User Manual

(WAP-8123)

HW: V1
UM: V1. 0

Default Settings

IP Address	192.168.188.253
Password	admin
WiFi SSID	LevelOne 2.4G / LevelOne 5.8G
Password	66666666

Attention:

Check box contents:

1. Screw Kit
2. RJ45 Network Cable
3. Quick Installation Guide
4. Resource CD (User Manual, QIG)

Warning:

Attention

- Do not use the product in high humidity or high temperatures.
- Do not use the same power source for the Product as other equipment. Only use the power adapter that comes with the package. Using a different voltage rating power adapter may damage the device.
- Do not open or repair the case yourself. If the Product is too hot, turn off the power immediately and have it repaired at a qualified service center.
- Place the Product on a stable surface and avoid using this product and all accessories outdoors.

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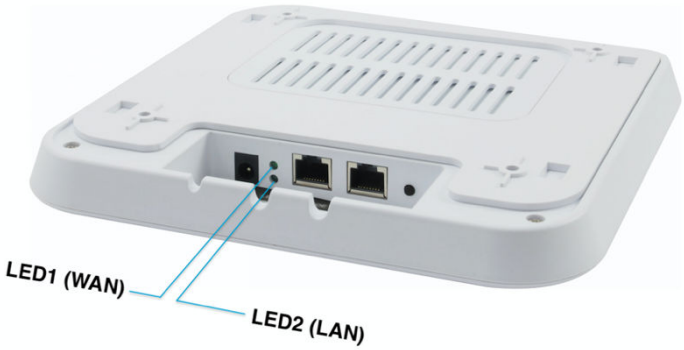
Chapter 1 Hardware and Operation mode Instruction

LED indicator:

▲ **Front View of the WAP-8123**

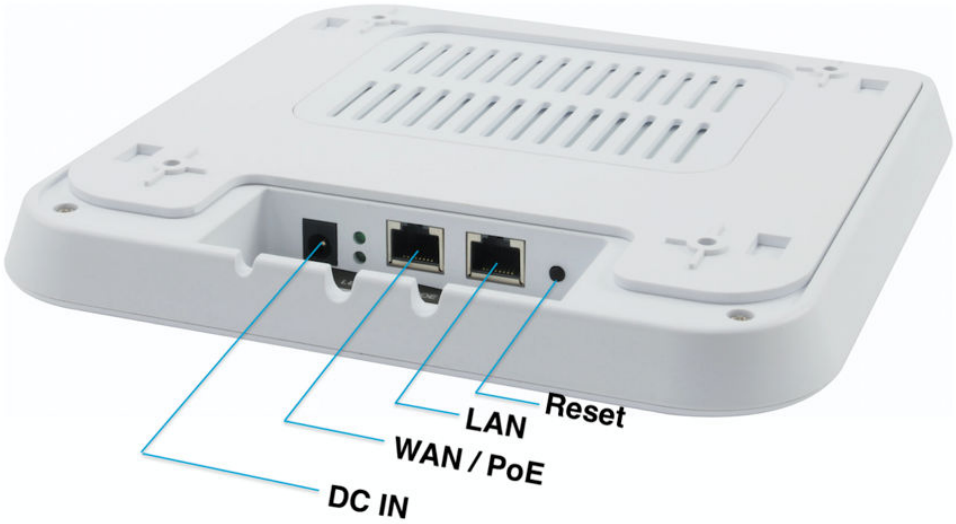
LED indicator	Color	Status	Description
SYS	Blue	On	Device Startup state
	Blue	Off	Device Startup state is completed, SYS goes out and the WIFI blue light flashes.
	Blue	Fast Blinking	Reset to Defaults
2.4G / 5G	Blue	Blinking	WIFI SSID Broadcast ON



▲ Rear View of the WAP-8123

LED	Color	Status	Description
LAN (10/100/1000Mbps RJ45 Ports)	Green	Fast Blinking	The port is transmitting/receiving packets
	Green	Solow Blinking	On LAN is connected
	--	Off	The port has no active network cable connected, or it is not established a link to connected device.
WAN (10/100/1000Mbps RJ45 Ports)	Green	Fast Blinking	The port is transmitting/receiving packets
	Green	Solow Blinking	On WAN is connected
	--	Off	The port has no active network cable connected, or it is not established a link to connected device.

1.1 AP Interface:



LED/Button/Interface	Description
RESET (Reset to Default)	With the AP powered on, press the Reset button for 8~10 seconds until the Signal Strength LED blink faster than ever. The AP will restart itself and reset the device to factory default settings.
LAN port (10/100/1000Mbps RJ45 port)	The LAN port is used to connect to network devices, such as a switch or PC / NB
WAN / PoE port (10/100/1000Mbps RJ45 port)	The WAN/POE port is used to connect to network devices, such as a POE switch OR POE adapter to power the device (IEEE802.3at) 48 VDC. (PoE adapter unit is to be ordered separately)
DC IN	12V/1.5A DC input Power Adapter **Note:** Adapter unit is to be ordered separately

1.3 Way to supply power for this device :

1. PoE Power supply : pls make sure the PoE switch comply with IEEE 802.3at standard.

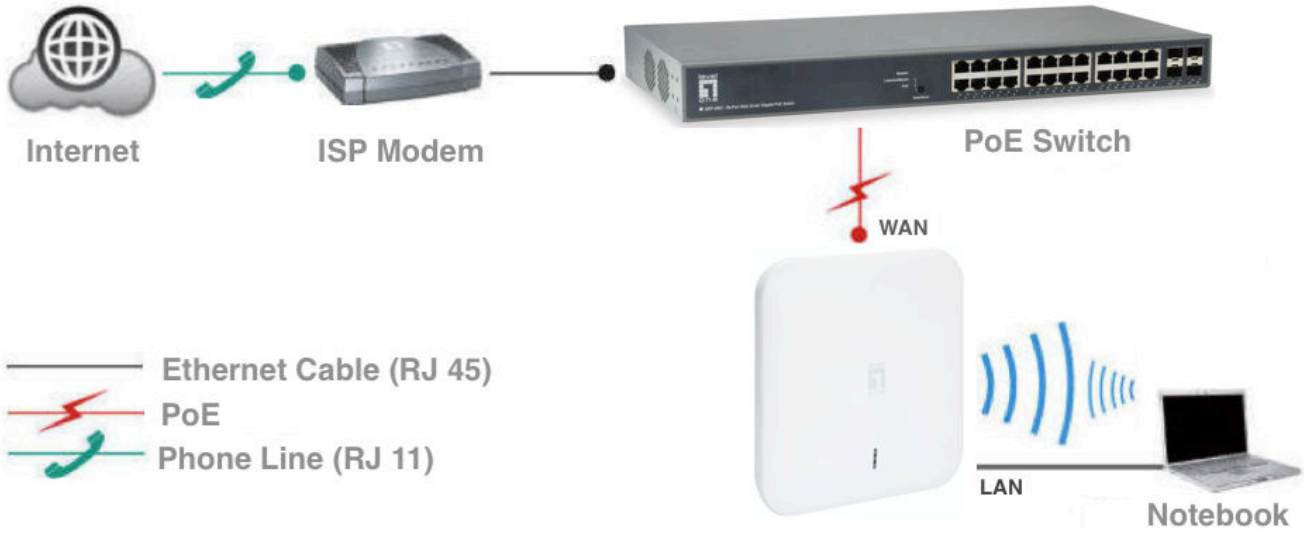
2. The WAN port connects to the POE adapter (48V DC).

Note: Adapter unit is to be ordered separately

1.4 Operation Mode description and usage:

There are four operation mode : Gateway mode , Repeater mode , WISP Mode, AP Mode .

- **Gateway mode:** Connect to the ISP Modem through the cable network to connect to the Internet and use with 3 types of Internet access (PPPoE , DHCP, Static IP)

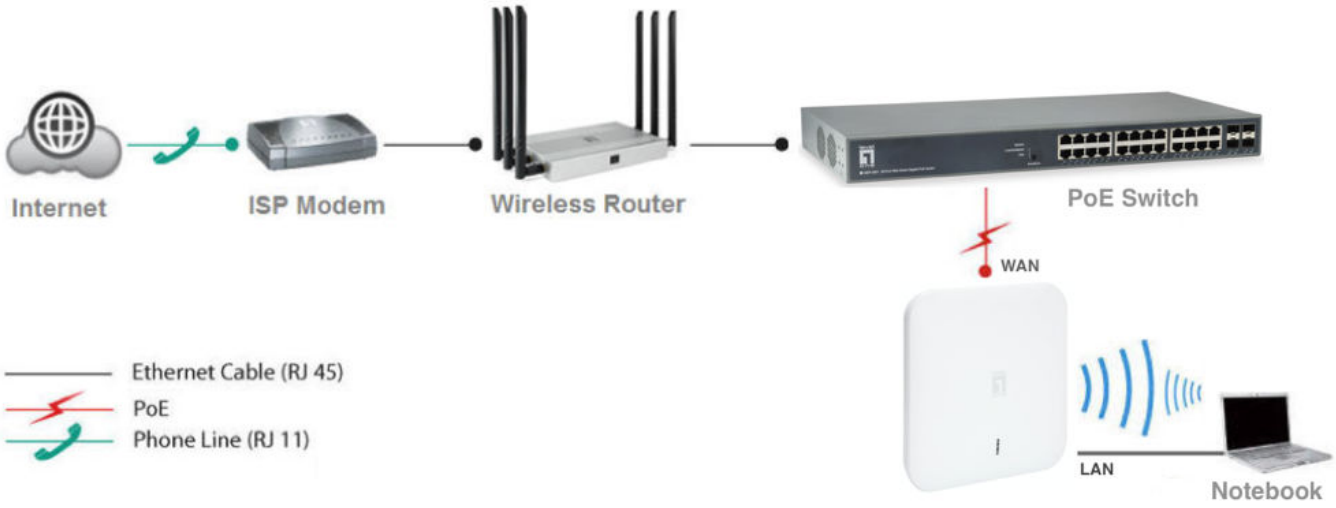


- **WISP mode:** Receive ISP Modem Wireless network and select one of them Internet access method (PPPoE, DHCP, static IP) .

  (**Note:** Adapter unit is to be ordered separately)

- **Repeater mode:** The WAP-8123 can bridge and extend the existing WiFi signal in this operation mode **.** (**Note:** Adapter unit is to be ordered separately)

- **AP Mode:** Please Make sure that the upper device has a router, Only after confirming can use AP Mode

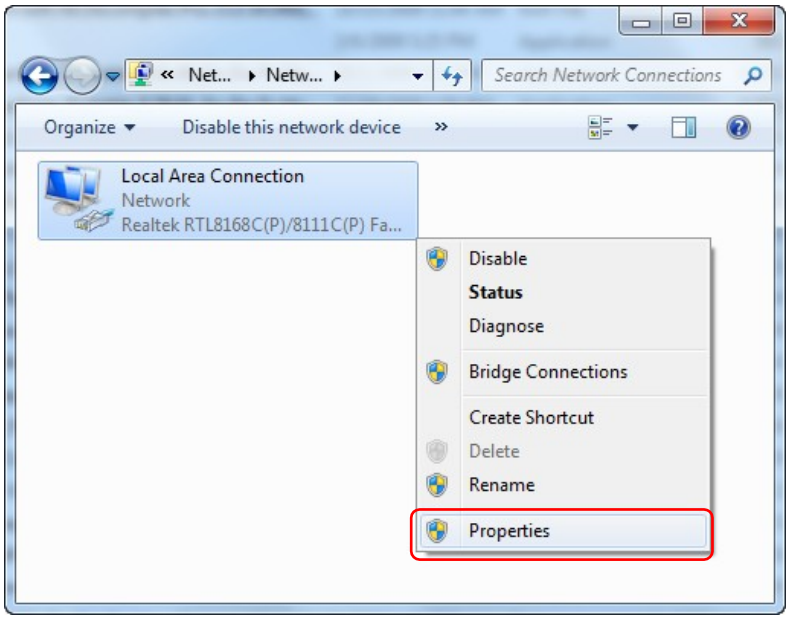


Chapter 2 Login

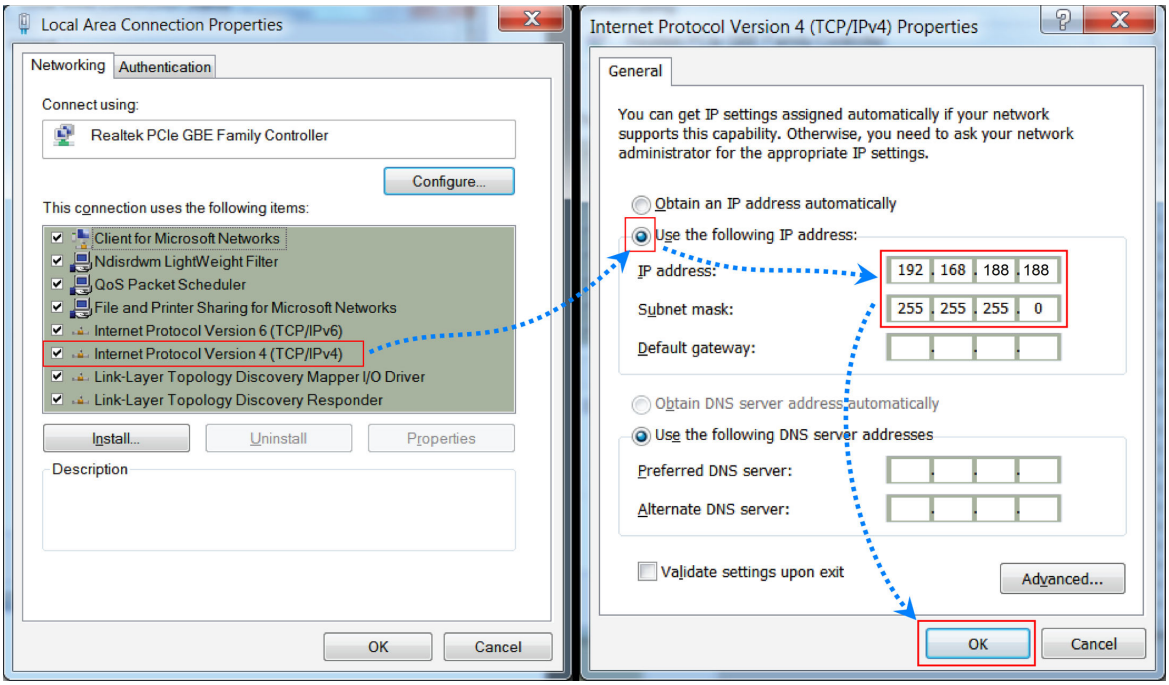
The necessary information about log in is displayed on the sticker of the product, including the URL, User Name and Pass Word

1.Connect the Ceiling AP with computer

2.Configure the PC"s local connection IP address as 192.168.188.X (X is number from 2 to 252), subnet mask is 255.255.255.0, follow P1 and P2 to finish.

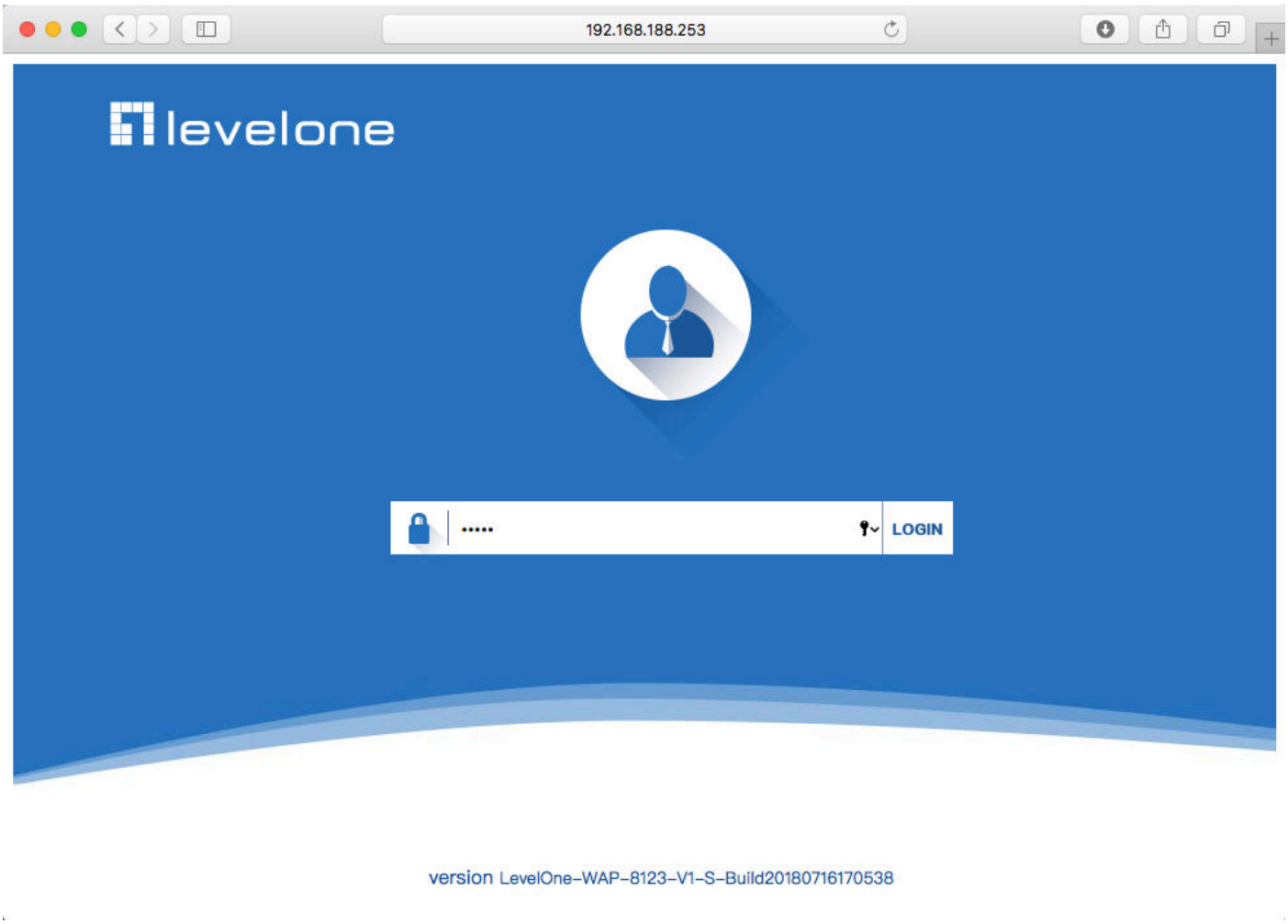


▲ P1 Setting of computer's IP address

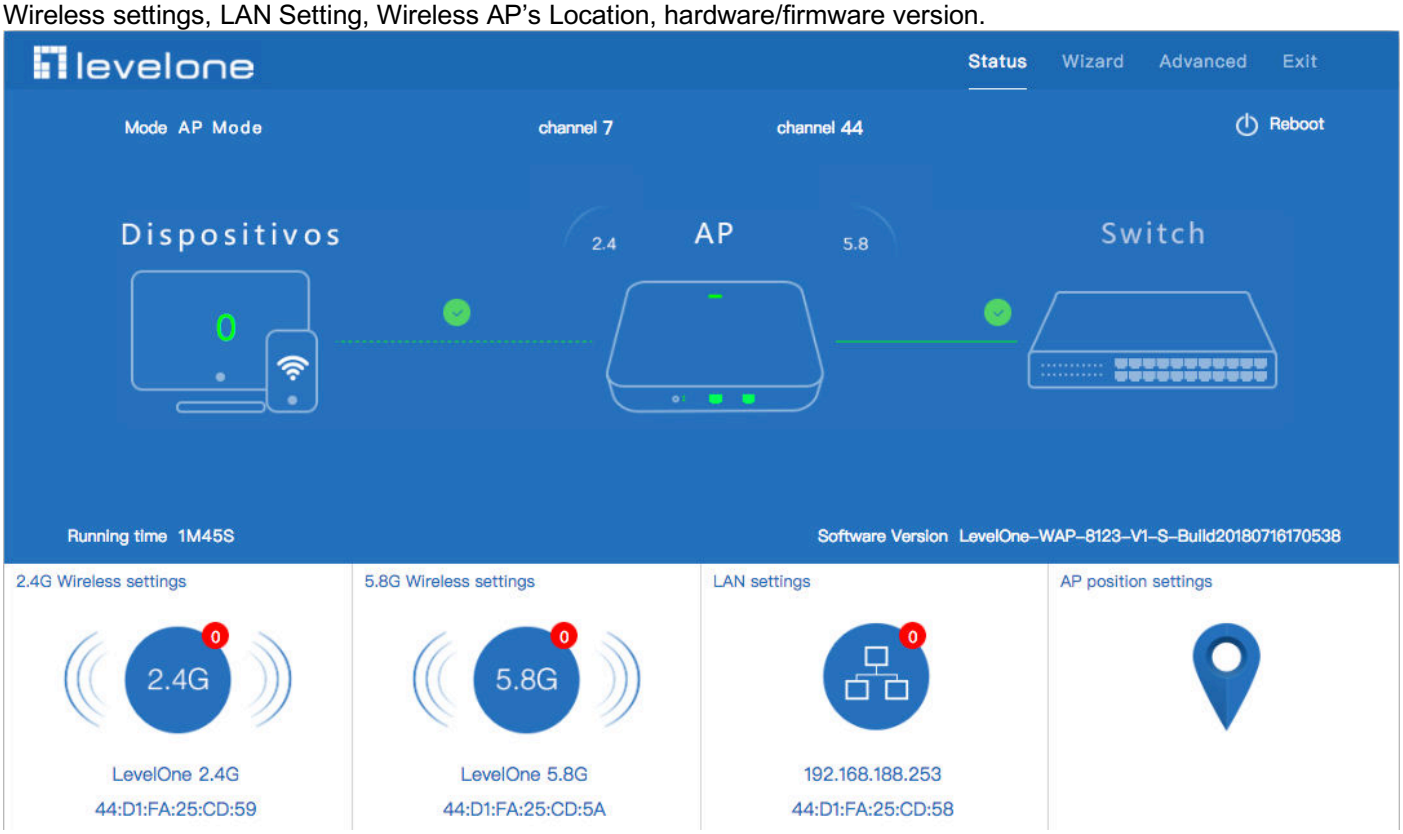


▲ P 2 Setting of computer's IP address

3.Input 192.168.188.253 into browser, then pop up the login page, the default login password: **admin**, then login,

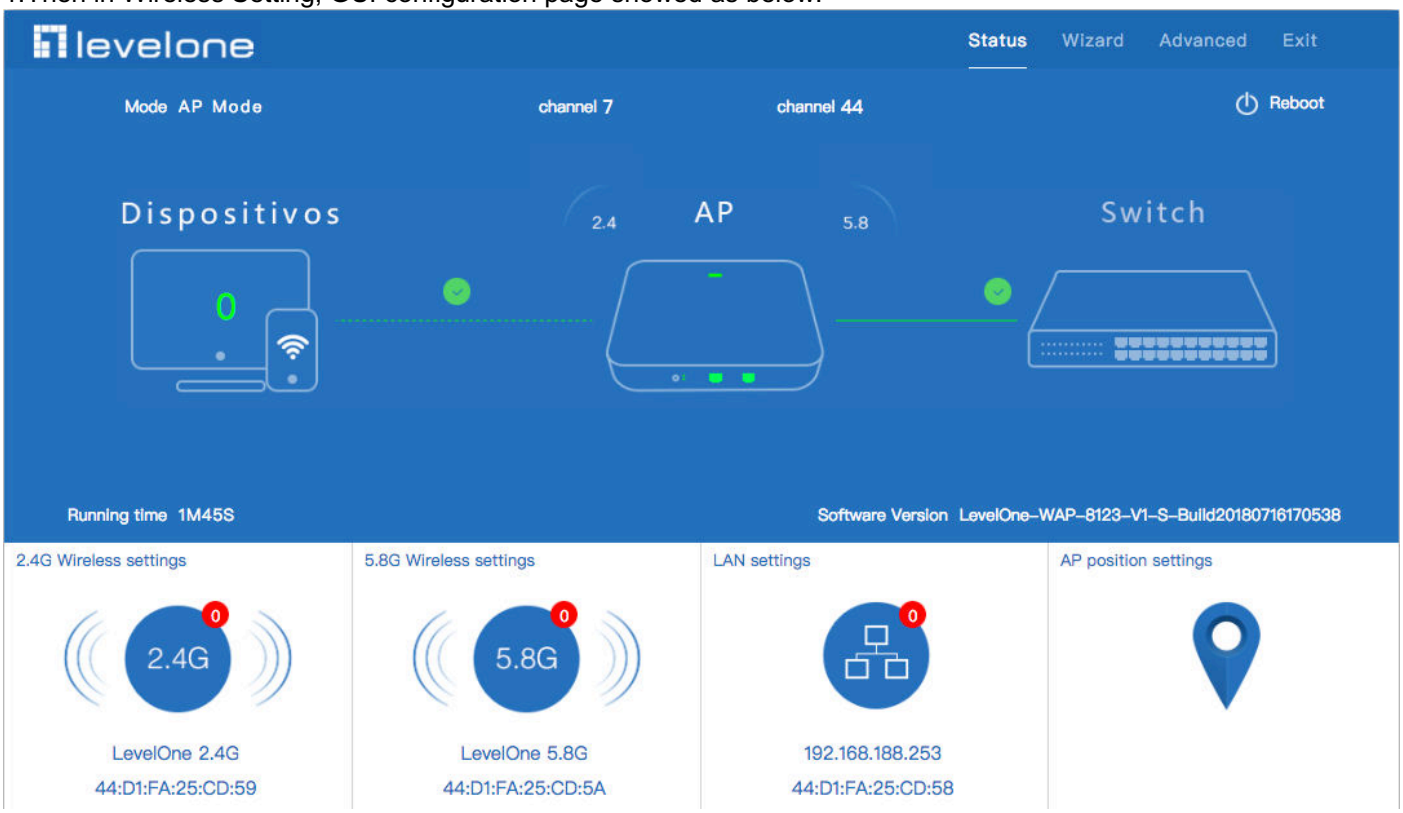


4.After login, This page will show the Wireless AP's default operation mode, channel, connection status, CPU usage, Wireless settings, LAN Setting, Wireless AP's Location, hardware/firmware version.

