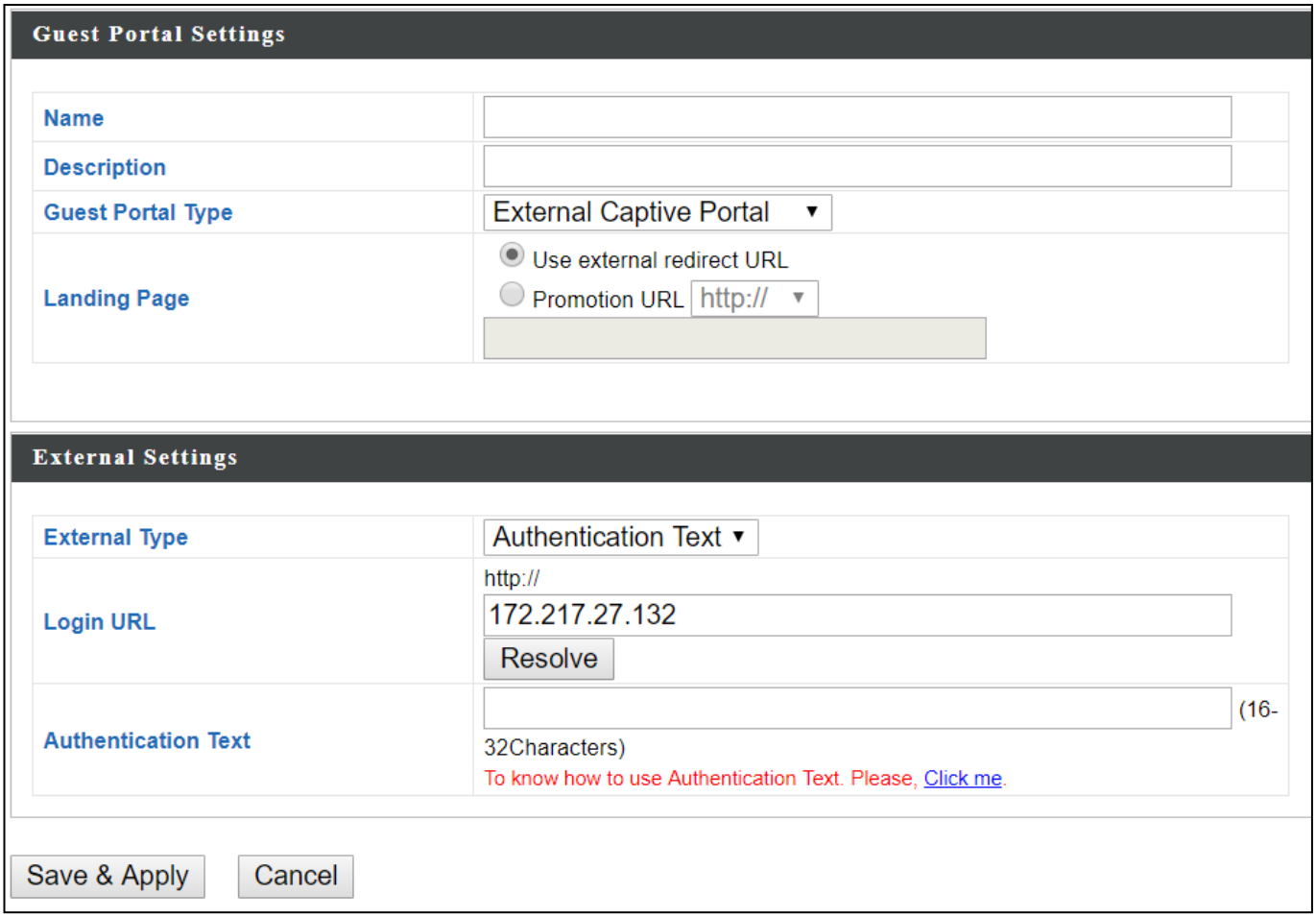
Front Desk Settings	
User Group	Select a user group.
Generation URL	Go to this URL to create dynamic account (and password) for a user.
Guest Account Creation	Check / uncheck to enable / disable “Replace expired user when user table is full”.
Printout Message	Click “Edit” to edit printout message, please see below.
Notification Method	Check / uncheck to enable / disable notification by printout.



Click “Preview” to preview the printout, “Confirm” to confirm the message, or “Cancel” to cancel the changes.

For **Login Portal**, click “Edit” and see below to edit the login portal.

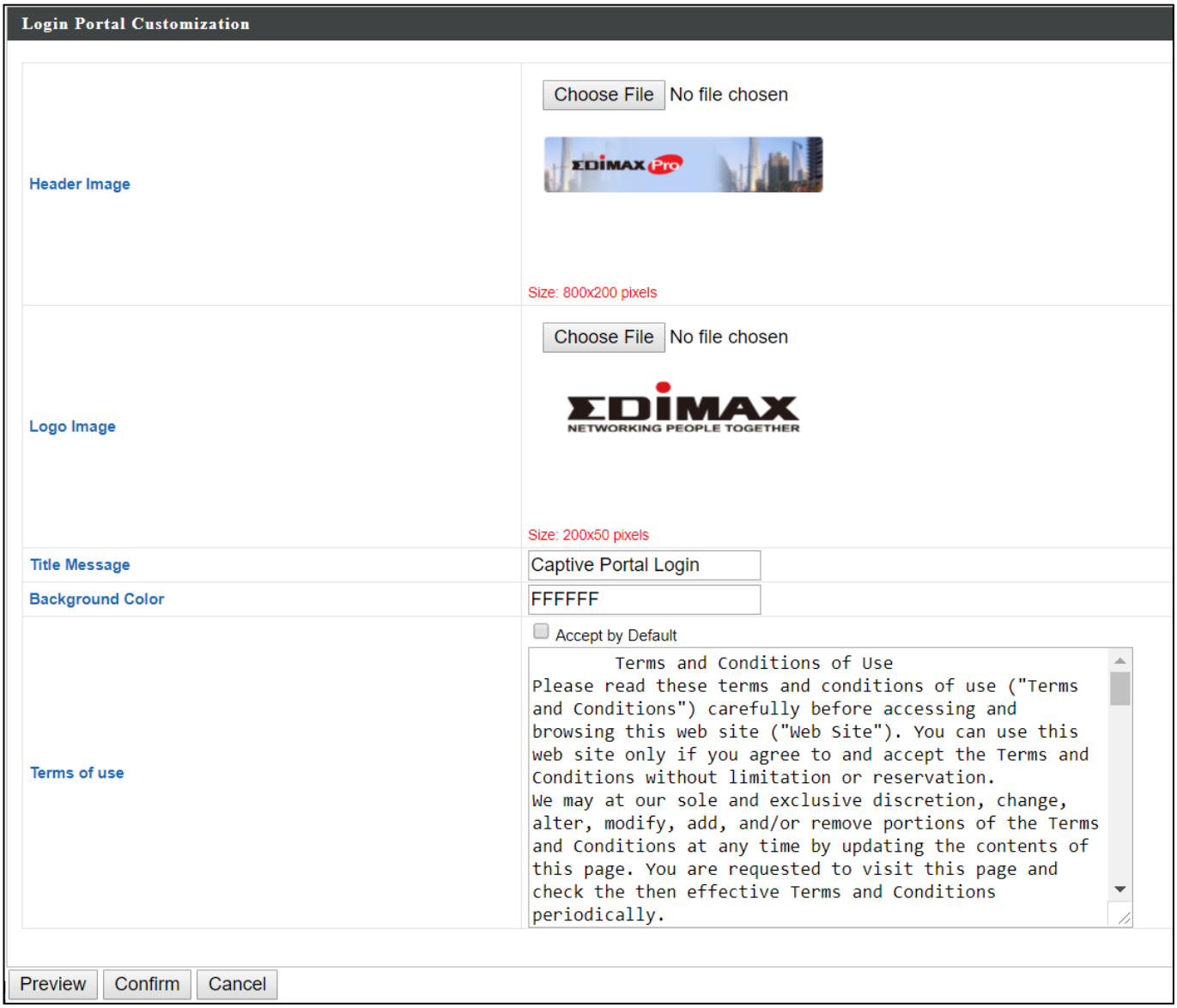
VIII-4-7-5 External Captive Portal Guest Portal Type

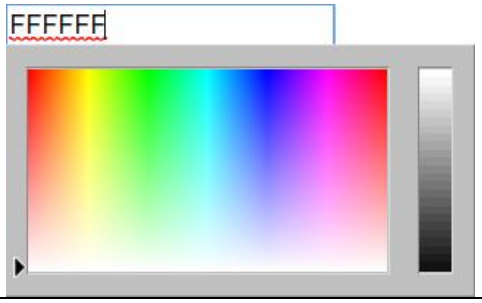


Guest Portal Settings	
Name	Enter / edit portal name.
Description	Enter / edit description of the portal for reference.
Landing Page	Select between “Use external redirect URL” or “Promotion URL” (enter the promotion URL).

External Settings	
Login URL	Enter / edit a login URL.
Authentication Text	Enter an authentication text. Click “Click me” for help.

VIII-4-7-6 Editing “Login Portal”



Header Image	Click “Choose File” to select a file as the header image.
Logo Image	Click “Choose File” to select a file as the logo image. (Only for Static and Dynamic users guest portal type)
Title Message	Enter / edit a title message. (Only for Static and Dynamic users guest portal type)
Background Color	Click on the field where color selection will be available. Select a desired color. 

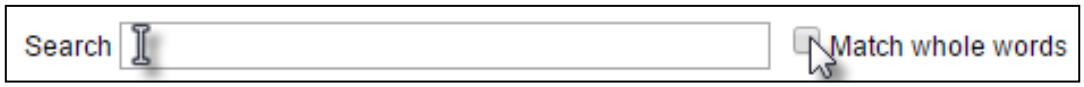
Terms of use	Enter / edit the terms of use message

Click “Preview” to preview the printout, “Confirm” to confirm the message, or “Cancel” to cancel the changes.

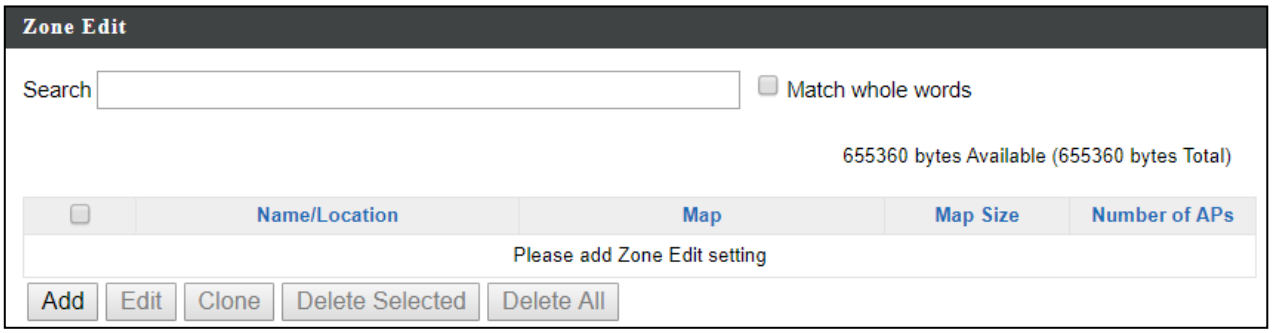
VIII-4-8 Zone Edit

Zone Edit displays information about zones for use with the Zone Plan feature and allows you to add or edit zones.

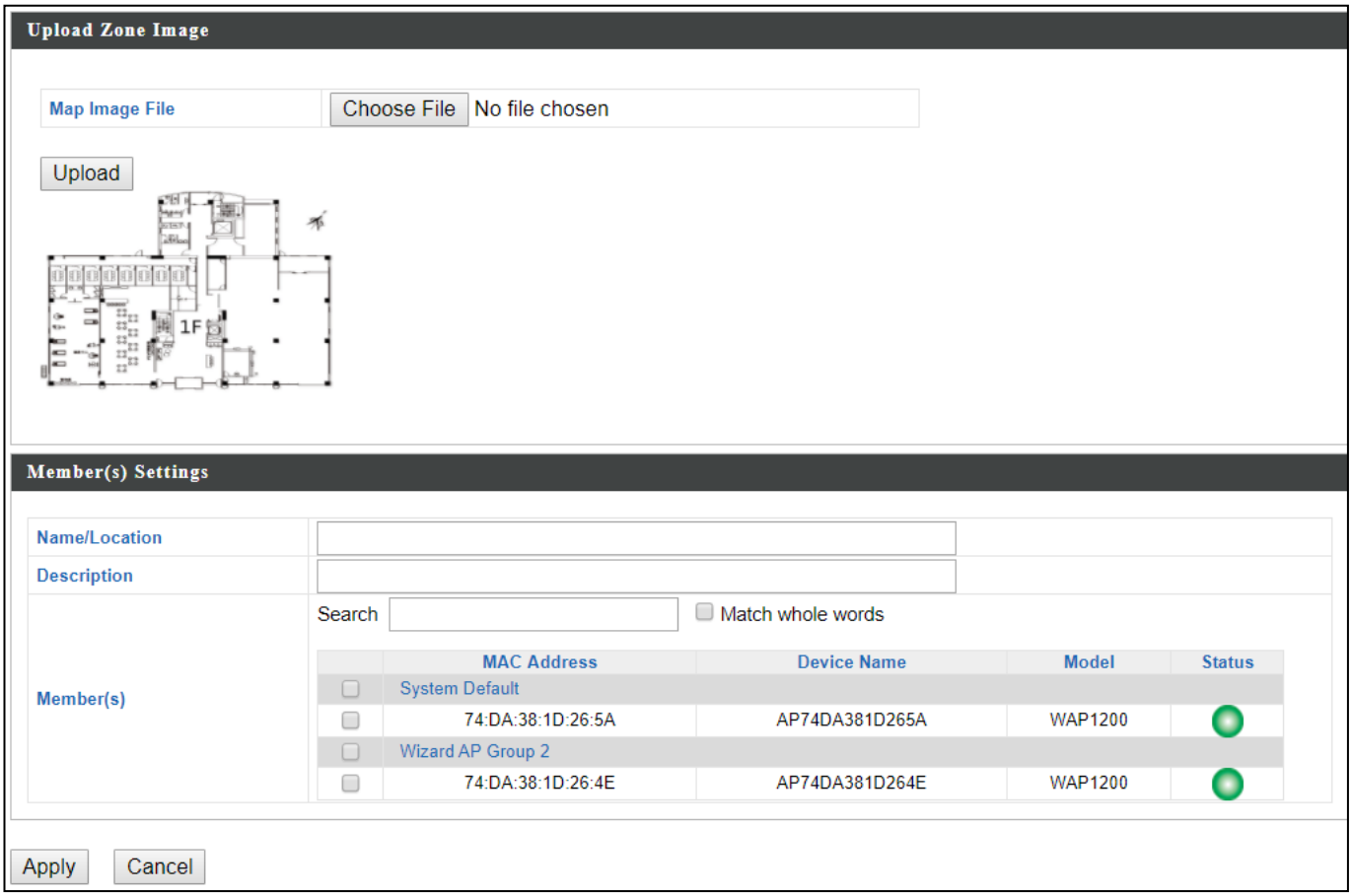
The **search** function can be used to find existing zones. Type in the search box and the list will update:



Make a selection using the check-boxes and click "**Edit**" or click "**Add**" to add a new zone.



Add/Edit Zone

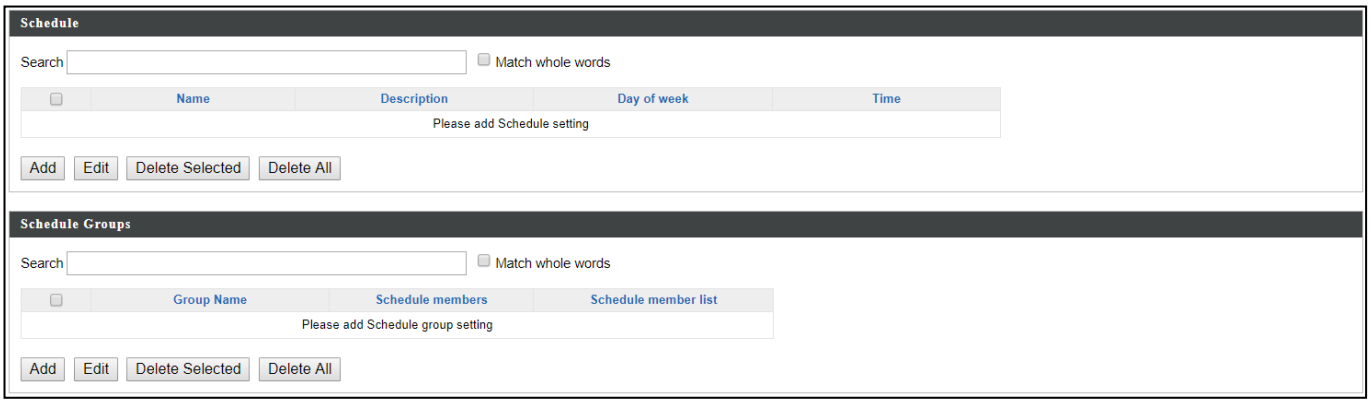


Upload Zone Image	
Choose File	Click to locate an image file to be displayed as a map in the Zone Plan feature. Typically a floor plan image is useful.

Member(s) Setting	
Name/Location	Name the location or simply enter the name of the location.
Description	Enter a description of the zone/location for reference.
Members	Assign access points to the specified zone/location for use with the Zone Plan feature.

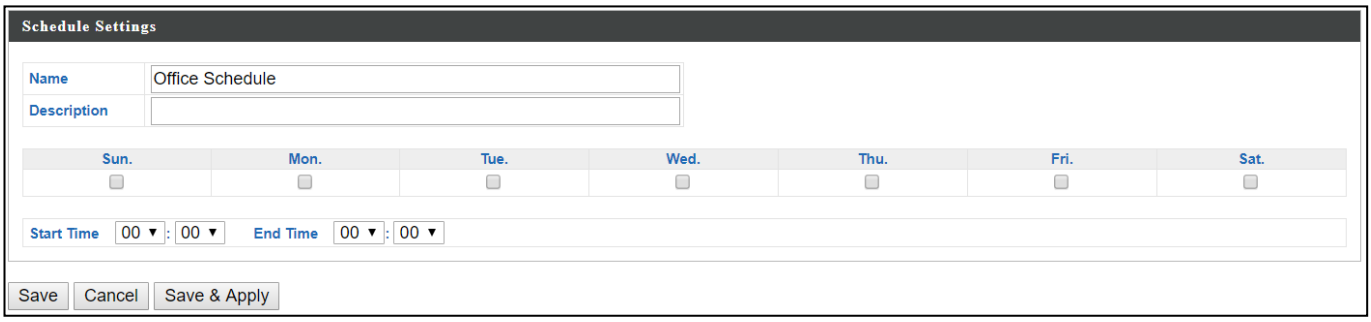
VIII-4-9 Schedule

Setup schedule start time/end time in Active WLAN Schedule Settings or Guest Network Advanced Settings.



