COMMANDO AirONE AP1800AX Wi-Fi 6 Indoor Access Point Configuration Guide

OVERVIEW

COMMANDO AirONE AP1800AX Wi-Fi 6 Indoor Access Point enables communication between wireless users with speed up to 1800Mbps with advanced Wi-Fi 6 Technology. It is standalone device, comes with dual band with 2.4GHz (600Mbps 11ax 2x2) + 5GHz (1200Mbps 2x2), equipped with separate 1G WAN ports & LAN ports. It supports MU-MIMO, Wave 2.0 and DL/UL-OFDMA modulation. It supports data rate up to 1800Mbps for wireless users and supports concurrent 120+ wireless clients with simultaneous upload or download of multiple packets at same time which enhances the sharing of files, photo, audio, video and gaming experience over wireless network. It supports Seamless Roaming, OFDMA, 1024-QAM, narrower sub-carrier spacing and longer symbol time which improves the stability and data processing efficiency. It can provide powerful wireless coverage to enterprise environments such as Small, Medium and Large enterprises, university campus, concert venue, gymnasium, etc.

It is powerful, long range & advance Indoor Wi-Fi 6 Access Point with 2 configuration modes namely Gateway & AP mode (Default Mode is AP mode). It supports range of 91 meters and above depending on surrounding conditions with up to 300mW input Power. It is industrial grade Desktop/Wall/Ceiling IEEE 802.3at 48V PoE+ standard & can install at every place to work as a stable base station for access users. It is equipped with separate Gigabit Ethernet WAN & LAN port.

You can access and manage AirONE AP1800AX using the Web based GUI (Graphical User Interface), also called Web GUI interface.

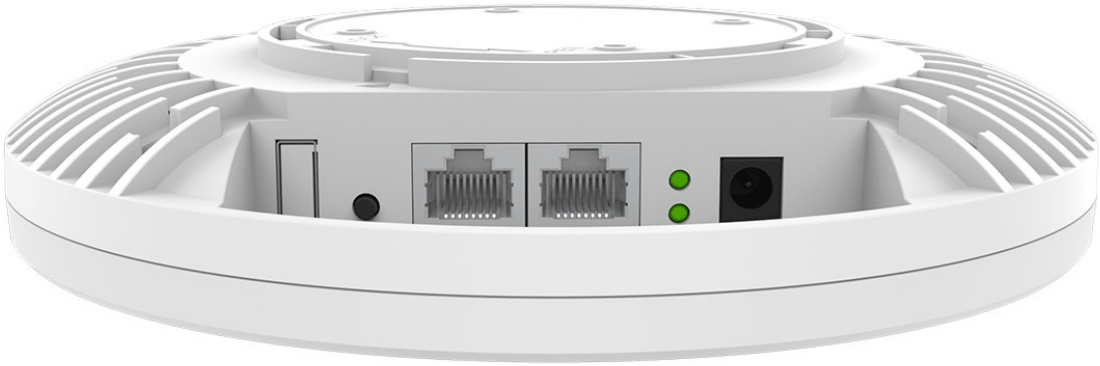

Fig 1. Physical port on AirONE AP1800AX

Table 1. Physical port on AirONE AP1800AX Description.

Physical Port	Description
Reset	Reset Button, makes AP revert to default settings after pressing for 15sec.
WAN/PoE+	WAN Port, connect with PoE+ Switch or internet gateway.
LAN	LAN Port to end users Switch or PC for Accessing device via Web GUI.
LED	Upper LED for WAN port and Lower LED for LAN port (Green and Blinking to show ACT/Link connection).
DC	DC input power 12V, 2A.

Fig 2. Access information on AirONE AP1800A

INTRODUCTION

COMMANDO AirONE AP1800AX is Wi-Fi 6 technology based, standalone, WEB GUI based, easy to use and manage device. It requires minimal configuration, so setup is simple and hassle-free. Auto-negotiation senses the link speed of a network device in wired 10/100/1000Mbps and also can check free channels available with inbuilt Wi-Fi analysis. It ideal for desktops/wall/ceiling with limited space. Dynamic LED lights provide real-time work status display and basic fault diagnosis. Easy Plug-and-play installation with no configuration required. It operates quietly, making it ideal for use in virtually any room or office. Perfect for noise sensitive environments. It has Dual power options with DC input power and PoE+ power input which protect from power failures and increases life of device. With Inbuilt security features protect your business by losing network sensitive information and data of wireless users/surveillance cameras connected to them.

It supports energy-efficient Ethernet that can save power. It automatically adjusts power consumption according to the link status to limit the carbon footprint of your network. It also complies with RoHS, CE, FC prohibiting the use of certain hazardous materials. Besides that, most of the packaging material can be recycled and reused.

It has State of art quality product that can serve on real time high-speed Performance with dual inputs power, cost effective, highly reliable, conformance to international open standards, durable, serviceable, aesthetics, perceived quality, enhanced performance leads to value to money.

Hardware Highlights

Solid performance with non-blocking architecture

- With Flash: SPI NOR 32MB, and 256MB RAM greatly improved the data processing performance.
- All ports capable of Gigabit Ethernet speed. Full speed of data transferring with (Auto-Negotiation/Auto MDI/MDIX).
- Solid performance with non-blocking architecture.
- Dual input for power either PoE+ via WAN port or DC power inputs 12V, 2A.
- With Build in 3dBi MIMO Antenna with wave 2.0 for high gain antenna, stronger signal strength & supports large wireless coverage (91m and above) in all directions.

Physical Ports and Networking Interfaces

- Up to 2 x 10/100/1000Mbps Mbps RJ 45 Ethernet Ports with combined PoE+ with WAN

and separate LAN port
- LED Indicators: Power/Sys, LAN, WAN.
- Reset Button

Extra Long operational life

- High Quality PCB Circuit Board and PCB Surface Treatment Using Gold Sinking Process.
- Support temperature range 0° C to 50° C.
- Desktop and Wall mount design Which enables horizontal and vertical wall mounting.

Noise-free Operation

- The ports support reduced power modes for silent operation. Perfect for noise sensitive environments.

Software Highlights

- Multiple Operational Modes like Gateway Mode, AP mode (Default mode is AP mode).
- Multi SSID up to 8 with inbuilt WI-FI channel analysis.
- Supports IEEE 802.11ax/ac/b/g/n with backward compatibility for wireless clients, 2.4GHz+5GHz Wireless dual band with radio RF Power up to 300mW.
- Support wireless RF power adjustable as per user movements from AP with data rate up to 1800Mbps.
- Access end users up to 256 max, with concurrent end users up to 120+.
- Supports band steering automatically move to wider 5G band for faster connections, intelligent load balance based on users.
- Support tag VLAN and VLAN management.
- Supports advance security by MAC ACL, Static DHCP, QoS, URL Mapping, IP/MAC/URL filters, Port mapping and DMZ.
- Support Seamless Roaming, OFDMA, 1024-QAM.
- Dual purposes WAN or IEEE 802.3at Port (PoE+) port supporting 1x 10/100/1000Mbps and dedicated LAN ports 1x 10/100/1000Mbps.
- Supports Wi-Fi client distance 91 meters and above depending on surrounding conditions.
- Dual input for power either PoE+ via WAN port or DC power inputs 12V, 2A.
- Support Open or encryption like WPA/WPA2PSK_TKIPAES.
- Comply with IEEE 802.3az standard

How to take access of COMMANDO AirONE AP1800AX ?

1. Wired access Via LAN port connected to PC.

Power ON AirONE AP1800AX.

Connect LAN port of AirONE AP1800AX to PC via RJ-45 cable.

Open Network and sharing center.

Go to Change adapter settings.

Double click on Local Area Connection. Go to Properties. Double click on Internet Protocol Version 4 (TCP/IPv4) option and set any IP address from 192.168.188.1 to 252 and Gateway of PC to be set as 192.168.188.253 to as shown below.

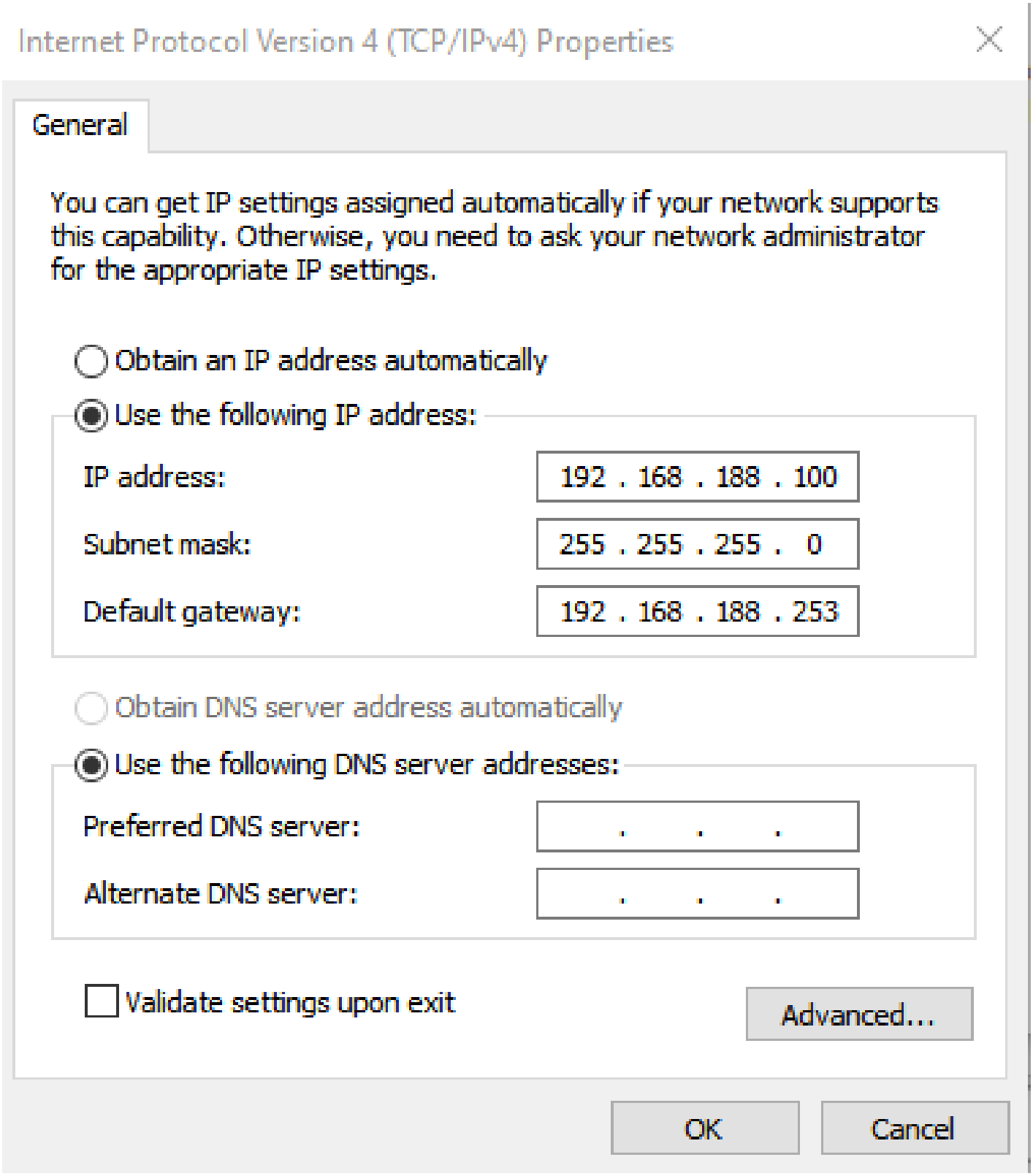

Fig 3. IP setting in PC connected to AirONE AP1800AX

2. Wireless access Via SSID connected to PC.

Power ON AirONE AP1800AX.

Connect Default SSID named “AIR-AP1800AX_2.4G” or “AIR-AP1800AX_5.8G” with the help of default Wi-Fi Password “66666666”.

Click on properties of connected SSID “AIR-AP1800AX_2.4G” or “AIR-AP1800AX_5.8G”.

Edit IP setting from DHCP to Manual and set any IP address from 192.168.188.1 to 252 and Gateway of PC to be set as 192.168.188.253 to as shown below.

Note: All Default SSID and password can be changed as per user requirement.

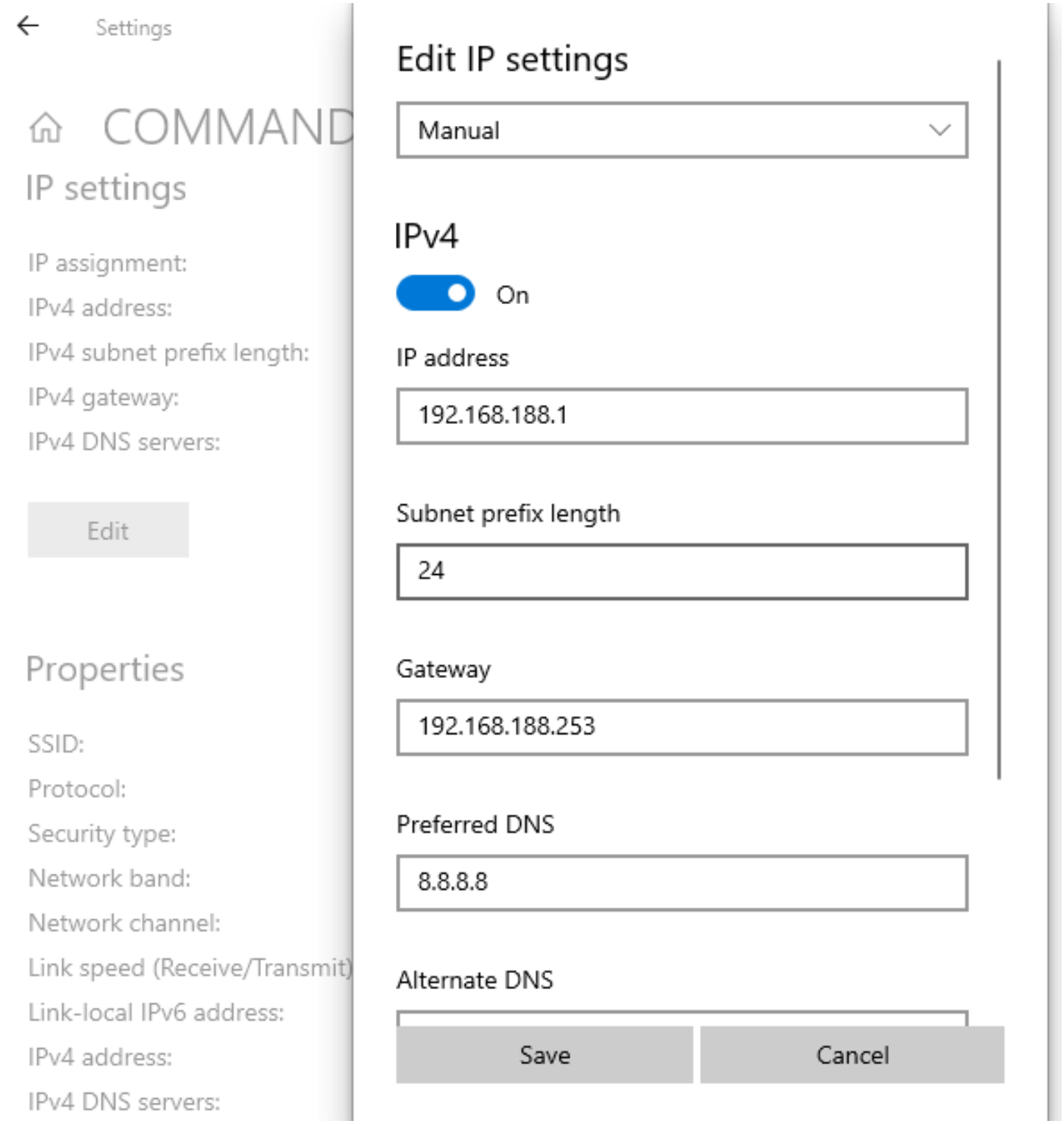

Fig 4. Edit IP setting from DHCP to Manual as shown for AIR-AP1800AX_2.4G

Open any web browser like Chrome/Firefox/Internet Explorer/Opera etc. and enter default IP address **192.168.188.253** in address field.

Caution: If you have already taken any Other COMMANDO wireless device access. Then before taking access of this device, you are required to clean the browser history to avoid catch pages issue.

Fig 5. Login page for AirONE AP1800AX

Default Password: **admin**

Note: Password can be changed as per user choice. Default password is written on backside of device.

After giving proper password Home page is displayed giving device information like CPU usage, memory usage, LAN Information like IP Mode Get IP From AC/Gateway/Static, Status with 2G/5G Wi-Fi Clients Status with information like SSID, Channel, Bandwidth, Encrypt, MAC Address, Operation Mode configure like AP/ Fat AP Mode with Uptime, Flow in bps for AP Downstream and AP Upstream

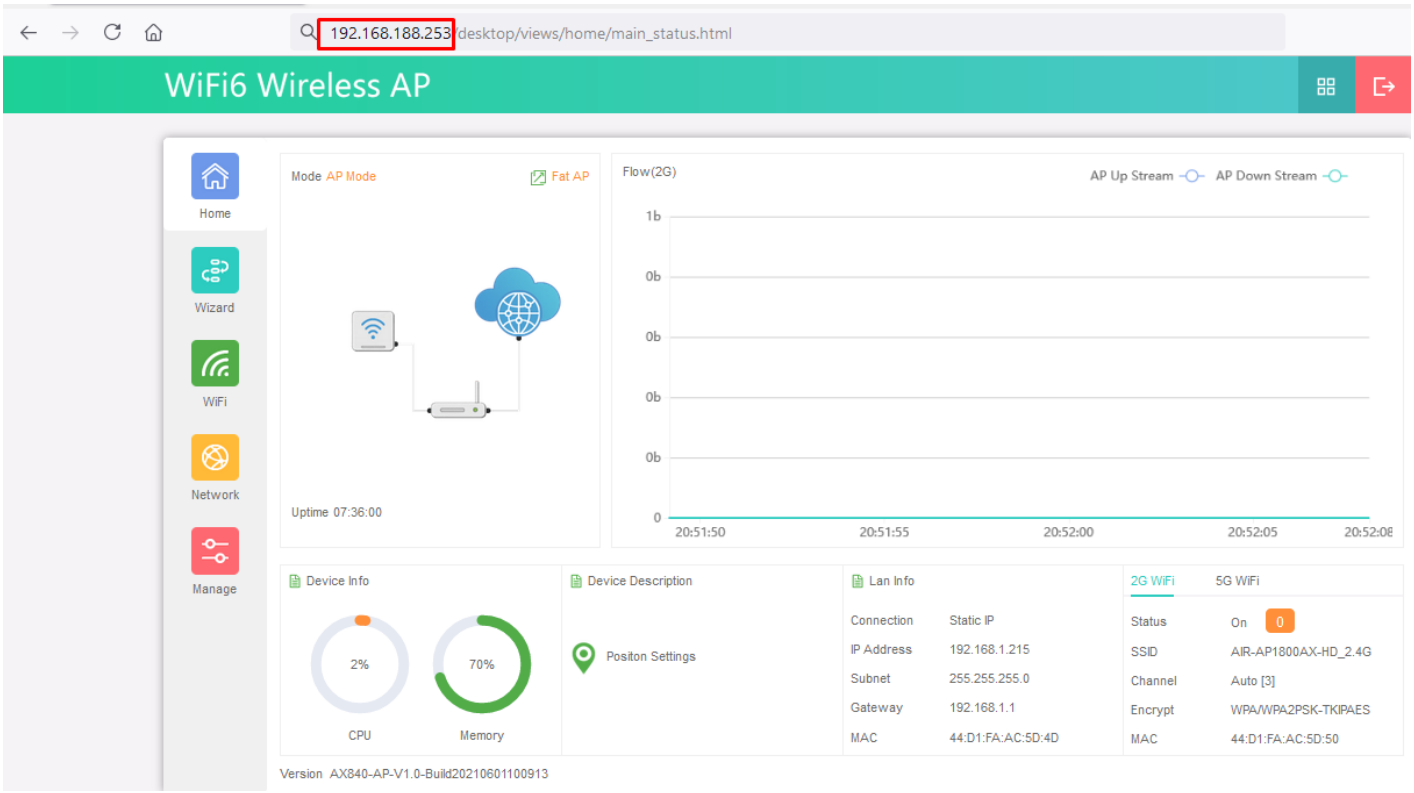

Fig 6. Home page after login AirONE AP1800AX

HOME

After login, home page will be showed. This page will show device Information like CPU Usage, Memory Usage, LAN/WAN Information like IP Mode Get IP From AC/Gateway/Static, Status with 2G/5G Wi-Fi Clients Status with information like SSID, Channel, Bandwidth, Encrypt, MAC Address, Operation Mode configure like AP/ Fat AP Mode with Uptime, Flow in bps for AP Downstream and AP Upstream. All information can help to troubleshoot network issue, if any very easily.

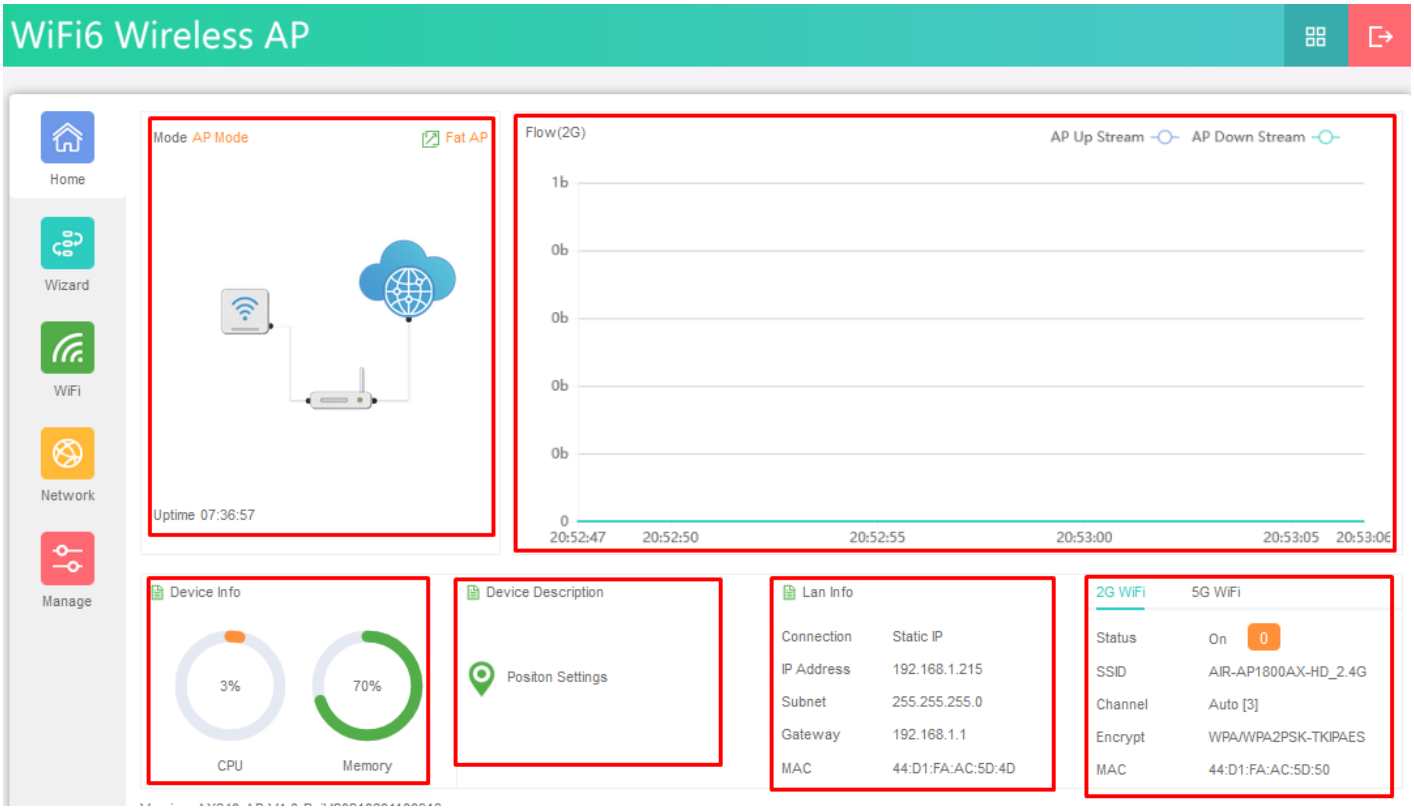

Fig 1.1 Home page Components of AirONE AP1800AX

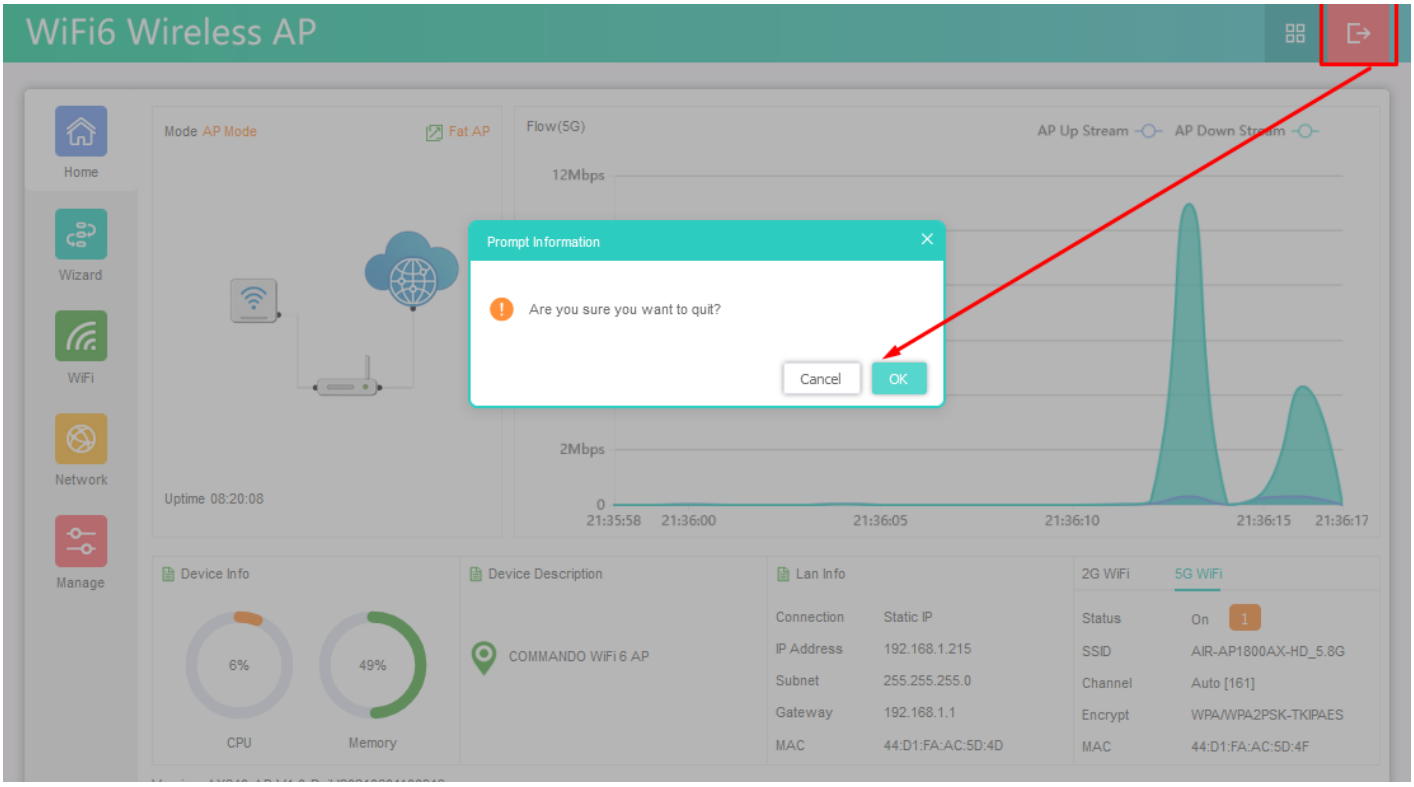

Fig 1.2 Logout Button of AirONE AP1800AX

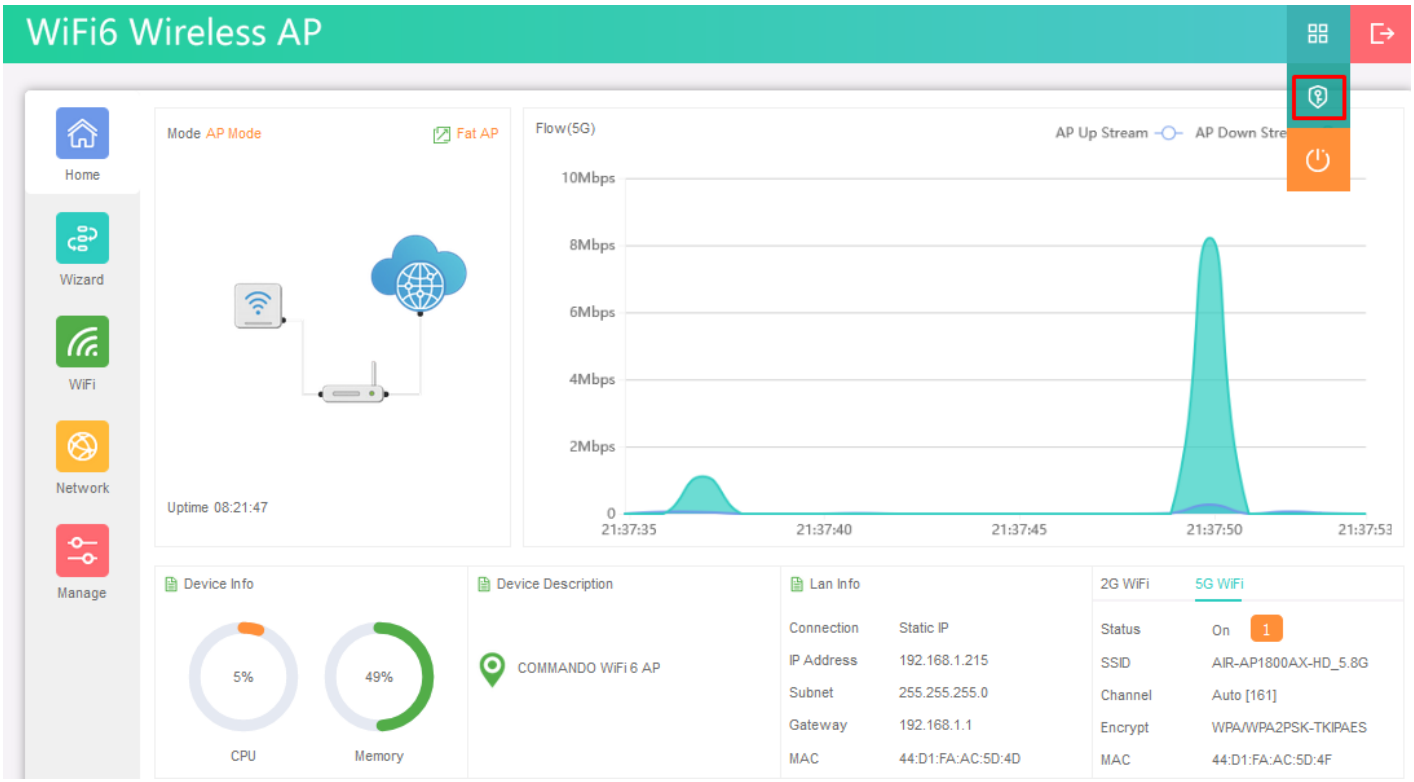

Fig 1.3 Modify password shortcut Button of AirONE AP1800AX

After clicking button following page to modify password will appears.

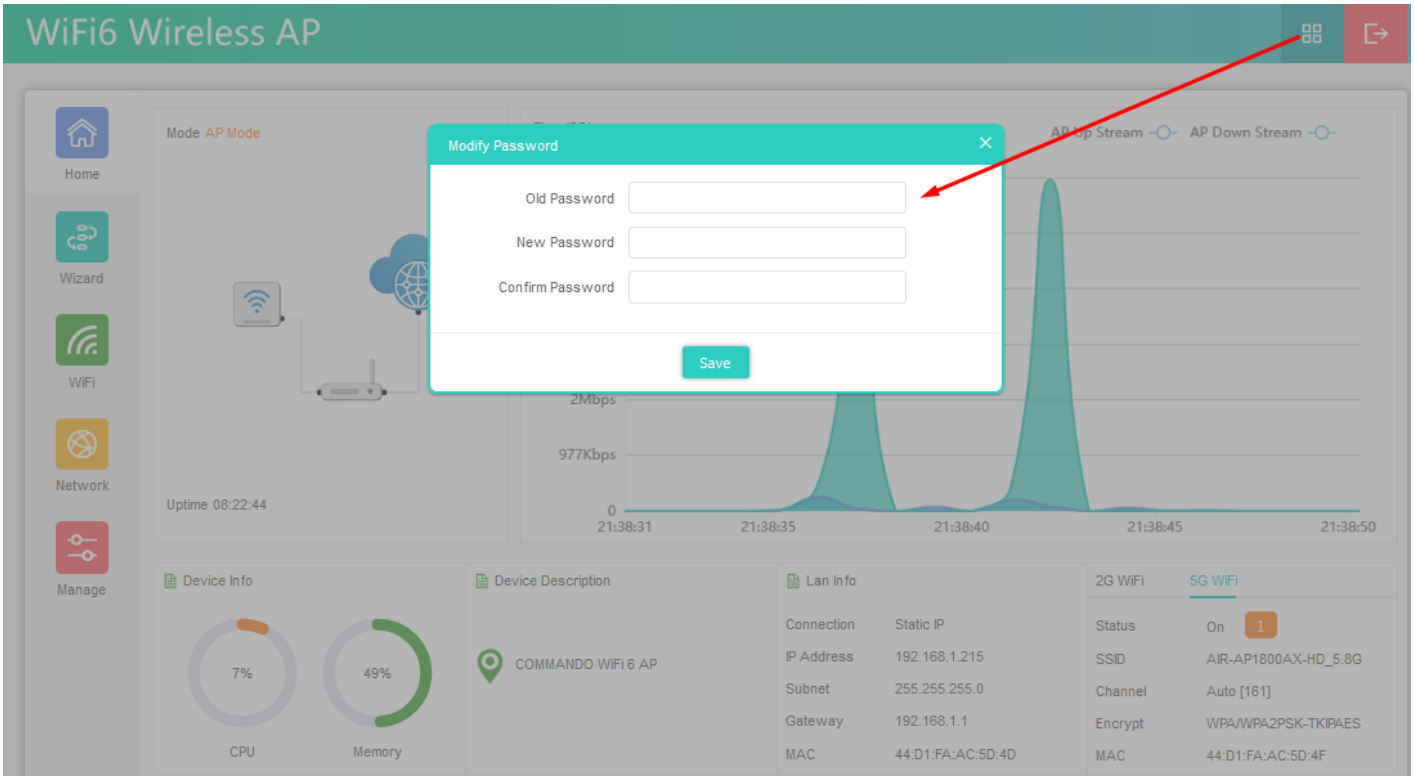

Fig 1.4 Modify password of AirONE AP1800AX

Note: AirONE AP1800AX will ask this new password for login after clicking OK. It is strongly recommended to change default password to access device.

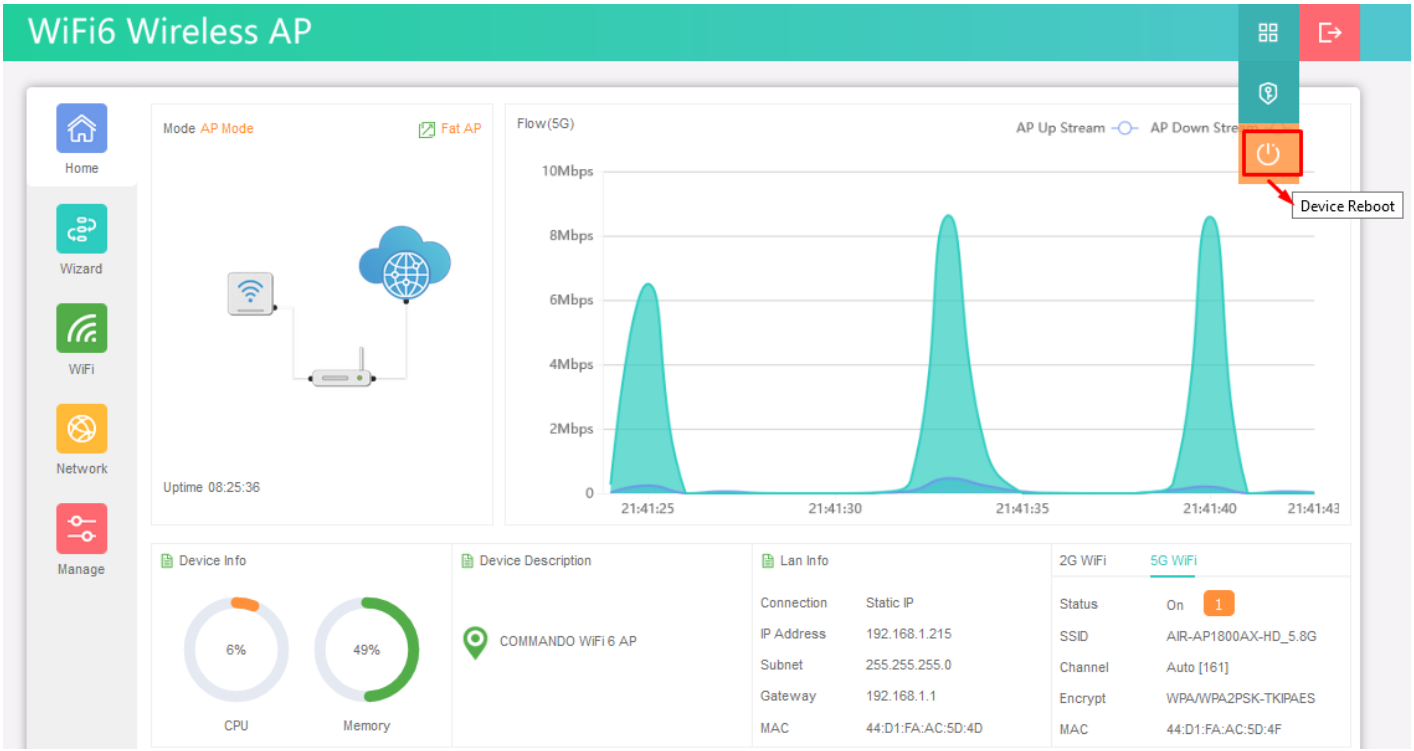

Fig 1.5 Reboot button of AirONE AP1800AX

After clicking button following page to Reboot AP will appears.

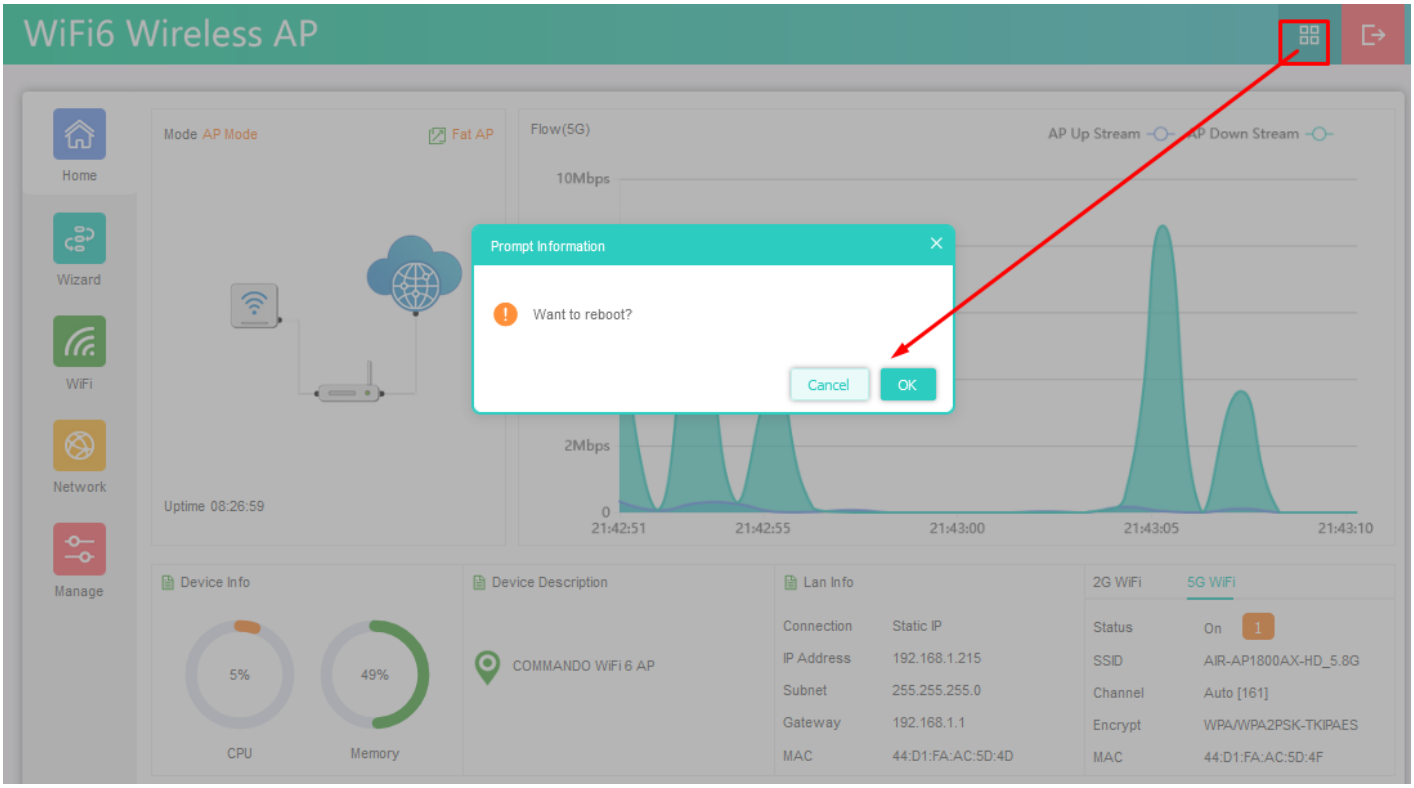

Fig 1.6 Reboot of AirONE AP1800AX

Note: AirONE AP1800AX will reboot after clicking OK.

1.1 Device Information

In Device Information, Current CPU Usage percentage and Memory Usage percentage of the AP is shown.

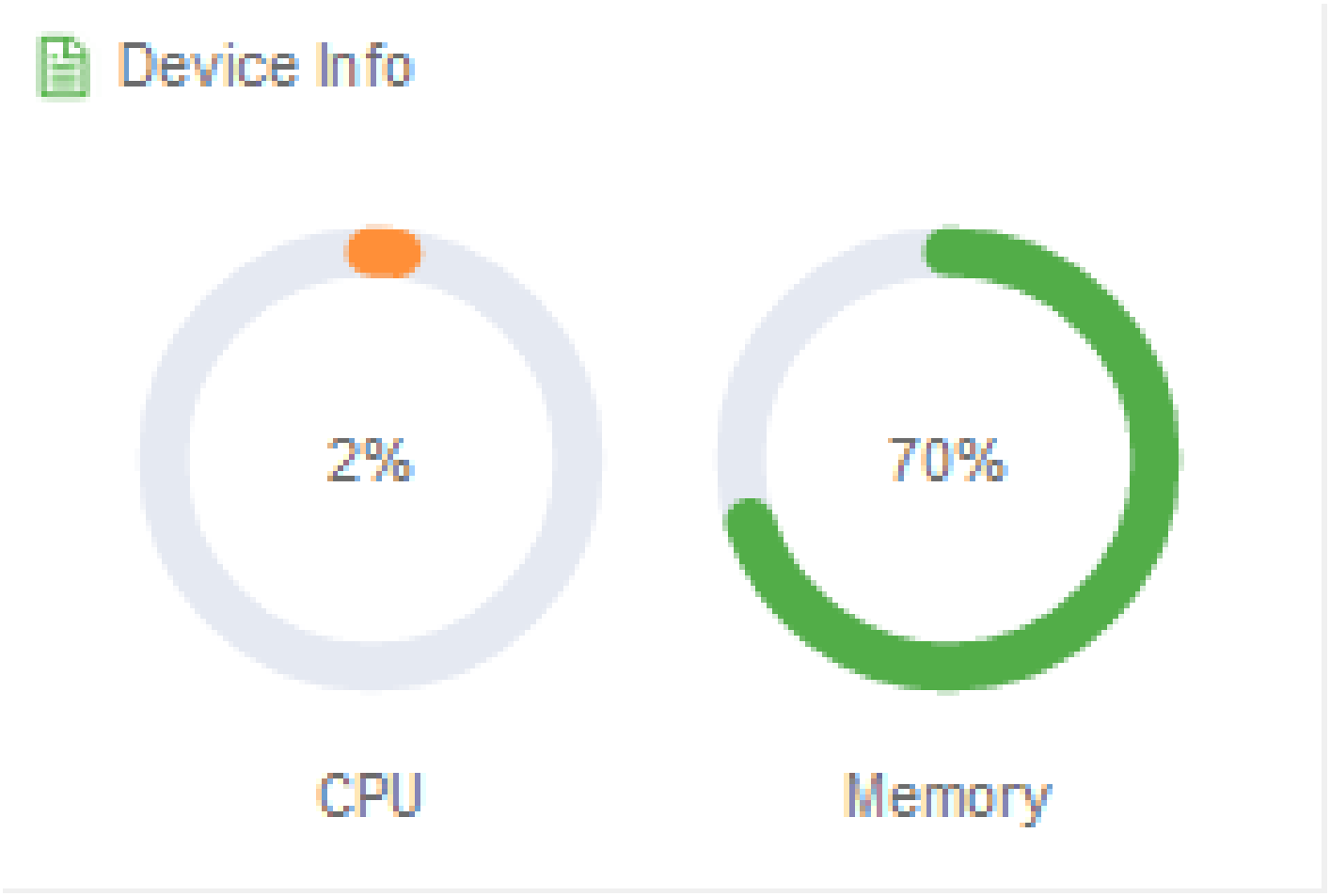

Fig 1.1.1 Home page Components of AirONE AP1800AX

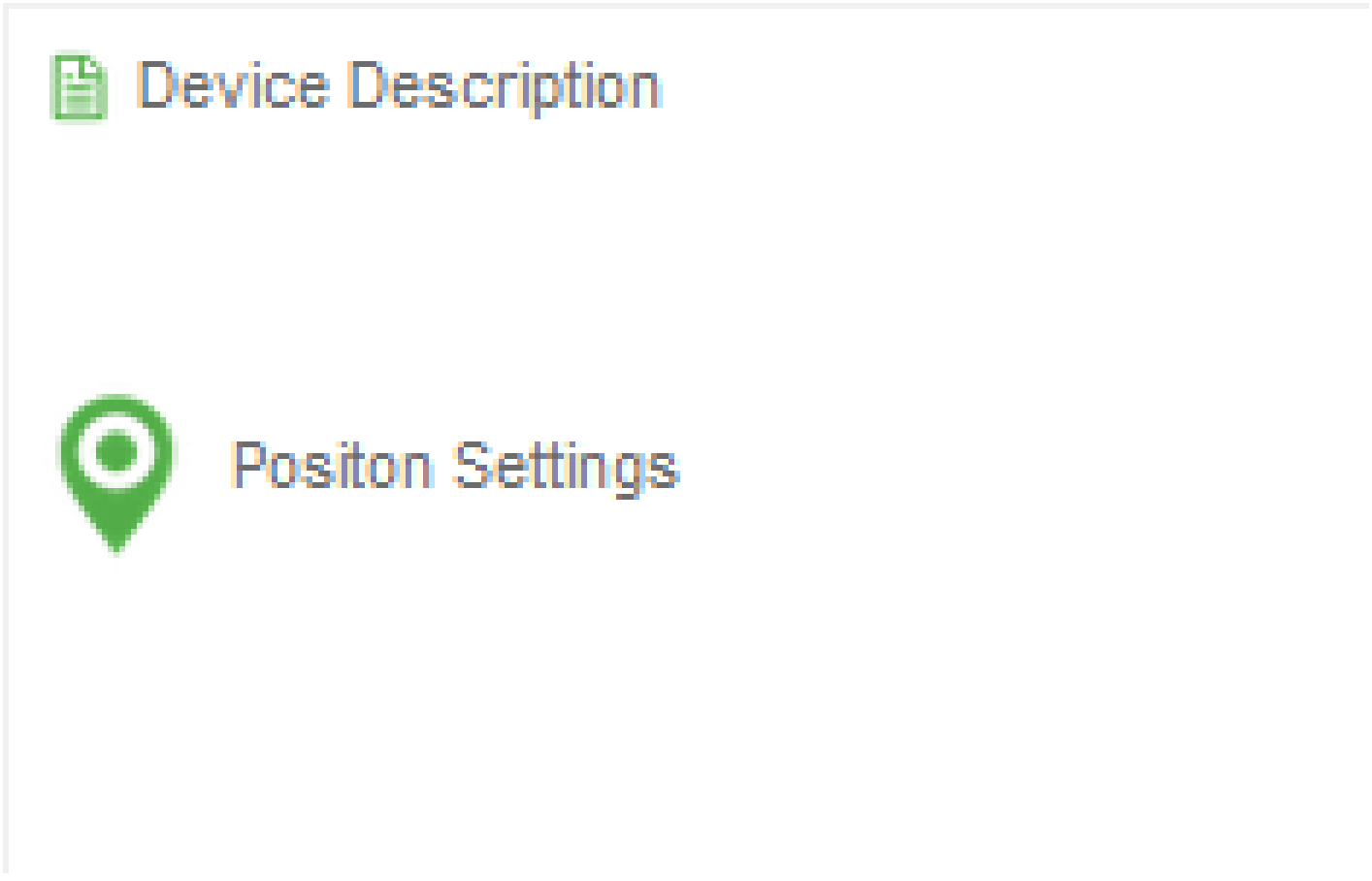

Fig 1.1.2 Device Description of AirONE AP1800AX

In Device Description you can add the APs description by clicking on Click Settings

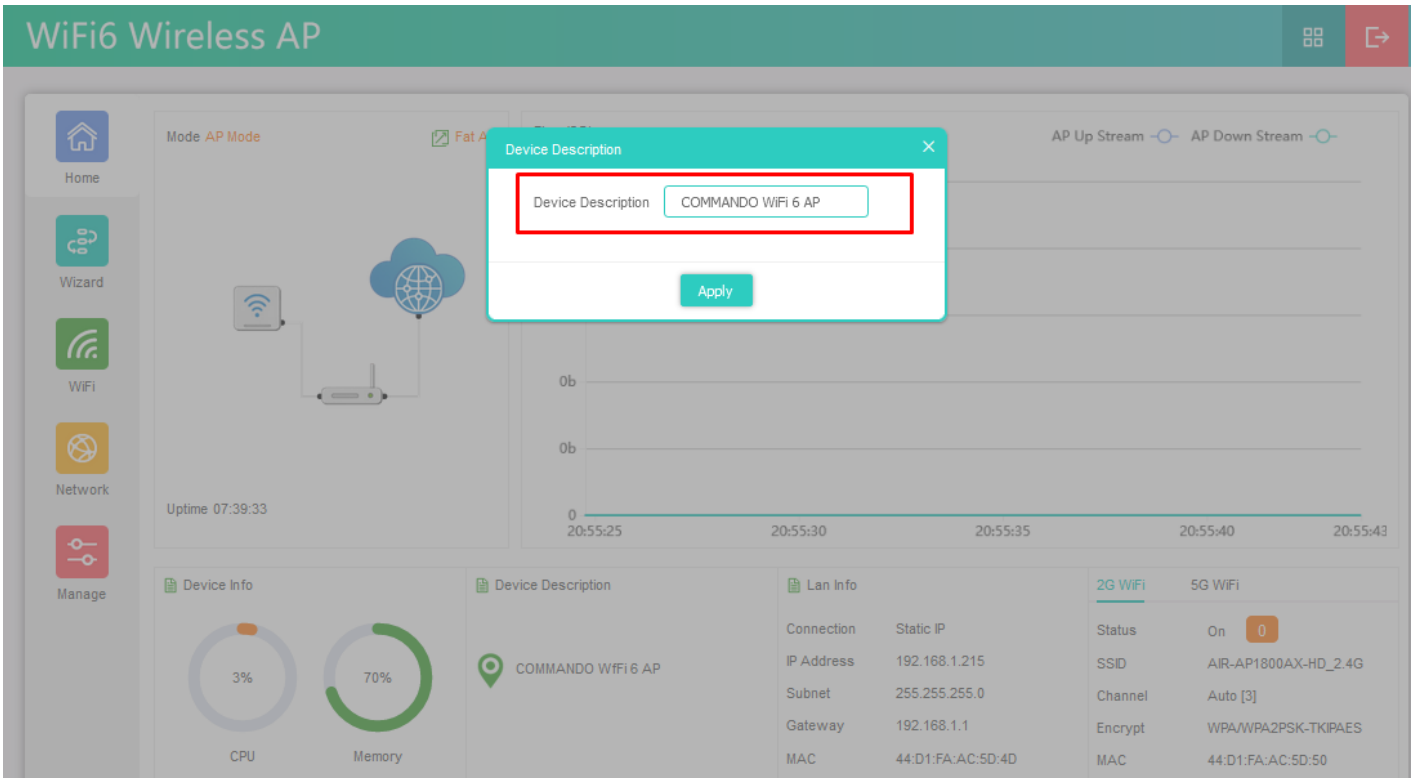

Fig 1.1.3 Changing Device Description of AirONE AP1800AX

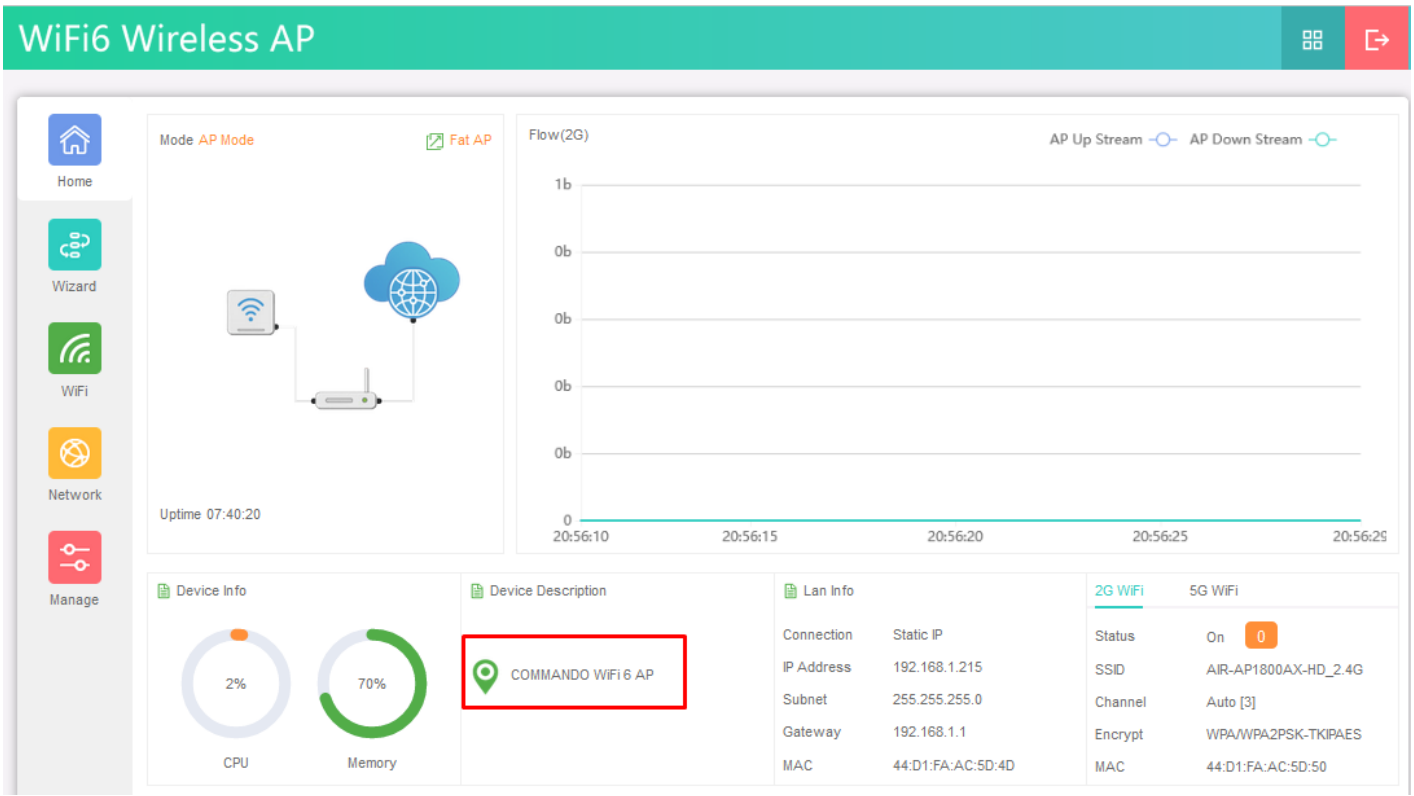

Fig 1.1.4 New Device Description of AirONE AP1800AX

1.2 LAN/WAN Information

In LAN Information you can find the IP Mode, LAN IP, Subnet, Gateway and MAC Address. In WAN Information like WAN IP address, Gateway, DNS and MAC Address.