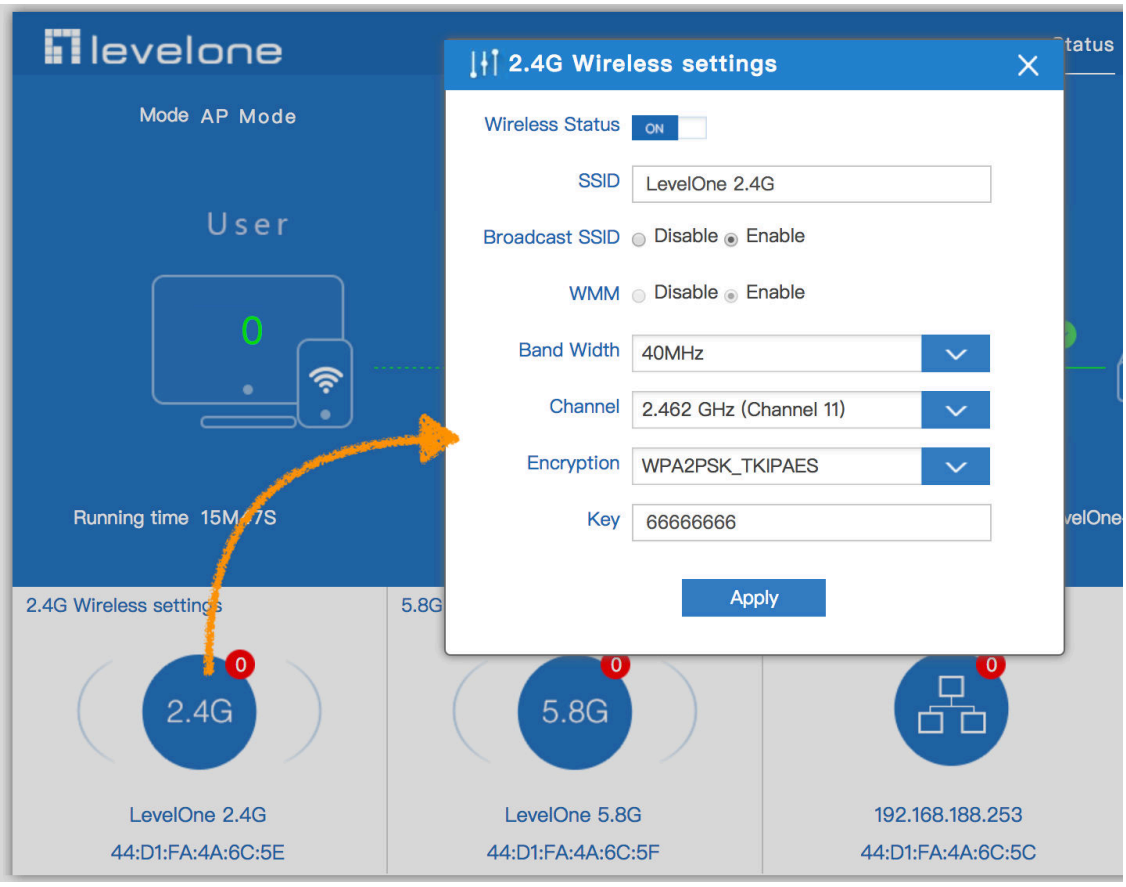


Chapter 3 WEB GUI interface Setting

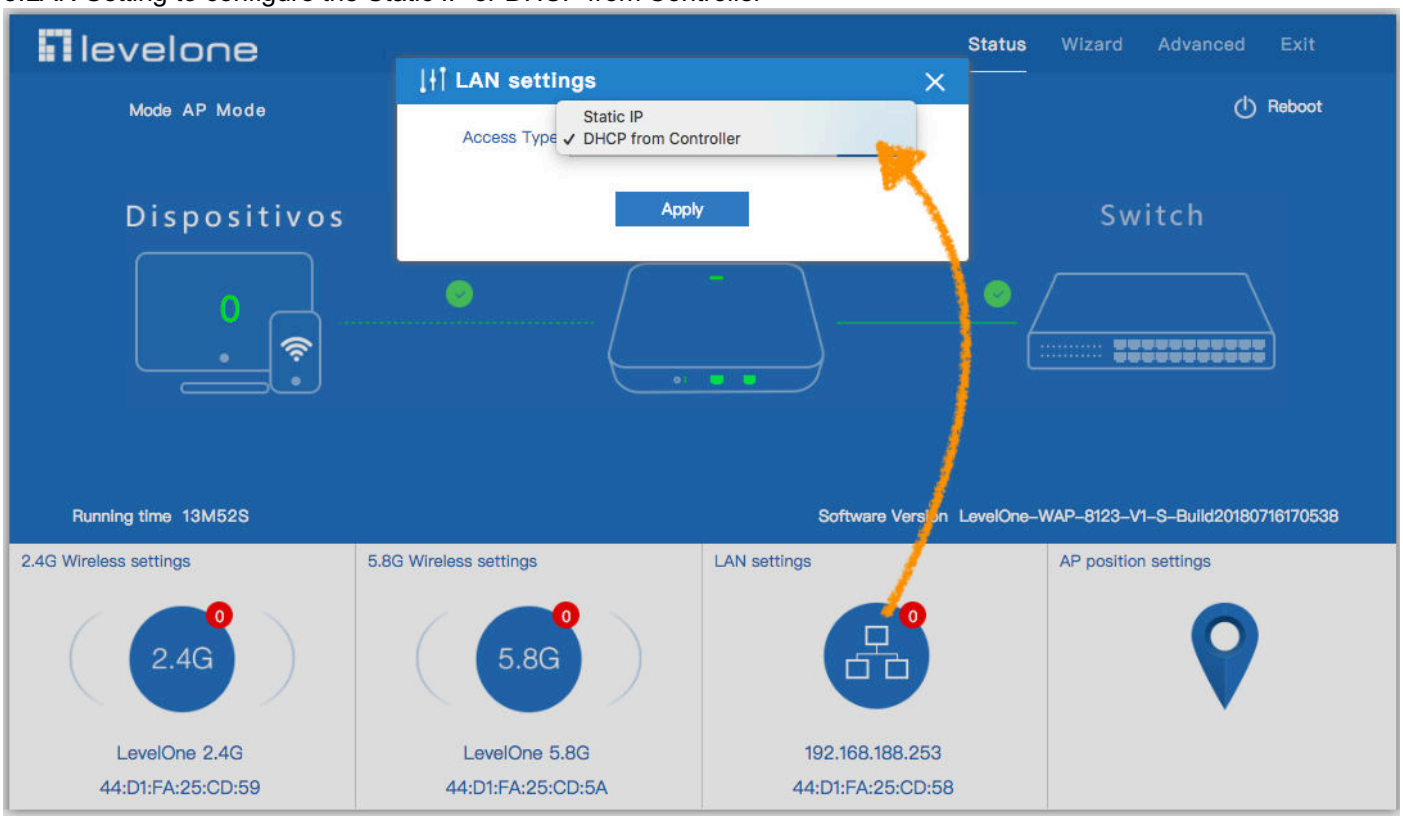
1.Then in Wireless Setting, GUI configuration page showed as below:



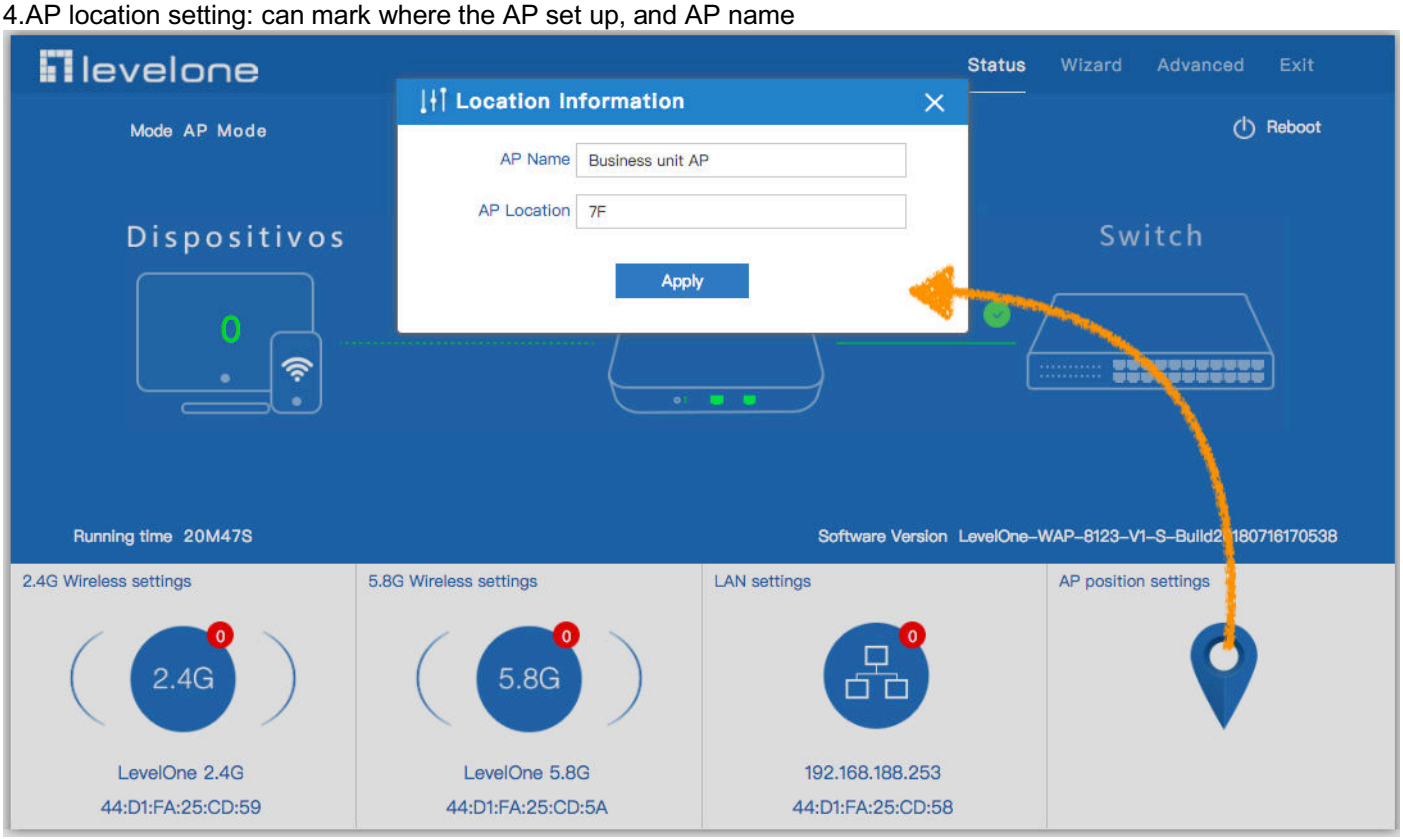
2.Then in Wireless Setting, GUI configuration page showed as below:
User can configure the SSID, password, band width, channel here, then Apply to finish.



3.LAN Setting to configure the Static IP or DHCP from Controller

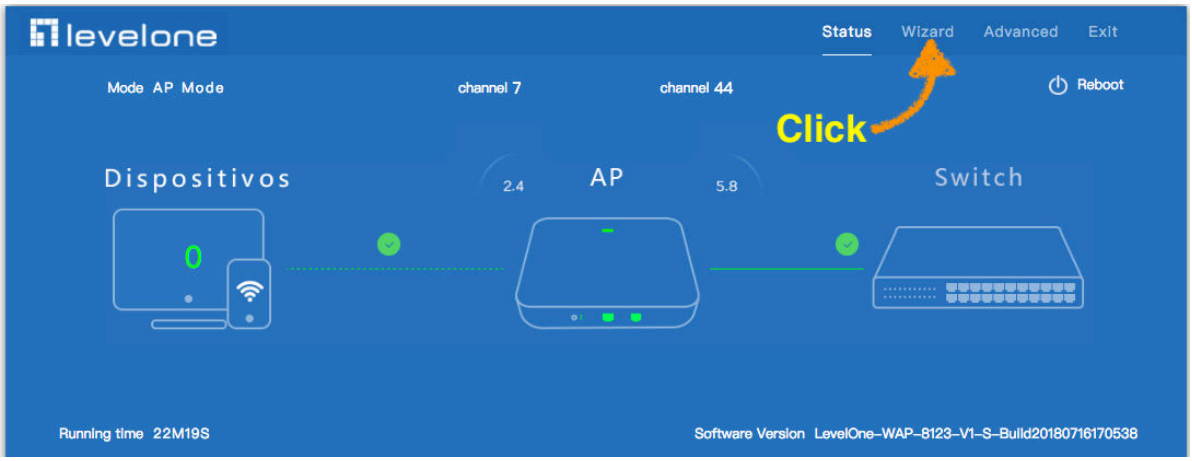


4.AP location setting: can mark where the AP set up, and AP name



3.1 Wizard :

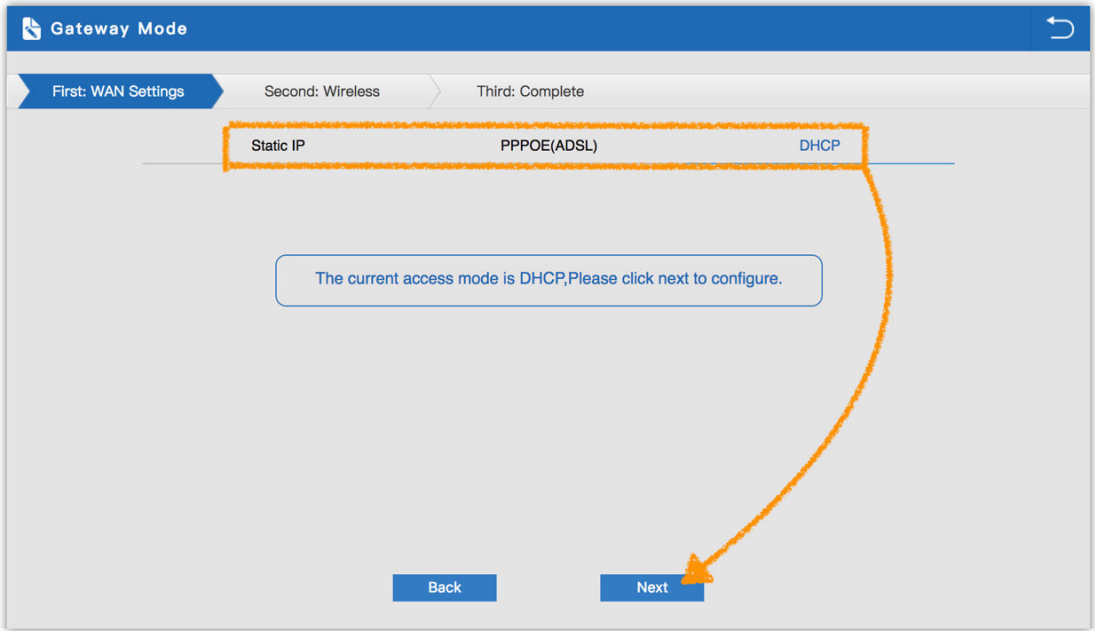
1.Click Wizard in Status page, will pop up following page to configure the operation mode and there are explanation for each operation mode for better application.



2.Wizard: It instruct users to configure wireless AP's operation mode based on needs: there are four operation mode including gateway, repeater, WISP, Wireless AP. Please confirm the operation mode first before configuration starting.

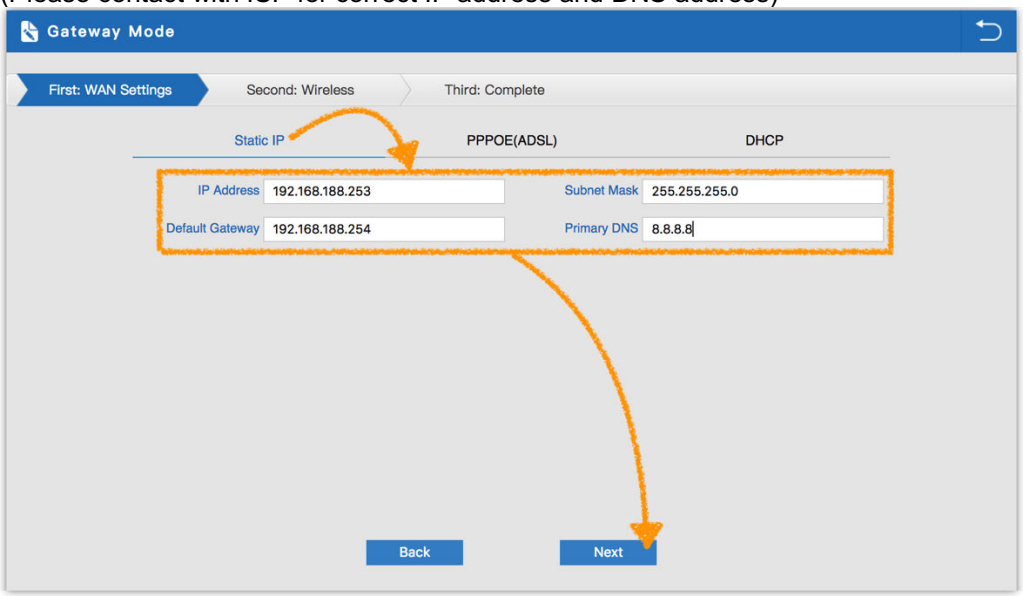
3.2 Gateway Mode:

Before Click Gateway mode, confirm your internet will be static IP, PPPoE, or DHCP:
Then will pop up following picture after click it, Please choose the right WAN setting mode, then click next to continue.

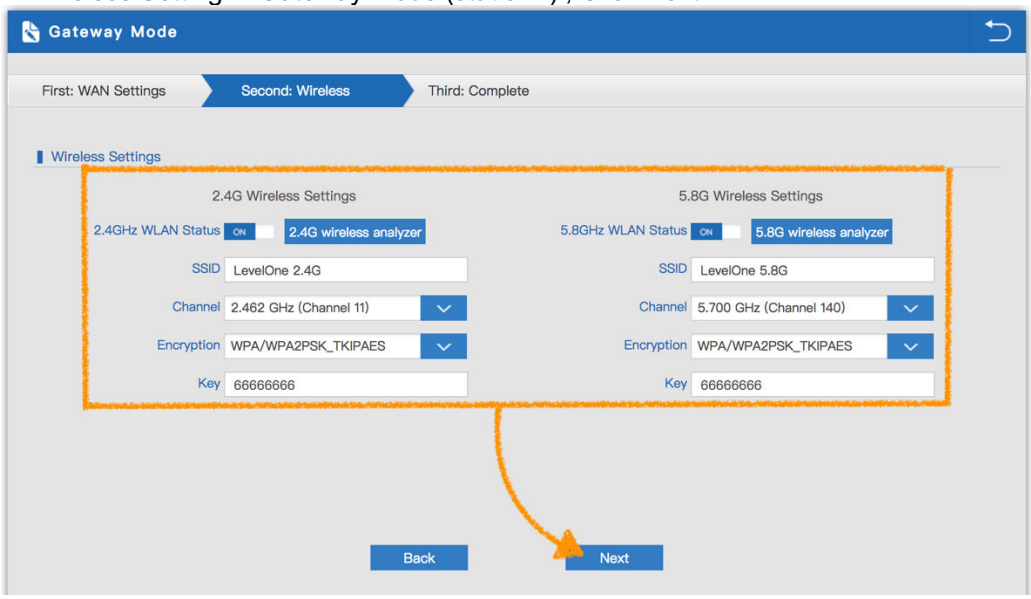


3.2.1 Static IP setting in Gateway Mode :

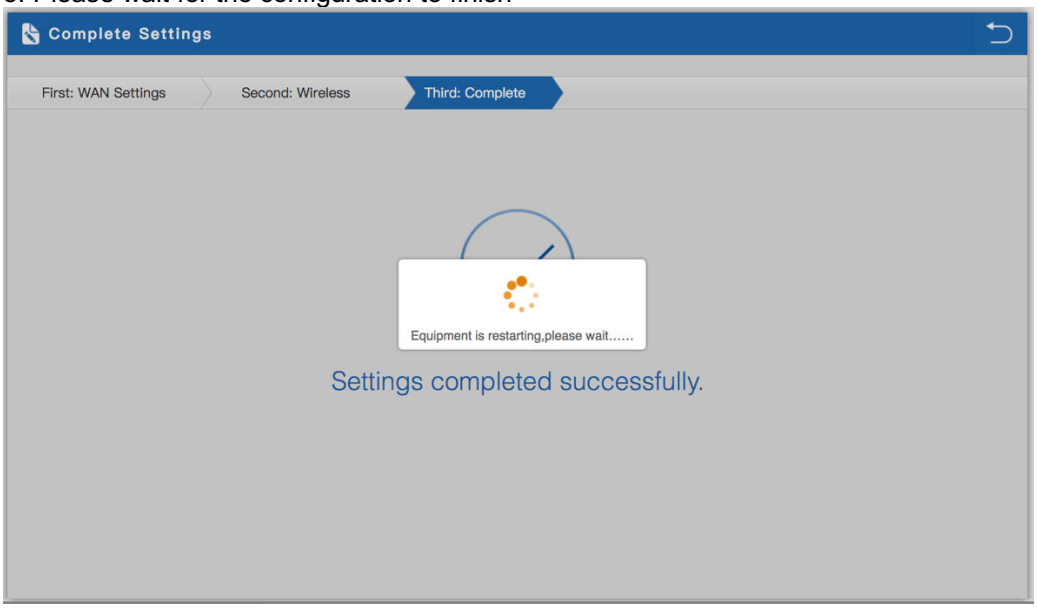
1. Sample Static IP mode setting method, then click next to continue.
(Please contact with ISP for correct IP address and DNS address)