Check the checkbox of the schedules(s) you wish to delete and press “Delete Selected” to delete (multiple selections possible).
Press “Delete All” to delete all schedules.

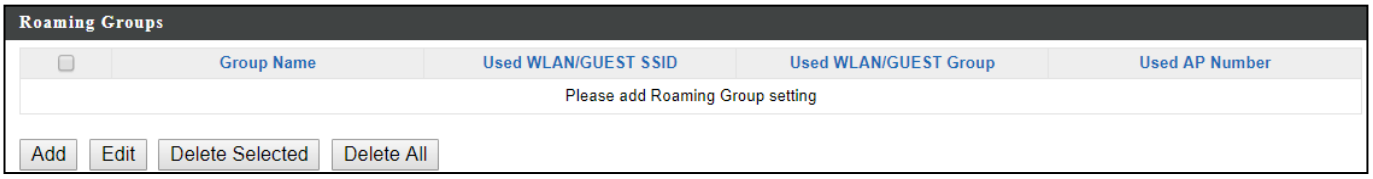
Add / Edit



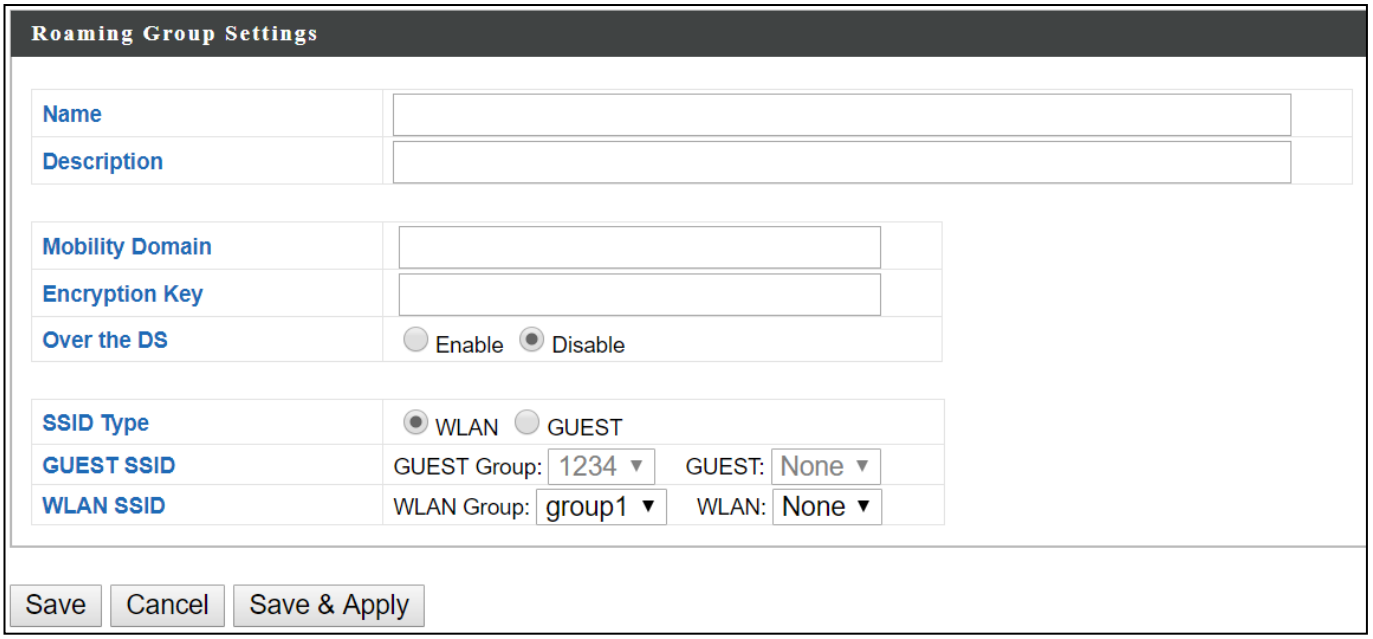
Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

VIII-4-10 Smart Roaming

Smart roaming permits continuous connectivity on wireless devices that are moving. The handoffs from one station to another are fast and secure, and are managed seamlessly.



Add / Edit

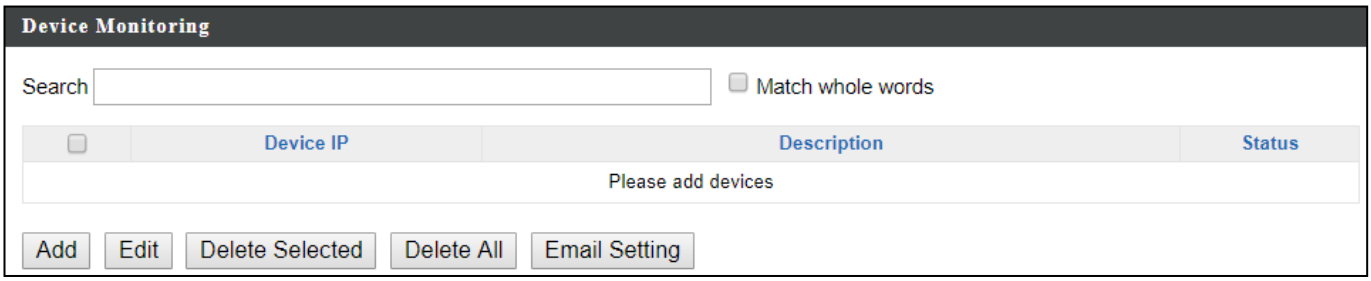


Roaming Group Settings	
Name	Enter / edit the name of roaming group.
Description	Enter / edit a description for reference.
Mobility Domain	Enter / edit a mobility domain.
Encryption Key	Enter / edit an encryption key.
Over the DS	Check to enable / disable this function.
SSID Type	Select the SSID type.
Guest SSID	Select the Guest Group from the drop down menu. Select a Guest from the drop down menu.
WLAN SSID	Select the WLAN Group from the down down menu. Select a WLAN from the drop down menu.

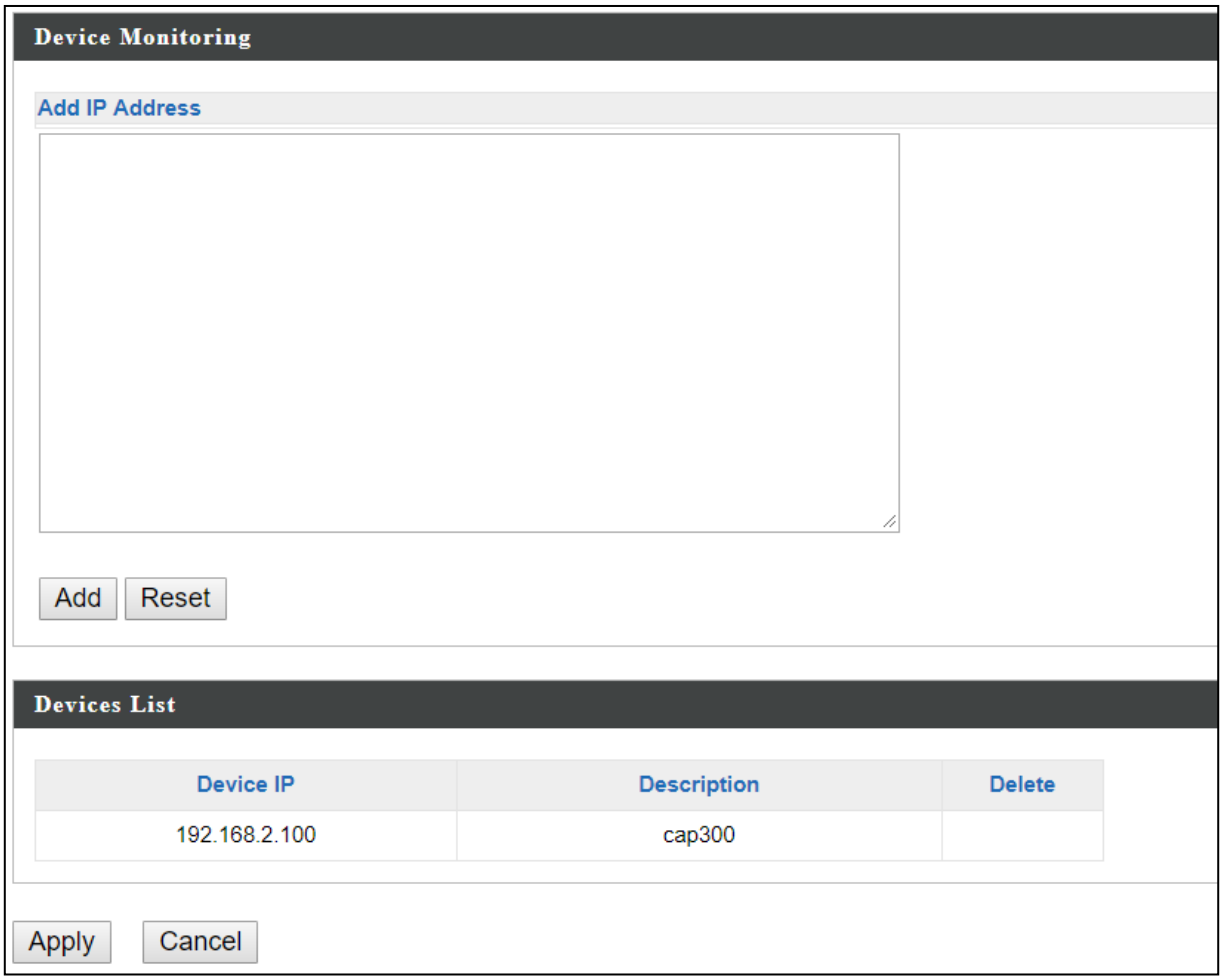
Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

VIII-4-11 Device Monitoring

This page monitors the device's status (alive or not alive) after you set the Device IP.



Add / Edit

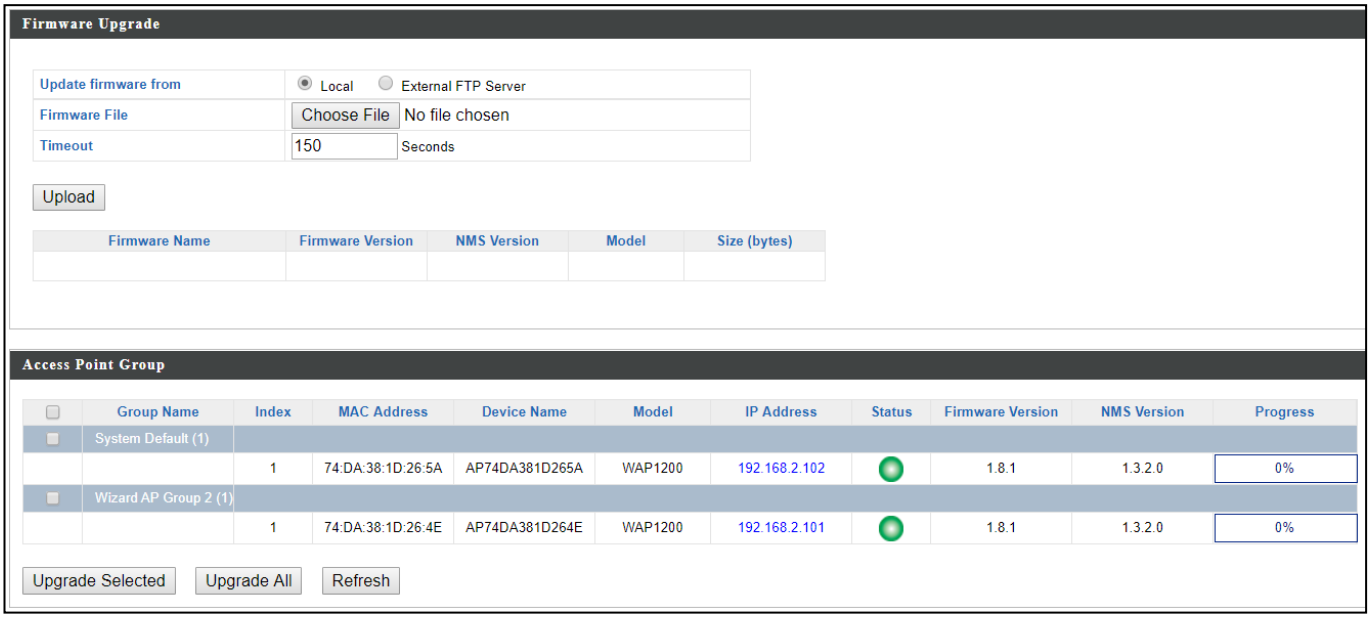


Enter an IP Address(es) and click "Add" to add the device(s). Click "Reset" to clear the field.
Press "Apply" to apply the above action or "Cancel" to forfeit the addition.

VIII-4-12 Firmware Upgrade

Firmware Upgrade allows you to upgrade firmware to Access Point Groups. First, upload the firmware file from a local disk or external FTP server: locate the file and click “Upload” or “Check”. The table below will display the *Firmware Name, Firmware Version, NMS Version, Model and Size*.

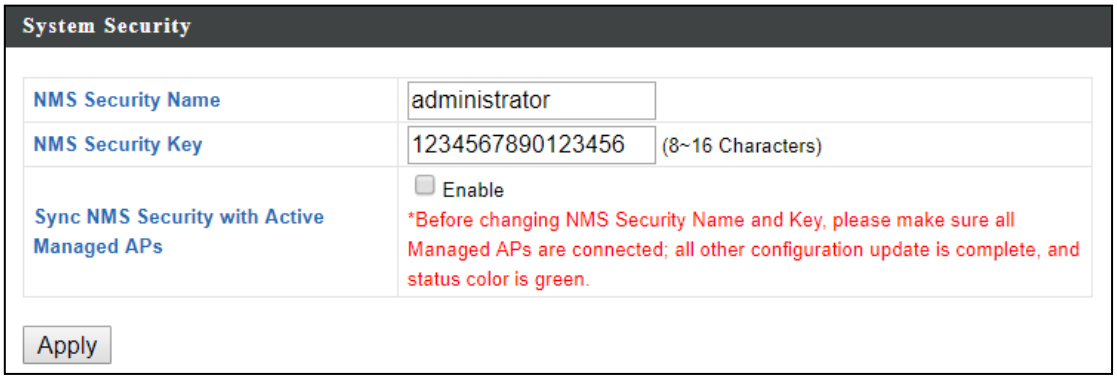
Then click “Upgrade All” to upgrade all access points in the Array or select Access Point groups from the list using check-boxes and click “Upgrade Selected” to upgrade only selected access points.



VIII-4-13 Advanced

VIII-4-13-1 System Security

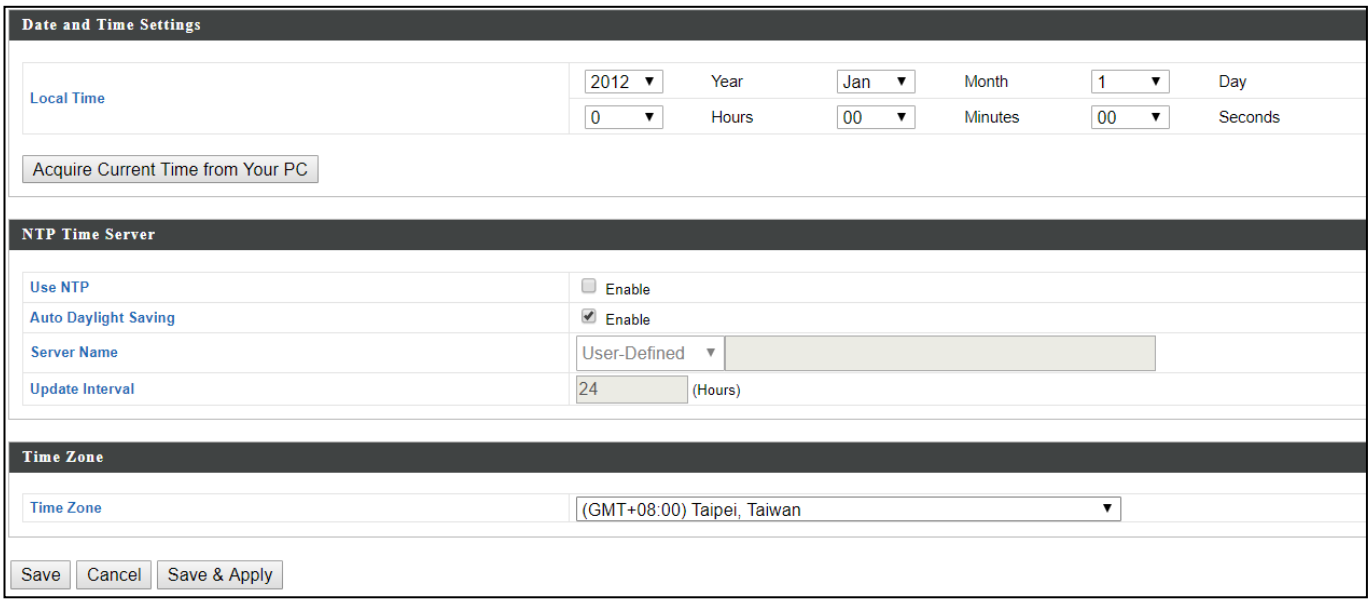
Configure the NMS system login name and password.



Press “Apply” to apply the settings.

VIII-4-13-2 Date & Time

Configure the date & time settings of the AP Array. The date and time of the access points can be configured manually or can be synchronized with a time server.



Date and Time Settings	
Local Time	Set the access point’s date and time manually using the drop

	down menus.
Acquire Current Time from your PC	Click “Acquire Current Time from Your PC” to enter the required values automatically according to your computer’s current time and date.

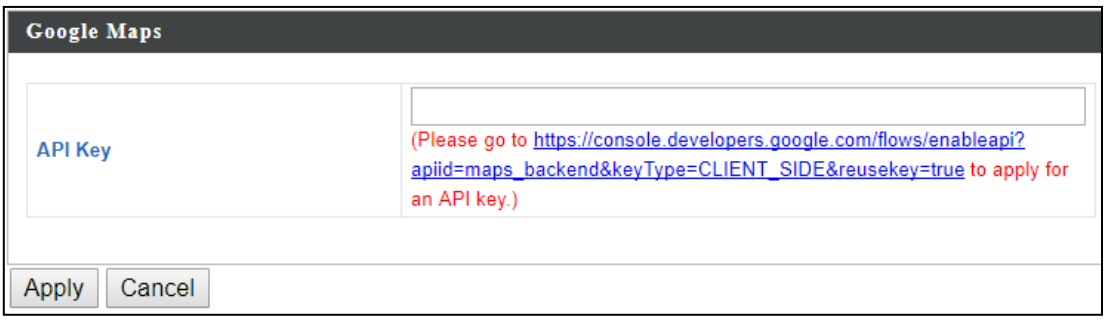
NTP Time Server	
Use NTP	The access point also supports NTP (Network Time Protocol) for automatic time and date setup.
Server Name	Enter the host name or IP address of the time server if you wish.
Update Interval	Specify a frequency (in hours) for the access point to update/synchronize with the NTP server.

