

# EKI-6331 & EKI-6332 AP & client mode configuration SOP

Revision Date	Revision	Description	Author
April/2018	V1.0	Initial release	ICG AE Jacky.Lin

# Abstract

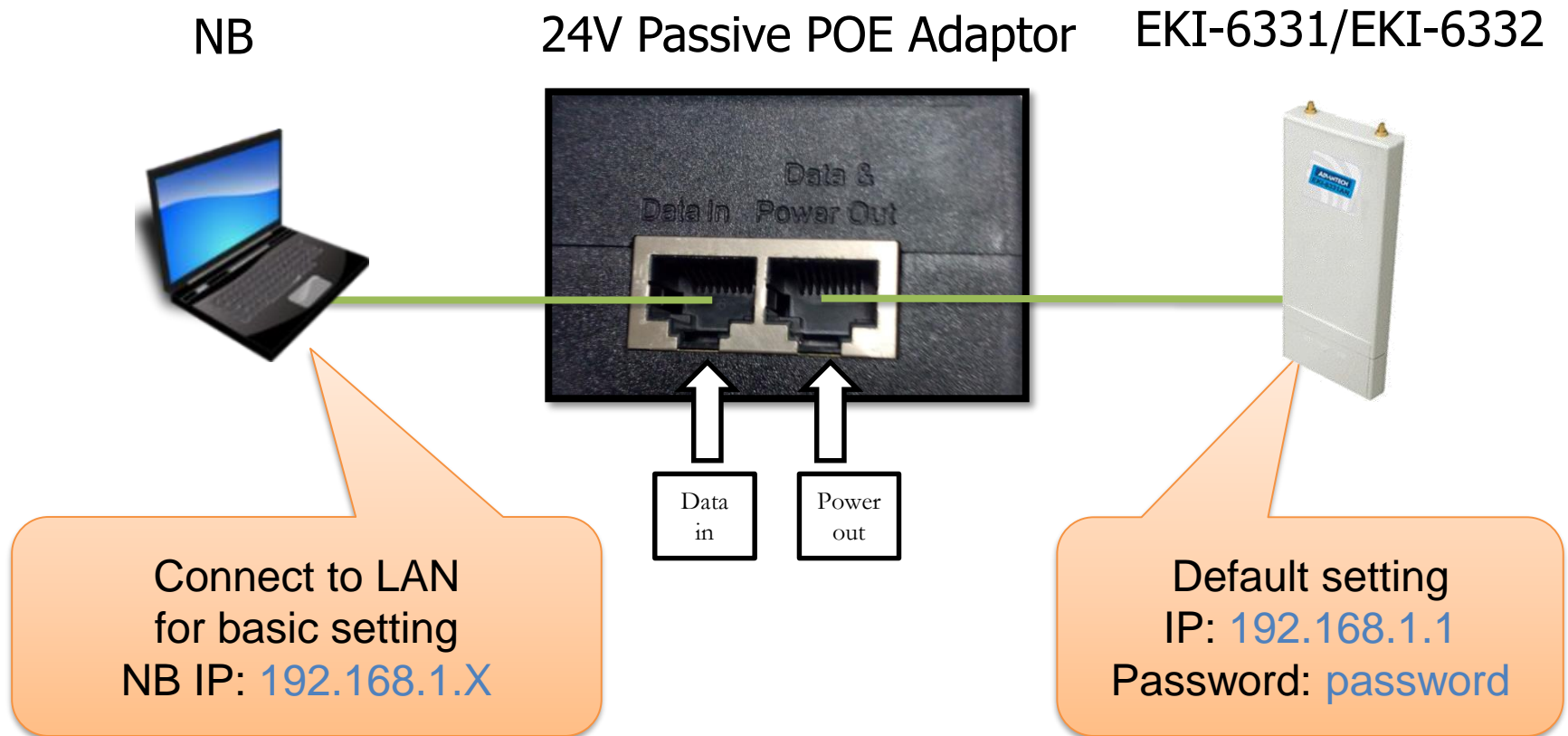
- ❖ **This SOP explains how to configure the EKI-6331 & EKI-6332 in AP & Client mode.**
- ❖ **Related products:**  
EKI-6331, EKI-6332
- ❖ **Requirement: Two EKI-6331 or EKI-6332 devices**



