



# WK-WX Series

802.11ac Wireless AP  
with BakPak Lite

User Guide



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# Introduction

Thank you for purchasing the Pagedge WK-WX Series 802.11ac Dual Band Access Point. As the central component of your wireless network, the AP provides you with high-speed, high-range wireless 802.11ac networking. The AP broadcasts on both the 2.4 GHz and 5 GHz bands so that select devices can choose their preferred source of wireless connectivity, improving the overall stability, reliability, and performance of the wireless network.

Each band (either 2.4 GHz or 5 GHz) of the AP can operate in three modes:

- **Access Point mode:** By default, both bands are set to Access Point mode, where they broadcast and accept wireless client connections.
- **WDS Bridge mode:** This mode is used to extend a connection to a hardwired device when you cannot run an Ethernet cable directly.
- This mode is used to send wireless internet to a hardwired device when you cannot use an Ethernet cable directly. In Bridge mode, it can receive a wireless signal from an AP in root access point mode and send it to a client device through an Ethernet connection.
- **WDS Repeater mode:** The repeater also receives a wireless signal from another AP. However, unlike a bridge access point, a repeater access point sends out WiFi so that client devices can connect to it wirelessly.

The functionality of the AP changes depending on its operating mode. This user guide offers both general and mode-specific content.

# System requirements

The minimum system requirement: A computer with an Ethernet port.

# Hardware installation

For hardware installation and first-time startup instructions, see the *Quick Start Guide* found in the box or at:

- *WK-1 Quick Start Guide* ([pkdge.co/wk1-qsg](http://pkdge.co/wk1-qsg))
- *WK-1-C Quick Start Guide* ([pkdge.co/wk1c-qsg](http://pkdge.co/wk1c-qsg))
- *WK-1-O Quick Start Guide* ([pkdge.co/wk1o-qsg](http://pkdge.co/wk1o-qsg))
- *WK-2 Quick Start Guide* ([pkdge.co/wk2-qsg](http://pkdge.co/wk2-qsg))
- *WK-2-C Quick Start Guide* ([pkdge.co/wk2c-qsg](http://pkdge.co/wk2c-qsg))

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- *WX-1 Quick Start Guide* ([pkdge.co/wx1-qsg](http://pkdge.co/wx1-qsg))
- *BR-WX-1 (mounting bracket) Quick Start Guide* ([pkdge.co/brwx1-qsg](http://pkdge.co/brwx1-qsg))
- *WX-1-O Quick Start Guide* ([pkdge.co/wx1o-qsg](http://pkdge.co/wx1o-qsg))

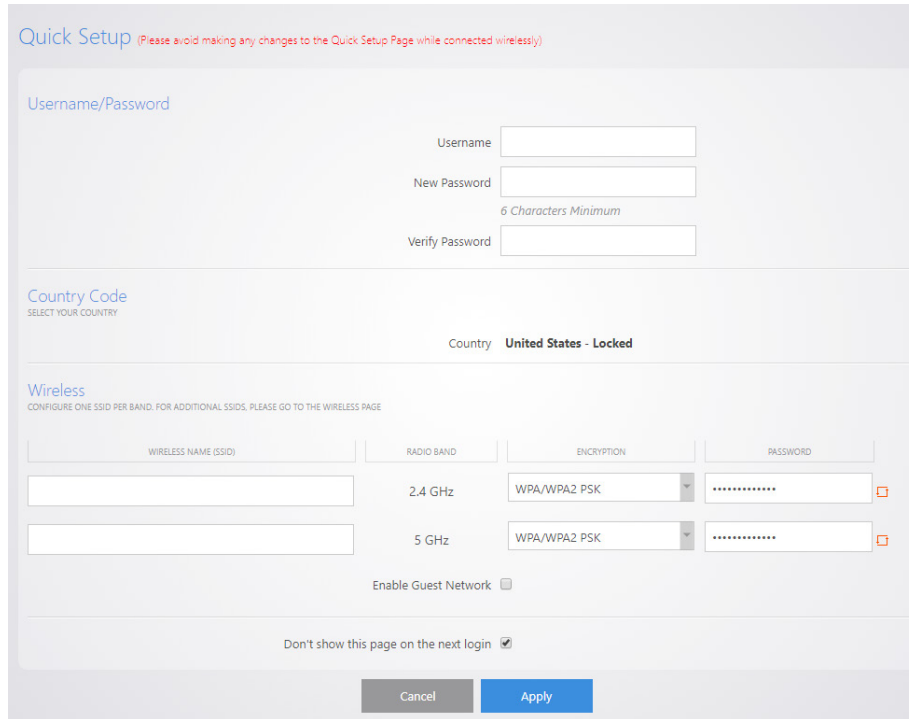
## Default settings and credentials

- Operation mode: Access Point
- IP address: IP will be automatically assigned by router if a DHCP server is detected or, if no DHCP server is detected, the default IP address will be automatically set to **192.168.1.250**.
- Username/Password (default): **pakedge/pakedgea**
- SSIDs (default): **Pakedge2.4-1** and **Pakedge5-1**,  
Security/password: WPA2-PSK/**pakedgewireless**
- Guest SSIDs (default): **PakedgeGuest2.4** and **PakedgeGuest5**,  
security/password: WPA2/**pakedgeguest**
- Transmit power: Starting with firmware v1.23, factory default transmit power is 13 dBm for 2.4 GHz and 18 dBm for 5 GHz.

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# Quick Setup

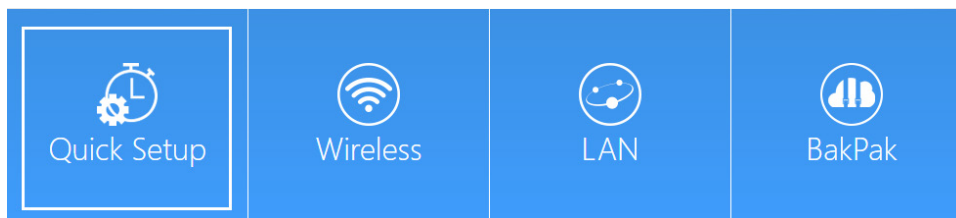
The first time you log in, you will be directed to the *Quick Setup* page and will be required to update your password before proceeding to the Dashboard. This page lets you configure the most common AP settings, all in one place, to get the AP up and running quickly.