Time Zone	
Time Zone	Select the time zone of your country/ region. If your country/region is not listed, please select another country/region whose time zone is the same as yours.

Press “Save” to save the above actions, “Cancel” to forfeit the changes, or “Save & Apply” to save and apply the above actions.

VIII-4-13-3 Google Maps

Click on the link below the entry field and follow Google's instructions to obtain an API key. Enter the key into the entry field.

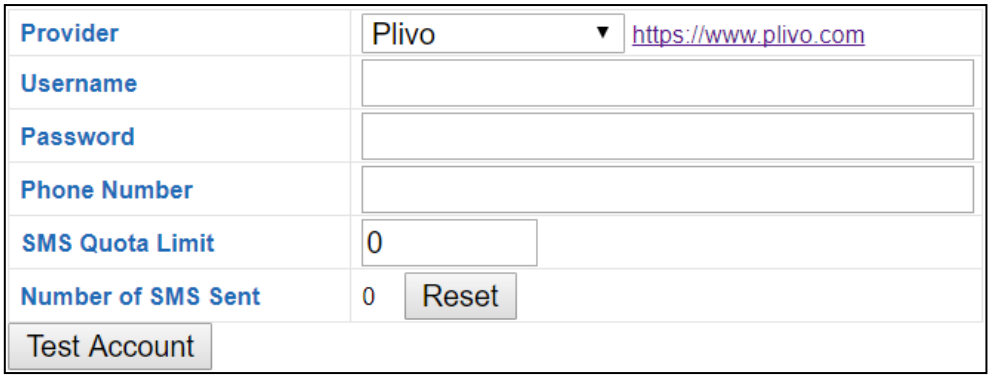


Press "Apply" to apply the setting or "Cancel" to forfeit the change.

VIII-4-13-4 SMS

Provider	Select a service provider from the drop down menu. Pilivo and Stream Telecom are the available options.

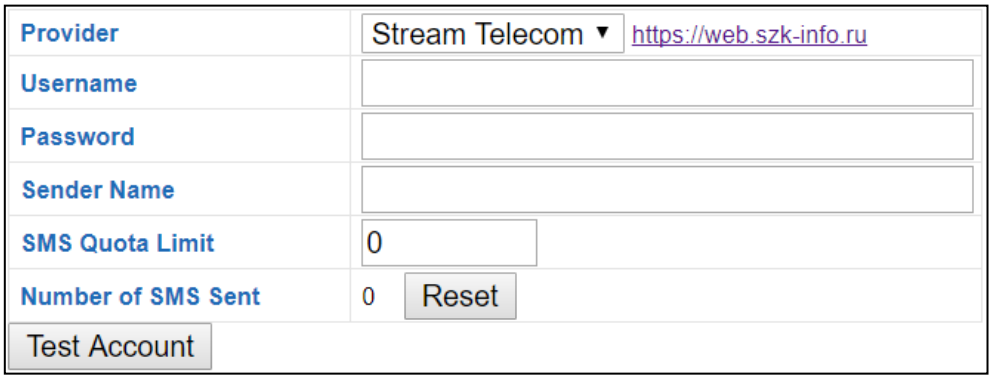
Pilivo:



Username	Enter the username for the service provider.
Password	Enter the password for the service provider.
Phone Number	Enter the phone number.
SMS Quota Limit	Enter a number for SMS quota limit.
Number of SMS Sent	This keeps track of the number of sent SMS. Click “Reset” to restart the sent SMS count.

Click “Test Account” to test the validity of the above-entered fields.

Stream Telecom:



Username	Enter the username for the service provider.
Password	Enter the password for the service provider.
Sender Name	Enter the sender's name.
SMS Quota Limit	Enter a number for SMS quota limit.
Number of SMS Sent	This keeps track of the number of sent SMS. Click "Reset" to restart the sent SMS count.

Click "Test Account" to test the validity of the above-entered fields.

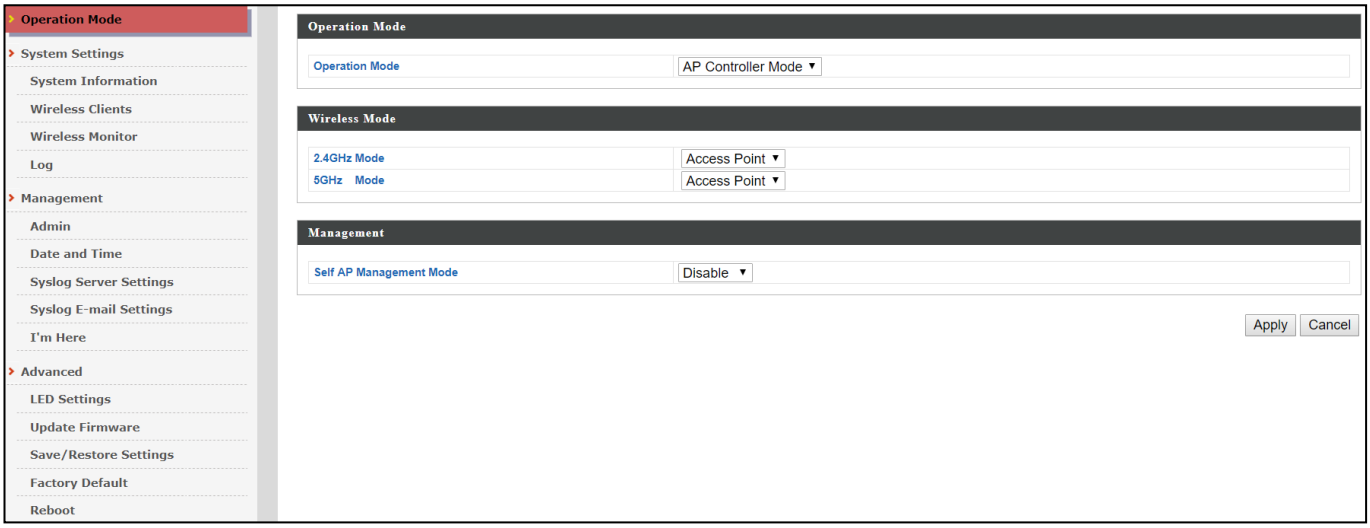
Click "Apply" to apply the settings, or "Cancel" to forfeit the changes.

VIII-5 Local Network

To see information of current local network settings such as IP address, DHCP server, 2.4GHz & 5Ghz Wi-Fi and security, WPS, RADIUS server, MAC filtering and WMM settings, go through this section.

VIII-6 Local Settings

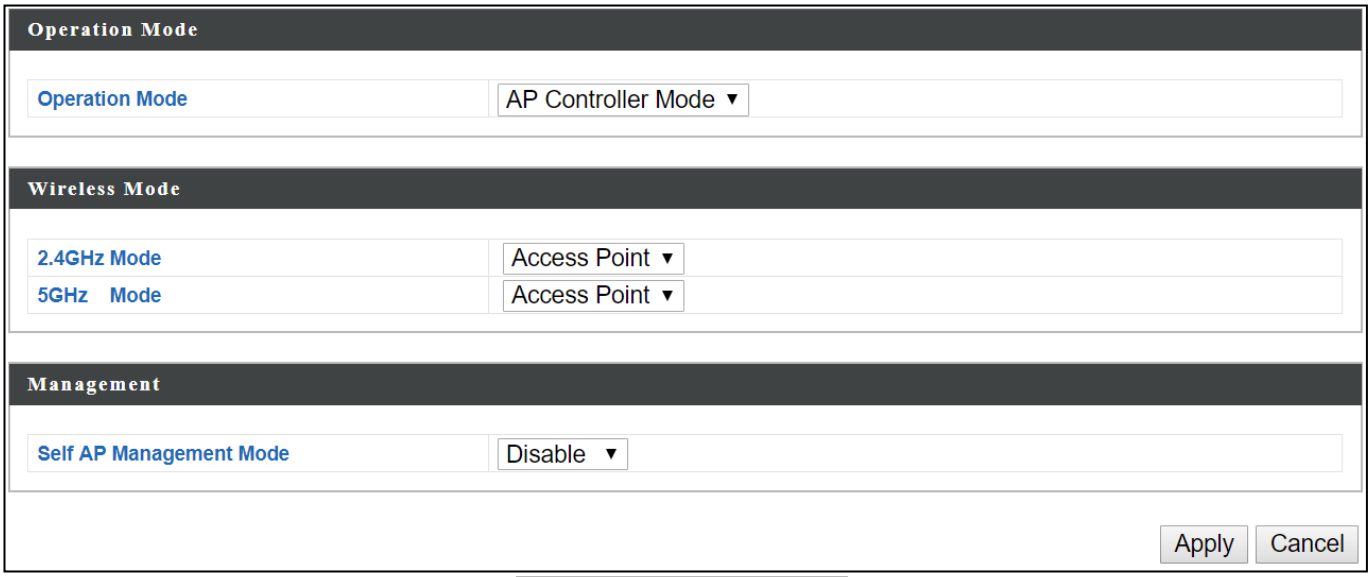
Local Settings are for your Master AP. You can set the operation mode and view network settings (clients and logs) specifically for the Master AP, as well as other management settings such as date/time, admin accounts, firmware and reset.

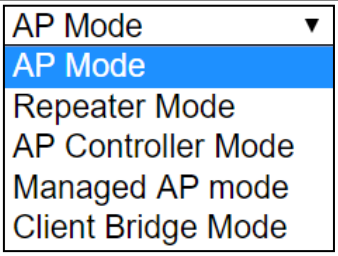


VIII-6-1 Operation Mode

The access point can function in five different modes. Set the operation mode of the access point here.

1. AP Mode: The device acts as a standalone access point
2. Repeater Mode: The device acts as a wireless repeater (also called wireless range extender) that takes an existing signal from a wireless router or wireless access point and rebroadcasts it to create a second network.
3. AP Controller Mode: The device acts as the designated master of the AP array
4. Managed AP Mode: The device acts as a slave AP within the AP array.
5. Client Bridge Mode: The device is now a client bridge. The client bridge receives wireless signal and provides it to devices connected to the bridge (via Ethernet cable).





In Managed AP mode some functions of the access point will be disabled in this user interface and must be set using Edimax Pro NMS on the Master AP.

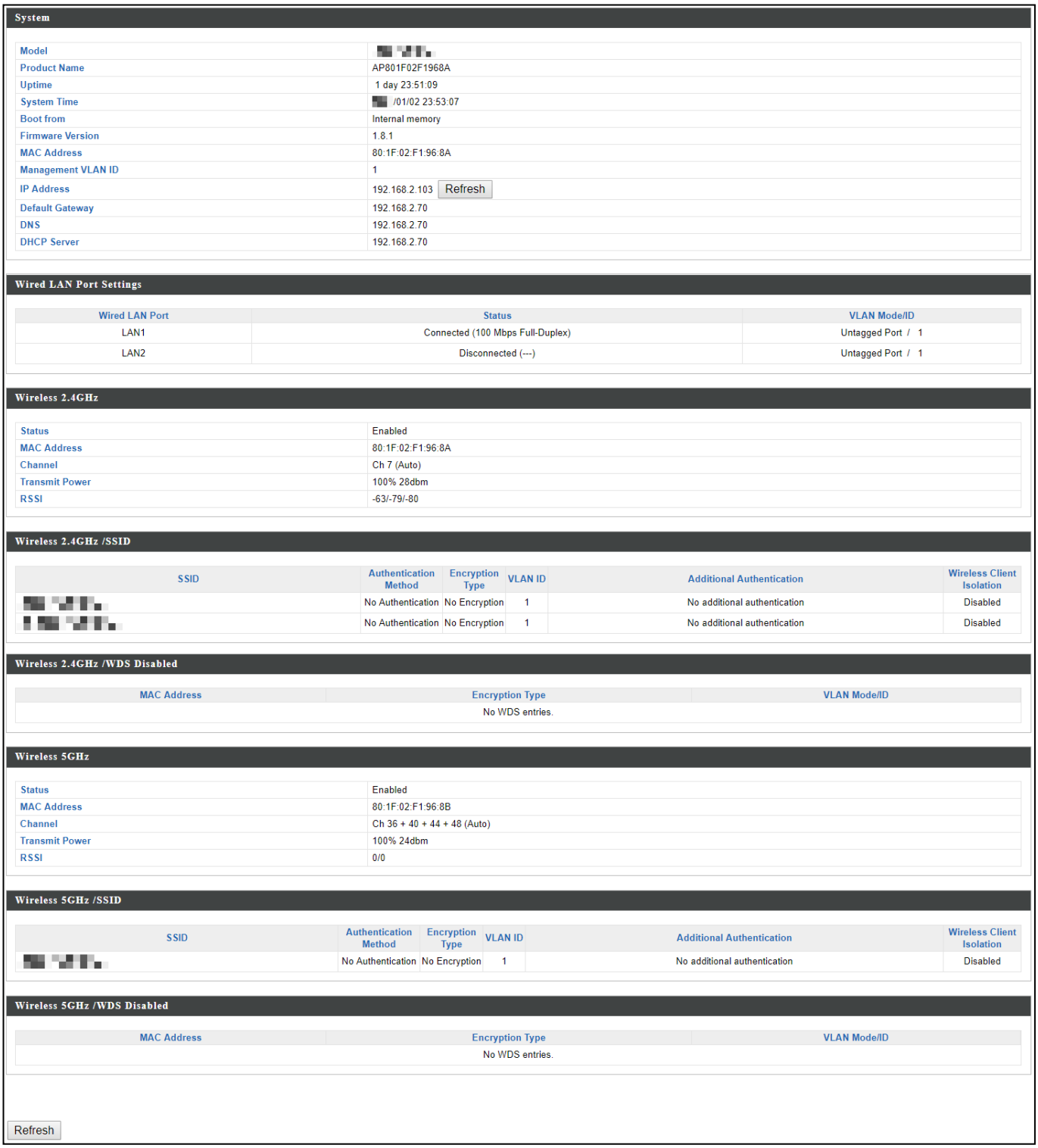
In AP Controller Mode the access point will switch to Office 1-2-3 user interface.

Press “Apply” to apply the configuration, or “Cancel” to forfeit the changes.

VIII-6-2 Network Settings

VIII-6-2-1 System Information

"System Information" page displays basic system information.



System

Model	[redacted]
Product Name	AP801F02F1968A
Uptime	1 day 23:51:09
System Time	[redacted] /01/02 23:53:07
Boot from	Internal memory
Firmware Version	1.8.1
MAC Address	80:1F:02:F1:96:8A
Management VLAN ID	1
IP Address	192.168.2.103 Refresh
Default Gateway	192.168.2.70
DNS	192.168.2.70
DHCP Server	192.168.2.70

Wired LAN Port Settings

Wired LAN Port	Status	VLAN Mode/ID
LAN1	Connected (100 Mbps Full-Duplex)	Untagged Port / 1
LAN2	Disconnected (---)	Untagged Port / 1

Wireless 2.4GHz

Status	Enabled
MAC Address	80:1F:02:F1:96:8A
Channel	Ch 7 (Auto)
Transmit Power	100% 28dbm
RSSI	-63/-79/-80

Wireless 2.4GHz /SSID

SSID	Authentication Method	Encryption Type	VLAN ID	Additional Authentication	Wireless Client Isolation
[redacted]	No Authentication	No Encryption	1	No additional authentication	Disabled
[redacted]	No Authentication	No Encryption	1	No additional authentication	Disabled

Wireless 2.4GHz /WDS Disabled

MAC Address	Encryption Type	VLAN Mode/ID
No WDS entries.		

Wireless 5GHz

Status	Enabled
MAC Address	80:1F:02:F1:96:8B
Channel	Ch 36 + 40 + 44 + 48 (Auto)
Transmit Power	100% 24dbm
RSSI	0/0

Wireless 5GHz /SSID

SSID	Authentication Method	Encryption Type	VLAN ID	Additional Authentication	Wireless Client Isolation
[redacted]	No Authentication	No Encryption	1	No additional authentication	Disabled

Wireless 5GHz /WDS Disabled

MAC Address	Encryption Type	VLAN Mode/ID
No WDS entries.		

Refresh

System	
Model	Displays the model number of the access point.
Product Name	Displays the product name for reference, which consists of “AP” plus the MAC address.
Uptime	Displays the total time since the device was turned on.
System Time	Displays the system time.
Boot From	Displays information for the booted hardware, booted from internal memory.
Firmware Version	Displays the firmware version.
MAC Address	Displays the access point’s MAC address.
Management VLAN ID	Displays the management VLAN ID.
IP Address	Displays the IP address of this device. Click “Refresh” to update this value.
Default Gateway	Displays the IP address of the default gateway.
DNS	IP address of DNS (Domain Name Server)
DHCP Server	IP address of DHCP Server.

Wired LAN Port Settings	
Wired LAN Port	Specifies which LAN port (1 or 2).
Status	Displays the status of the specified LAN port (connected or disconnected).
VLAN Mode/ID	Displays the VLAN mode (tagged or untagged) and VLAN ID for the specified LAN port.

Wireless 2.4GHz (5GHz)	
Status	Displays the status of the 2.4GHz or 5GHz wireless (enabled or disabled).
MAC Address	Displays the access point’s MAC address.
Channel	Displays the channel number the specified wireless frequency is using for broadcast.
Transmit Power	Displays the wireless radio transmit power level as a percentage.
RSSI	Received signal strength indicator (RSSI) is a measurement of

	the power present in a received radio signal.

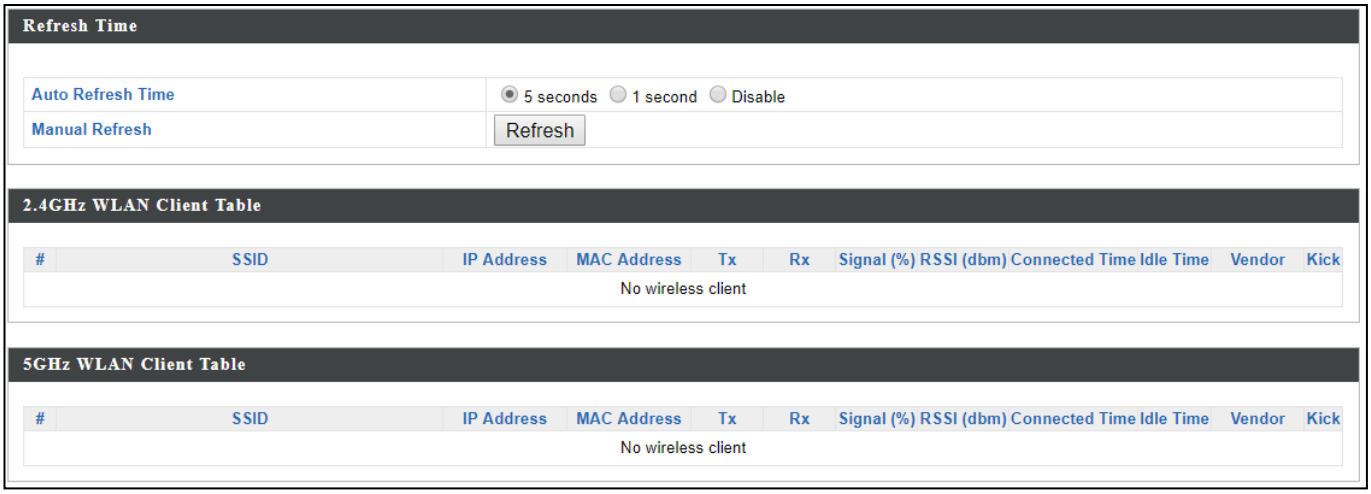
Wireless 2.4GHZ (5GHz) / SSID	
SSID	Displays the SSID name(s) for the specified frequency.
Authentication Method	Displays the authentication method for the specified SSID.
Encryption Type	Displays the encryption type for the specified SSID.
VLAN ID	Displays the VLAN ID for the specified SSID.
Additional Authentication	Displays the additional authentication type for the specified SSID.
Wireless Client Isolation	Displays whether wireless client isolation is in use for the specified SSID..

