



# ZAC

ZyXEL AP Configurator

Version 1.00  
Edition 1, 6/2014

## User's Guide

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**IMPORTANT!**

**READ CAREFULLY BEFORE USE.**

**KEEP THIS GUIDE FOR FUTURE REFERENCE.**

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# Quick Start

## 1.1 Overview

Traditionally, Access Points (APs) are managed through a web interface. Managing multiple access points is a daunting task if each AP is only accessible through its own interface. ZyXEL AP Configurator simplifies the AP management aspect by centralizing access and configuration in one easy to use Windows based application.

This manual is structured into three sections:

- Chapter 2--a step-by-step installation guide.
- Chapter 3--lists application features and their use.
- Appendix section--lists common error messages and possible related solutions.

Note: For the latest list of supported devices see the ZAC product page on the ZyXEL website: <http://www.zyxel.com>.

## 1.2 Commonly Used Terms

The following is a short list of terminology used throughout the manual.

**Table 1** Term and abbreviation

ABBREVIATION	DESCRIPTION
ZAC	ZyXEL AP Configurator
AP	Access point
APs	Many access points

## Installation Guide

This section provides a step-by-step guide to installing ZAC. Before proceeding with the following instructions, first download the installation software. The software is available through the following website: <http://www.zyxel.com>.

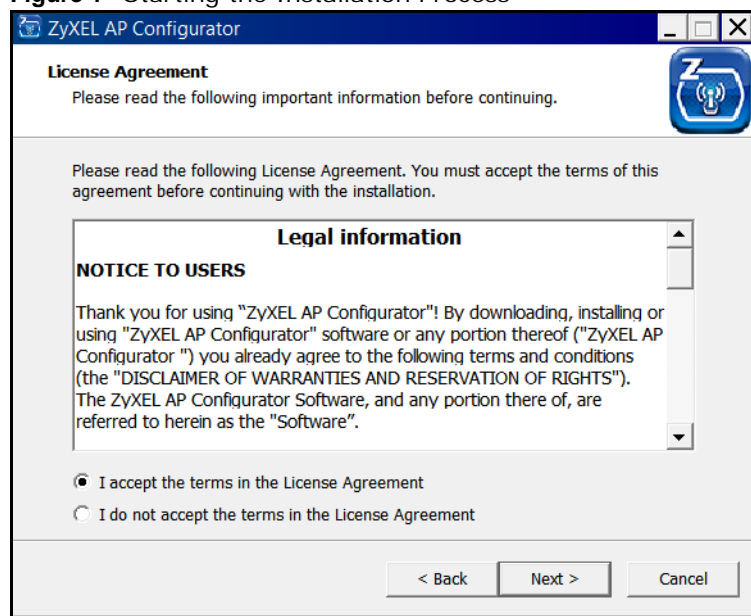
Once the software is downloaded, you can continue with the installation instructions.

### 2.1 Installation Instructions

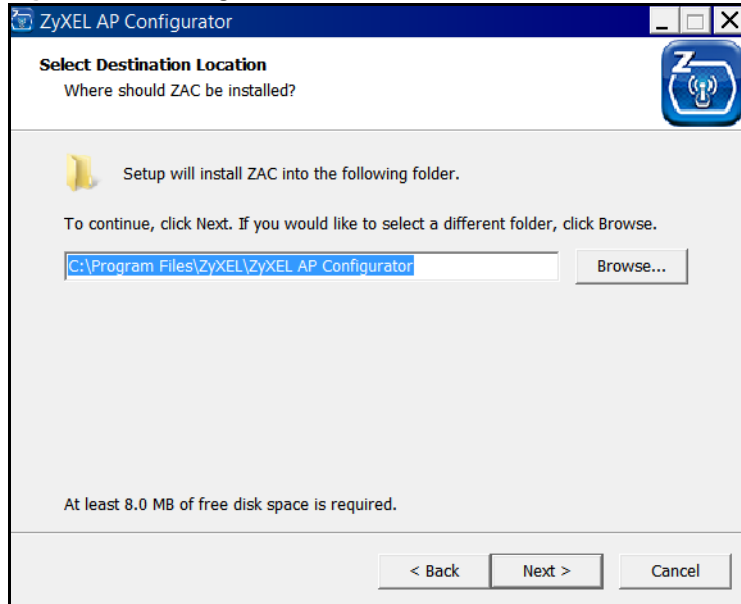
To install the software:

- 1 Double click on the installer. The **Welcome Window** displays.
- 2 Click **Next**. You are asked to read the **License Agreement**.