# Basic configuration

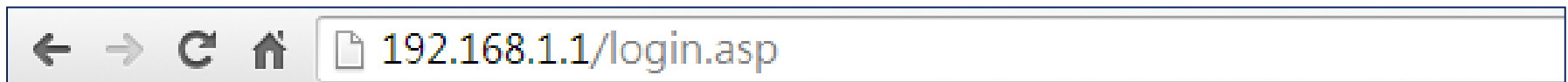
# Basic Introduction

- Connect the Ethernet cable as following graph



# EKI 6332GN/6331AN - Web GUI

- Log in the configuration page via browser  
(Default IP address: 192.168.1.1)
  - You will see the login page as below
  - Type in & Log in

A screenshot of a web form titled "LOGIN". It has three input fields: "Name:" with the text "admin", "Password:" which is empty, and "Language:" with a dropdown menu showing "English". At the bottom are two buttons: "Login" and "Reset". A red arrow points from the "Name" field to a red callout box on the right.

Default ID/ PW:  
Name: **admin**  
Password: **password**

# Overview of Web GUI

## ADVANTECH Industrial Wireless EKI-6331AN-BE

Logout

Status

System

Wireless

Management

Tools

Information

Connections

Statistics

ARP Table

Bridge Table

Sub-  
function

### Information

This page shows the current status and some basic settings of the device.

#### System Information

MAC Address:	00:19:70:c1:3d:e7
Firmware Version:	1.2.6.1(AD)4
System Uptime:	1m:55s
Device Name:	apc13de7
Country/Region:	United States

Main Option

FW version

#### LAN Settings

IP Address:	192.168.1.1
Subnet Mask:	255.255.255.0
Gateway IP Address:	0.0.0.0

IP and Mask

#### Wireless Settings

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# Setting Process



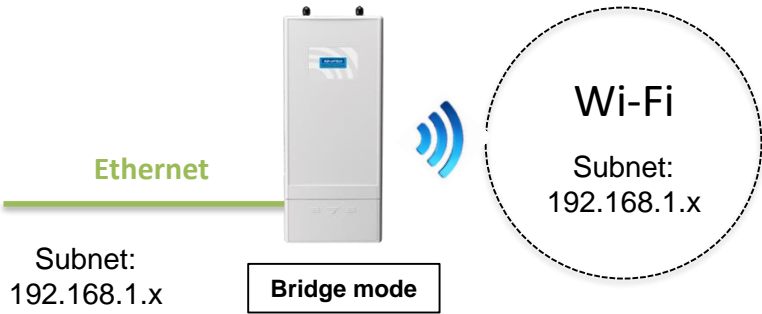
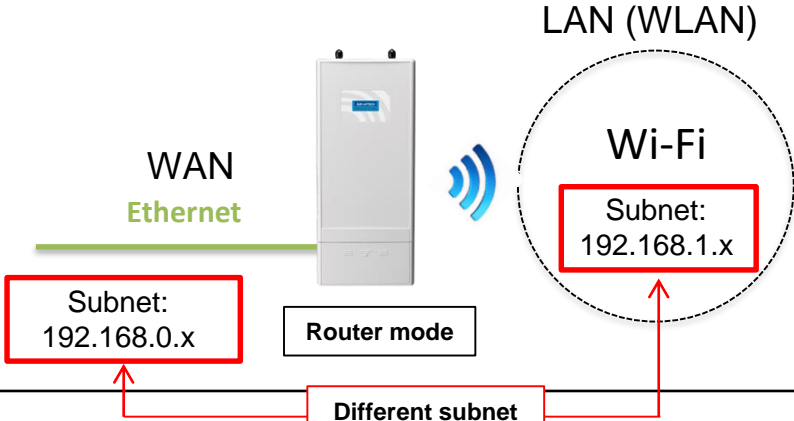
## System setting