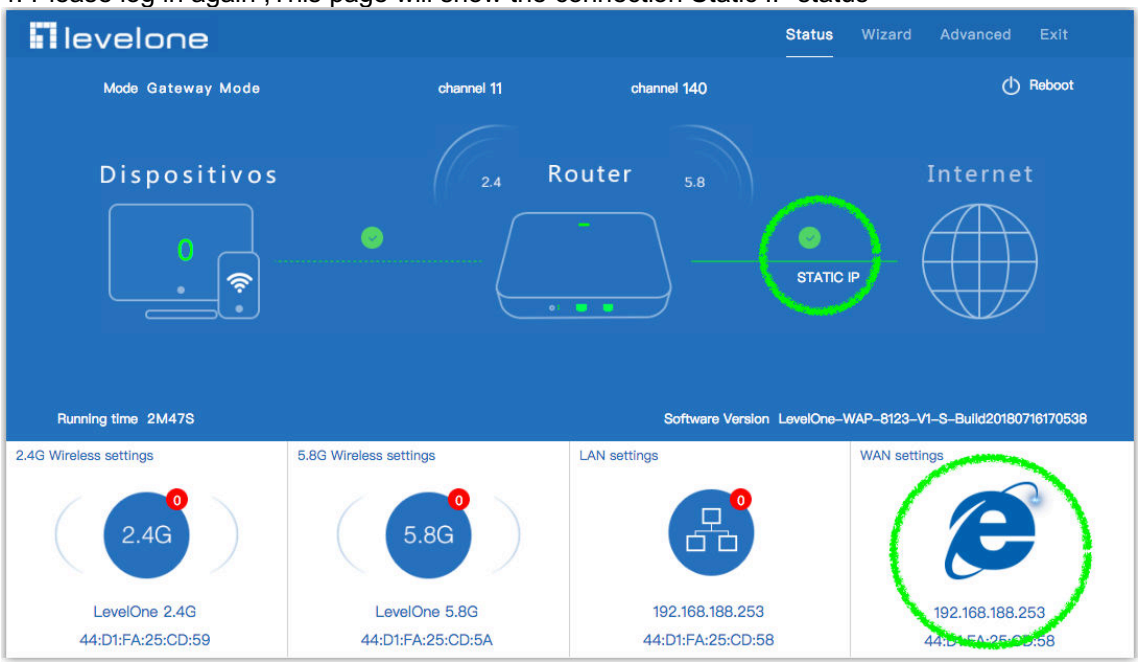
2. Wireless Setting in Gateway Mode (static IP) , Click Next



3. Please wait for the configuration to finish

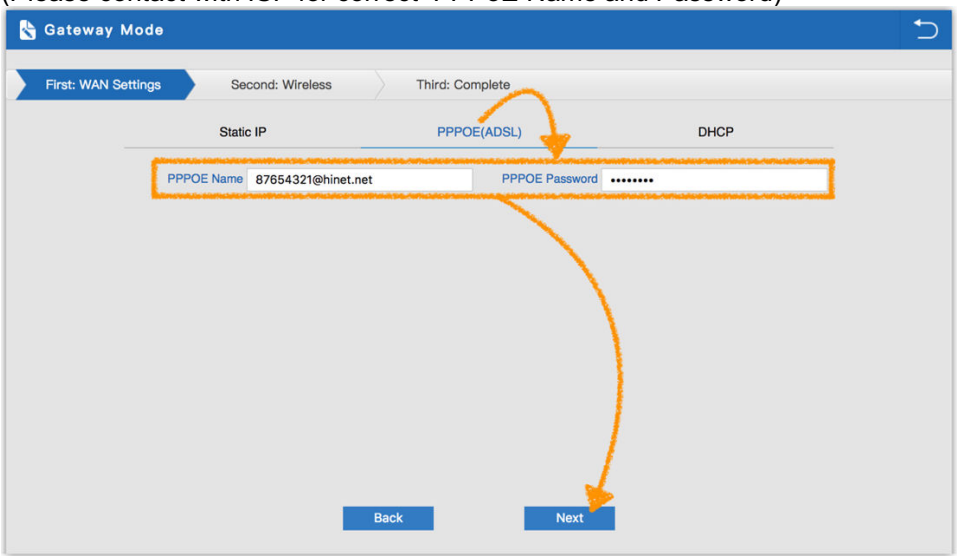


4. Please log in again ,This page will show the connection Static IP status

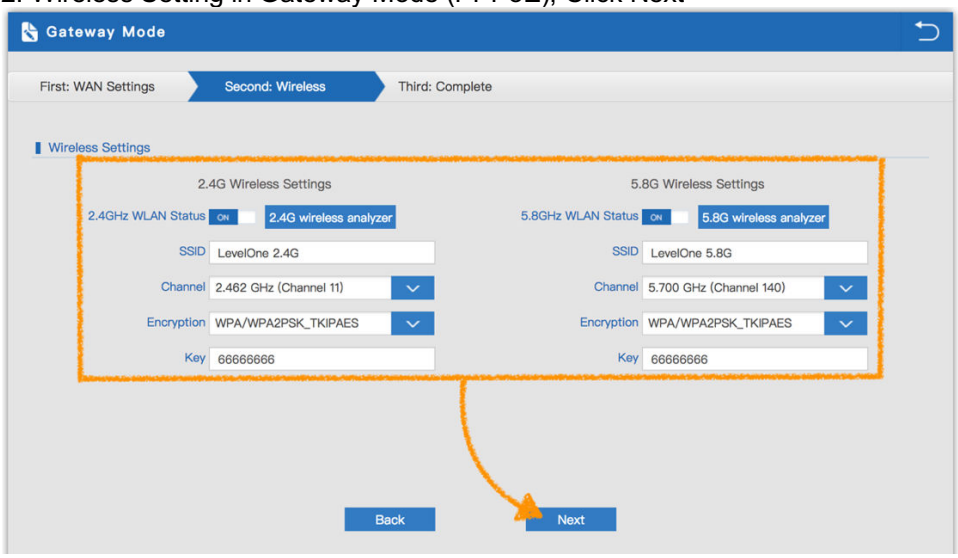


3.2.2 PPPoE(ADSL) setting in Gateway Mode :

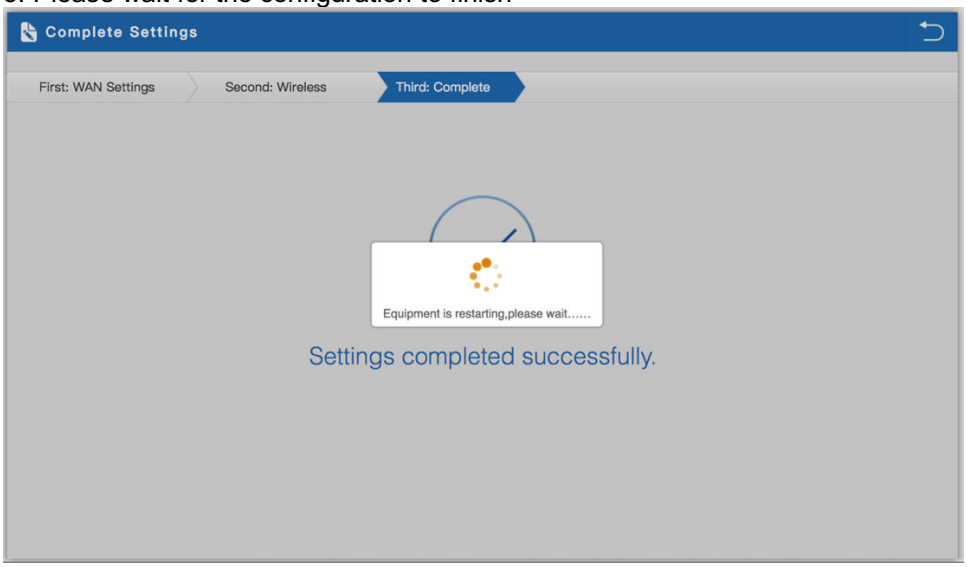
1. Sample PPPoE mode setting method, then click next to continue.
(Please contact with ISP for correct PPPoE Name and Password)



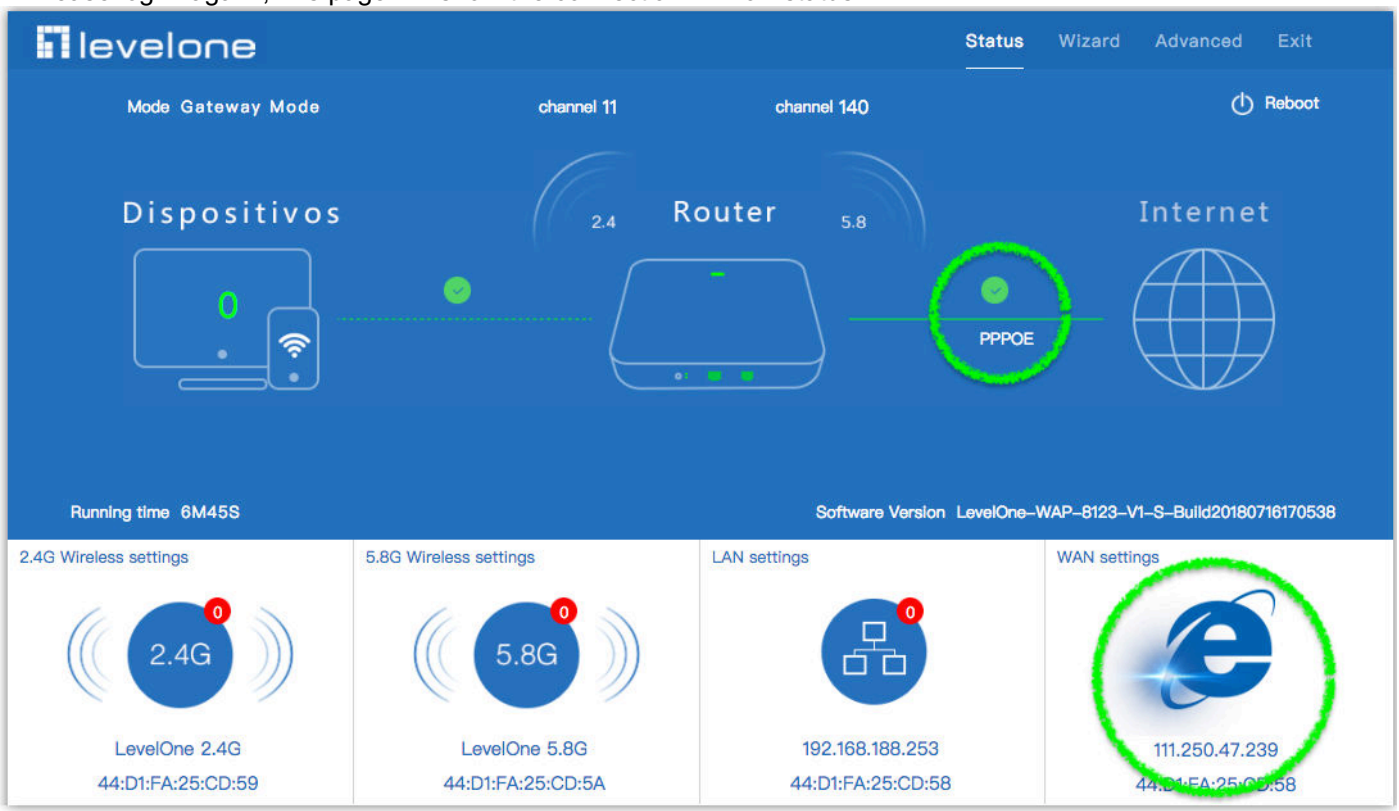
2. Wireless Setting in Gateway Mode (PPPoE), Click Next



3. Please wait for the configuration to finish

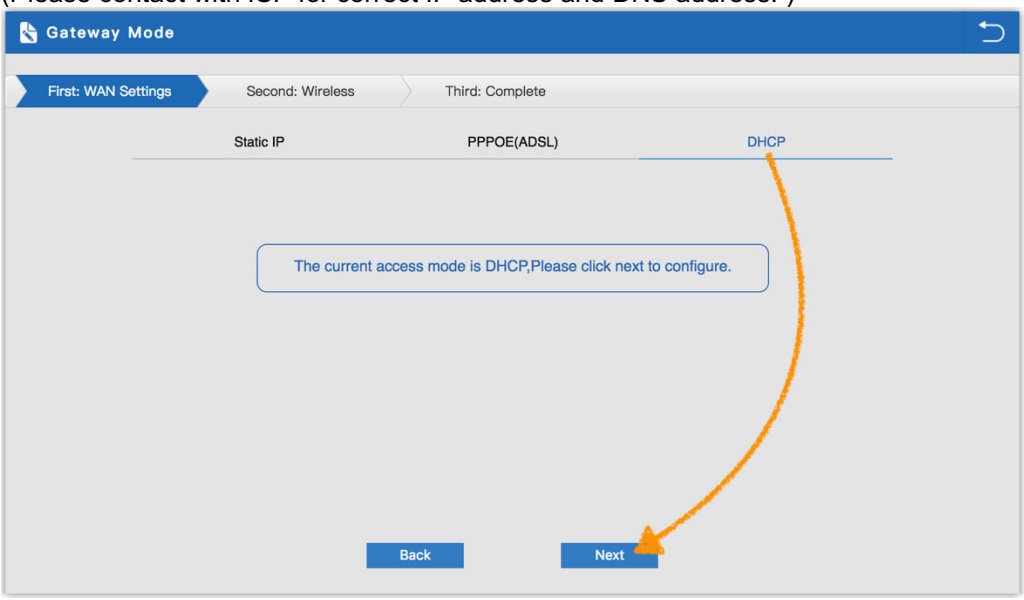


4. Please log in again ,This page will show the connection PPPoE status

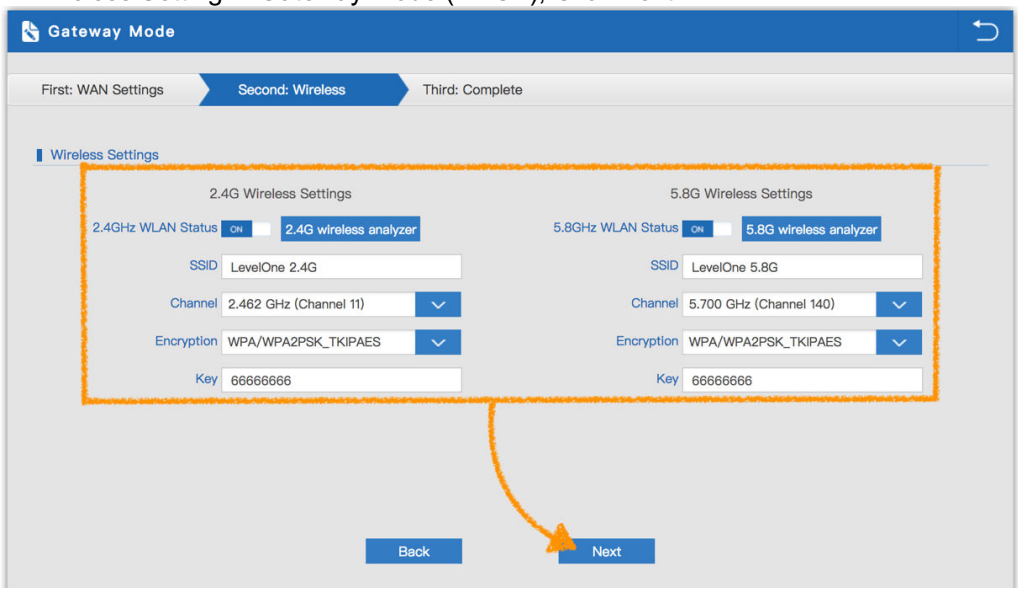


3.2.3 DHCP setting in Gateway Mode :

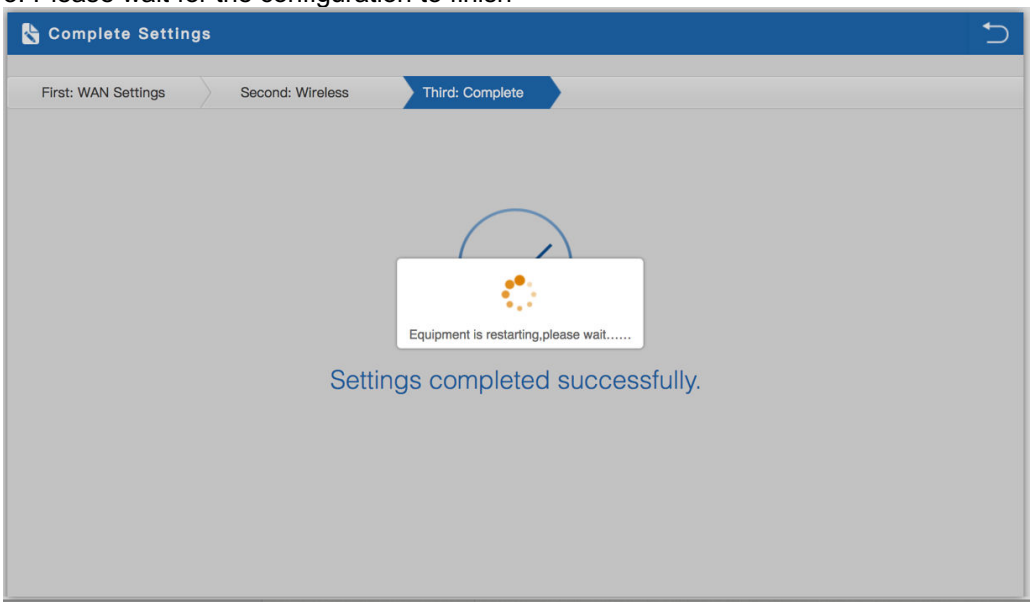
1. Sample DHCP mode setting method, then click next to continue.
(Please contact with ISP for correct IP address and DNS address.)



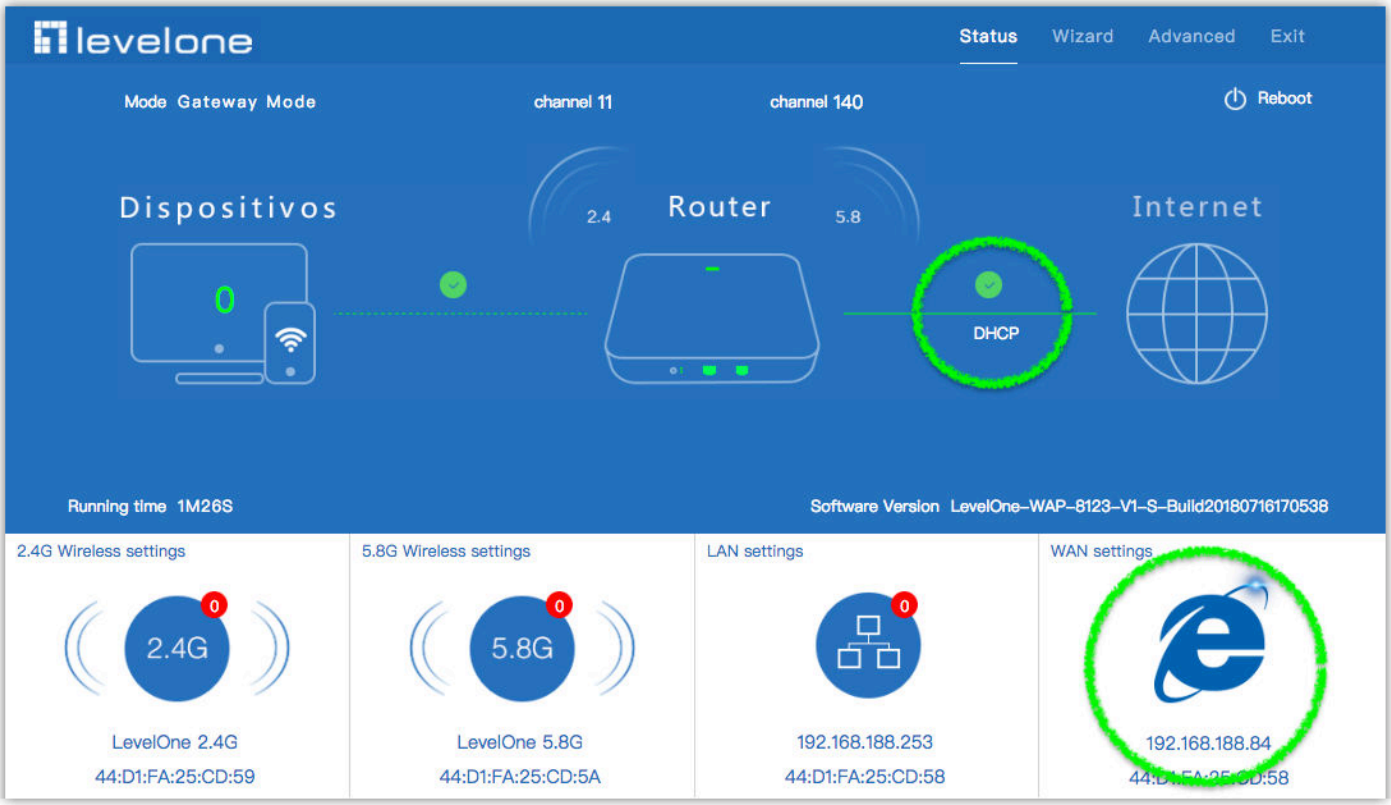
2. Wireless Setting in Gateway Mode (DHCP), Click Next



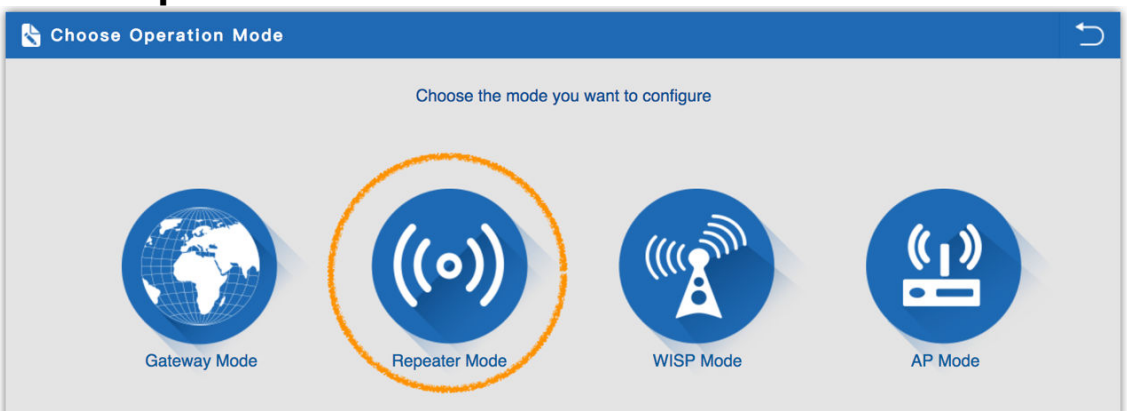
3. Please wait for the configuration to finish