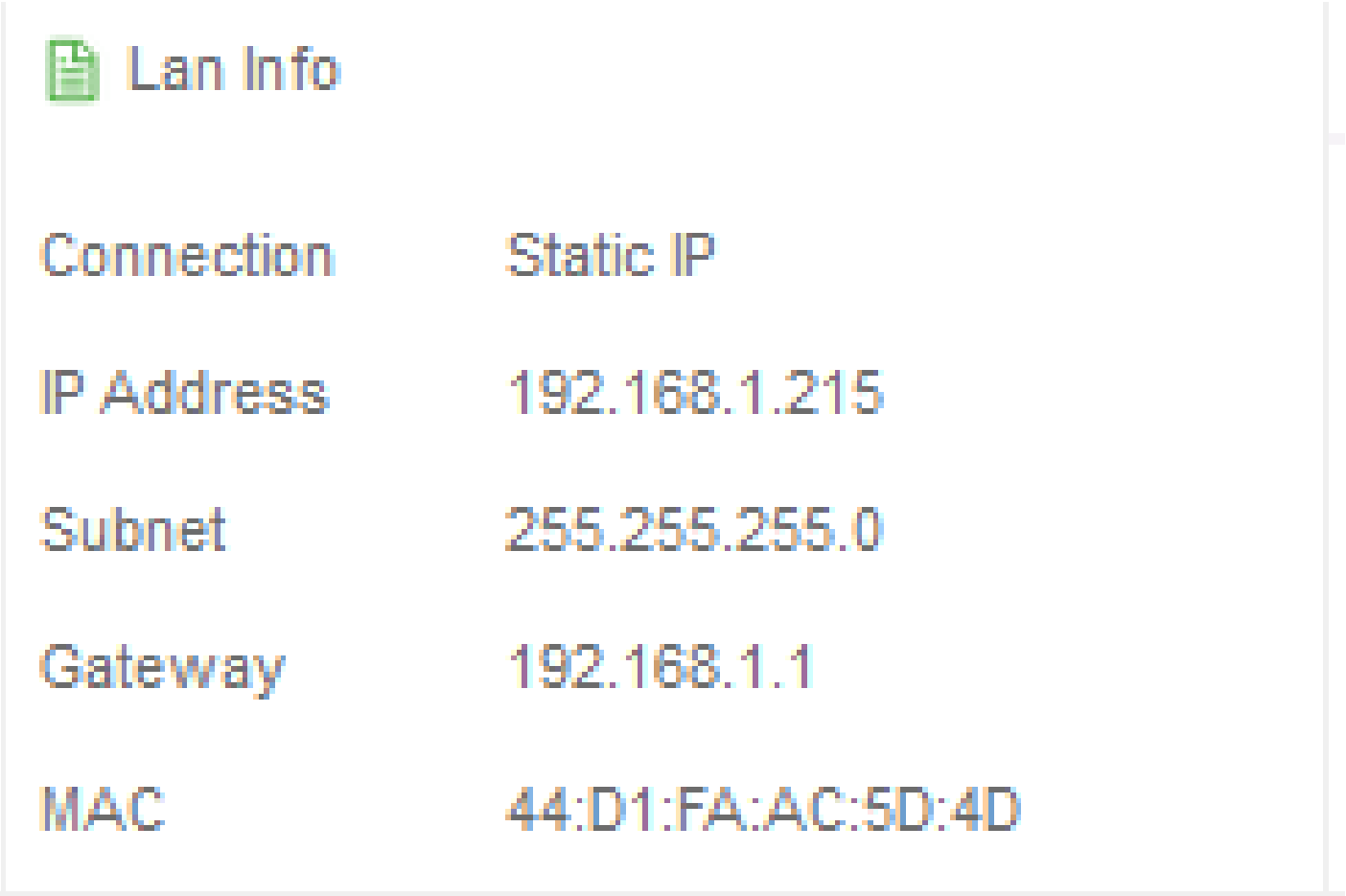

Fig 1.2.1 LAN information of AirONE AP1800AX

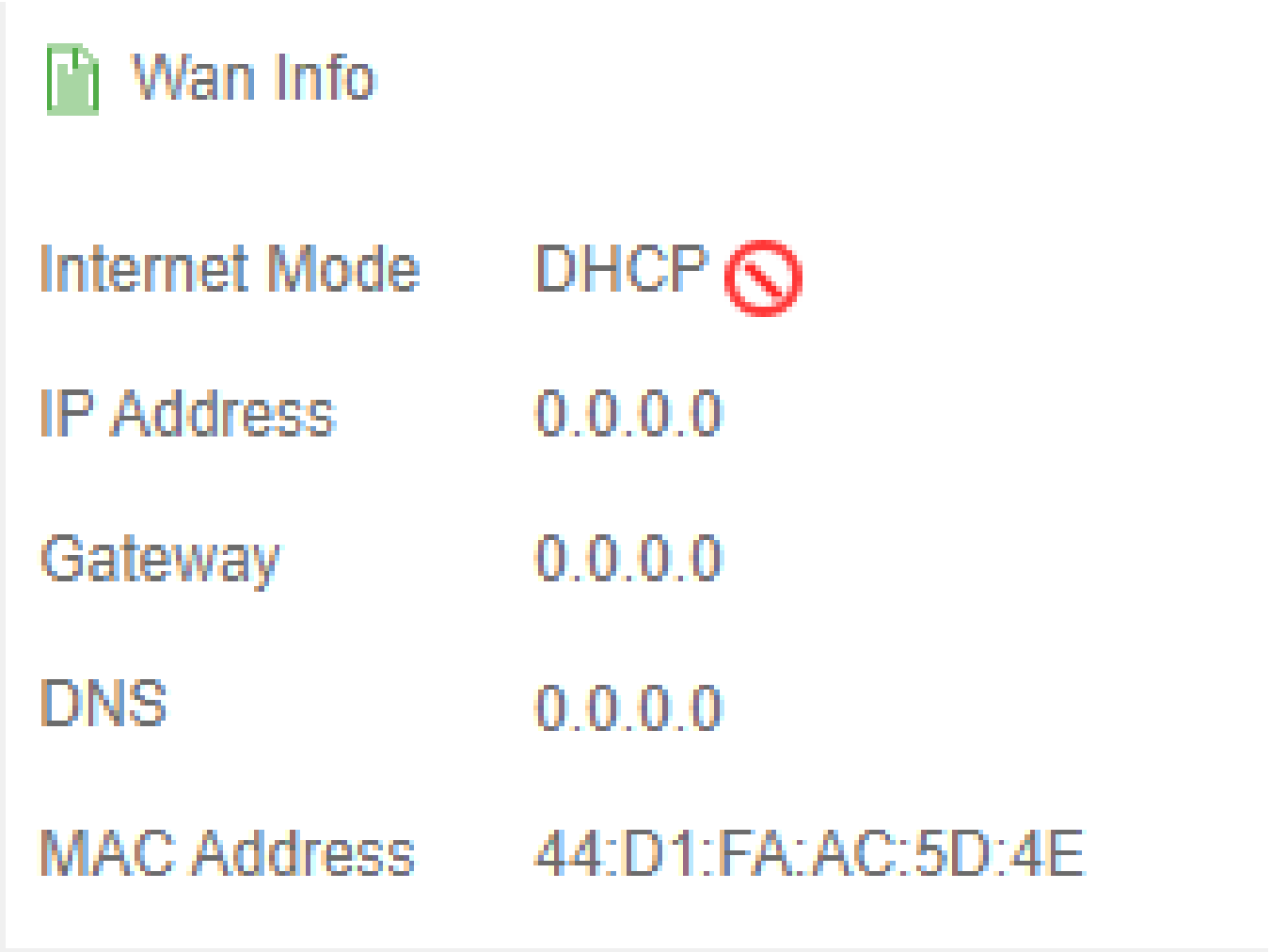

Fig 1.2.2 WAN information of AirONE AP1800AX

1.3 Wi-Fi Information

In Wi-Fi Information, Status along with number of clients connected to AP, SSID, Channel used, Encryption and MAC Address of AP is shown.

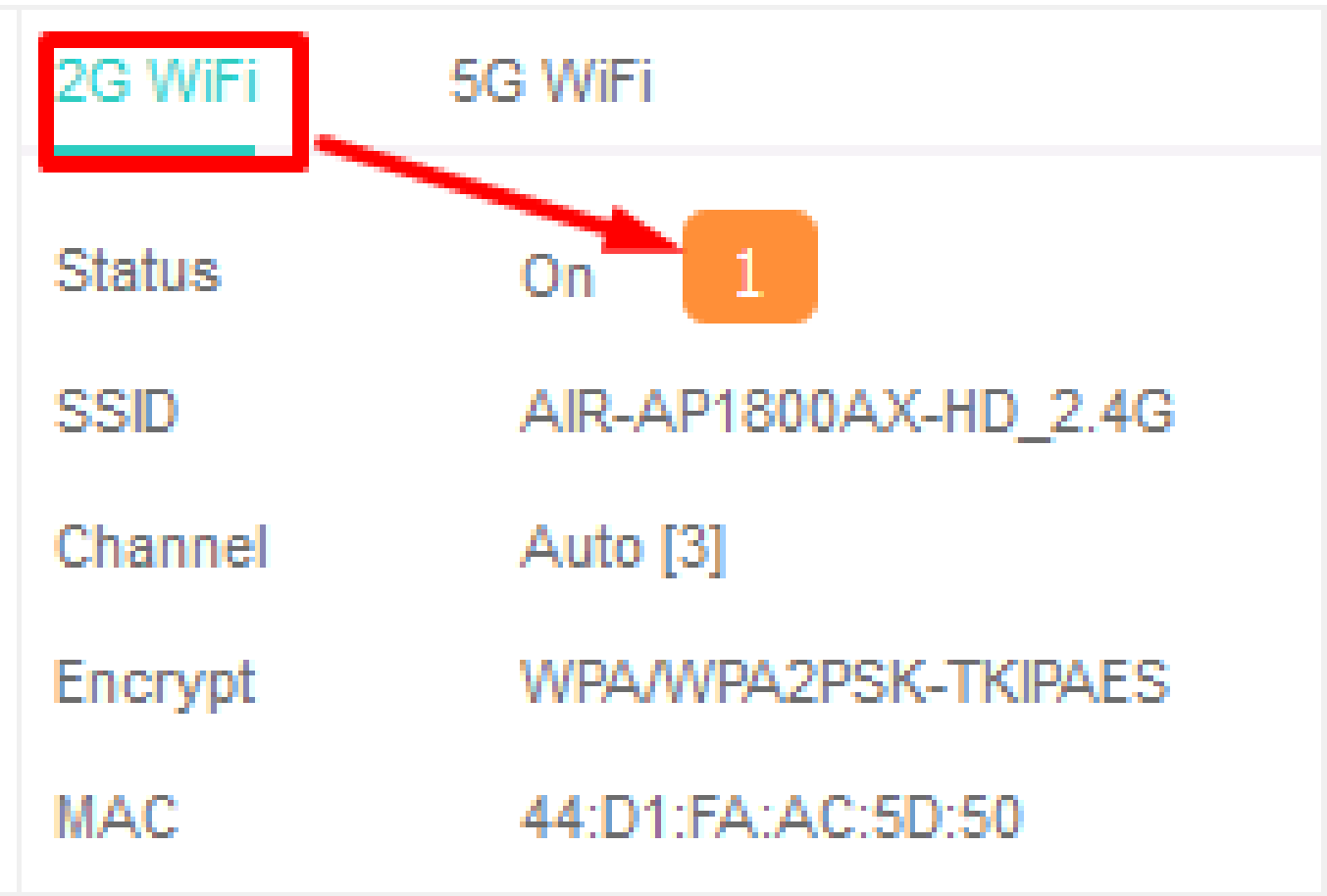

Fig 1.3.1 Wi-Fi Information of 2G Wi-Fi AirONE AP1800AX

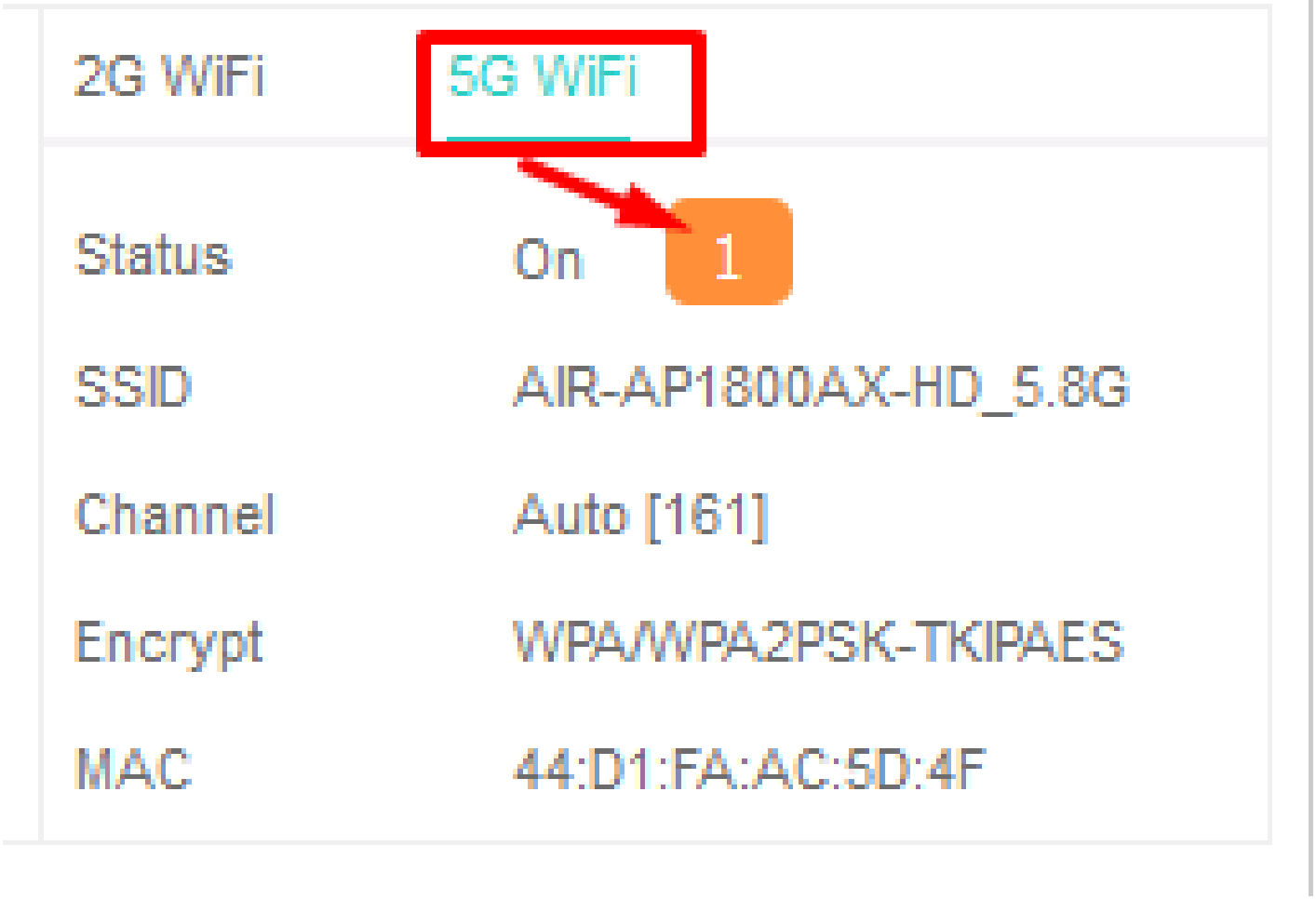

Fig 1.3.2 Wi-Fi Information of 5G Wi-Fi AirONE AP1800AX

1.4 Clients List

Clients list along with number of clients connected to AP, MAC address of clients connected, Signal strength of clients' connection along with connection time is shown. We can learn about users in network with all vital information.

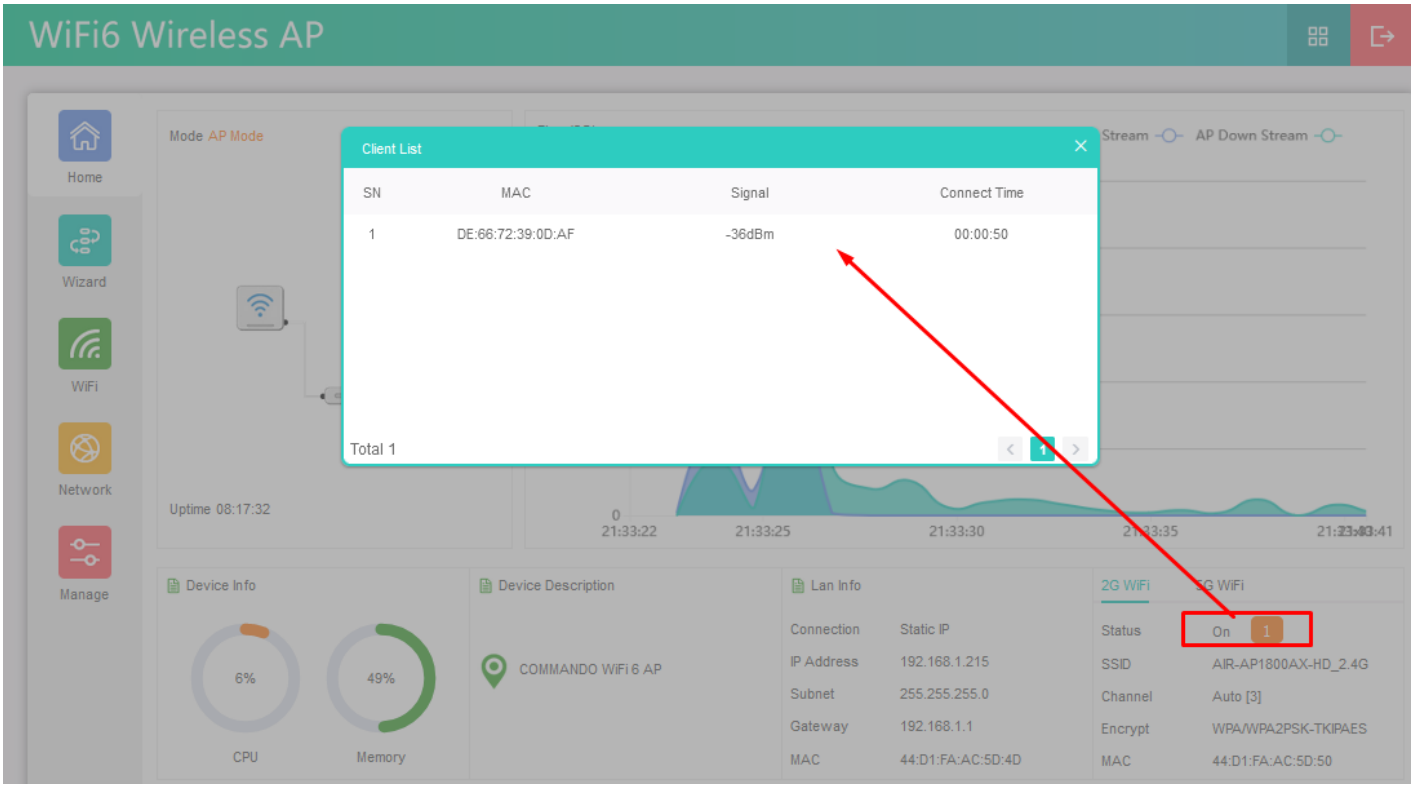

Fig 1.4.1 Clients list of 2G Wi-Fi AirONE AP1800AX

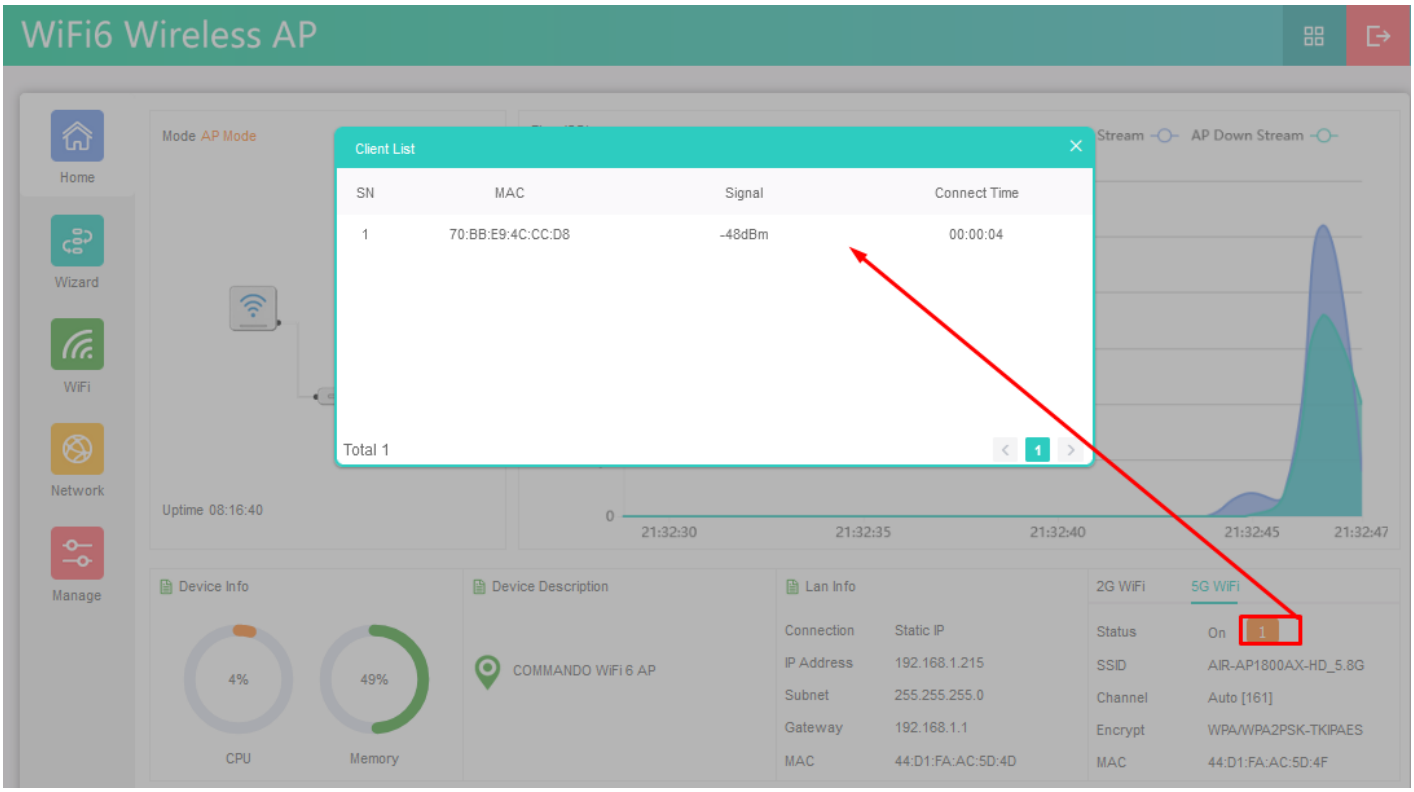

Fig 1.4.2 Clients list of 5G Wi-Fi AirONE AP1800AX

1.5 Operation Mode configuration

Default operation is Fat AP where it integrates the WLAN physical layer functions, service data encryption, user authentication, QoS, network management, roaming technologies, and application layer functions. It can provide wireless access independently. Each AP is

an independent node. The channels and power on each AP are configured independently. All APs work independently and support advanced and independent security policy.

A Fit AP has only Select the IP mode along with reset and reboot options.

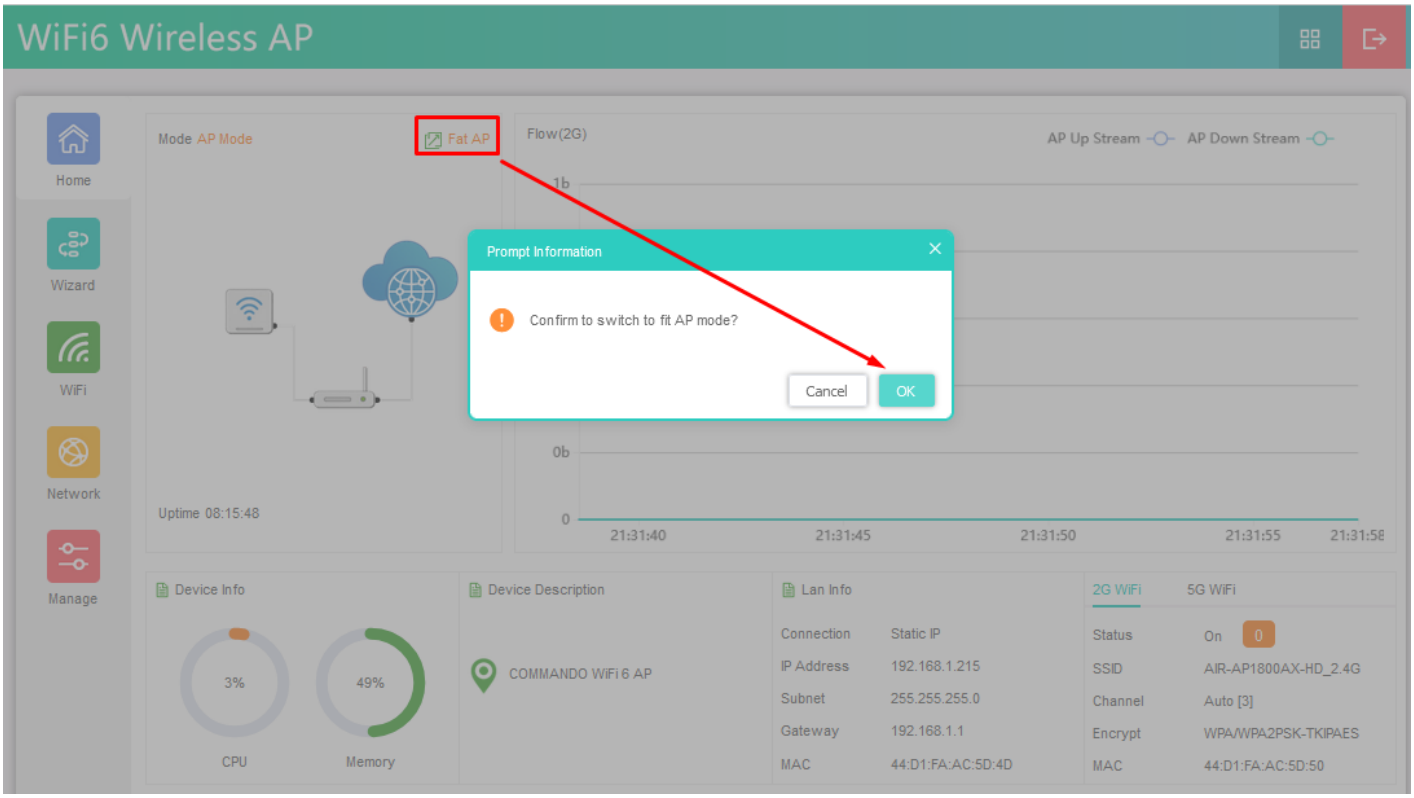

Fig 1.5.1 Fat AP mode of AirONE AP1800AX

Note: Same Password to be used for login in Fit and Fat mode of operation

1.6 AP UP/Down stream Flow (2G Wi-Fi) bps

In Flow (2G/5G Wi-Fi) bps you can monitor the AP's Upstream and Downstream bandwidth in bps.

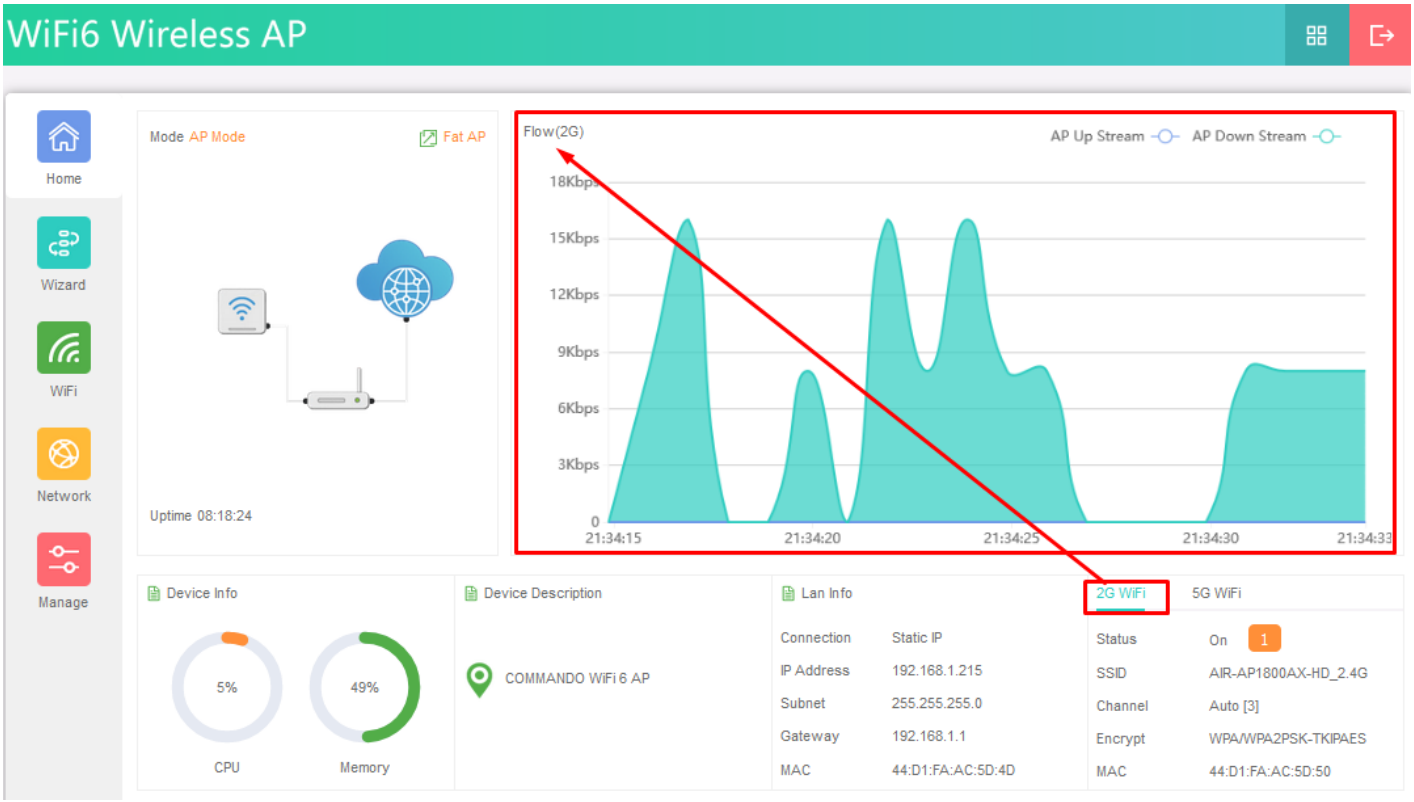

Fig 1.6.1 Flow (2G Wi-Fi) bps of AirONE AP1800AX

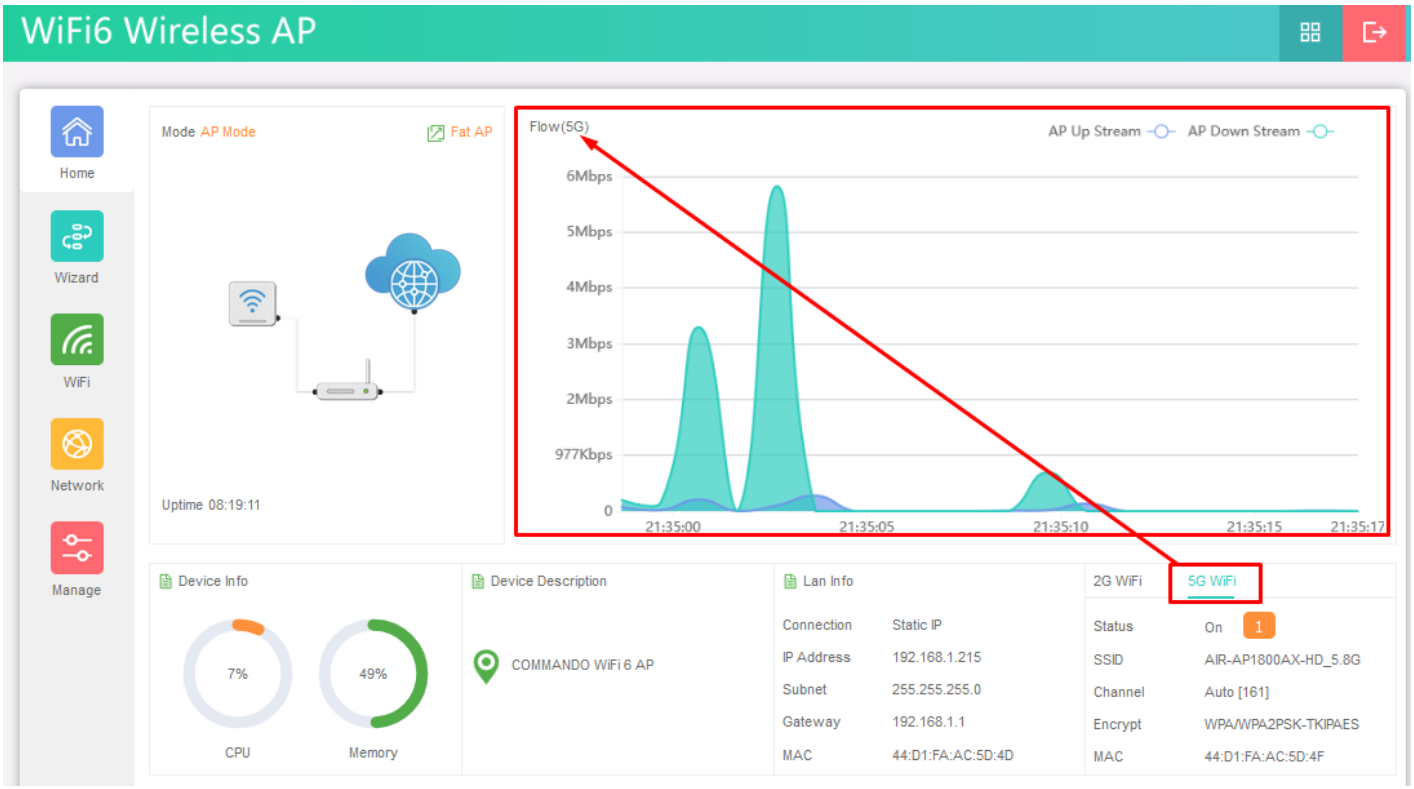

Fig 1.6.2 Flow (5G Wi-Fi) bps of AirONE AP1800AX

WIZARD

After clicking Wizard page, you can set device in Gateway Mode and AP Mode (Default Selection). It provides flexibility to configure wireless AP's operation mode based on network scenario making this AP future proof. You are required to select corresponding operation mode first before starting the configuration. Clicking Wizard will pop up following page to configure the operation mode along with photos with explanation for each operation mode.

Gateway Mode:
In Gateway mode, all Ethernet are bridged together, and wireless clients will connect ISP access point or router connecting directly to the Internet via WAN PORT. NAT is enabled and PCs in Ethernet LAN port share the same IP to ISP through wireless LAN.

AP Mode:
In AP mode, the device works as an access point to transform your existing wired network into a wireless network.

2.1 Gateway Mode

In Gateway mode, your internet provider's RJ-45 is connected to WAN port of AP1800AX. Internet provider WAN setting can have Static IP, PPPoE, or DHCP accordingly select option. Then configure the wireless parameters as per your choice of SSID, Channel width, Encryption and Time reboot if required.

Important note: Before changing mode Gateway make sure that LAN IP is set to static by going to network wizard.

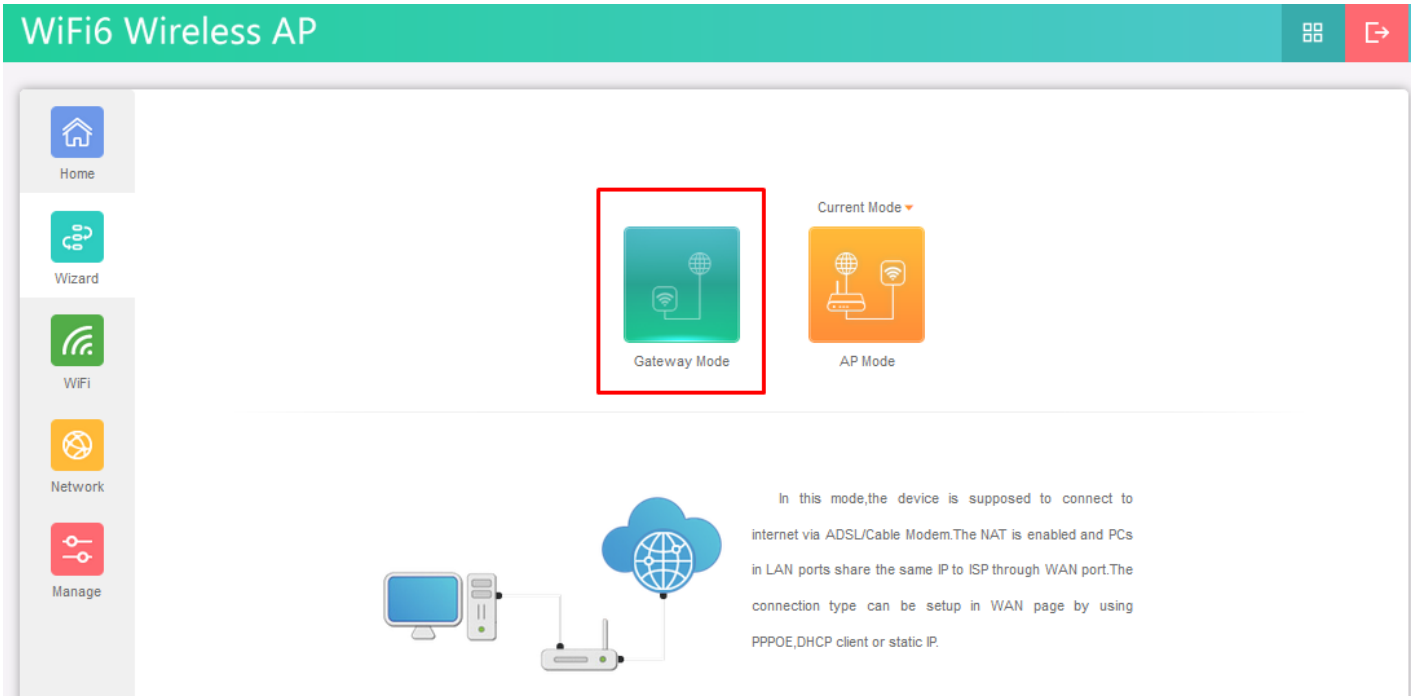

Fig 2.1.1 Gateway mode of AirONE AP1800AX

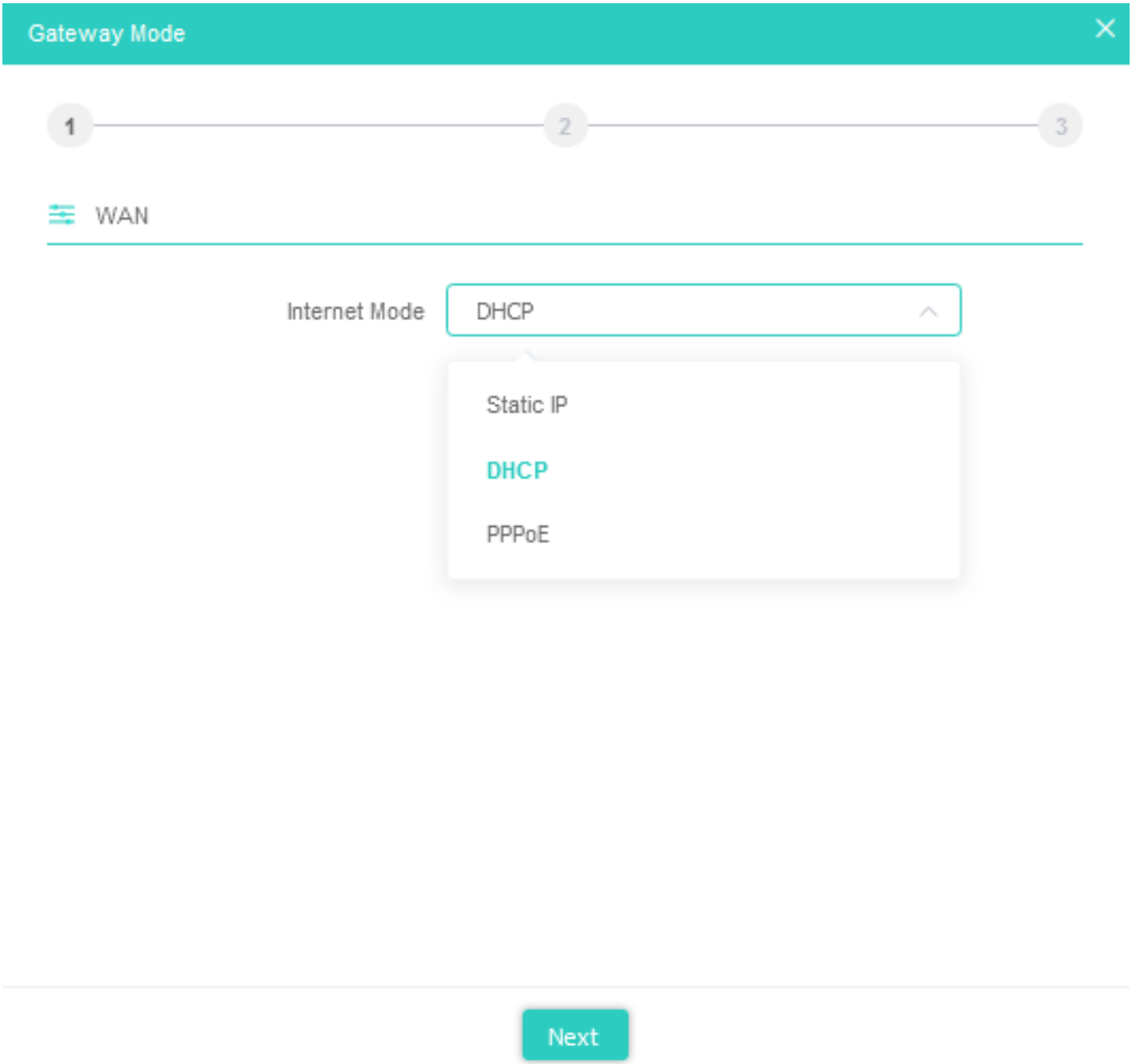

Fig 2.1.2 Gateway mode WAN Setting of AirONE AP1800AX

Note: You can set SSID name and encryption and password as per requirement. Please turn ON Wi-Fi Status to make it active.

Recommendation: Turn off all Wi-Fi Timers.