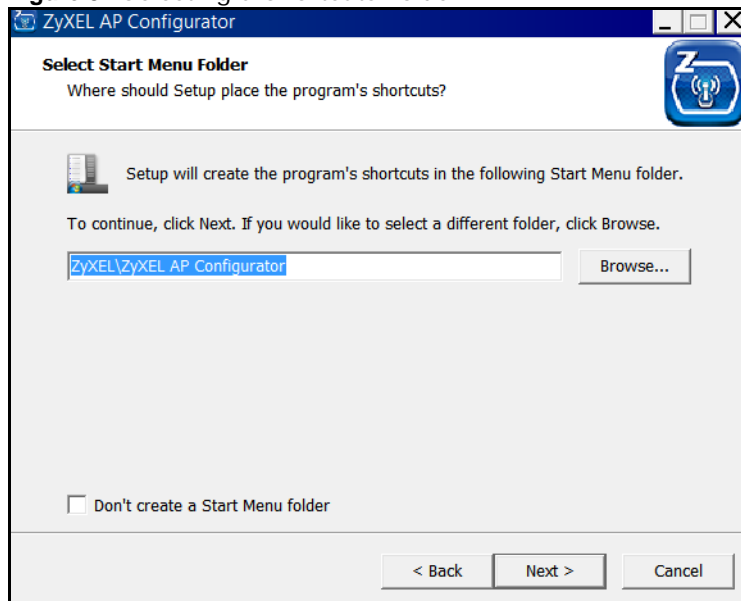
**Figure 1** Starting the Installation Process



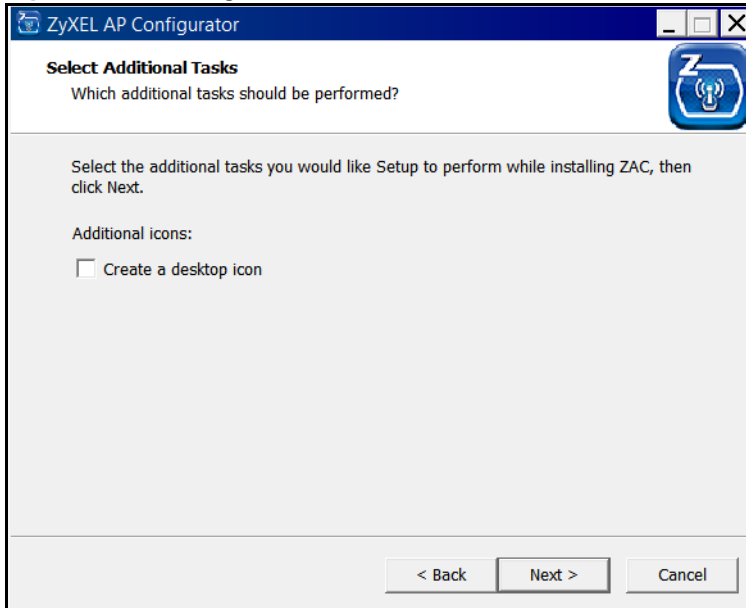
- 3 Check **I accept the terms in the License Agreement** and click **Next** to continue with the installation. Otherwise, click **I do not accept the terms in the License Agreement** and click **Cancel** to cancel the process.
- 4 The **Select Destination Locations** window displays. Click **Browse** to choose the installation folder. You can select the target installation folder for the ZAC software.
- 5 Click **Next** to continue the process.