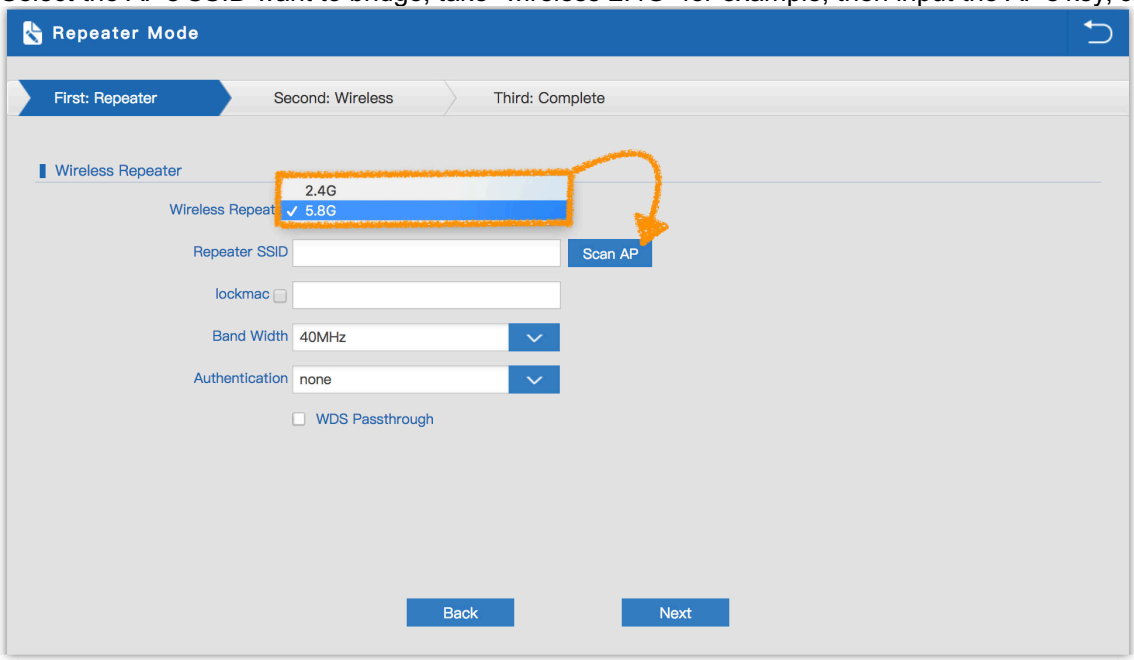
4. Please log in again ,This page will show the connection DHCP status



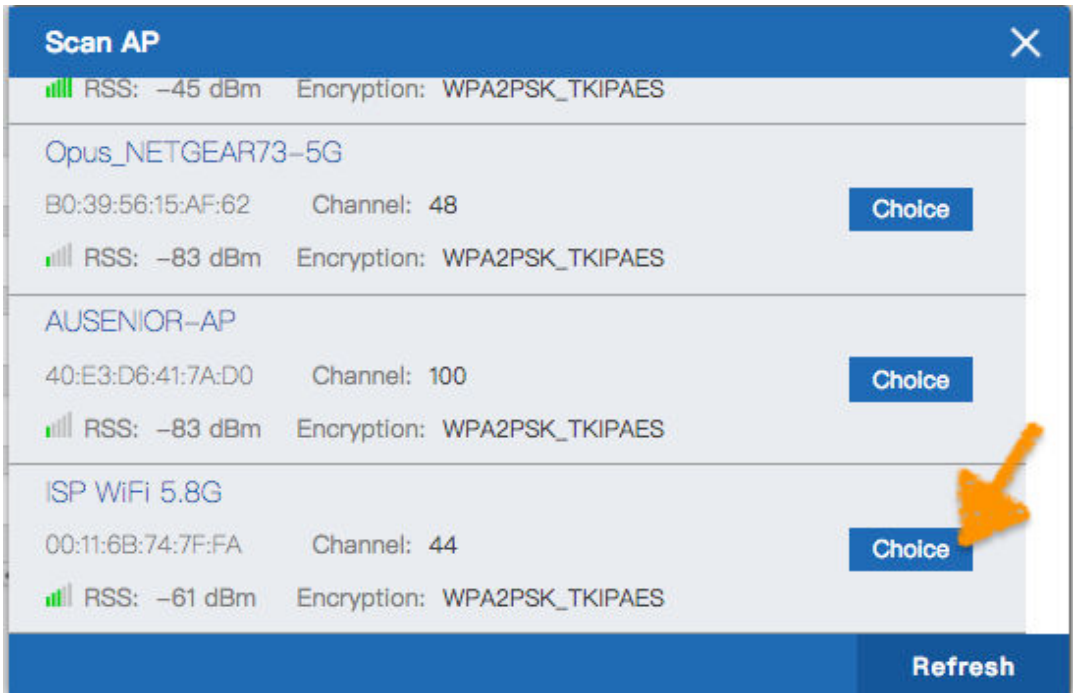
3.3 Repeater mode :



1.Can choose to relay the front-end 2.4G or 5.8G wireless signal to extend the wireless signal range.
Select the AP's SSID want to bridge, take "wireless 2.4G" for example, then input the AP's key, click Scan AP

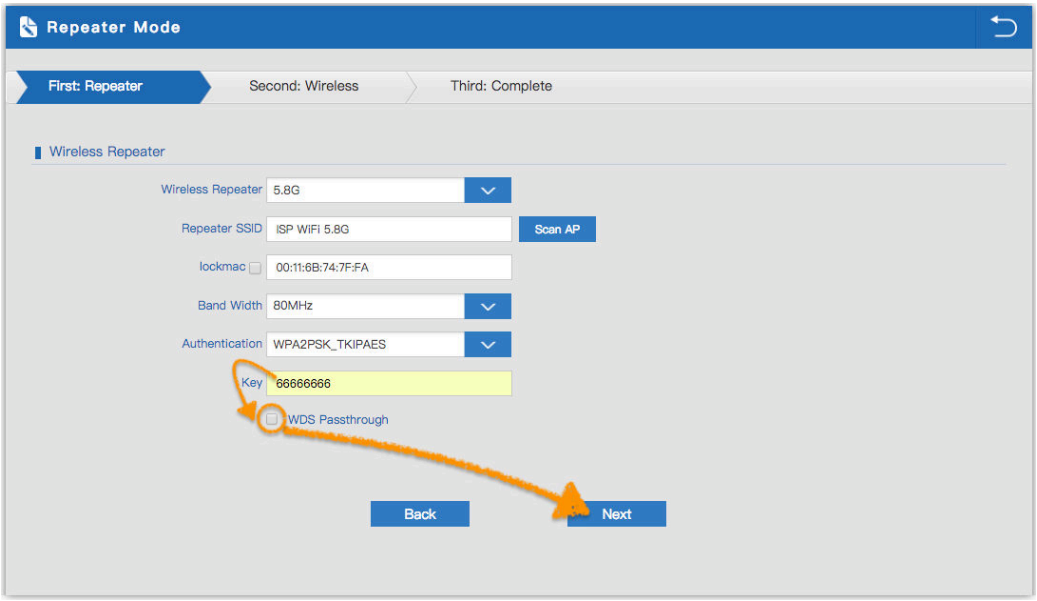


2.Please select WIFI SSID to connect

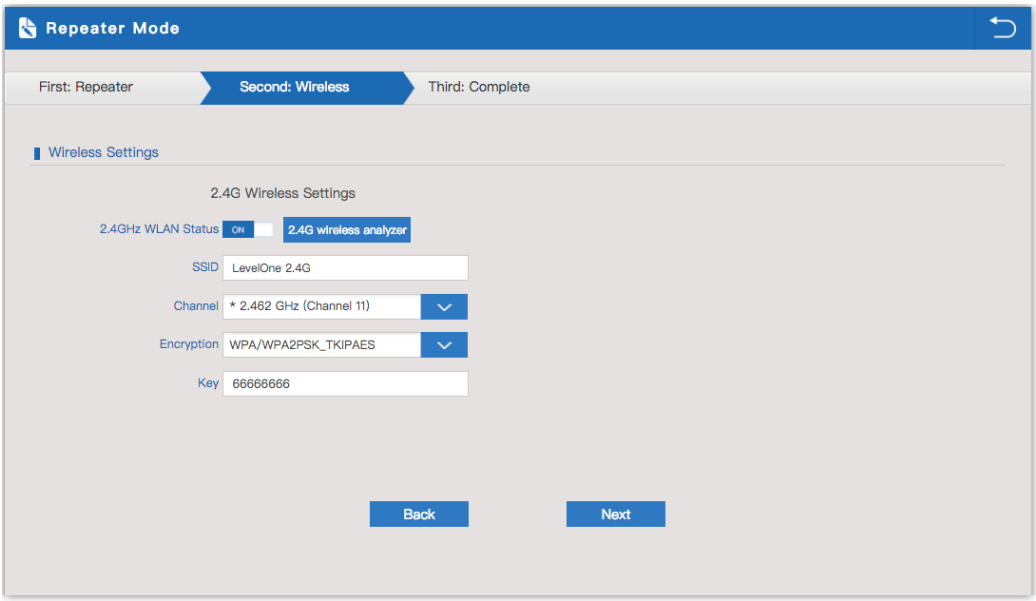


3. Enter the WIFI SSID password to be linked, When click Next.

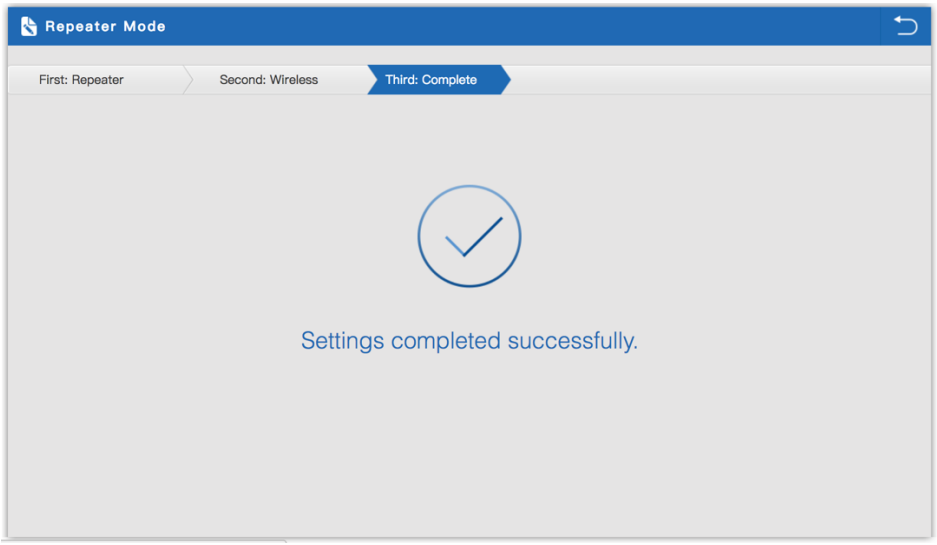
Suggestion: If the upper wireless device is not the same model (WAP-8123), Don't click to WDS Passthrough.



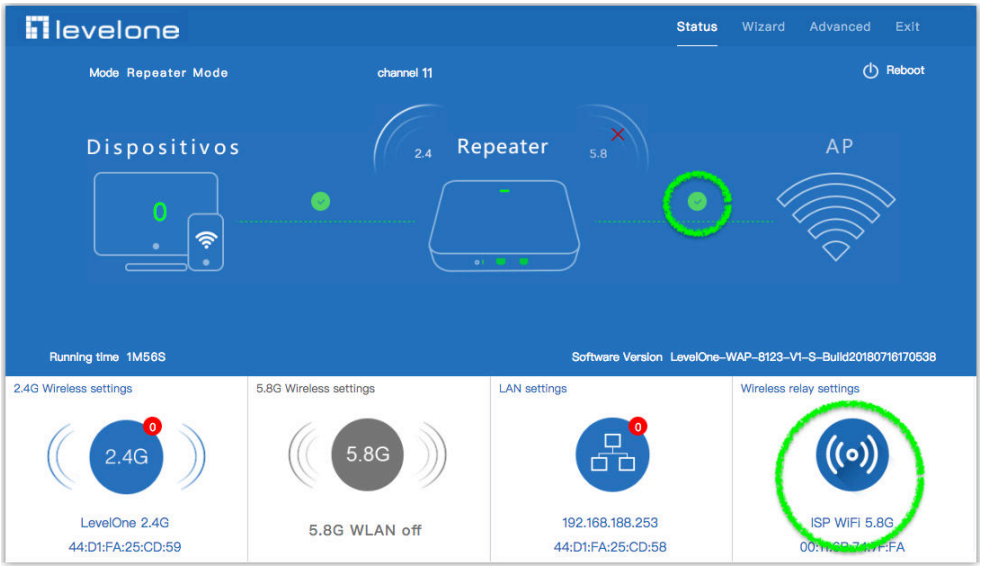
4. If choose to relay the front-end 5.8G wireless signal to extend the wireless signal range. Can choose to enable or disable the 2.4G wireless broadcast of the WAP-8123 itself.



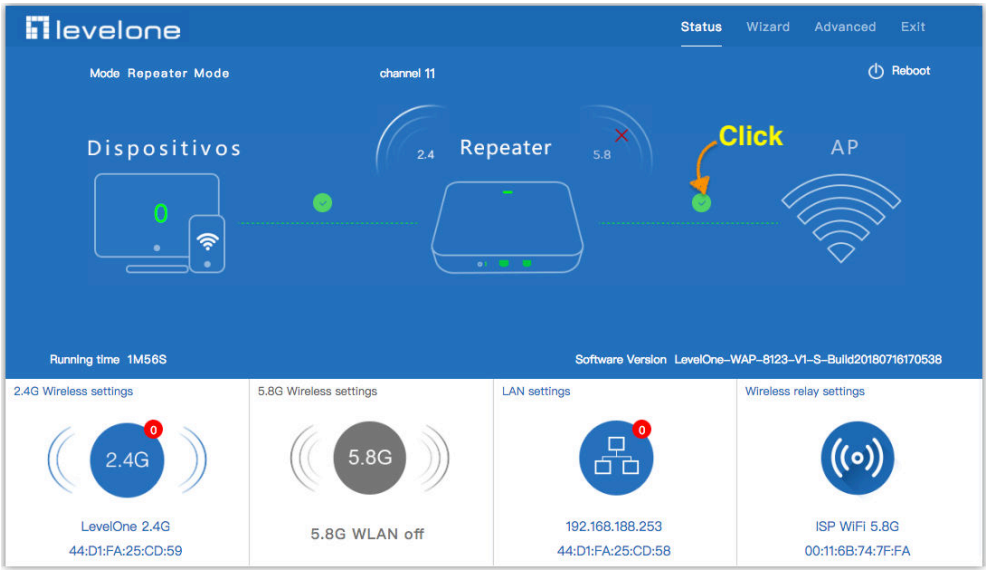
5.Click Return button, will back to Status, show Repeater mode data, show fail or success



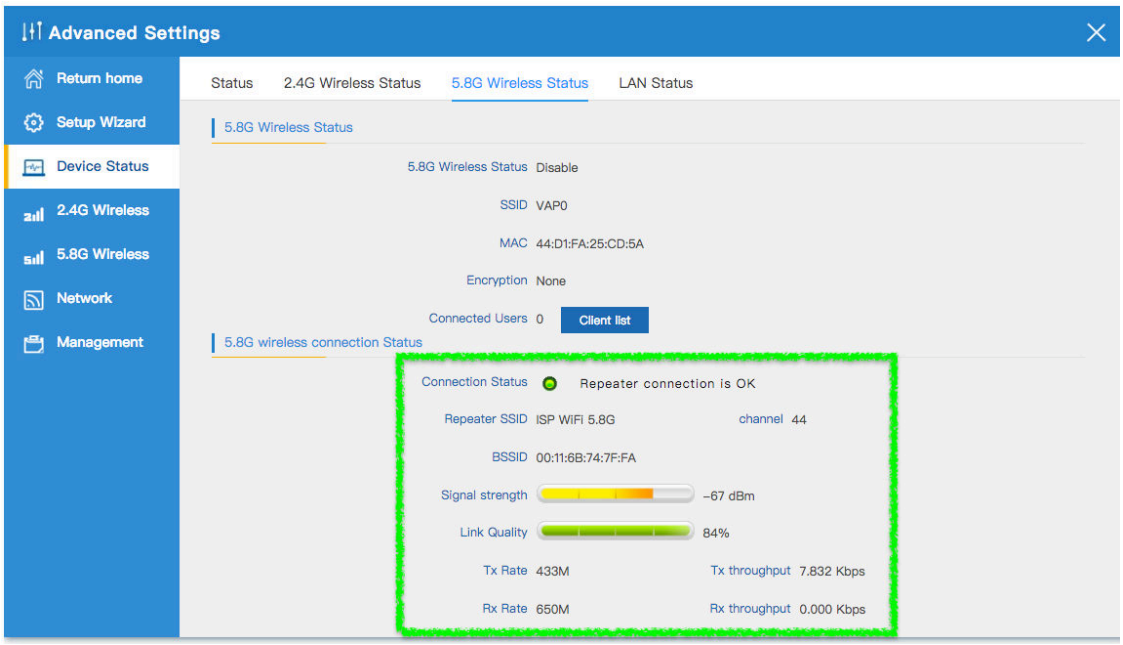
6. Check WIFI Repeater mode data. If choose to relay the front-end 5.8G wireless signal to extend the wireless signal range. In wifi repeater operation mode, WAP-8123 the default is 5.8G SSID disable.



7.Click Status button

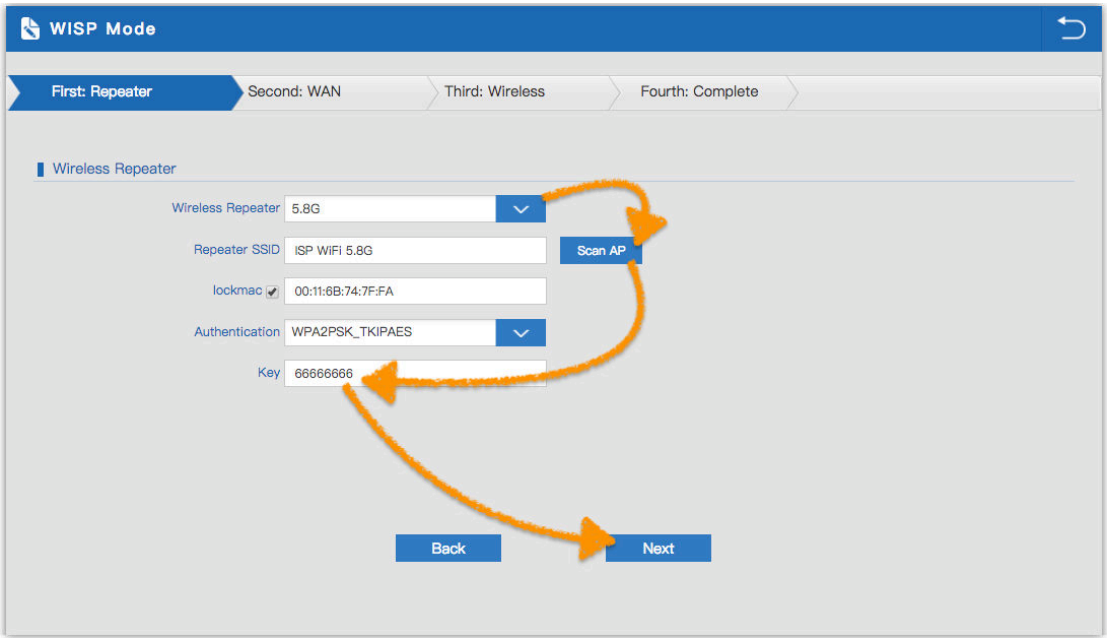


8. Check WIFI Repeater mode data

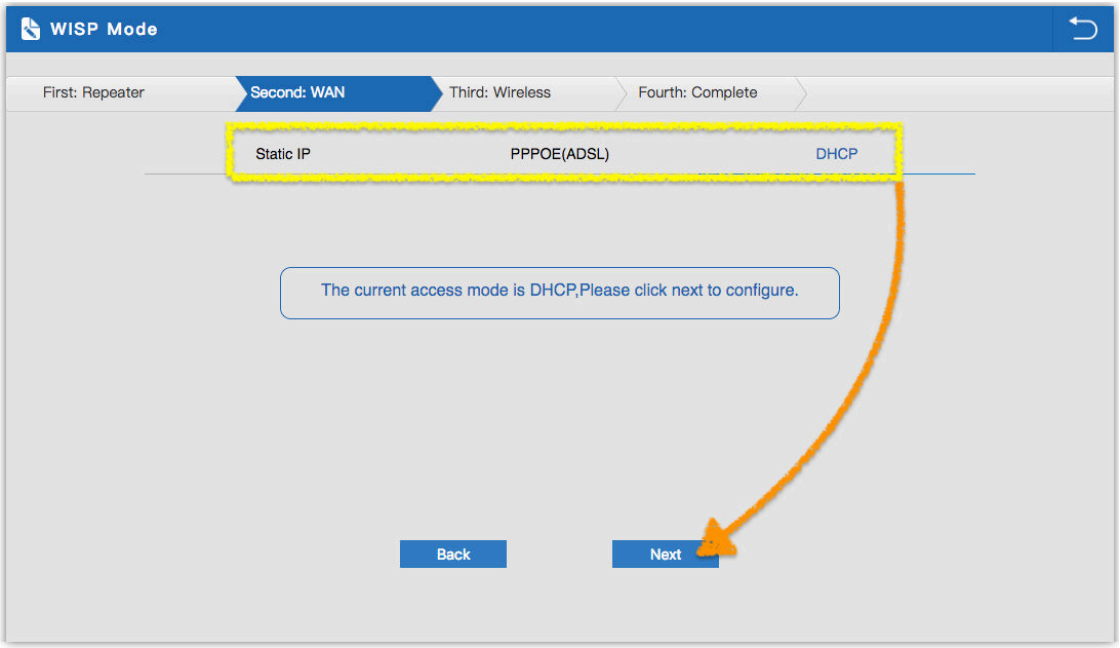


3.4 WISP Mode:

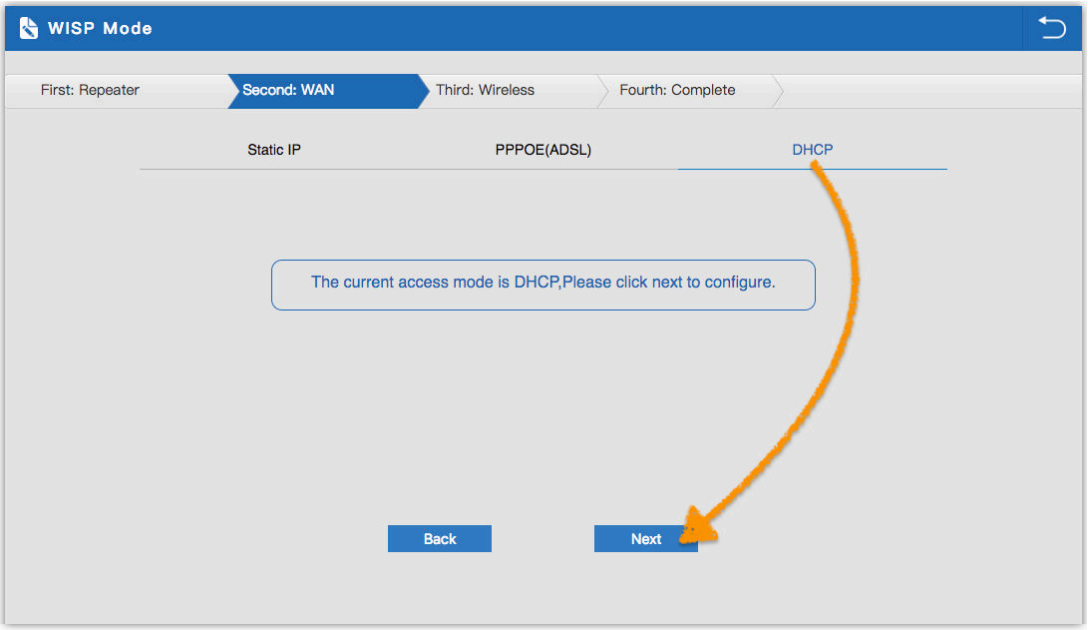
1.Select the AP's SSID want to bridge, take "wireless 5.8G" for example,
then input the AP's key, click Scan AP. Enter the WIFI SSID password to be linked, When click Next



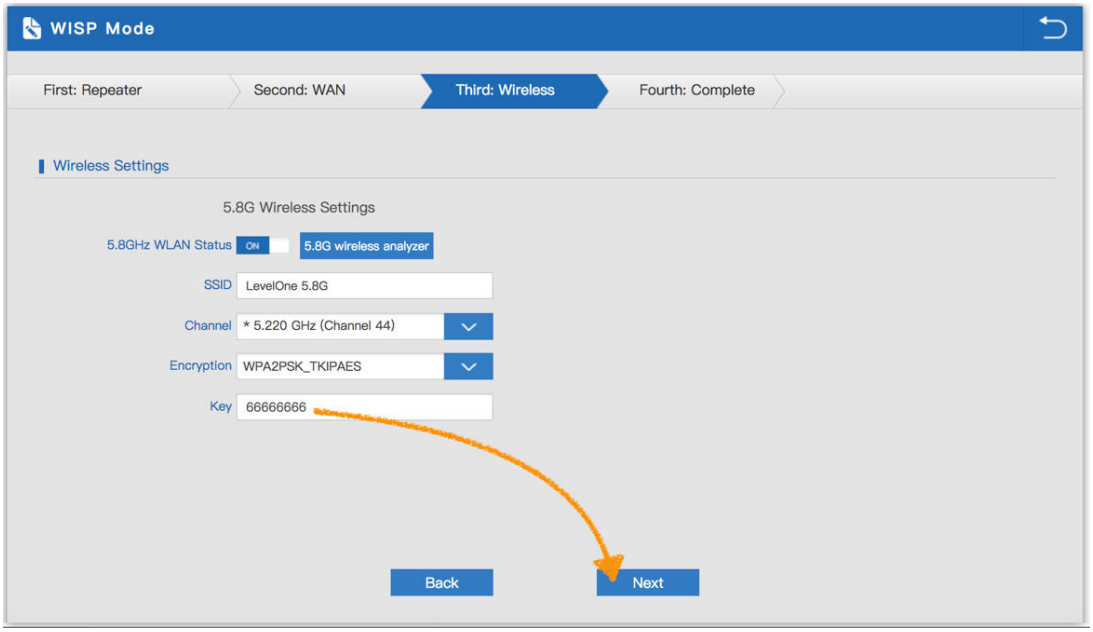
2.Before Click WISP Mode, confirm your ISP WIFI will be static IP, PPPoE, or DHCP:
Then will pop up following picture after click it, Please choose the right WAN setting mode,then click next to continue.