The screenshot shows the 'Quick Setup' page with the following sections:

- Username/Password:** Includes fields for 'Username', 'New Password' (with a '6 Characters Minimum' note), and 'Verify Password'.
- Country Code:** A dropdown menu showing 'Country United States - Locked'.
- Wireless:** A section for configuring wireless networks. It includes a table with columns for 'WIRELESS NAME (SSID)', 'RADIO BAND', 'ENCRYPTION', and 'PASSWORD'. Two rows are visible: one for 2.4 GHz and one for 5 GHz, both with WPA/WPA2 PSK encryption. Below the table is an 'Enable Guest Network' checkbox.
- Footer:** A checkbox for 'Don't show this page on the next login' and 'Cancel'/'Apply' buttons.

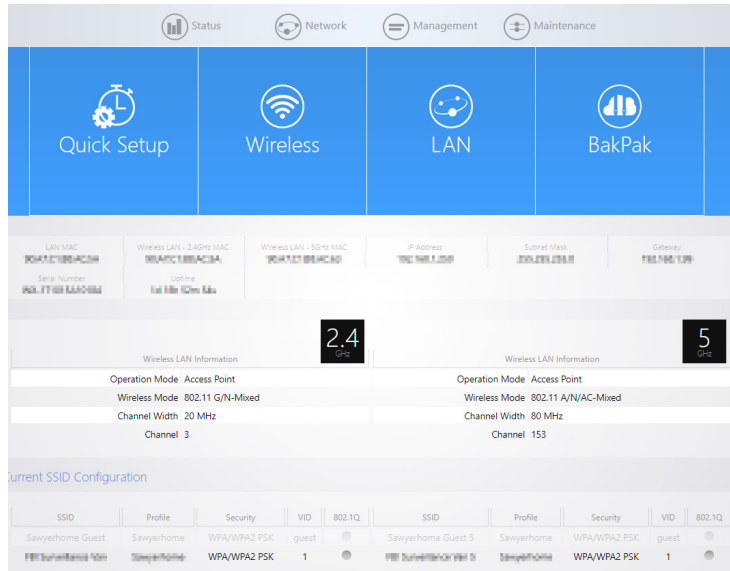
You can also access the Quick Setup page from the Dashboard.



**Note:** For APs sold in the U.S. and Israel, the Country Code will be preconfigured and locked. For units that are sold in the rest of the world, the Country Code will be blank and *must* be configured in this quick setup process.

## Dashboard

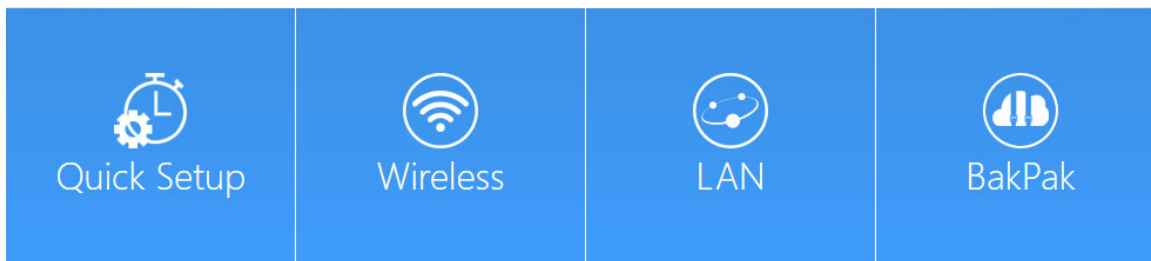
After logging in, you're brought to the *Dashboard* (the home screen), which displays the current AP status and general information such as the IP address, subnet mask, and MAC address. The 2.4 GHz and 5 GHz sections display the device operating mode, wireless mode, channel bandwidth, and channel settings. The AP supports multiple SSIDs along with details and security settings for each SSID.



### To view the Dashboard:

- Hover over the **Status** icon and click **Dashboard**.
- Click the WK or WX circle icon in the upper-left corner of the screen.

### To use the quick-access tiles:



*Quick Setup* takes you to the Quick Setup page, where you can configure the most common AP settings.

*Wireless* takes you to the Wireless settings page. You can also get there by hovering over the **Network** menu and selecting **Wireless**.

*LAN* takes you to the LAN settings page. You can also get there by hovering over the **Network** menu and selecting **LAN**.

*BakPak* takes you to the BakPak login screen. The first time you access it, you are asked to register the AP with BakPak.

### Dashboard navigation bar



The navigation bar on the top of the Dashboard screen has four options:

- **Status:** Shows the Dashboard and event logs of the AP. The Dashboard is the default page that comes up when you log in to the AP.
- **Network:** User can make changes to the network settings, such as the LAN, wireless settings, and transmit power settings.
- **Management:** View diagnostics, enable SNMP, and control your LEDs.
- **Maintenance:** Modify your personal account settings and update your firmware.

### BakPak Lite

BakPak Lite is designed to provide remote cloud monitoring and configuration to the AP. Using BakPak, you can remotely monitor and configure your customer's AP without requiring a truck roll or a VPN session to the customer's network. In just a few clicks, register your AP with your new or existing BakPak account. Registration is a two-step process where you register the Management Agent in BakPak, and then you link the management agent to an existing site or create a new site.

### BakPak Lite

The AP's Dashboard provides a BakPak tile to make it easy to quickly set up your BakPak account and register your device. There are two ways you can register the AP with BakPak Lite:

- When using automatic registration and the BakPak tile is clicked, you will be automatically redirected to [mybakpak.com](http://mybakpak.com) and will need to log in with your BakPak credentials or create an admin account. Once logged in, the serial number and MAC address will be automatically populated on your BakPak account.

After the AP has been registered, you can access it from anywhere in the world by using the BakPak app or the web interface at [mybakpak.com](http://mybakpak.com).

#### To log in and view a site using the web interface:

1. From the Dashboard, click the **BakPak** tile. The BakPak web login page appears.
2. Log in to BakPak.

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3. Under *Sites*, click **Manage**. A list of BakPak Lite sites opens.
4. Click the site you want to access, then click the BakPak Lite device that you want to manage. The site's management window expands, providing the following information:
  - **Device information**—Identifies all information about the device, including the serial number and firmware version, and has ability to reboot the wireless router remotely.
  - **SSID configuration**—Configure/edit wireless information for the primary SSID and guest networks.
  - **Firmware**—Applies firmware updates to the device.
  - **Events**—Displays network analytics, including a log of user events, for network troubleshooting.

### Granting user access to BakPak Lite sites

To grant a user access to this BakPak Lite site, you must create a group with permissions to access this AP, then assign the user to that group. For more information, see the *BakPak User Guide*.