## Wireless setting



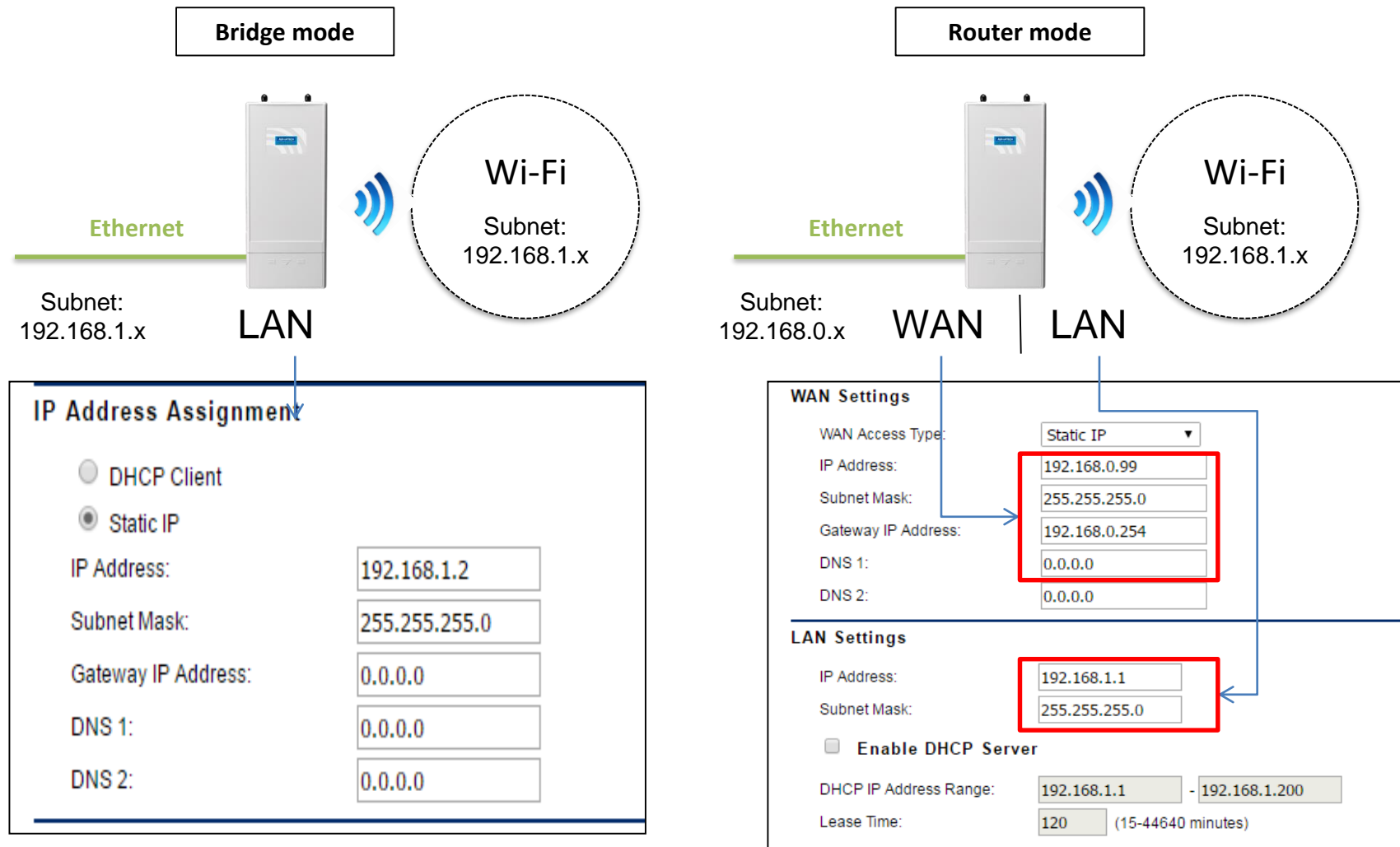
# System Setting - Basic Settings

Bridge mode	Router mode
<div><h3>Network Settings</h3><p>This page configures the IP address, subnet mask, DHCP, and other parameters for network that is connected to the LAN port of the device.</p><h4>Basic Settings</h4><div><b>Network Mode:</b> Bridge</div><div>Spanning Tree: <input type="radio"/> Enabled <input checked="" type="radio"/> Disabled</div><div>STP Forward Delay: 1 (1~30 seconds)</div><div><input type="checkbox"/> Enable 802.1Q VLAN</div><div>Management VLAN ID: 0 (0~4094)</div></div>	<div><h3>Network Settings</h3><p>This page configures the IP address, subnet mask, DHCP, and other parameters for network that is connected to the LAN port of the device.</p><h4>Basic Settings</h4><div><b>Network Mode:</b> Router</div><div>Spanning Tree: <input type="radio"/> Enabled <input checked="" type="radio"/> Disabled</div><div>STP Forward Delay: 1 (1~30 seconds)</div></div> <div><h4>WAN Settings</h4><div>WAN Access Type: Static IP</div></div>
 <p>Ethernet Subnet: 192.168.1.x</p> <p>Bridge mode</p> <p>Wi-Fi Subnet: 192.168.1.x</p>	 <p>WAN Ethernet Subnet: 192.168.0.x</p> <p>Router mode</p> <p>LAN (WLAN) Wi-Fi Subnet: 192.168.1.x</p> <p>Different subnet</p>