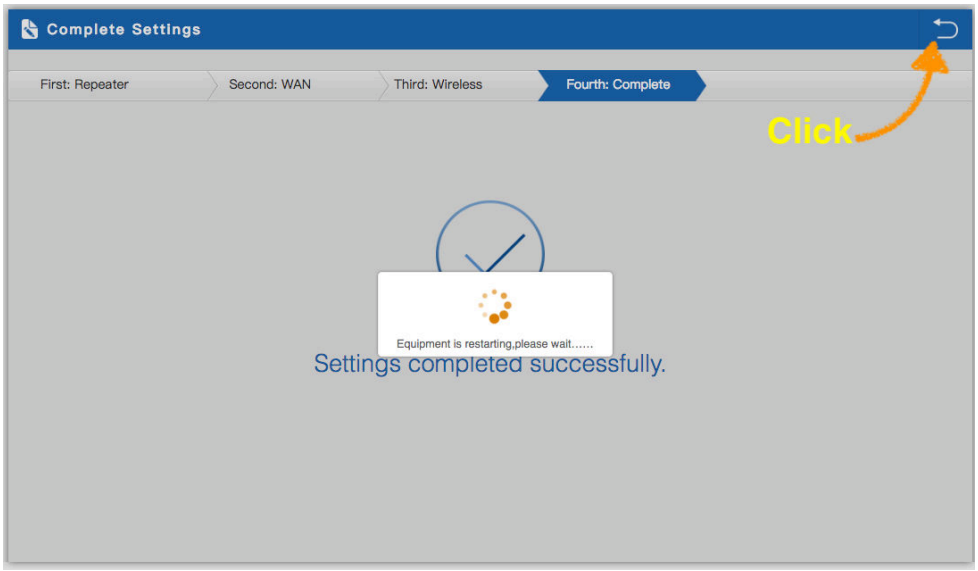
3.Take **DHCP** for example.



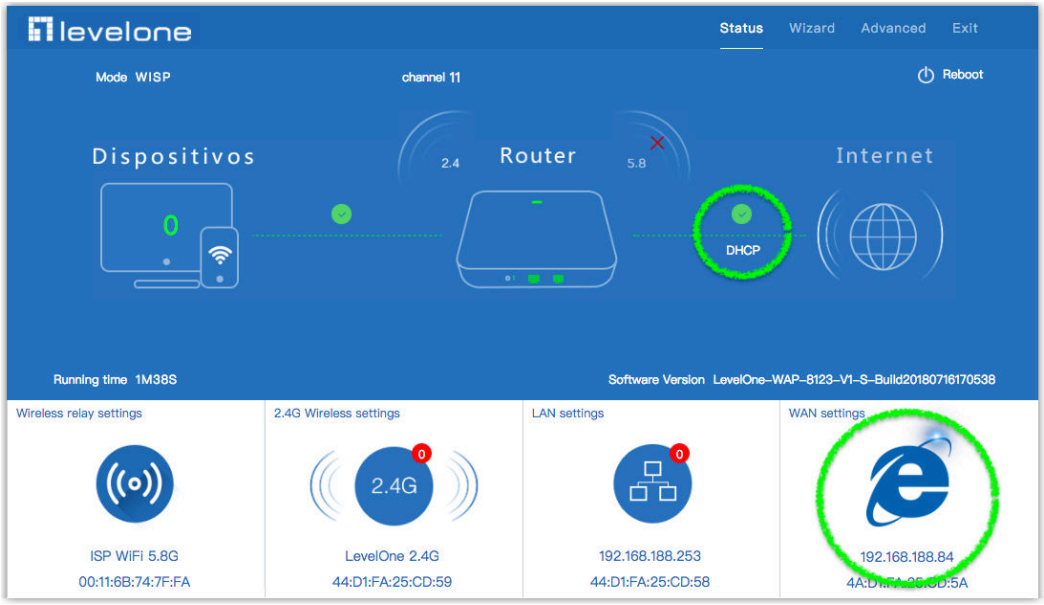
4. Configure the SSID and password AP going to broadcast.



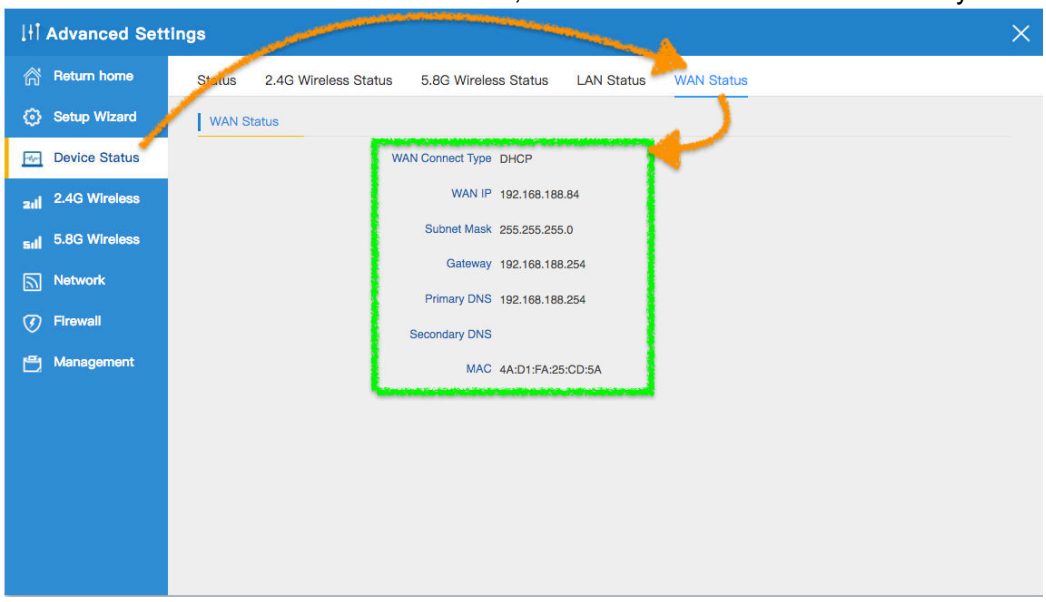
5.Click Return button, will back to Status, show WISP mode data, show fail or success



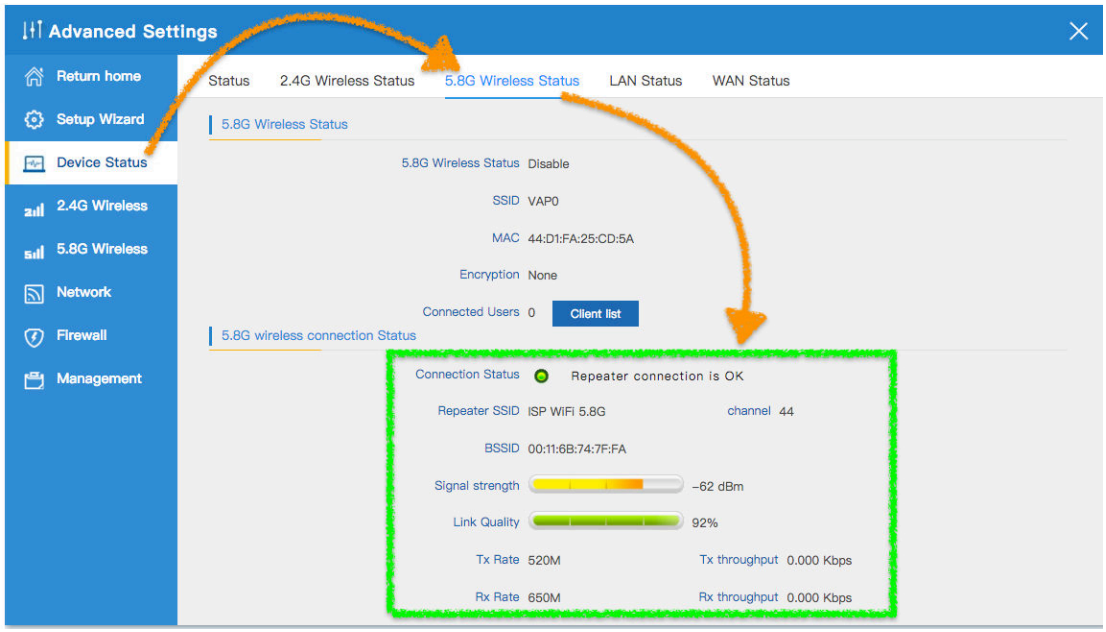
6.Check WISP Mode Status show fail or success



7. Check WISP Mode data for WAN Status , Check IP address that is received by DHCP .

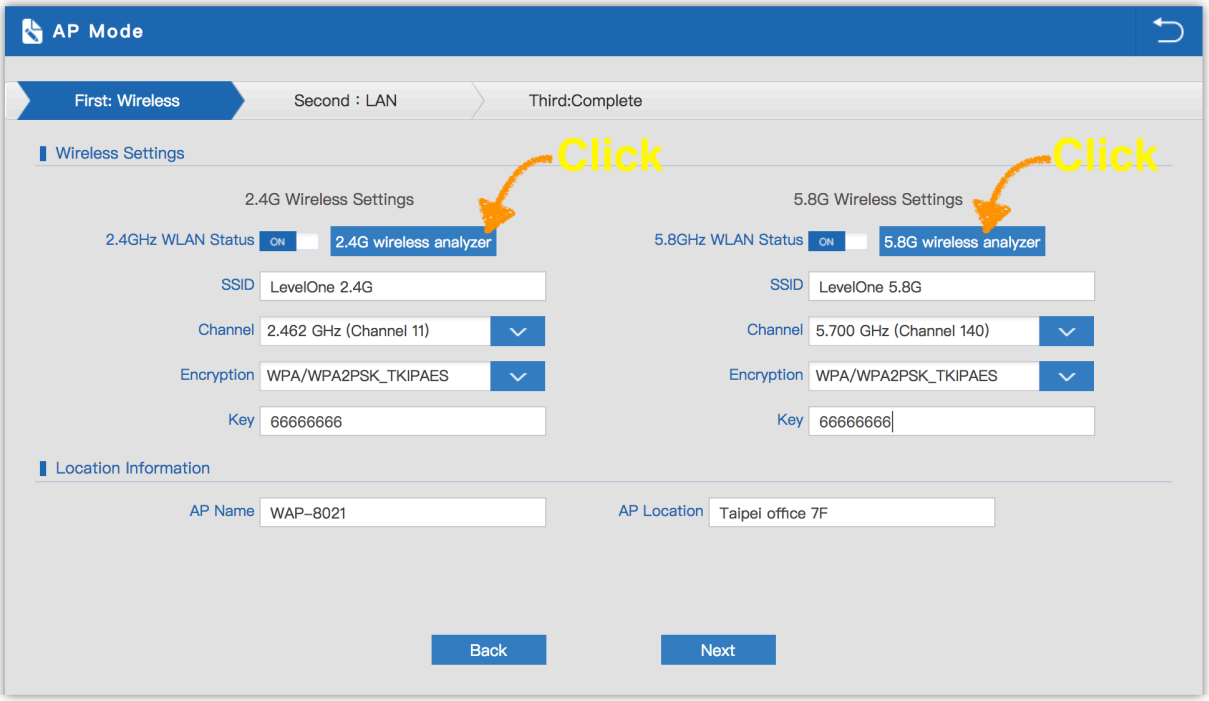


8.Check WISP Mode Status data

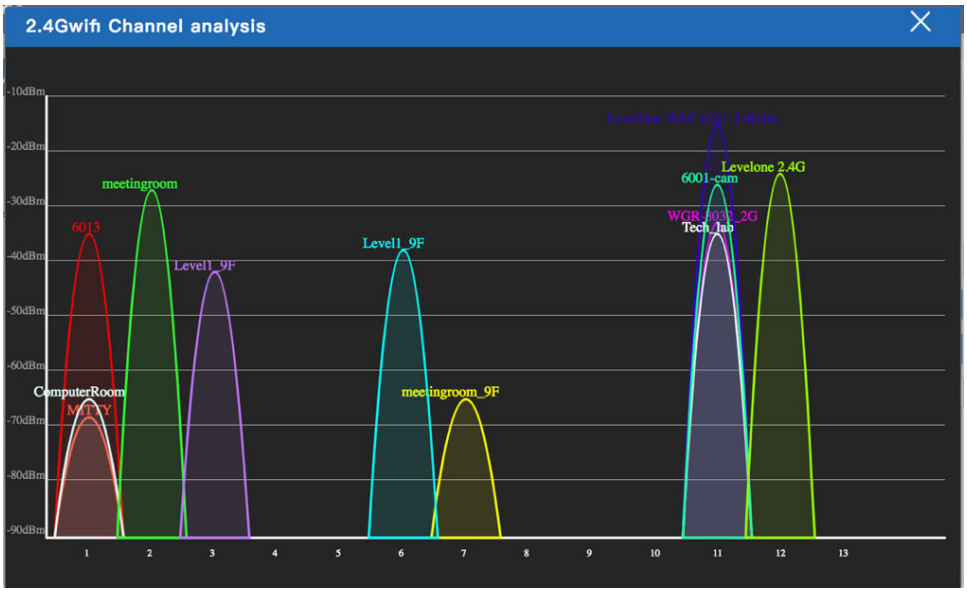


3.5 AP mode & Wireless analyzer :

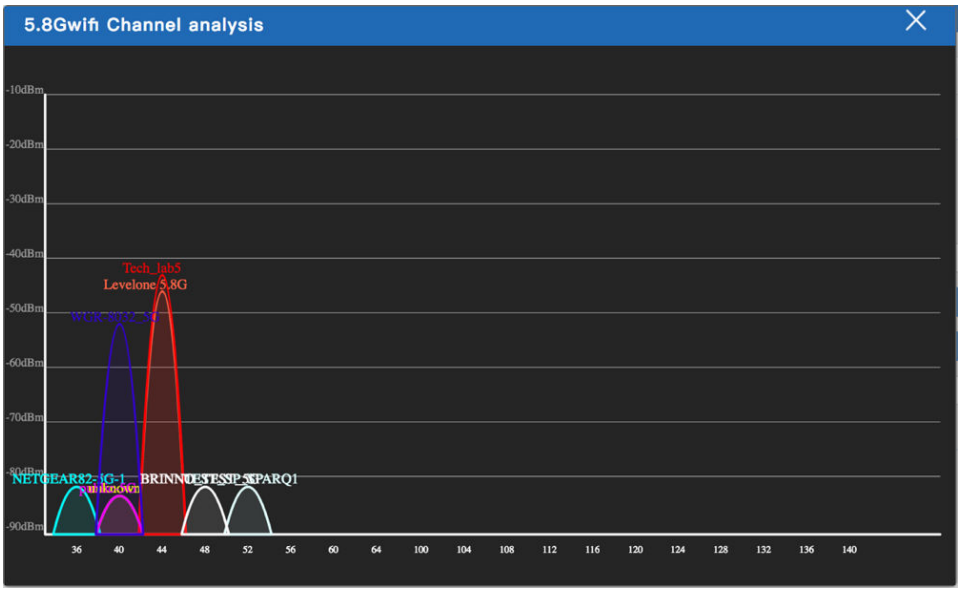
1.To make the WAP-8123 work in some clear channel, user can click wireless analyzer at first. Look for Unoccupied channel, then Wireless performance will be more stable. Picture showed as below.



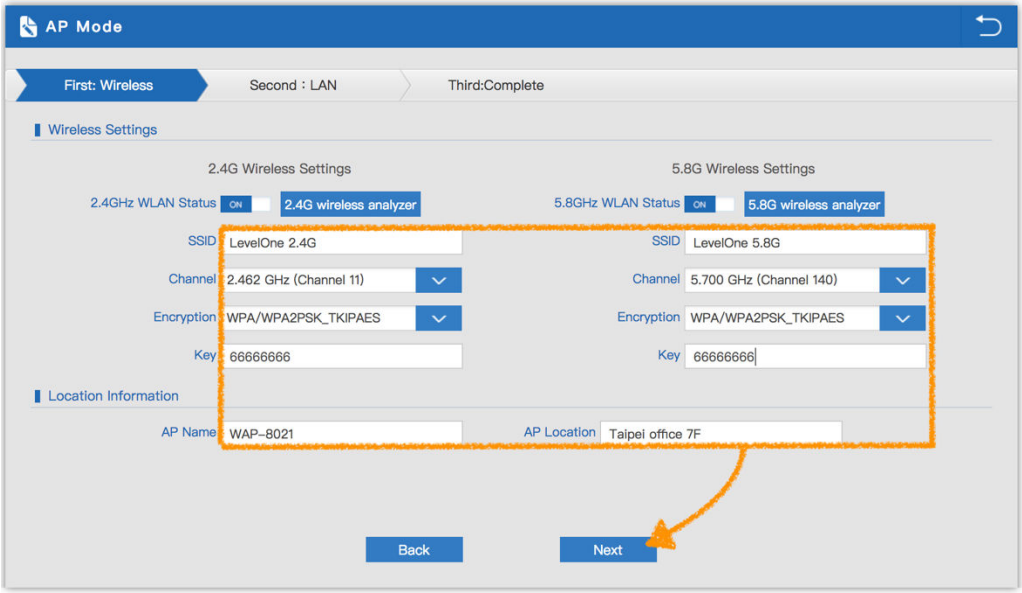
2. Wireless analyzer Look for Unoccupied channel (2.4GHz)



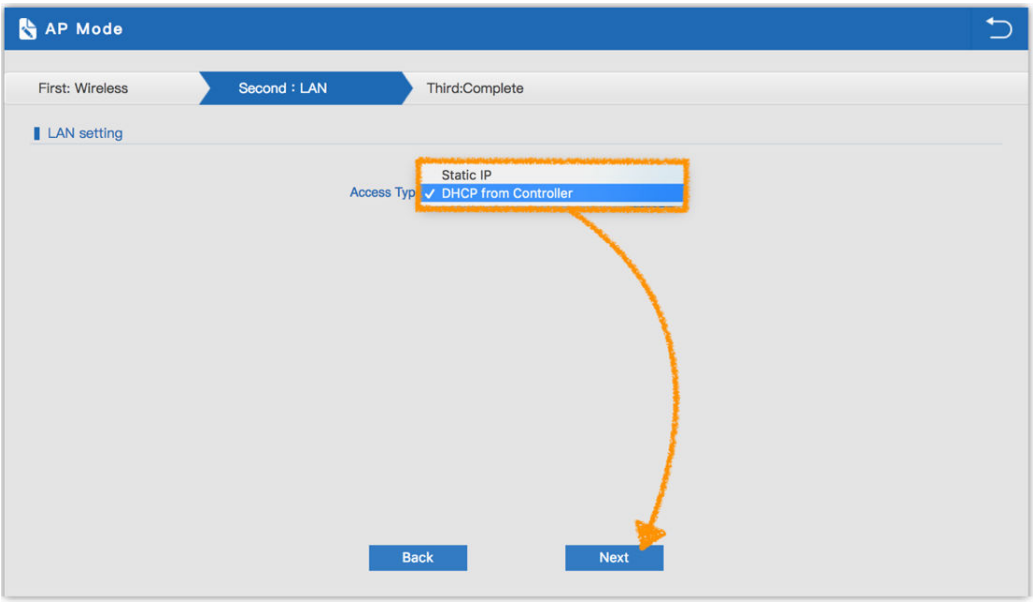
3. Wireless analyzer Look for Unoccupied channel (5.8GHz)



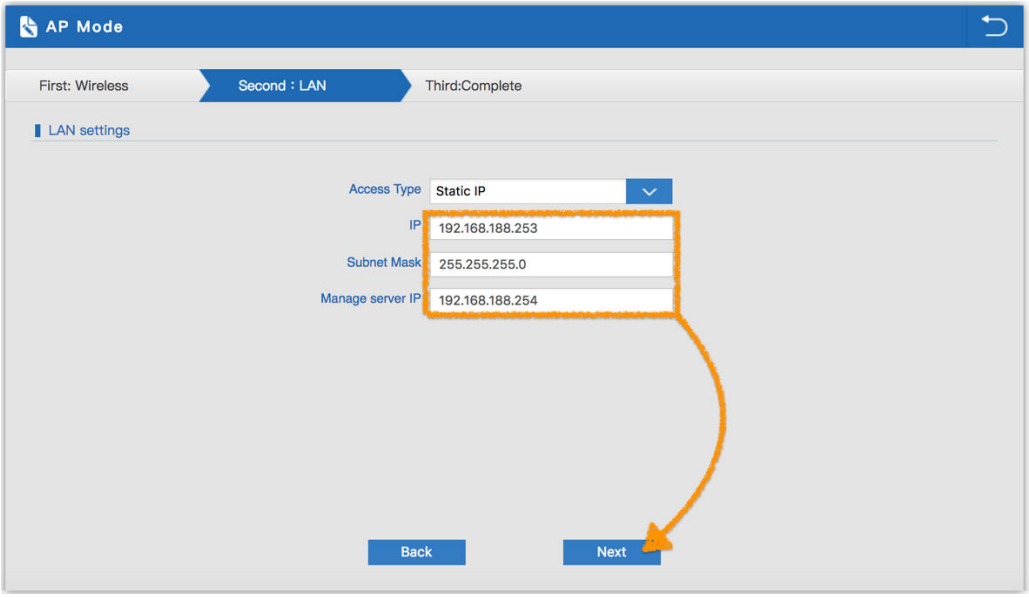
4. Set the wireless data, AP Location info as required, then click next to continue and enter into LAN setting. After LAN setting, complete the AP mode configuration and back to Status.