#### To grant a user access to this BakPak Lite site:

1. In BakPak, click **Users**, then **Groups and Permissions**.
2. If you haven't already, create a group with access to the device:
  - a. Click **Add Group** to create a group.
  - b. Click the user's name in the *USERS AVAILABLE* list to move it to the *USERS SELECTED* list.
  - c. Click the device's name in the *MANAGEMENT AGENTS AVAILABLE* list to move it to the *MANAGEMENT AGENTS SELECTED* list.
  - d. Enter a group name, then click **Create**. The device is added to the group. The specified users can now receive alerts in the form of texts, email, or push notifications.



# Reset to factory default settings

While setting up or troubleshooting, you may need to reboot the AP or restore it to its factory default settings.

**Caution:** Do *not* power off the AP during a factory reset.

## Reset using the interface

**To only reboot the AP, maintaining all settings:**

1. Hover over the **Maintenance** menu, click **Reboot**, then click **Reboot** again.

**To reset to factory default settings, deleting all user settings:**

**Caution:** Performing this reset will delete all of your settings on the AP.

1. Hover over the **Maintenance** menu, then click **Configuration**.
2. Click **Factory Default**, then click **Yes**.

## Reset using the physical RESET button

Your AP has a recessed RESET button accessible through a pinhole next to the Kensington lock slot on the side of the AP.



**To only reboot the AP, maintaining all settings:**

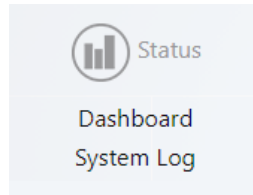
1. Insert a narrow, pointed object (such as a straightened paper clip) into the hole.
2. Press and release the button.

**To reset to factory default settings, deleting all user settings:**

**Caution:** Performing this reset will delete all of your settings on the AP.

1. Insert a narrow, pointed object (such as a straightened paper clip) into the hole.
2. Press and hold the button for at least ten seconds, then release it.

# Status menu

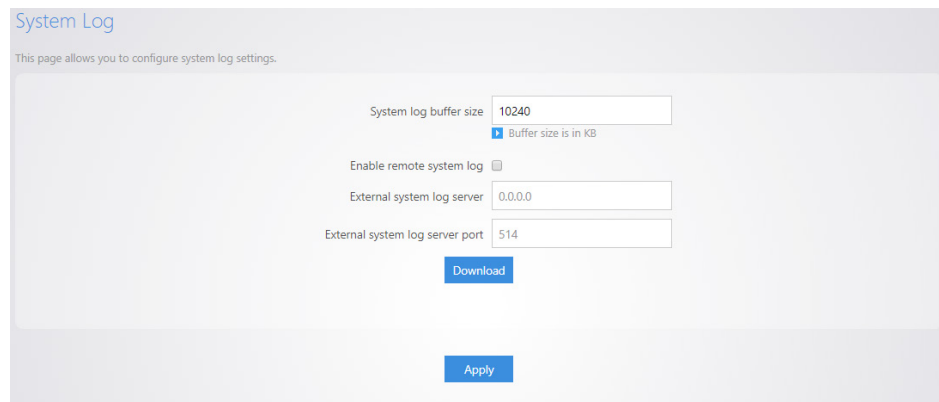


## System log

The *System Log* is an activity log that can be used by Pakedge Technical Support for troubleshooting.

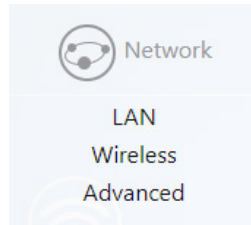
### To view the system log:

1. Go to **Status > System Log**.

A screenshot of the 'System Log' configuration page. The page has a light gray header with the title 'System Log' and a subtitle 'This page allows you to configure system log settings.' Below the header, there are four configuration fields: 'System log buffer size' with a value of '10240' and a note 'Buffer size is in KB'; 'Enable remote system log' with an unchecked checkbox; 'External system log server' with a value of '0.0.0.0'; and 'External system log server port' with a value of '514'. At the bottom of the form area is a blue 'Download' button. Below the form area, centered at the bottom of the page, is a blue 'Apply' button.

2. Change the settings as needed:
  - **System log buffer size:** Maximum value of the buffer is 10240 KB (10 MB), which is also the default.
  - **External system log server:** An external server may be set up to receive log activity. Enter the IP address of the external server.
  - **External system log port:** A port number for the external server may be entered here.
  - **Download:** Download the encrypted log.

## Network



## LAN

This page allows you to edit the AP's LAN settings. To configure the AP's IP address, you can configure it with a static IP address or obtain an IP address automatically by using a DHCP client.

 A screenshot of the LAN configuration page. The page has a light gray background. At the top left, the word "LAN" is written in blue. Below it is a white box containing the "IP Network Setting" section. This section has a dropdown menu for "IP Network Setting" set to "Static address". Below this are four input fields: "IP Address" (192.168.1.250), "Subnet Mask" (255.255.255.0), "Gateway" (192.168.1.99), and "Use custom DNS servers" (192.168.1.99). Below the white box is a section titled "Management VLAN" in blue. This section has an "Enable" checkbox (unchecked) and a "VLAN ID" input field (2-4095). At the bottom center is a blue "Apply" button.

### To open the LAN menu:

1. Go to **Network > LAN**.
2. **Change settings, as needed:**
  - **LAN**
    - **IP Network Setting:** Static addresses require an **IP Address**, **Subnet Mask**, and **Default Gateway**. *Static address* is the recommended setting. However, you may select **DHCP client** if your network has a router.
  - **Spanning Tree Protocol (STP) Settings:** STP prevents bridge loops. By default, this feature is enabled.

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- **Management VLAN**

- **Warning:** Do not enable this feature unless you need to tag the default VLAN on the AP. If configured incorrectly, the AP will become inaccessible and will need to be reset to factory default. VLAN tagging can only be set on a managed switch capable of using VLANs.
- **VLAN ID for Management:** To turn on VLAN Management, check **Enable** under *Management VLAN*.
- In the **VLAN ID** text box, enter the number of the VLAN you want to access the AP's administrative functions through. For example, if VLAN3 is used for management, enter **3**.

3. To save your changes, click **Apply**.

## Wireless

### Radio

This page allows you to change settings for your WiFi radio.