**Figure 2** Selecting a Destination Folder

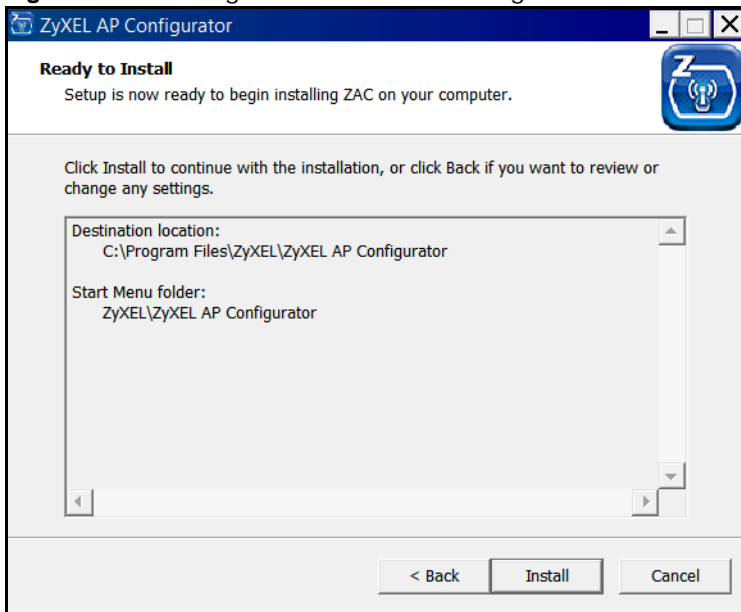
- 6 The **Select Start Menu Folder** window displays. Click **Browse** to choose the installation folder. You can select the target folder to install the ZAC shortcuts. Or, check **Don't create a Start Menu folder** to skip the shortcut installation process.
- 7 Click **Next** to continue the process.

**Figure 3** Selecting a Shortcuts Folder

- 8 The **Select Additional Tasks** window displays. Check **Create a desktop icon** to create a desktop shortcut.
- 9 Click **Next** to continue the process.

**Figure 4** Selecting Additional Tasks

- 10 The **Ready to Install** window displays. Review the installation paths as well as the shortcut creation options before continuing.
- 11 Click **Install** to begin installation or **Back** to return to the previous window.

**Figure 5** Reviewing the Installation Settings

- 12 After the installation process is complete, the **Setup Wizard** window displays.
- 13 Check **Launch ZAC** to launch the software after completion.
- 14 Click **Finish** to exit setup.

During installation, the installer also installs the .NET Framework 4.0 if your operating system does not currently have the framework installed.

## 3.1 Discovering APs

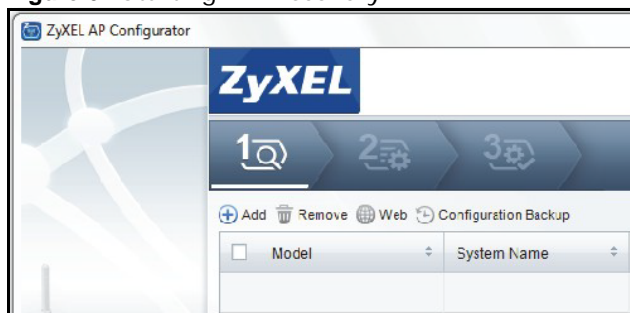
ZAC can scan an IPv4 range for supported APs. This feature runs immediately after ZAC starts.

Also, you can manually start the process.

To discover an AP:

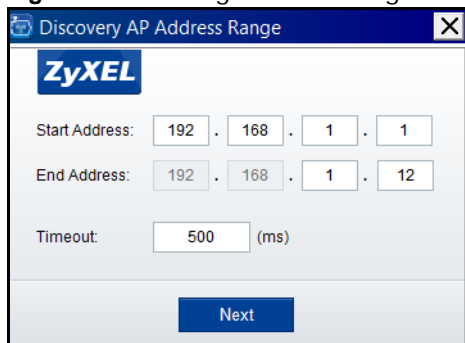
- 1 Click **Add** from the AP List tab.

**Figure 6** Starting AP Discovery



- 2 Specify an IPv4 range and the time out period in the IP Input dialog.

**Figure 7** Selecting an IPv4 Range



- 3 Click **Next**. The scanning process starts. Any discovered APs are listed.