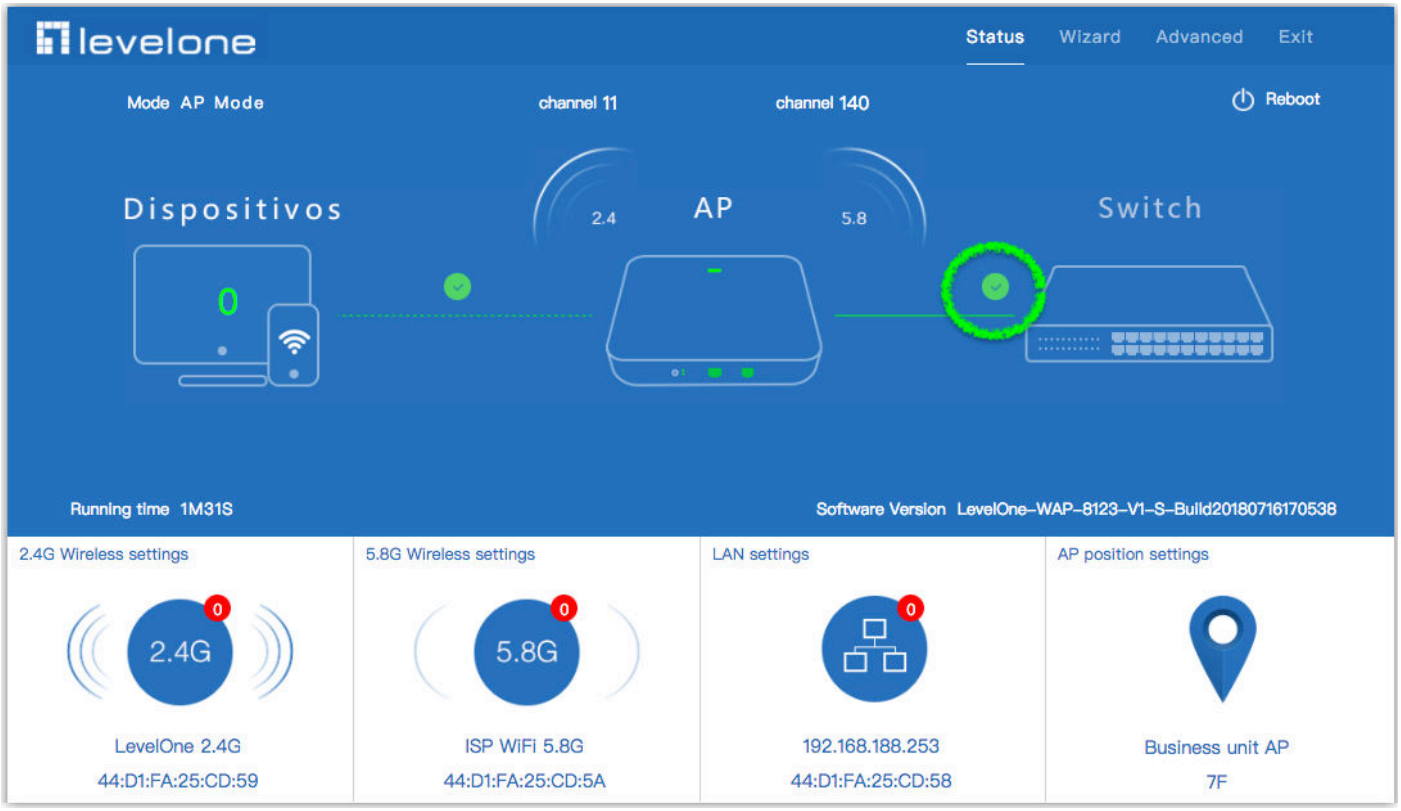
5.Set according to environmental requirements.



6.Demo Static IP setting



7. Check AP Mode Status show fail or success.

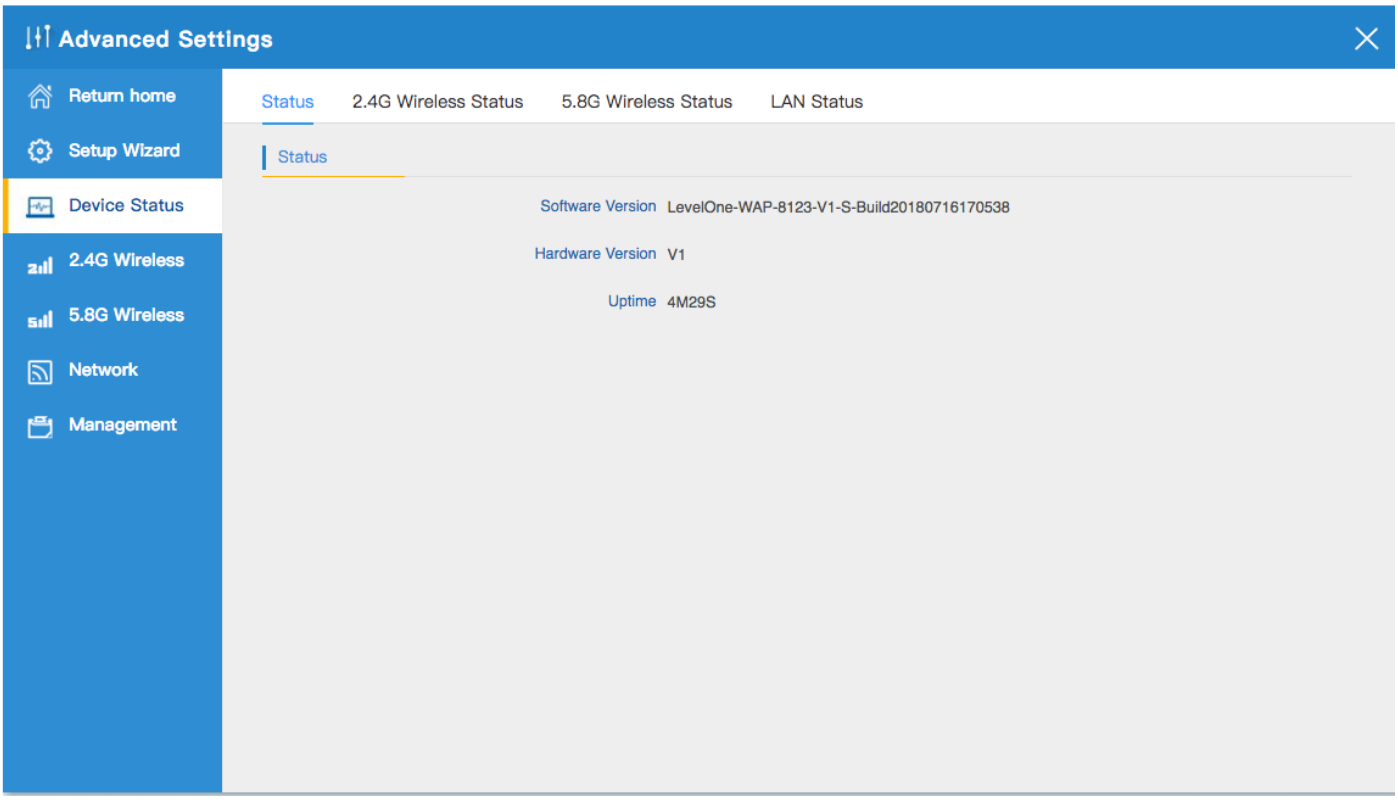


Chapter 4 Advanced Setting

4.1 Device Status

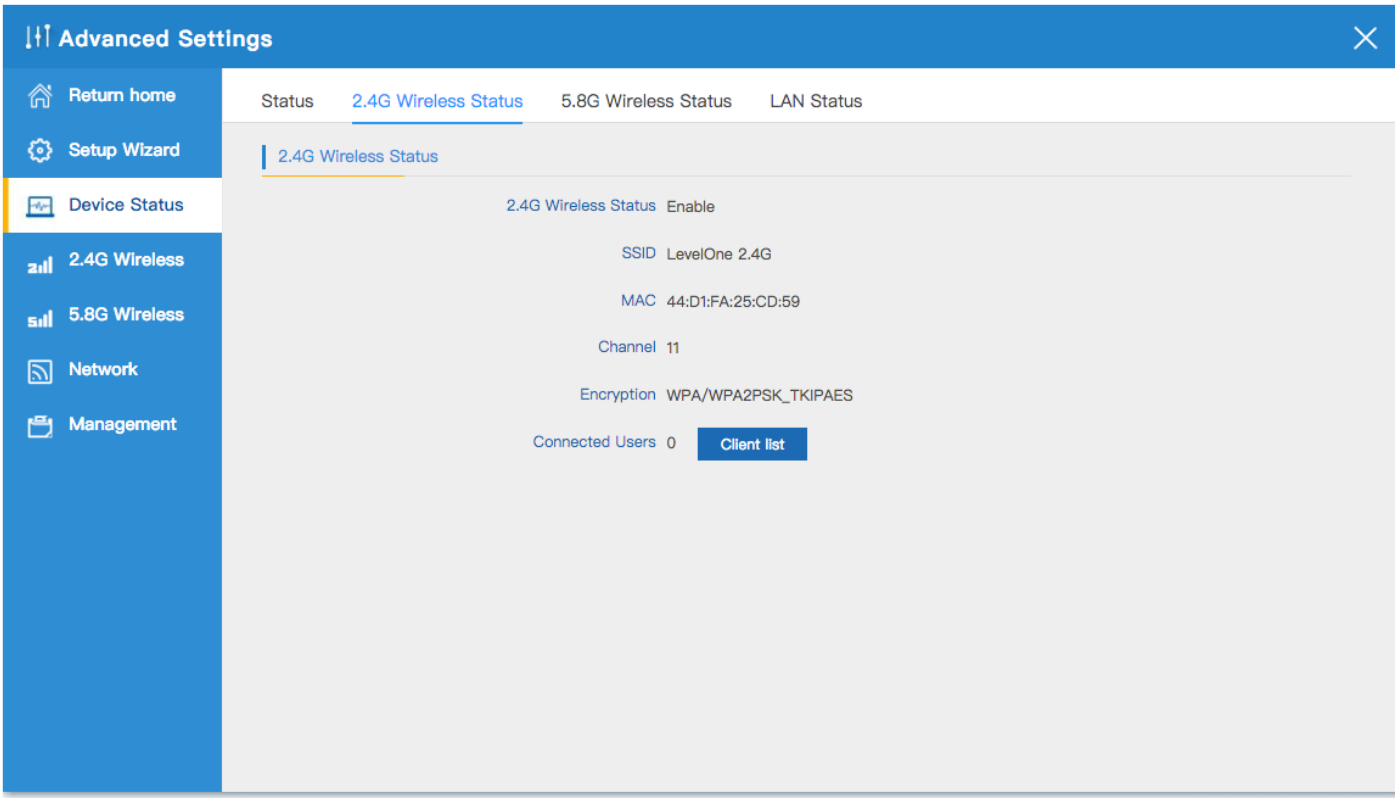
4.1.1 Status:

- Mainly to check the wireless AP's firmware version, hardware version, uptime info.



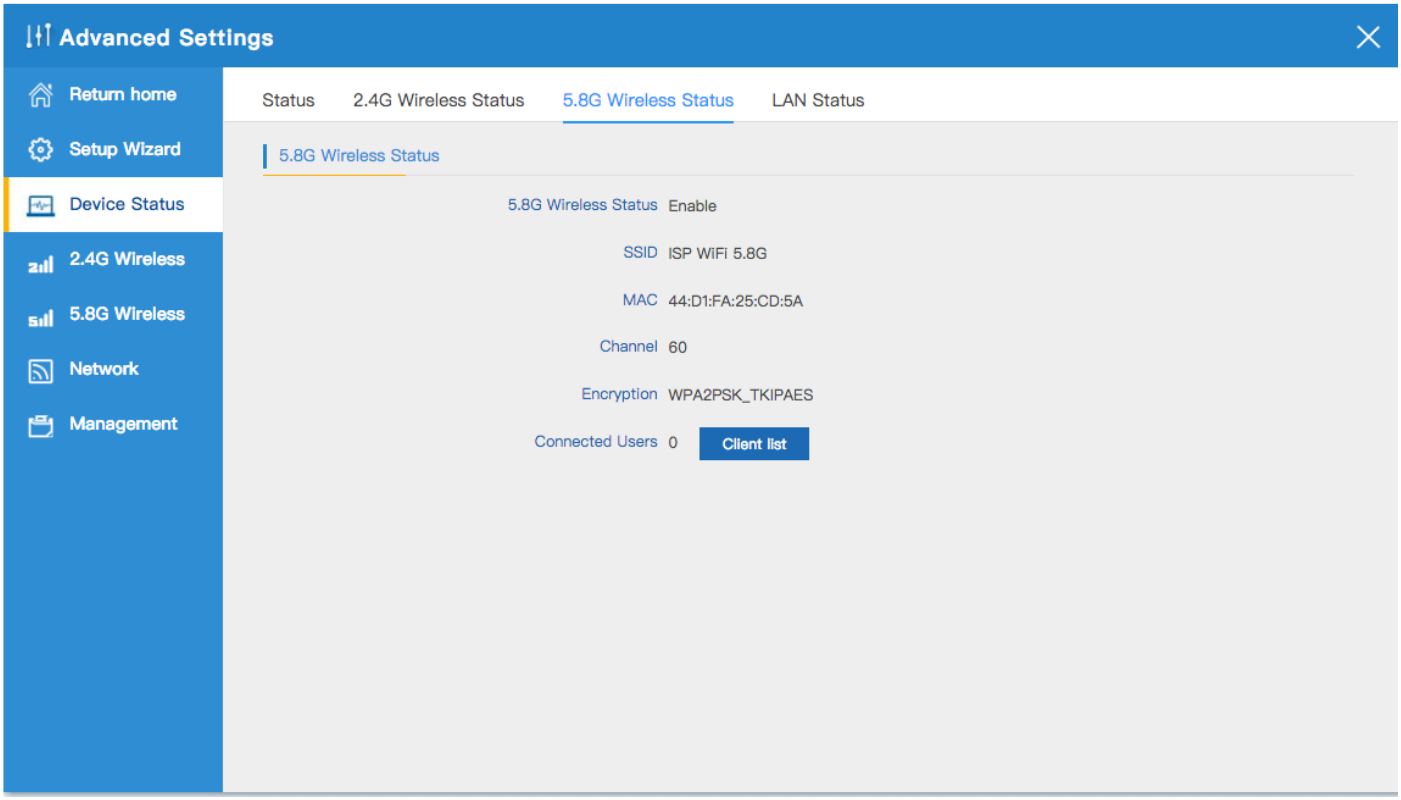
4.1.2 2.4G Wireless Status:

- Show wireless AP's SSID, MAC address for WiFi, Channel, Encryption, Client List info.



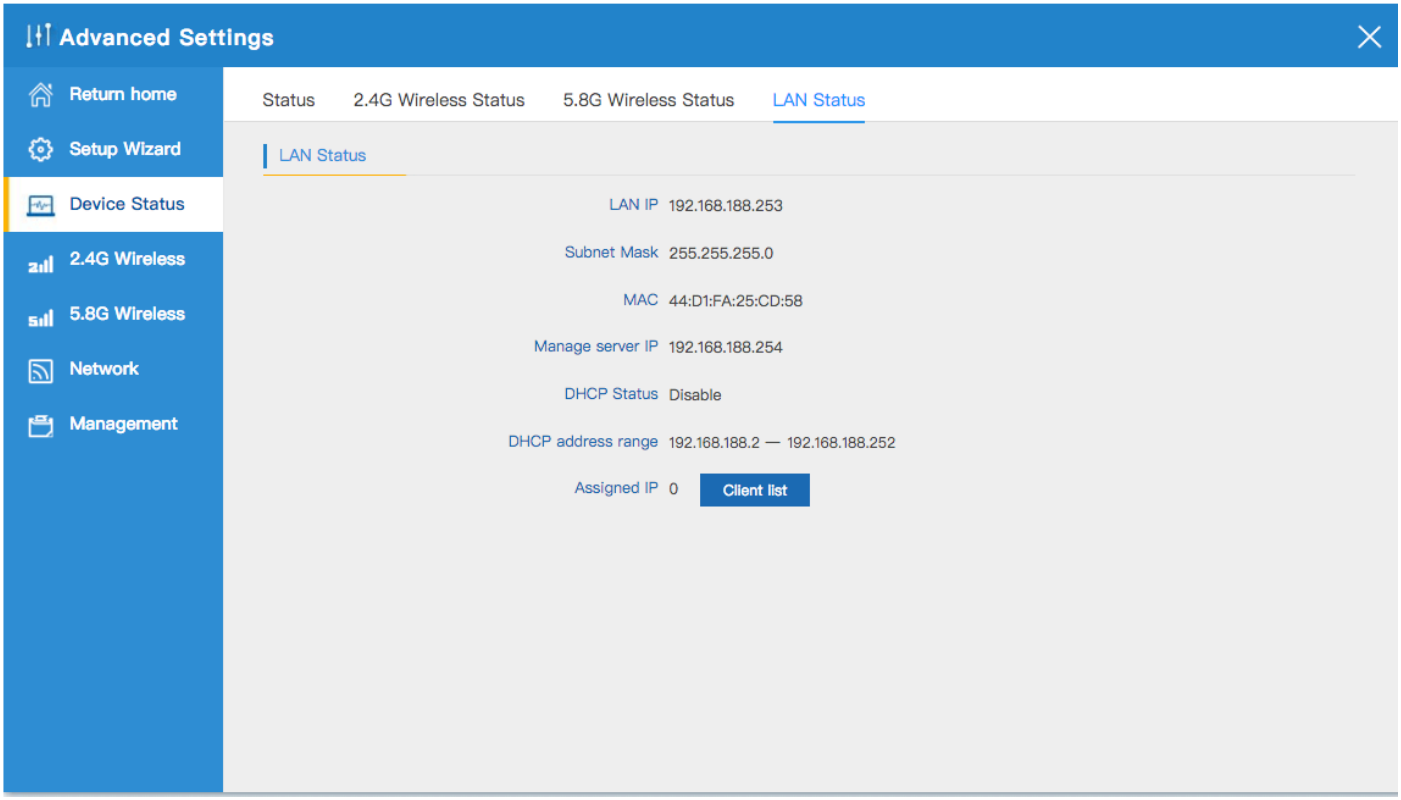
4.1.3 5.8G Wireless Status:

- Show wireless AP's SSID, MAC address for WiFi, Channel, Encryption, Client List info.



4.1.4 LAN Status:

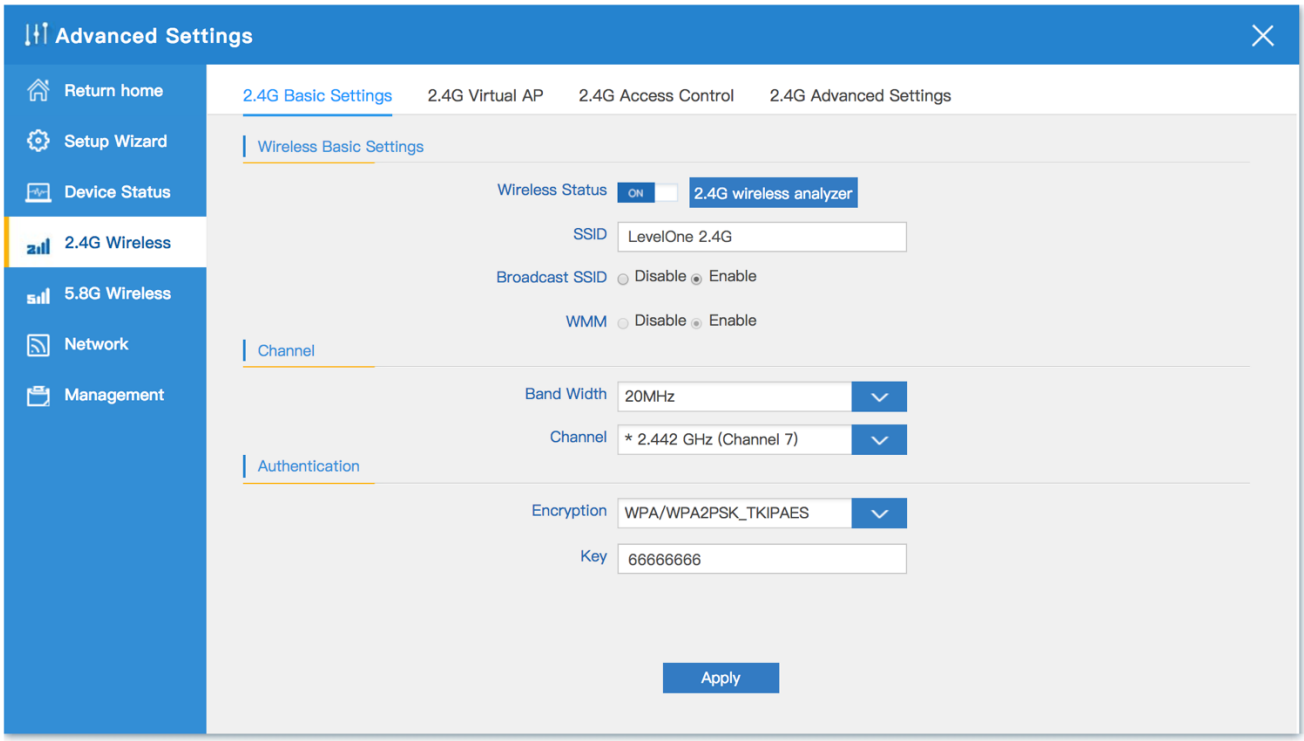
- Check wireless AP's IP address, Subnet Mask, LAN MAC address and other info showed in following picture



4.2 2.4G Wireless

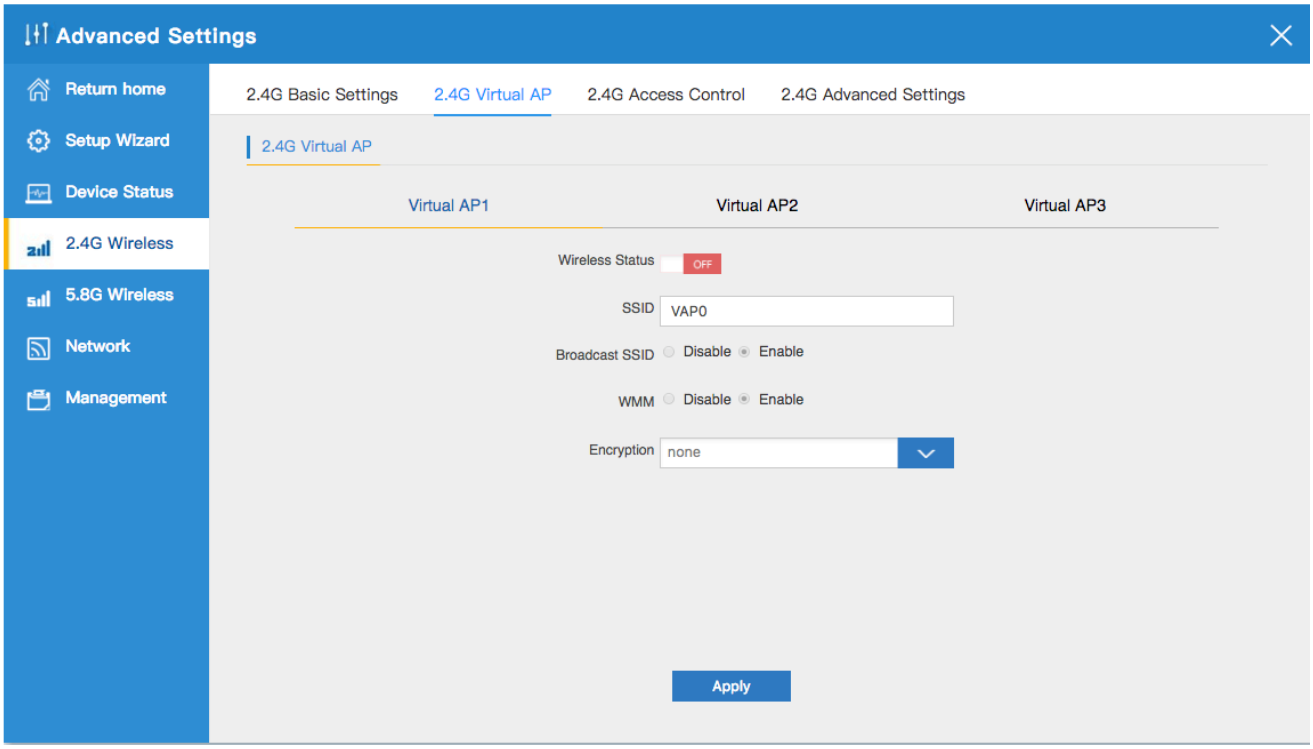
4.2.1 2.4G Basic Settings :

- Mainly to configure the wireless SSID, password, band width ,encryption, channel, Multi SSID.