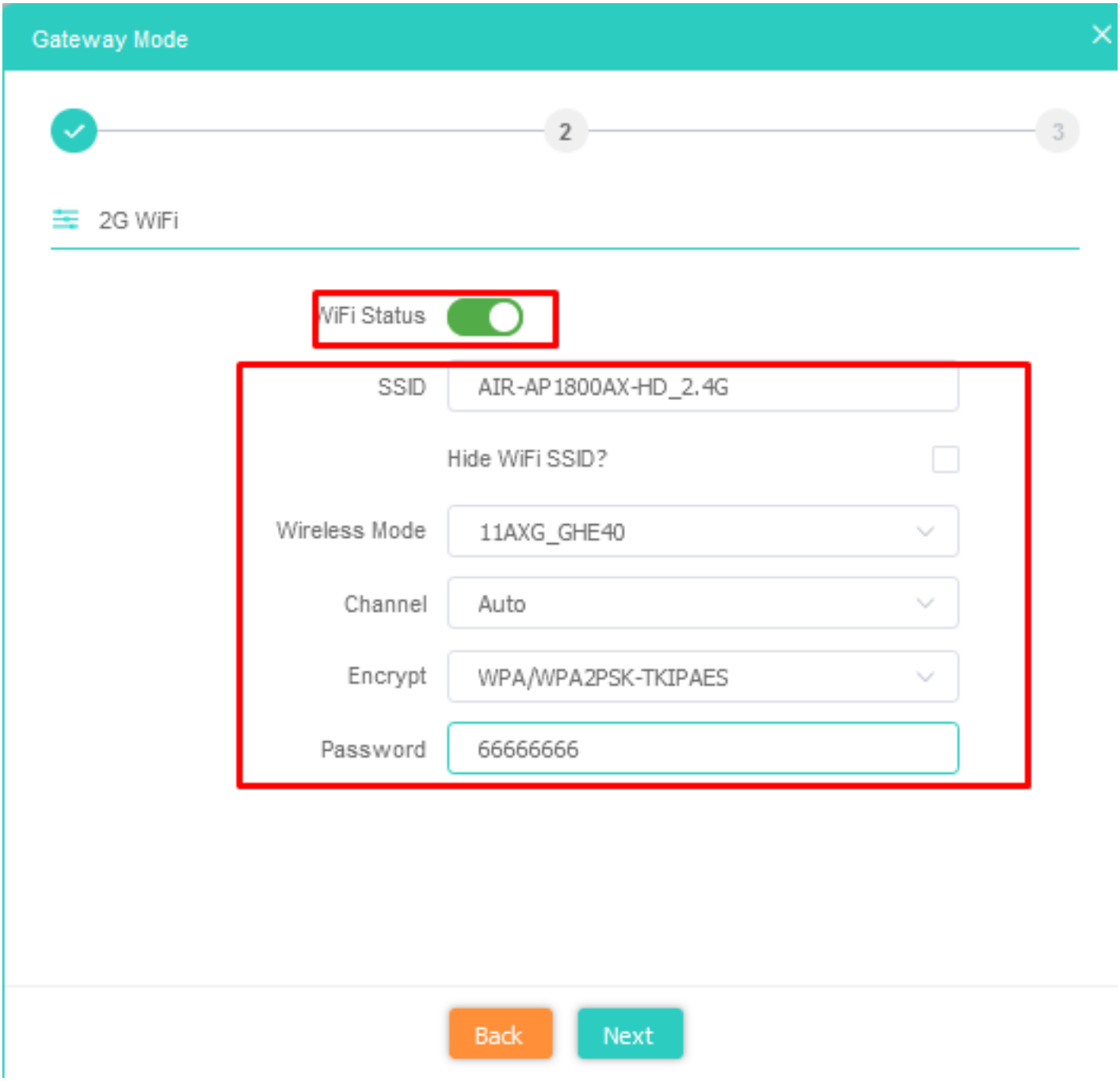

Fig 2.1.3 Gateway mode 2G Wi-Fi Setting of AirONE AP1800AX

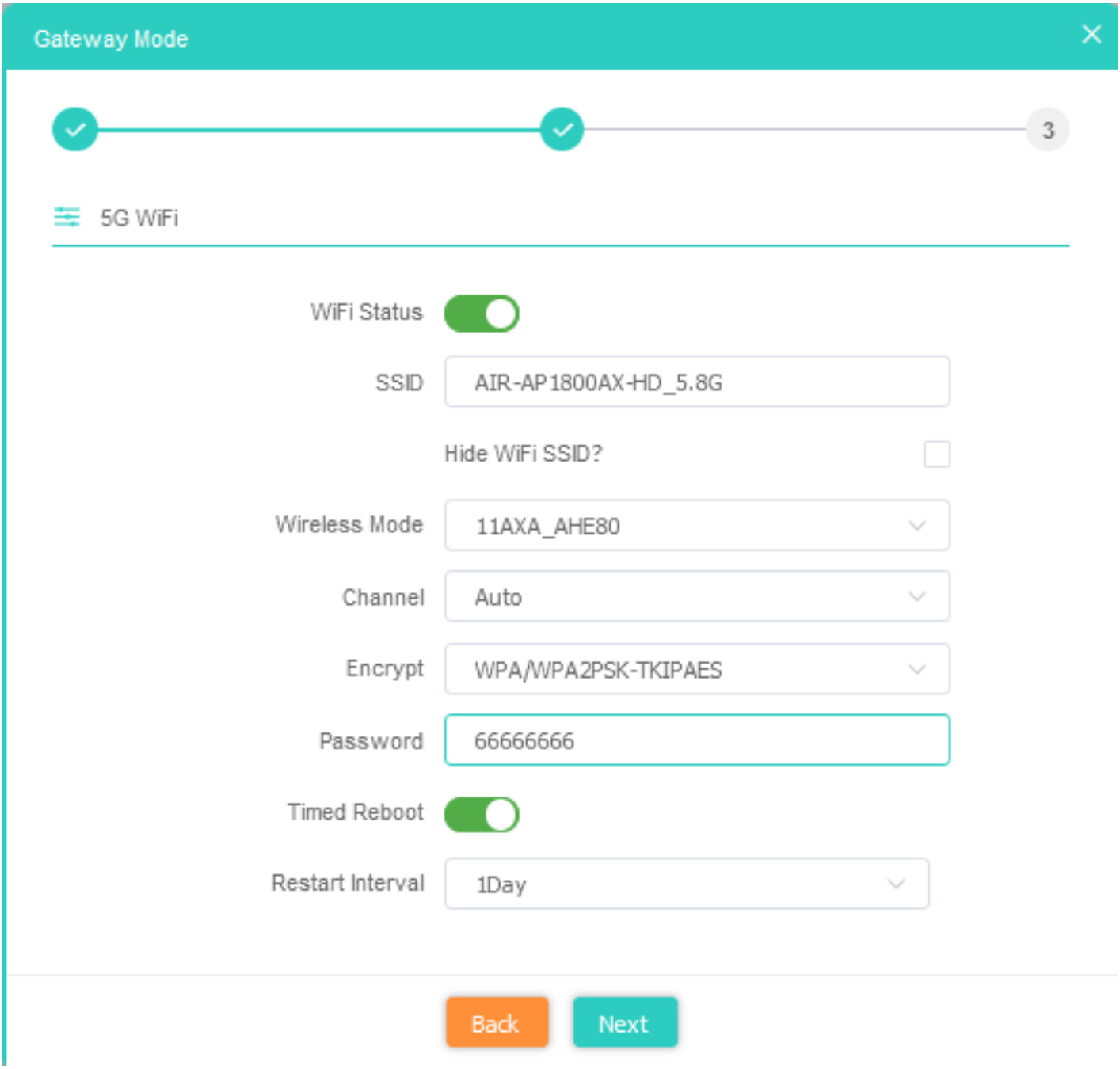

Fig 2.1.4 Gateway mode 5G Wi-Fi Setting of AirONE AP1800AX

Note: The device will restart for the changes to take effect for mode changes to Gateway mode.

Home page, will show LAN, WAN, Wi-Fi, Device Information, along with operation mode.

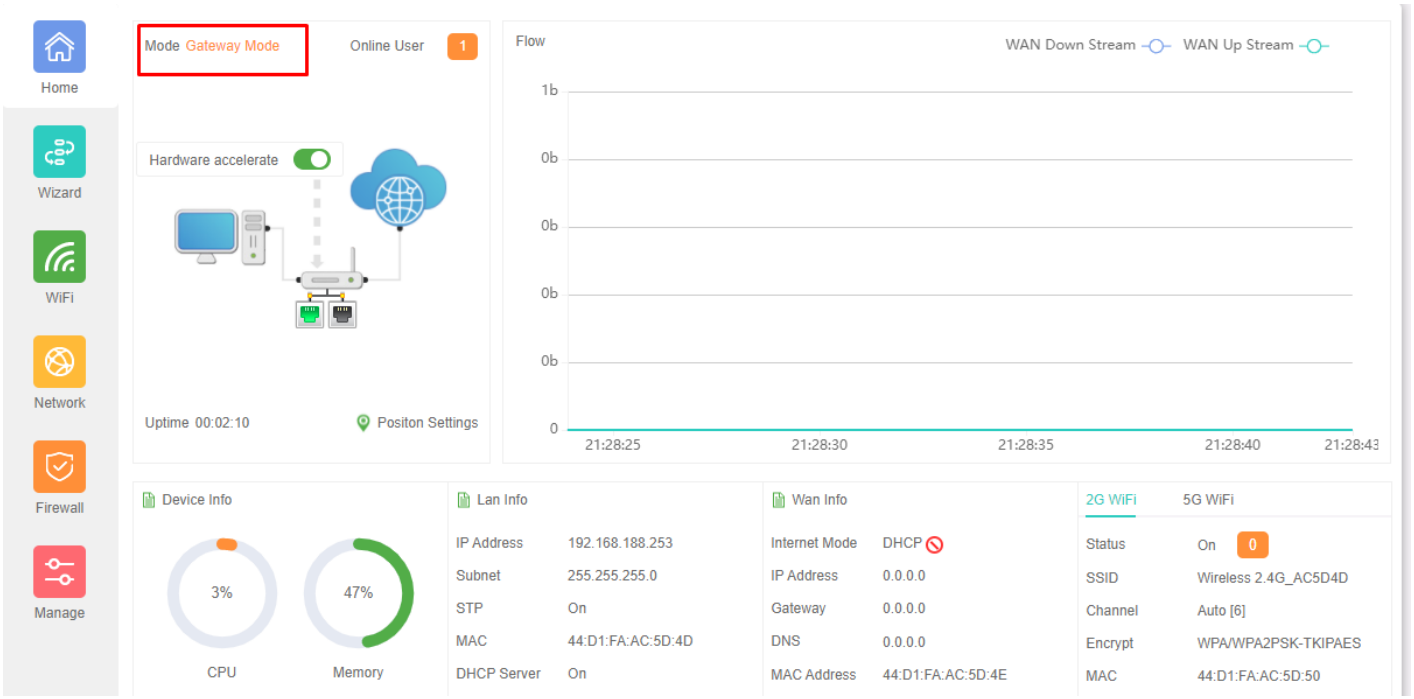

Fig 2.1.5 Gateway mode of AirONE AP1800AX

2.2 AP Mode

In AP mode, Set LAN setting from static IP, AC or gateway. Then configure the wireless parameters as per your choice of SSID, Channel width, Encryption and Time reboot if required.

Note: This is a default mode of operation for device.

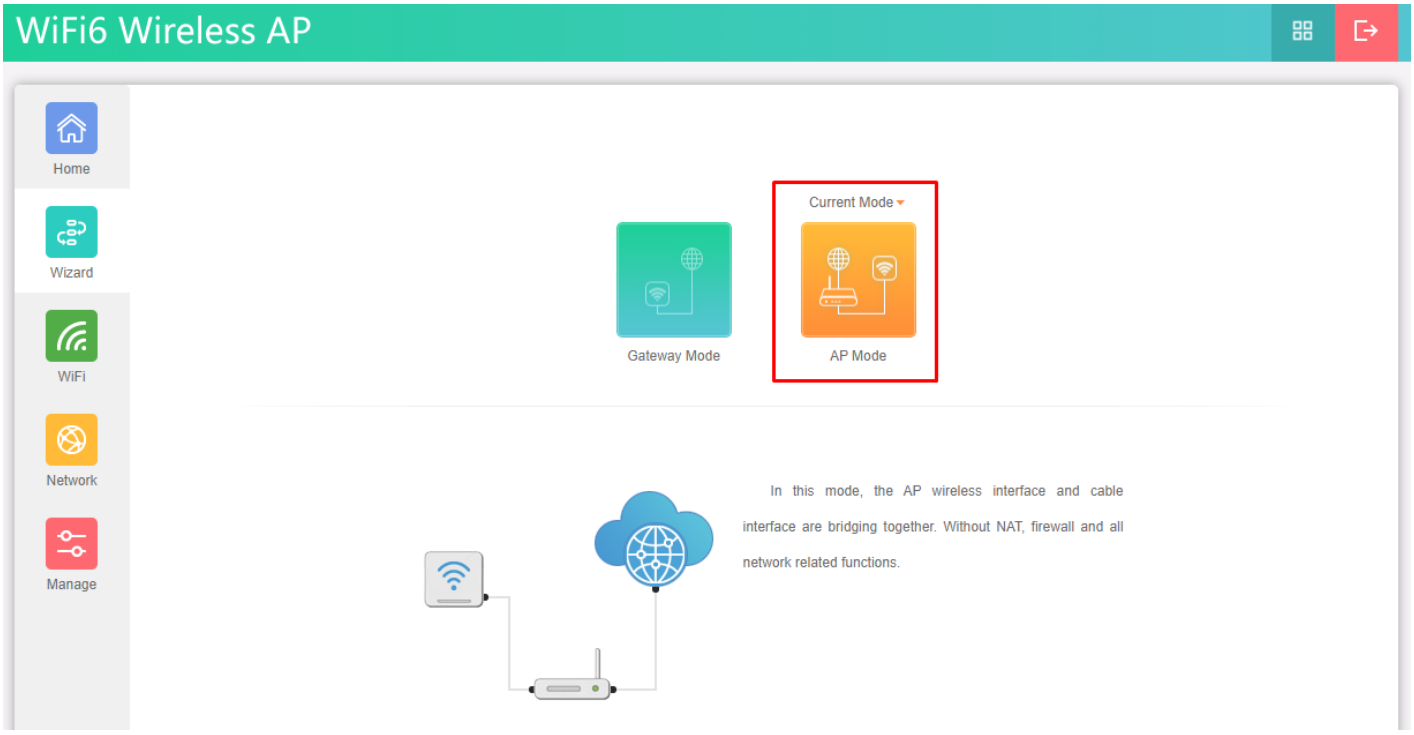

Fig 2.2.1 AP mode of AirONE AP1800AX

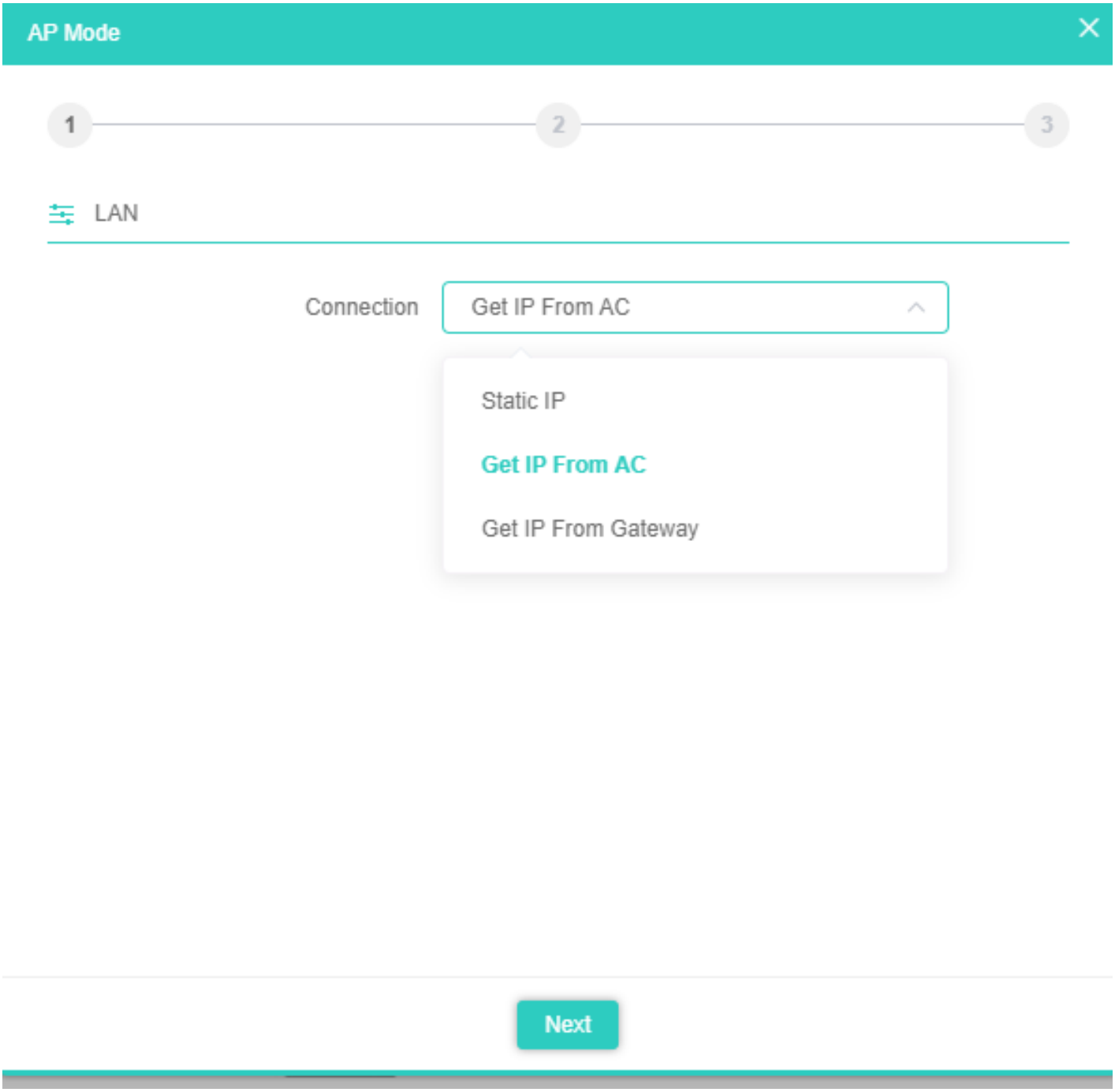

Fig 2.2.2 Setting IP mode of AirONE AP1800AX

Note: You can set SSID name and encryption and password as per requirement. Please turn ON Wi-Fi Status to make it active

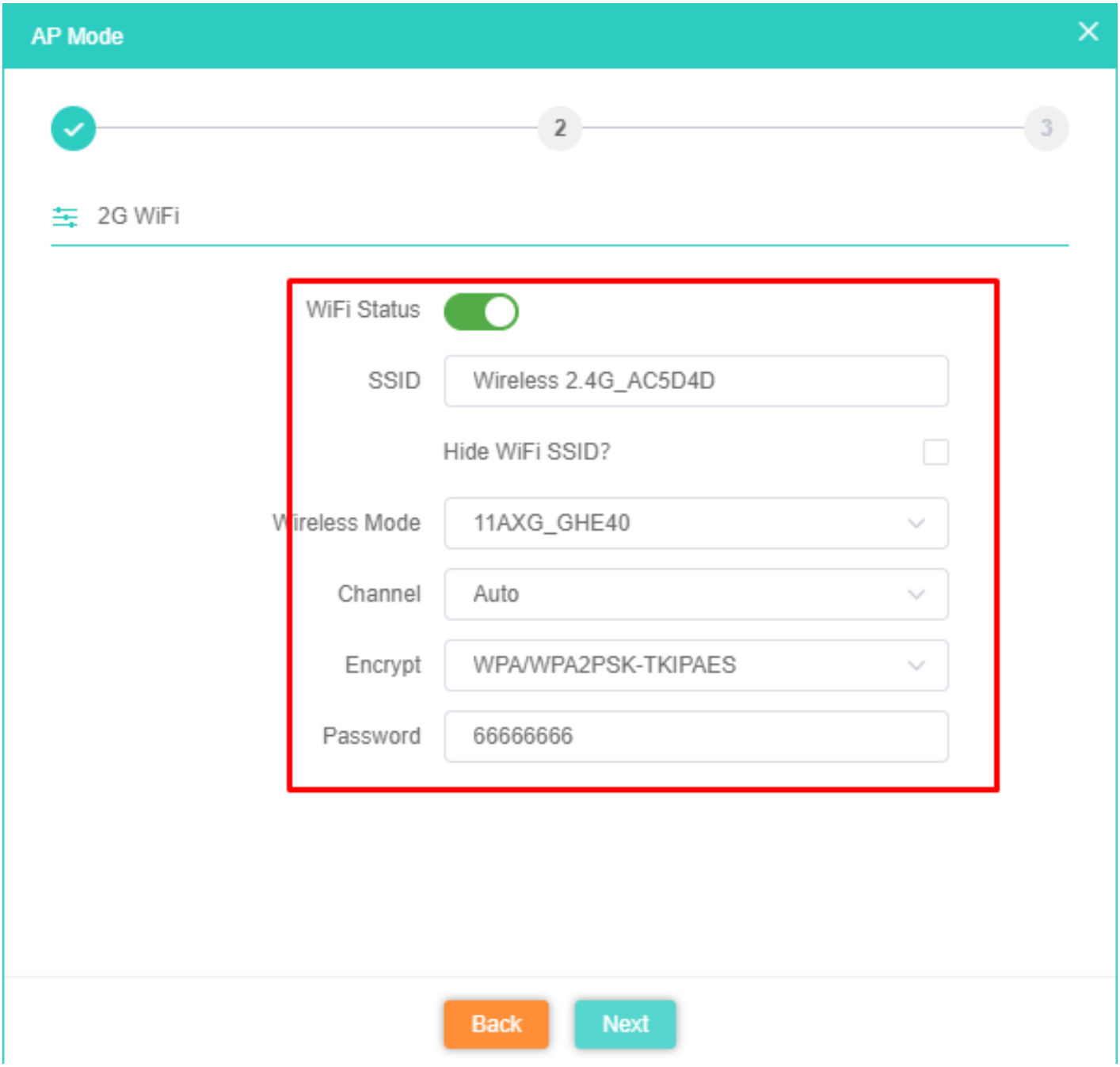

Fig 2.2.3 Setting 2G Wi-Fi for AP mode of AirONE AP1800AX

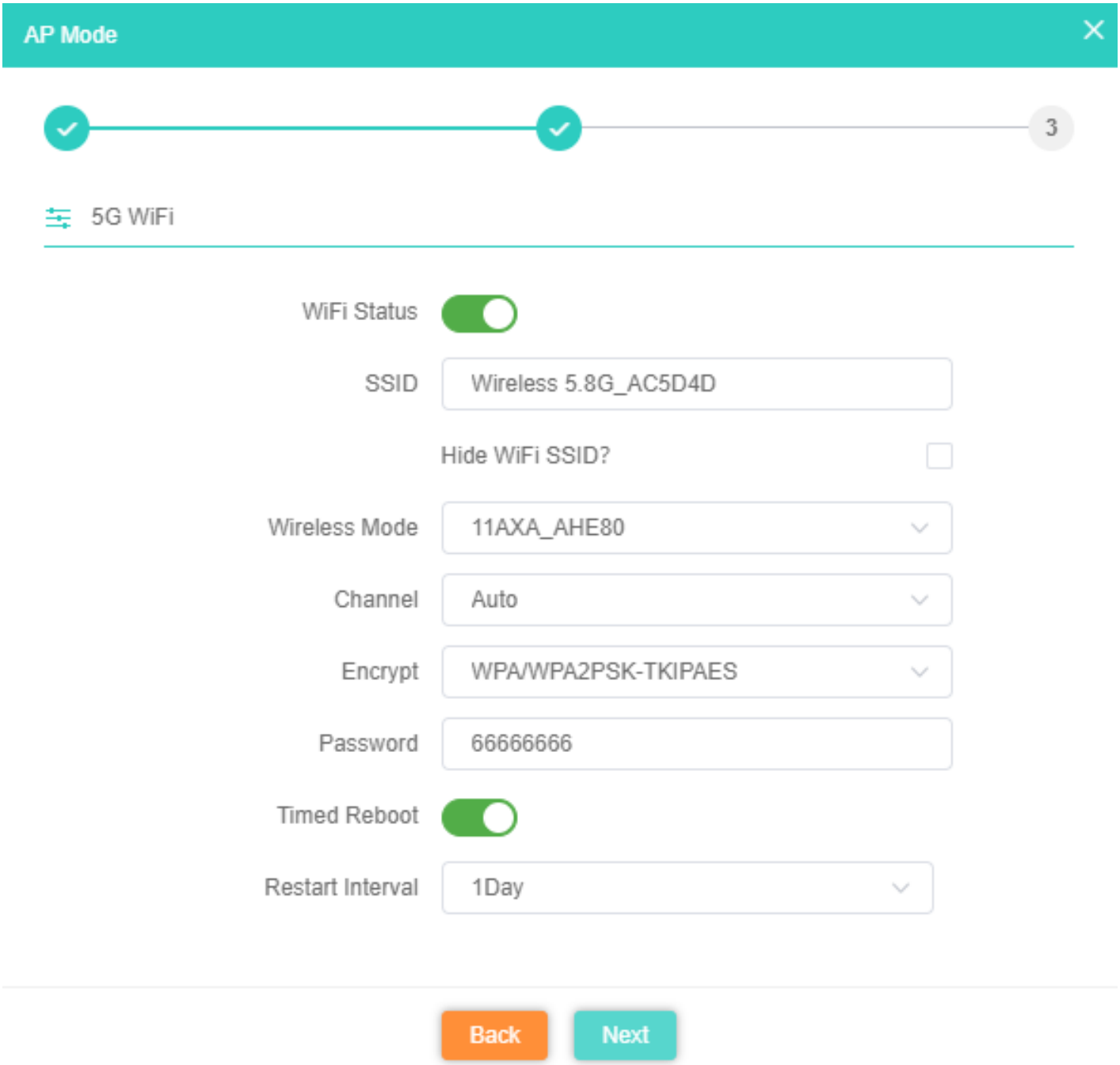

Fig 2.2.4 Setting 5G Wi-Fi for AP mode of AirONE AP1800AX

Note: The device will restart for the changes to take effect for mode changes to AP mode.

Home page will show LAN, Repeater, Wi-Fi, Device Information, along with operation mode shown as below.

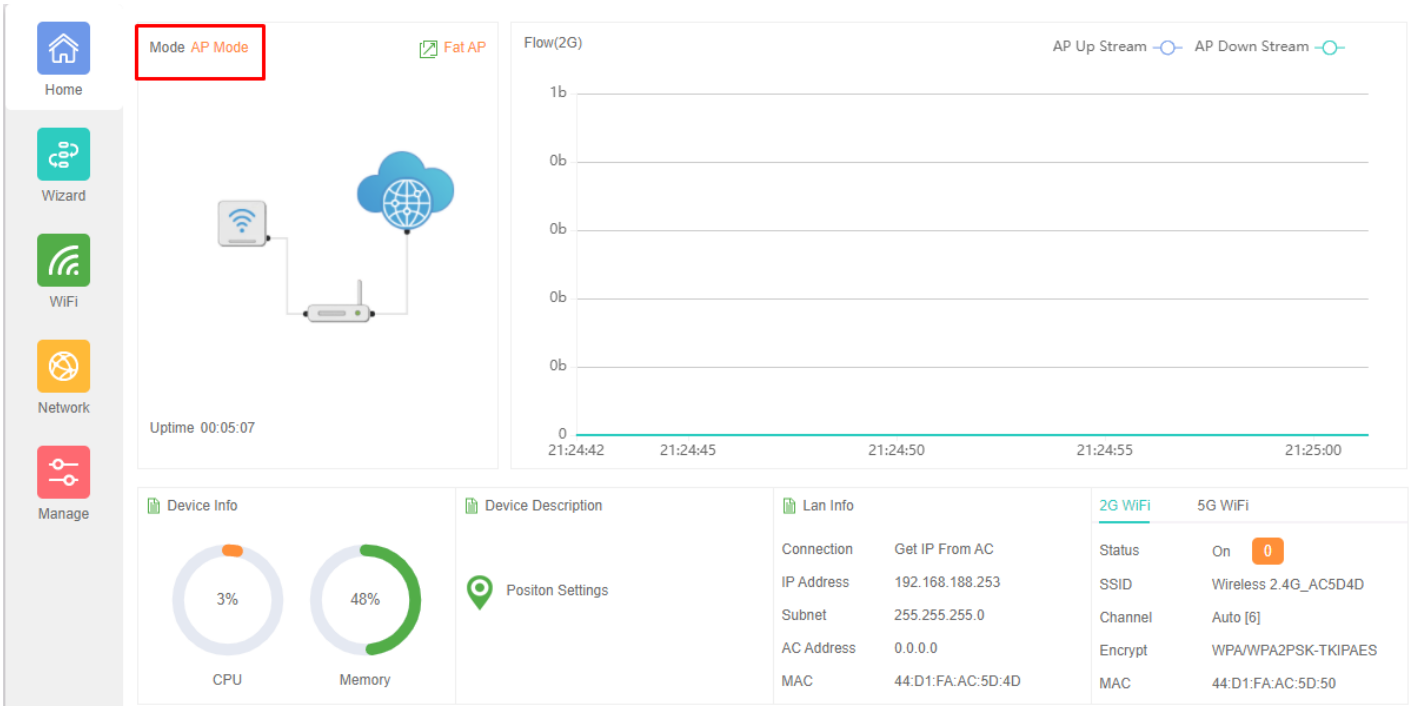

Fig 2.2.5 Home page after setting AP mode of AirONE AP1800AX

WI-FI

In Wi-Fi setting you can set the 2.4G/5.8G Wi-Fi setting, MAC ACL, Wi-Fi Timer off and Advanced settings.

2G/5G Wi-Fi Settings:
Can set Multi SSID in 2G/5G band along with Basic SSID all other VAP 1, VAP 2, VAP 3 SSID can be set. You can ON/OFF particular SSID with this setting and set VLAN ID as per choice.

MAC ACL Settings:
Can allow and prohibit wireless clients based on MAC address.

Wi-Fi Timer Settings:
Wi-Fi Timer ON/ Off along with setting Time Frame.

Advanced Settings:
Country Region, 2G (1-13) channels, 5G (36-64), (149-165) channels, User Isolation, Short GI, Coverage Threshold (-95dBm ~ -65dBm), Packet Threshold (256~2346), RTS Threshold (50~2347) & DFS.

Note: All *italic config* options are only available in Gateway mode only.

3.1 2G/5G Wi-Fi Setting

We can set 2.4G/5.8G Wi-Fi with Basic Setting along with Virtual AP setting. You can enable or disable Wi-Fi by

Wi-Fi Status: On mean SSID is available for wireless clients.

Wi-Fi Status: Off mean SSID not available.

Note:
By default Basic Wi-Fi SSID “AIR-AP1800AX_2.4G” and “AIR-AP1800AX_5.8G” is turned ON. VAP 1 to 3 can be enable manually. Various options for setting channel bandwidth in 2G band like 11NG_HT20, 11NG_HT40 & 11AXG_GHE20 and also in 5G band like 11NA_HT20, 11NA_HT40, 11AC_VHT20, 11AC_VHT40, 11AC_VHT8, 11AXA_AHE20, 11AXA_AHE40, 11AXA_AHE80, 11AXG_GHE40. It can check free channels available with inbuilt Wi-Fi analysis.

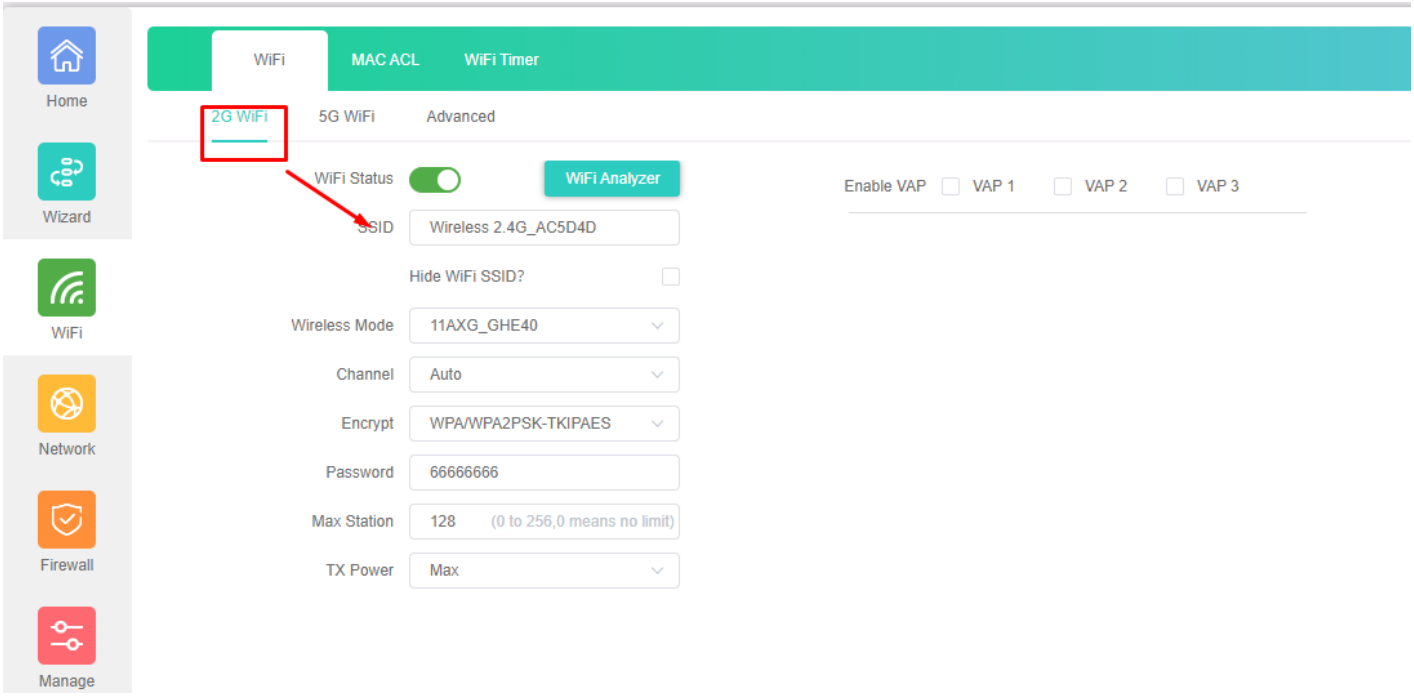

Fig 3.1.1 2G Wi-Fi enable and disable of Basic and VAP 1,2,3 of AirONE AP1800AX

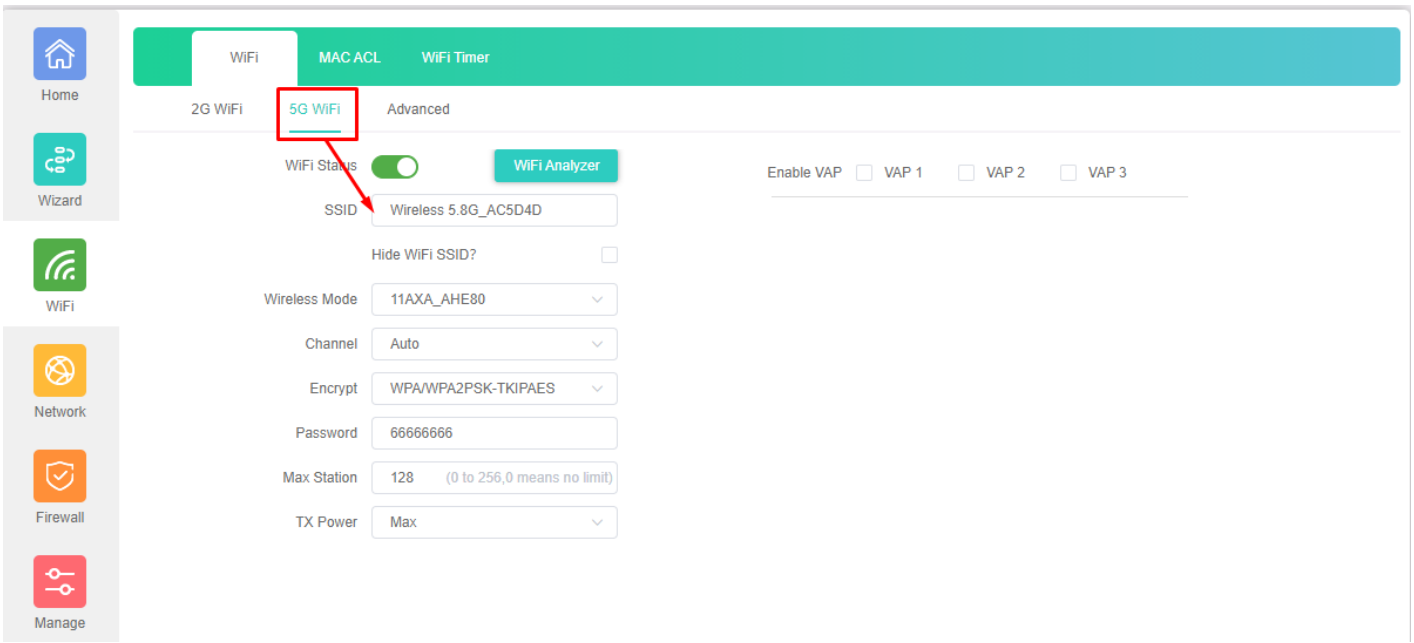

Fig 3.1.2 5G Wi-Fi enable of AirONE AP1800AX

Wi-Fi Analyzer is a handy tool which helps you to select a better channel and mainly to analyze the AP's signal strength and channel, to make user easier to choose the channel with less Wireless Interference.

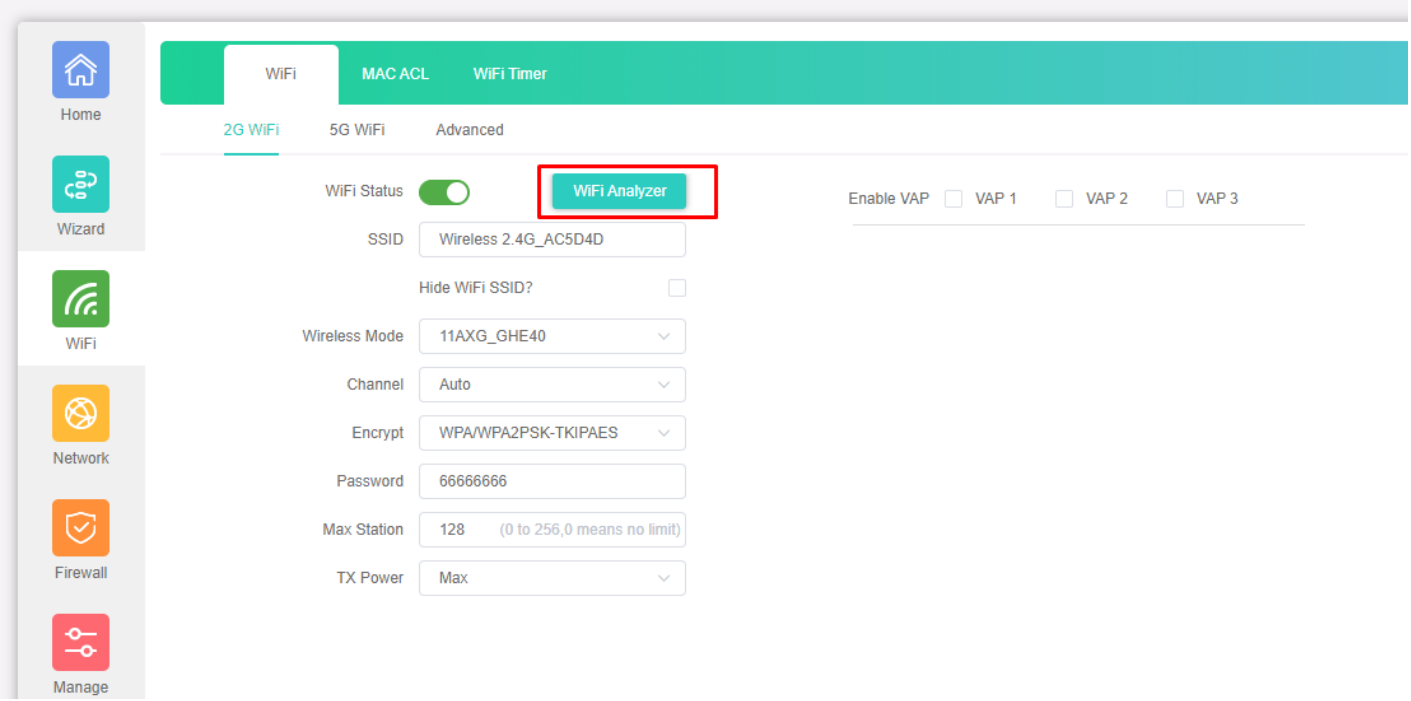

Fig 3.1.3 2G Wi-Fi Analyzer button of AirONE AP1800AX

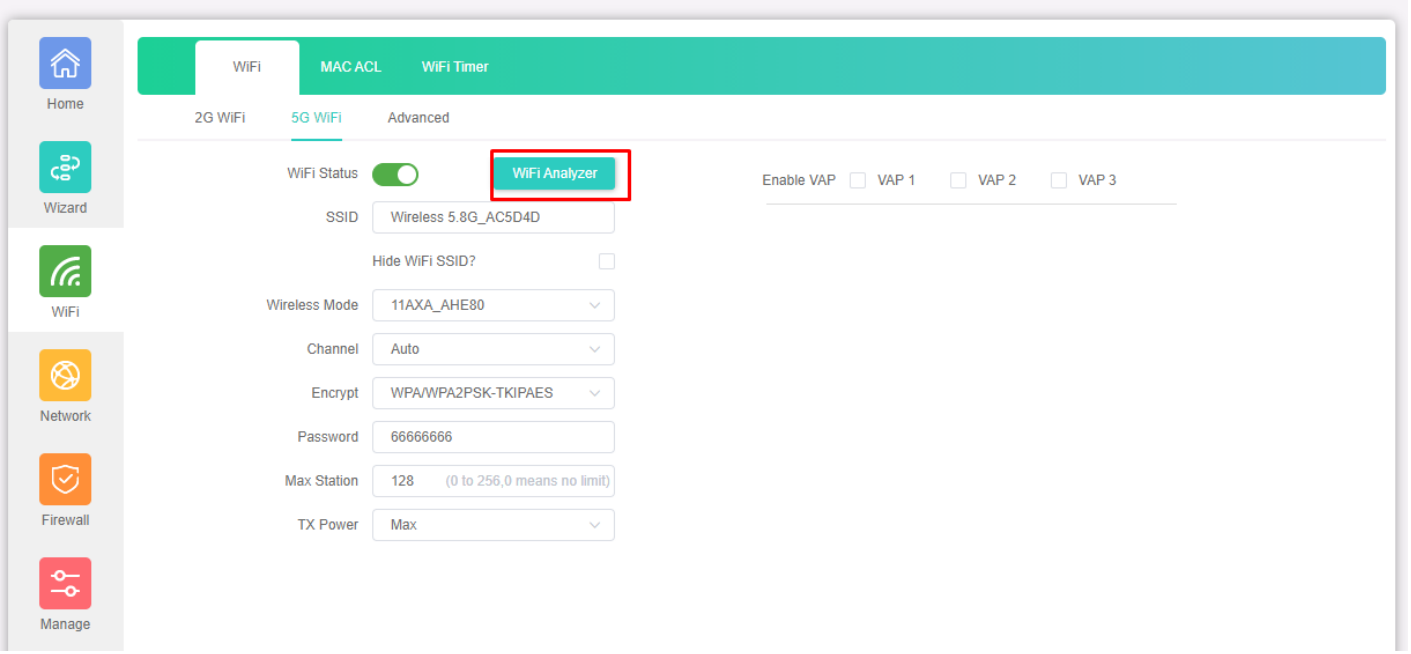

Fig 3.1.4 5G Wi-Fi Analyzer button of AirONE AP1800AX

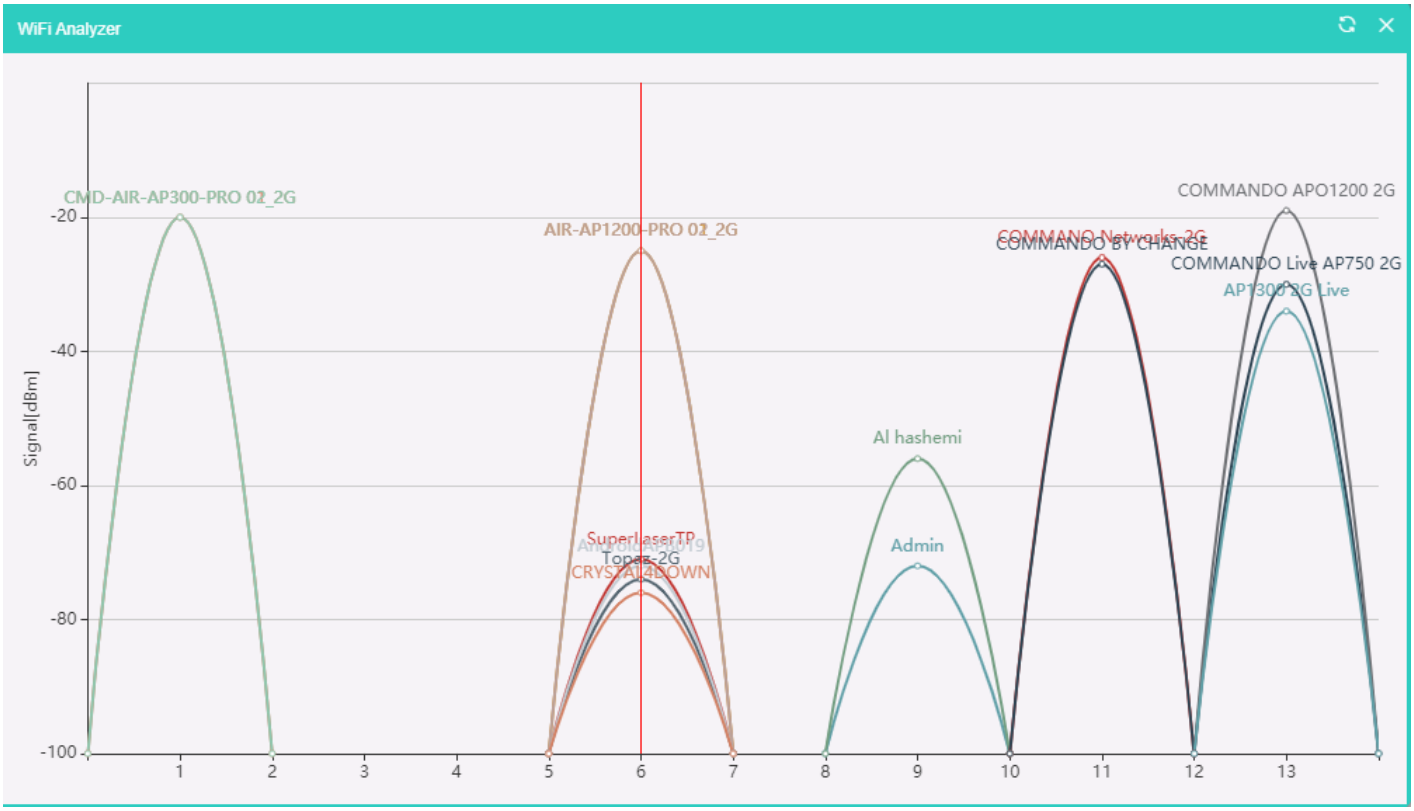

Fig 3.1.5 2G Wi-Fi Analyzer of AirONE AP1800AX

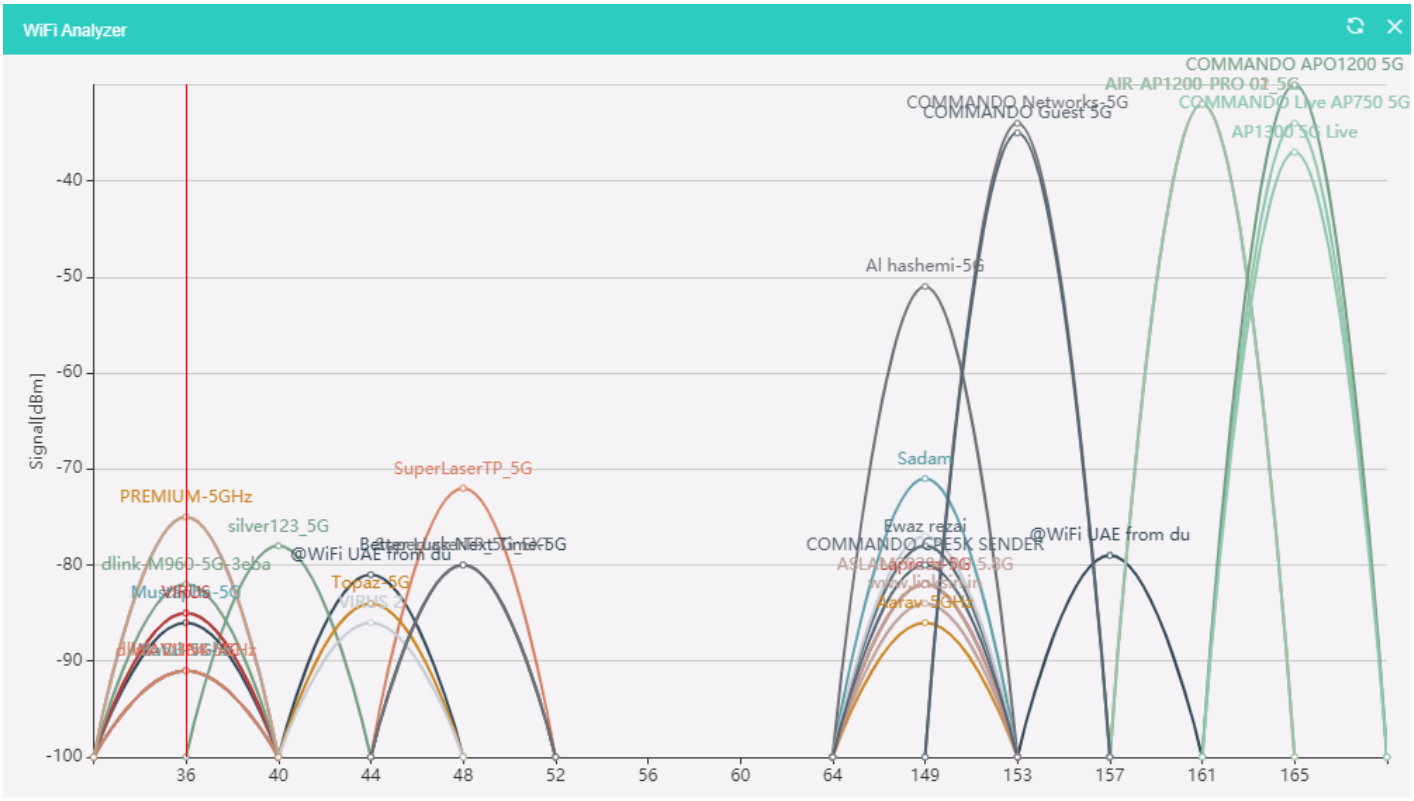

Fig 3.1.6 5G Wi-Fi Analyzer of AirONE AP1800AX

Note: Red line denote channel used and signal strength available. This AP has very strong signal and coverage than all peer top brand AP.