## 3.2 Registering APs

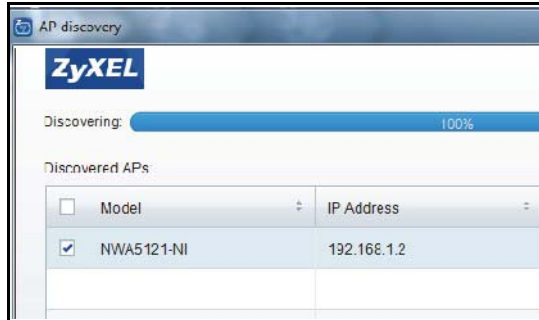
Before APs can be managed, they must first be registered through ZAC.



To register the APs:

- 1 Scan for the AP(s), refer to [Section 3.1 on page 8](#).
- 2 In the **Discovered APs** window, check a discovered AP to select it.

**Figure 8** Registering an AP



- 3 Click **Next** to register the selected AP(s).

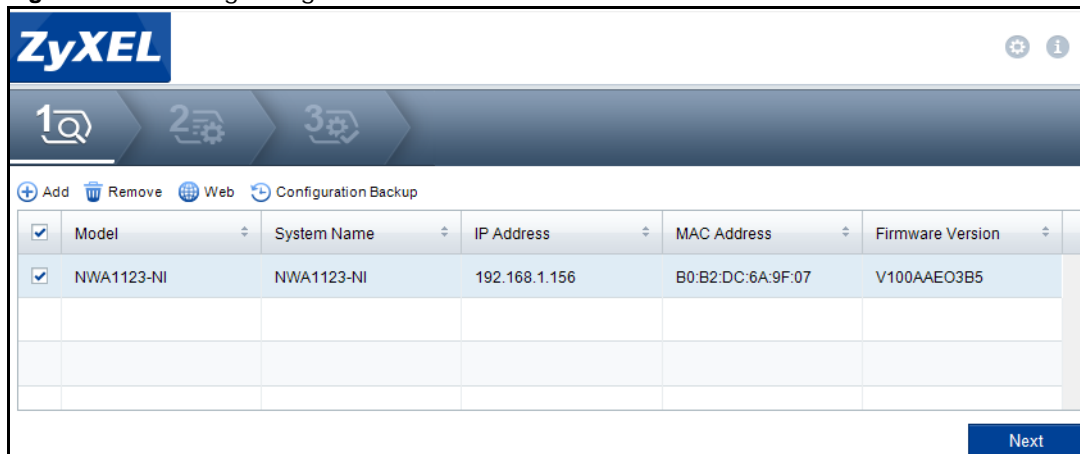
### 3.3 Removing a Registered AP

Registered APs can be removed or unregistered. ZAC is only able to manage a predefined number of APs. Creating seating for current APs is maintained by unregistering existing entries.

To remove a registered AP:

- 1 In the **AP List** tab, check a target AP(s) to remove.
- 2 Click **Remove**. A dialog appears to confirm the process.

**Figure 9** Removing a Registered AP



- 3 Click **OK** to remove all selected APs or **Cancel** to cancel the process.

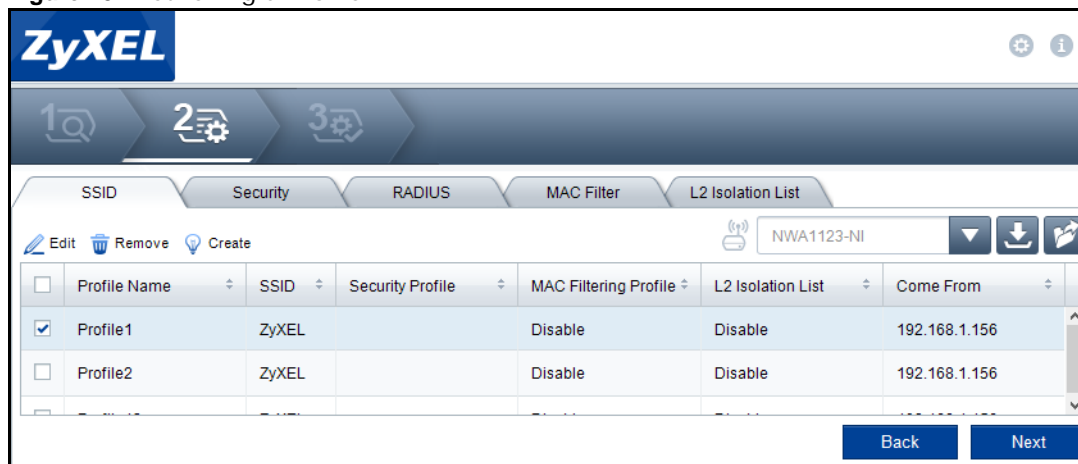
## 3.4 Retrieving Profiles from Registered APs