**To open the Radio menu:**

1. Go to Network > Wireless > Radio.

Wireless

Radio Security Profiles Configuration Guest Network

Country Code **US** (locked)

Band Steering ☐

	2.4GHz	5GHz
Operation Mode	Access Point	WDS Root Access Point
Wireless Mode	G/N-Mixed	A/N/AC-Mixed
Channel Mode	HT 20 MHz	VHT 80 MHz
Channel	Auto	36

AP Detection

2. Change settings, as needed:

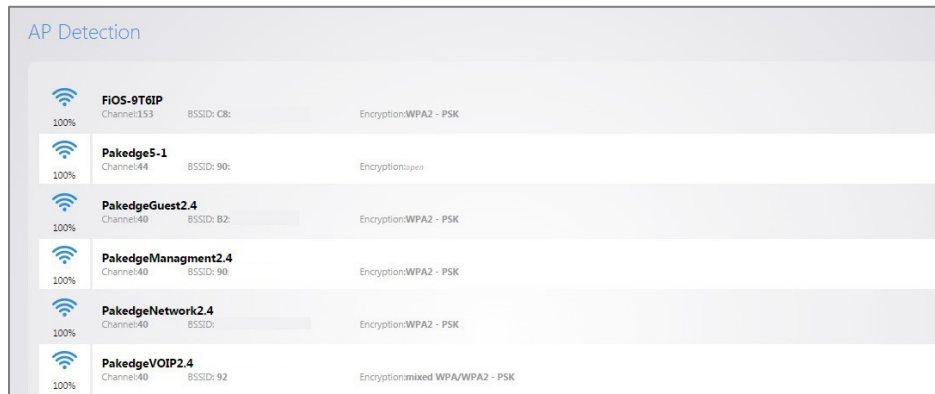
- **Country Code:** Selecting your country is required for proper functionality of this device and may be required by law. After selecting your country and clicking **Apply**, the Country Code is locked. To regain access to Country Code, the AP must be reset to factory defaults.
- **Band Steering:** Band steering steers 5 GHz-capable clients to that frequency. By enabling this function, the 2.4 GHz SSID and settings will be copied to the 5 GHz band.

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- **Operation Mode:** Both the 2.4 and the 5 GHz bands have the following operating modes: Access Point, WDS Root Access Point, WDS Repeater, and WDS Bridge.
  - **Access Point:** Standard mode of operation. Allows a wireless connection to the LAN.
  - **WDS Root Access Point:** The AP with this mode set will be the “root” device that APs configured with WDS Repeater and WDS Bridge will connect to.
  - **WDS Repeater:** This mode allows the AP to connect to a WDS Root Access Point. This setting will take the SSID broadcasted by the WDS Root Access Point and rebroadcast it to end-user devices.
  - **WDS Bridge:** This mode allows the AP to connect to a WDS Root Access Point. This mode takes in the SSID broadcasted by the WDS Root Access Point and turns it into Ethernet connectivity for client devices.
- **Wireless Mode:** Choose the setting that corresponds to the type of wireless clients connected to your network: B-Only, G-Only, B/G-Mixed, N/G-Mixed, or B/G/N-Mixed (on the 2.4 GHz band) or A-Only, N-Only, N/A-Mixed, AC-Only, AC/N-Mixed, or A/AC/N-Mixed (on the 5 GHz band). If you aren't sure which type of clients will access the wireless networks, we recommend you keep the default settings.
- **Channel Mode:** By default, the **Channel Mode** is set to HT 20 MHz (when using 2.4 GHz) and HT 80 MHz (when using 5 GHz). Selecting 40 MHz on the 2.4 GHz band is possible, but not recommended, because it will also increase the risk of impacting wireless performance. We recommend keeping the 2.4 GHz radio set to 20 MHz and using only channel 1, 6, or 11, because they are the only three non-overlapping channels
- **Channel:** Using the default setting (**Auto**), the AP automatically selects the channel with best performance for the wireless network. To select a channel manually, click the drop-down list and select a channel. The channel options available depend on the Country Code selected.

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- **AP Detection:** Click “Scan” to perform an automatic site survey. A new window opens and displays the site survey utility. The AP will scan the frequency for devices currently broadcasting their SSID and will then display them in a table.



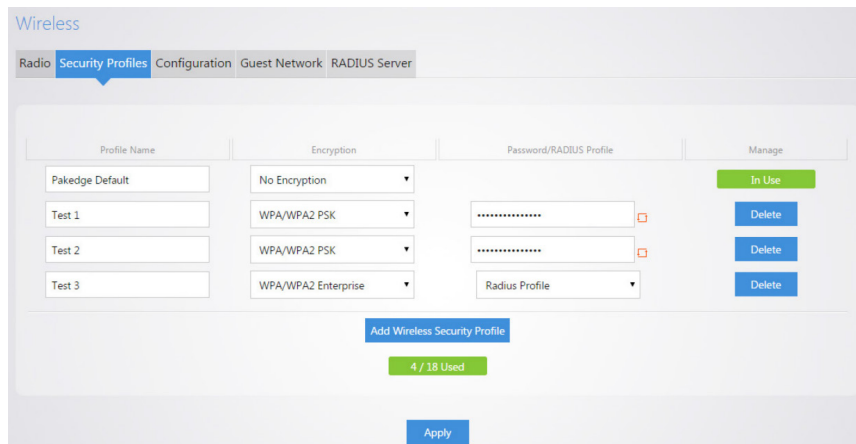
AP Detection			
100%	<b>FIOS-9T6IP</b> Channel: 153	BSSID: C8:	Encryption: WPA2 - PSK
100%	<b>Pakedge5-1</b> Channel: 44	BSSID: 90:	Encryption: WPA2 - PSK
100%	<b>PakedgeGuest2.4</b> Channel: 40	BSSID: B2:	Encryption: WPA2 - PSK
100%	<b>PakedgeManagement2.4</b> Channel: 40	BSSID: 90:	Encryption: WPA2 - PSK
100%	<b>PakedgeNetwork2.4</b> Channel: 40	BSSID:	Encryption: WPA2 - PSK
100%	<b>PakedgeVOIP2.4</b> Channel: 40	BSSID: 92:	Encryption: mixed WPA/WPA2 - PSK

## Security profiles

Here you can configure security profiles that can be used when creating SSIDs under the *Configuration* tab.

To open the Security Profiles menu:

1. Go to **Network > Wireless**, then click the **Security Profiles** tab.



The Wireless Security Profiles configuration window shows a table with columns: Profile Name, Encryption, Password/RADIUS Profile, and Manage. The 'Pakedge Default' profile is marked 'In Use'. Other profiles 'Test 1', 'Test 2', and 'Test 3' have encryption types 'WPA/WPA2 PSK', 'WPA/WPA2 PSK', and 'WPA/WPA2 Enterprise' respectively. Each has a 'Delete' button. At the bottom, there is an 'Add Wireless Security Profile' button, a status bar showing '4 / 18 Used', and an 'Apply' button.