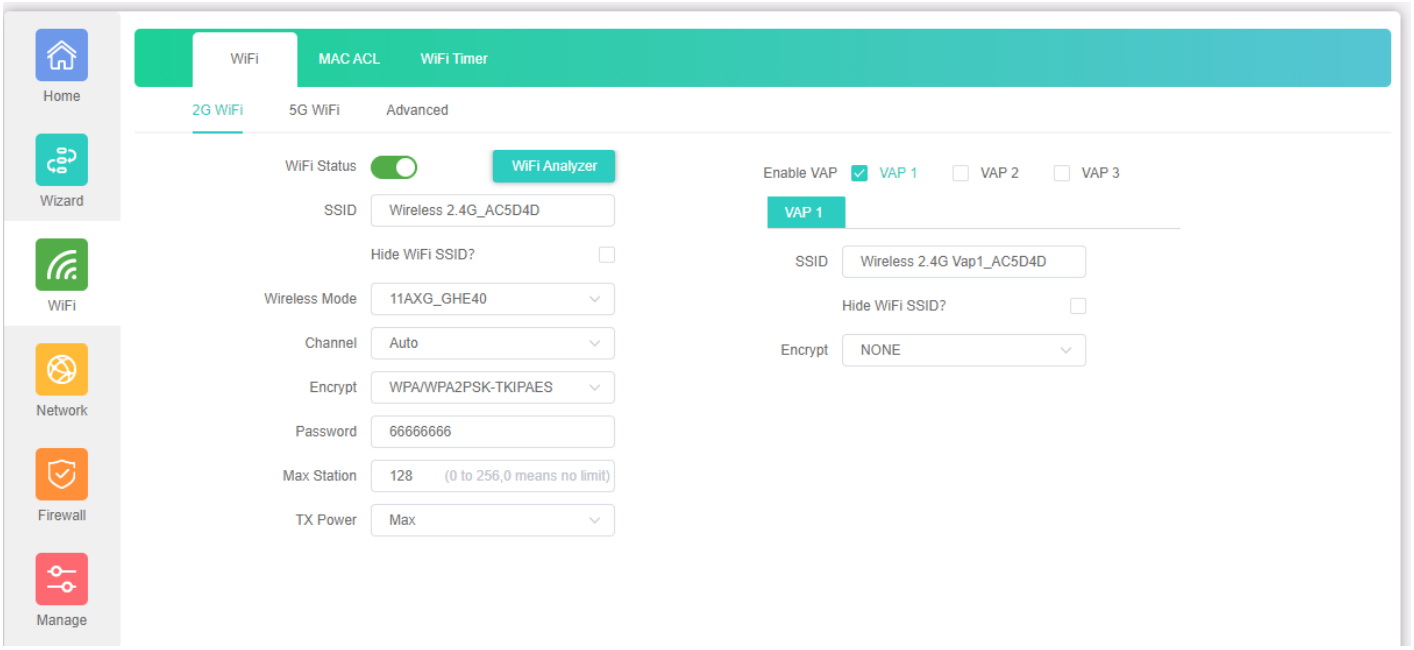

Fig 3.1.7 Enabling 2G VAP 1 of AirONE AP1800AX

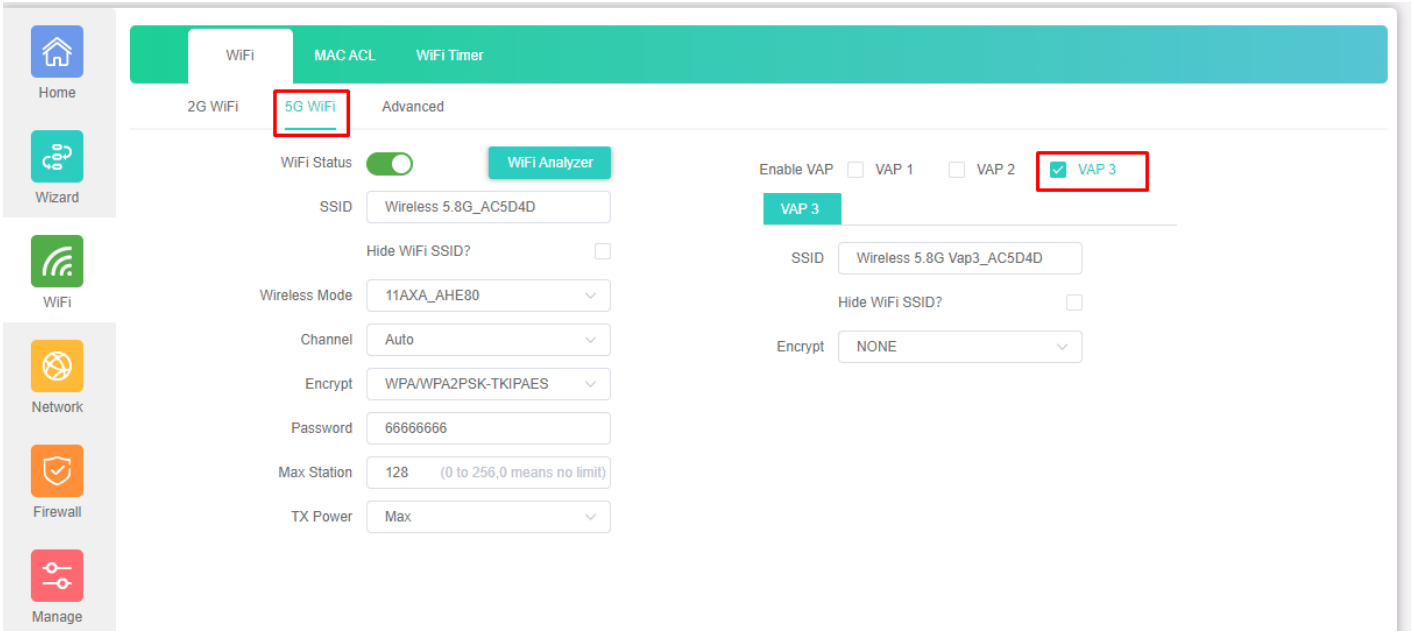

Fig 3.1.8 Enabling 5G VAP 3 of AirONE AP1800AX

Important Note:

You can change All SSID name, Encryption and Wi-Fi password as per your choice to be used by wireless clients.

Note:

You can have Multi SSID up to 8 configured on AirONE AP1800AX. All SSID will use same channel in 2G and 5G band and channel width as set in Basic SSID but each Virtual Access Point (VAP) can set different name, encryption and password. You can do VLAN management in AP mode by setting particular VLAN for wireless users.

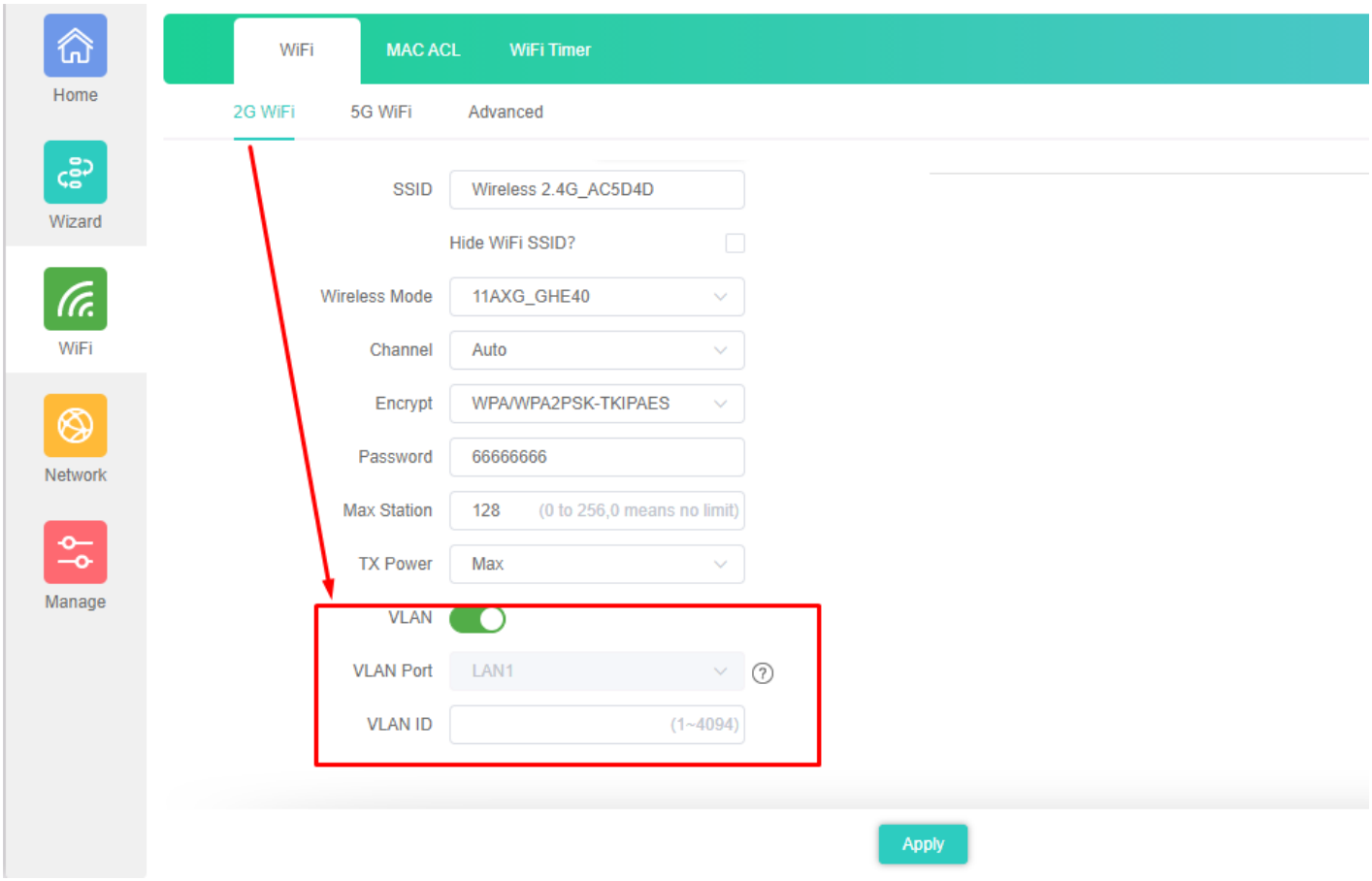

Fig 3.1.9 2G VLAN Management of of AirONE AP1800AX

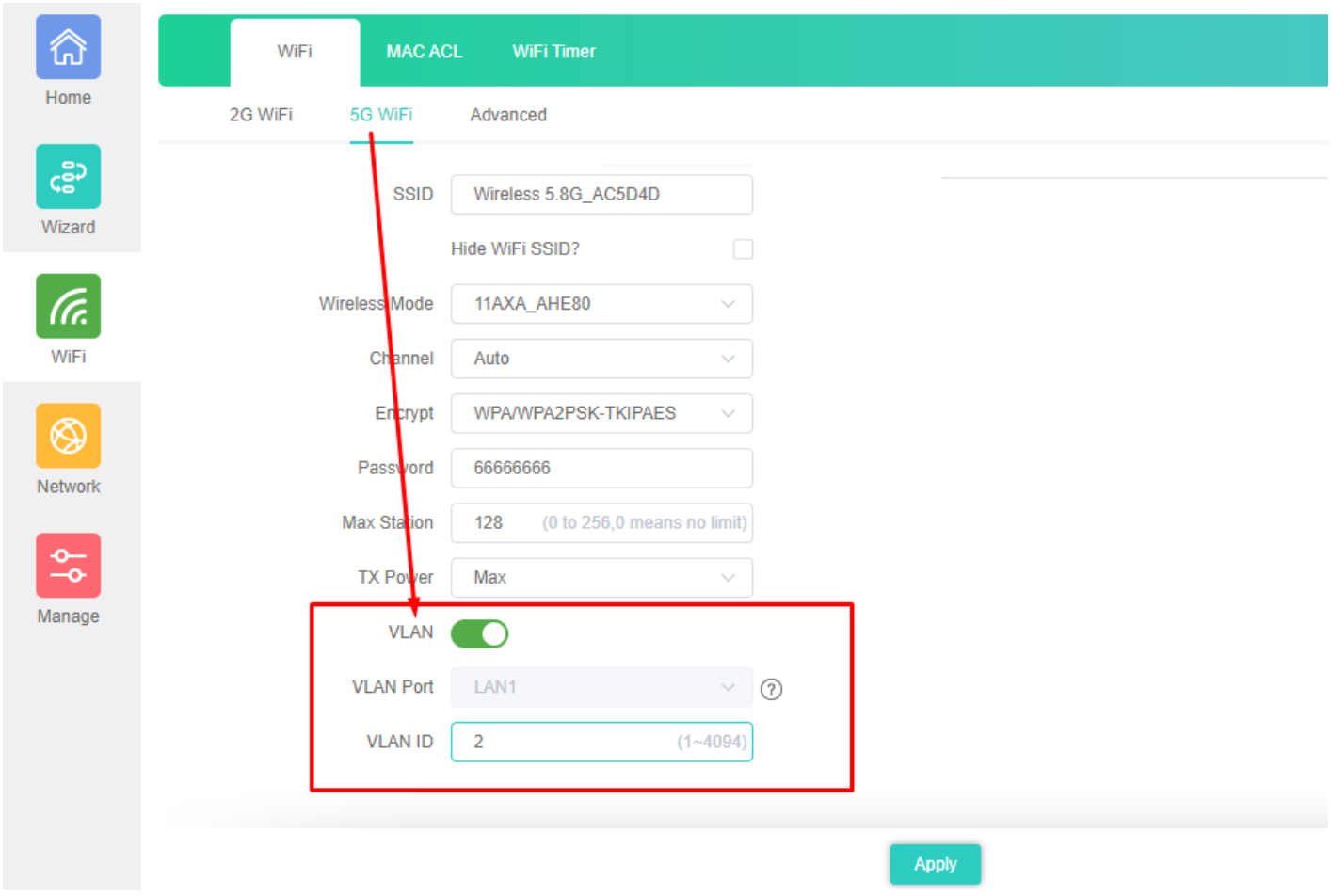

Fig 3.1.10 5G VLAN Management of AirONE AP1800AX

3.2 MAC ACL Settings

MAC ACL Allow or prohibits the wireless users access into this device based on MAC address. Filters using MAC address of wireless client. If you permit or allow few clients then automatically all other non-allowed client cannot associate with AP. When a client is denied access through a MAC-based filter, the client cannot associate with the AP.

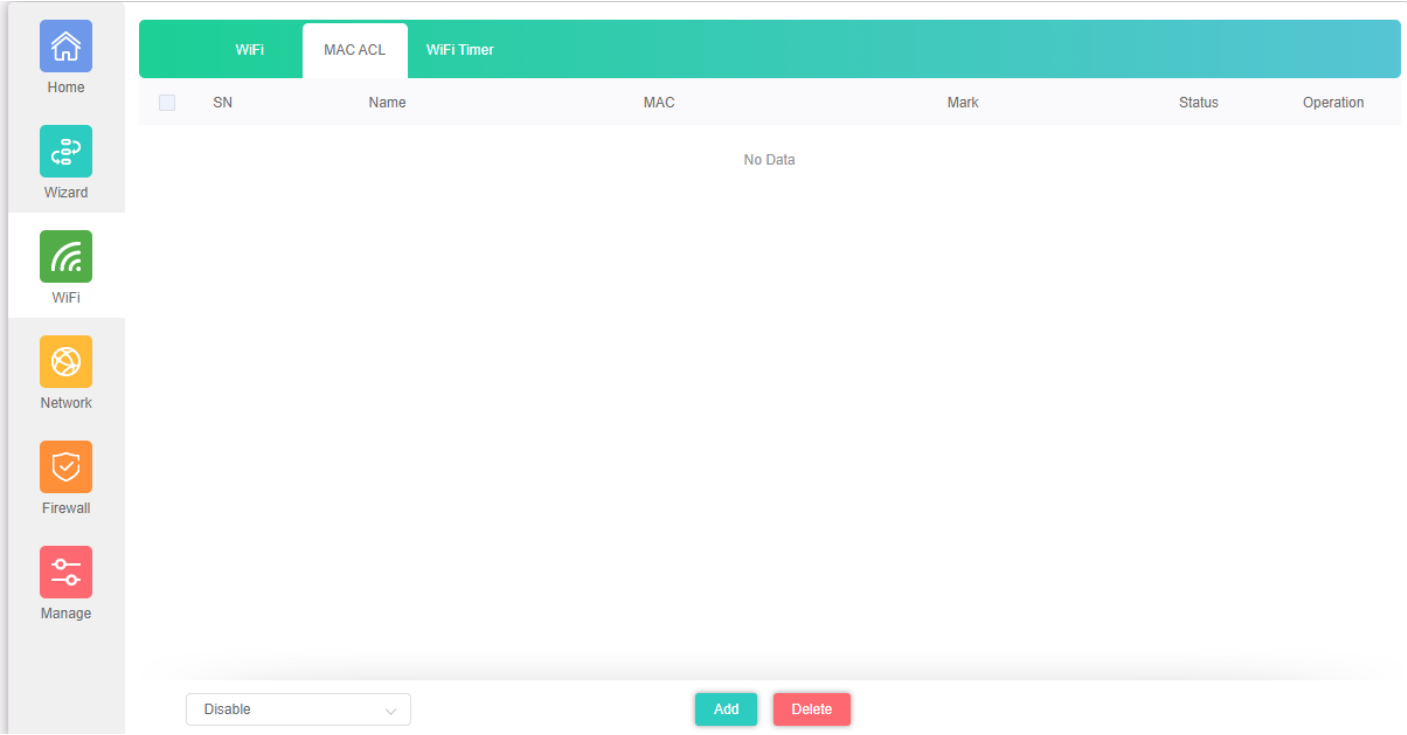

Fig 3.2.1 Default MAC ACL of AirONE AP1800AX

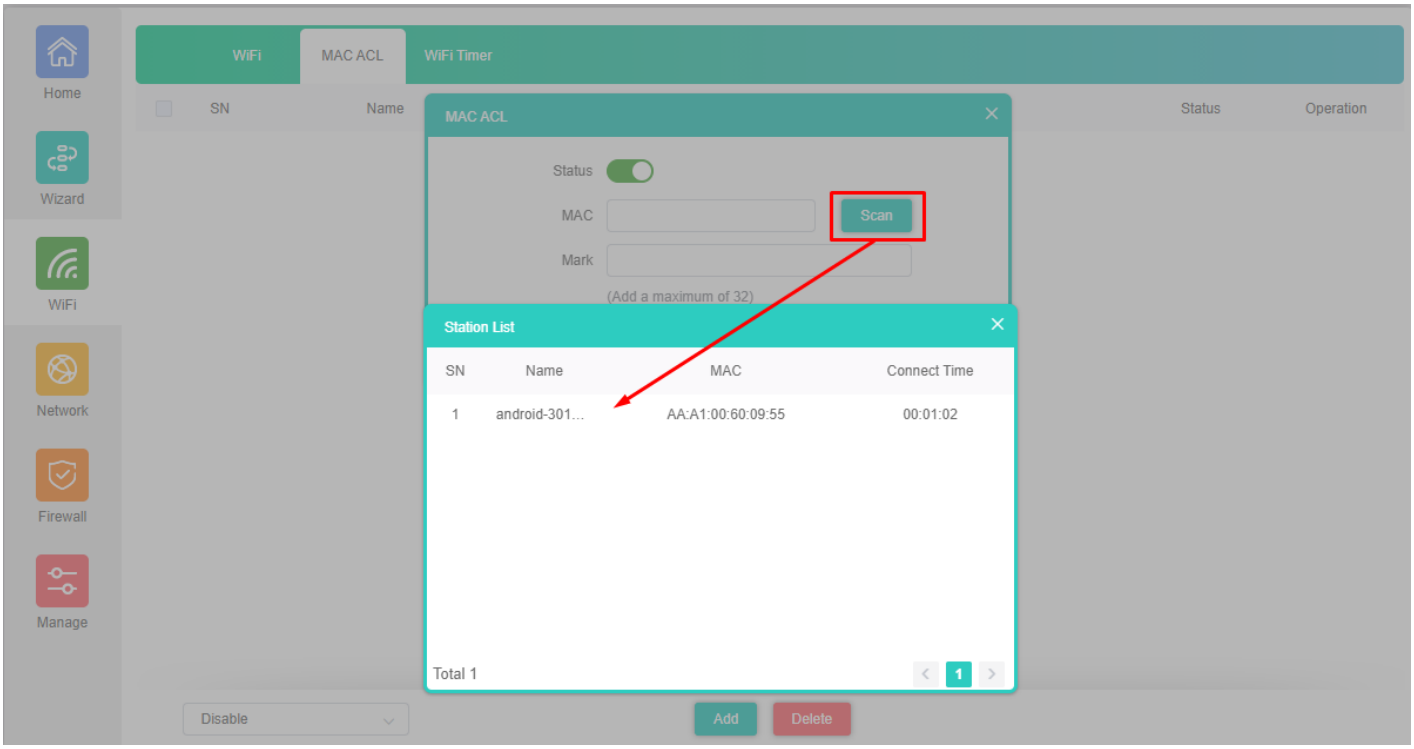

Fig 3.2.2 Add MAC ACL of AirONE AP1800AX

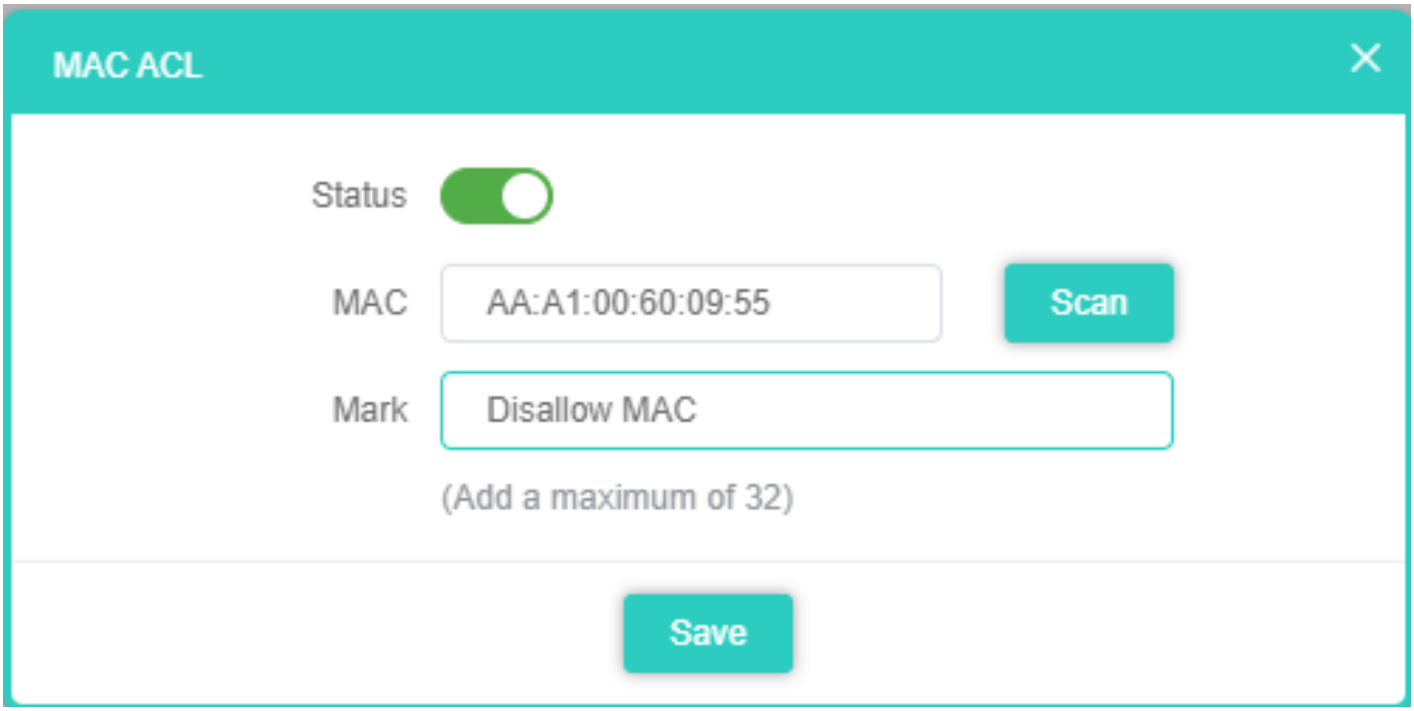

Fig 3.2.3 Select MAC address of AirONE AP1800AX

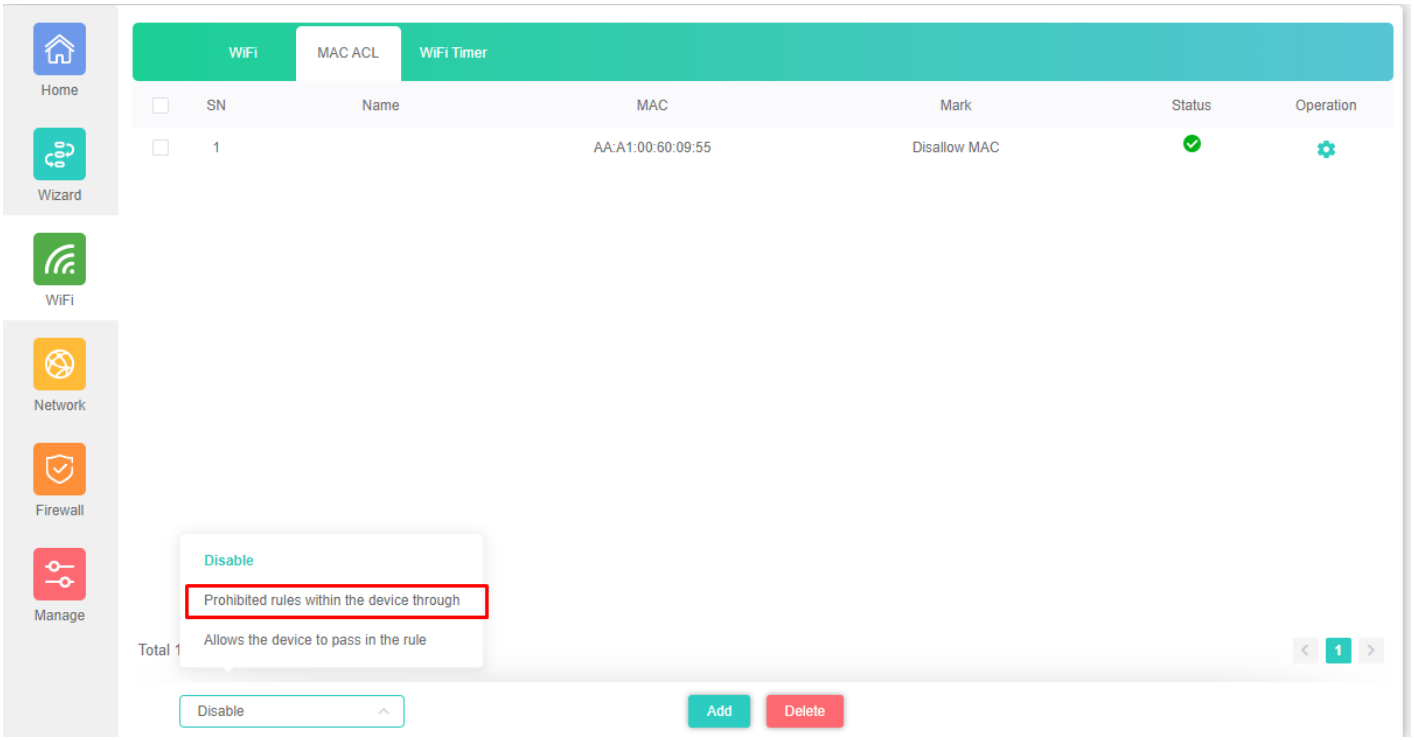

Fig 3.2.4 Apply MAC ACL for AirONE AP1800AX

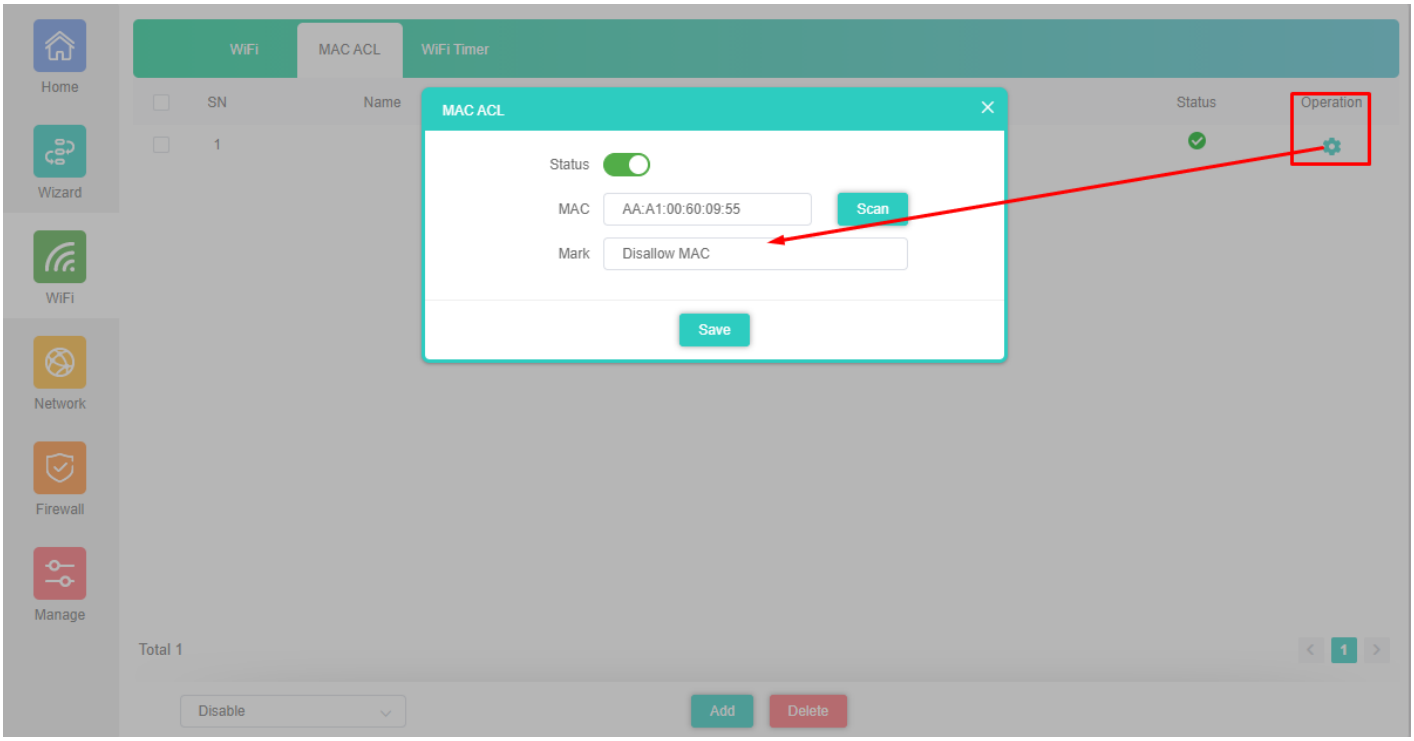

Fig 3.2.5 Config Button of MAC ACL for AirONE AP1800AX

3.3 Wi-Fi Timer Settings

Enable **Wi-Fi Timer Off** to turn off the SSID in the specified time. It schedules, turning your Wi-Fi OFF at a given time so that wireless client cannot associate with AP.

Recommendation: It is not recommended to make Wi-Fi Timer to be OFF in Wizard as well as in this setting to enjoy Wi-Fi all the time.

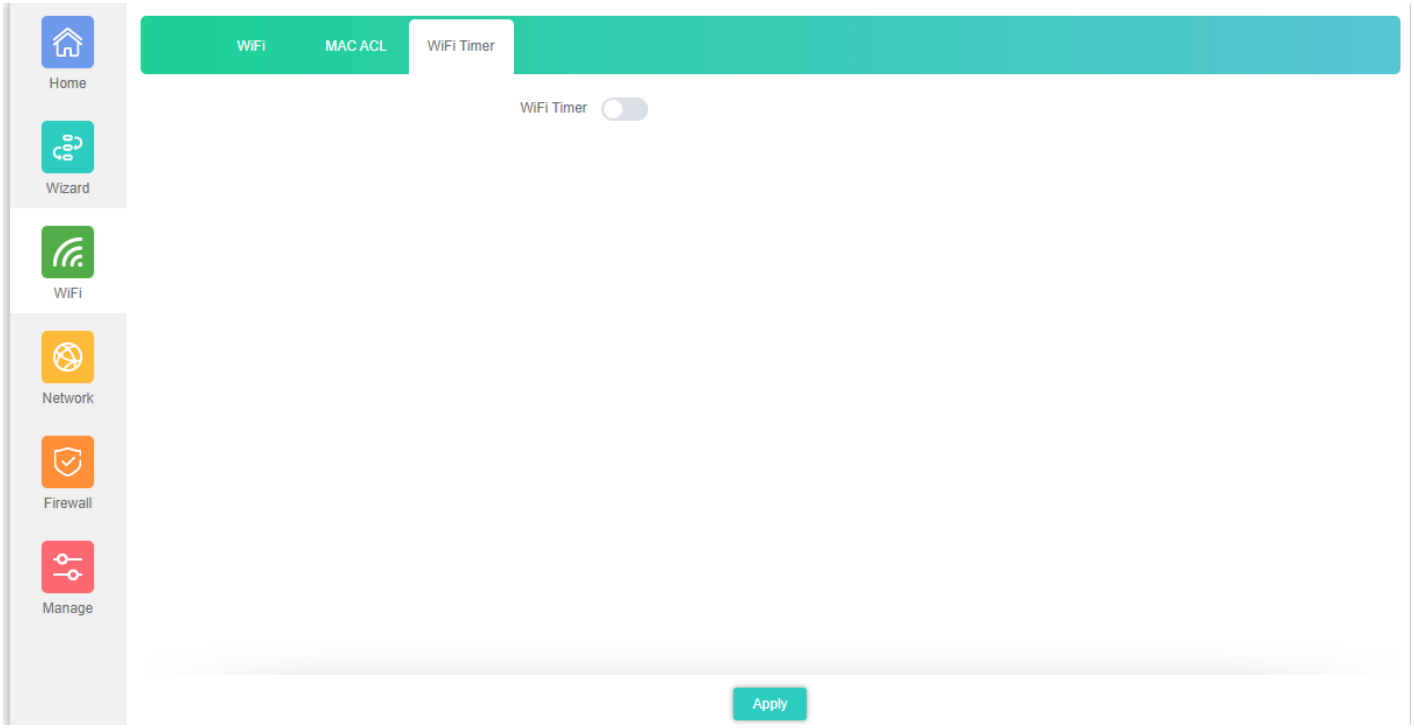

Fig 3.3.1 Default Wi-Fi Timer Off for AirONE AP1800AX

How to shutdown Wi-Fi after office time?

Assume office time is from 9:00AM to 10:00PM and you wish to turn off Wi-Fi access but want to keep power ON for other use. Then you have to turn OFF Wi-Fi from 22:00 to 09:00 as shown.

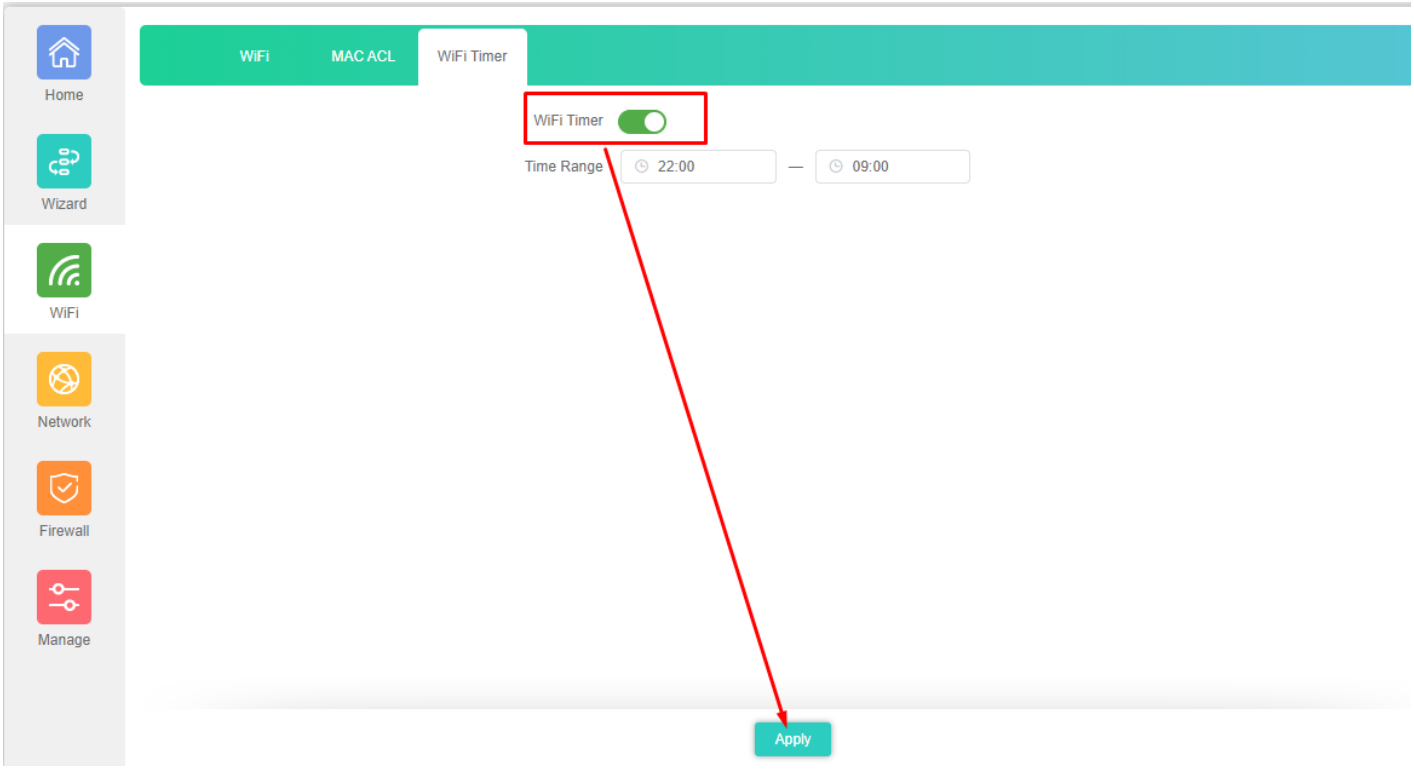

Fig 3.3.2 Wi-Fi Timer Off for AirONE AP1800AX

3.4 Advance Setting

In Advanced setting can set Country Region, 2G (1-13) channels, 5G (36-64), (149-165) channels, User Isolation, Short GI, Coverage Threshold (-95dBm ~ -65dBm), Packet Threshold (256~2346), RTS Threshold (50~2347) & DFS.