You can retrieve established profiles from the registered APs list to modify the profiles without affecting the APs. The retrieved profiles can also be saved locally for later use.

To retrieve a profile:

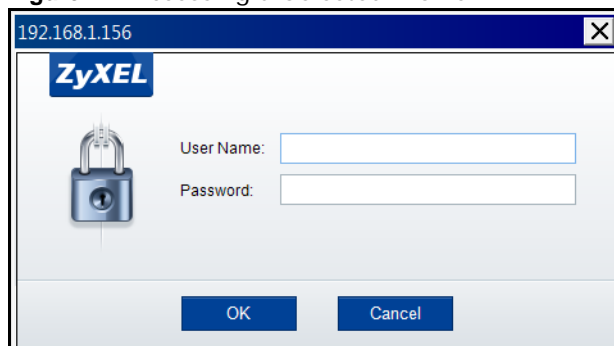
- 1 In the **AP List** tab, select an AP(s) and click **Next** to continue.

**Figure 10** Retrieving a Profile



- 2 Enter the user name and password to access the FTP servers running on the APs. Different APs may require a different user name and password. Several user names and passwords may be required if multiple APs are selected.

**Figure 11** Accessing a Selected Profile



Retrieving the profiles may take more than 10 seconds per AP. After every profile has been successfully retrieved, ZAC automatically displays the related Profile tab.

**Figure 12** Listing of Retrieved Profiles

<input type="checkbox"/>	Profile Name	SSID	Security Profile	MAC Filtering Profile	L2 Isolation List	Come From
<input type="checkbox"/>	Profile1	ZyXEL		Disable	Disable	192.168.1.156
<input type="checkbox"/>	Profile2	ZyXEL		Disable	Disable	192.168.1.156
<input type="checkbox"/>	Profile3	ZyXEL		Disable	Disable	192.168.1.156
<input type="checkbox"/>	Profile4	ZyXEL		Disable	Disable	192.168.1.156

## 3.5 Backing Up AP Configuration File

An AP configuration file stores all AP configuration information. You can upload this file to the AP to configure it instead of changing the settings through the interface.

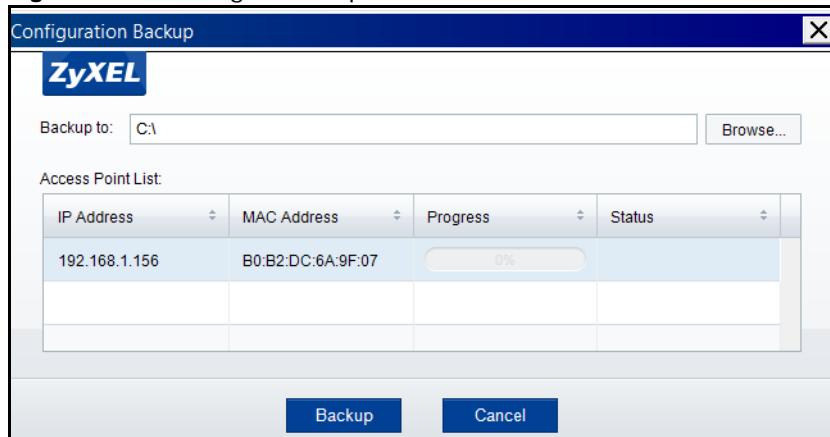
To retrieve the current configuration file:

- 1 In the **AP List** tab, select the target AP(s).
- 2 Click **Configuration Backup**.