Note : The Firewall will be activated automatically in router mode to protect the LAN.  
(No firewall in bridge mode)



# System Setting - IP setting

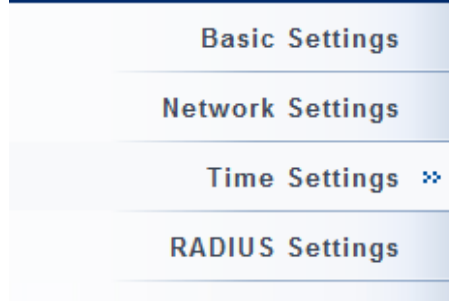


Note : For EKI-633x, only router mode support DHCP server.

# System Setting - Time Settings

Make sure you set the system time

- It may help you to identify the connecting status when checking the [syslog](#)



## Time Settings

You can synchronize System Log's time stamp with a public time server over the Internet.

Current Time: 2015 Yr 12 Mon 9 Day 20 Hr 46 Min 56 Sec  
Time Zone: (GMT)Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London ▼

System Log ✖

Ping Watchdog

Ping Test

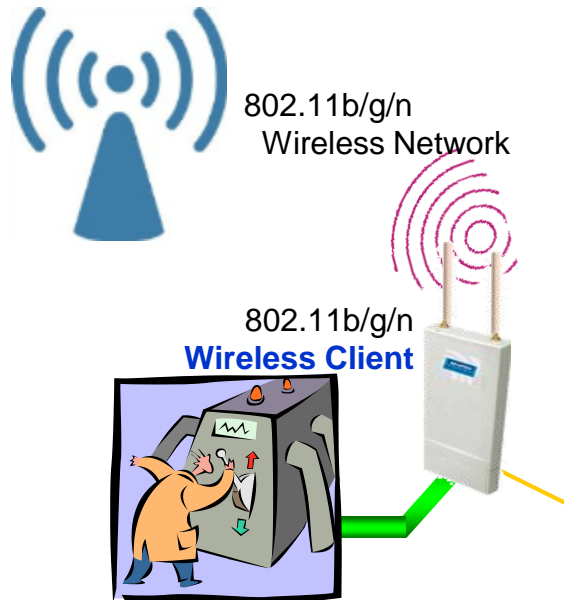
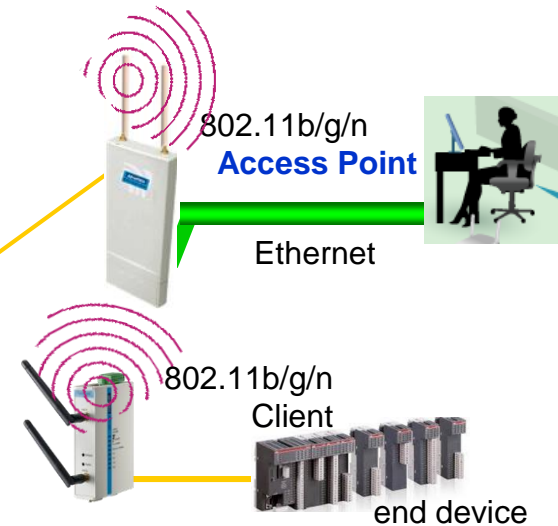
Apply Cancel Clear Crash Log

#	Time	Priority	Source	Message
3	2016-10-15 01:47:52	notice	00:D0:C9:F7:89:29	Station authenticated.
4	2016-10-15 01:47:52	notice	00:D0:C9:F7:89:29	Station associated.
5	2016-10-15 02:59:32	notice	192.168.1.132	WEB: User "admin" logout.
6	2016-10-15 02:59:34	notice	192.168.1.132	WEB: Authorized user "admin".