Profile Name	Encryption	Password/RADIUS Profile	Manage
Pakedge Default	No Encryption		In Use
Test 1	WPA/WPA2 PSK	*****	Delete
Test 2	WPA/WPA2 PSK	*****	Delete
Test 3	WPA/WPA2 Enterprise	Radius Profile	Delete

Add Wireless Security Profile

4 / 18 Used

Apply

**Note:** The *RADIUS Server* tab is available only on WX Series APs.

2. Change settings, as needed:
  - **Profile Name:** Create a name for the security profile.
  - **Encryption:** Select an encryption type for the profile. The four available options are:
    - **No Encryption:** This will leave your profile without security (*not* recommended).

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- **WPA PSK:** Password must be at least 8 characters long. This is a legacy encryption protocol (not recommended).
- **WPA2 PSK (recommended):** Password must be at least 8 characters long. AES-only encryption.
- **WPA/WPA2 PSK:** Password must be at least 8 characters long. This feature is also known as Mixed Mode and uses TKIP encryption.
- **WPA Enterprise/WPA2 Enterprise/WPA/WPA2 Enterprise (WX Series only):** This mode is also known as *802.1x authentication*. You will need to add a RADIUS profile in the RADIUS Server tab to enable this. For instructions, see “RADIUS Server (WX-1 Series only)” on page 16.

**Note:** Passwords may contain only numbers and letters. Special characters (!@#\$%&\*^;) are not allowed.

## Configuration

The AP can set up to 8 SSIDs per band, for a total of 16 SSIDs.

**To open the Configuration menu:**

1. Go to Network > Wireless, then click the Configuration tab.

The screenshot displays the 'Wireless' configuration interface. At the top, there are tabs for 'Radio', 'Security Profiles', 'Configuration' (which is selected), and 'Guest Network'. Below the tabs, there are two main sections for 2.4 GHz and 5 GHz bands. Each section has a header with 'On Off', 'Wireless Name (SSID)', 'Security Profile', 'Hide SSID', 'Client Isolation', 'Package Zone (VLAN)', and 'Manage'. The 2.4 GHz section shows 'Pakedge24-1' as the SSID, 'Pakedge Default' as the security profile, and 'WPA/WPA2 PSK' as the security mode. The 5 GHz section shows 'Pakedge5-1' as the SSID, 'Pakedge Default' as the security profile, and 'WPA/WPA2 PSK' as the security mode. Both sections have a '1 / 8 Used' indicator. At the bottom, there is an 'Apply' button.

2. Change settings, as needed:
  - **Profile Name:** Create a name for the security profile.
  - **On Off:** The SSID may be turned on or turned off using this checkbox.
  - **Wireless Name (SSID):** The SSID is the name associated with the WiFi network. An SSID cannot exceed 32 characters.

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- **Security Profile:** The profiles created under the *Security Profiles* tab may be applied to the SSID here.
  - **Hide SSID:** Enabling this feature prevents the SSID name from being broadcast. The SSID will still be available for client access, provided the SSID is turned on. This is not a security feature.
  - **Client Isolation:** Also referred to as “station separation.” This prevents clients on the same SSID from being able to access other clients on the network.
  - **VLAN:** This option defines the VLAN that on which the SSID will reside. To change the VLAN, select the grey circle with the number 1 inside it, then click the VLAN you want.
  - **Manage:** This column displays the management settings that were configured under Management VLAN. Management VLAN is located on the LAN page under *Network*.
3. Click **Apply** to save changes.

### Guest network

A guest network is designed for networks that do not have a guest VLAN. The guest network acts as its own network and has access to only the internet. Each AP's guest network is independent from the guest networks of other APs.

By default, the guest network name is *Pakedge-Guest* and the IP scheme is set to *192.168.200.X*. You have the option to change the default settings, the SSID, IP address, subnet, starting IP address, and ending IP address.

#### To enable the guest network:

1. Select the **On/Off** checkbox.



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The screenshot shows the 'Wireless' configuration page with the 'Guest Network' tab selected. It contains three main sections: SSID, Manual IP Settings, and Automatic DHCP Server Settings. The SSID section has radio buttons for 2.4GHz and 5GHz, checkboxes for On/Off, text boxes for Wireless Name (SSID), and dropdown menus for Security Profile. The Manual IP Settings section has text boxes for IP Address and Subnet Mask. The Automatic DHCP Server Settings section has text boxes for Starting IP Address, Ending IP Address, and DNS Server IP. An 'Apply' button is at the bottom.

Radio	On/Off	Wireless Name (SSID)	Security Profile
2.4GHz	<input type="checkbox"/>	PakedgeGuest2.4	Pakedge Default No Encryption
5GHz	<input type="checkbox"/>	PakedgeGuest5	Pakedge Default No Encryption

Manual IP Settings

IP Address: 192.168.200.1  
Subnet Mask: 255.255.255.0

Automatic DHCP Server Settings

Starting IP Address: 192.168.200.100  
Ending IP Address: 192.168.200.250  
DNS Server IP: 8.8.8.8

Apply

### 2. Change settings, as needed:

- SSID
  - **Radio:** There is a guest network available on both the 2.4 GHz and 5 GHz band.
  - **On/Off:** This option turns the Guest Network on and off.
  - **Wireless Name (SSID):** The SSID of the Guest Network can be entered in this textbox.
  - **Security Profile:** Select a security profile that has already been defined under the Security Profiles tab.

- Manual IP settings

The screenshot shows the 'Manual IP Settings' section with two text boxes: 'IP Address' with the value '192.168.200.1' and 'Subnet Mask' with a dropdown menu showing '255.255.255.0'.

- **IP Address:** Enter in the IP address the AP will be used on.
  - **Subnet Mask:** Select the class of the guest network. 255.255.255.0 is the standard setting and is selected by default.
- Automatic DHCP Server Settings

The screenshot shows the 'Automatic DHCP Server Settings' section with three text boxes: 'Starting IP Address' with the value '192.168.200.100', 'Ending IP Address' with the value '192.168.200.250', and 'DNS Server IP' with the value '8.8.8.8'.