Wireless 2.4GHZ (5GHz) / WDS Status	
MAC Address	Displays the peer access point's MAC address.
Encryption Type	Displays the encryption type for the specified WDS.
VLAN Mode/ID	Displays the VLAN ID for the specified WDS.

Select "Refresh" to refresh all information.

VIII-6-2-2 Wireless Clients

"Wireless Clients" page displays information about all wireless clients connected to the access point on the 2.4GHz or 5GHz frequency.

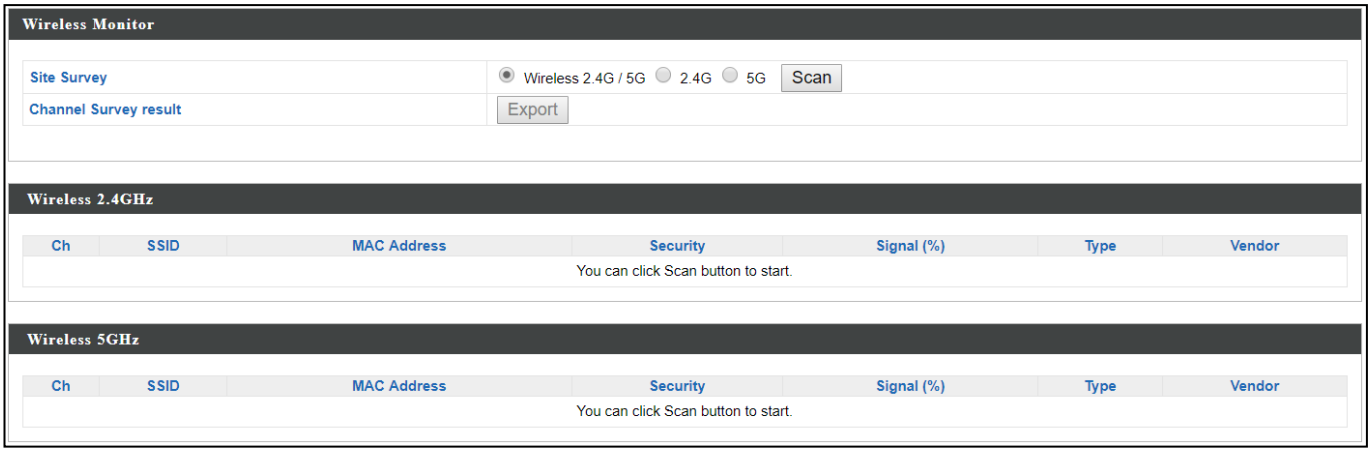


Refresh time	
Auto Refresh Time	Select a time interval for the client table list to automatically refresh.
Manual Refresh	Click refresh to manually refresh the client table.

2.4GHz (5GHz) WLAN Client Table	
SSID	Displays the SSID which the client is connected to.
MAC Address	Displays the MAC address of the client.
Tx	Displays the total data packets transmitted by the specified client.
Rx	Displays the total data packets received by the specified client.
Signal (%)	Displays the wireless signal strength for the specified client.
Connected Time	Displays the total time the wireless client has been connected to the access point.
Idle Time	Client idle time is the time for which the client has not transmitted any data packets i.e. is idle.
Vendor	The vendor of the client's wireless adapter is displayed here.

VIII-6-2-3 Wireless Monitor

"Wireless Monitor" is a tool built into the access point to scan and monitor the surrounding wireless environment. Select a frequency and click "Scan" to display a list of all SSIDs within range along with relevant details for each SSID.



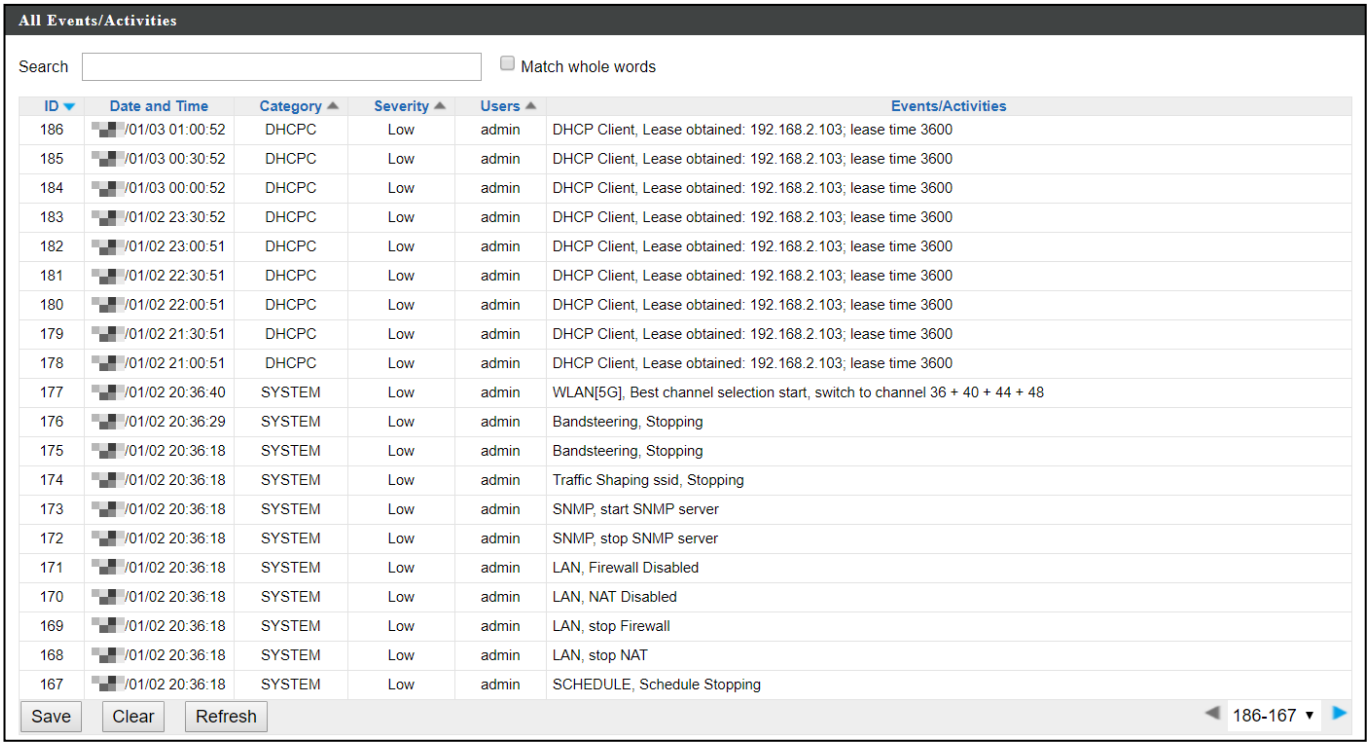
Wireless Monitor	
Site Survey	Select which frequency (or both) to scan, and click "Scan" to begin.
Channel Survey Result	After a scan is complete, click "Export" to save the results to local storage.

Site Survey Results	
Ch	Displays the channel number used by the specified SSID.
SSID	Displays the SSID identified by the scan.
MAC Address	Displays the MAC address of the wireless router/access point for the specified SSID.
Security	Displays the authentication/encryption type of the specified SSID.
Signal (%)	Displays the current signal strength of the SSID.
Type	Displays the 802.11 wireless networking standard(s) of the specified SSID.
Vendor	Displays the vendor of the wireless router/access point for the specified SSID.

VIII-6-2-4 Log

"System log" displays system operation information such as up time and connection processes. This information is useful for network administrators.

Older entries will be overwritten when the log is full



Save	Click to save the log as a file on your local computer.
Clear	Clear all log entries.
Refresh	Refresh the current log.

The following information/events are recorded by the log:

- **USB**
  Mount & unmount
- **Wireless Client**
  Connected & disconnected
  Key exchange success & fail
- **Authentication**
  Authentication fail or successful.
- **Association**
  Success or fail
- **WPS**
  M1 - M8 messages

WPS success

- **Change Settings**
- **System Boot**

  Displays current model name
- **NTP Client**
- **Wired Link**

  LAN Port link status and speed status
- **Proxy ARP**

  Proxy ARP module start & stop
- **Bridge**

  Bridge start & stop.
- **SNMP**

  SNMP server start & stop.
- **HTTP**

  HTTP start & stop.
- **HTTPS**

  HTTPS start & stop.
- **SSH**

  SSH-client server start & stop.
- **Telnet**

  Telnet-client server start or stop.
- **WLAN (2.4G)**

  WLAN (2.4G] channel status and country/region status
- **WLAN (5G)**

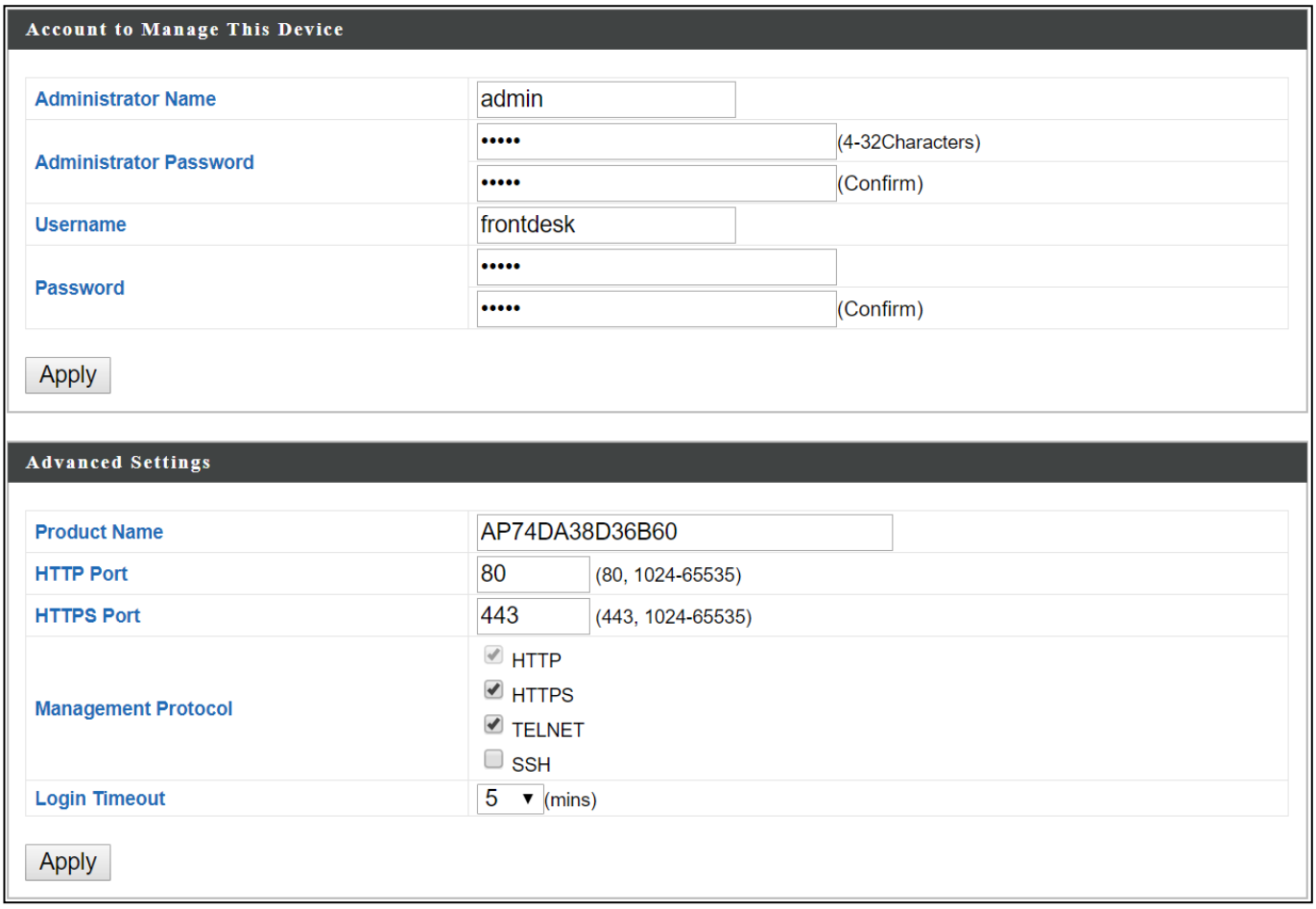
  WLAN (5G) channel status and country/region status

VIII-6-3 Management

VIII-6-3-1 Admin

You can change the password used to login to the browser-based configuration interface here. It is advised to do so for security purposes.

> ***If you change the administrator password, please make a note of the new password. In the event that you forget this password and are unable to login to the browser based configuration interface, see*** II-5 *Reset* ***for how to reset the access point.***



Account to Manage This Device	
Administrator Name	Set the access point's administrator name. This is used to log in to the browser based configuration interface and must be between 4-16 alphanumeric characters (case sensitive).
Administrator Password	Set the access point's administrator password. This is used to log in to the browser based configuration interface and must be between 4-32 alphanumeric characters (case sensitive).

Front Desktop Account	
Name	Set the system's front desktop account name.
Password	Set the system's front desktop account password.

The Front Desktop account is for creating guest accounts and ticket printing only.

Press "Apply" to apply the configuration.

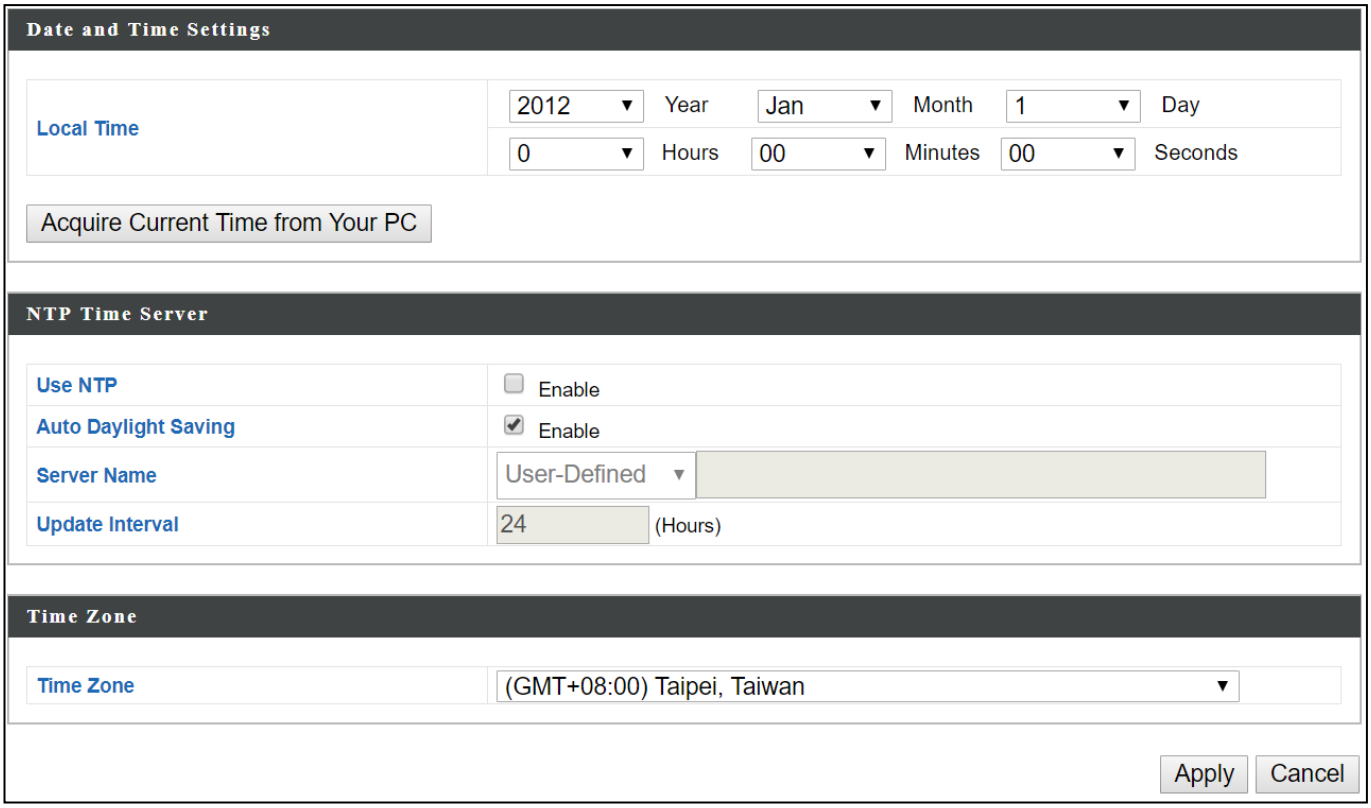
Advanced Settings	
Product Name	Edit the product name according to your preference consisting of 1-32 alphanumeric characters. This name is used for reference purposes.
Management Protocol	Check/uncheck the boxes to enable/disable specified management interfaces (see below).
Login Timeout	Specify the idle time (in minutes) before being kicked from the server.

HTTP
Internet browser HTTP protocol management interface
TELNET
Client terminal with telnet protocol management interface

Press "Apply" to apply the configuration.

VIII-6-3-2 Date and Time

Configure the date and time settings of the access point here. The date and time of the device can be configured manually or can be synchronized with a time server.



Date and Time Settings	
Local Time	Set the access point's date and time manually using the drop down menus.
Acquire Current Time from your PC	Click "Acquire Current Time from Your PC" to enter the required values automatically according to your computer's current time and date.

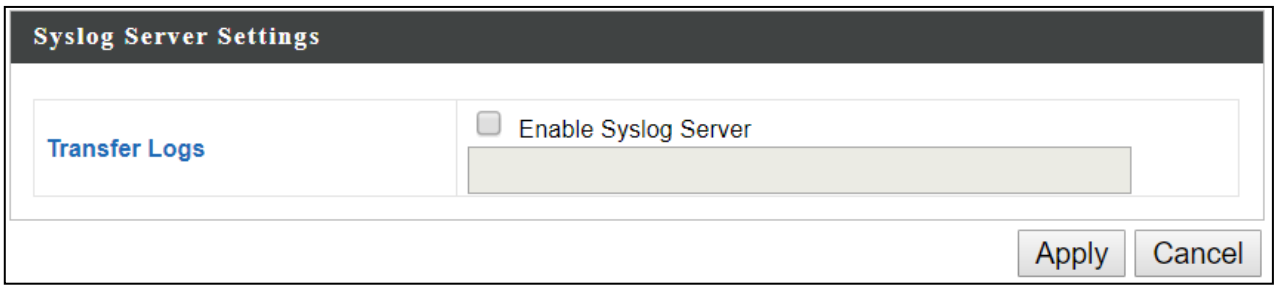
NTP Time Server	
Use NTP	The access point also supports NTP (Network Time Protocol) for automatic time and date setup.
Server Name	Enter the host name or IP address of the time server if you wish.
Update Interval	Specify a frequency (in hours) for the access point to update/synchronize with the NTP server.