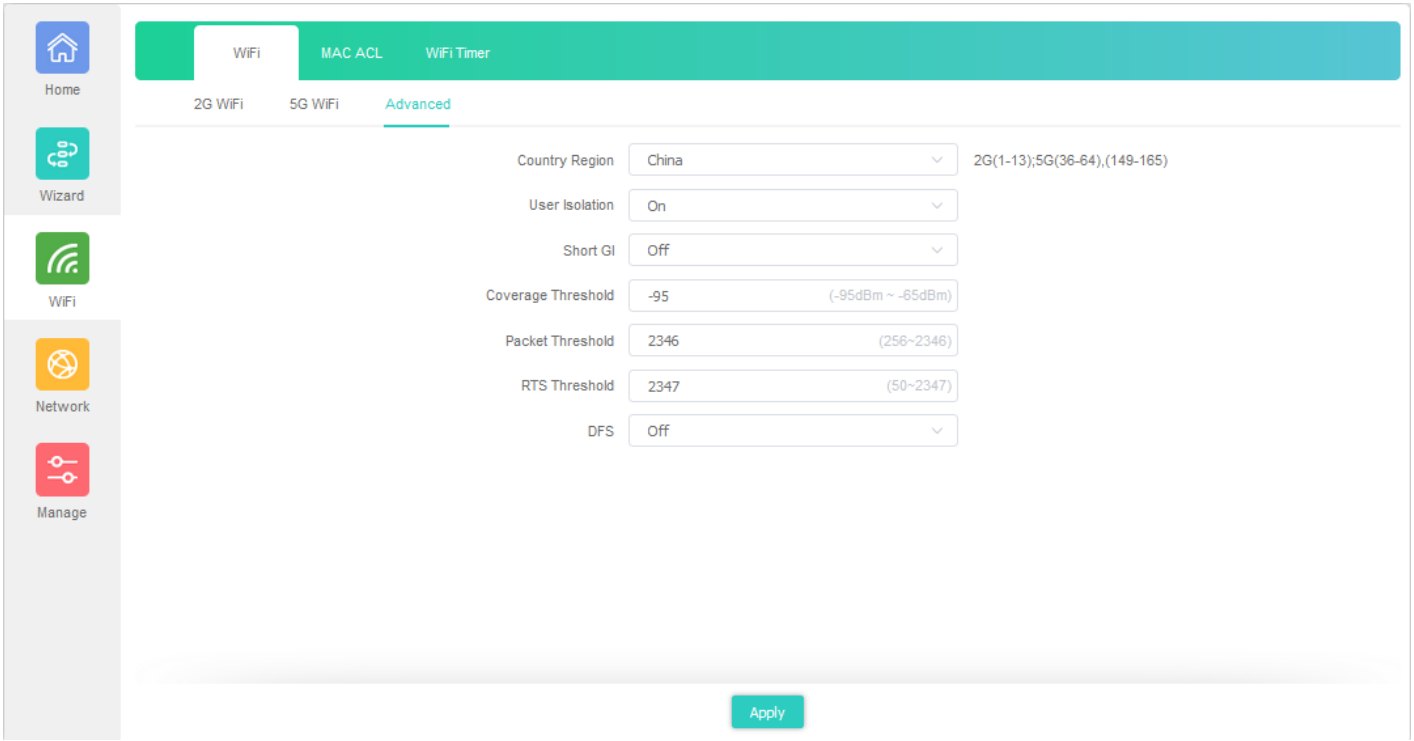

Fig 3.4.1 Default Advanced setting for AirONE AP1800AX

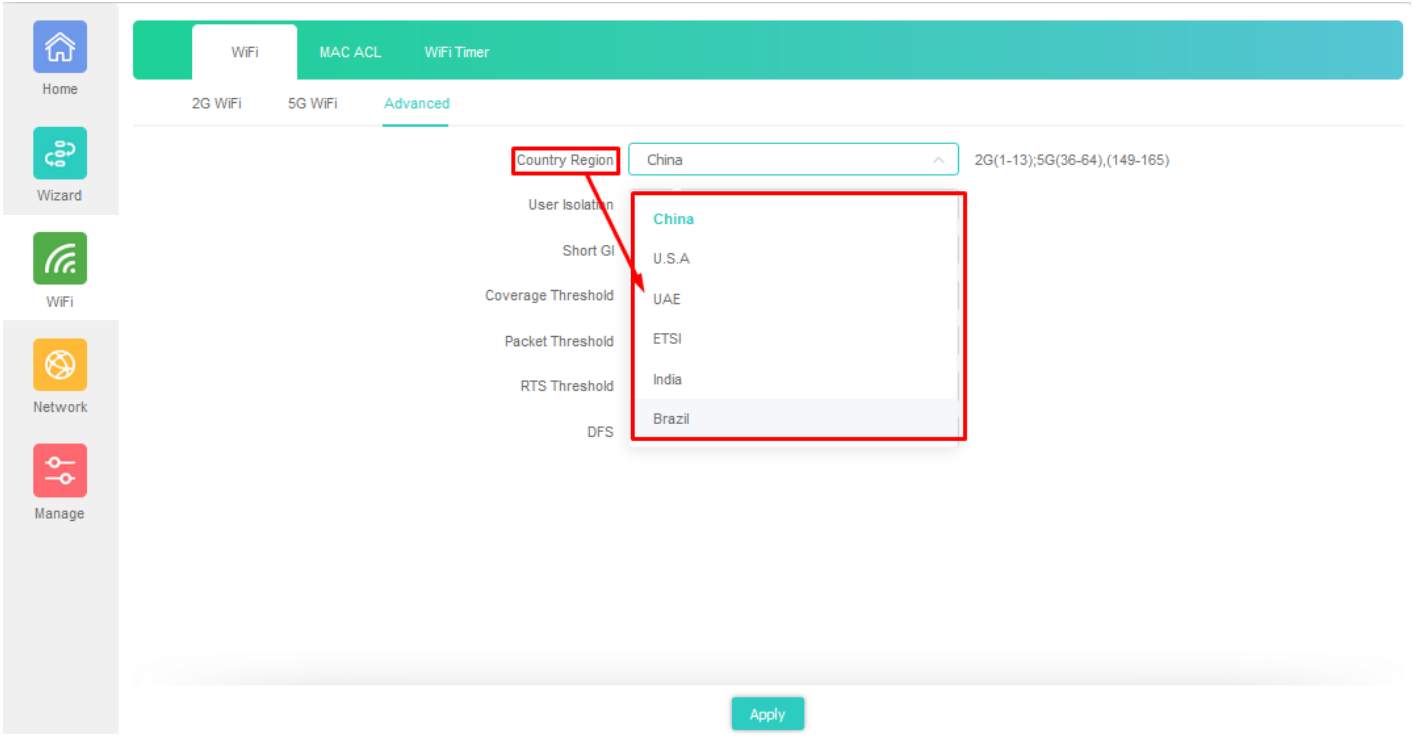

Fig 3.4.2 Selecting Country Region for AirONE AP1800AX

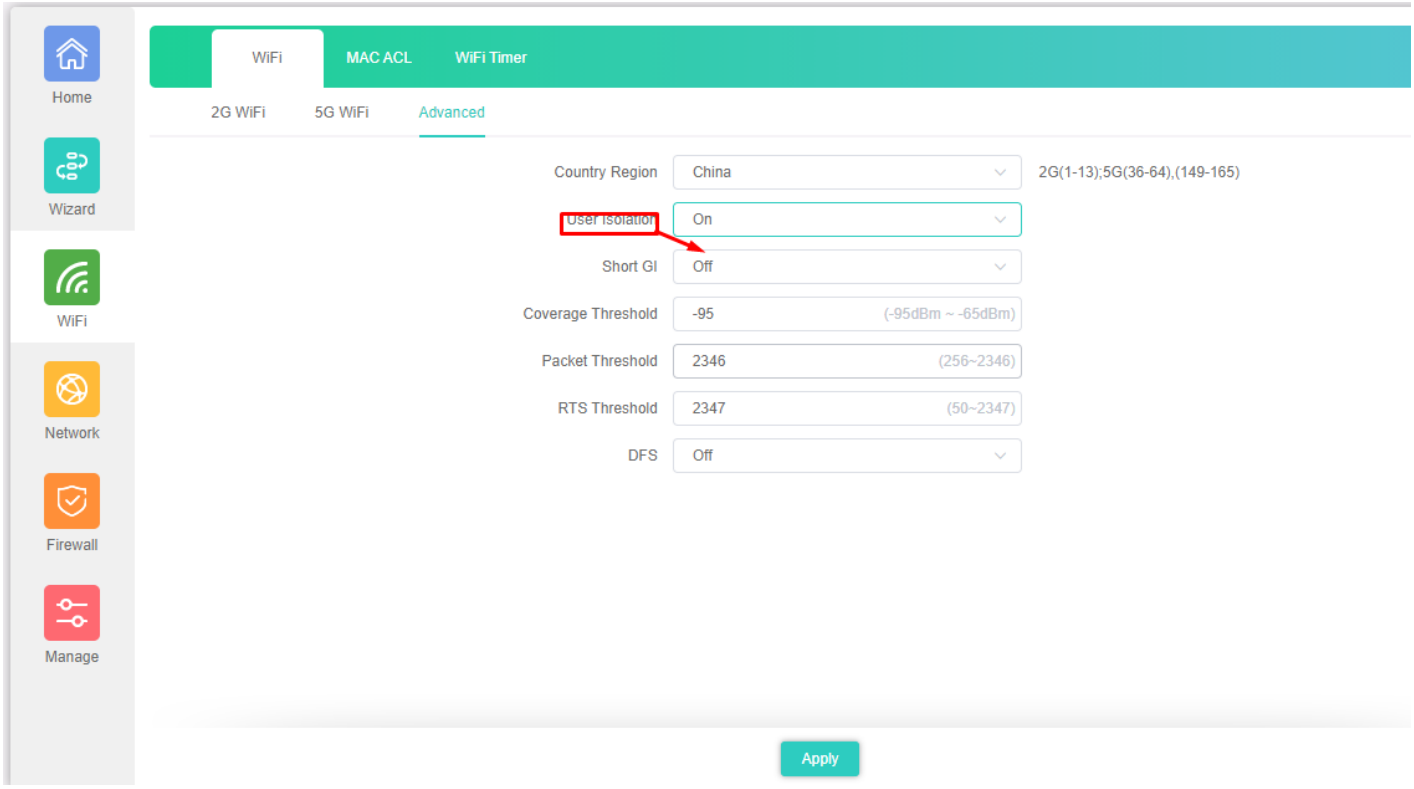

Fig 3.4.3 Selecting user Isolation for AirONE AP1800AX

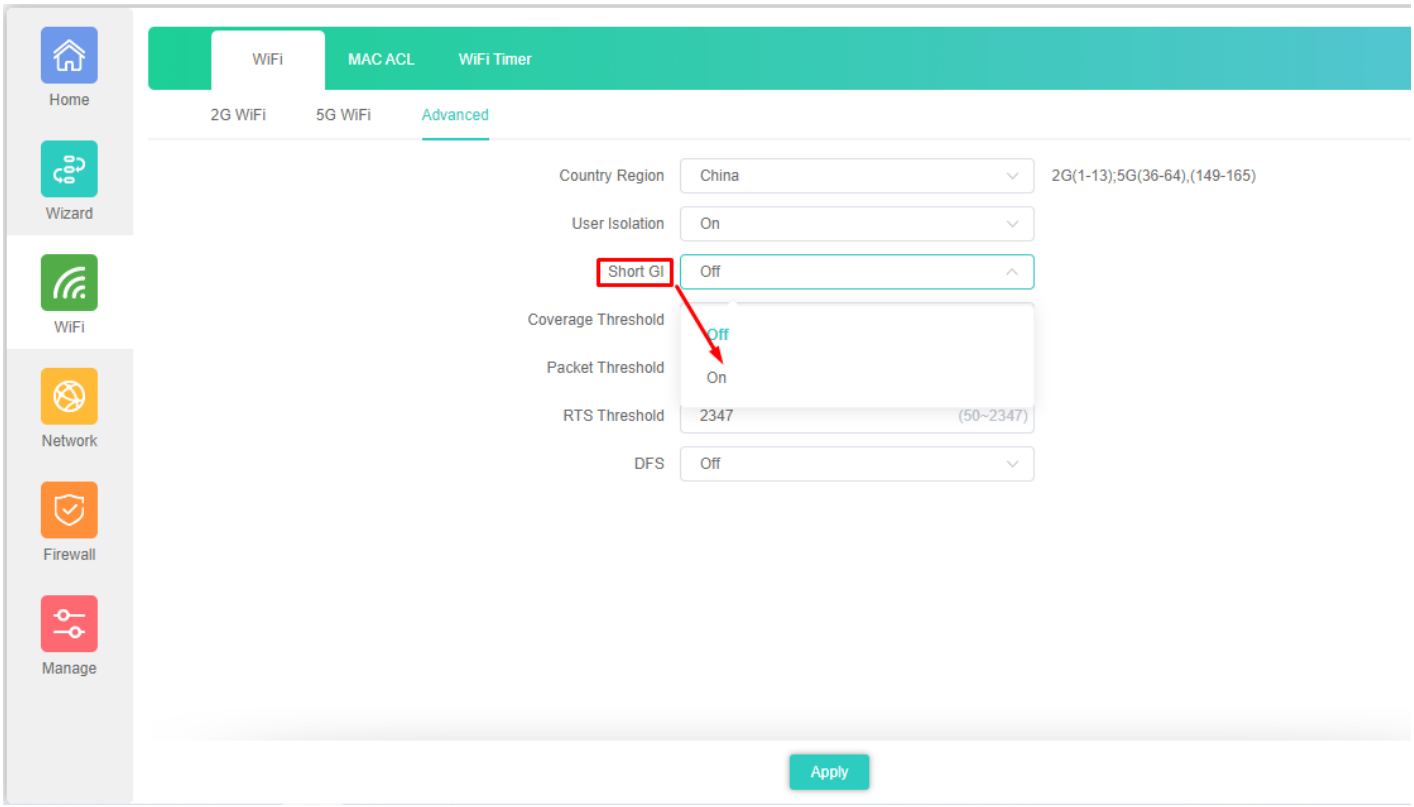

Fig 3.4.4 Selecting Short GI for AirONE AP1800AX

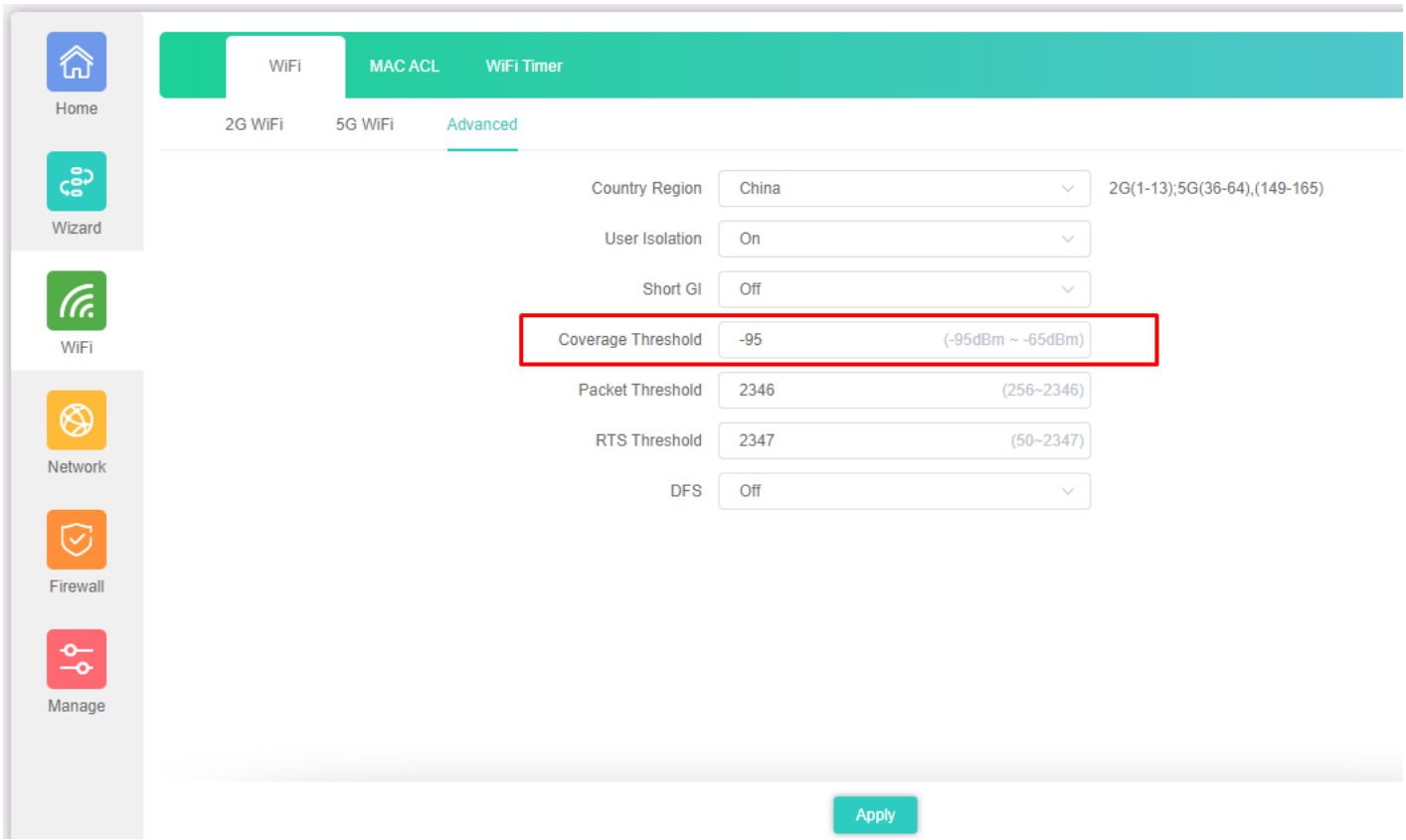

Fig 3.4.5 Selecting Coverage Threshold for AirONE AP1800AX

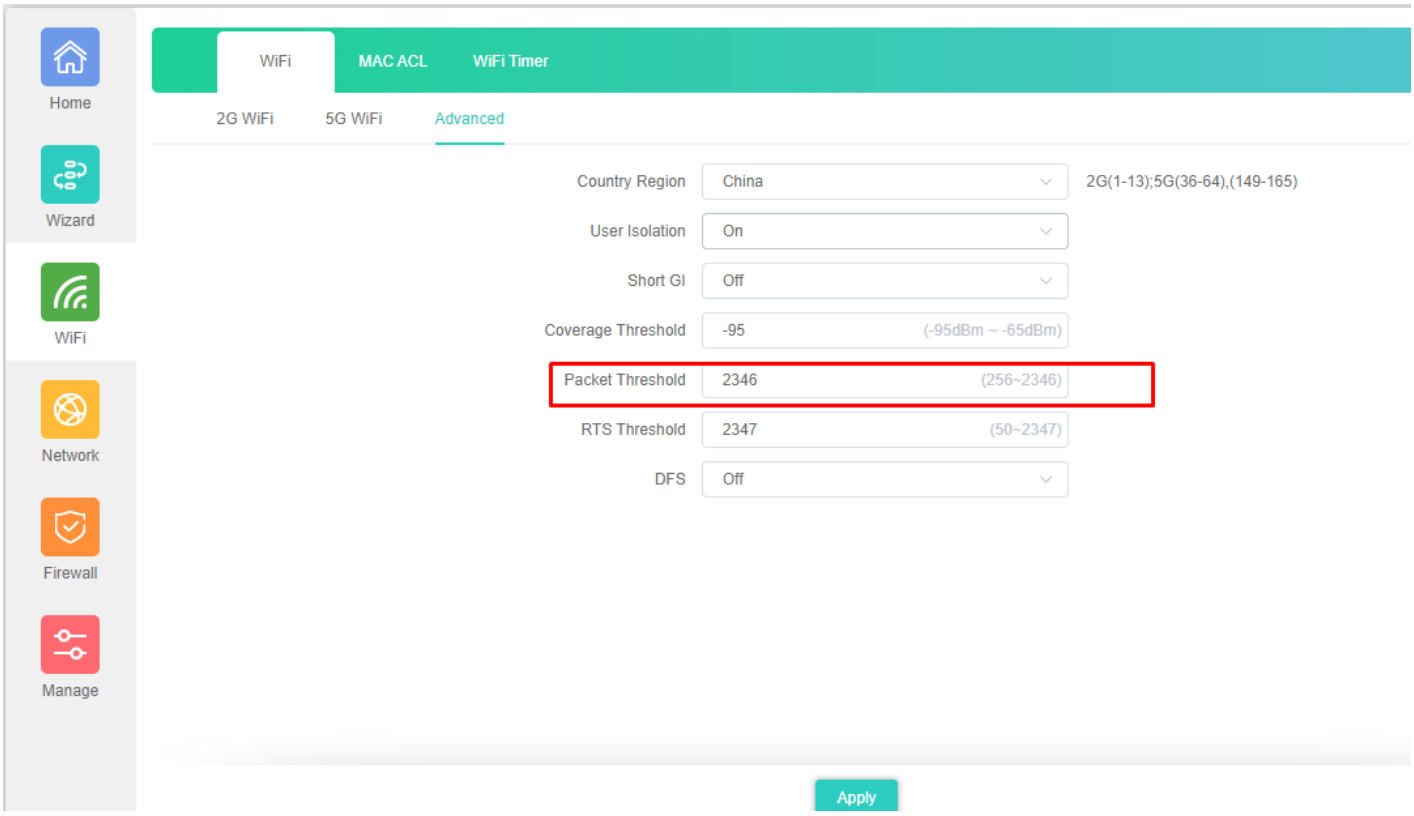

Fig 3.4.6 Setting Packet Threshold for AirONE AP1800AX

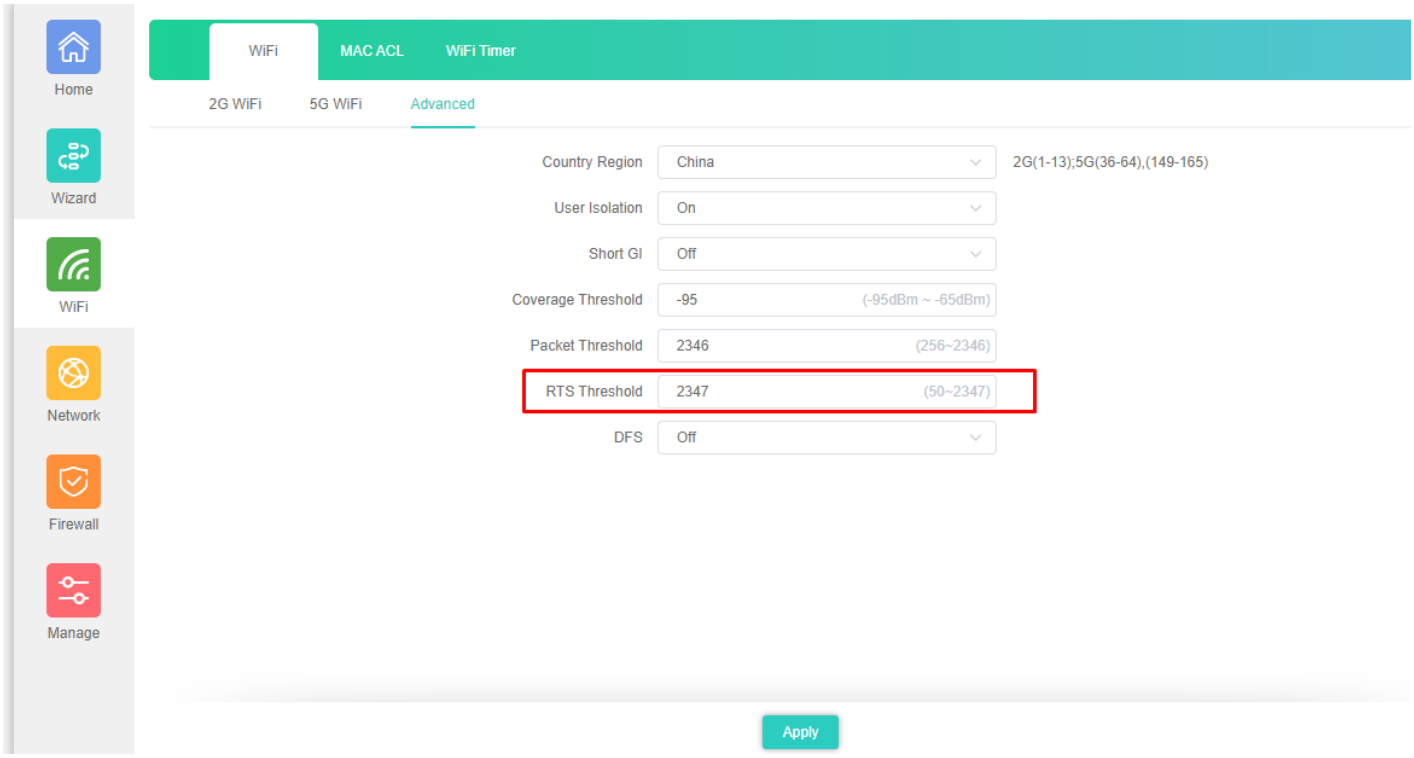

Fig 3.4.7 Setting RTS Threshold for AirONE AP1800AX

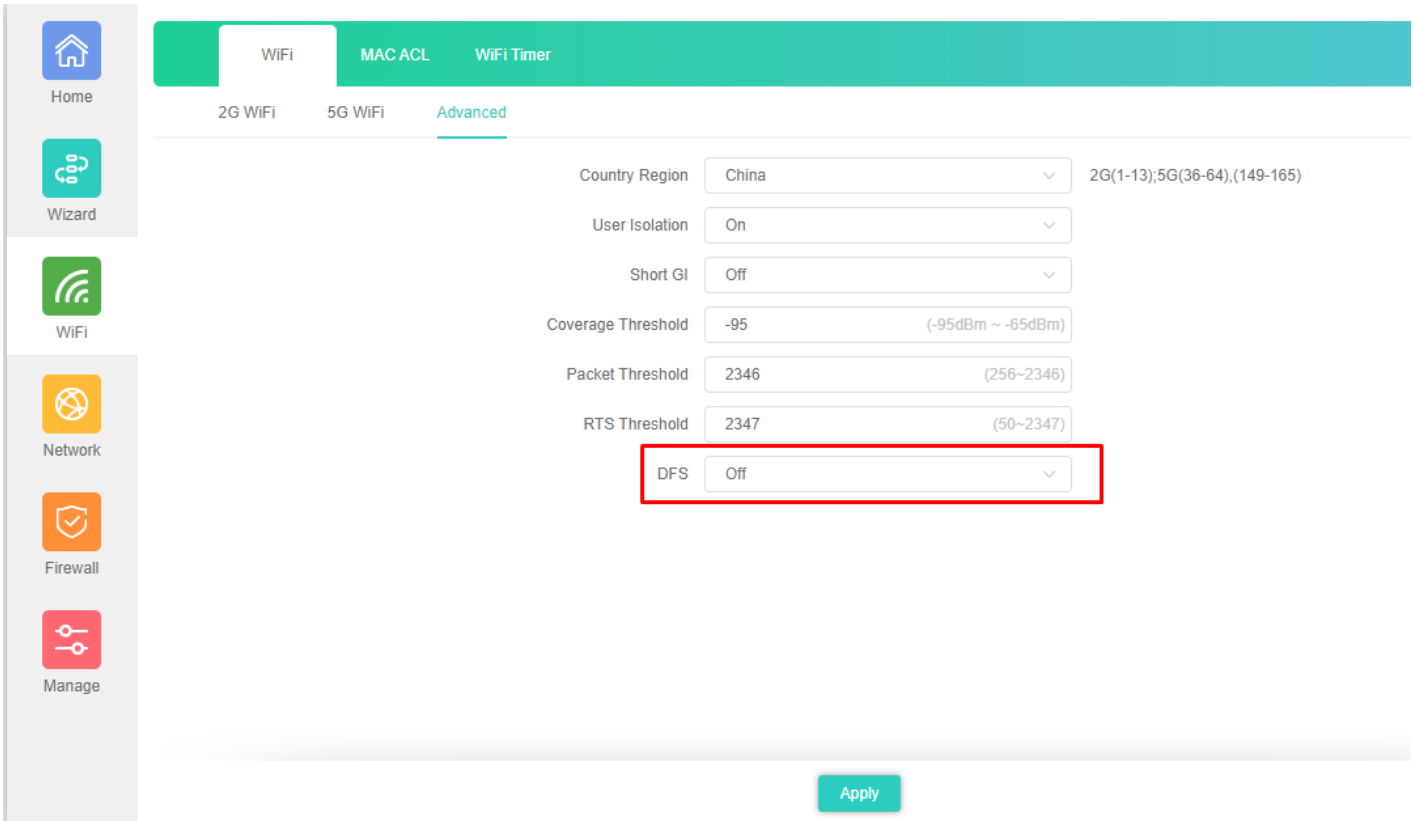

Fig 3.4.8 Selecting DFS for AirONE AP1800AX

NETWORK

URL Filter Settings:
URL filtering is a type of web filtering and is used to restrict web content.

IP Filter Settings:
IP Filter bars filter IP to access the AP SSID.

MAC Filter Settings:
MAC Filter bars filter particular MAC to access the AP SSID.

Port Mapping:
It can set Rule for particular TCP or UDP Protocol for selected wireless client IP with port mapping function.

DMZ Settings:
It can set DMZ Host IP to provide an internal network with an additional security layer by restricting access.

Note: All *italic config* options are only available in Gateway mode only.

5.1 URL Filter Settings

Organizations can create policies such as permanently allowing or blocking access to specific sites or groups of websites, such as social networking pages to either redirect, filter or blocked. URL filtering is a type of web filtering and is used to restrict web content in order to restrict what content their employees can access over company networks. URL blocking refers process of allowing or denying the access to a certain websites or certain URL addresses for the web users either temporarily or permanently. If a URL is blocked, then the user will not be able to view the URL address or its web content.

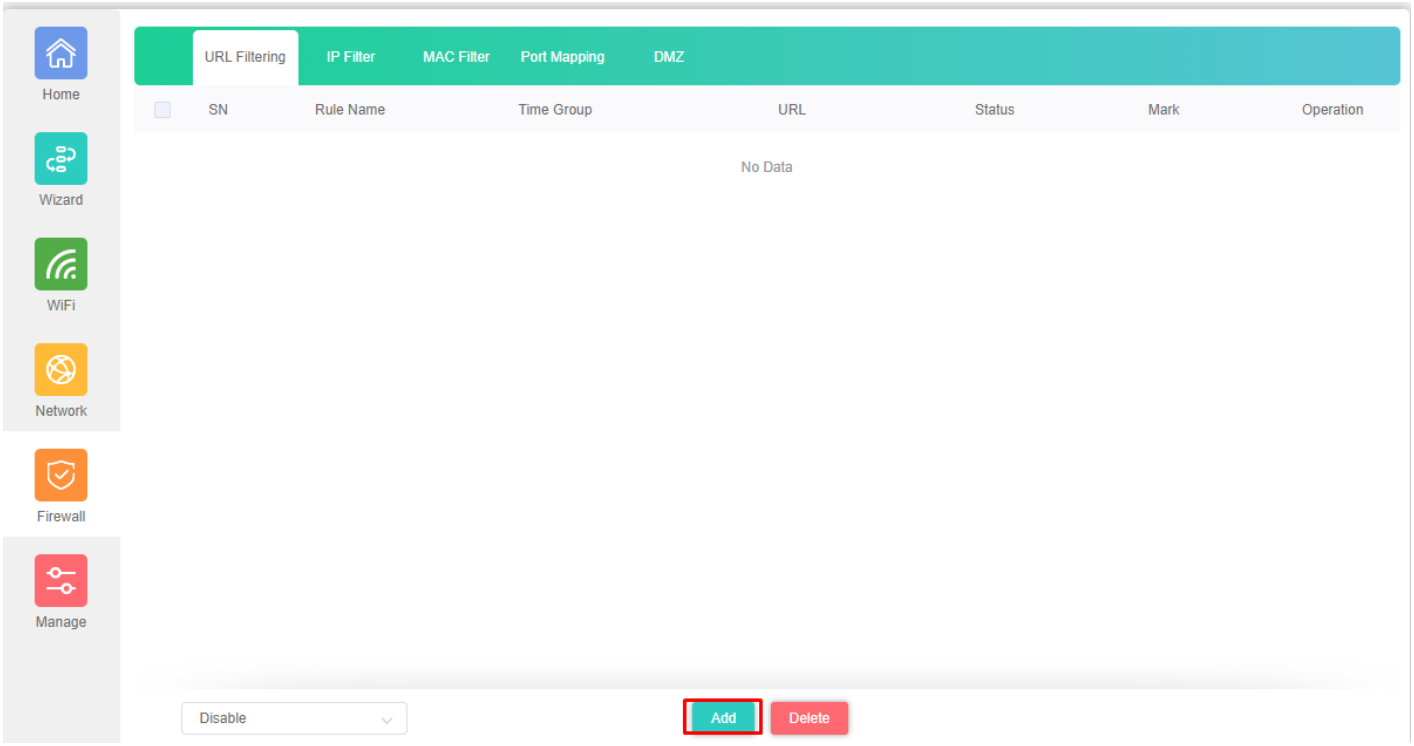

Fig 5.1.1 Default URL filter setting for AirONE AP1800AX

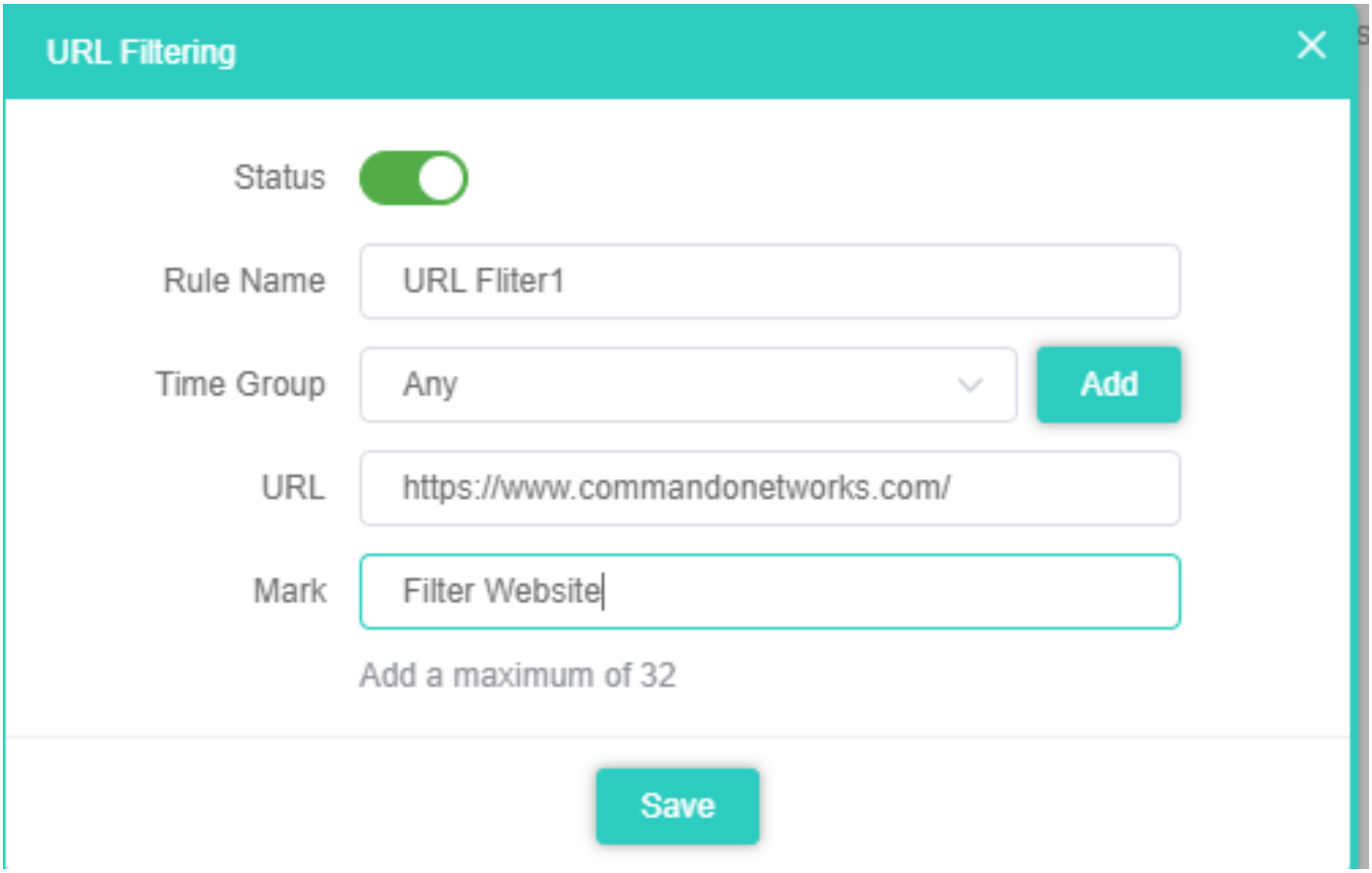

Fig 5.1.2 Setting URL filter for AirONE AP1800AX

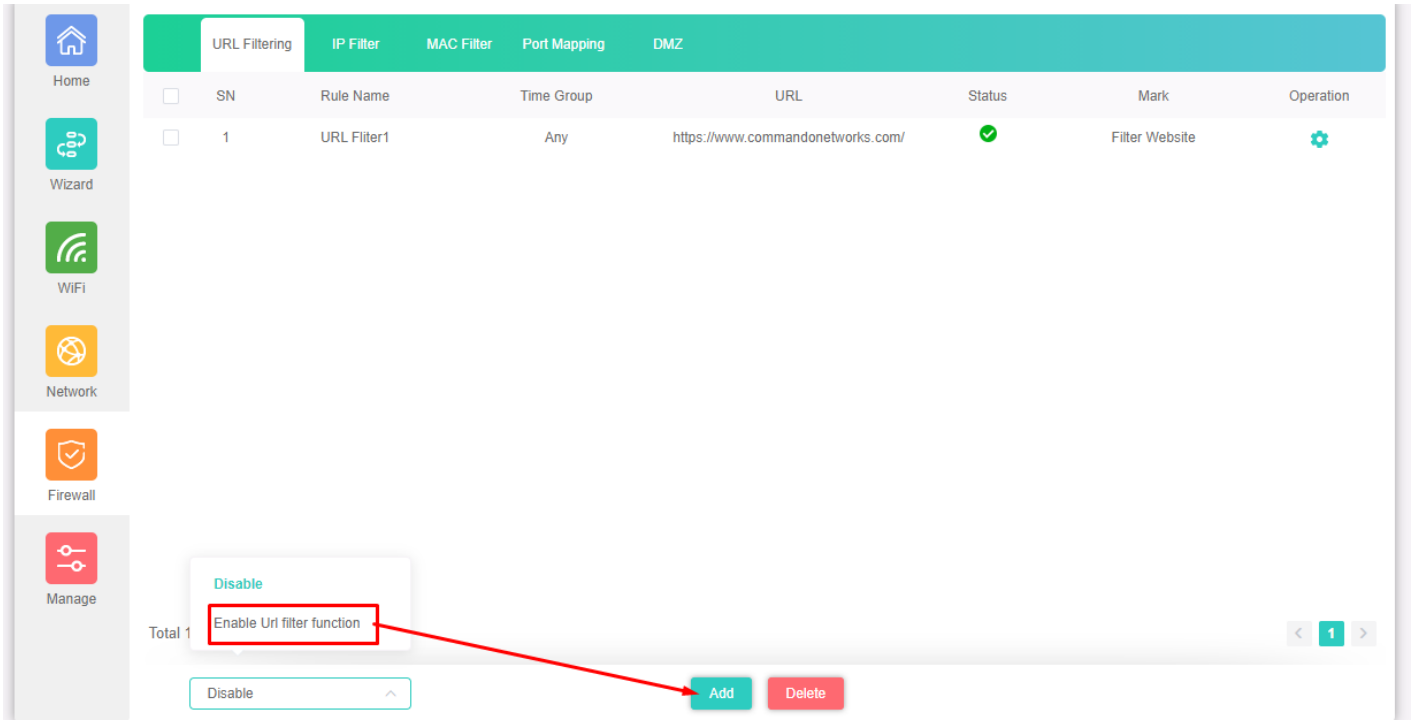

Fig 5.1.3 URL filter setting for AirONE AP1800AX

5.2 IP Filter Settings

IP Filter bars filter IP to access the AP SSID.

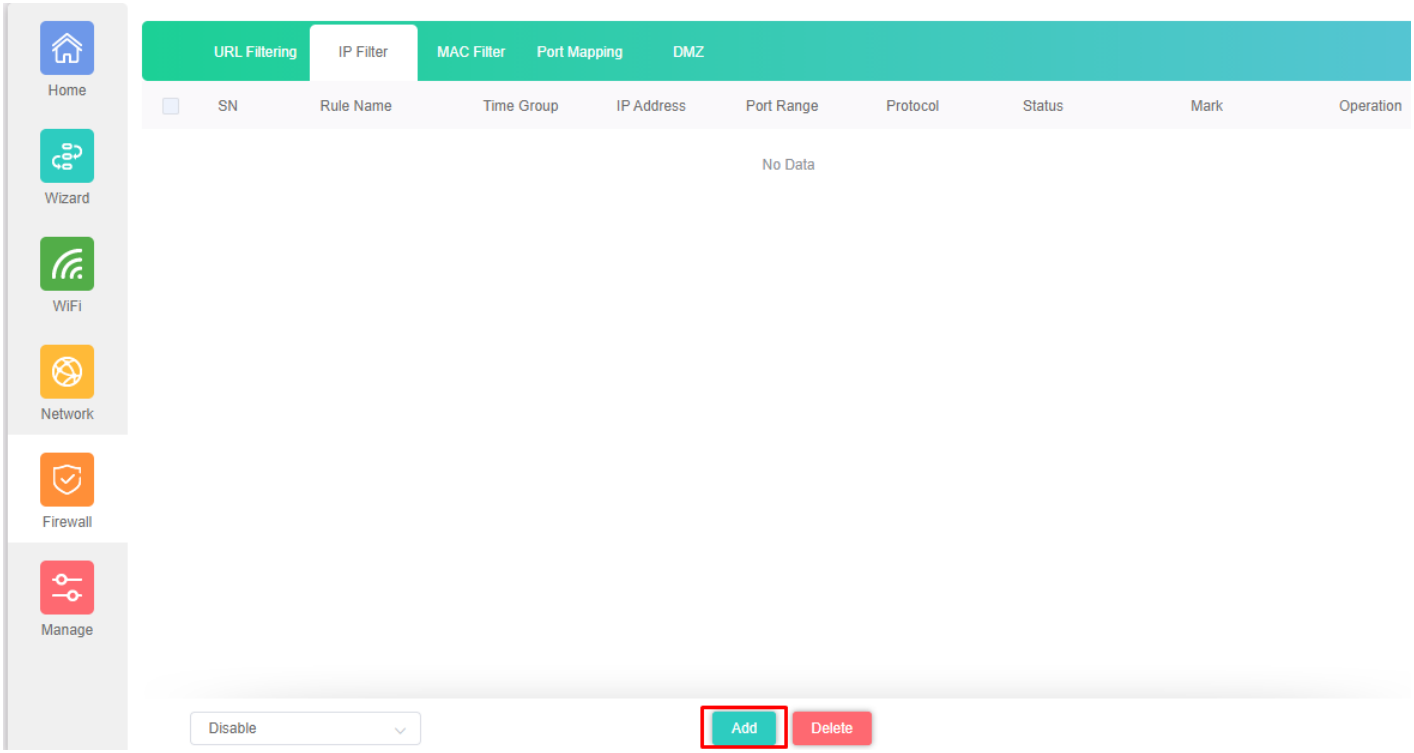

Fig 5.2.1 Default IP filter setting for AirONE AP1800AX

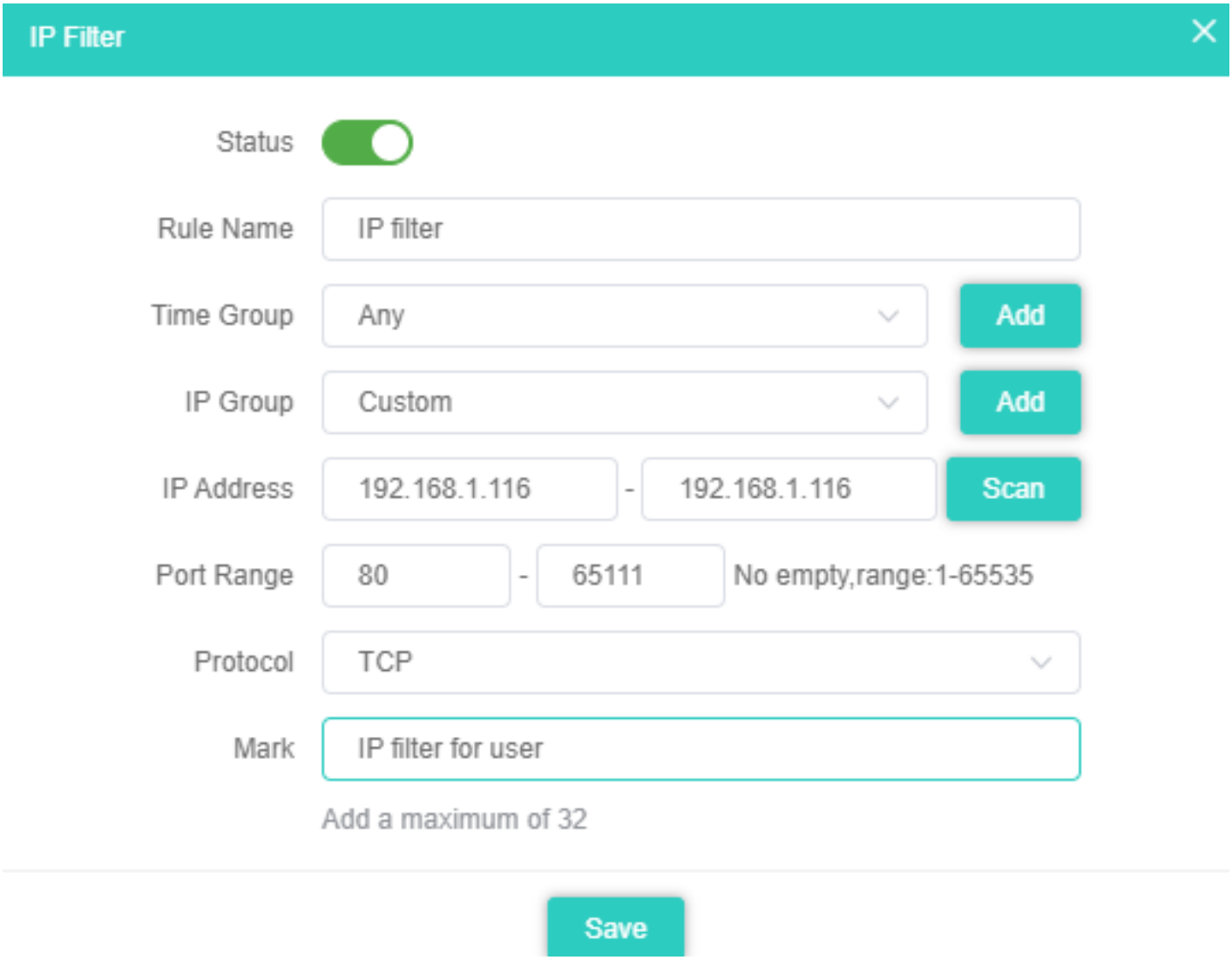

Fig 5.2.2 Setting IP filter for AirONE AP1800AX

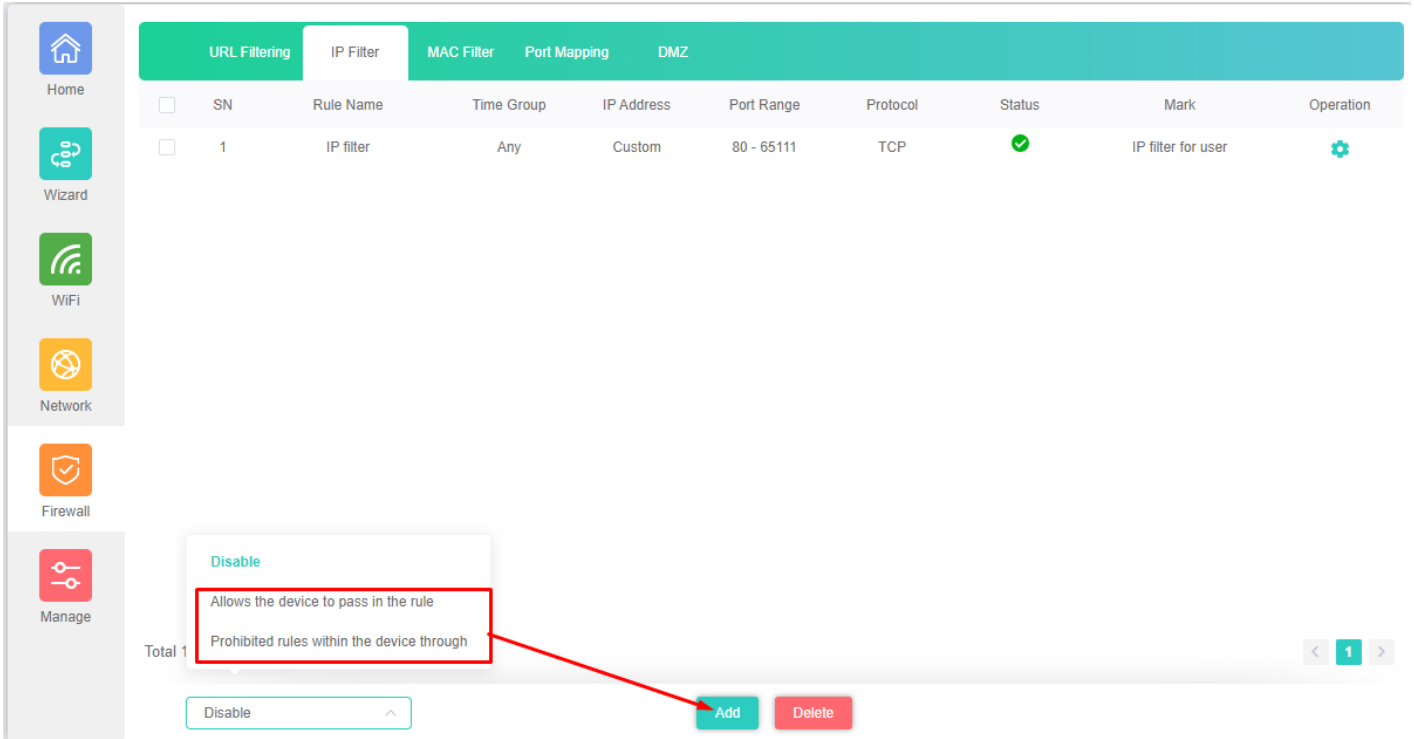

Fig 5.2.3 IP filter setting for AirONE AP1800AX

5.3 MAC Filter Settings

MAC Filter bars filter MAC to access the AP SSID.

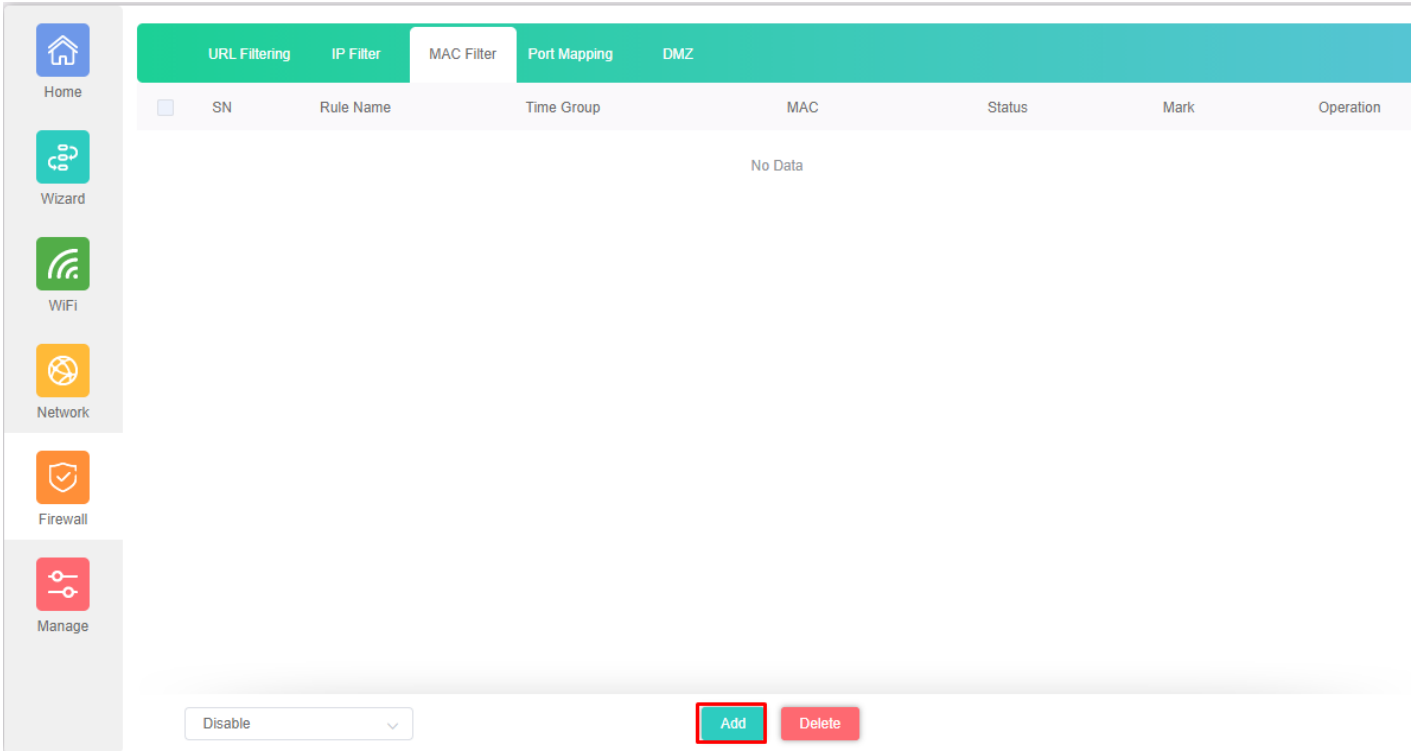

Fig 5.3.1 Default MAC filter setting for AirONE AP1800AX

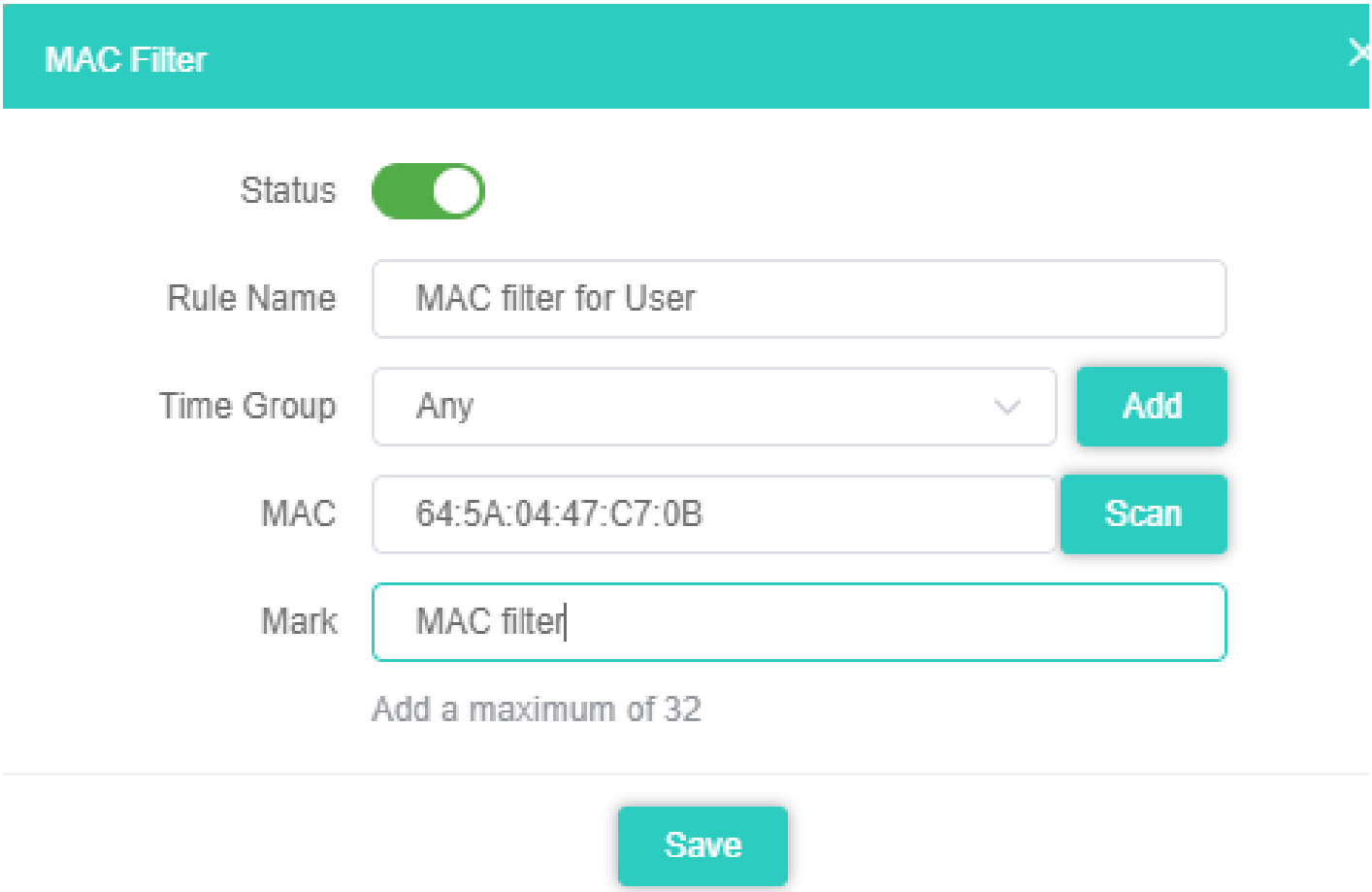

Fig 5.3.2 Setting MAC filter for AirONE AP1800AX

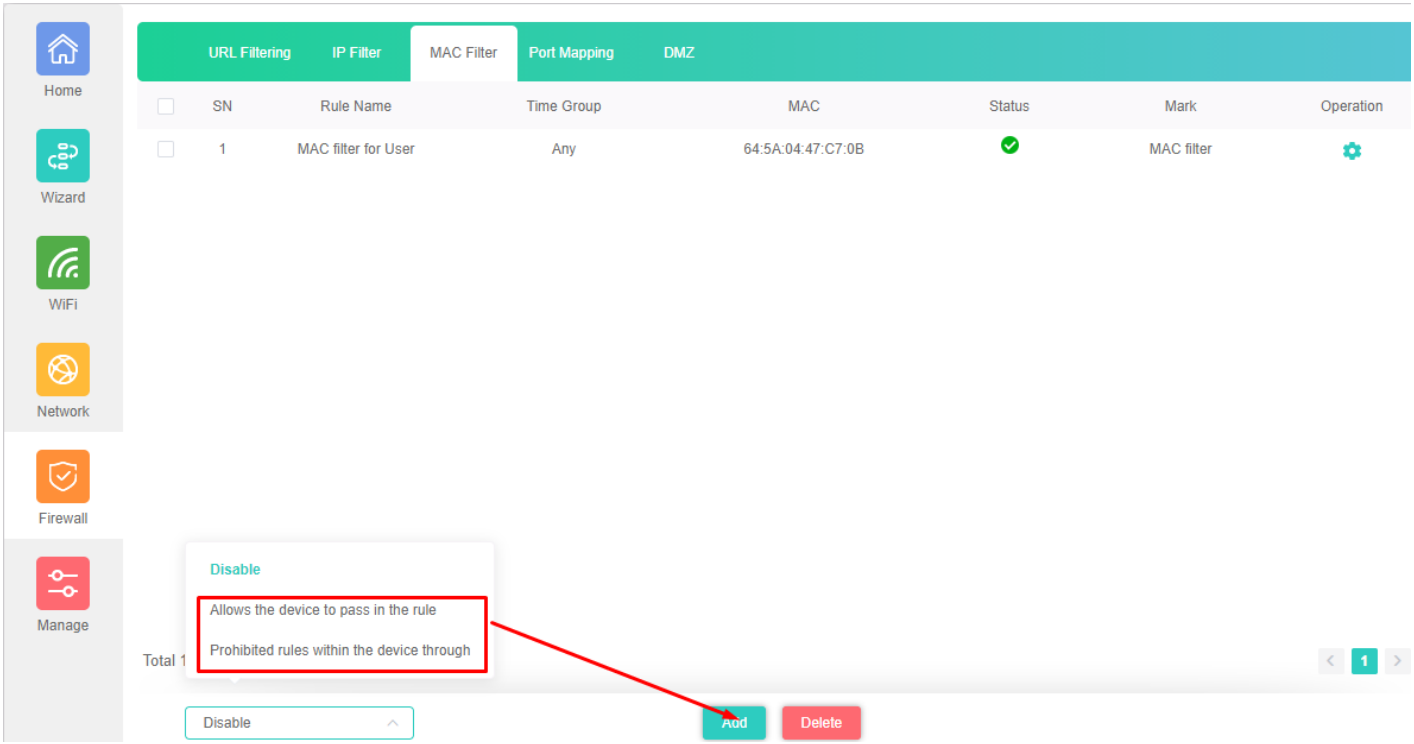

Fig 5.3.3 MAC filter setting for AirONE AP1800AX

5.4 Port Mapping

A port mapping monitors incoming and outgoing network traffic and permits, or blocks

data packets based on a set of security rules. It can help protect your network by filtering traffic and blocking outsiders from gaining unauthorized access.