**Figure 13** Backing Up a Configuration

<input checked="" type="checkbox"/>	Model	System Name	IP Address	MAC Address	Firmware Version
<input checked="" type="checkbox"/>	NWA1123-NI	NWA1123-NI	192.168.1.156	B0:B2:DC:6A:9F:07	V100AAE03B5

- 3 In the pop up window, click **Browse** to select the folder to save the configuration files.
- 4 Click **Backup** to save the configuration files to the selected folder.

**Figure 14** Selecting a Backup Folder

## 3.6 Creating Profiles

This feature is only available when you are able to select an AP model in the model combo box. There are five different types of profiles, however, the steps required to create a profile are the same between the different types.

To create a profile type:

- 1 In the **Profile** tab, select the type of profile to create.

**Figure 15** Selecting a Profile Type

- 2 In the model combo box, select an AP model.

**Figure 16** Selecting an AP Model

- 3 Click **Create**. Enter the required information for the profile in the popup window.
- 4 Click **OK** when you are done. A new profile with the information you entered is created.

Please note that the profiles you created following the steps above are discarded after closing ZAC. See [Section 3.9 on page 13](#) for information on exporting profiles.

## 3.7 Editing Profiles

You can edit any profile listed in the Profile tab.

To edit a profile:

- 1 In the **Profile** tab, select the type of the profile you want to edit.
- 2 Select an AP model in the model combo box.

**Figure 17** Selecting a Profile to Edit



- 3 Select a profile from the available list.
- 4 Click **Edit**. A dialog window displays the details of the selected profile.
- 5 Modify the relevant attributes and click **OK**. The selected profile is updated with the latest modifications.

## 3.8 Removing Profiles

You may want to remove some profiles in the Profile tab to clear things up. Here is how to do that:

- 1 In the **Profile** tab, select the type of the profile you to remove.
- 2 Select an AP model in the model combo box.

**Figure 18** Selecting a Profile to Remove



- 3 Select the profiles to remove. You can select more than one profile.
- 4 Click **Remove**. A popup window displays to confirm the selection.
- 5 Click **OK** and the selected profiles are removed.

To save a profile before removing it refer to [Section 3.9 on page 13](#) for further information.

## 3.9 Saving Profiles onto Local Storage

When ZAC is closed, the profiles in the Profile tab are discarded unless you save the profiles before closing ZAC. You will be prompted if ZAC is closed with some unsaved profiles. You can also save the profiles on demand following these steps:

- 1 In the **Profile** tab, click **Save Profiles List** .

**Figure 19** Selecting Save Profiles List



- 2 In the **Save As** dialog, choose the folder to save the profiles.
- 3 Enter a name for the selected file and click **Save**.

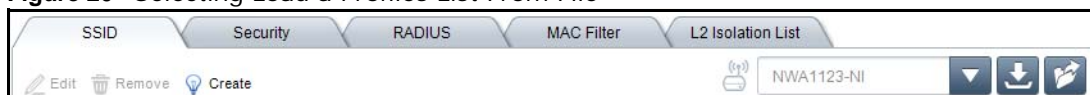
All profiles in the Profile tab are saved to the specified folder in a single save file. The save file contains a .zac suffix. This save file may be loaded into ZAC in the future. [Section 3.10 on page 14](#) gives more information about loading a save file.

## 3.10 Loading Profiles from Local Storage

ZAC saves profiles in the Profile tab as a single ".zac" file ([Section 3.9 on page 13](#)). You can load this file into ZAC to get back the profiles:

- 1 In the **Profile** tab, click **Load Profiles List from File** .

**Figure 20** Selecting Load a Profiles List From File



- 2 The **Open** window displays. Choose the file to load and click **Open**. A popup window displays to confirm the selection.
- 3 Click **Yes** to remove the profiles in the Profile tab and have the saved profiles loaded.