Time Zone	
Time Zone	Select the time zone of your country/region. If your country/region is not listed, please select another country/region whose time zone is the same as yours.

Press “Apply” to apply the configuration, or “Cancel” to forfeit the changes.

VIII-6-3-3 Syslog Server Settings

The system log can be sent to a server.



Syslog Server Settings	
Transfer Logs	Check the box to enable the use of a syslog server. Enter a host name, domain or IP address for the server, consisting of up to 128 alphanumeric characters.

Press “Apply” to apply the configuration, or “Cancel” to forfeit the changes.

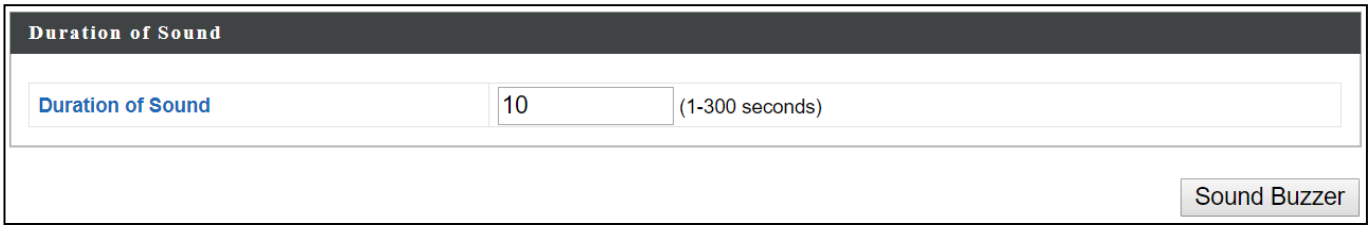
VIII-6-3-4 Syslog E-mail Settings

Syslog E-mail Settings	
E-mail Logs	Check the box to enable/disable e-mail logs.
E-mail Subject	Specify the subject line of log emails.
SMTP Server Address	Specify the SMTP server address used to send log emails.
SMTP Server Port	Specify the SMTP server port used to send log emails.
Sender E-mail	Specify the sender email address.
Receiver E-mail	Specify the email to receive log emails.
Authentication	Disable or select authentication type: SSL or TLS. When using SSL or TLS, enter the username and password.

Press “Apply” to apply the configuration, or “Cancel” to forfeit the changes.

VIII-6-3-5 I'm Here

The access point features a built-in buzzer which can sound on command using the "I'm Here" page. This is useful for network administrators and engineers working in complex network environments to locate the access point.



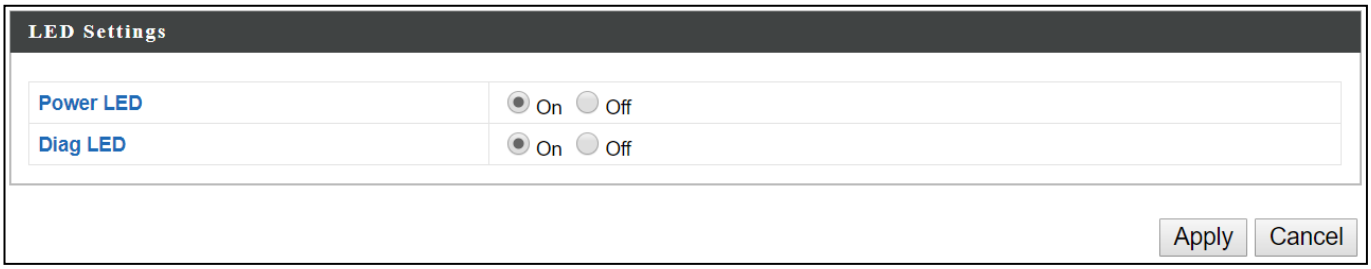
The buzzer is loud!

Duration of Sound	Set the duration for which the buzzer will sound when the "Sound Buzzer" button is clicked.
Sound Buzzer	Activate the buzzer sound for the above specified duration of time.

VIII-6-4 Advanced

VIII-6-4-1 LED Settings

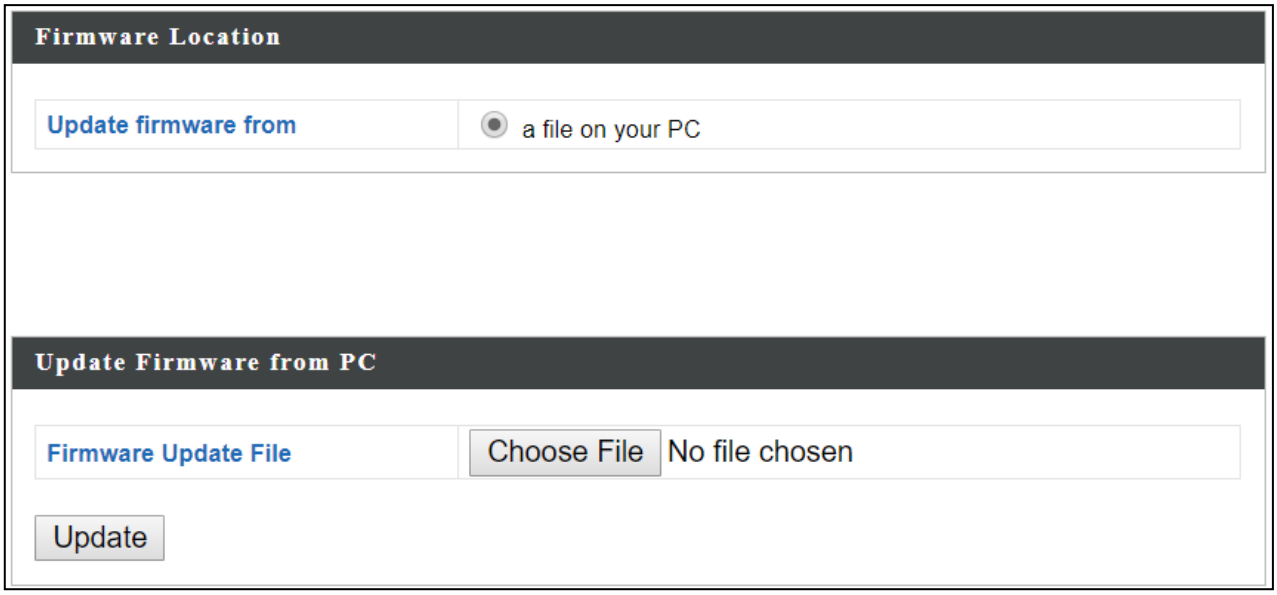
The access point's LEDs can be manually enabled or disabled according to your preference.



Power LED	Select on or off.
Diag LED	Select on or off.

VIII-6-4-2 Update Firmware

The “Firmware” page allows you to update the firmware of the system. Updated firmware versions often offer increased performance and security, as well as bug fixes. Download the latest firmware from the Edimax website.

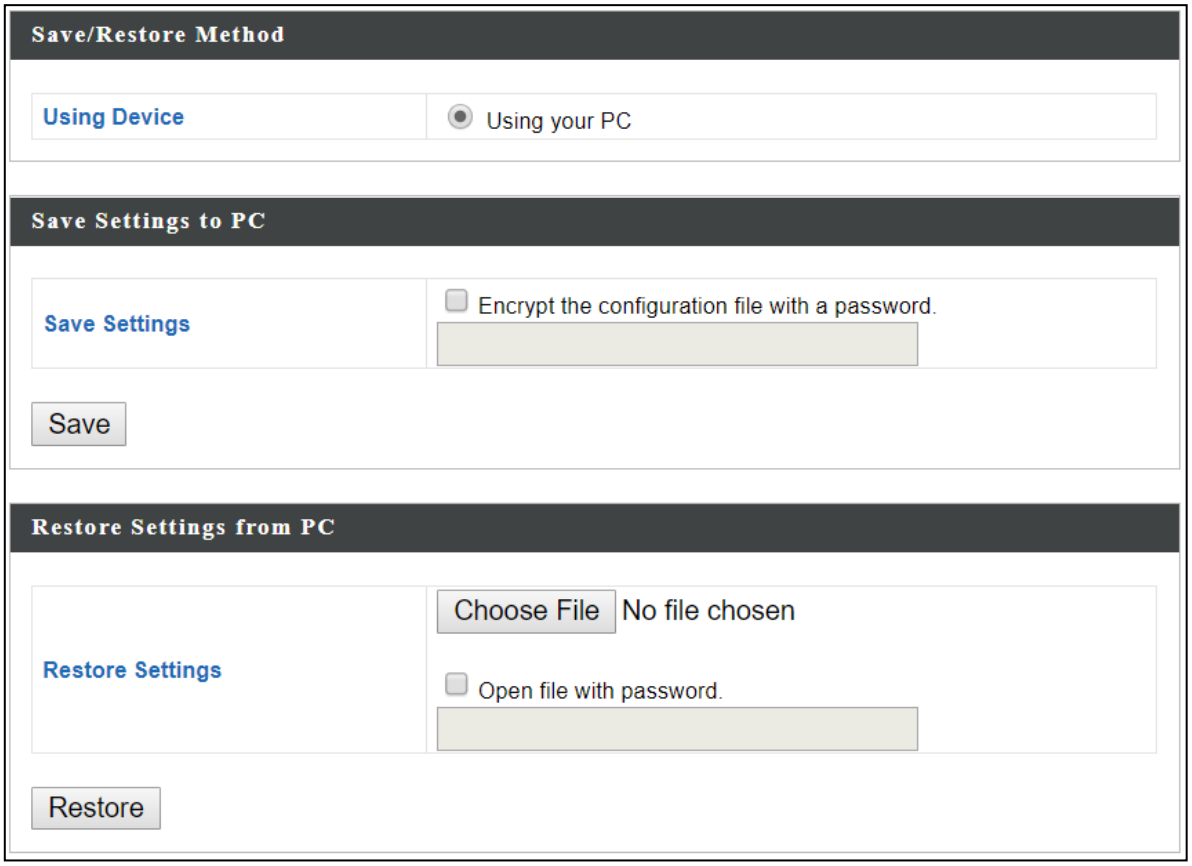


Do not switch off or disconnect the access point during a firmware upgrade, as this could damage the device.

Firmware Location	Click “Choose File” to upload firmware from your local computer.

VIII-6-4-3 Save/Restore Settings

The device's "Save / Restore Settings" page enables you to save / backup the device's current settings as a file to your local computer, and restore the access point to previously saved settings.



Save Settings to PC	
Save Settings	**Encryption**: If you wish to encrypt the configuration file with a password, check the "Encrypt the configuration file with a password" box and enter a password. Click "Save" to save current settings. A new window will open to allow you to specify a location to save to.

Restore Settings from PC	
Restore Settings	Click the "Choose File" button to find a previously saved settings file on your computer. If your settings file is encrypted with a password, check the "Open file with password" box and enter the password in the following field. Click "Restore" to replace your current settings.

VIII-6-4-4 Factory Default

If the access point malfunctions or is not responding, rebooting the device maybe an option to consider. If rebooting does not work, try resetting the device back to its factory default settings. You can reset the access point back to its default settings using this feature if the reset button is not accessible.

Factory Default	Click “Factory Default” to restore settings to the factory default. A pop-up window will appear and ask you to confirm.

After resetting to factory defaults, please wait for the access point to reset and restart.

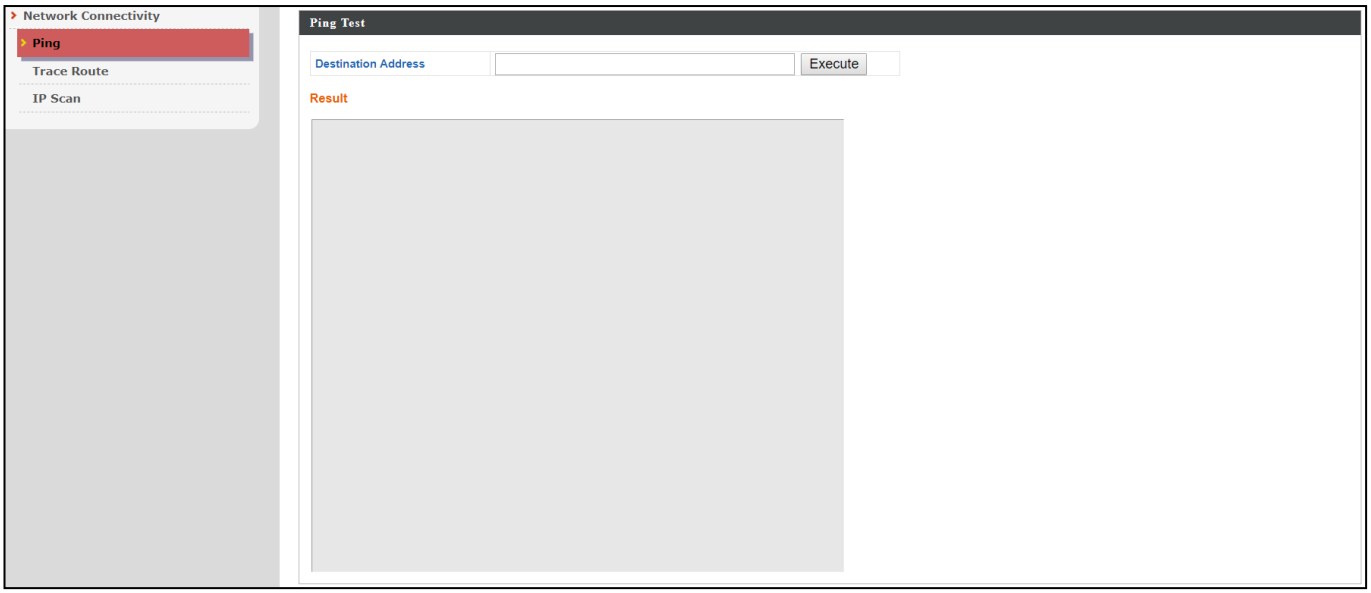
VIII-6-4-5 Reboot

If the access point malfunctions or is not responding, rebooting the device may be an option to consider. You can reboot the access point remotely using this feature.

Reboot	Click “Reboot” to reboot the device. A countdown will indicate the progress of the reboot.

VIII-7 Toolbox

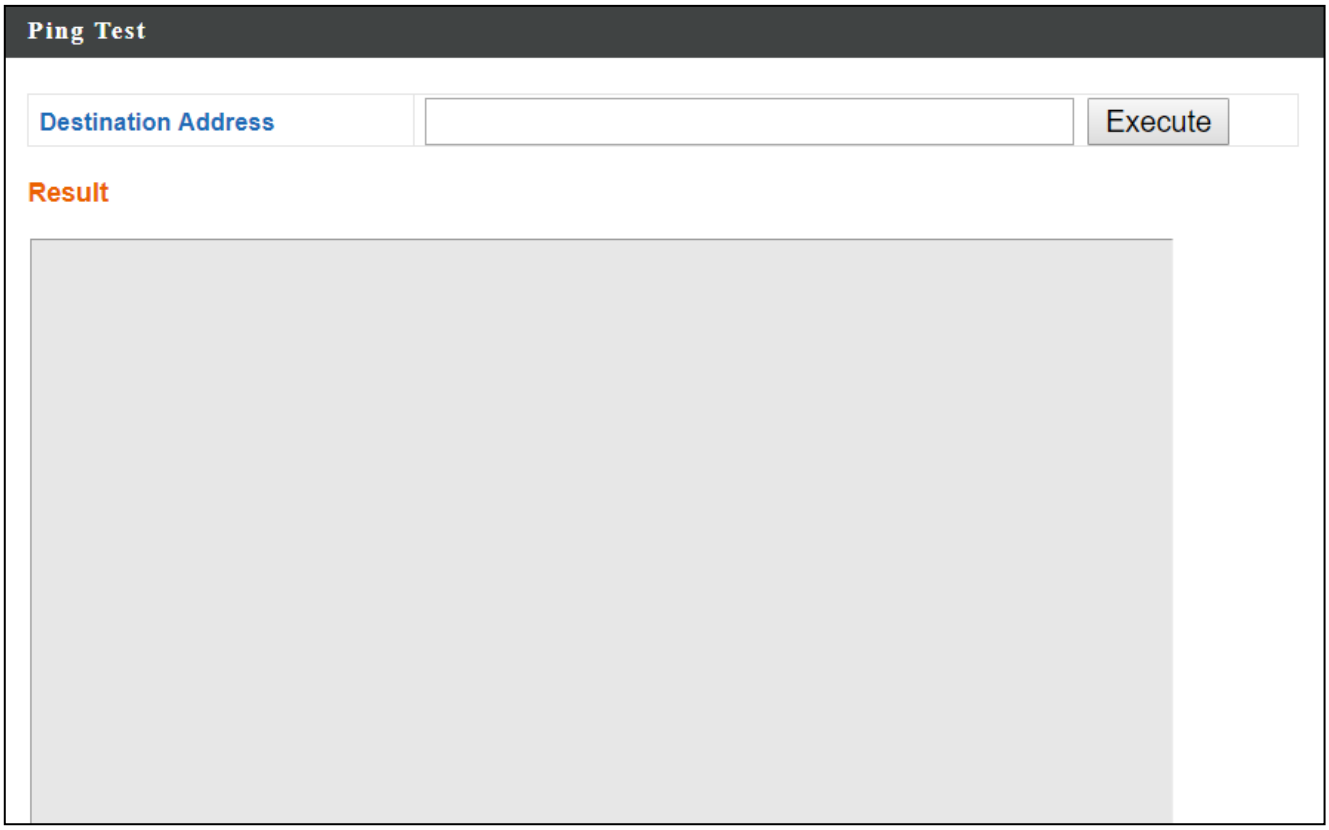
The Toolbox panel provides network diagnostic tools: *Ping*, *Traceroute*, and *IP Scan*.