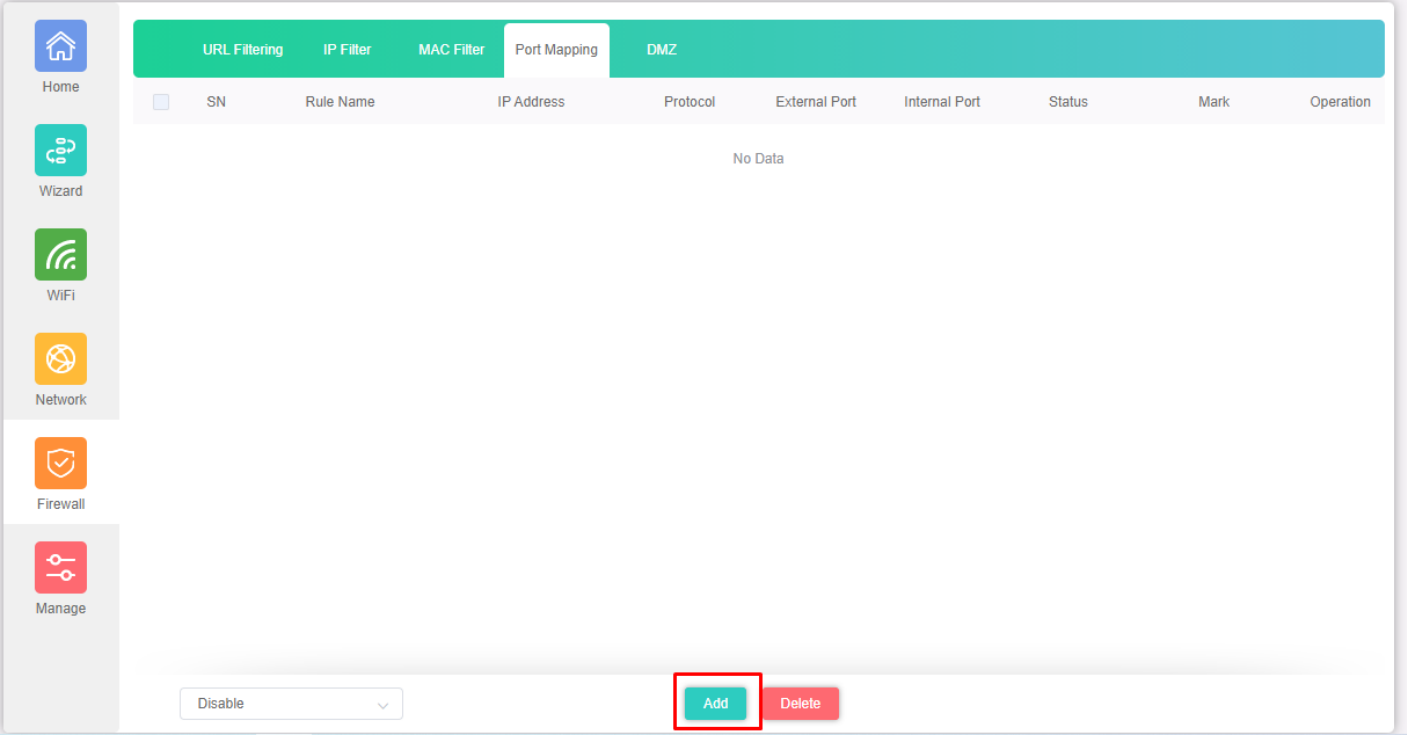

Fig 5.4.1 Default Security setting for AirONE AP1800AX

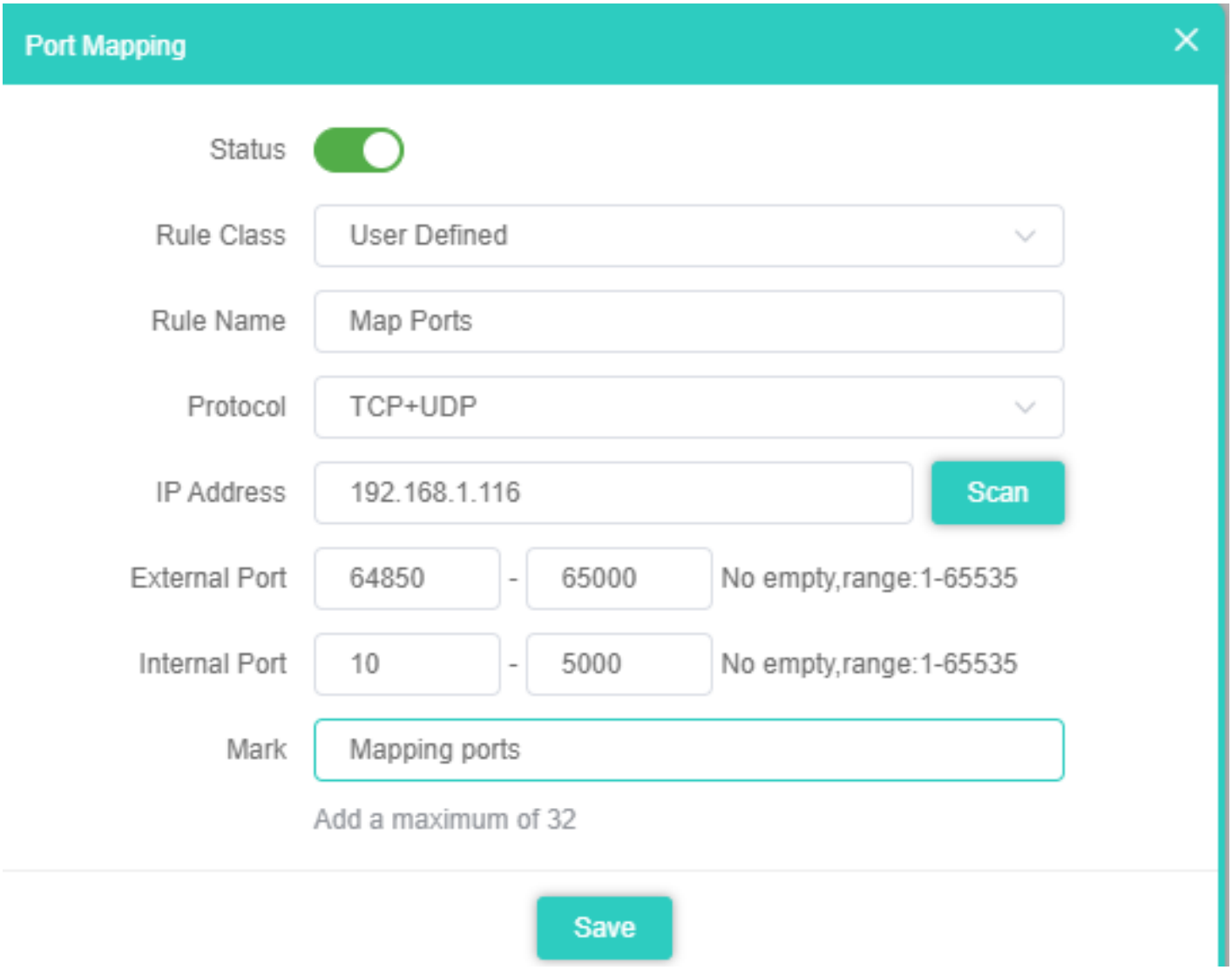

Fig 5.4.2 Security Rules setting for AirONE AP1800AX

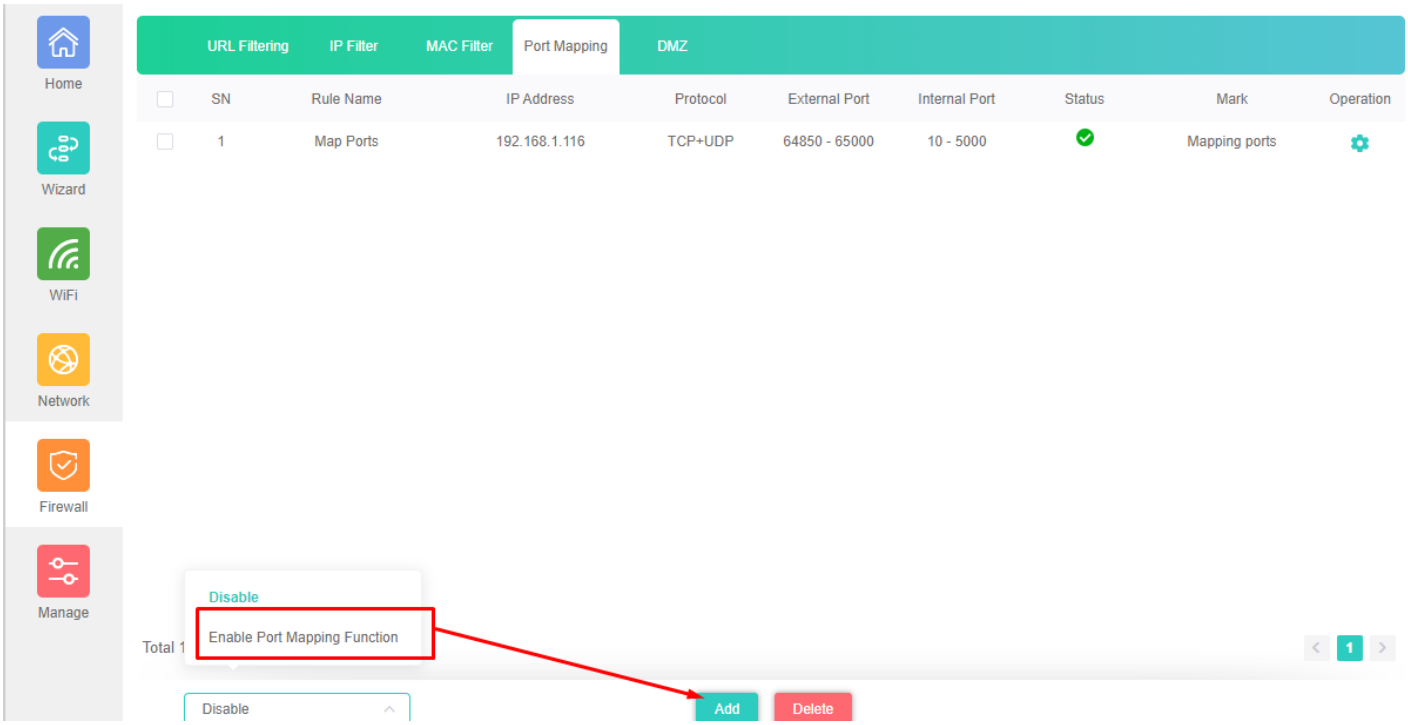

Fig 5.4.3 Security setting for AirONE AP1800AX

5.5 DMZ Settings

DMZ or demilitarized zone is a physical or logical subnetwork that contains portion of your network carved off and isolated from the rest of your network of an organization 's external-facing services to an untrusted, usually larger, network such as the Internet.

The main benefit of a DMZ is to provide an internal network with an additional security layer by restricting access to sensitive data and servers. A DMZ enables website visitors to obtain certain services while providing a buffer between them and the organization 's private network. The goal of a DMZ is to add an extra layer of security to an organization 's local area network. A protected and monitored network node that faces outside the internal network can access what is exposed in the DMZ, while the rest of the organization 's network is safe from attackers.

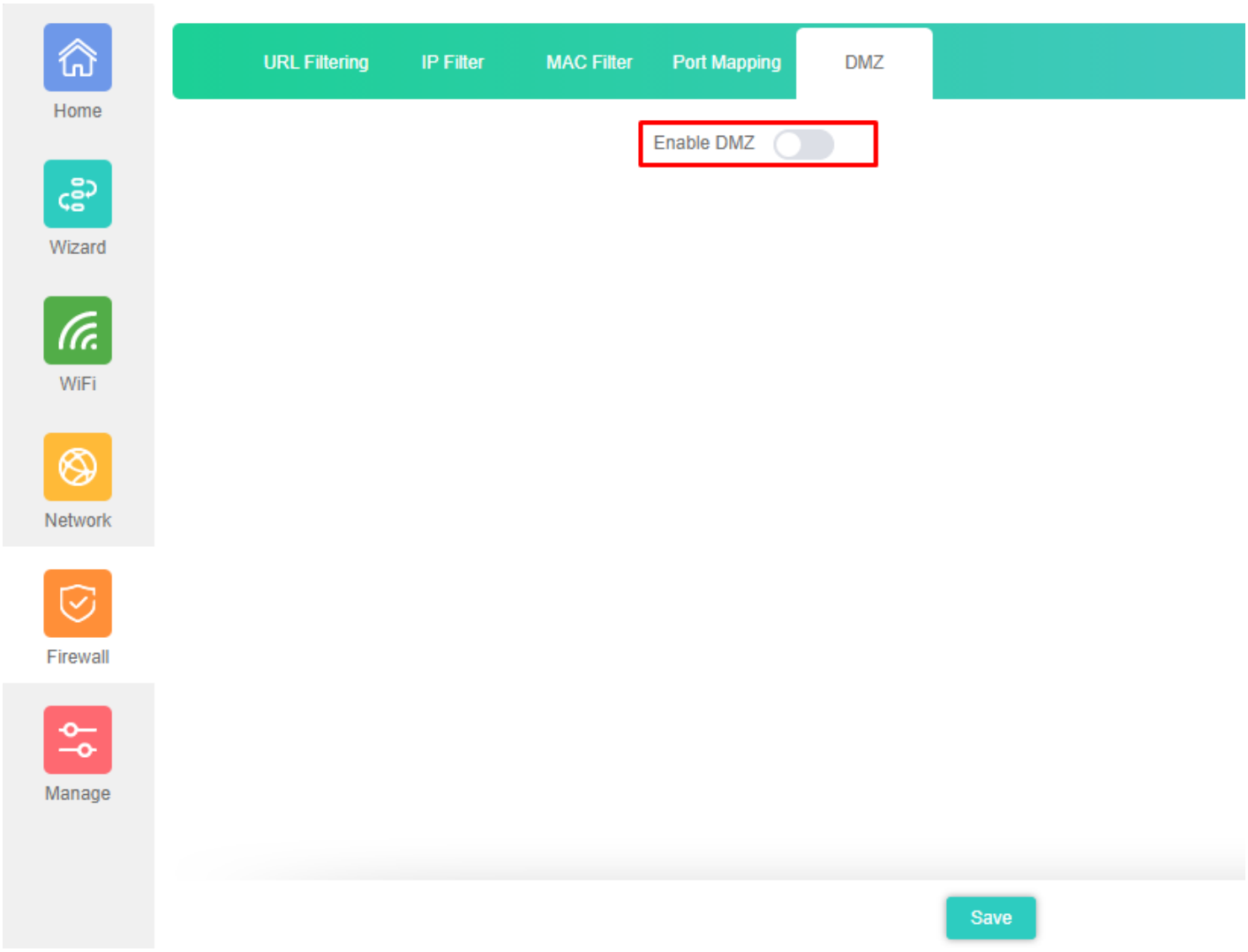

Fig 5.5.1 Default DMZ setting for AirONE AP1800AX

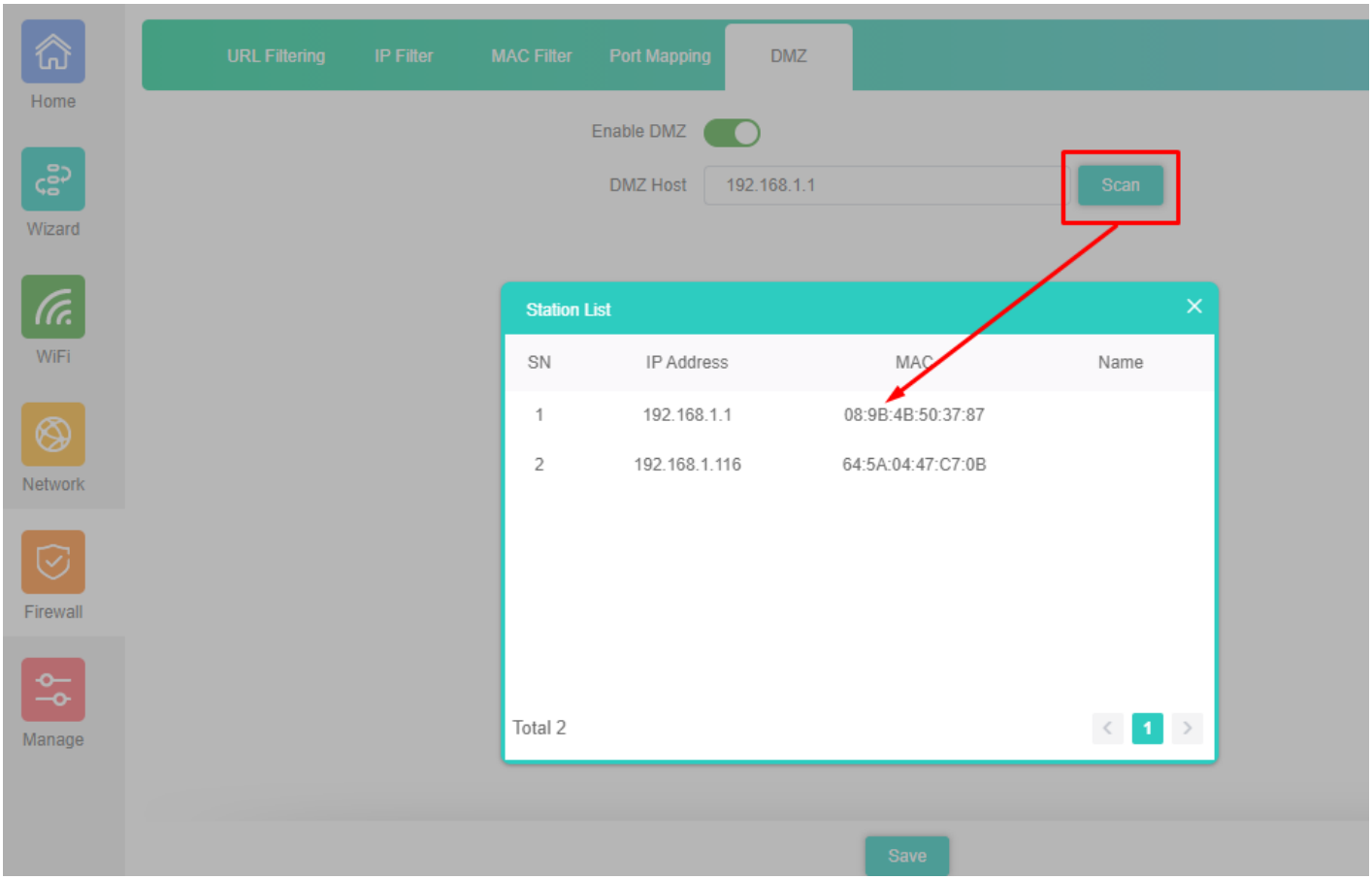

Fig 5.5.2 DMZ setting for AirONE AP1800AX

FIREWALL

URL Filter Settings:
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MAC Filter Settings:
***MAC Filter bars** filter particular MAC to access the AP SSID.*

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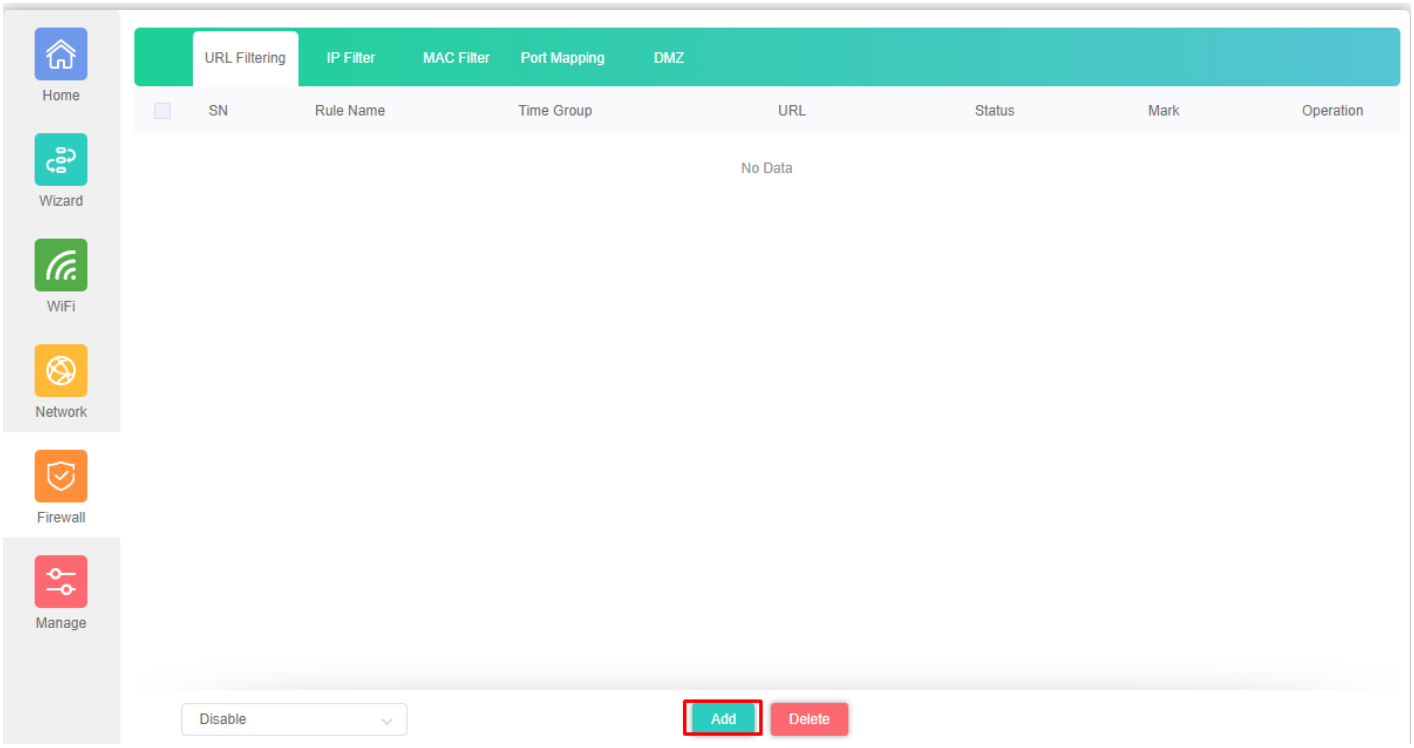

Fig 5.1.1 Default URL filter setting for AirONE AP1800AX

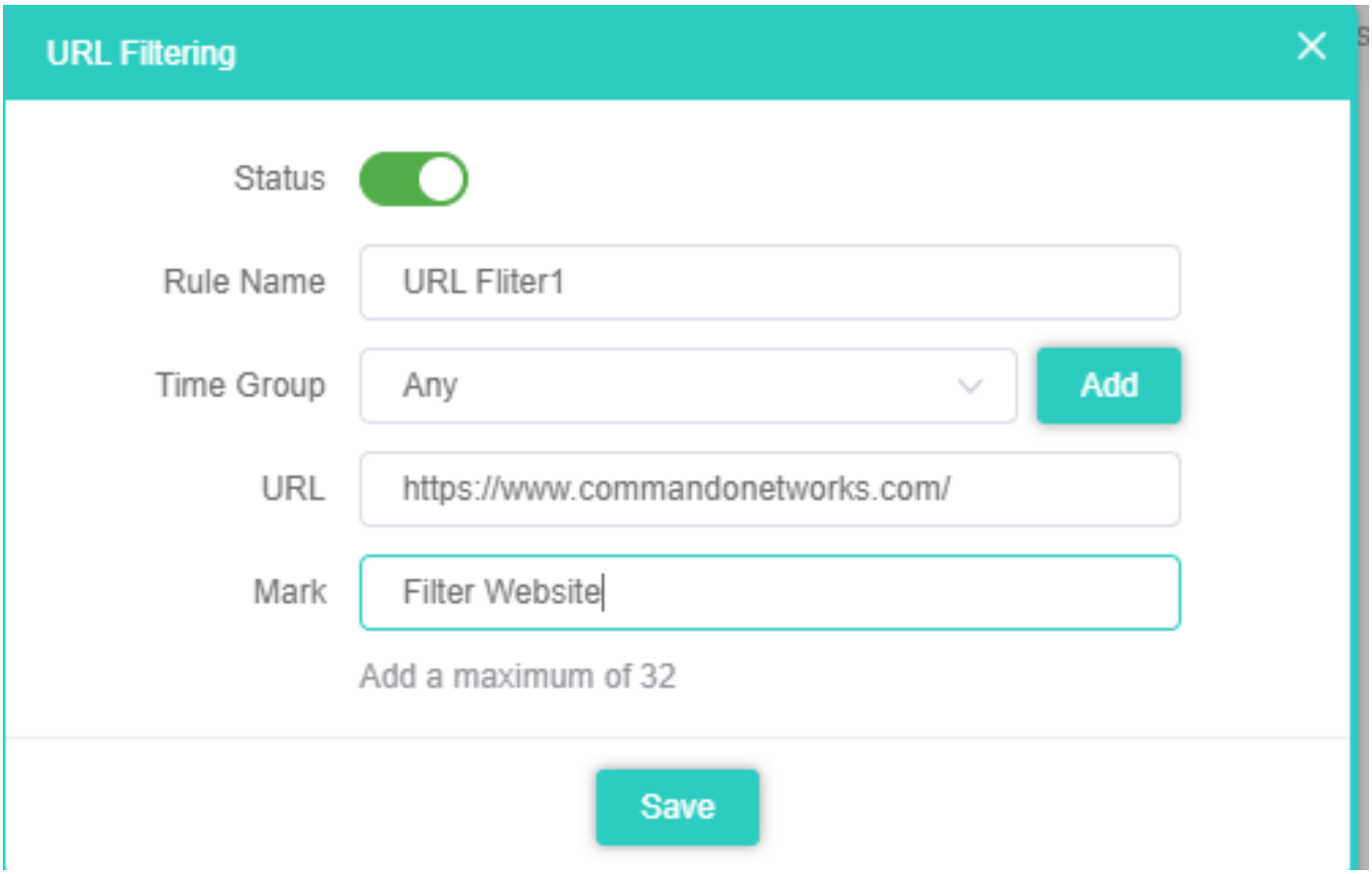

Fig 5.1.2 Setting URL filter for AirONE AP1800AX

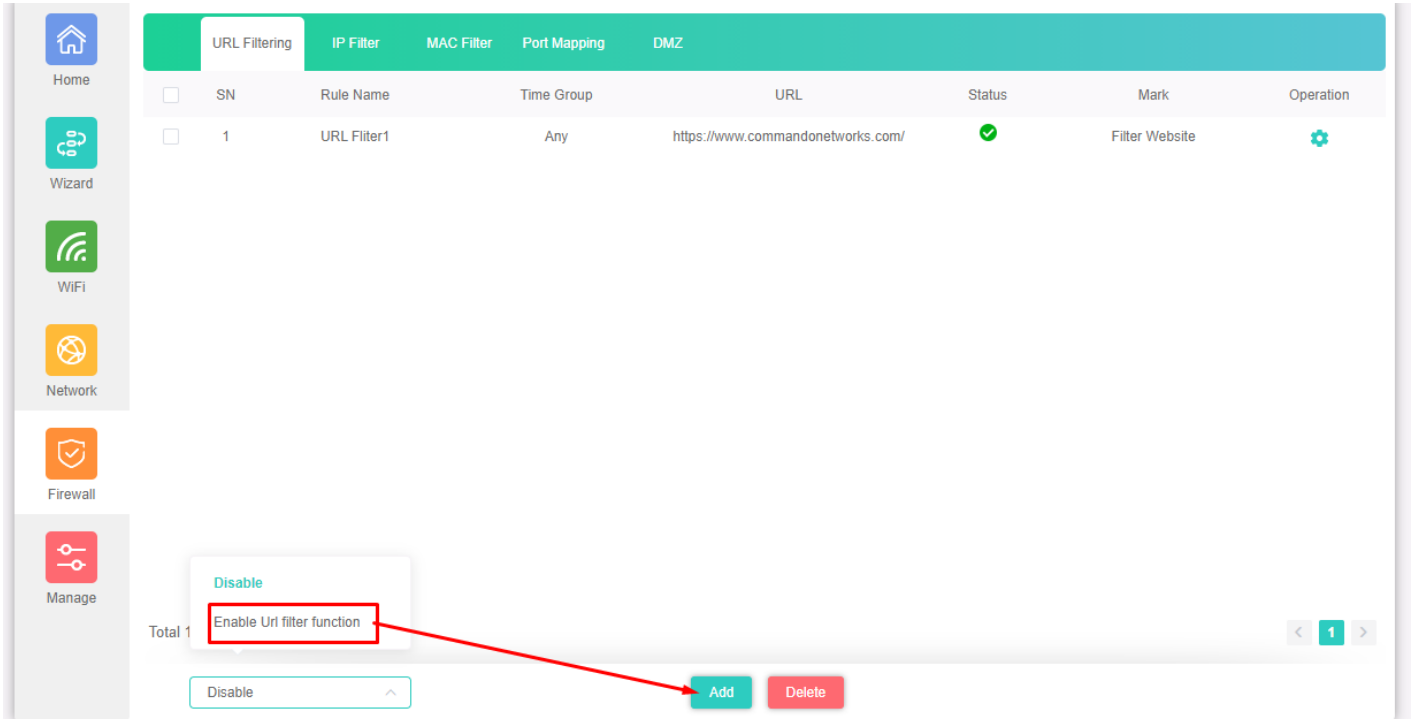

Fig 5.1.3 URL filter setting for AirONE AP1800AX

5.2 IP Filter Settings

IP Filter bars filter IP to access the AP SSID.

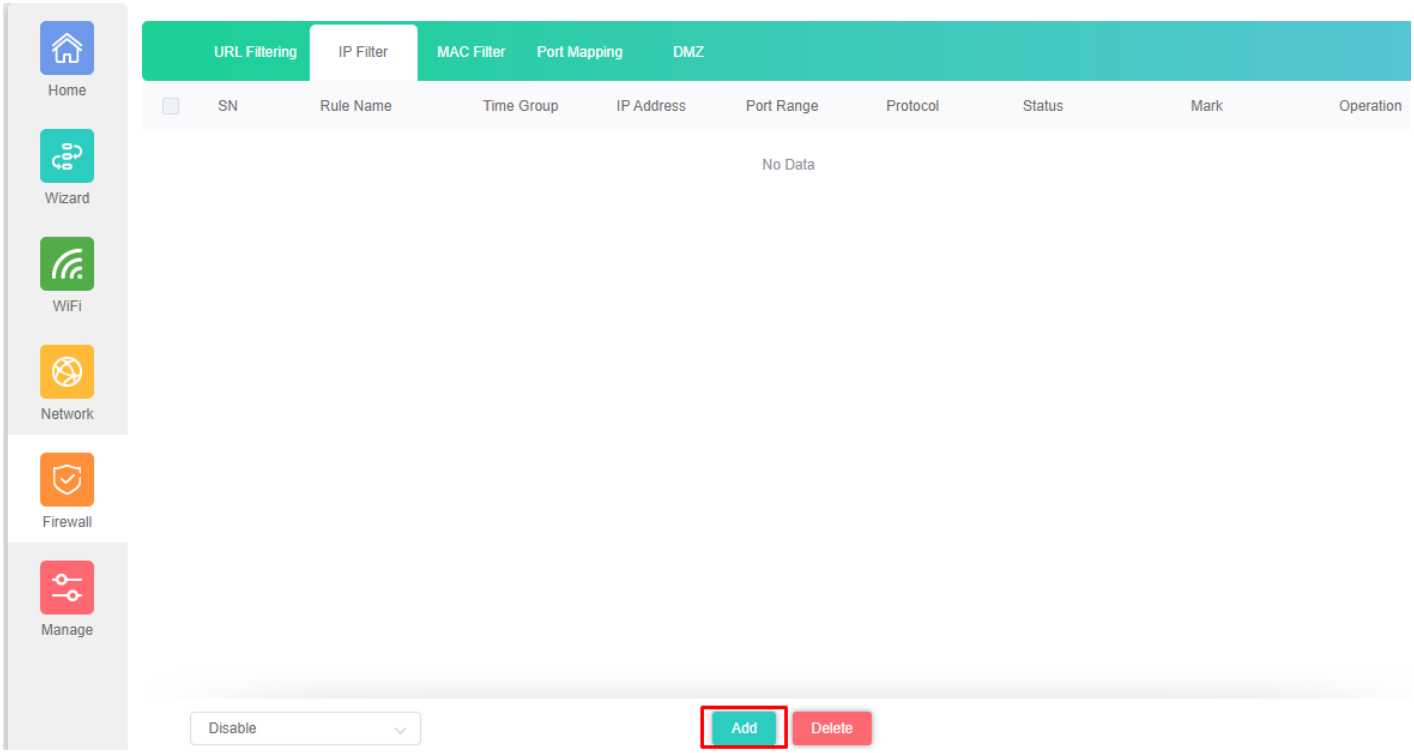

Fig 5.2.1 Default IP filter setting for AirONE AP1800AX

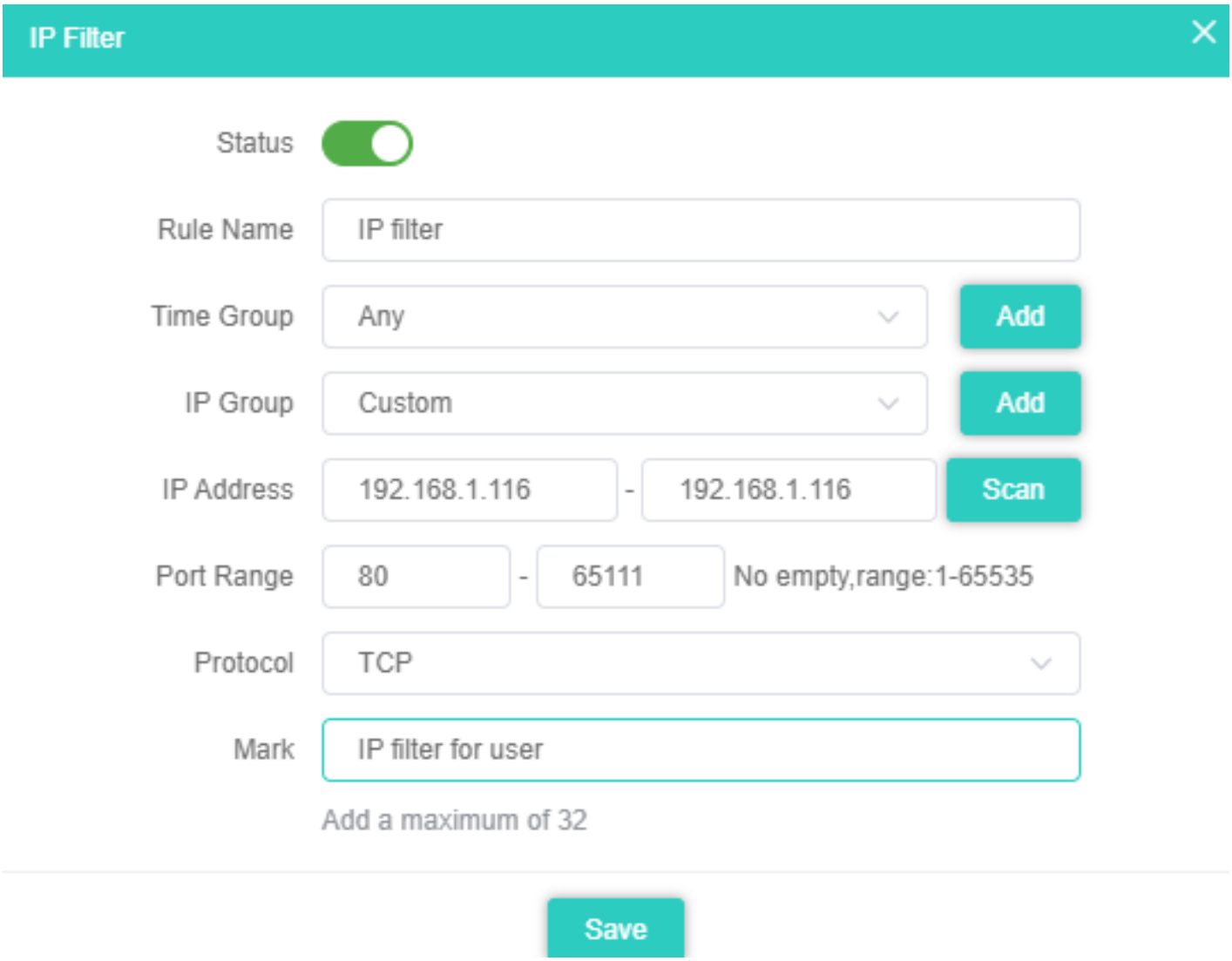

Fig 5.2.2 Setting IP filter for AirONE AP1800AX

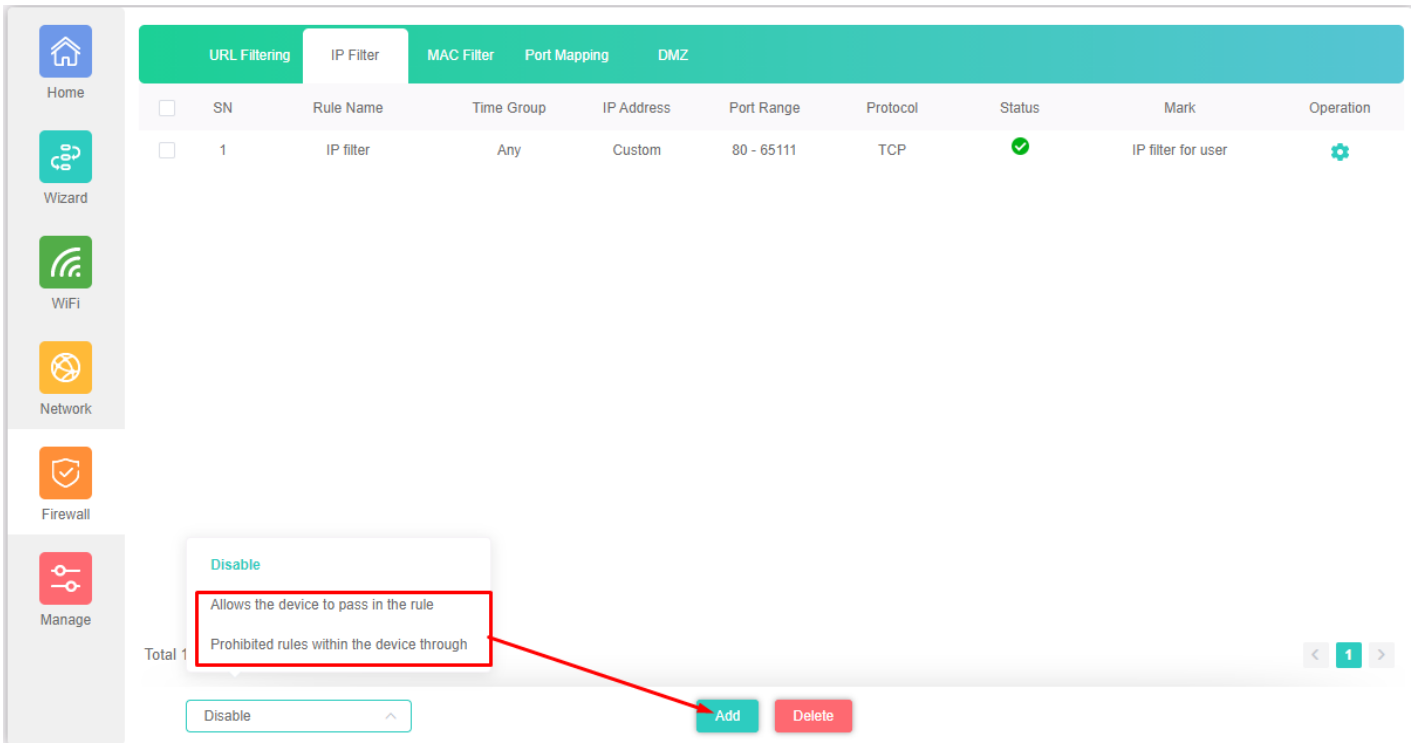

Fig 5.2.3 IP filter setting for AirONE AP1800AX

5.3 MAC Filter Settings

MAC Filter bars filter MAC to access the AP SSID.

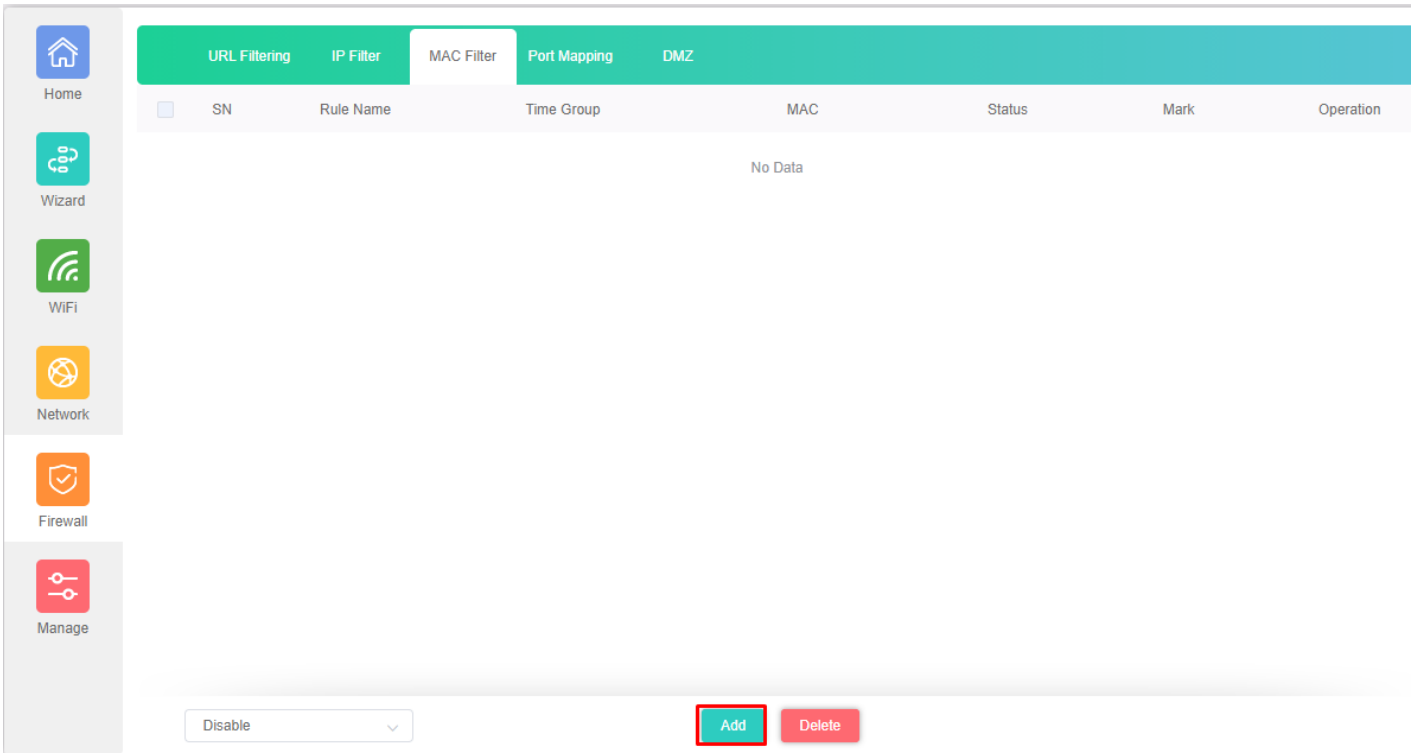

Fig 5.3.1 Default MAC filter setting for AirONE AP1800AX

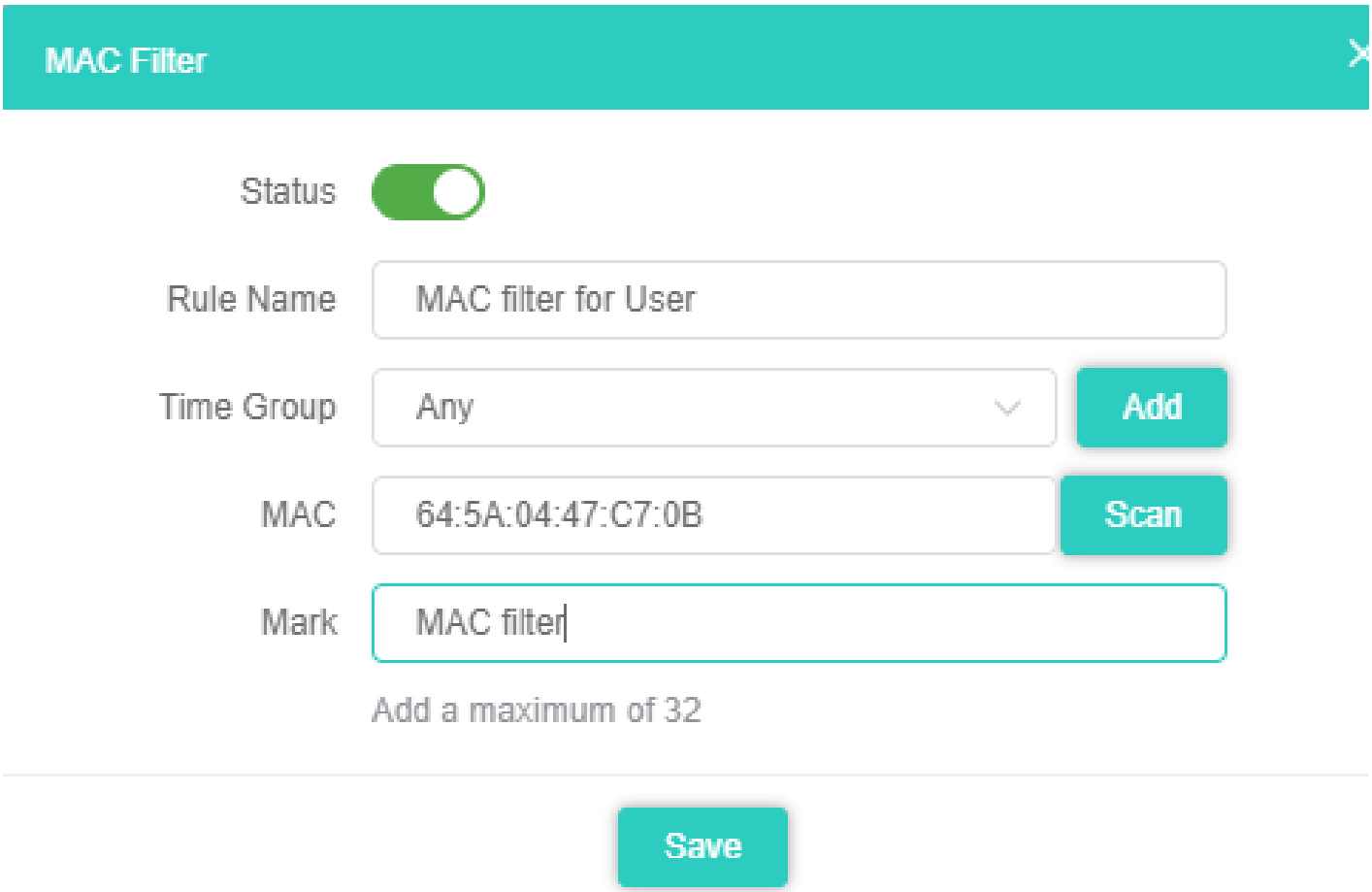

Fig 5.3.2 Setting MAC filter for AirONE AP1800AX

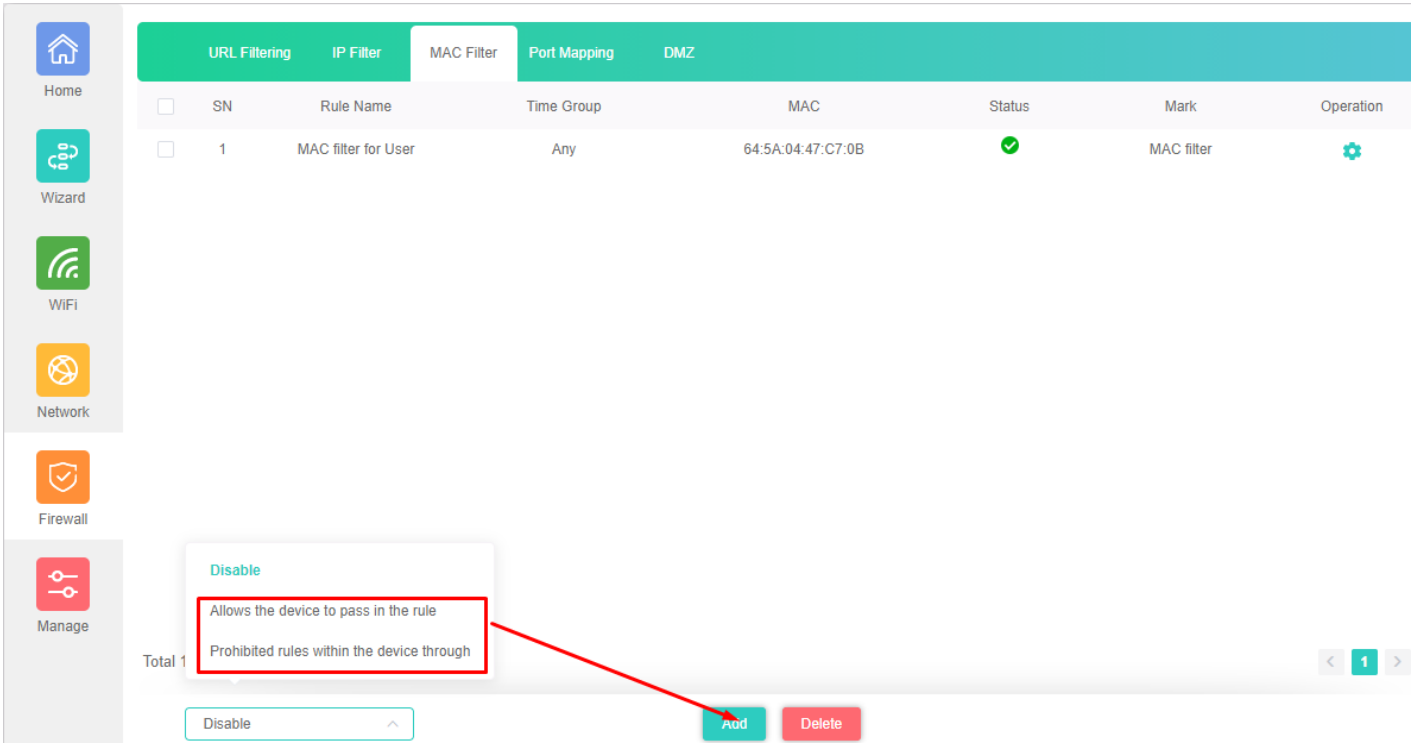

Fig 5.3.3 MAC filter setting for AirONE AP1800AX

5.4 Port Mapping

A port mapping monitors incoming and outgoing network traffic and permits, or blocks data packets based on a set of security rules. It can help protect your network by filtering traffic and blocking outsiders from gaining unauthorized access.