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- **Starting IP Address:** This is the beginning of the DHCP range used on the guest network. If you have multiple APs, you can give them the same DHCP range because the guest network of each AP will be independent of one another.
  - **Ending IP Address:** This is the last IP address available on the DHCP range.
  - **DNS Server IP:** The DNS Server IP can be set to an external DNS or to the router's IP address if the router provides a DNS server.
3. Click **Apply** to save changes.

### RADIUS Server (WX-1 Series only)

Under the *RADIUS Server* tab, you can configure RADIUS Server profiles that can be used when WPA Enterprise, WPA2 Enterprise, or WPA/WPA2 Enterprise was selected under the *Security Profiles* tab. You can enter up to two RADIUS Server profiles.

#### To open the RADIUS Server menu:

1. Go to **Network > Wireless**, then click the RADIUS Server tab.

The screenshot shows the 'Wireless' configuration page with the 'Radius Server' tab selected. The page contains a table with columns: Profile Name, Role, IP Address, Port, Shared Secret, and Manage. There are two rows: one for 'Radius Profile' with Role 'Authentication Server', IP Address '192.168.1.99', Port '1812', and a masked Shared Secret; and another for 'Accounting Server'. Below the table is an 'Add Radius Profile' button and an 'Apply' button at the bottom.

Profile Name	Role	IP Address	Port	Shared Secret	Manage
Radius Profile	Authentication Server	192.168.1.99	1812	.....	
	Accounting Server				

[Add Radius Profile](#)

[Apply](#)

2. Change settings, as needed:
  - **Profile Name:** Create a name for the RADIUS Server.
  - **Role:** Enter up to three Authentication Servers. If you have Accounting Server (optional), you are able to enter up to three Accounting Servers. The AP will communicate to the next Authentication and Accounting Server if it failed to connect to current ones. For example, if it cannot connect to the first Authentication Server, it will try to connect to a second Authentication Server, and so on.
  - **IP Address:** Enter the IP address of your Authentication Server and Accounting Server.
  - **Ports:** Enter the port number of your Authentication Server and Accounting Server.

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- **Shared Secret:** Enter the shared secret between the AP and the RADIUS Server. Make sure that the two are identical.
- **Manage:** You can delete the Profile by clicking **Delete**.

3. Click **Apply**.

## Advanced

On the *Advanced* page, you can configure transmit power, RTS/CTS threshold, beacon interval, and Fast Secure Roaming.

To open the **Advanced** menu:

1. Go to **Network > Advanced**.

The screenshot shows the 'Advanced' configuration page for a 2.4 GHz network. The settings are as follows:

Setting	Value	Notes
Transmit Power	13 dBm (19 mW)	Drop-down menu
RTS/CTS threshold	2346	Provide a value between 0 and 2347
Beacon interval	100	Provide a value between 50 and 3500
802.11r Fast BSS Transition	Disabled	Drop-down menu
Multicast enhancement	Disabled	Enable this feature to enhance the video/audio quality when streaming the same content to multiple devices over Wi-Fi. Not recommended if you exceed 10 devices. Default is disabled.
Client reject RSSI Threshold	<input type="checkbox"/>	

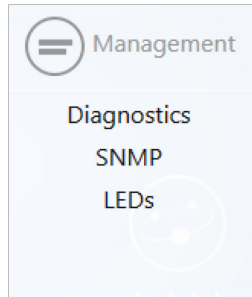
2. Change settings, as needed:

- **Transmit Power:** The power depends on the distance of the devices in your wireless network. From the drop-down list, select the desired power. You can use this feature to limit the coverage area of the wireless network.
  - **Maximum:** This setting broadcasts at the maximum allowed mW for the selected channel.
  - **Automatic:** This setting adjusts the power of the AP based on the distance to the furthest client device. The AP will lower its power if the furthest client is 10 feet away and will raise the power if the furthest client is 100 feet away.
  - **1 dBm (1 mW) – 30 dBm (1000 mW):** These are static power settings. The AP will broadcast at the selected power level.

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- **RTS/CTS Threshold:** Enter the packet size threshold for RTS/CTS (Request to Send/Clear to Send) to occur. The primary reason for using this is to minimize the collision between hidden stations, which occurs when APs and wireless users are spread out in a location and there is a high occurrence of retransmissions on the wireless LAN. Default setting is **2347**.
- **Beacon Interval:** Adjusting Beacon Interval allows clients to sleep longer. Clients must wake up for every beacon, so this setting tells your client how many milliseconds it can sleep for (for example, if beacon interval = 100, your stations are allowed to sleep for up to 100 ms).
- **802.11r Fast BSS Transition:** IEEE 802.11r standard for fast roaming reduces the authentication time when clients roam from one AP to the other. This feature is beneficial for video streaming and voice application.  
**Note:** The roaming behavior depends on clients. To obtain full benefit from fast roaming, wireless clients need to support 802.11r fast roaming standard. It is not recommended to enable both band steering and fast roaming features, which will cause some incompatibility issues.
- **Multicast enhancement:** Enable to enhance the video/audio quality when streaming multicast content to multiple devices over WiFi. When enabled, all the multicast traffic is converted to unicast, which increases the delivery speed to individual devices. This feature is not recommended if the multicast group exceeds 10 devices.
- **Client reject RSSI threshold:** Helps with “sticky” clients that don’t reliably roam to the closest AP. By enabling this feature, the AP continuously monitors the station’s received signal and will de-authenticate the client when the RSSI falls below a user-defined threshold. This setting can be configured independently on 2.4 GHz and 5 GHz radios.

# Management

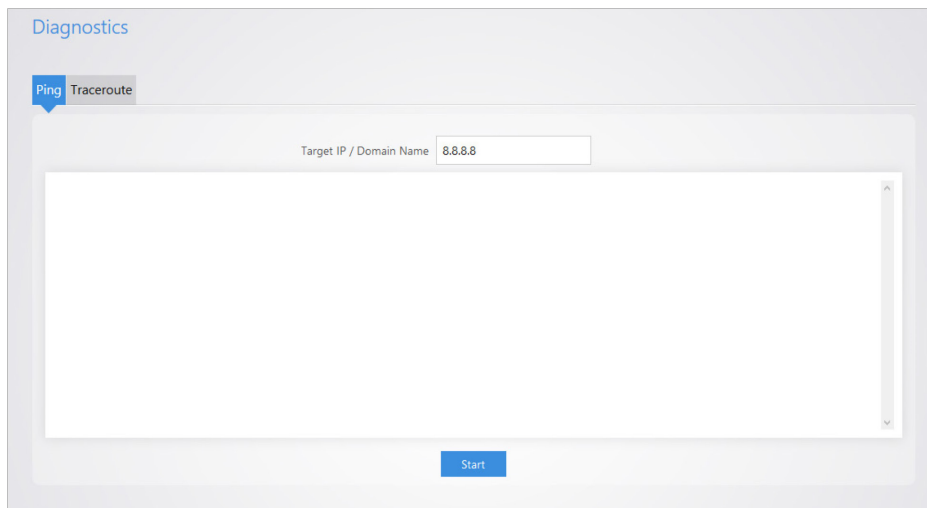


## Diagnostics

### Ping

To ping an IP address or a domain name:

1. Go to **Management** > **Diagnostics**, then click the **Ping** tab (default).



2. Enter the IP address or a domain name to ping. (8.8.8.8, the default IP address, is a Google DNS server.)
3. Click **Start** to start the test.