VIII-7-1 Network Connectivity

VIII-7-1-1 Ping

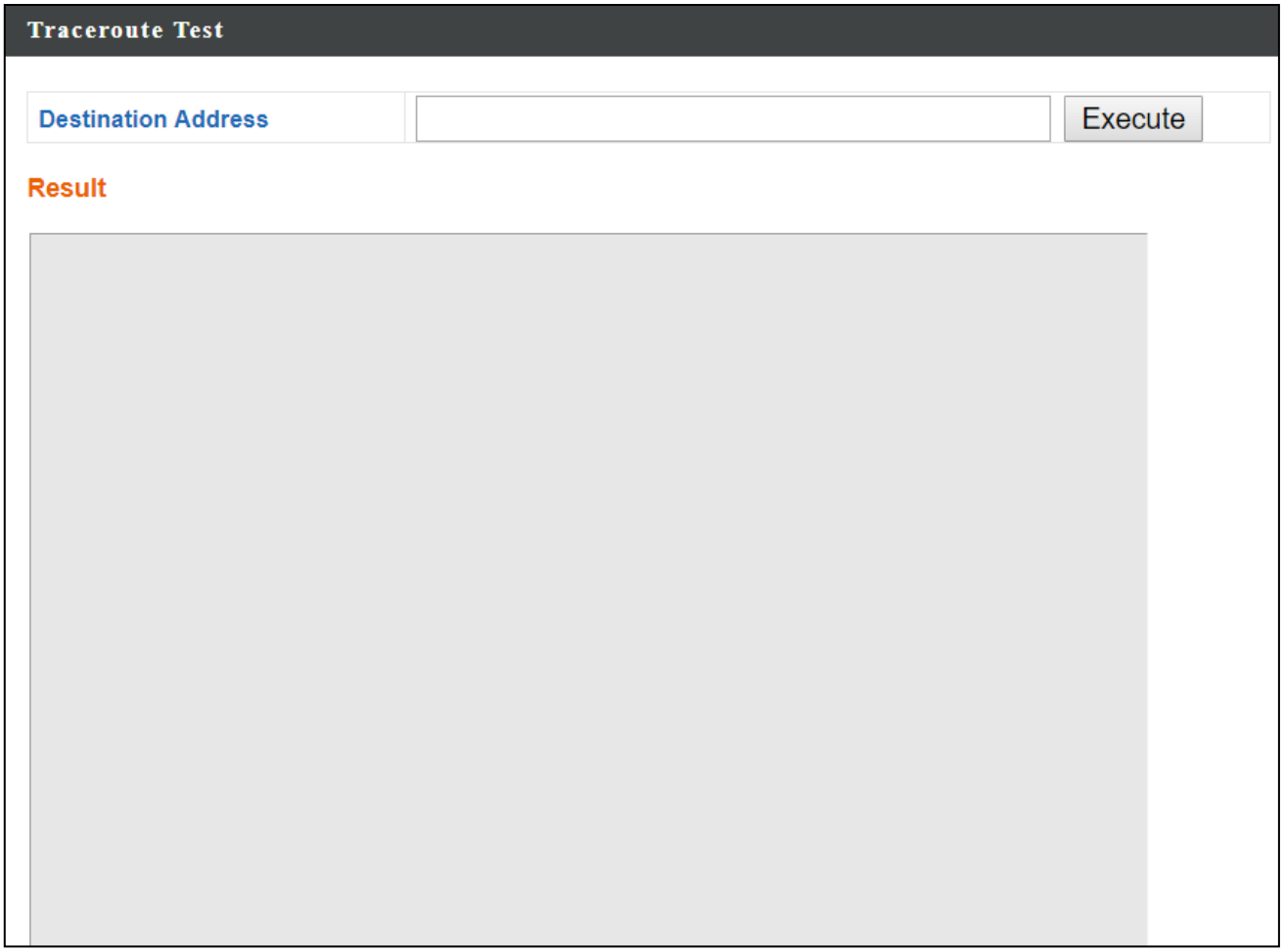
Ping is a computer network administration utility used to test whether a particular host is reachable across an IP network and to measure the round-trip time for sent messages.



Destination Address	Enter the address of the host.
Execute	Click “Execute” to ping the host.

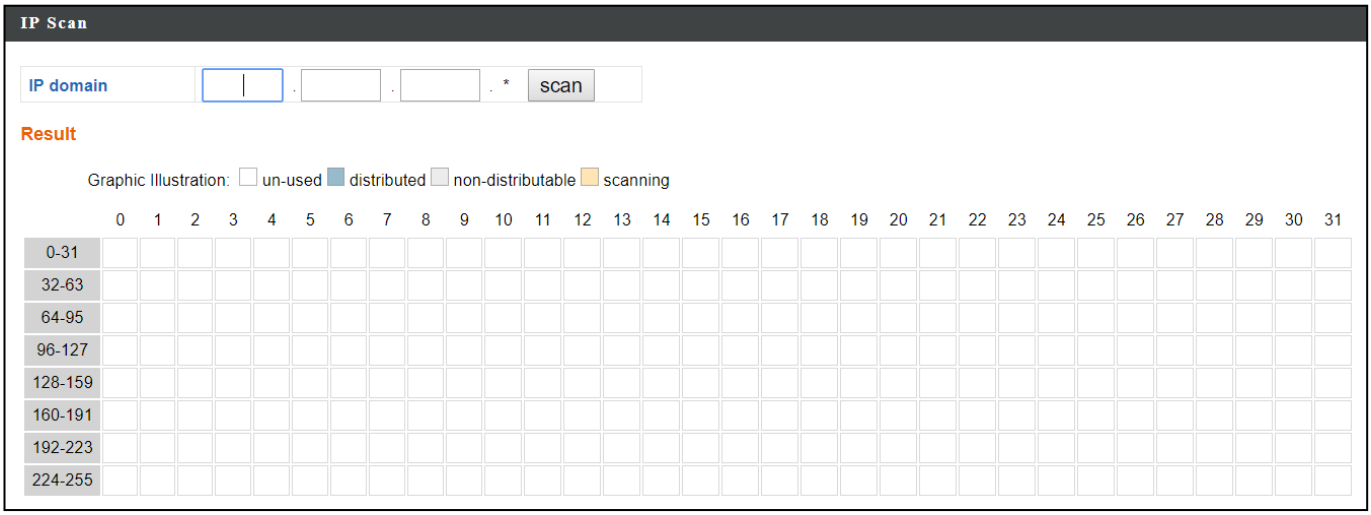
VIII-7-1-2 Trace Route

Traceroute is a diagnostic tool for displaying the route (path) and measuring transit delays of packets across an IP network.



Destination Address	Enter the address of the host.
Execute	Click “Execute” to execute the traceroute command.

VIII-7-1-3 IP Scan



IX Appendix

IX-1 Configuring your IP address

The access point uses the default IP address **192.168.2.2**. In order to access the browser based configuration interface, you need to modify the IP address of your computer to be in the same IP address subnet e.g. **192.168.2.x (x = 3 – 254).**

The procedure for modifying your IP address varies across different operating systems; please follow the guide appropriate for your operating system.

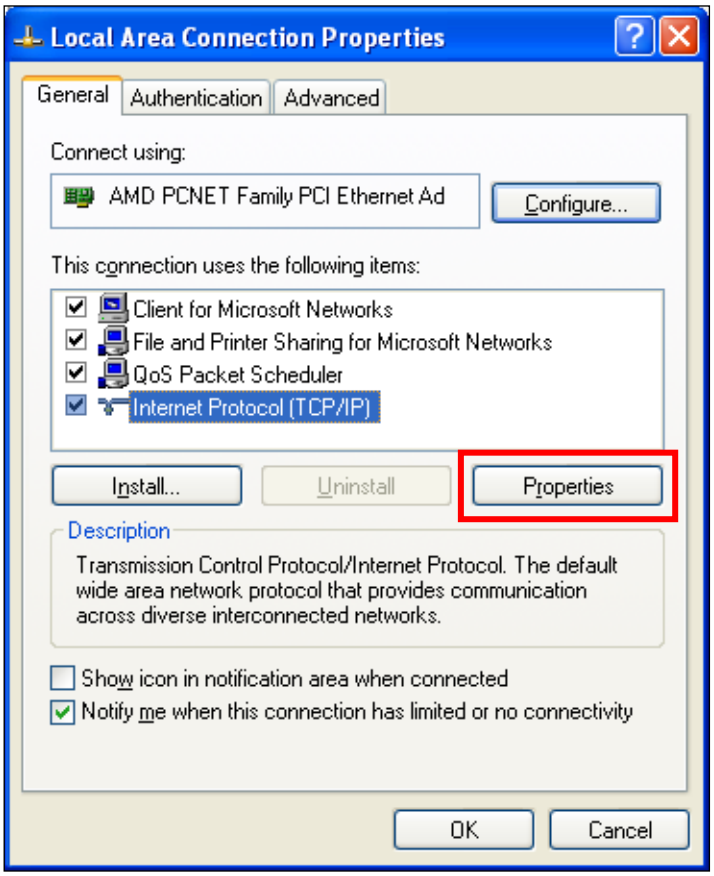
In the following examples we use the IP address **192.168.2.10** though you can use any IP address in the range **192.168.2.x (x = 3 – 254).**

If you've changed the Master ap's IP address, or if your gateway/router uses a DHCP server, make sure you enter the correct IP address. Refer to your gateway/router's settings. Your computer's IP address must be in the same subnet as the Master ap.

If using a DHCP server on the network, it is advised to use your DHCP server's settings to assign the Master ap a static IP address.

IX-1-1 Windows XP

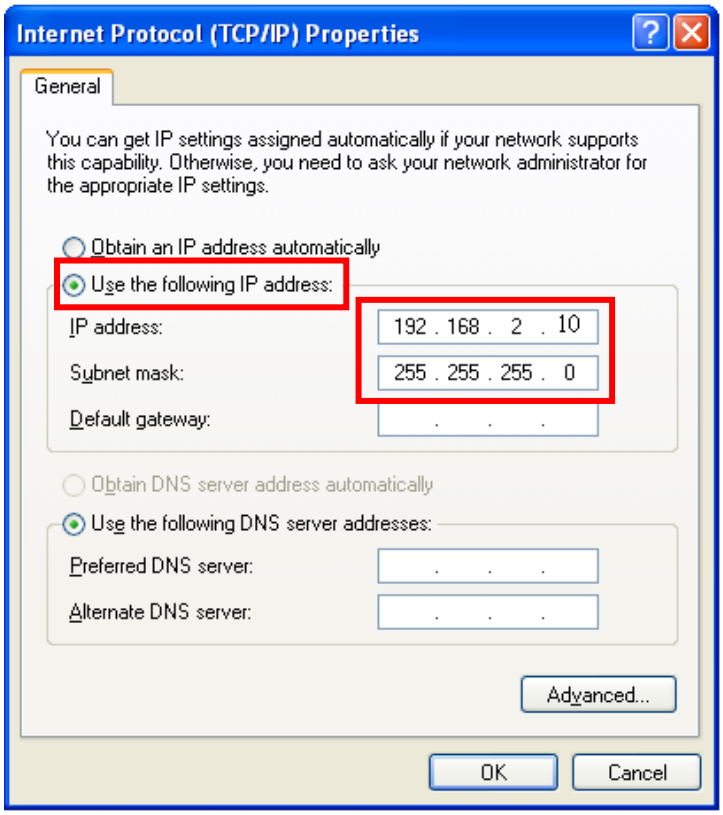
1. Click the “Start” button (it should be located in the lower-left corner of your computer) → “Control Panel” → “Network and Internet Connections” → “Network Connections” → “Local Area Connection”. The “Local Area Connection Properties” window will appear, select “Internet Protocol (TCP / IP)”, and click “Properties”.



2. Select “Use the following IP address”, then input the following values:

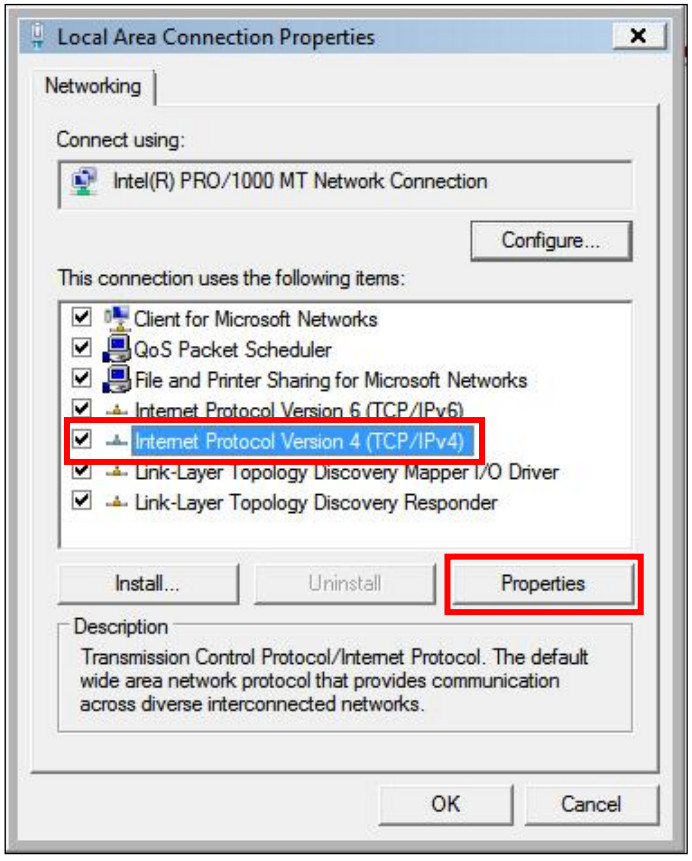
IP address: 192.168.2.10
Subnet Mask: 255.255.255.0

Click ‘OK’ when finished.



IX-1-2 Windows Vista

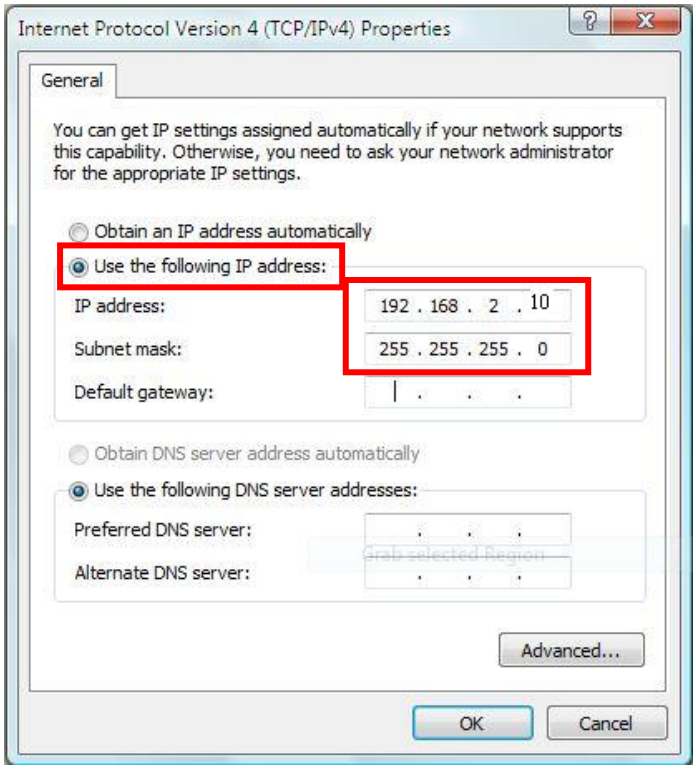
1. Click the “Start” button (it should be located in the lower-left corner of your computer) → “Control Panel” → “View Network Status and Tasks” → “Manage Network Connections” → “Local Area Network” → “Properties”. The “Local Area Connection Properties” window will appear, select “Internet Protocol Version 4 (TCP / IPv4)”, and then click “Properties”.



2. Select “Use the following IP address”, then input the following values:

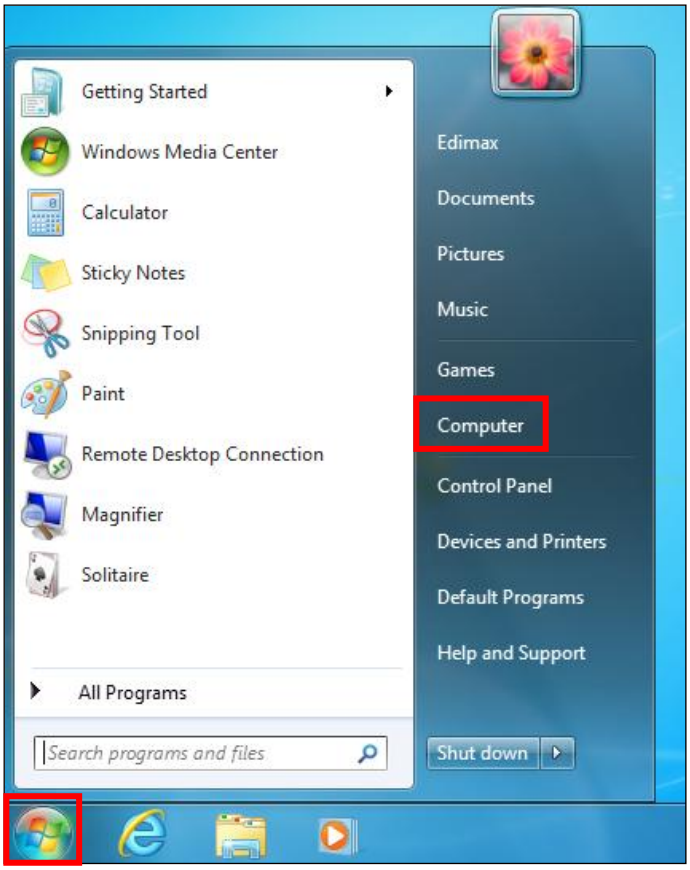
IP address: 192.168.2.10
Subnet Mask: 255.255.255.0

Click ‘OK’ when finished.

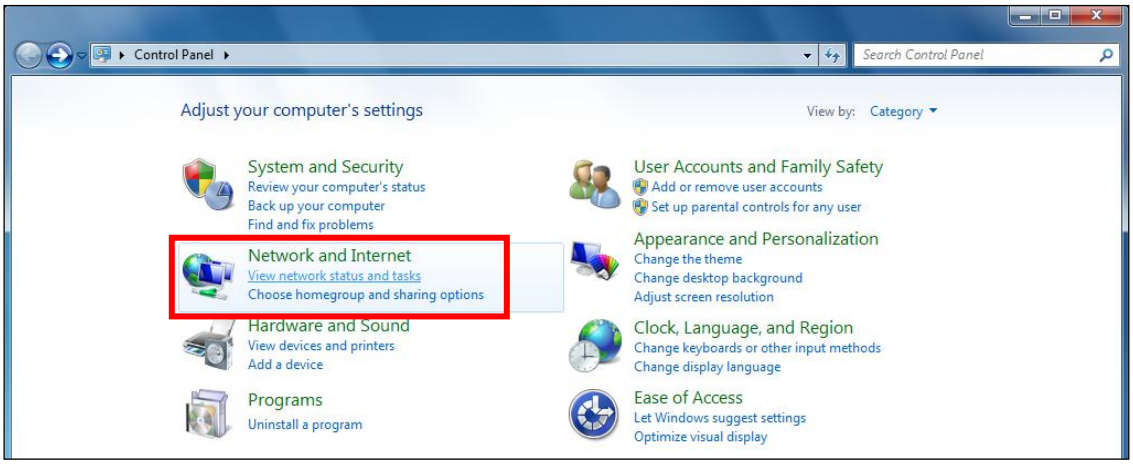


IX-1-3 Windows 7

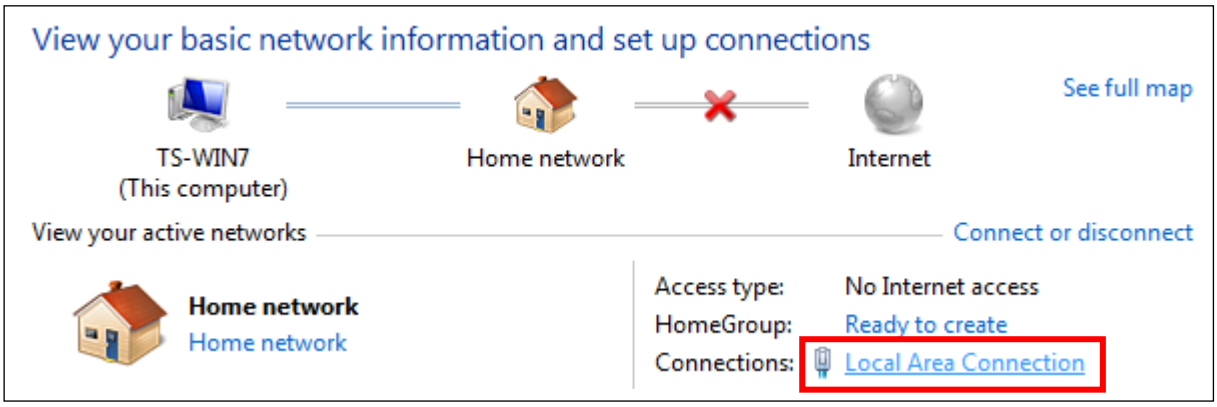
1. Click the “Start” button (it should be located in the lower-left corner of your computer), then click “Control Panel”.