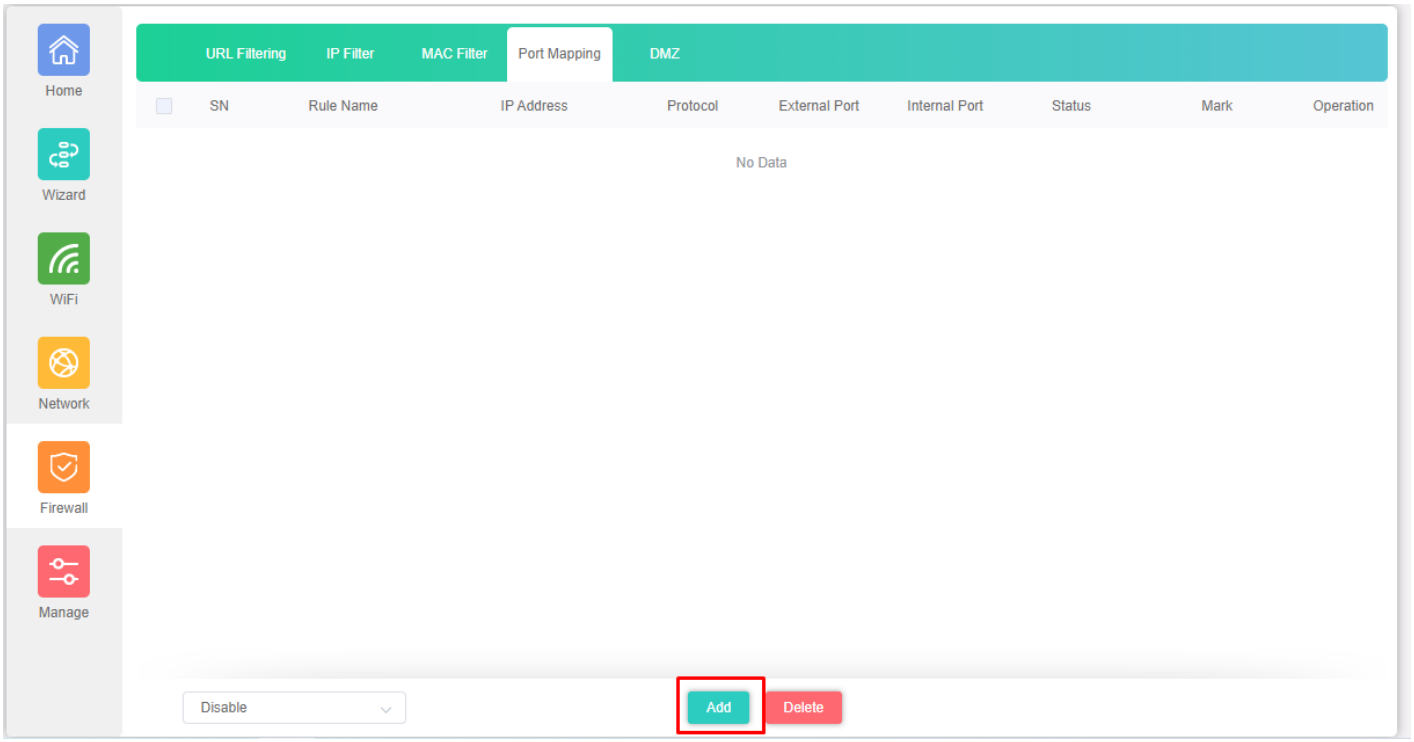

Fig 5.4.1 Default Security setting for AirONE AP1800AX

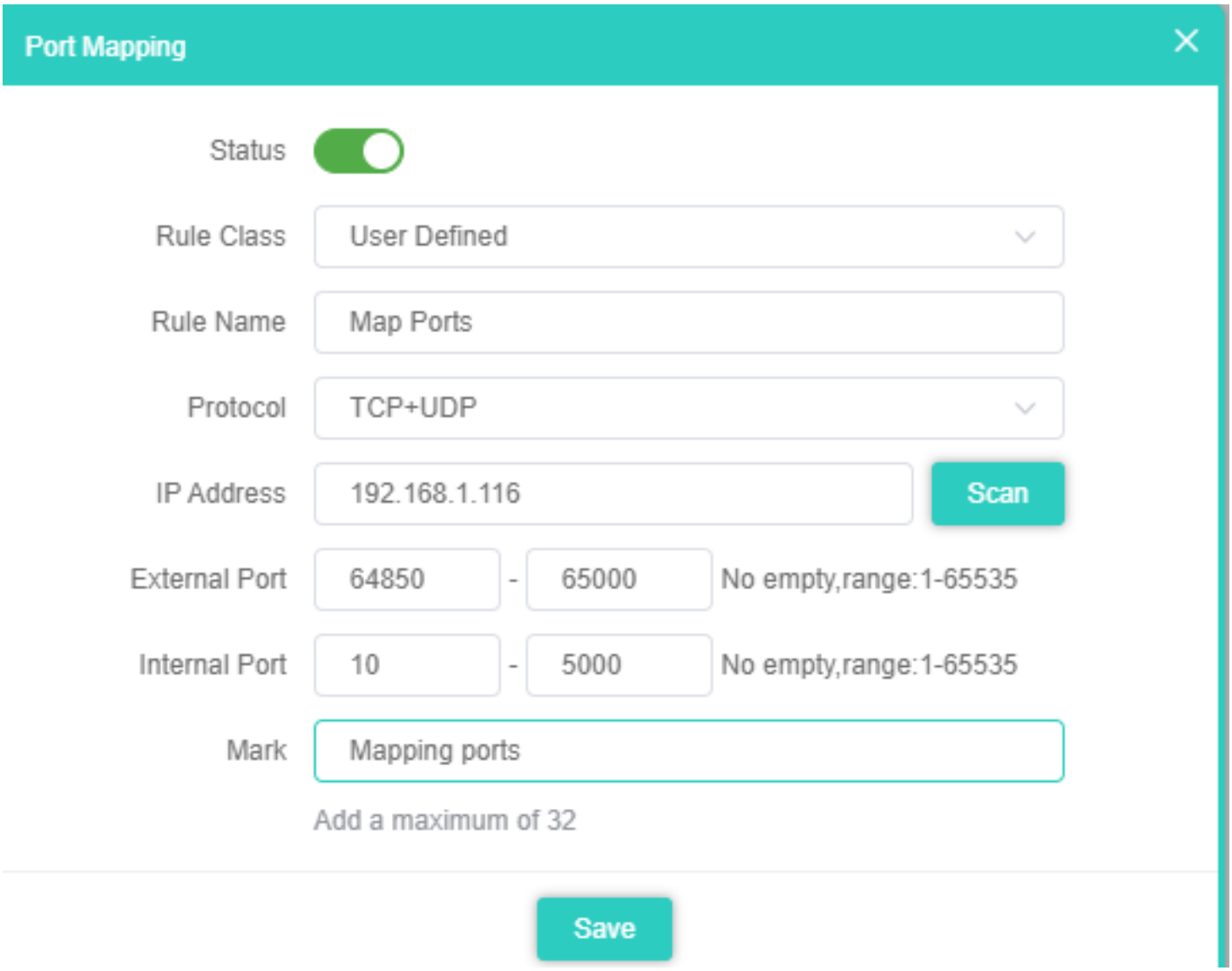

Fig 5.4.2 Security Rules setting for AirONE AP1800AX

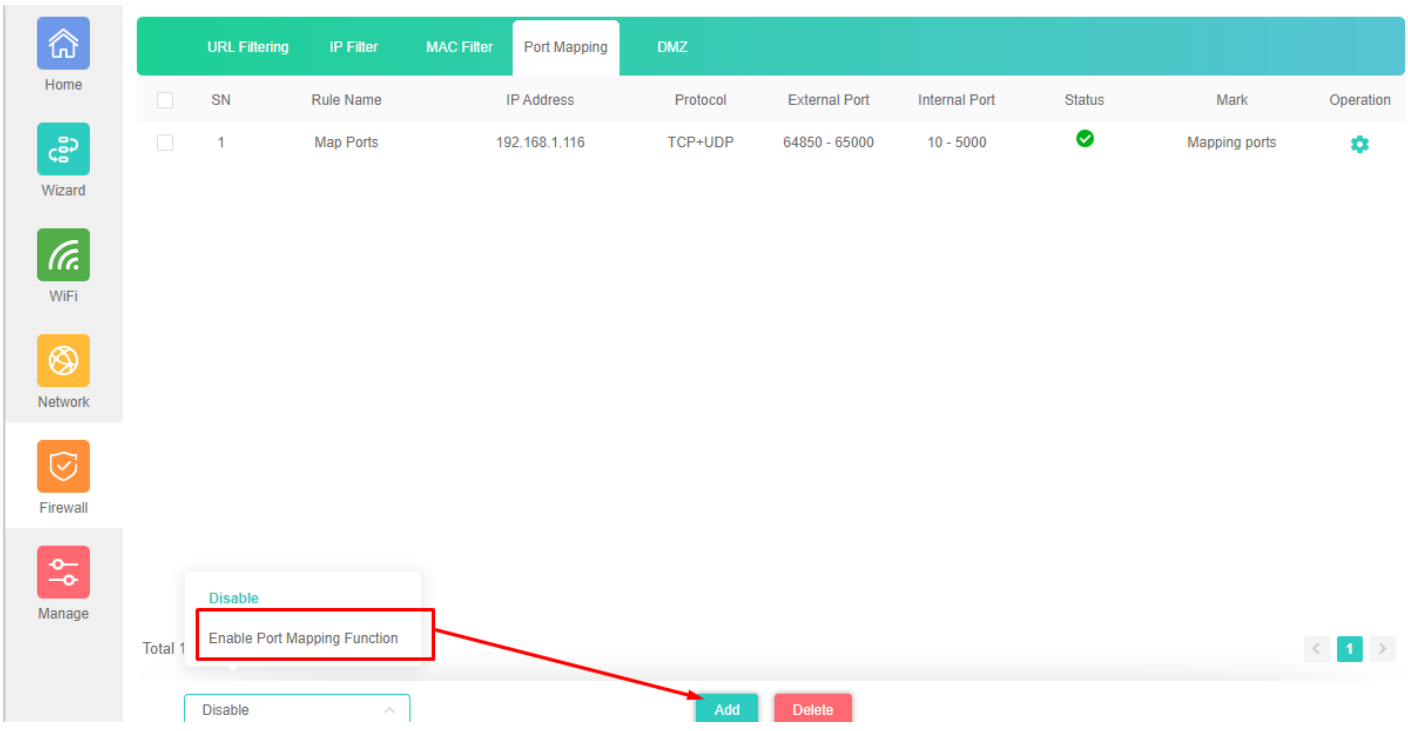

Fig 5.4.3 Security setting for AirONE AP1800AX

5.5 DMZ Settings

DMZ or demilitarized zone is a physical or logical subnetwork that contains portion of your network carved off and isolated from the rest of your network of an organization's external-facing services to an untrusted, usually larger, network such as the Internet.

The main benefit of a DMZ is to provide an internal network with an additional security layer by restricting access to sensitive data and servers. A DMZ enables website visitors to obtain certain services while providing a buffer between them and the organization's private network. The goal of a DMZ is to add an extra layer of security to an organization's local area network. A protected and monitored network node that faces outside the internal network can access what is exposed in the DMZ, while the rest of the organization's network is safe from attackers.

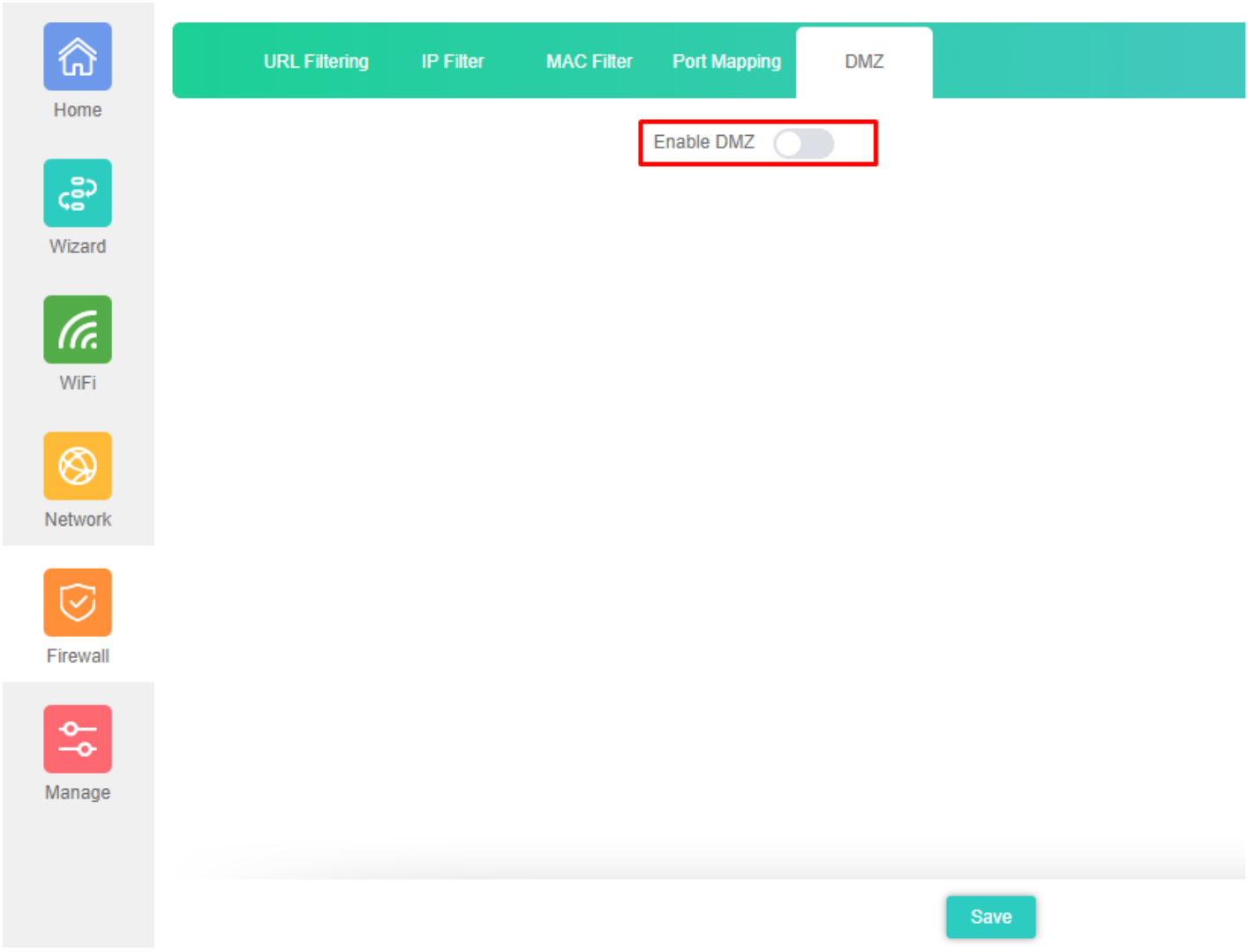

Fig 5.5.1 Default DMZ setting for AirONE AP1800AX

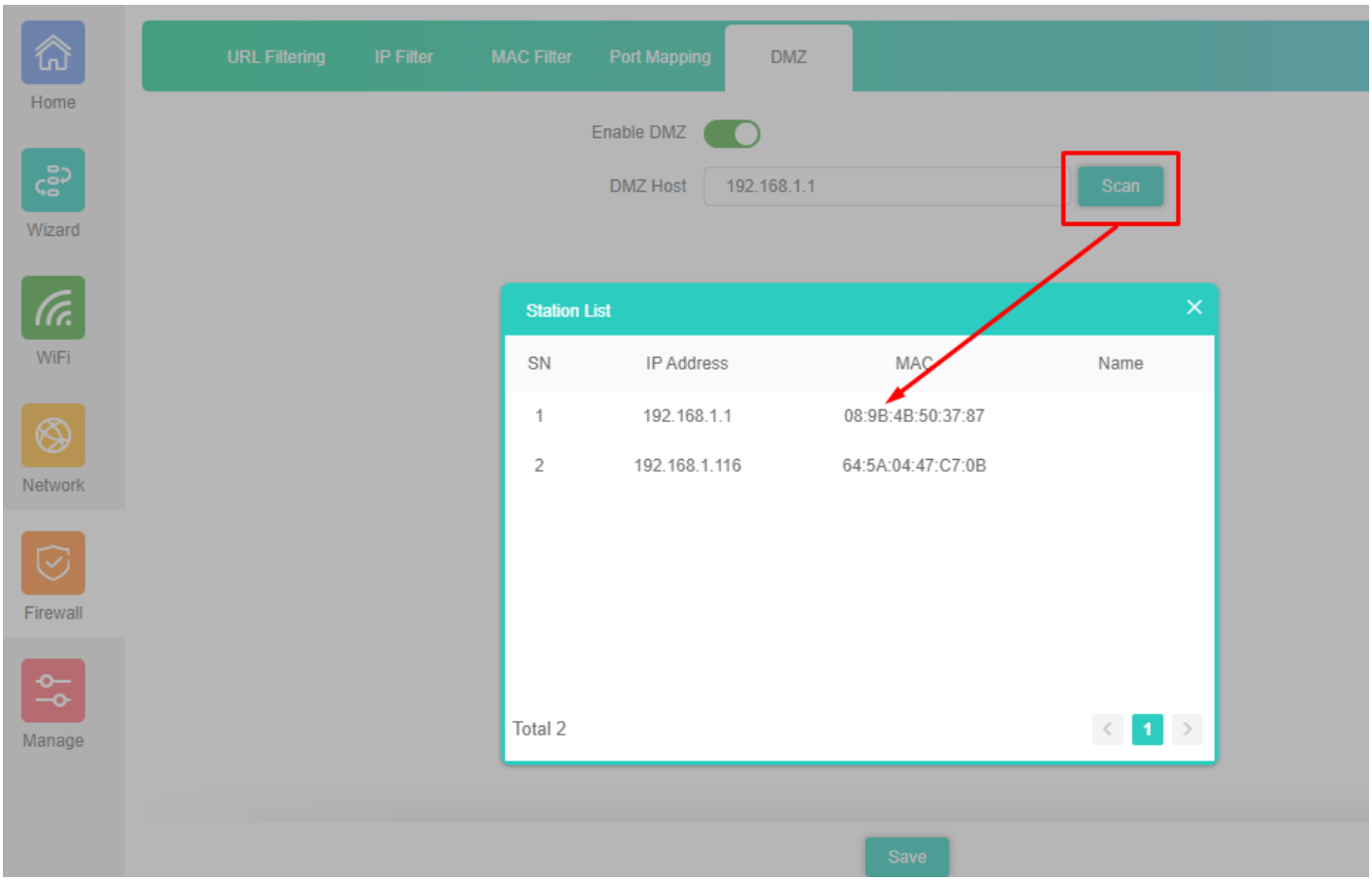

Fig 5.5.2 DMZ setting for AirONE AP1800AX

MANAGE

Configure:
Back up to save the configuration file to PC connected. Restore AP to known configuration. Reset the factory default settings. Telnet can be Enabled or disabled.

Reboot:
It possible to schedule an automatic reboot of AP.

Upgrade:
This setting to upgrade the AP is to get more functions and better performance.

Time:
System Time is the time displayed while the AP is running. On this page you can configure the system time.

Log:
The Logs can record AP information effectively. You can enable and disable log and also can set Log server.

QoS:
It can optimize the bandwidth requirement and improve the network experience for important applications

IP Group:
It can define IP group which tells AP what groups the users are defined.

Time Group:
It can create Time Group with time range and set frequency to operate time group.

DDNS Settings:
It provides a fixed domain name for DDNS client and maps its latest IP address to this domain name.

Note: All *italic config* options are only available in Gateway mode only.

6.1 Configure Setting

The Backup and Restore configuration feature allows end users to backup all configurations made in AP. In cases when you need to reset the AP to factory default settings, you will be able to restore your previous configuration using the backup configuration file. This will save you time by not going through the process of reconfigure the AP manually.

You can restore the AP to its factory default settings by the Reset button or by Reset Default option in this page. It must be noted that once the AP is reset, all the current configuration settings will be lost. If you want old configure files which is backup already then can use option upload backup. Use the page to restore the AP to the factory defaults or use the button to restore the AP to old configuration.

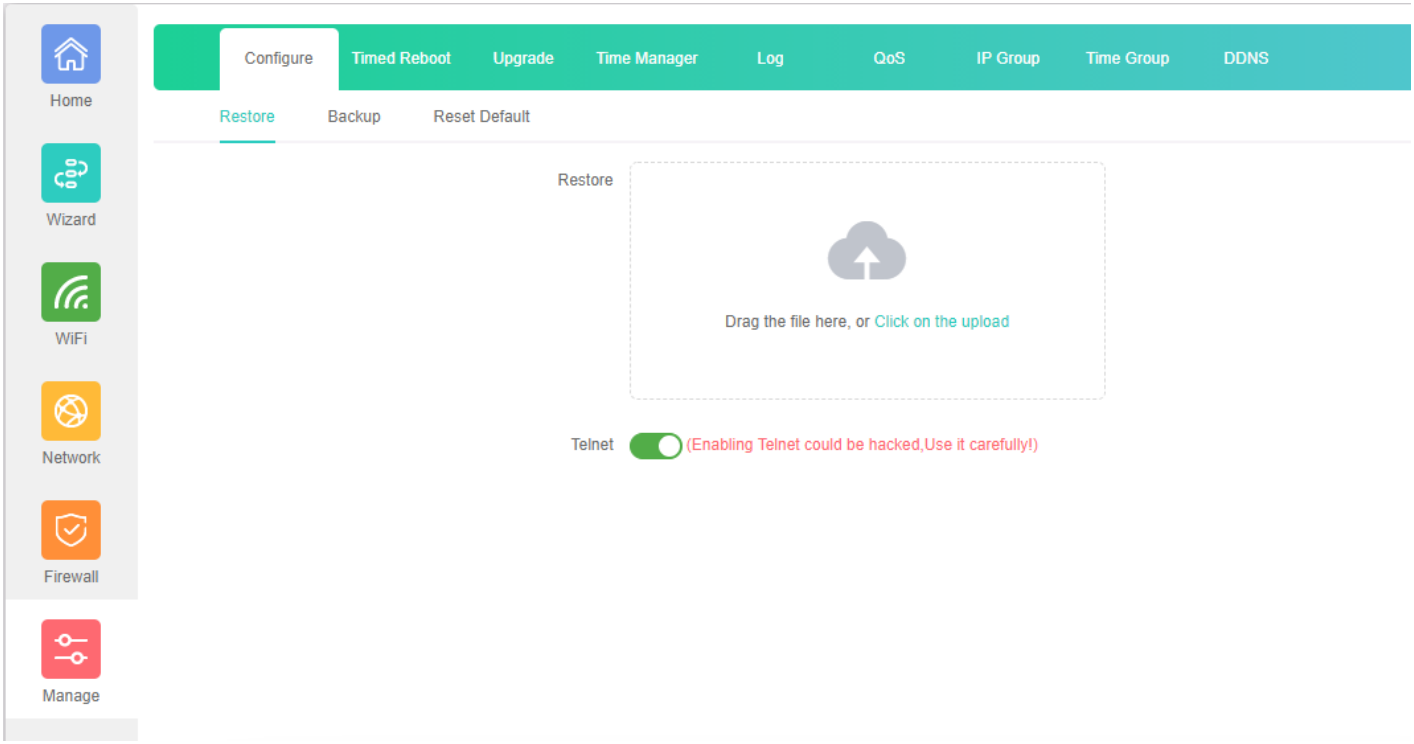

Fig 6.1.1 Default Configure setting for AirONE AP1800AX

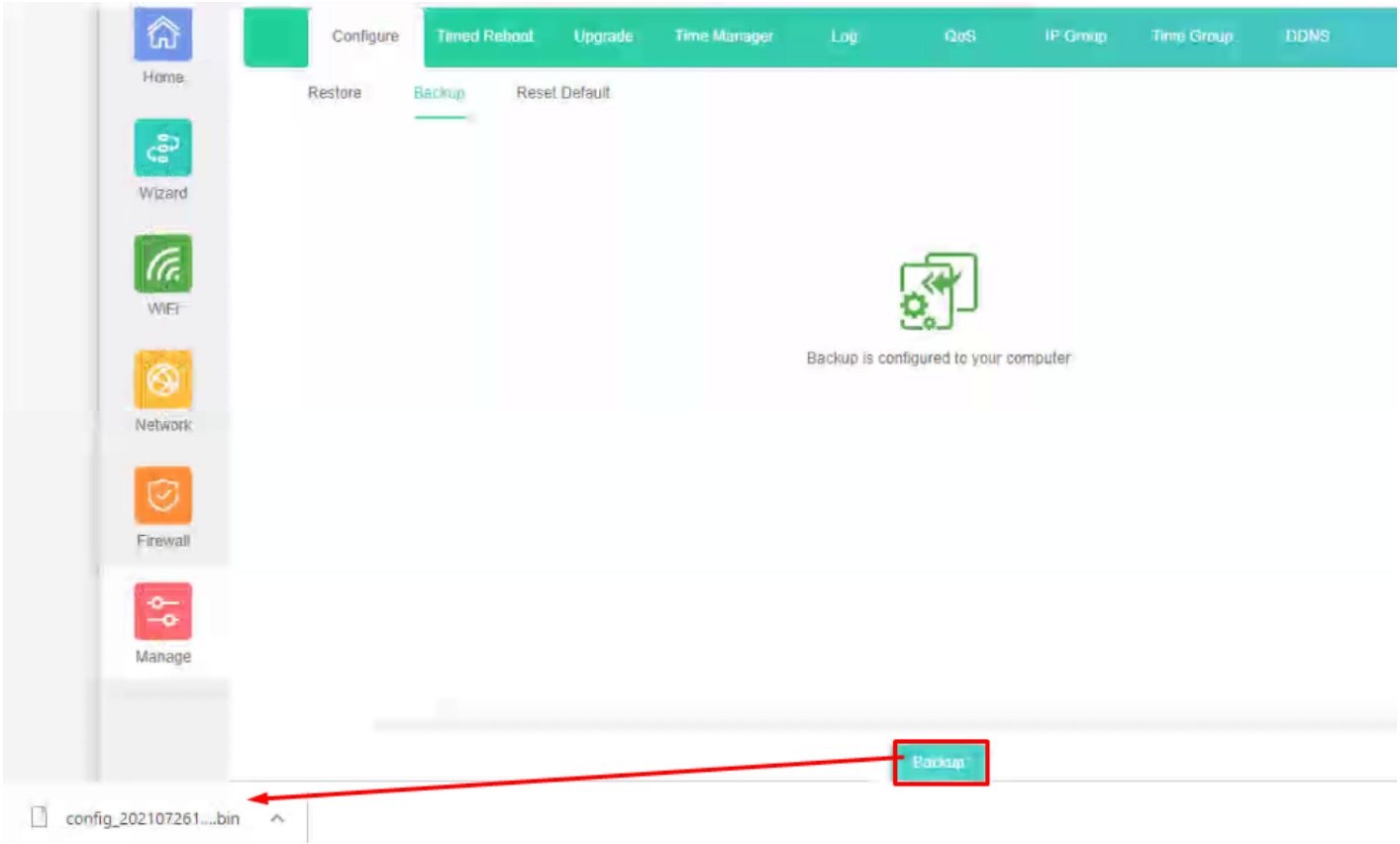

Fig 6.1.2 Taking backup of AirONE AP1800AX

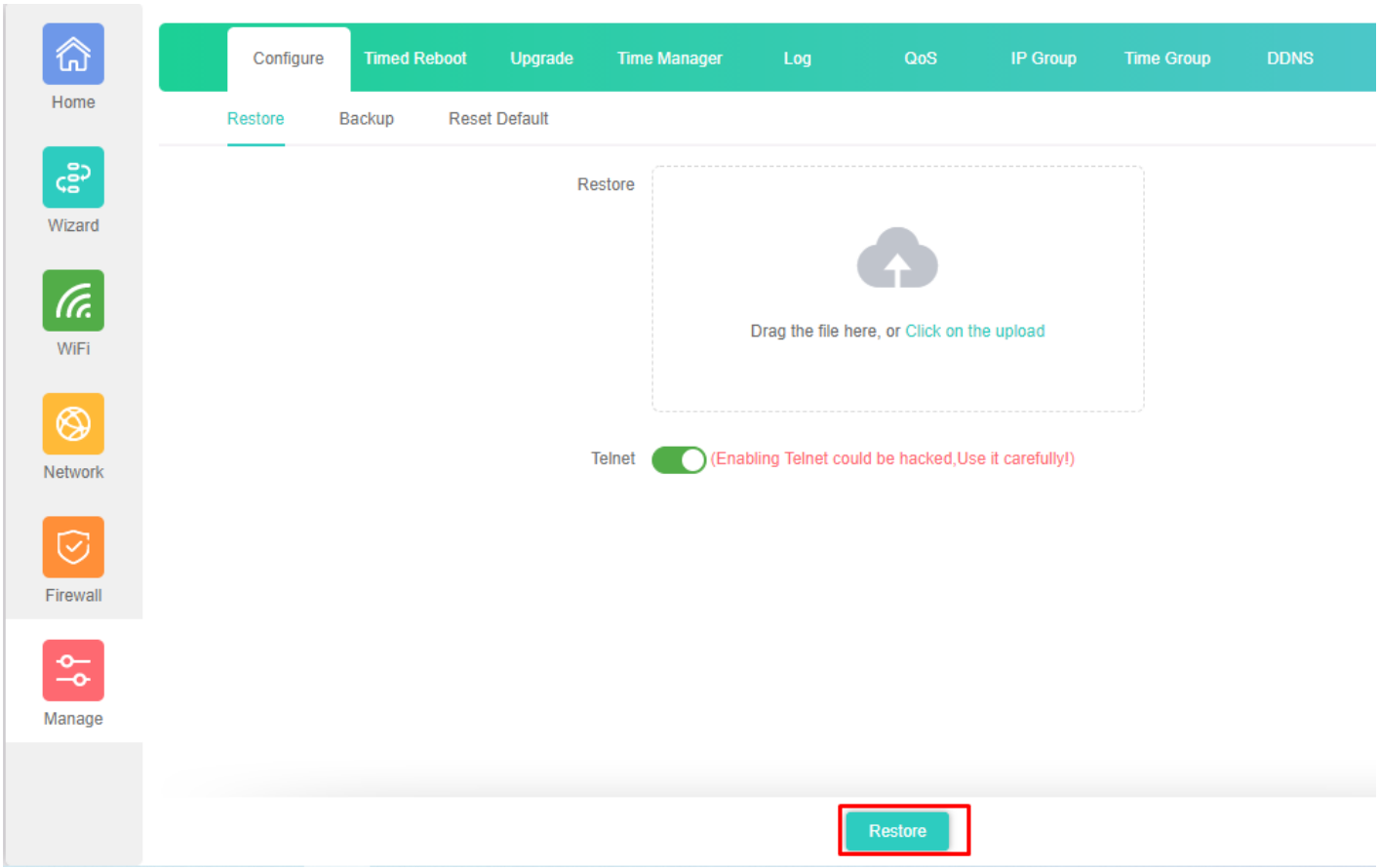

Fig 6.1.3 Restore to known Configure for AirONE AP1800AX

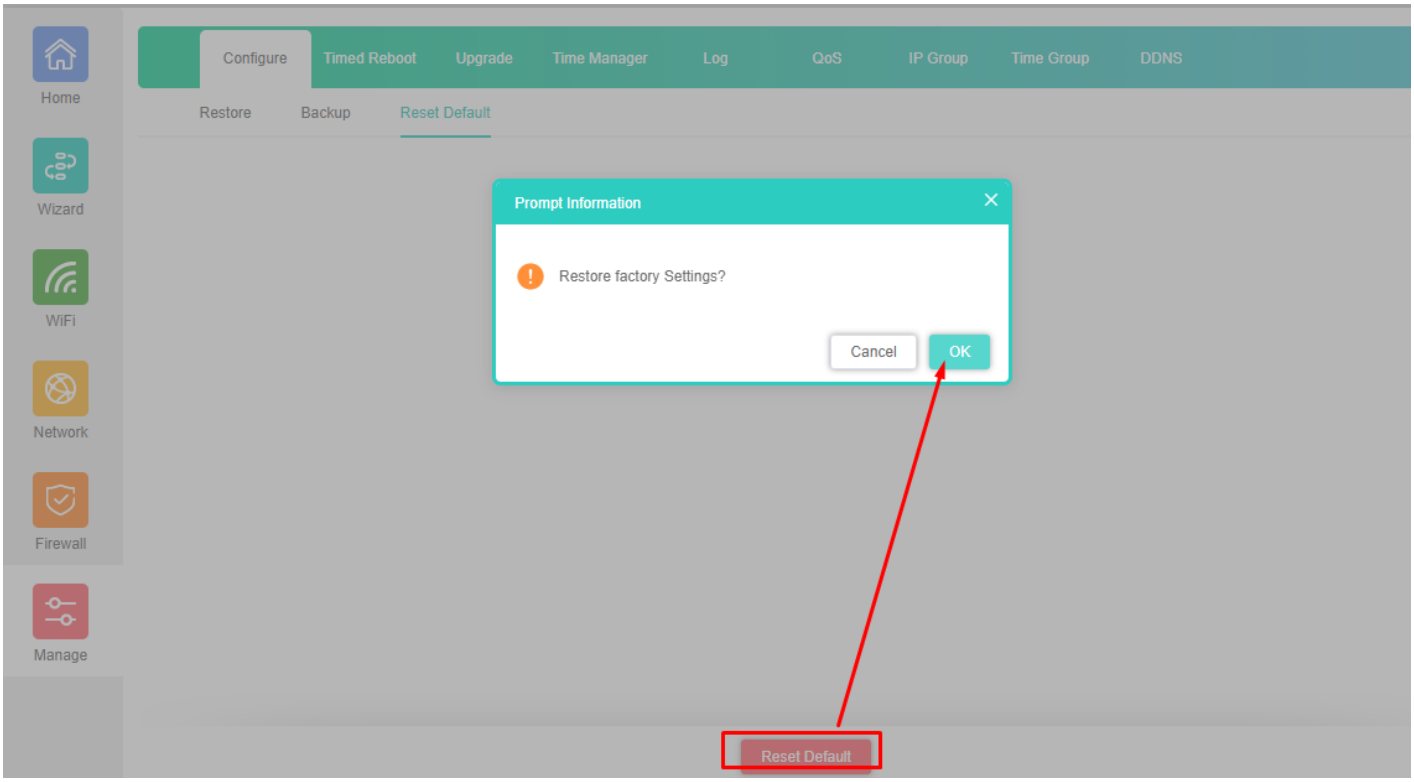

Fig 6.1.4 Reset to factory default for AirONE AP1800AX

6.2 Reboot Setting

It possible to schedule an automatic reboot of AP. The configuration will not be lost after rebooting. The Internet connection will be temporarily interrupted while rebooting.

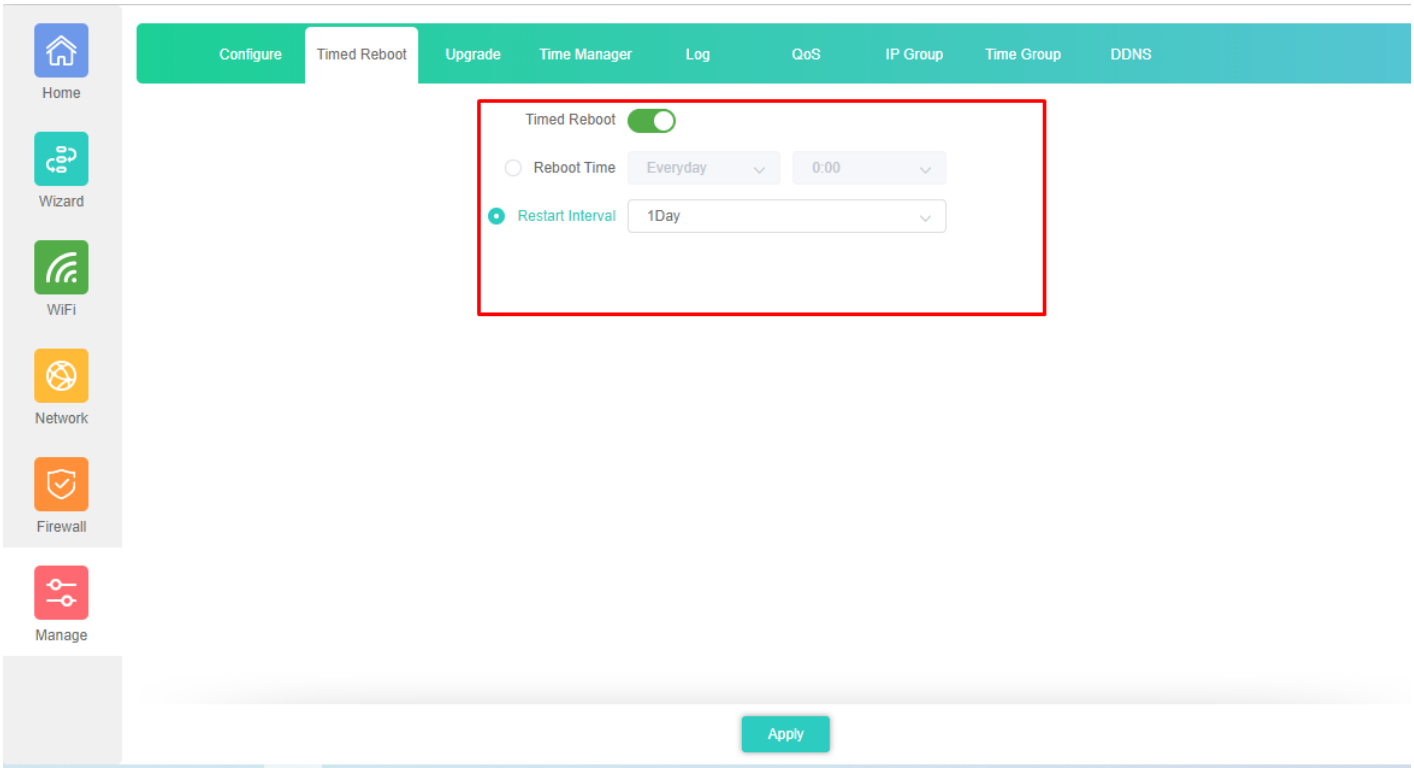

Fig 6.2.1 Default reboot setting for AirONE AP1800AX

Recommendation:

It is strongly recommended to disable Timed reboot to avoid network disruption and outage.

6.3 Upgrade Setting

Version displays the current Configuration version of the AP. To upgrade the AP is to get more functions and better performance.

Note:

1. After upgrading, the AP will reboot automatically.

2.To avoid damage to device, please don't turn off the AP while upgrading.

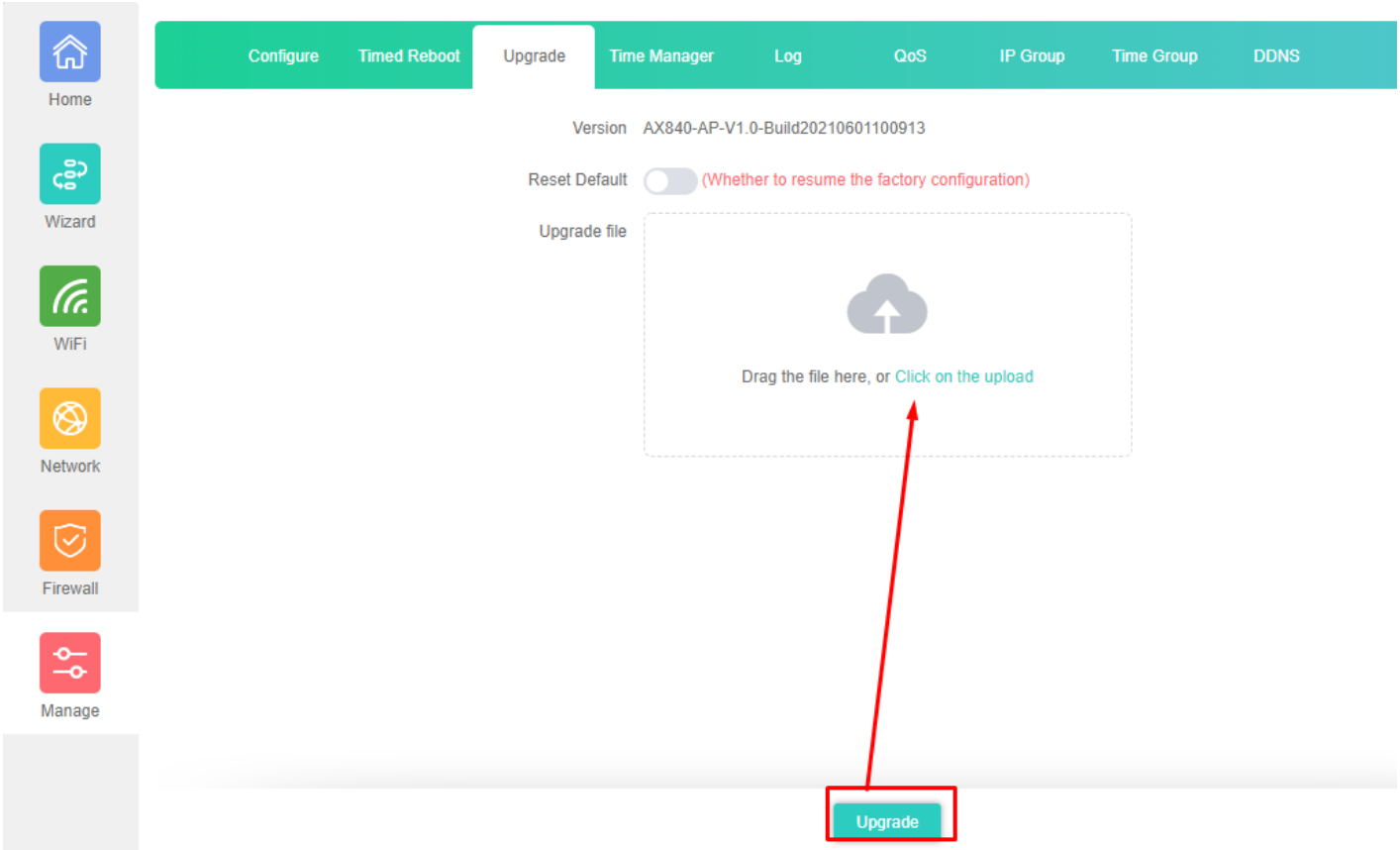

Fig 6.3.1 Default Upgrade page for AirONE AP1800AX

Note: It is advised to take backup of the configuration before upgrading.

6.4 Time Setting

System Time is the time displayed while the AP is running. On this page you can configure the system time and the settings here will be used for other time-based functions like Logs.

In time setting you can set System Time, Time Zone, Set Time Automatically and with help

of NTP service. System Time displays the current date and time of the AP. Time Zone displays the current time zone of the AP. You can configure the time zone and NTP Server. The AP will get GMT automatically if it has connected to a NTP Server. Manual time can also be set by feeding date and time manually.

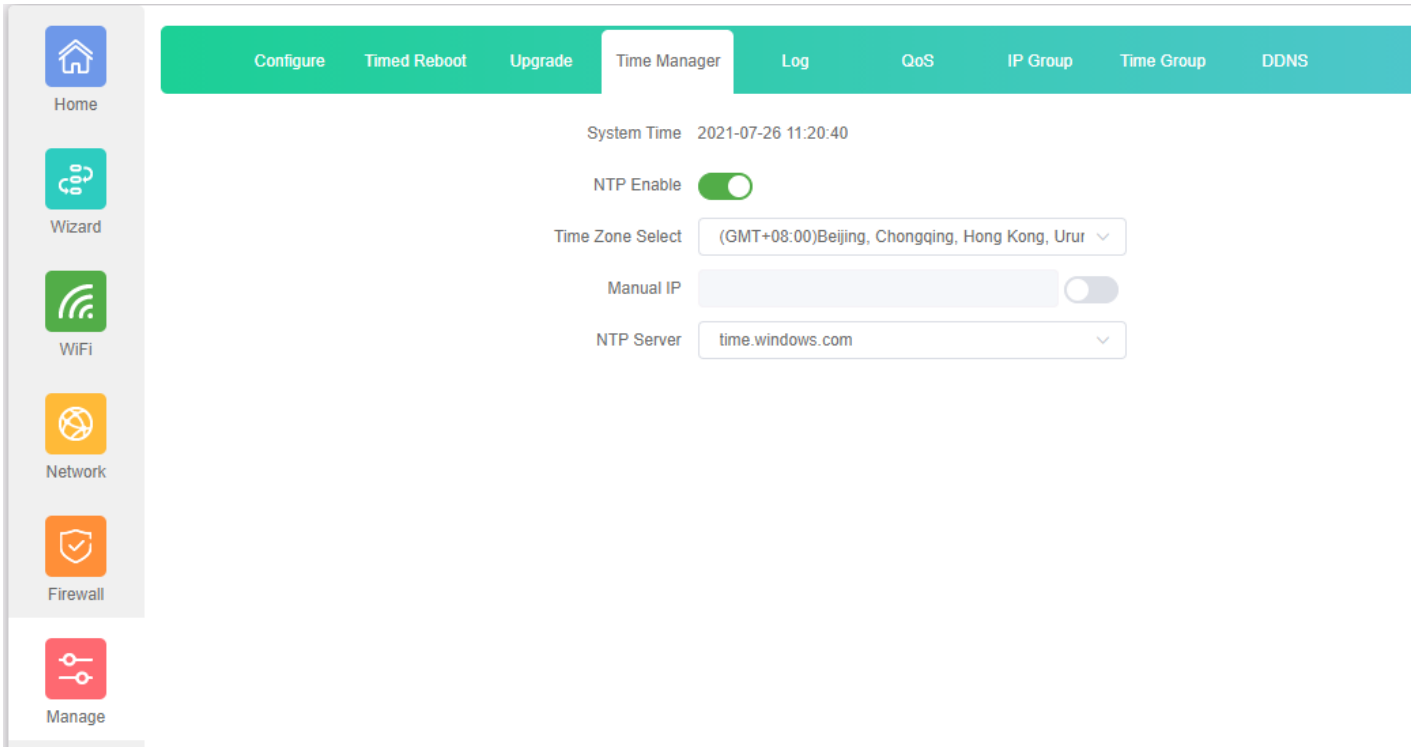

Fig 6.4.1 System Time for AirONE AP1800AX

Synchronize with Host to set system time is best and recommended option. It uses administrator PC's clock for setting time.

Note: It is recommended to use sync with host.

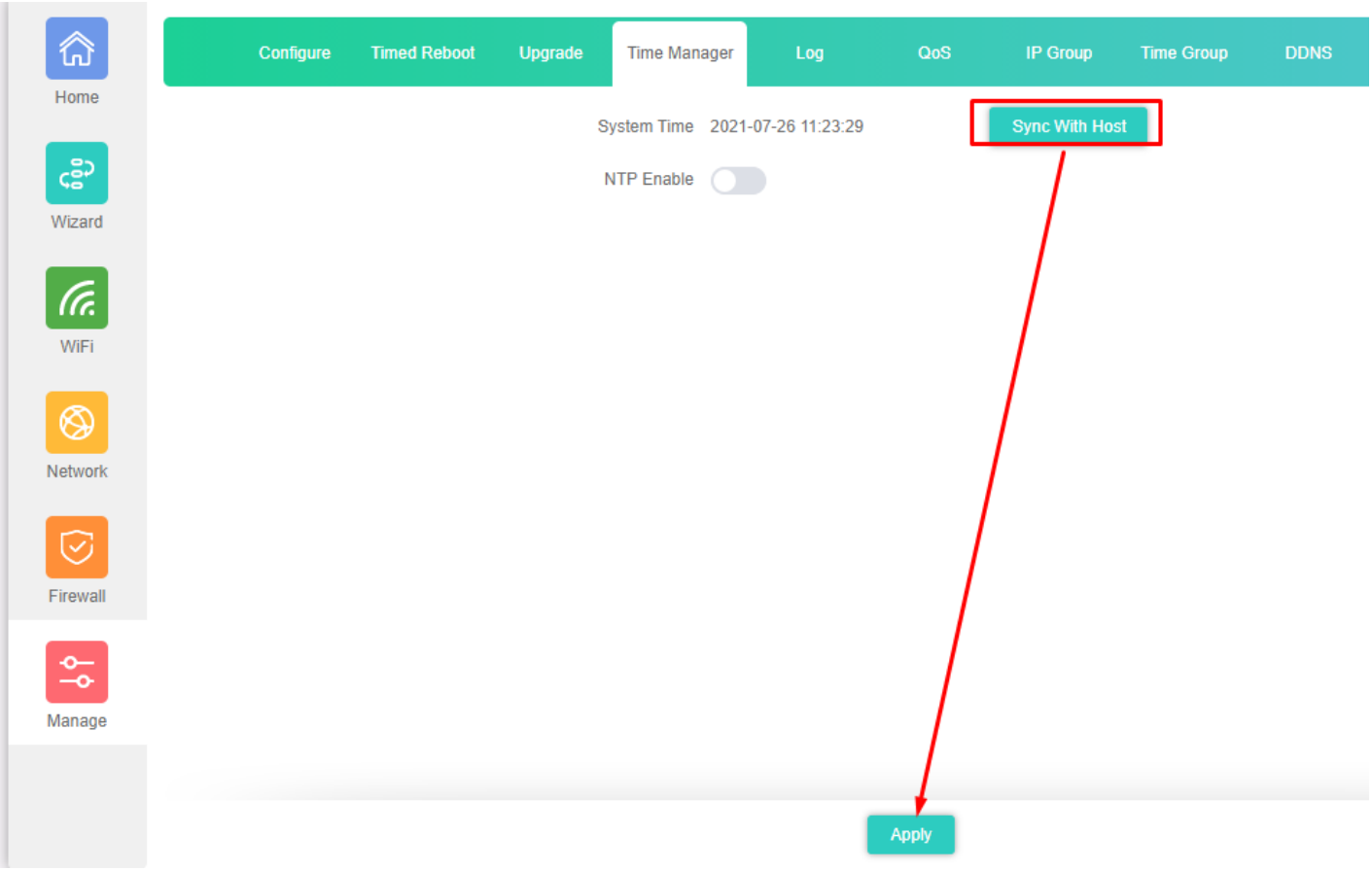

Fig 6.4.2 Disable NTP and Sync with host for AirONE AP1800AX

6.5 Log Setting

The Logs can record AP information effectively. The logs allow thorough tracking, alerting, and analysis when something does go wrong. It also determines the root cause of any issue.