# Operation mode AP/client

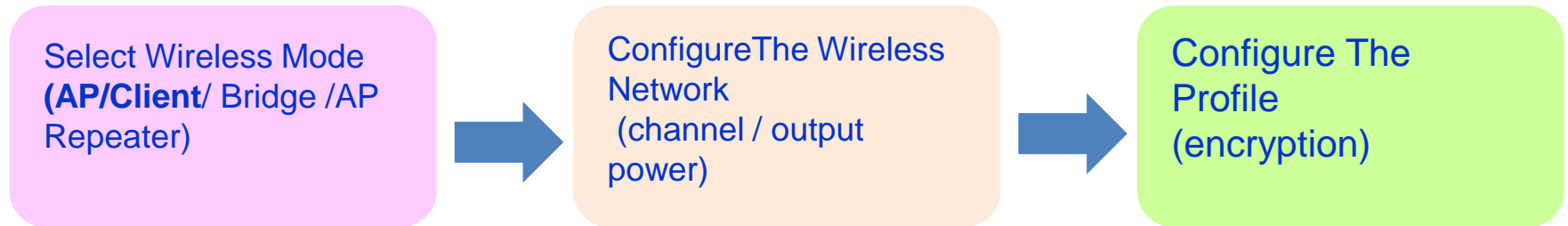
# Flexible Operating Mode (1)

- **Scenario 1:** The end devices & wireless client have already deployed on the field. Need to provide the wireless coverage to connect these devices.
  - It is the default mode, **Access Point (AP)**.



- **Scenario 2:** A wireless network is in place already, but need to provide wireless connectivity on wired devices (End device support **Ethernet protocol**).
  - By setting as a **Wireless Client** mode, it is similar to attach a wireless network adapter on wired device.
  - Some people refer it as **CPE** (customer premise equipment) mode.

# Wireless setting in Three Steps



The screenshot shows the 'Wireless' tab selected in the top navigation bar. On the left, a sidebar lists 'Basic Settings' (highlighted with a red box), 'Profile Settings', 'Advanced Settings', 'Traffic Shaping', 'Access Control', and 'WDS Settings'. The main content area is titled 'Basic Settings' and includes the instruction: 'Use this page to change the wireless mode as well as configure any associated parameters.'

Below this instruction, there is a checkbox for 'Disable Wireless LAN Interface' which is unchecked. To the right of this checkbox is a 'Site Survey' button and a '(more...)' link. The 'Operation Mode' dropdown menu is open, showing options: 'AP Repeater', 'AP' (highlighted with a blue bar), 'Wireless Client', 'Bridge', and 'AP Repeater'. Other settings include 'SSID', 'Broadcast SSID', '802.11 Mode', 'Channel Mode' (set to 20 MHz), 'Channel' (set to 5745MHz (149)), 'Extension Channel' (set to None), 'Data Rate' (set to Auto), and 'HT Protect' (set to Disabled).

Which mode I should use?

# Wireless Network Settings - AP Mode (1/5)

AP\_192.168.1.1

AP\_192.168.1.1

Client\_192.168.1.2

Basic Settings

Use this page to change the wireless mode as well as configure any associated wireless network parameters.

☐ Disable Wireless LAN Interface

Operation Mode: AP Site Survey

SSID: Wirelesstesting (more...)

Broadcast SSID: ☒ Enabled ☐ Disabled

802.11 Mode: 802.11A/N

Channel Mode: 20 MHz

Channel: 5745MHz (149)

Extension Channel: Auto

Data Rate: 5180MHz (36)

HT Protect: 5200MHz (40)

Antenna Gain: 5220MHz (44)

Output Power: 5240MHz (48)

5260MHz (52)

5280MHz (56)

5300MHz (60)

5320MHz (64)

5500MHz (100)

5520MHz (104)

5540MHz (108)

5560MHz (112)

5580MHz (116)

5660MHz (132)

5680MHz (136)

5700MHz (140)

5745MHz (149)

0 dBi

23 dBm

1. Choose AP mode
2. Fill in the WLAN name(SSID) for this AP  
e.g. **Wirelesstesting**

Select the channel

- The channel is better to be non-overlapping with other server set
- **Tips: InSSIDer**

# Wireless Network Settings - AP Mode (2/5)

AP\_192.168.1.1

Status

System

Wireless

Management

Tools

Basic Settings ✕

Profile Settings

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

## Basic Settings

Use this page to change the wireless mode as well as configure any associated wireless network parameters.

☐ Disable Wireless LAN Interface

Operation Mode:

SSID:  [\(more...\)](#)

Broadcast SSID: ☒ Enabled ☐ Disabled

802.11 Mode:

Channel Mode:

Channel:

Extension Channel:

Data Rate:

HT Protect: ☐ Enabled ☒ Disabled

Antenna Gain:    dBi

Output Power:    dBm

Adjust the value as same as your Antenna gain (default antennas 5dBi)

Adjust the output power

Apply

Cancel

# Wireless Network Settings - AP Mode (3/5)

AP\_192.168.1.1

Status

System

Wireless

Management

Tools

Basic Settings

Profile Settings ✕

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

## Profile Settings

Define each VAP's attribute.