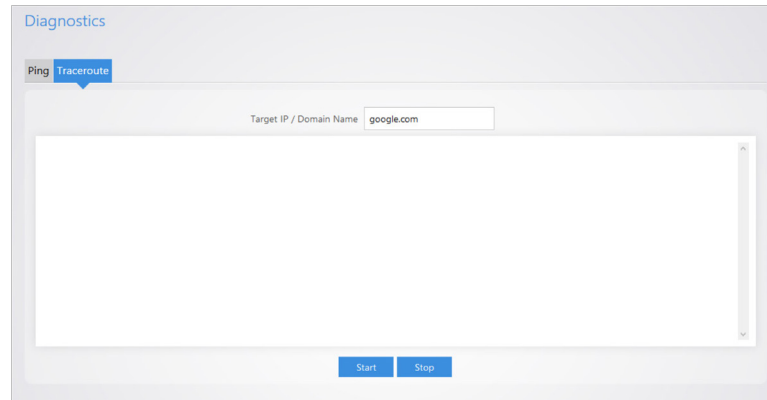
## WK-WX Series User Guide

### Traceroute

A *traceroute* maps the route packets take between this device and the specified destination, along with latency values. It's useful for diagnosing where connection problems are within a network and even across the internet, identifying traffic bottlenecks and obstacles.

#### To run a traceroute:

1. Go to **Management > Diagnostics**, then click the **Traceroute** tab.

The screenshot shows the 'Diagnostics' section of a web interface. There are two tabs: 'Ping' and 'Traceroute', with 'Traceroute' being the active tab. Below the tabs, there is a text input field labeled 'Target IP / Domain Name' containing the text 'google.com'. Below this field is a large, empty rectangular area for the traceroute results. At the bottom right of this area are two buttons: 'Start' and 'Stop'.

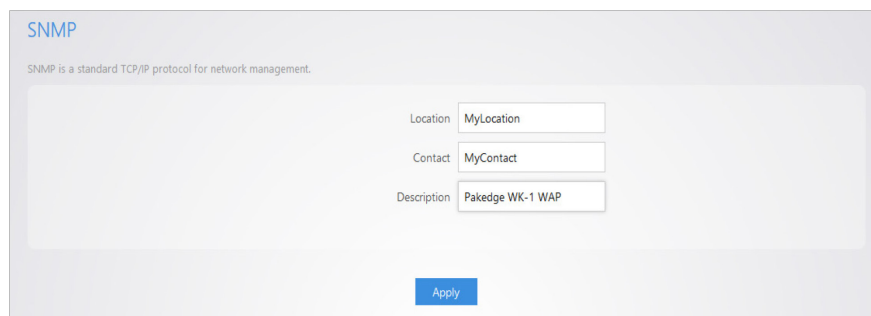
2. Enter the IP address or a domain name to run a traceroute on.

### SNMP

SNMP (simple network management protocol) is a TCP/IP protocol used to manage and monitor network devices.

#### To set SNMP information for this device:

1. Go to **Management > SNMP**.

The screenshot shows the 'SNMP' configuration page. At the top, it says 'SNMP is a standard TCP/IP protocol for network management.' Below this is a large, empty rectangular area for configuration. To the right of this area are three input fields: 'Location' with the value 'MyLocation', 'Contact' with the value 'MyContact', and 'Description' with the value 'Pakedge WK-1 WAP'. Below these fields is an 'Apply' button.

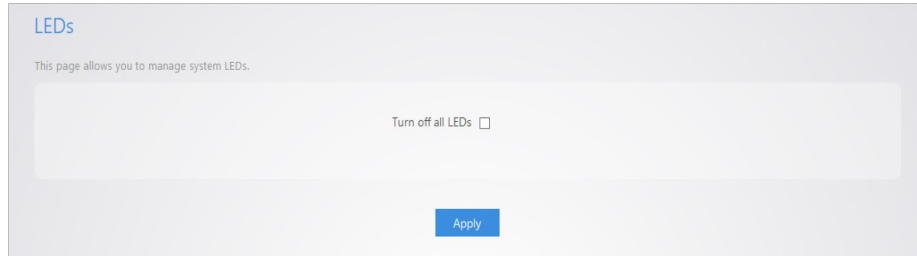
2. Change settings, as needed:
  - **Location:** Enter the physical location of the AP as a reference.
  - **Contact:** Enter the contact information of the installer or network administrator for the SNMP manager.
  - **Description:** Enter in a description of the device. The default description is *Pakedge WK-x AP*.

### LEDs

You can turn off your AP's LEDs.

**To turn off your AP's LEDs:**

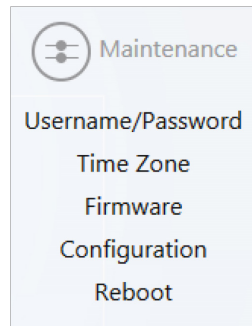
1. Go to **Management > LEDs**.



The screenshot shows the 'LEDs' page in the management interface. At the top, it says 'LEDs' in blue. Below that, a subtitle reads 'This page allows you to manage system LEDs.' In the center, there is a checkbox labeled 'Turn off all LEDs'. At the bottom right, there is a blue 'Apply' button.