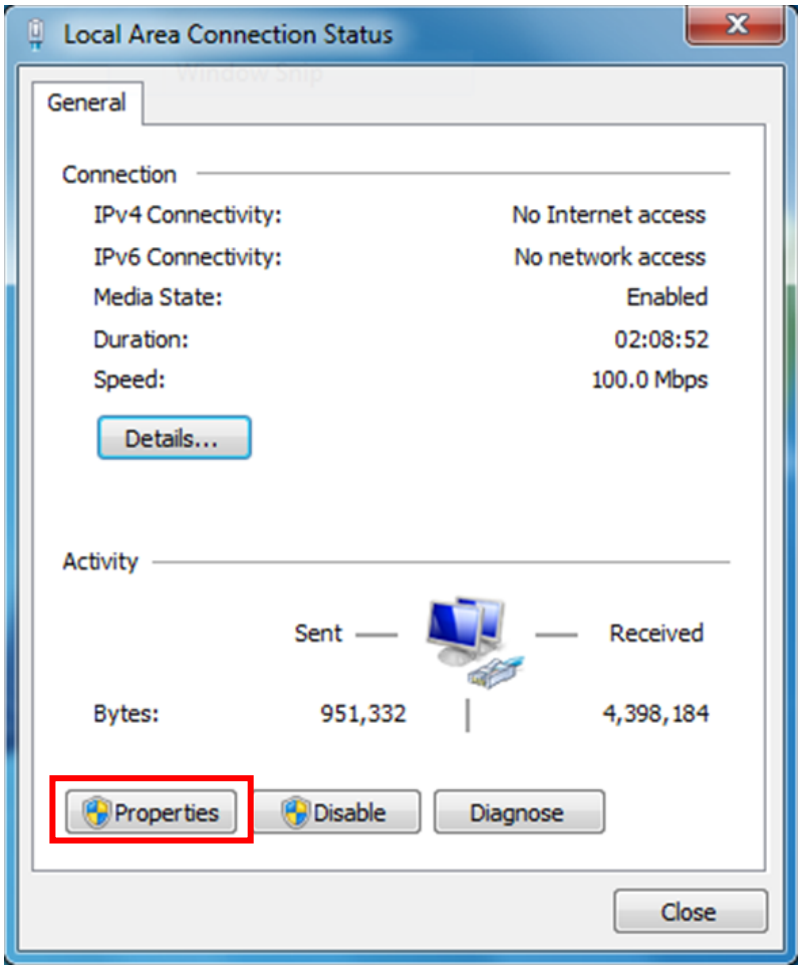
2. Under “Network and Internet” click “View network status and tasks”.



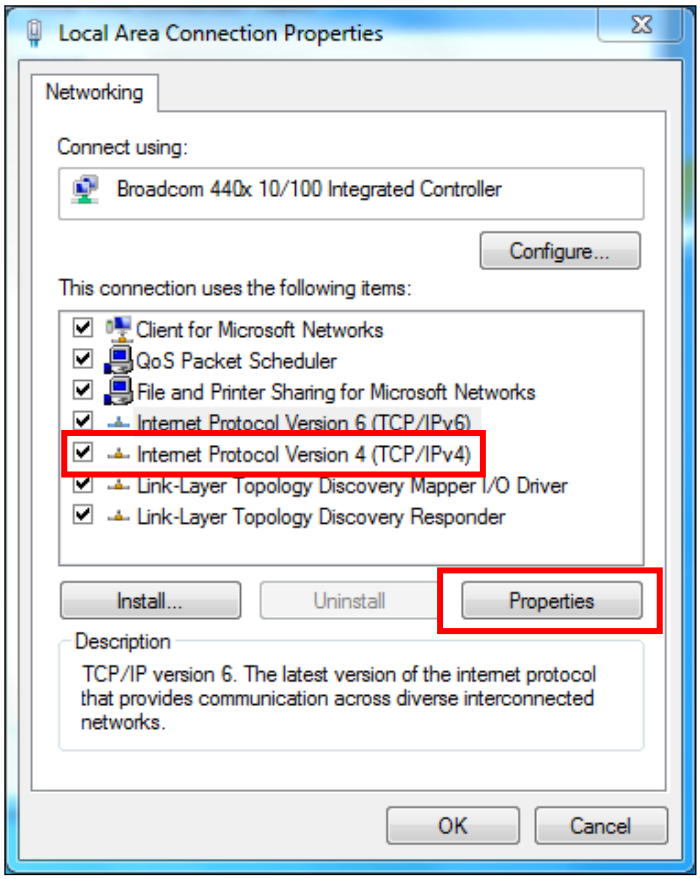
3. Click “Local Area Connection”.



4. Click “Properties”.



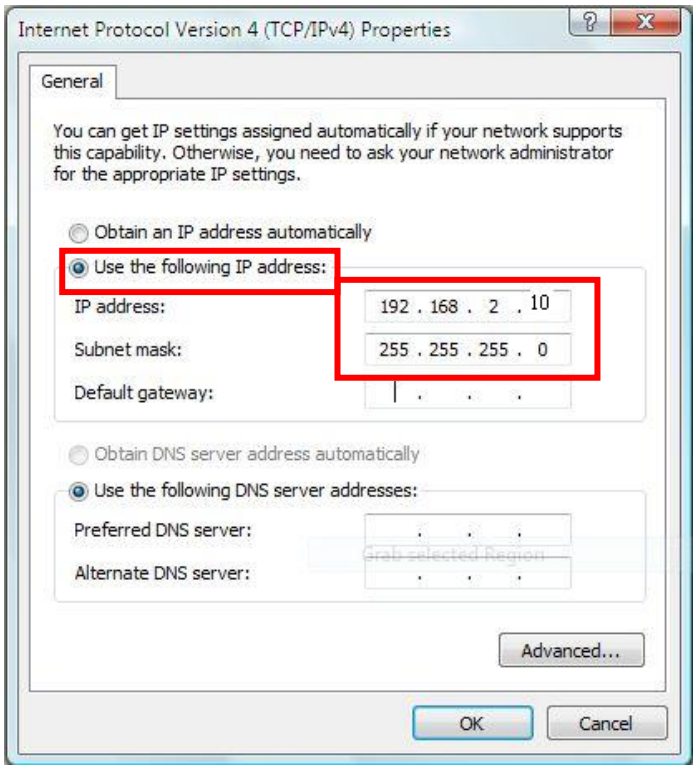
5. Select “Internet Protocol Version 4 (TCP/IPv4) and then click “Properties”.



6. Select “Use the following IP address”, then input the following values:

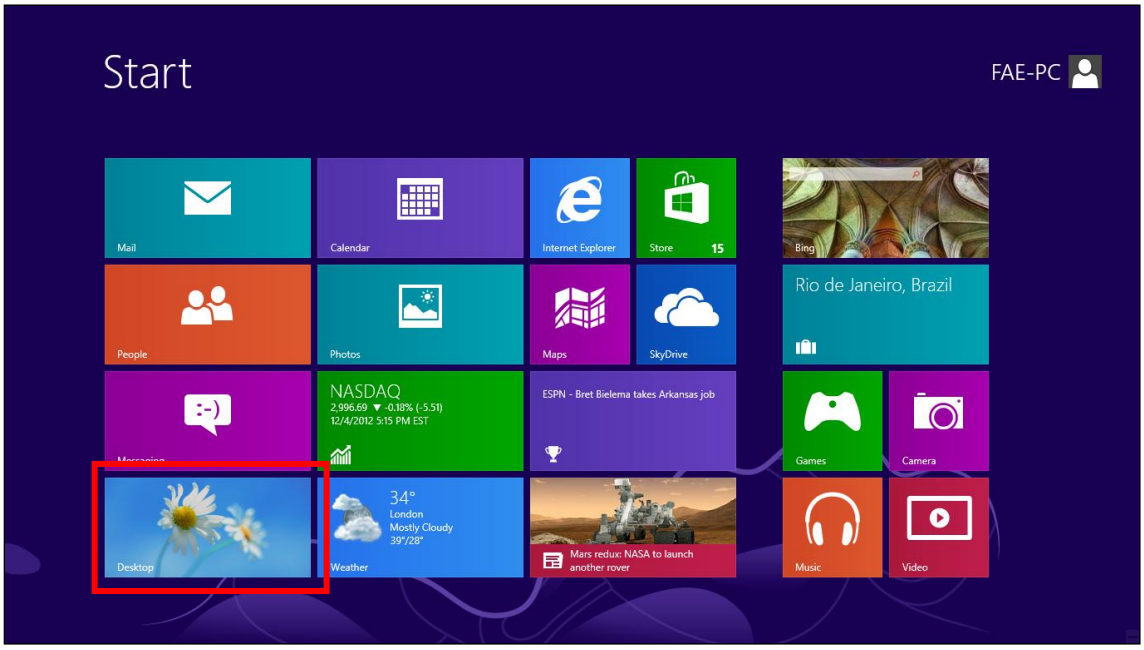
IP address: 192.168.2.10
Subnet Mask: 255.255.255.0

Click ‘OK’ when finished.

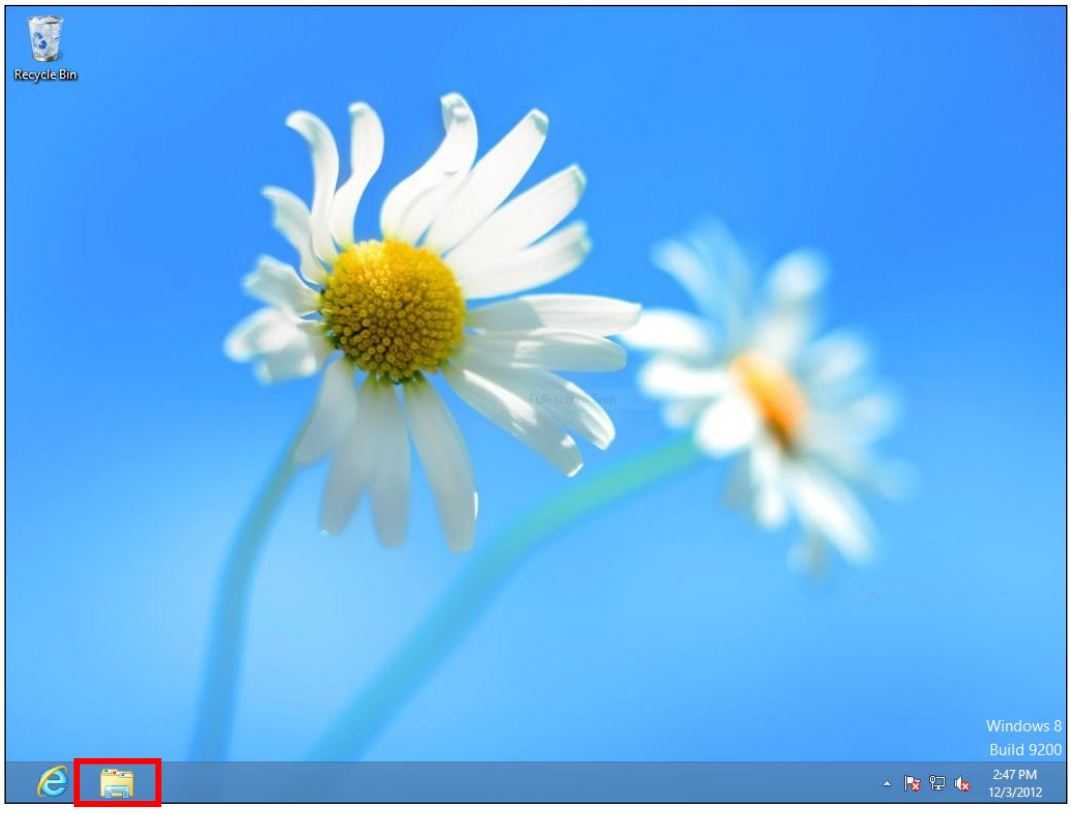


IX-1-4 Windows 8

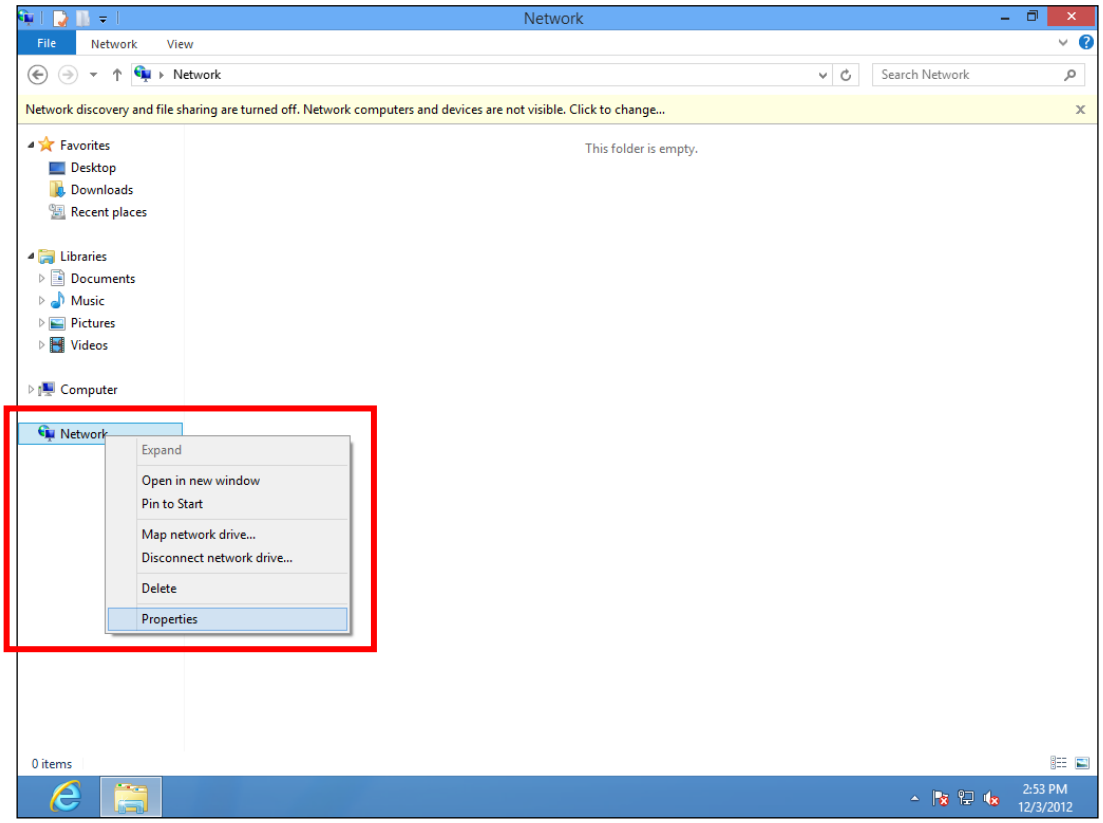
1. From the Windows 8 Start screen, switch to desktop mode by clicking the “Desktop” box.



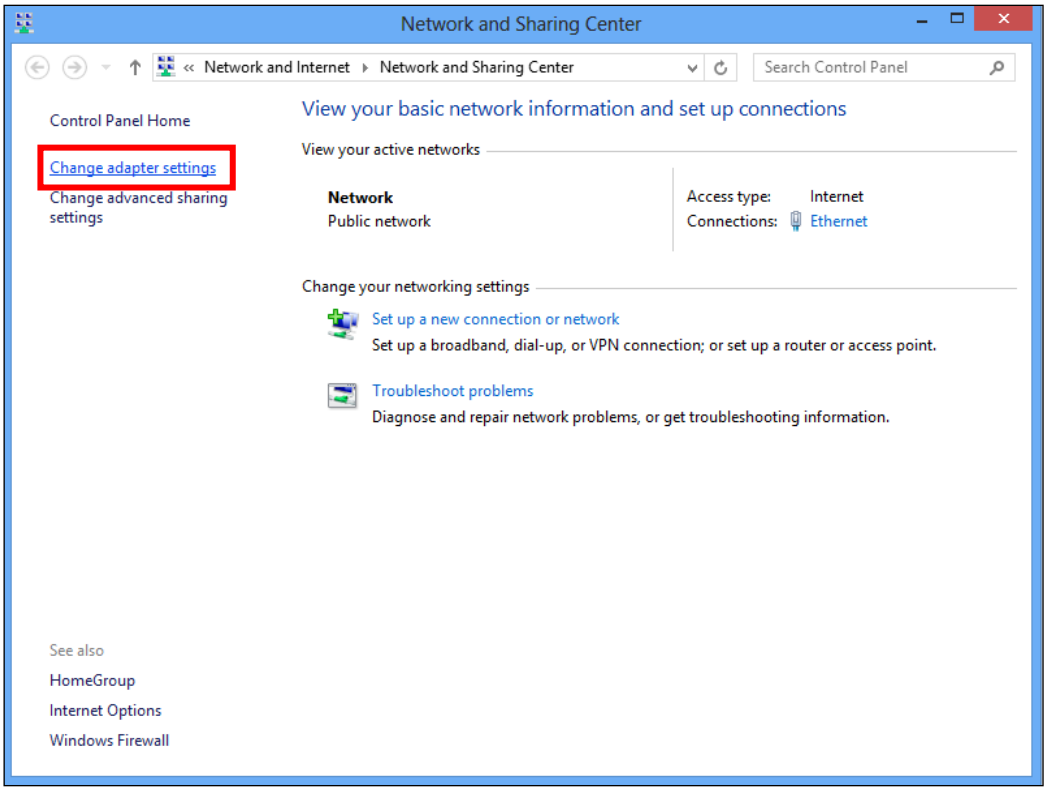
2. In desktop mode, click the File Explorer icon in the bottom left of the screen, as shown below.