#	Enabled	Profile Name	SSID	Security	VLAN ID
1	<input checked="" type="checkbox"/>	Profile1	Wirelesstesting	Open System	0
2	<input type="checkbox"/>	Profile2	Wireless	Open System	0
3	<input type="checkbox"/>	Profile3	Wireless	Open System	0
4	<input type="checkbox"/>	Profile4	Wireless	Open System	0
5	<input type="checkbox"/>	Profile5	Wireless	Open System	0
6	<input type="checkbox"/>	Profile6	Wireless	Open System	0
7	<input type="checkbox"/>	Profile7	Wireless	Open System	0
8	<input type="checkbox"/>	Profile8	Wireless	Open System	0

Click Profile1 to make a detailed configuration of service set  
**Wirelesstesting**

Apply

Reset



# Wireless Network Settings - AP Mode (4/5)

- Configure the wireless security and set the passphrase

AP\_192.168.1.1

## VAP1 Profile Settings

Define the VAP's basic settings and security settings.

### Basic Settings

Profile Name:

SSID:

Broadcast SSID: ☒ Enabled ☐ Disabled

Wireless Separation: ☐ Enabled ☒ Disabled

WMM Support: ☐ Enabled ☐ Disabled

IGMP Snooping: ☒ Enabled ☐ Disabled

☐ Max. Station Num:  (1-32)

Kick STA RSSI:  (1~96)

### Security Settings

Network Authentication:

Data Encryption:

Most of the wireless client support WPA/WPA2. We'd suggest you to choose "WPA-PSK & WPA2-PSK"

## VAP1 Profile Settings

Define the VAP's basic settings and security settings.

### Basic Settings

Profile Name:

SSID:

Broadcast SSID: ☒ Enabled ☐ Disabled

Wireless Separation: ☐ Enabled ☒ Disabled

WMM Support: ☐ Enabled ☐ Disabled

IGMP Snooping: ☒ Enabled ☐ Disabled

☐ Max. Station Num:  (1-32)

Kick STA RSSI:  (1~96)

### Security Settings

Network Authentication:

Data Encryption:

WPA Passphrase:

Key the passphrase

# Wireless Network Settings - AP Mode (5/5)

AP\_192.168.1.1

StatusSystemWirelessManagementTools

Password Settings

Firmware Upgrade

Configuration File

User Certificates

Remote Services

SNMP Settings

## Configuration File

This page allows you to save current settings to a file or load the settings from the file which was saved previously. You may also reset the current configuration to factory default or reboot the device.

Save Settings to File:

Save...

Load Settings from File:

選擇檔案

未選擇任何檔案

Reset Settings to Default:

Reset

Reboot The Device:

Reboot

Reboot the device and wait for starting the WiFi service

Youtube登入Google 地圖FacebookICIBAAdvantechAD employeeAD mailYahoo奇摩Agile Product Lifec...

This device has been reboot, you have to login again.  
Please wait for 36 seconds before attempting to access the device again...

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# Wireless Network Settings

## Client Mode (1/3)

client\_192.168.1.2

Status

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Basic Settings ✖

Security Settings

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

### Basic Settings

Use this page to change the wireless mode as well as configure any associated wireless network parameters.

☐ Disable Wireless LAN Interface

Operation Mode:

Wireless Client

SSID:

\*

Locked AP MAC:

802.11 Mode:

802.11B/G/N

Data Rate:

Auto

Antenna Gain:

0 8  
12 20

0 dBi

20 d

1. Choose **Wireless Client mode**

2. Click "Apply" to enter the Client mode

Change settings successfully!

OK

Apply

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# Wireless Network Settings - Client Mode 2/3

client\_192.168.1.2

Basic Settings ✖

Profile Settings

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

## Basic Settings

Use this page to change the wireless mode as well as configure any associated parameters.

☐ Disable Wireless LAN Interface

Operation Mode:

Wireless Client

Site Survey

SSID:

Wirelesstesting

Locked AP MAC:

Select Site survey to choose the Source AP or type in SSID directly

## Wireless Site Survey

This page provides a tool to scan the wireless network.