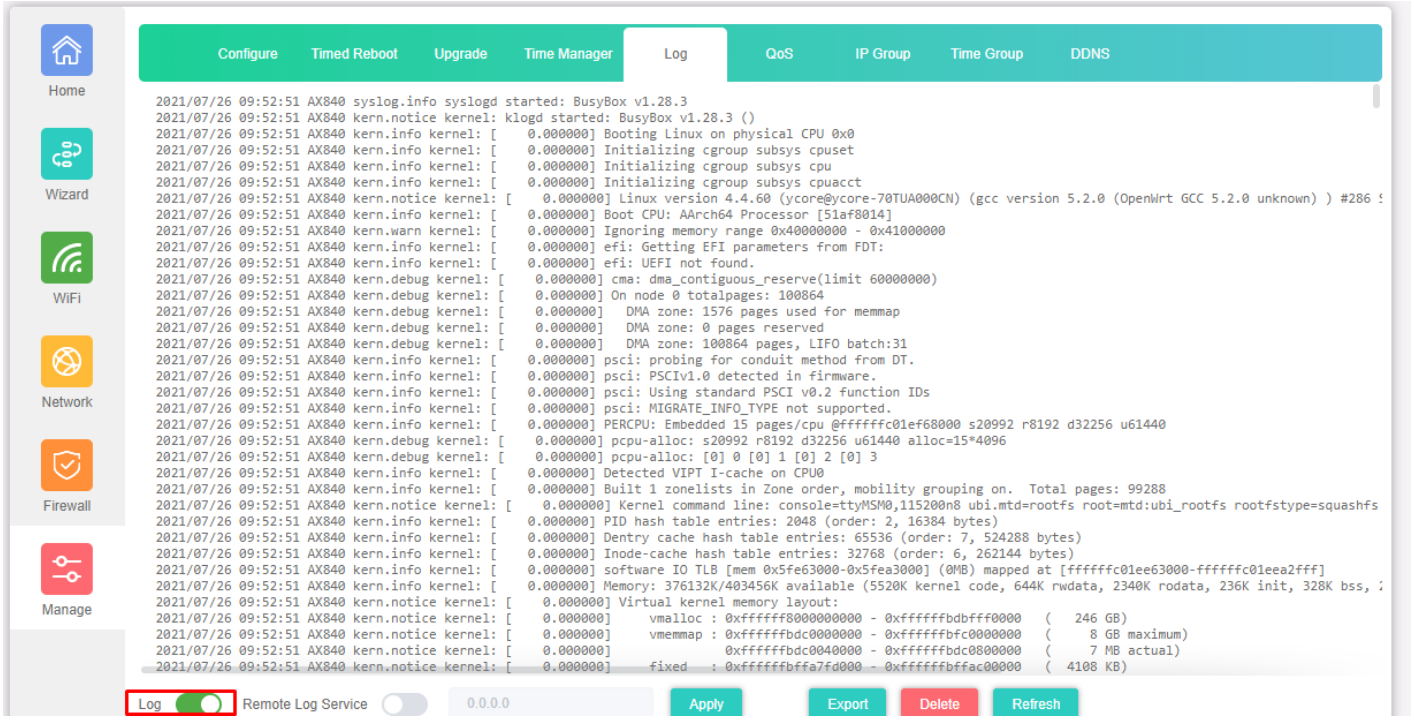

Fig 6.5.1 Default Log setting for AirONE AP1800AX

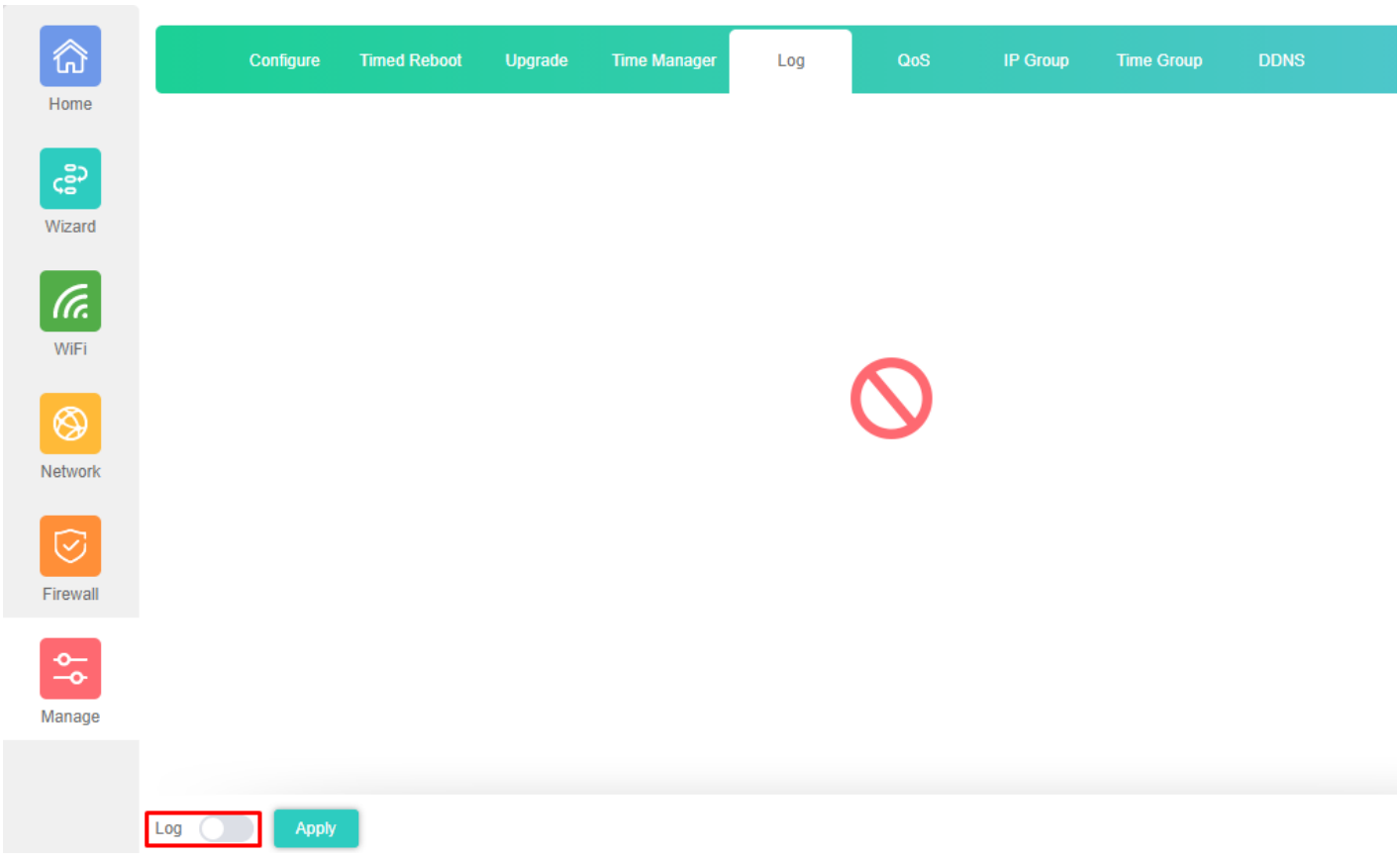

Fig 6.5.2 Turning OFF Log setting for AirONE AP1800AX

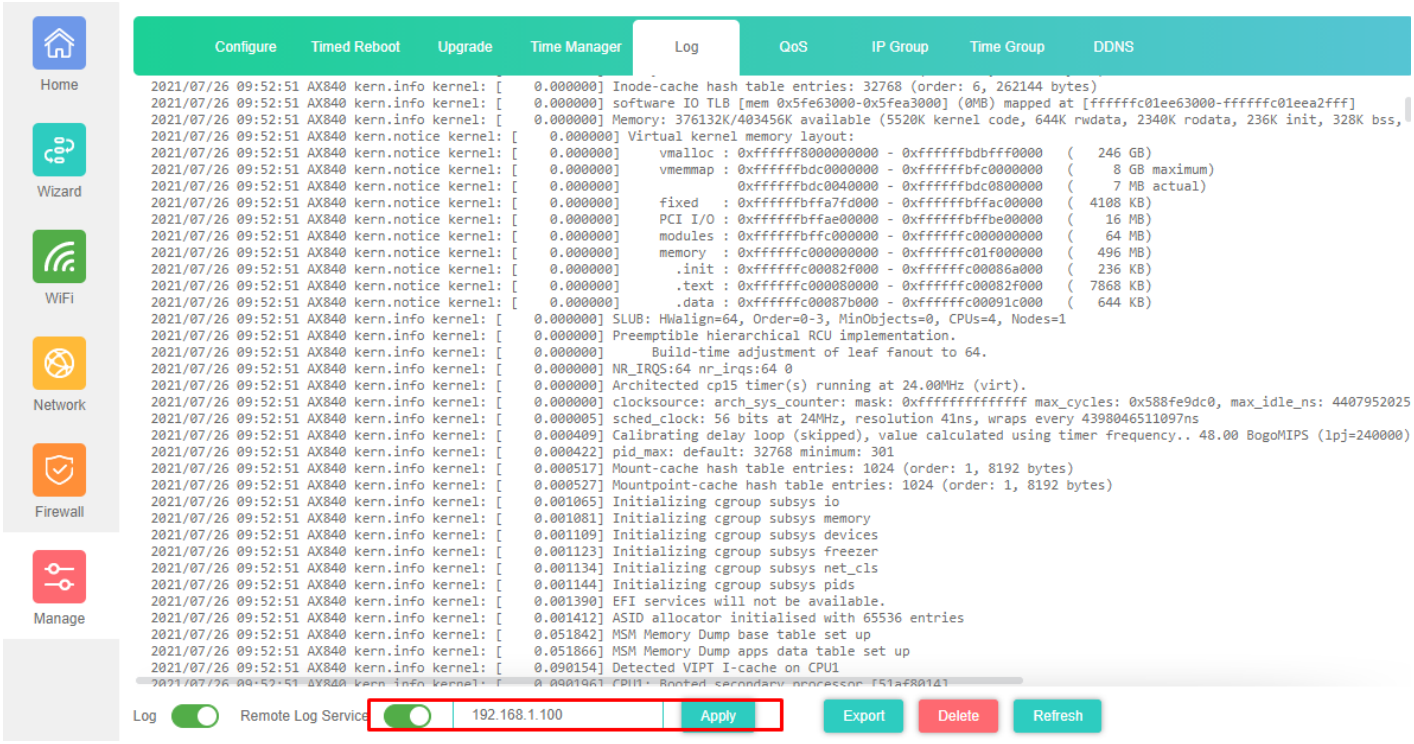

Fig 6.5.3 Remote Log service setting IP for AirONE AP1800AX

Recommendation: It is strongly recommended to turn OFF logs to avoid excessive CPU cycles, Memory usage and hanging of AP in long term.

6.6 QoS

Enabling QoS can optimize the bandwidth requirement and improve the network experience for important applications, especially in the bandwidth hungry wireless clients' environment.

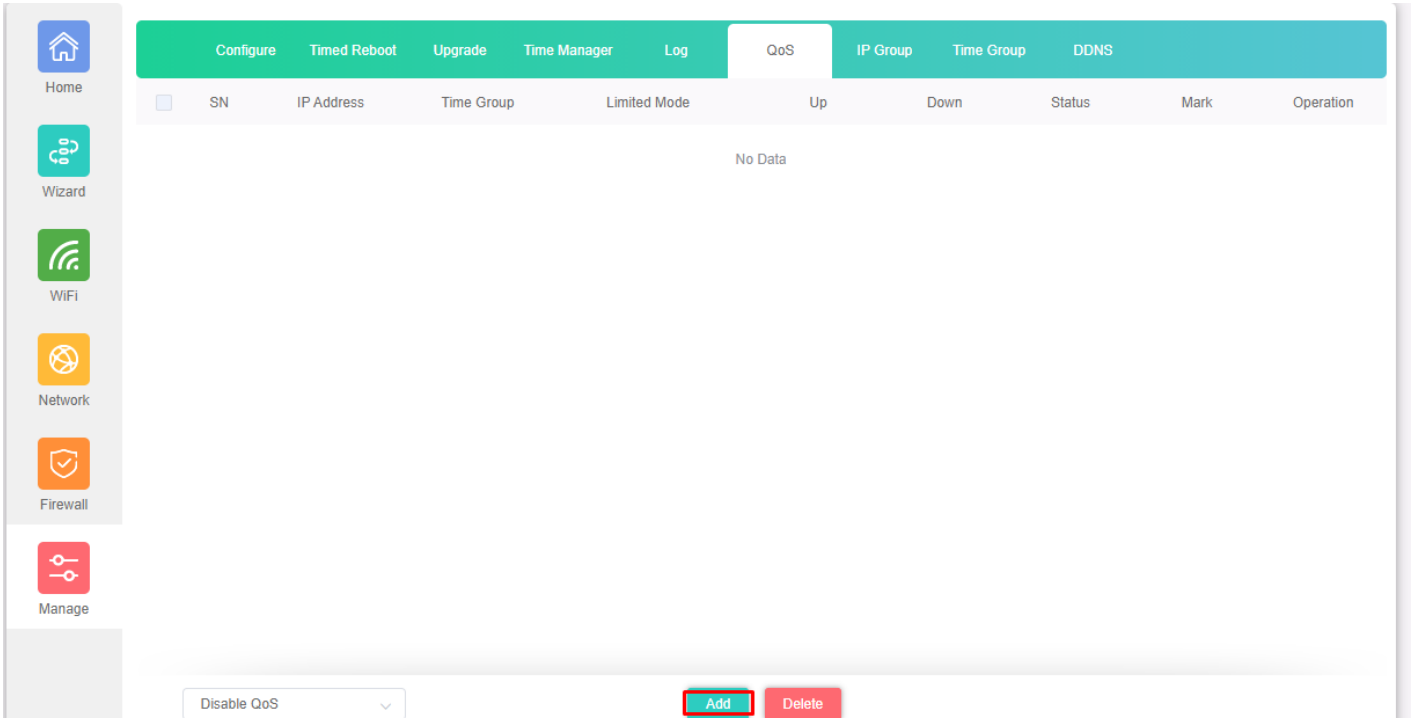

Fig 6.6.1 Default QoS page for AirONE AP1800AX

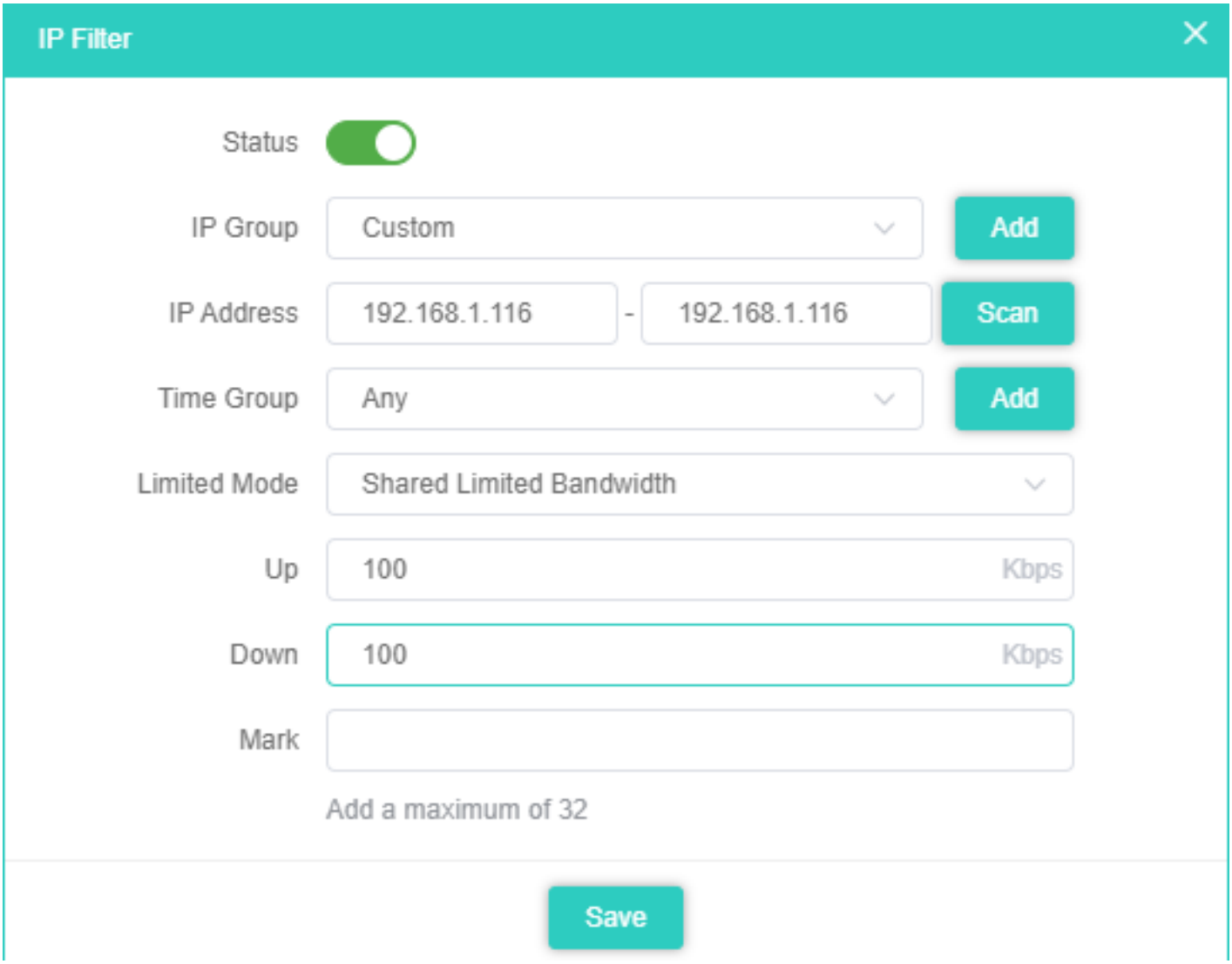

Fig 6.6.2 Enabling Speed limit for AirONE AP1800AX

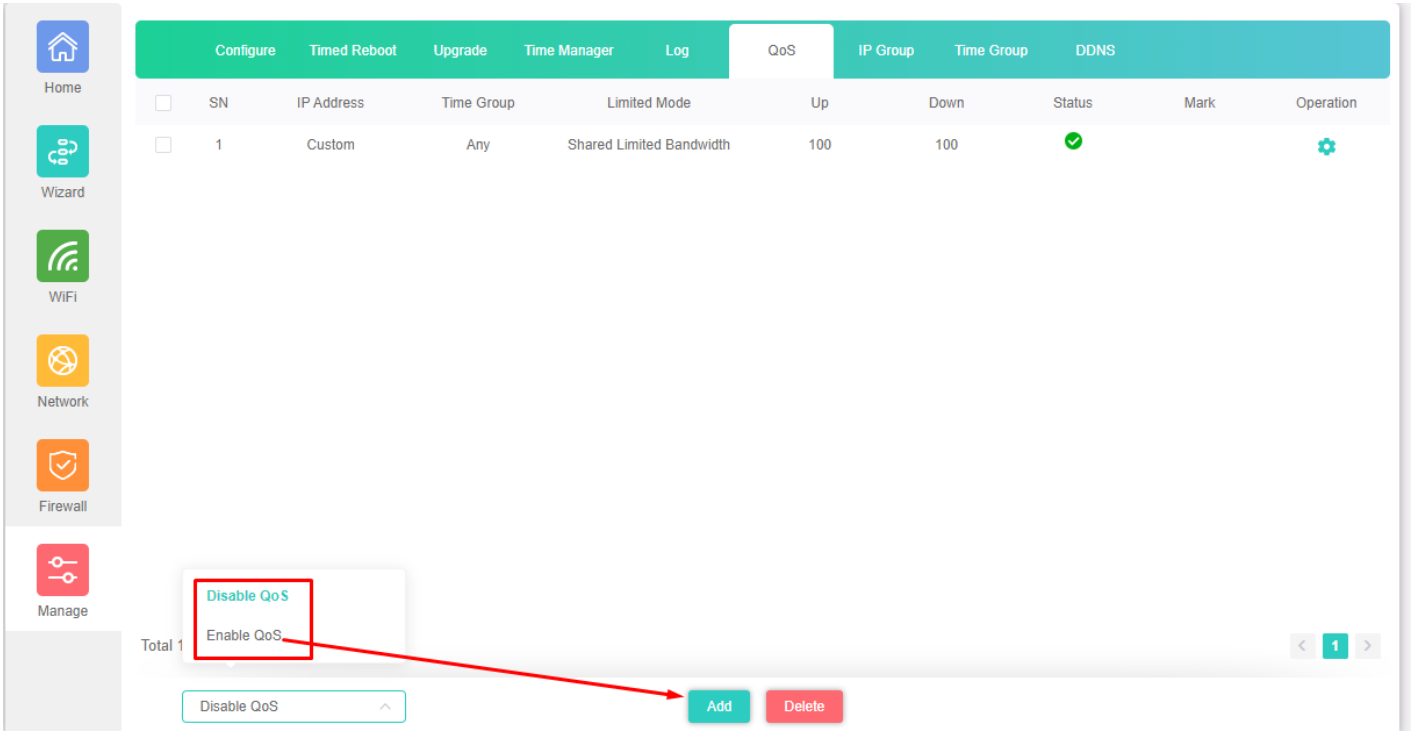

Fig 6.6.3 QoS page for AirONE AP1800AX

6.7 IP Group

A single IP address divides into two sections: Network ID and Host ID. The Network ID defines the logical group where devices belong. Similarly, we can define IP group which tells AP what IP group name and associated IP address are available for wireless users.

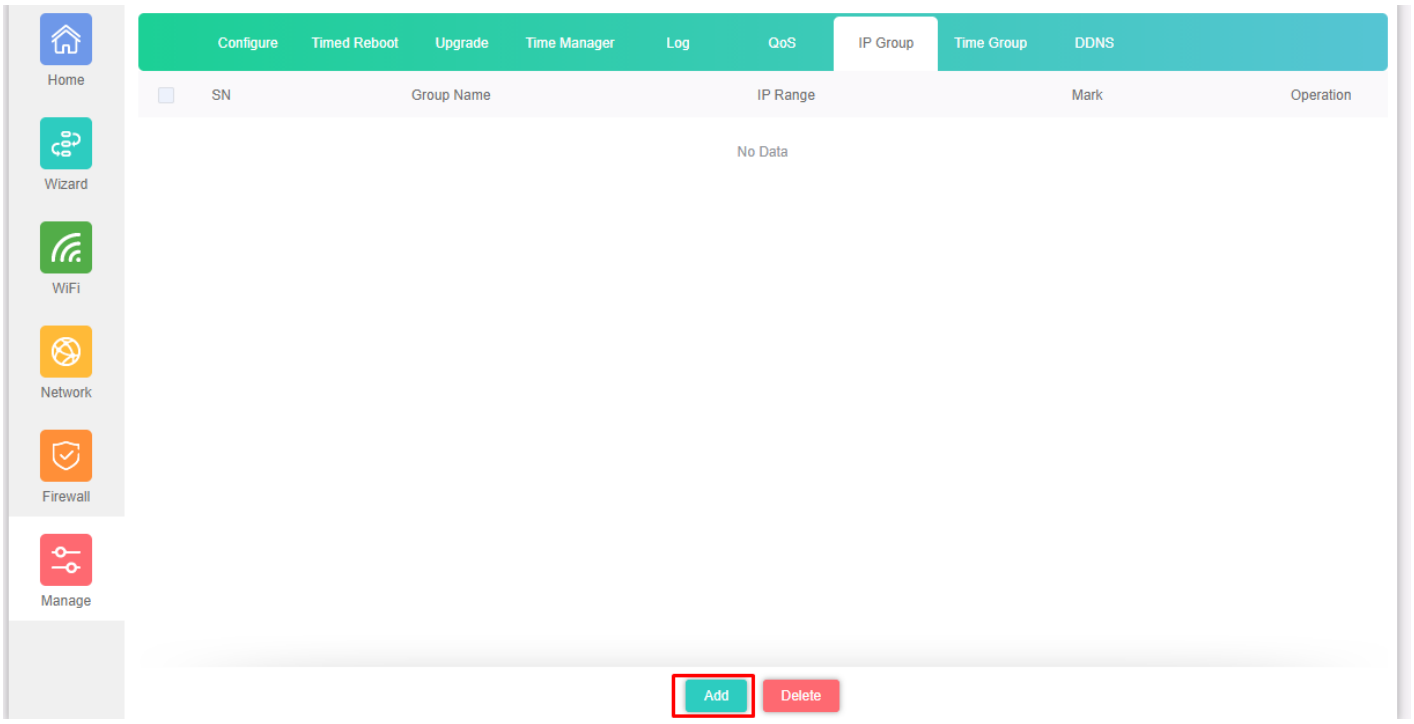

Fig 6.7.1 Default IP group page for AirONE AP1800AX

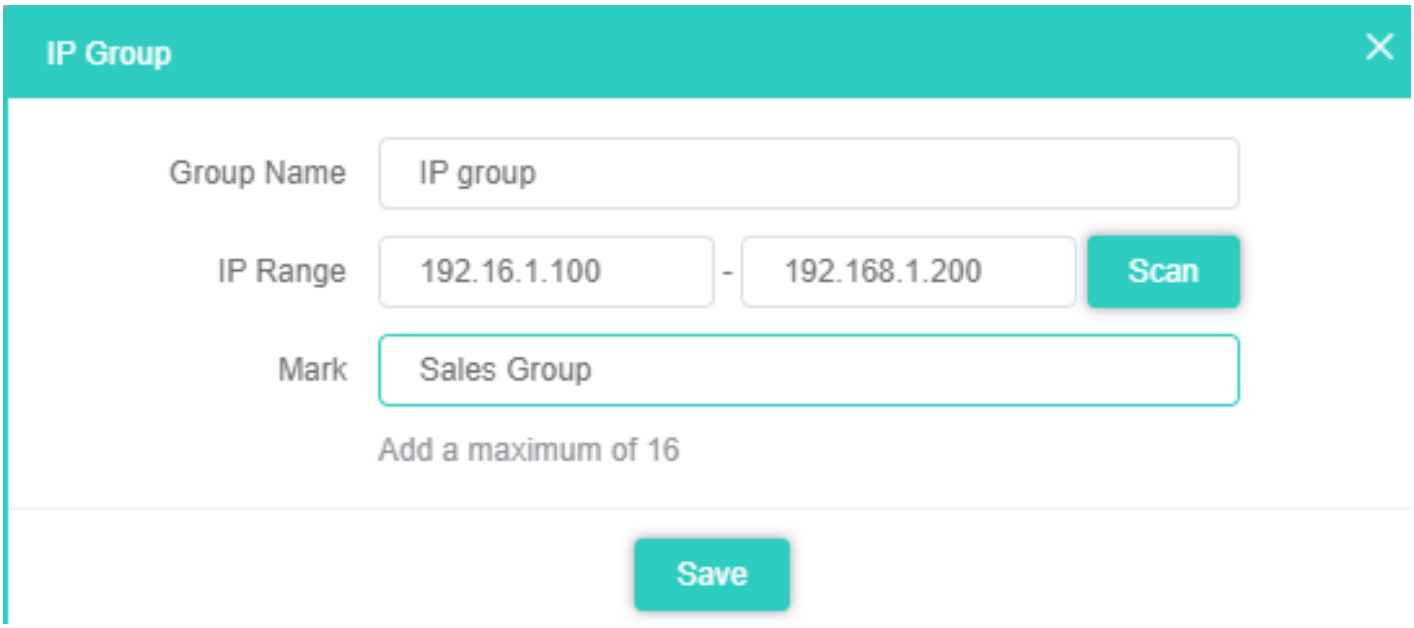

Fig 6.7.2 IP group name and associated IP address for AirONE AP1800AX

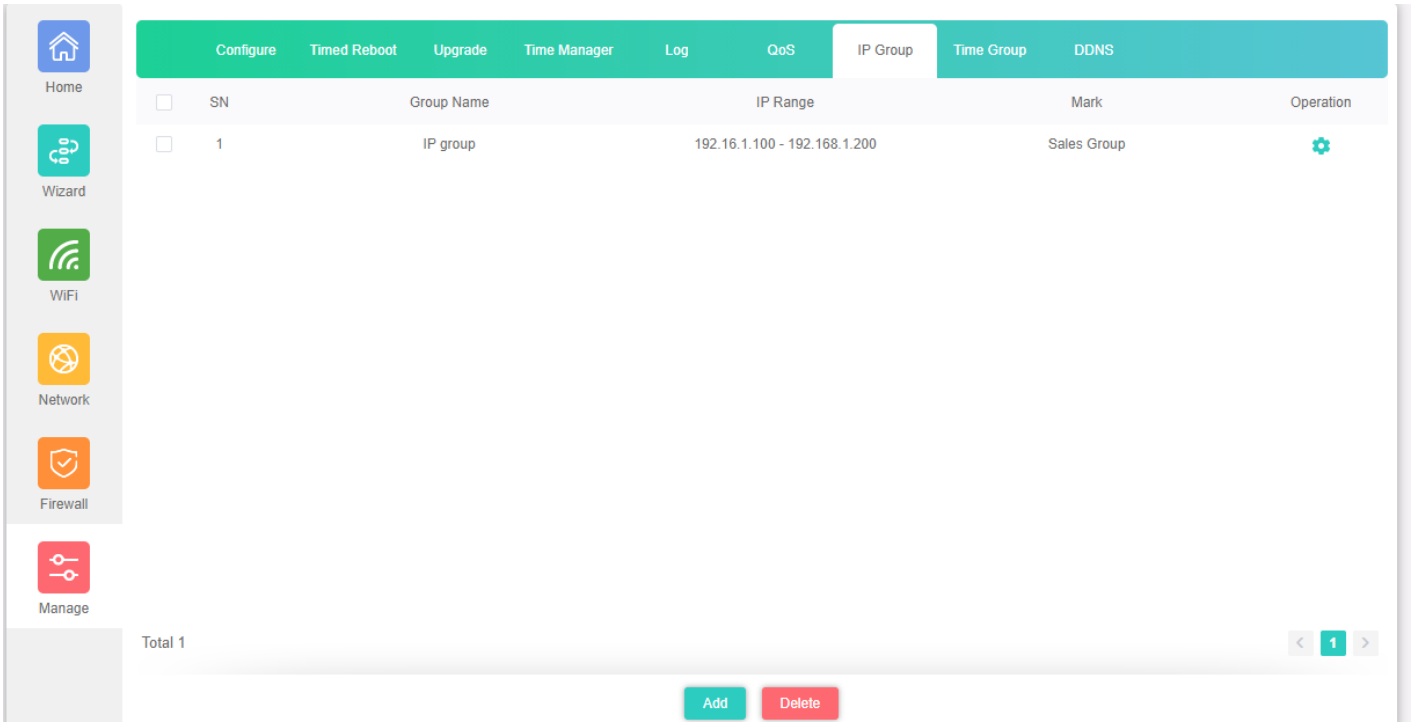

Fig 6.7.3 IP group page for AirONE AP1800AX

6.8 Time Group

It can create Time Group with time range and set frequency of operation for particular activity to operate in specified time. It can give automated effect to the network.

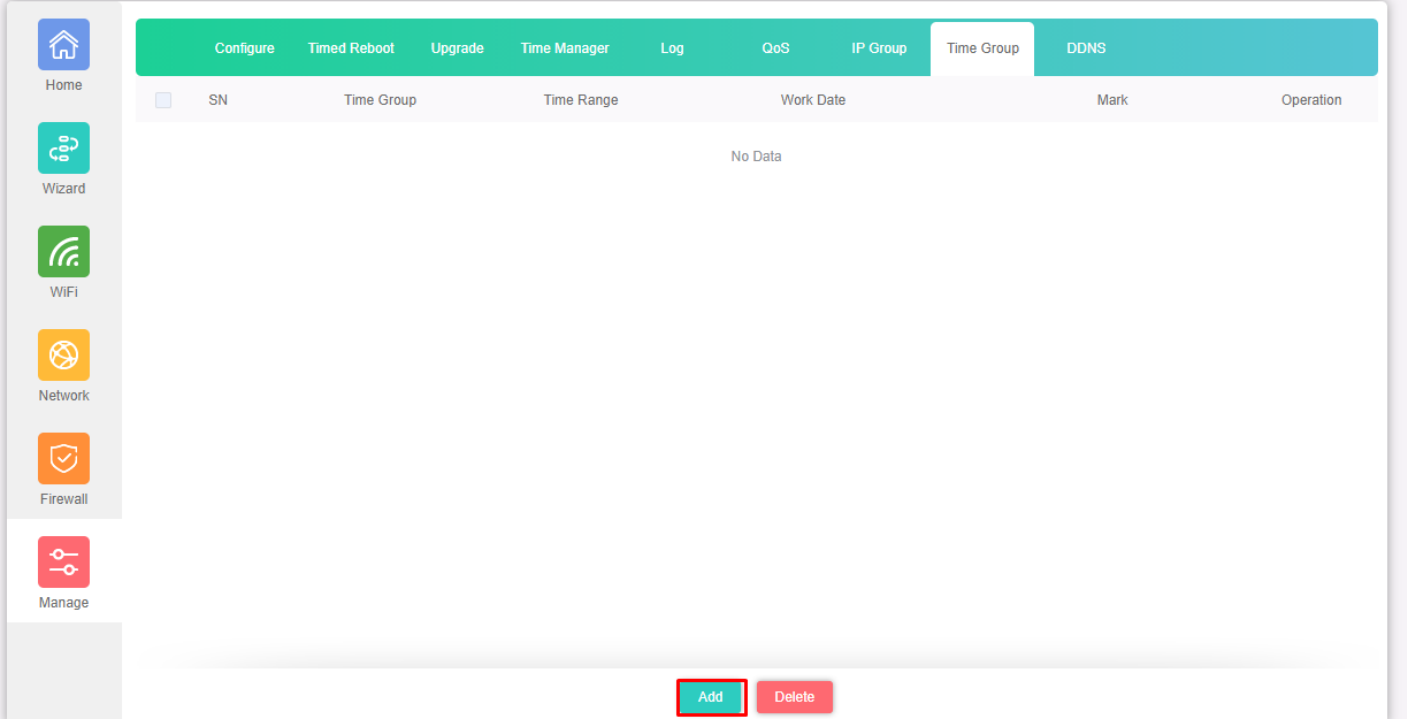

Fig 6.8.1 Default time group for AirONE AP1800AX

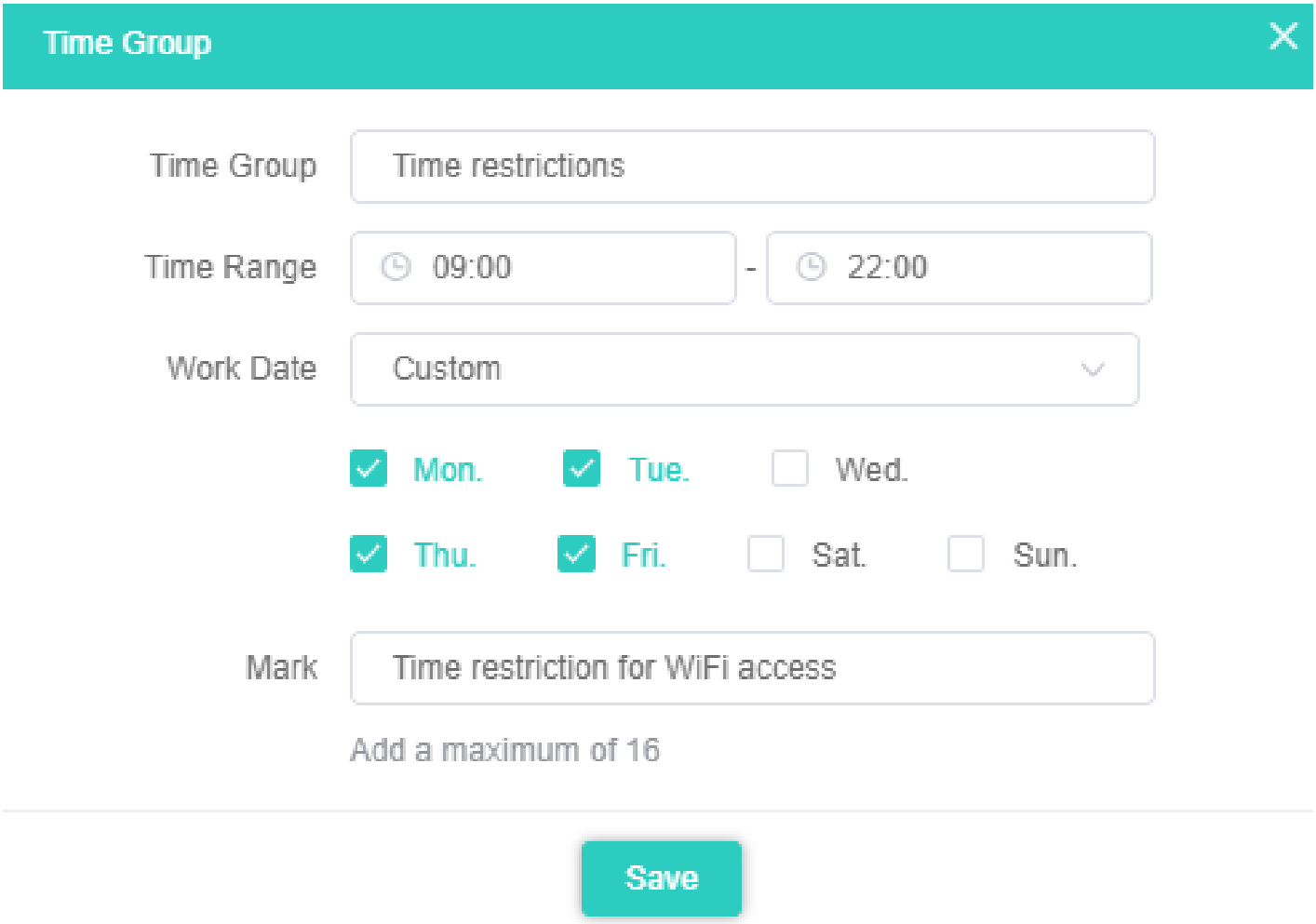

Fig 6.8.2 Setting Time group for AirONE AP1800AX

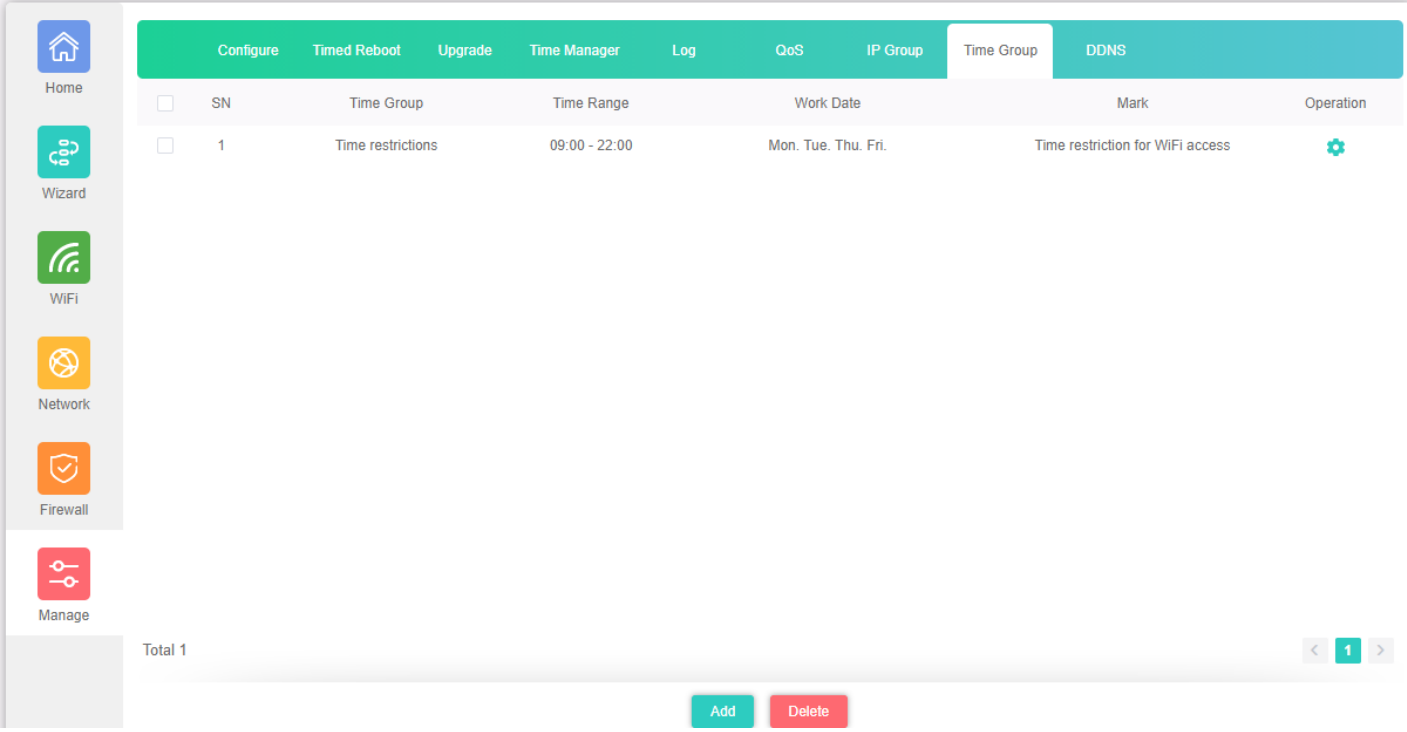

Fig 6.8.3 Time group for AirONE AP1800AX

6.9 DDNS Settings

DDNS (Dynamic DNS) server provides a fixed domain name for DDNS client and maps its latest IP address to this domain name. Dynamic DNS (DDNS) is an Internet service that allows controller with varying public IP addresses to be located using Internet domain names. To use DDNS, you must setup an account with a DDNS provider and set up an account with a DDNS service, the host & domain name, username, password detail will be provided by the account provider. It allows address, which enables the Internet hosts to access the router or the hosts in LAN using the domain names. As many ISPs use DHCP to assign public IP addresses in WAN, the public IP address assigned to the client is unfixed. In this way, it's very difficult for other clients to get the latest IP address of this client for access.

DDNS (Dynamic DNS) server provides a fixed domain name for DDNS client and maps its latest IP address to this domain name. When DDNS server works, DDNS client informs the DDNS server of the latest IP address, the server will update the mappings between the domain name and IP address in DNS database. Therefore, the wireless users can use the same domain name to access the DDNS client even if the IP address of the DDNS client has changed. DDNS is usually used for the Internet users to access the private website and FTP server, both of which are established based on Web server.

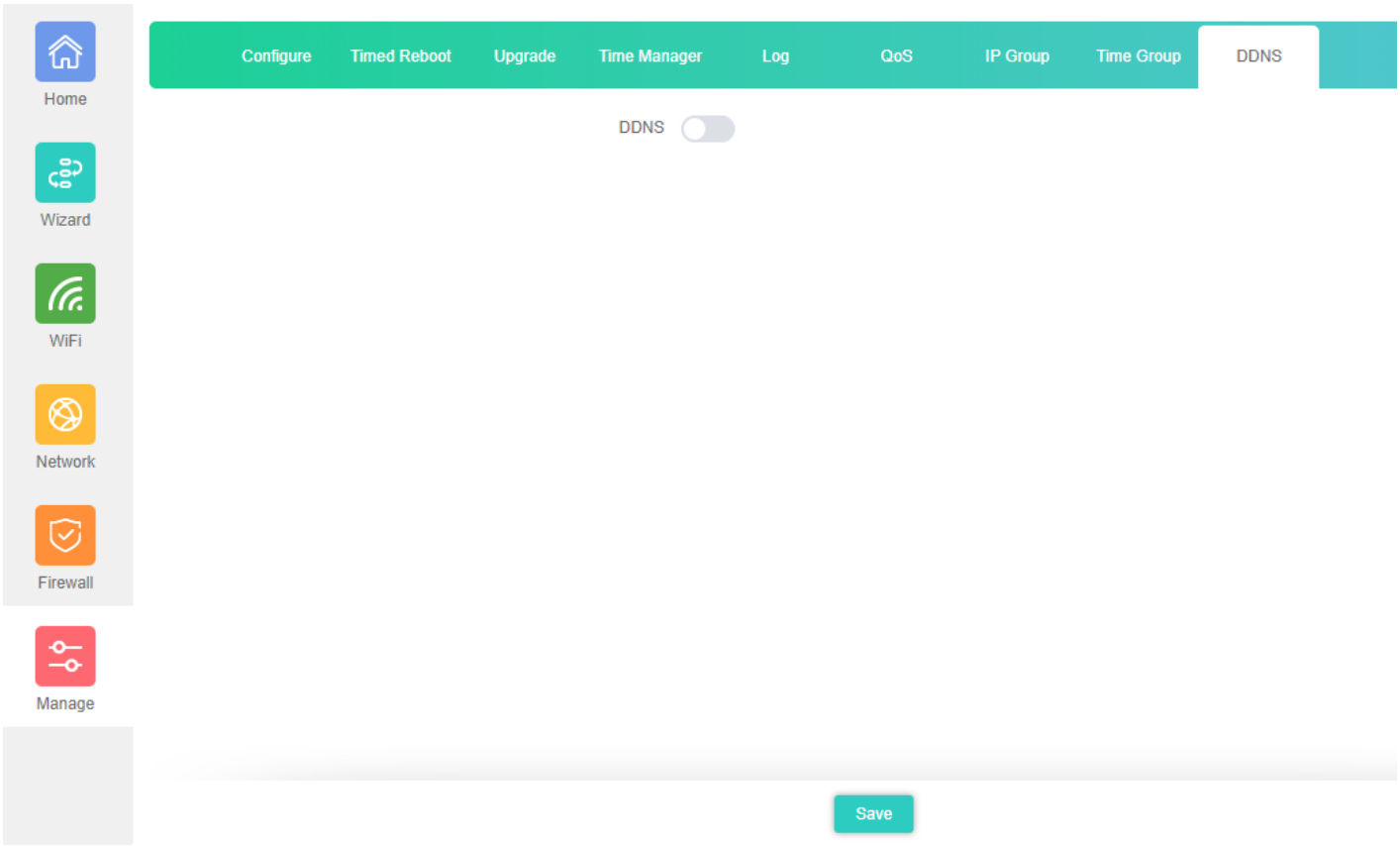

Fig 6.9.1 Default DDNS page for AirONE AP1800AX

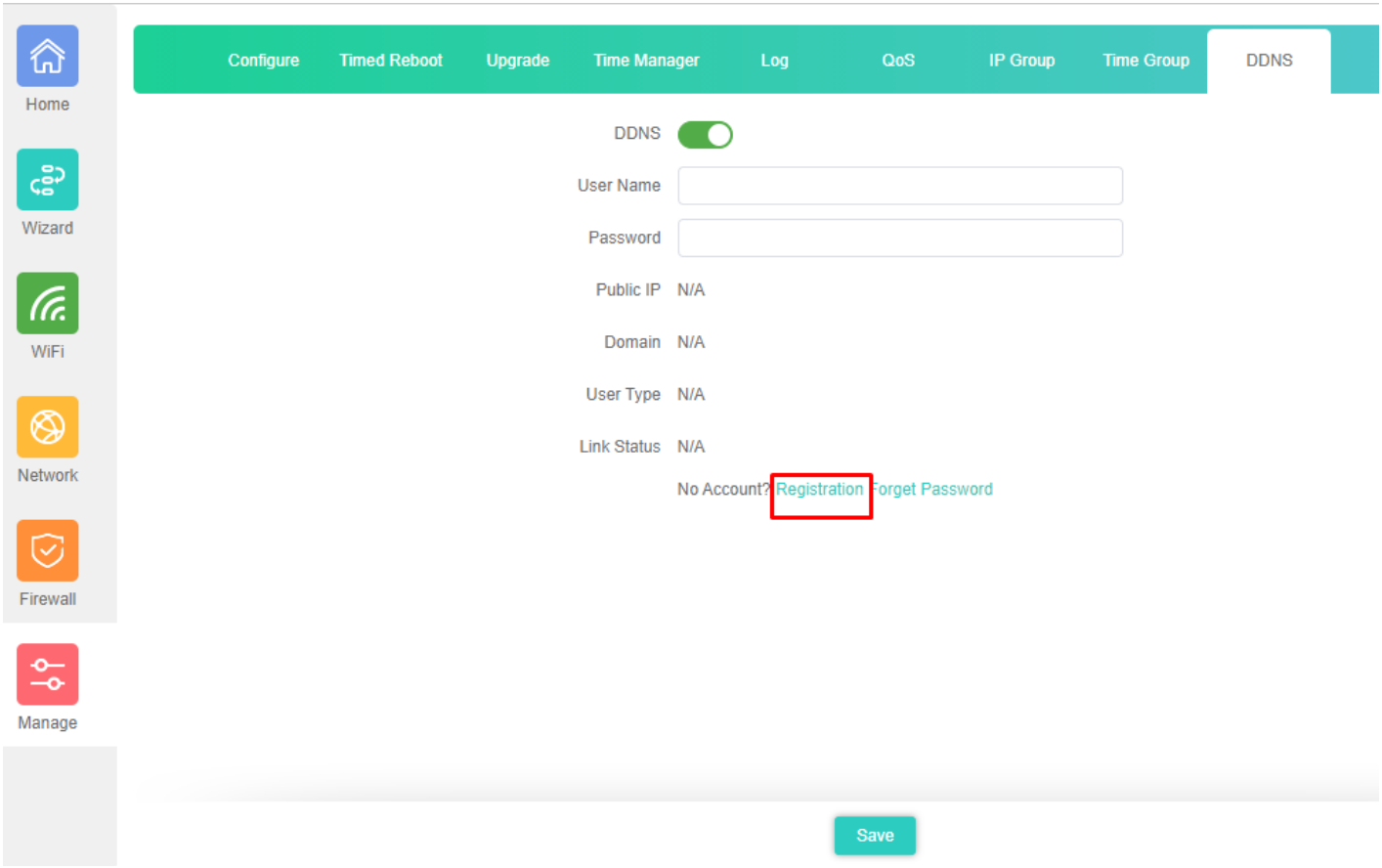

Fig 6.9.2 Enable DDNS page for AirONE AP1800AX