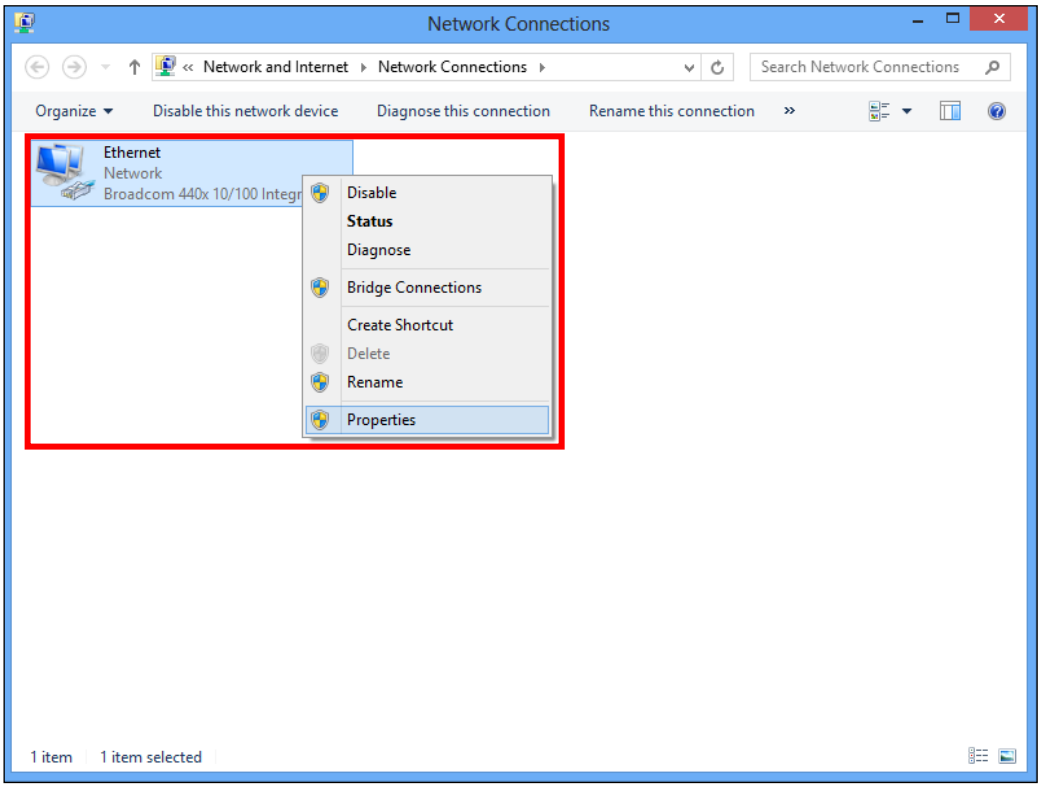
3. Right click “Network” and select “Properties”.



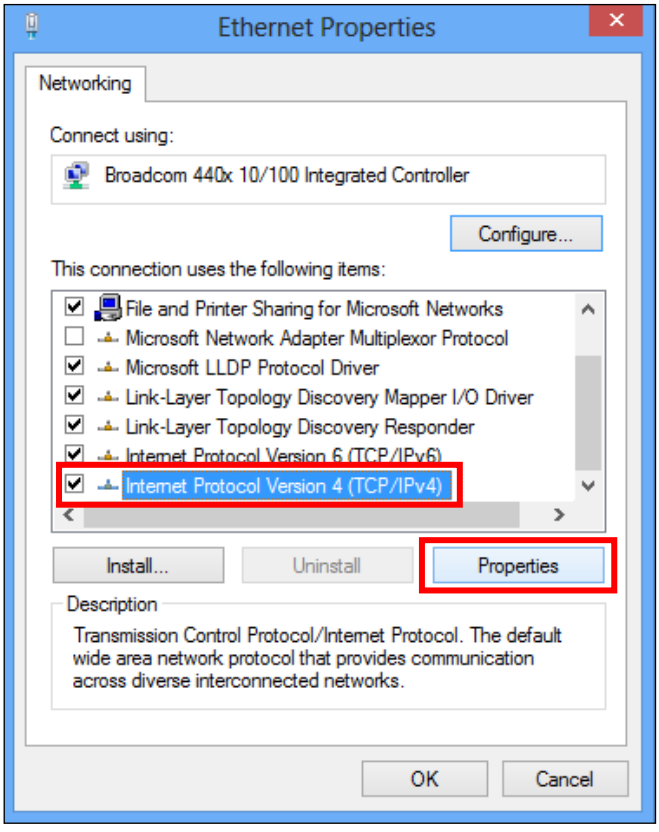
4. In the window that opens, select “Change adapter settings” from the left side.



5. Right click the connection and select “Properties”.



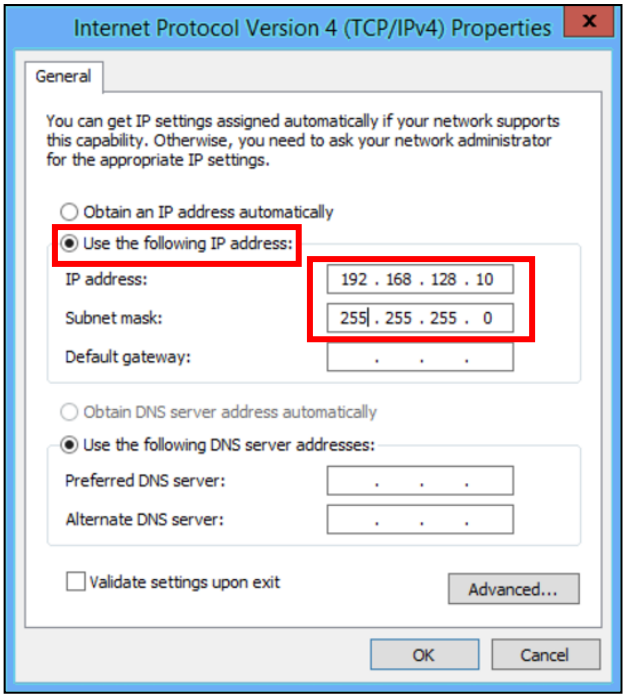
6. Select “Internet Protocol Version 4 (TCP/IPv4) and then click “Properties”.



7. Select “Use the following IP address”, then input the following values:

IP address: 192.168.2.10
Subnet Mask: 255.255.255.0

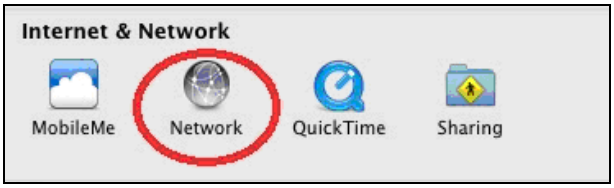
Click ‘OK’ when finished.



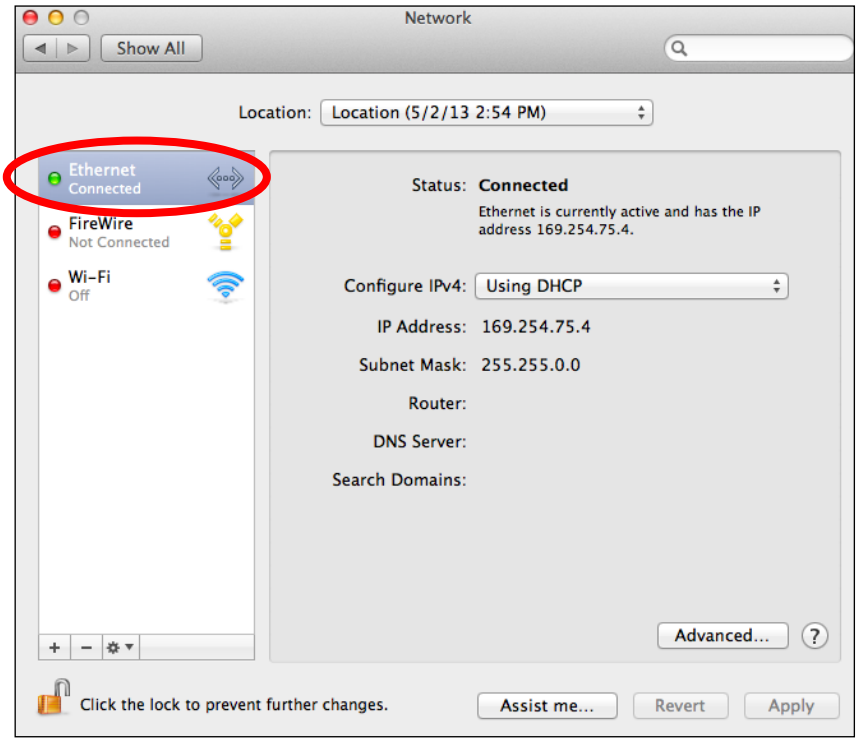
IX-1-5 Mac

1. Have your Macintosh computer operate as usual, and click on “System Preferences”

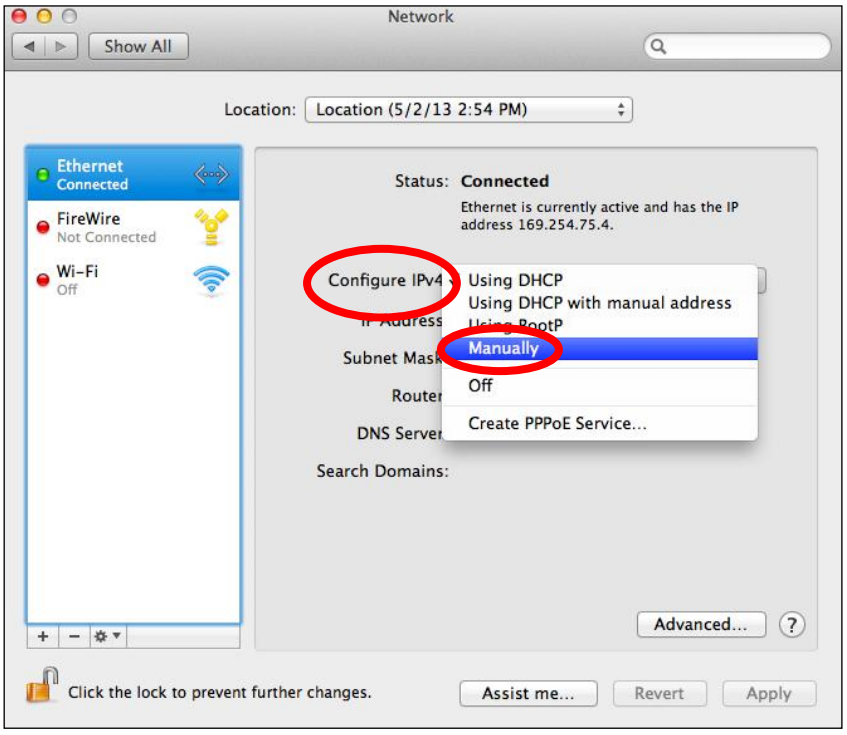
2. In System Preferences, click on “Network”.



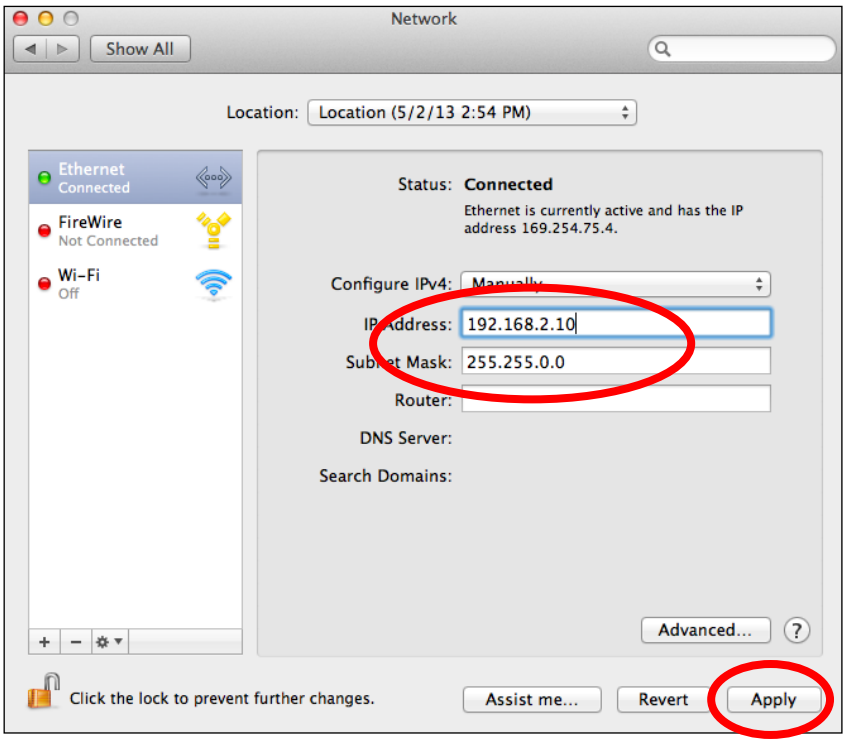
3. Click on “Ethernet” in the left panel.



4. Open the drop-down menu labeled “Configure IPv4” and select “Manually”.



5. Enter the IP address 192.168.2.10 and subnet mask 255.255.255.0. Click on “Apply” to save the changes.



X FAQ

1. What needs to be prepared to quickly setup the Office 1-2-3 Wi-Fi system?

A Device Network

We will be setting up MAC Address Control List for the device network. Please prepare the list.

Guest Network

We will be setting up captive portal for your guest network. Please prepare the associated guest user account list, captive portal header image (size: 800x200 pixels), logo image (size: 200x50 pixels), Title Message, background color, terms of use message and landing page.

2. What format or formats are used for control / account lists?

A For all control / account lists, please follow the template of the system.

Easiest way to get the template of the system is to use the “Export” function. Go to the section where the control / account list is needed and click “Export” to download the template.

3. The user interface is not very responsive after uploading a list, why?

A The operating system may be uploading the list into the Office 1-2-3 Wi-Fi system. Please wait a few seconds after using the “Upload” function before continuing with further setup.

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	EE	FI	FR	DE	EL	HU	IE
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The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

FCC Caution

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

This device complies with Part 15 of the FCC Rules. Operation si 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.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device is restricted to indoor use.

Federal Radiation Exposure Statement

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. 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 or nearby persons.

RED Compliance Statement

Compliance with 2014/53/EU Radio Equipment Directive (RED)

In accordance with Article 10.8(a) and 10.8(b) of the RED, the following table provides information on the frequency bands used and the maximum RF transmit power of the product for sale in the EU:

Frequency range (MHz)	Max. transmit power (dBm)
2400-2483.5	19.90 dBm
5150-5250	22.93 dBm
5250-5350	22.92 dBm
5470-5725	29.29 dBm

A simplified DoC shall be provided as follows: Article 10(9)

Hereby, Edimax Technology Co., Ltd. declares that the radio equipment type **AC1300 DBDC Ceiling-mount AP** is in compliance with Directive 2014/53/EU

The full text of the EU declaration of conformity is available at the following internet address: http://www.edimax.com/edimax/global/

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical

equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use
The ETSI version of this device is intended for home and office use in Austria, Belgium, Bulgaria, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, and United Kingdom. The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not Intended for Use
None

EU Declaration of Conformity

English: This equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU, 2014/35/EU.

Français: Cet équipement est conforme aux exigences essentielles et autres dispositions de la directive 2014/53/EU, 2014/35/EU.

Čeština: Toto zařízení je v souladu se základními požadavky a ostatními příslušnými ustanoveními směrnic 2014/53/EU, 2014/35/EU.

Polski: Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE 2014/53/EU, 2014/35/EU.

Română: Acest echipament este în conformitate cu cerinţele esenţiale şi alte prevederi relevante ale Directivei 2014/53/UE, 2014/35/UE.

Русский: Это оборудование соответствует основным требованиям и положениям Директивы 2014/53/EU, 2014/35/EU.

Magyar: Ez a berendezés megfelel az alapvető követelményeknek és más vonatkozó irányelveknek (2014/53/EU, 2014/35/EU).

Türkçe: Bu cihaz 2014/53/EU, 2014/35/EU direktifleri zorunlu istekler ve diğer hükümlerle ile uyumludur.

Українська: Обладнання відповідає вимогам і умовам директиви 2014/53/EU, 2014/35/EU.

Slovenčina: Toto zariadenie spĺňa základné požiadavky a ďalšie príslušné ustanovenia smerníc 2014/53/EU, 2014/35/EU.

Deutsch: Dieses Gerät erfüllt die Voraussetzungen gemäß den Richtlinien 2014/53/EU, 2014/35/EU.

Español: El presente equipo cumple los requisitos esenciales de la Directiva 2014/53/EU, 2014/35/EU.

Italiano: Questo apparecchio è conforme ai requisiti essenziali e alle altre disposizioni applicabili della Direttiva 2014/53/EU, 2014/35/UE.

Nederlands: Dit apparaat voldoet aan de essentiële eisen en andere van toepassing zijnde bepalingen van richtlijn 2014/53/EU, 2014/35/EU.

Português: Este equipamento cumpre os requesitos essênciais da Directiva 2014/53/EU, 2014/35/EU.

Norsk: Dette utstyret er i samsvar med de viktigste kravene og andre relevante regler i Direktiv 2014/53/EU, 2014/35/EU.

Svenska: Denna utrustning är i överensstämmelse med de väsentliga kraven och övriga relevanta bestämmelser i direktiv 2014/53/EU, 2014/35/EU.

Dansk: Dette udstyr er i overensstemmelse med de væsentligste krav og andre relevante forordninger i direktiv 2014/53/EU, 2014/35/EU.

suomen kieli: Tämä laite täyttää direktiivien 2014/53/EU, 2014/35/EU. oleelliset vaatimukset ja muut asiaankuuluvat määräykset.

FOR USE IN AT BE CY CZ DK EE FI FR DE GR HU
IE IT LV LT LU MT NL PL PT SK SI ES SE
GB IS LI NO CH BG RO RU TR UA

WEEE Directive & Product Disposal

At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.

Declaration of Conformity

We, Edimax Technology Co., Ltd., declare under our sole responsibility, that the equipment described below complies with the requirements of the European Radio Equipment Directive.

Equipment: AC1300 DBDC Ceiling-mount AP
Model No.: Office 1-2-3

The following European standards for essential requirements have been followed:

Directives 2014/53/EU

Spectrum	: EN 300 328 V2.1.1 (2016-11)
	EN 301 893 V2.1.1 (2017-05)
EMC	: Draft EN 301 489-1 V2.2.1 (2019-03)
	Draft EN 301 489-17 V3.2.0 (2017-03)
EMF	: EN 62311:2008
Safety (LVD)	: IEC 62368-1:2014 (2nd Edition) and/or EN 62368-1:2014+A11:2017

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Printed Name: David Huang
Title: Director
Edimax Technology Europe B.V.

CE

Date of Signature: Nov., 2020
Signature:

Printed Name: Albert Chang
Title: Director
Edimax Technology Co., Ltd.

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