## 3.11 Applying a Configuration File

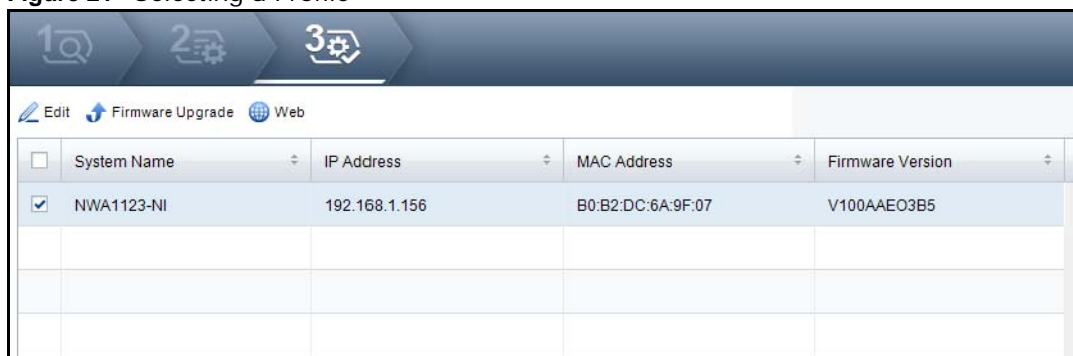
An AP configuration file may have one, two or three radios. You can think of a radio as a set of SSID profiles. So, roughly speaking, a configuration file is a collection of one, two or three sets of SSID profiles. And preparing a configuration file to apply to the APs is specifying sets of SSID profiles.

Before you start, it's important to note that the AP may be damaged if the apply process is interrupted.

To a configuration file:

- 1 Click **Apply Configuration File** to view available APs.
- 2 Click an AP to select it.
- 3 Click **Edit** to configure the selection.

**Figure 21** Selecting a Profile


 A screenshot of the ZAC web interface showing the 'Apply Configuration File' dialog. At the top, there are three numbered steps: 1 (Search), 2 (Select), and 3 (Configure). Below the steps, there are icons for 'Edit', 'Firmware Upgrade', and 'Web'. A table lists available APs with columns for 'System Name', 'IP Address', 'MAC Address', and 'Firmware Version'. The first row is selected with a checkmark.
 

<input type="checkbox"/>	System Name	IP Address	MAC Address	Firmware Version
<input checked="" type="checkbox"/>	NWA1123-NI	192.168.1.156	B0:B2:DC:6A:9F:07	V100AAE03B5
<input type="checkbox"/>				
<input type="checkbox"/>				

- The **Edit Configuration** window displays. Specify the set(s) of SSID profiles. The first SSID profile in Radio 1 set must be specified, see the following figure.

**Figure 22** Specifying an SSID Profile

The screenshot shows the 'Radio 1' configuration window. It includes an 'Active' checkbox which is checked. Below it are four dropdown menus for SSID profiles: 'SSID Profile #1' is set to 'default', while 'SSID Profile #2', 'SSID Profile #3', and 'SSID Profile #4' are all set to 'Please select'.

- Click **Apply**. The apply process starts.

## 3.12 Upgrading AP Firmware

New AP firmware improves AP features and performance. You can use ZAC to upgrade the firmware of an AP.

To upgrade firmware:

- In the **Configure** tab, select an AP model from the model combo list.

**Figure 23** Upgrading AP Firmware

The screenshot shows the ZyXEL web interface. At the top, there are navigation tabs for '1 Search', '2 Settings', and '3 Upgrade'. The 'Firmware Upgrade' tab is active. Below the navigation, there are buttons for 'Edit', 'Firmware Upgrade', and 'Web'. A dropdown menu shows the selected AP model 'NWA1123-NI'. Below this is a table with the following data:

<input checked="" type="checkbox"/>	System Name	IP Address	MAC Address	Firmware Version
<input checked="" type="checkbox"/>	NWA1123-NI	192.168.1.156	B0:B2:DC:6A:9F:07	V100AAE03B5
<input type="checkbox"/>				
<input type="checkbox"/>				


A 'Back' button is located at the bottom right of the table area.

- Select an AP in the AP list.
- Click **Firmware Upgrade**.
- In the pop up dialog select the firmware by clicking **Browse**.
- Click **Upgrade** to start the upgrade process.