2. Select **Turn off all LEDs**, then click **Apply**.

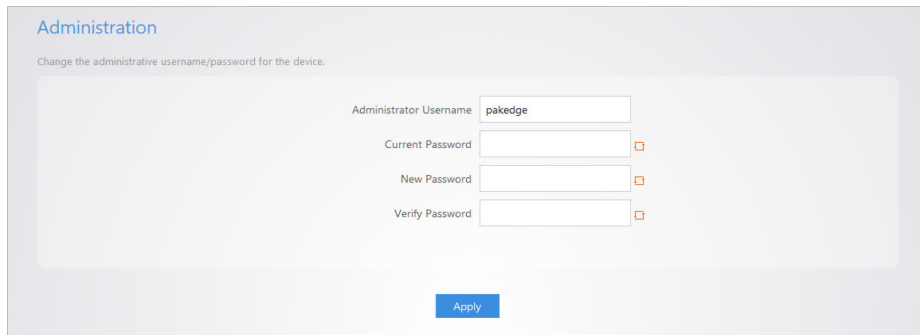
### Maintenance



### Username/Password

**To change your admin username and password:**

1. Go to **Maintenance > Username/Password**.



The screenshot shows the 'Administration' page for changing the administrative username/password. It has a subtitle 'Change the administrative username/password for the device.' Below this, there are four input fields: 'Administrator Username' (with 'pakedge' entered), 'Current Password', 'New Password', and 'Verify Password'. Each password field has a small red square icon to its right. At the bottom right, there is a blue 'Apply' button.

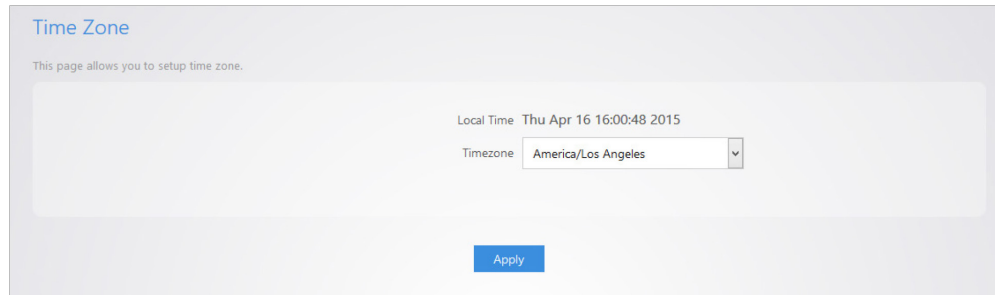
2. Change your username, if desired.
3. Enter your old and new passwords, then click **Apply**.

### System

You can set your AP's time zone and location description.

**To set your AP's time zone and location description:**

1. Go to **Maintenance > System**.

The screenshot shows the 'Time Zone' configuration page. At the top, it says 'Time Zone' and 'This page allows you to setup time zone.' Below this, there is a 'Local Time' field showing 'Thu Apr 16 16:00:48 2015' and a 'Timezone' dropdown menu currently set to 'America/Los Angeles'. At the bottom, there is a blue 'Apply' button.

2. Select your device's time zone.
3. Enter your device's location description.

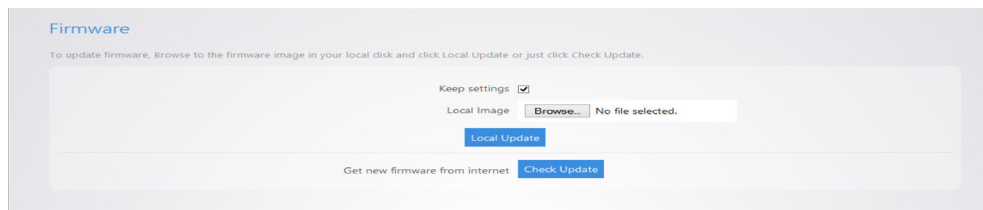
### Firmware

The *Firmware* menu allows you to update the AP firmware.

**Caution:** Do *not* power off the AP during the firmware update.

**To update your AP's firmware:**

1. Go to **Maintenance > Firmware**.

The screenshot shows the 'Firmware' configuration page. It starts with the instruction 'To update firmware, Browse to the firmware image in your local disk and click Local Update or just click Check Update.' Below this, there is a 'Keep settings' checkbox which is checked. Under 'Local Image', there is a 'Browse...' button and the text 'No file selected.' Below that is a blue 'Local Update' button. At the bottom, there is a link 'Get new firmware from internet' and a blue 'Check Update' button.

2. Select **Keep settings** to preserve the AP's settings after firmware update (recommended).
3. To update the firmware from the cloud (the easiest way), make sure the network is connected to the internet, then click **Check Update** next to *Get new firmware from the internet*.
4. To update the firmware from a downloaded file:
  - a. Click **Choose File** next to *Local Image*, then select the firmware update file and click **Open**.
  - b. Click **Local Update**. The firmware updates.

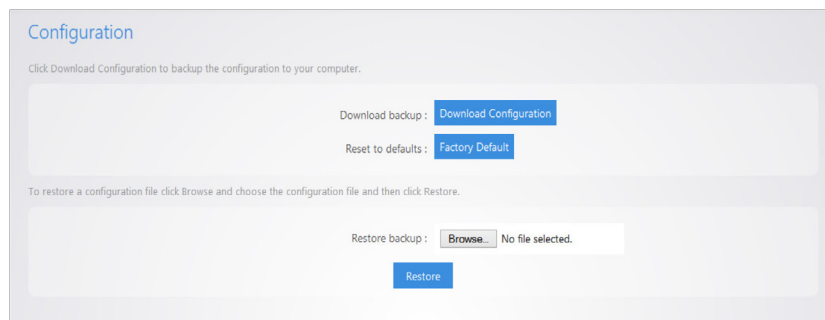


# Configuration

The *Configuration* menu allows you to back up your AP's configuration or restore it to factory default settings.

### To back up and restore your AP's configuration:

3. Go to **Maintenance > Configuration**.



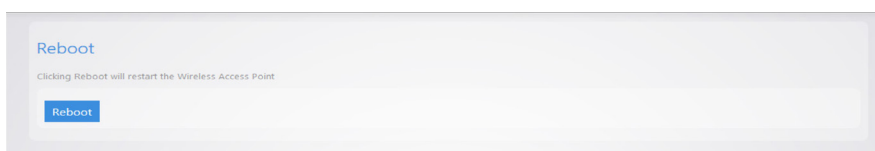
4. To back up your configuration, click **Download Configuration**, then select the location on your drive to store it.
5. To restore a backed-up configuration, click **Choose File**, locate the backup file (with a *.cfg* file type), then click **Restore**.
6. To restore factory default settings, click **Factory Default**, then click **Yes**.

# Reboot

You can reboot your AP using this menu instead of physically rebooting the AP.

### To remotely reboot your AP:

1. Go to **Maintenance > Reboot**.



2. Click **Reboot**. Your AP should come back online after a couple of minutes.



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