Selected	SSID	Channel	MAC Address	802.11 Mode	Signal Strength	Security
<input checked="" type="radio"/>	Wirelesstesting	5745MHz (149)	00:d0:c9:f7:89:28	802.11A/N	-32	
<input type="radio"/>	Advantecher	5745MHz (149)	00:1e:f7:eb:99:c6	802.11A	-34	
<input type="radio"/>	Cell Phone	5745MHz (149)	00:1e:f7:eb:99:c7	802.11A	-35	
<input type="radio"/>	Signage	5745MHz (149)	00:1e:f7:eb:99:c8	802.11A	-36	NONE
<input type="radio"/>	Advantech-Guest	5745MHz (149)	00:1e:f7:eb:99:cc	802.11A	-36	NONE
<input type="radio"/>		5745MHz (149)	00:1e:f7:eb:99:ca	802.11A	-36	WPA
<input type="radio"/>		5745MHz (149)	00:1e:f7:eb:99:c9	802.11A	-37	WPA
<input type="radio"/>	WiFi Phone	5745MHz (149)	00:1e:f7:eb:99:cd	802.11A	-37	NONE

Select Wirelesstesting Apply it and connect to it

# Wireless Network Settings - Client Mode 3/3

- Set the **Authentication type** and **Passphrase** as same as the AP

client\_192.168.1.2

## VAP1 Profile Settings

Define the VAP's basic settings and security settings.

### Basic Settings

Profile Name:   
SSID:   
Broadcast SSID: ☒ Enabled ☐ Disabled  
Wireless Separation: ☐ Enabled ☒ Disabled  
WMM Support: ☐ Enabled ☐ Disabled  
IGMP Snooping: ☒ Enabled ☐ Disabled  
☐ Max. Station Num:  (1-32)  
Kick STA RSSI:  (1~96)

### Security Settings

Network Authentication:   
Data Encryption:

## VAP1 Profile Settings

Define the VAP's basic settings and security settings.

### Basic Settings

Profile Name:   
SSID:   
Broadcast SSID: ☒ Enabled ☐ Disabled  
Wireless Separation: ☐ Enabled ☒ Disabled  
WMM Support: ☐ Enabled ☐ Disabled  
IGMP Snooping: ☒ Enabled ☐ Disabled  
☐ Max. Station Num:  (1-32)  
Kick STA RSSI:  (1~96)

### Security Settings

Network Authentication:   
Data Encryption:   
WPA Passphrase:

# Check the Connection status

AP\_192.168.1.1

AP\_192.168.1.1

Client\_192.168.1.2

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## Association List

This table shows the MAC Address,802.11 Mode,Signal Strength and Connected Time for each associated device(s).

#	Interface	MAC Address	802.11 Mode	Signal Strength	Connected Time	Action
1	VAP1	00:d0:c9:f7:89:29	802.11A/N	-25 dBm	4m:16s	<a href="#">Kick</a>

Client\_192.168.1.2

Status

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Connections

Statistics

ARP Table

Bridge Table

## Association List

This table shows the MAC Address,802.11 Mode,Signal Strength and Connected Time for each associated device(s).

MAC Address	802.11 Mode	Signal Strength	Connected Time
00:d0:c9:f7:89:28	802.11A/N	-26 dBm	6s

Note: The association list will show the connected device information once wireless connection established.

# Check the Connection status

- You could use the ping tool to double check the wireless connection

The screenshot shows a web interface for a network management system. At the top, there is a navigation bar with five tabs: Status, System, Wireless, Management, and Tools. The Tools tab is currently selected. On the left side, there is a sidebar with three links: System Log, Ping Watchdog, and Ping Test. The Ping Test link is highlighted with a red box. The main content area is titled 'Ping Test' and contains the following elements:

- A sub-header: 'Use this page to test the ping.'
- A 'Ping Address' input field with a 'Start' button next to it.
- A 'Ping Result' section containing the following text:

```
PING 192.168.1.2 (192.168.1.2): 56 data bytes
64 bytes from 192.168.1.2: seq=0 ttl=128 time=0.898 ms
64 bytes from 192.168.1.2: seq=1 ttl=128 time=0.738 ms
64 bytes from 192.168.1.2: seq=2 ttl=128 time=0.627 ms
64 bytes from 192.168.1.2: seq=3 ttl=128 time=0.838 ms

--- 192.168.1.2 ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 0.627/0.775/0.898 ms
```





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