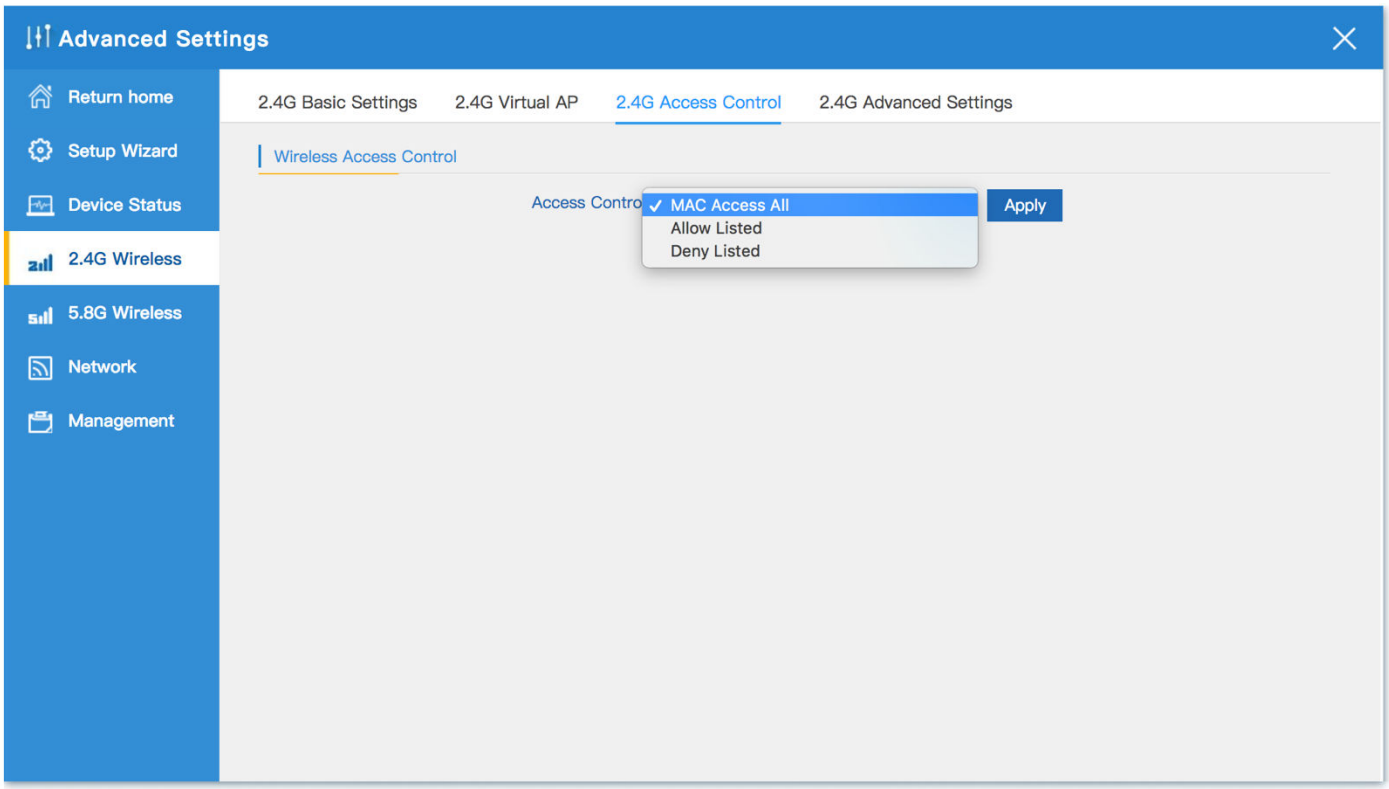
4.2.2 2.4G Virtual AP :

- There are 3 virtual AP in 2.4G wireless, if need enable multi SSIDs, then users can configure it showed in following picture:

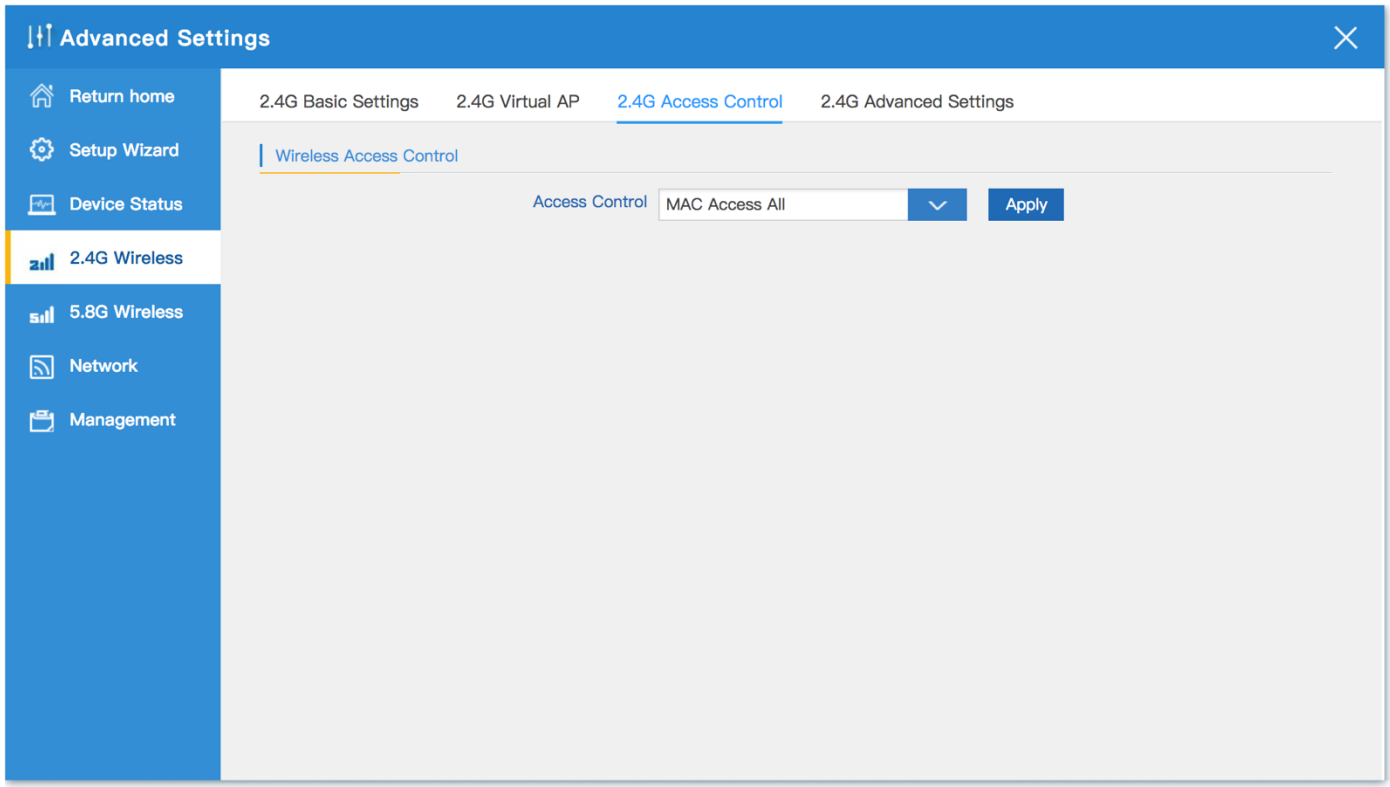


4.2.3 2.4G Access Control :

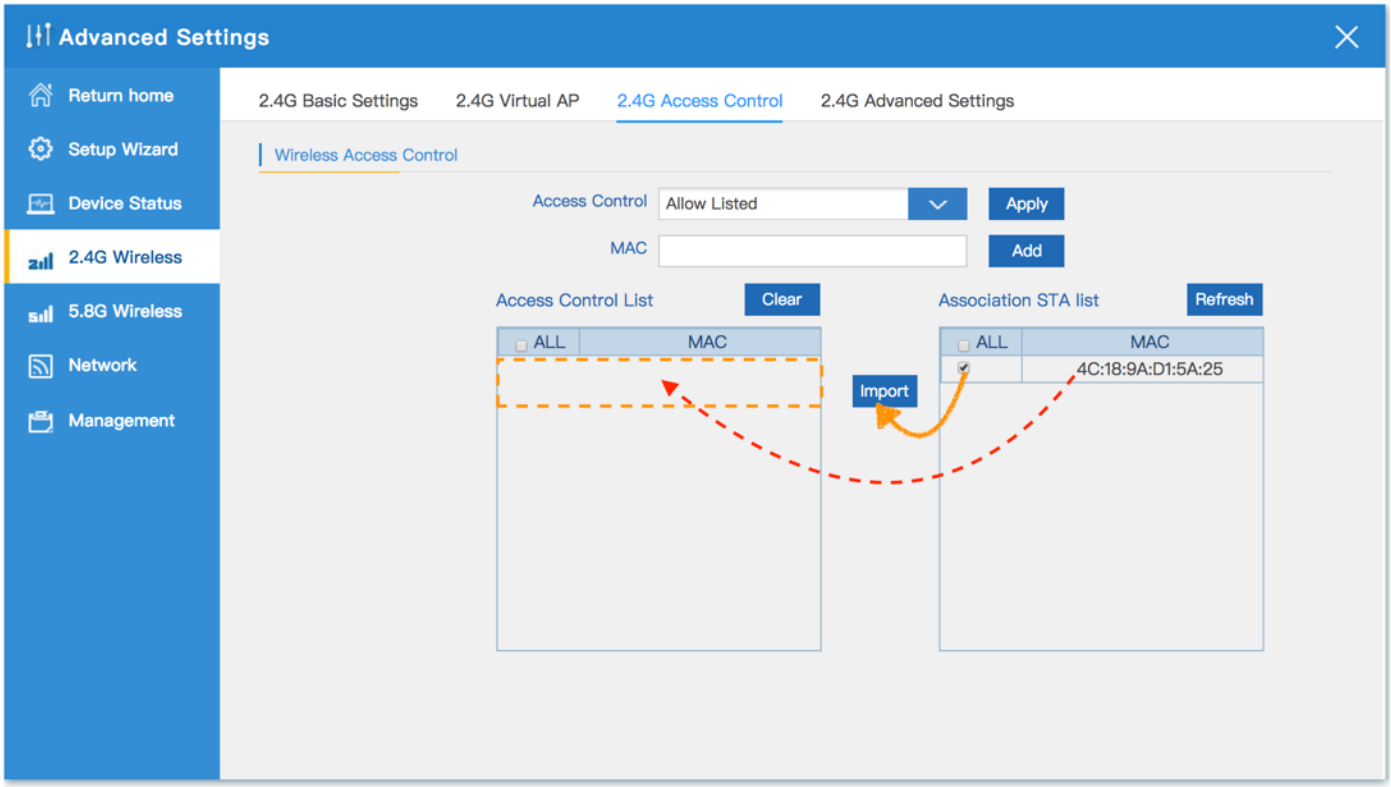
1. Allow or deny the users access into this wireless AP based on MAC address.



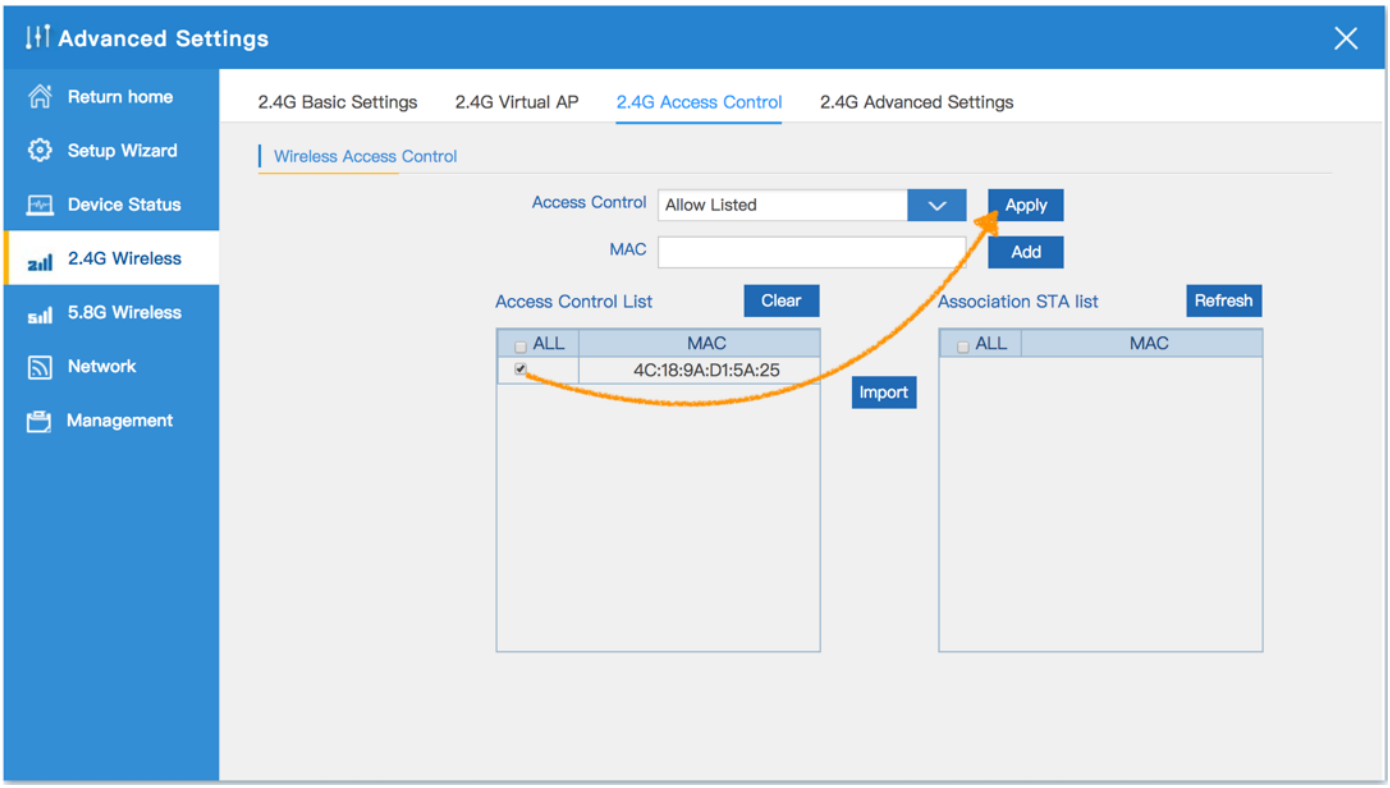
2. Allow all the users access into this wireless AP



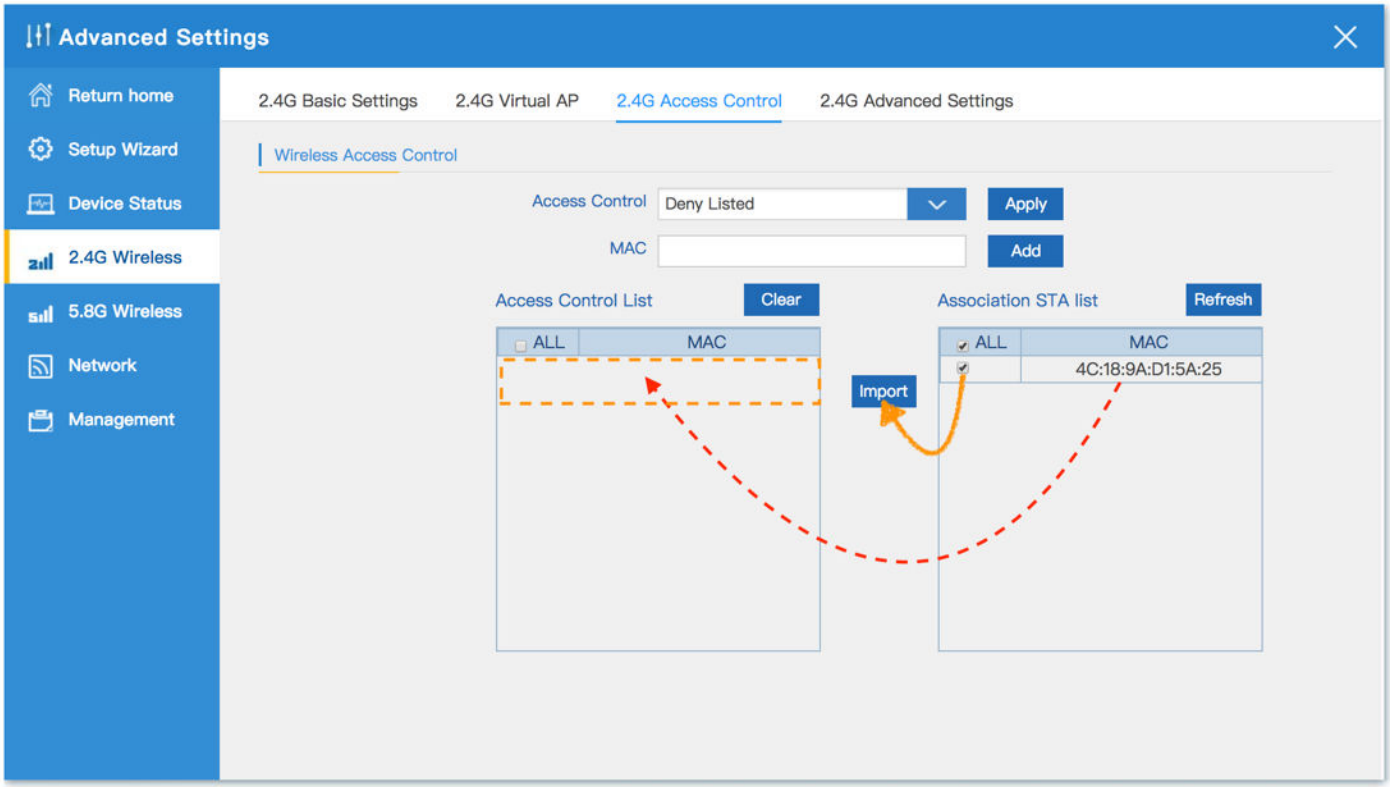
3. Only users who have joined the MAC address list can access the wireless AP.
   The following is a demonstration of teaching . Add the user MAC address in the list to the access control list



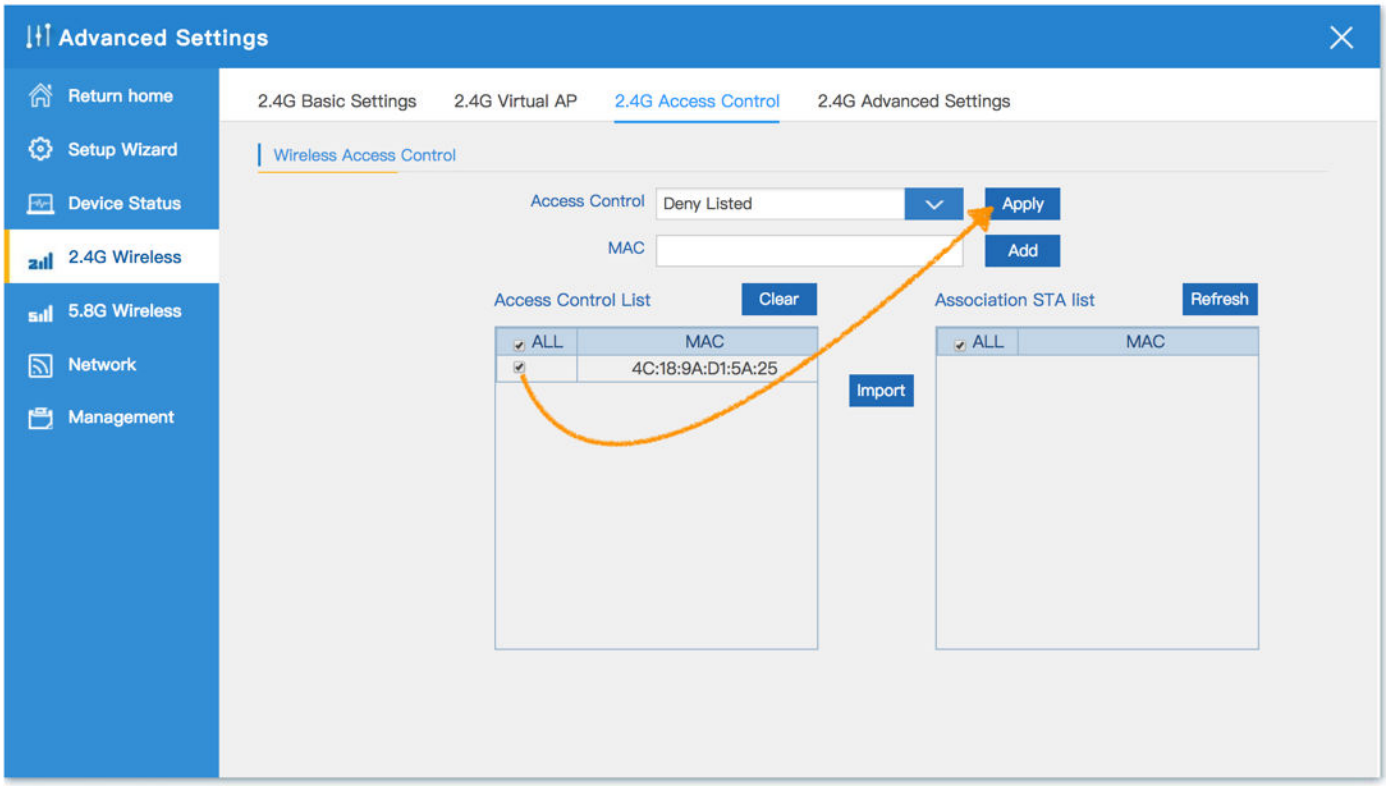
4. After the user's MAC address is added to the access control list, Click Apply.
   After setting is completed, it will start to allow users access to this wireless AP function