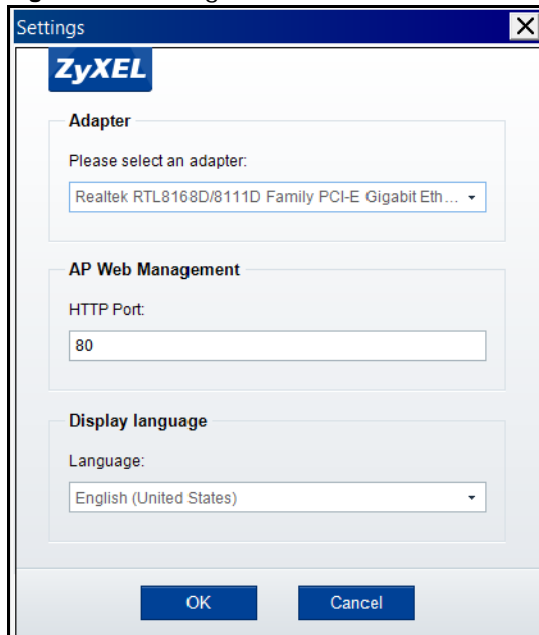
**Invalid firmware may render the AP unusable and cause irreparable damage to the device. Confirm the firmware version by visiting ZyXEL website.**

## 3.13 Changing the Network Interface

You can specify which network interface ZAC must use to communicate with the APs:

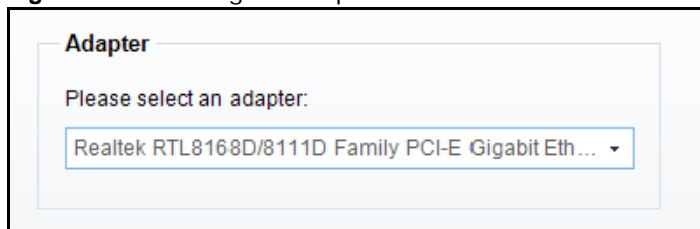
- 1 Click **Setting**  to open the **Settings** window.

**Figure 24** Settings Window



- 2 Click the **Adapter** drop-down menu to select an adapter from an available list.

**Figure 25** Selecting an Adapter




- 3 Click **OK** to finish.

## 3.14 Changing the Webpage Port

To change the Webpage Port:



- 1 Click **Setting**  to open the **Settings** window.
- 2 In the **HTTP Port** field, enter the port number.

**Figure 26** Changing the AP Web Management Port




The screenshot shows a window titled "AP Web Management". Inside the window, there is a label "HTTP Port:" followed by a text input field containing the number "80".

## 3.15 Changing the Display Language

You can change the display language through the settings menu.

To change the display language:

- 1 Click **Setting**  to open the **Settings** window.
- 2 Click the **Language** drop-down menu and select the target language.

**Figure 27** Selecting a Display Language



The screenshot shows a window titled "Display language". Inside the window, there is a label "Language:" followed by a dropdown menu. The dropdown menu is open, showing "English (United States)" as the selected option.

- 3 Click **OK**. ZAC must restart to display the selected language.
- 4 Click **OK** in the popup window to restart ZAC.

# Troubleshooting

This section troubleshoots some common problems you may run into when working with ZAC.

## Cannot Discover an AP

Not all discovered AP are shown. Check that your AP(s) are not in the following list:

- APs that are already registered.
- APs that are operating in managed mode.

Multiple network interfaces may also cause problems. Normally, ZAC binds itself to the selected network interface. If this interface is not connected to your AP(s), the AP(s) can not be discovered. Make sure you've chosen the correct NIC on the PC which was used during the installation of ZAC.

## Fail Status when Upgrading Firmware or Applying a Configuration

When ZAC fails to upgrade an AP firmware or apply a configuration file, it's most likely due to network settings. Check the connectivity between the computer running ZAC and the AP(s).

In some cases, the AP(s) might have been damaged and you have to reset it to the default state. Please refer to the AP manual for the instruction on how to reset the AP(s).

## Invalid Language File

ZAC displays an error message indicating the language file is invalid if it is damaged. In this situation, ZAC reverts to the default language and re-starts. Please visit ZyXEL website to download and replace the damaged file.

## Select Network Adapter in the First Running

During first time use, ZAC displays the Initial Setup. You can specify the network interface ZAC must use to communicate with the APs.