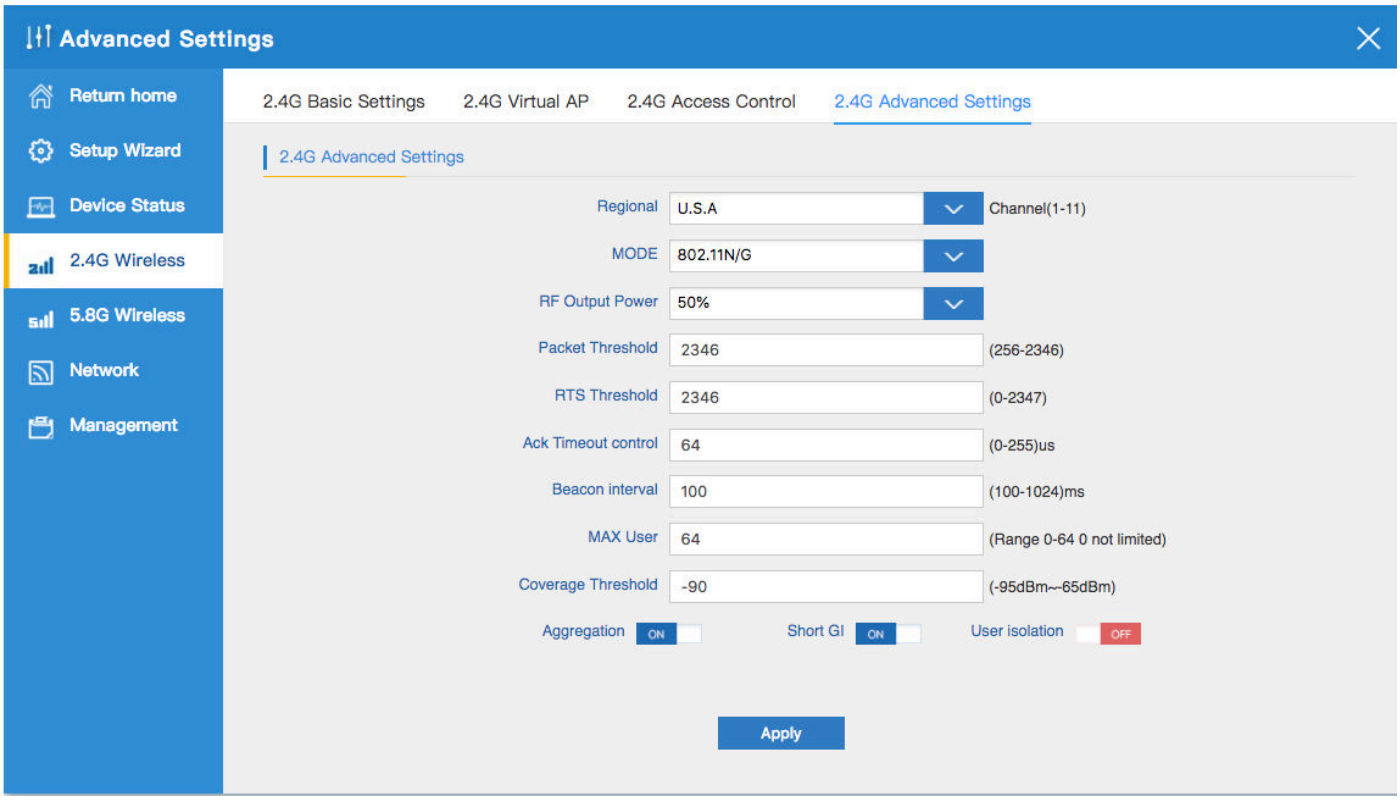
5. Users who have joined the MAC address list are denied access to the wireless AP.
   The following is a demonstration of teaching . Add the user MAC address in the list to the access control list



6. After the user's MAC address is added to the access control list, Click Apply.
   After setting is completed, it will start to deny users access to this wireless AP function



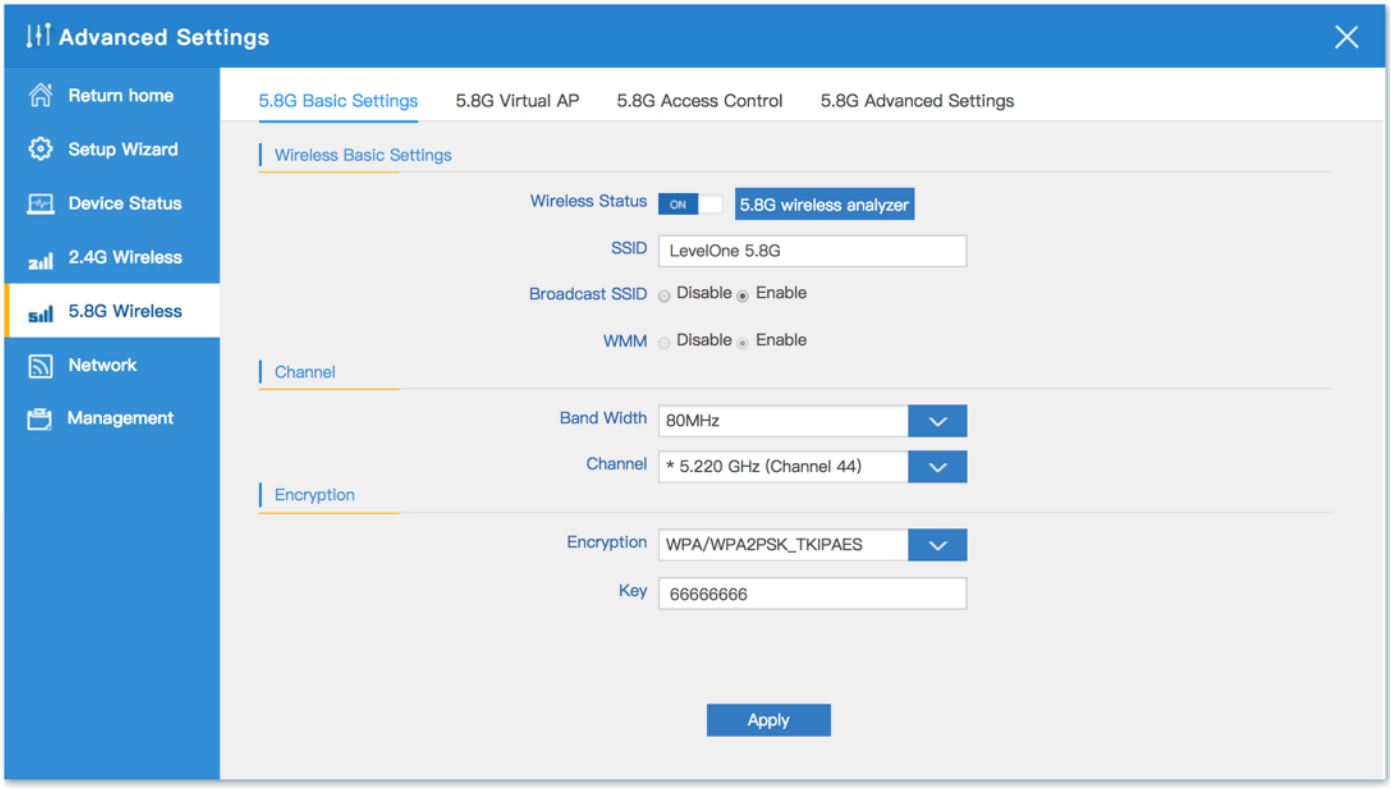
7. In this page, will show the regional, mode, RF Power, Max user access...



4.3 5.8G Wireless

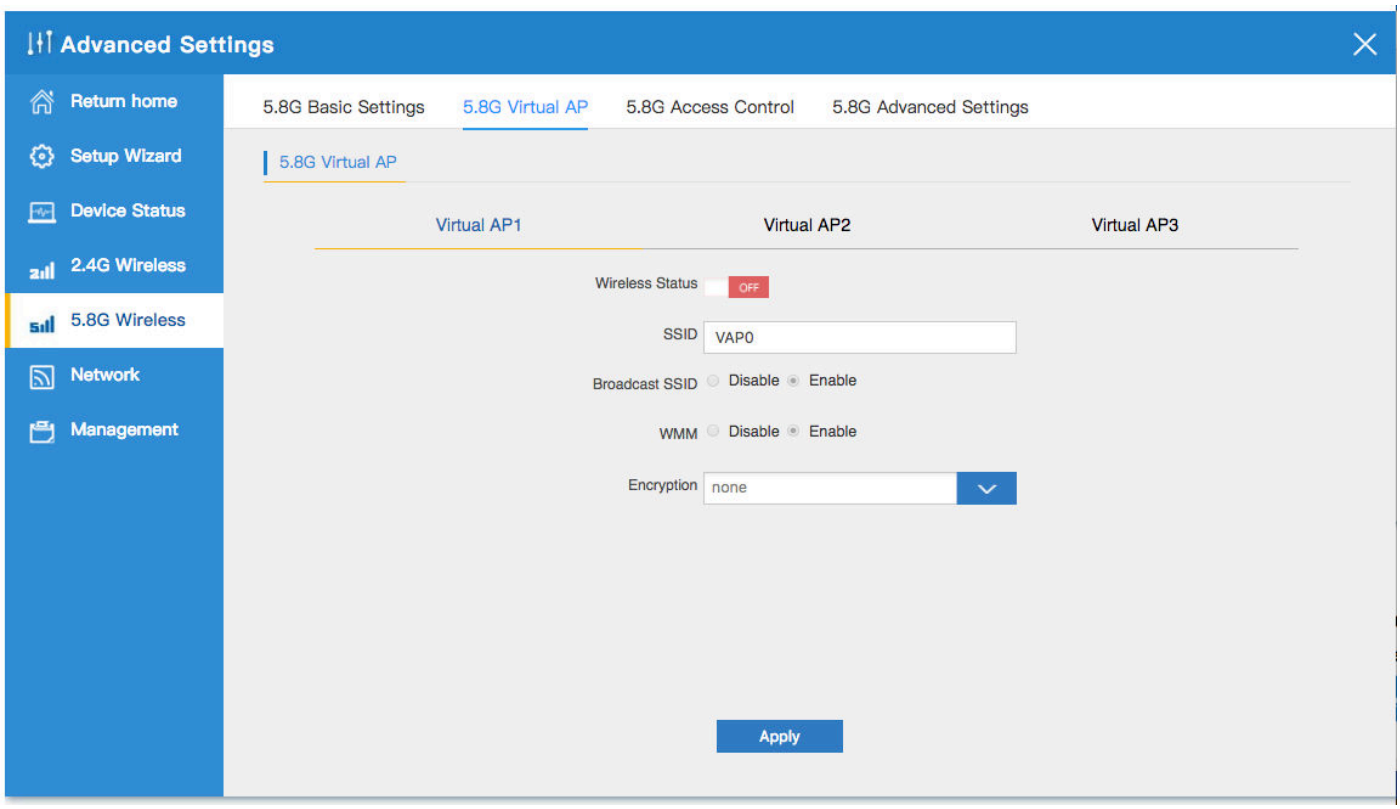
4.3.1 5.8G Basic Settings :

- Mainly to configure the wireless SSID, password, band width ,encryption, channel, Multi SSID.



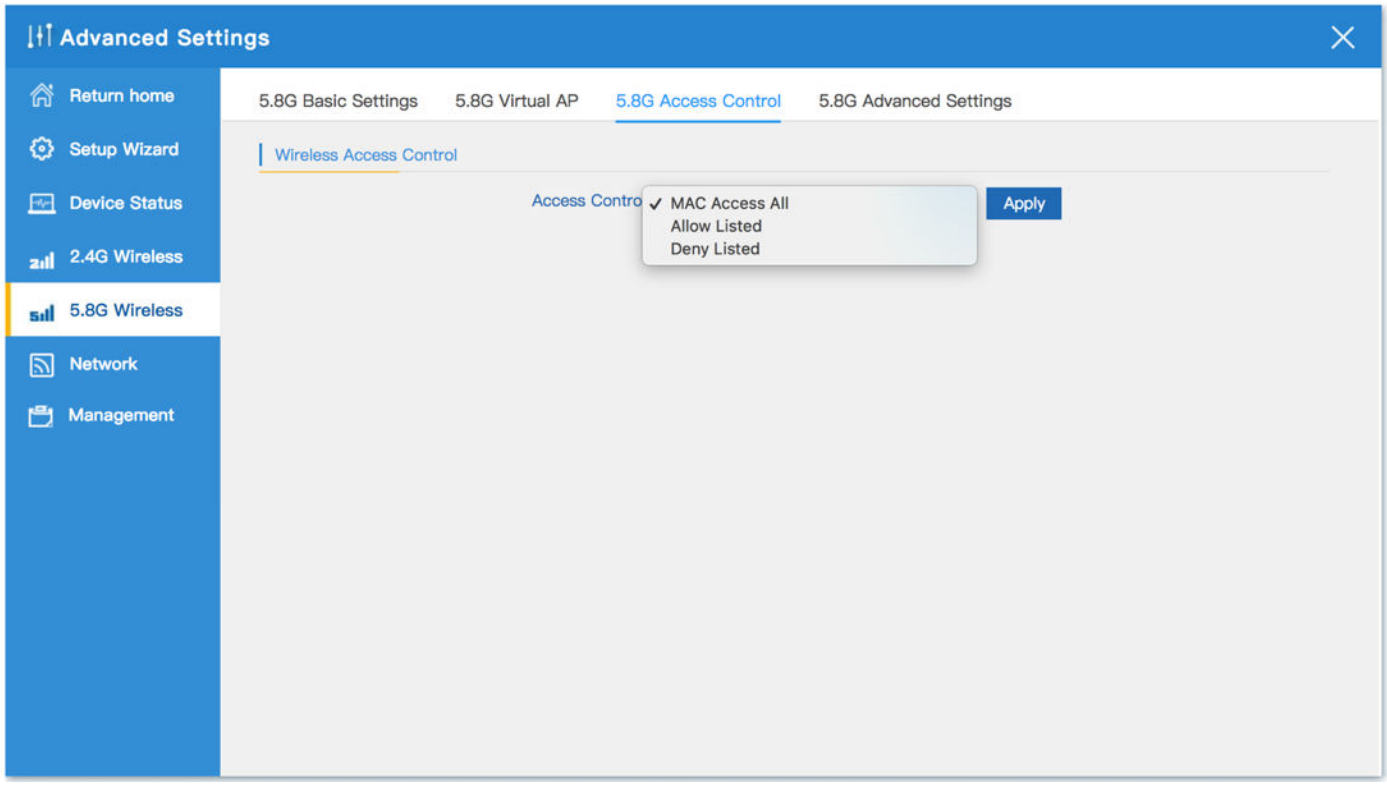
4.3.2 5.8G Virtual AP :

- There are 3 virtual AP in 5.8G wireless, if need enable multi SSIDs, then users can configure it showed in following picture:

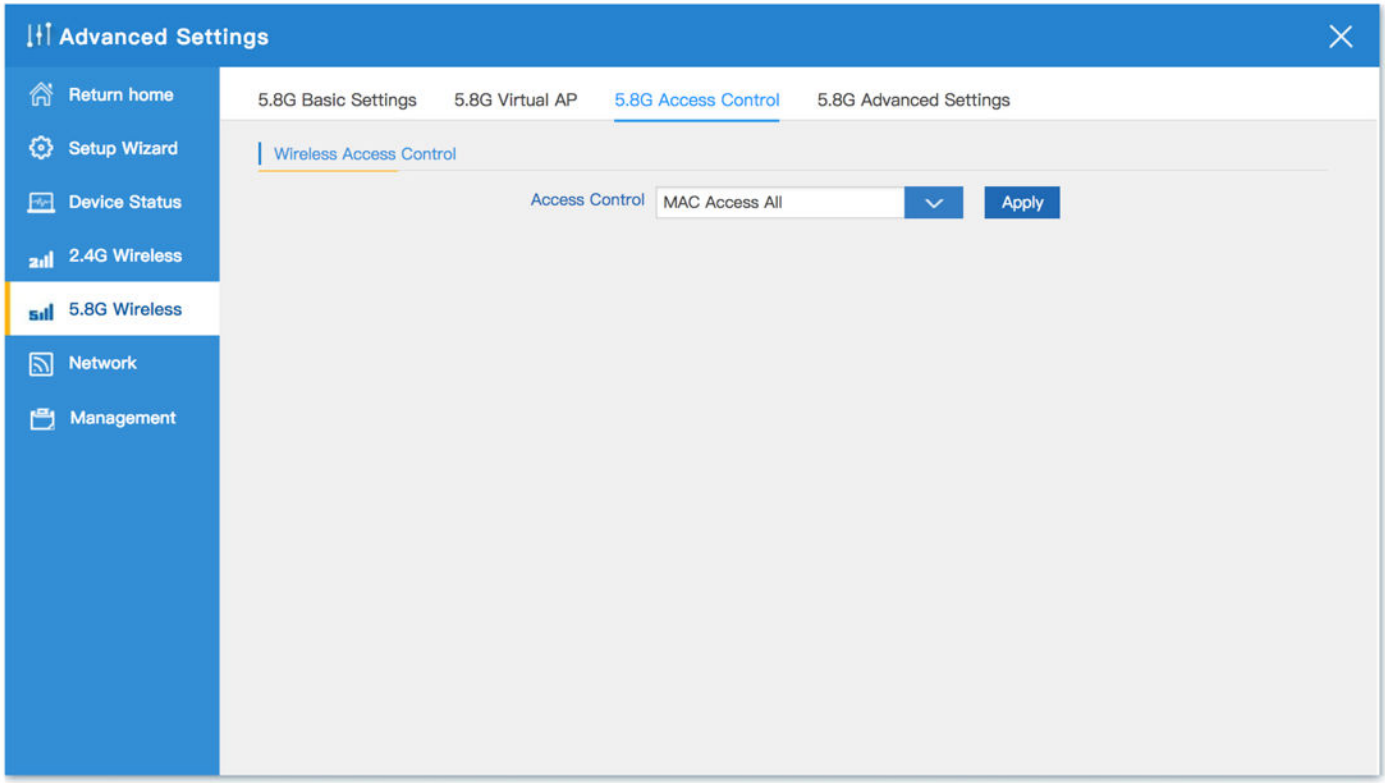


4.3.3 5.8G Access Control :

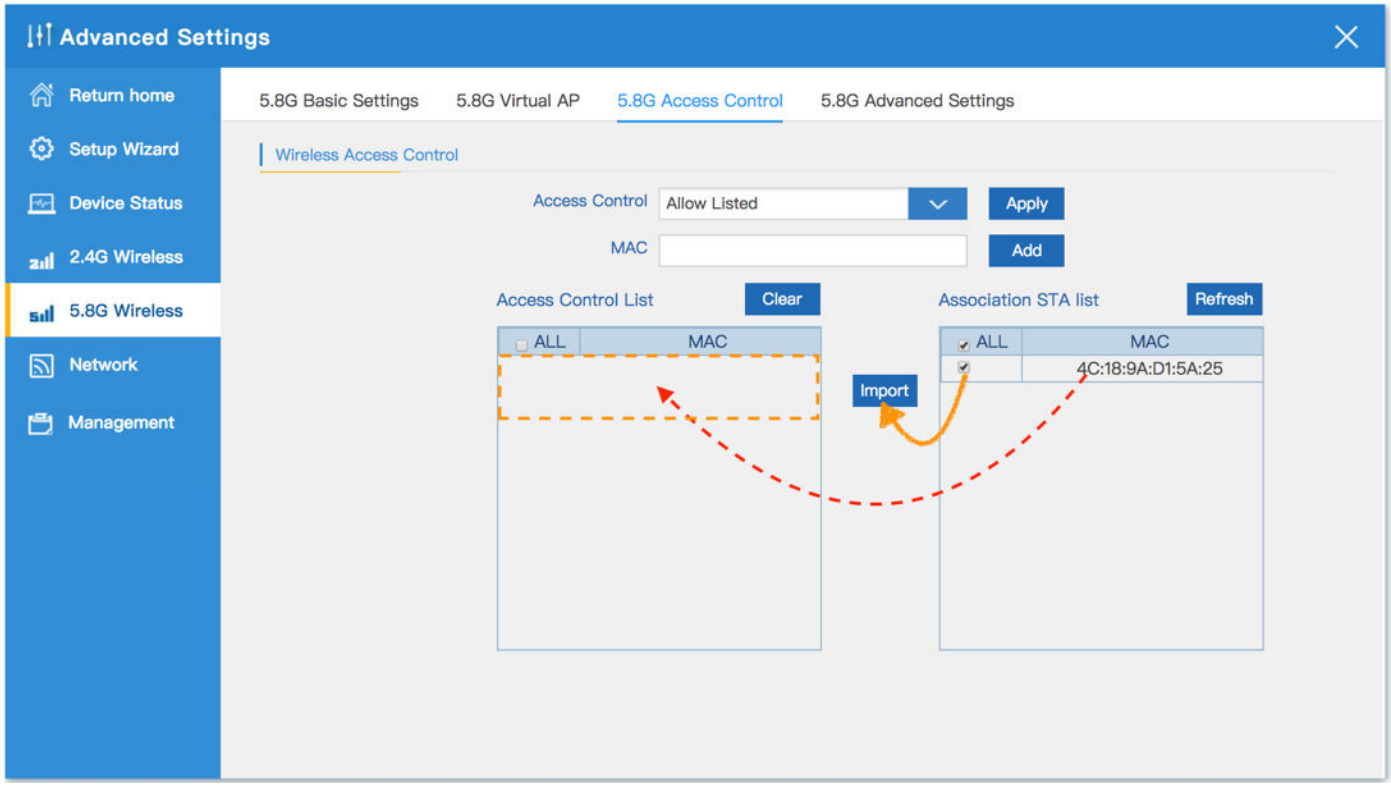
1. Allow or deny the users access into this wireless AP based on MAC address.



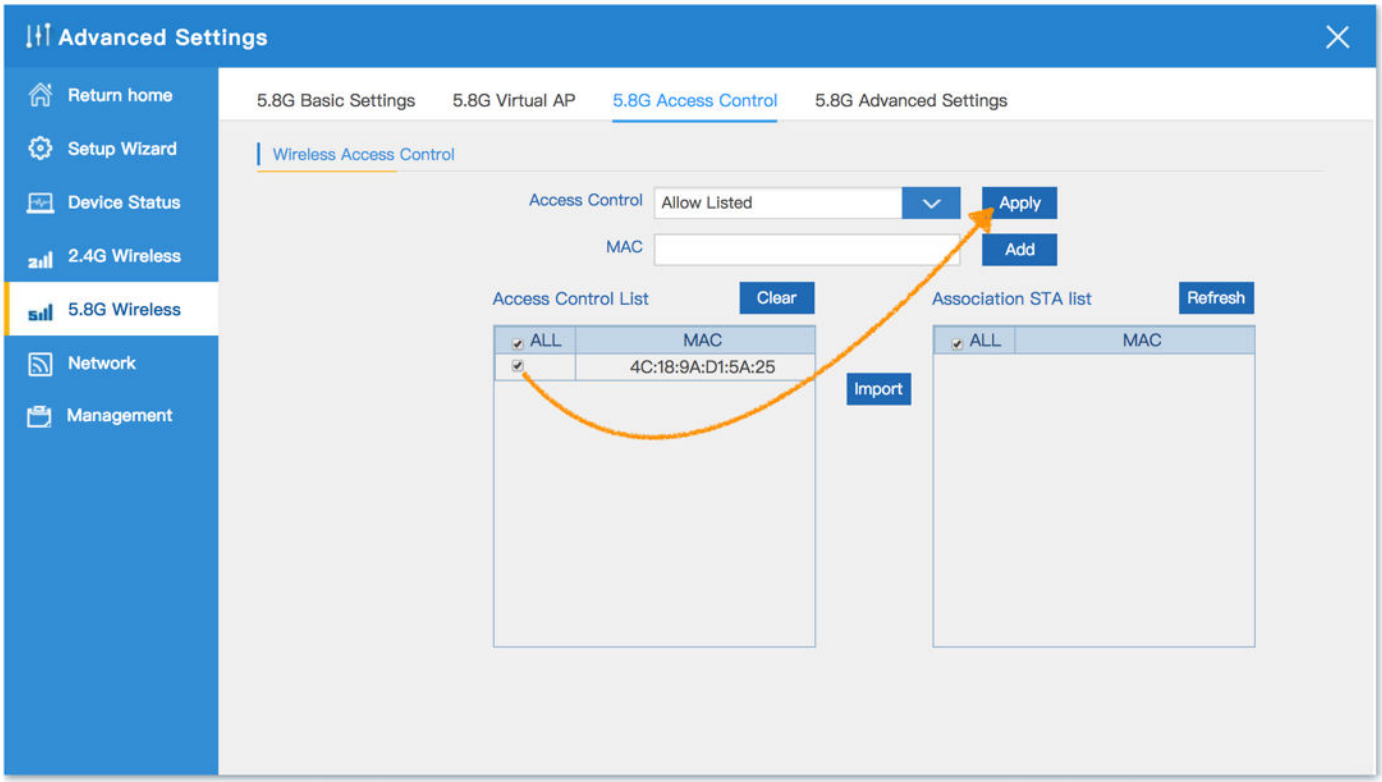
2. Allow all the users access into this wireless AP



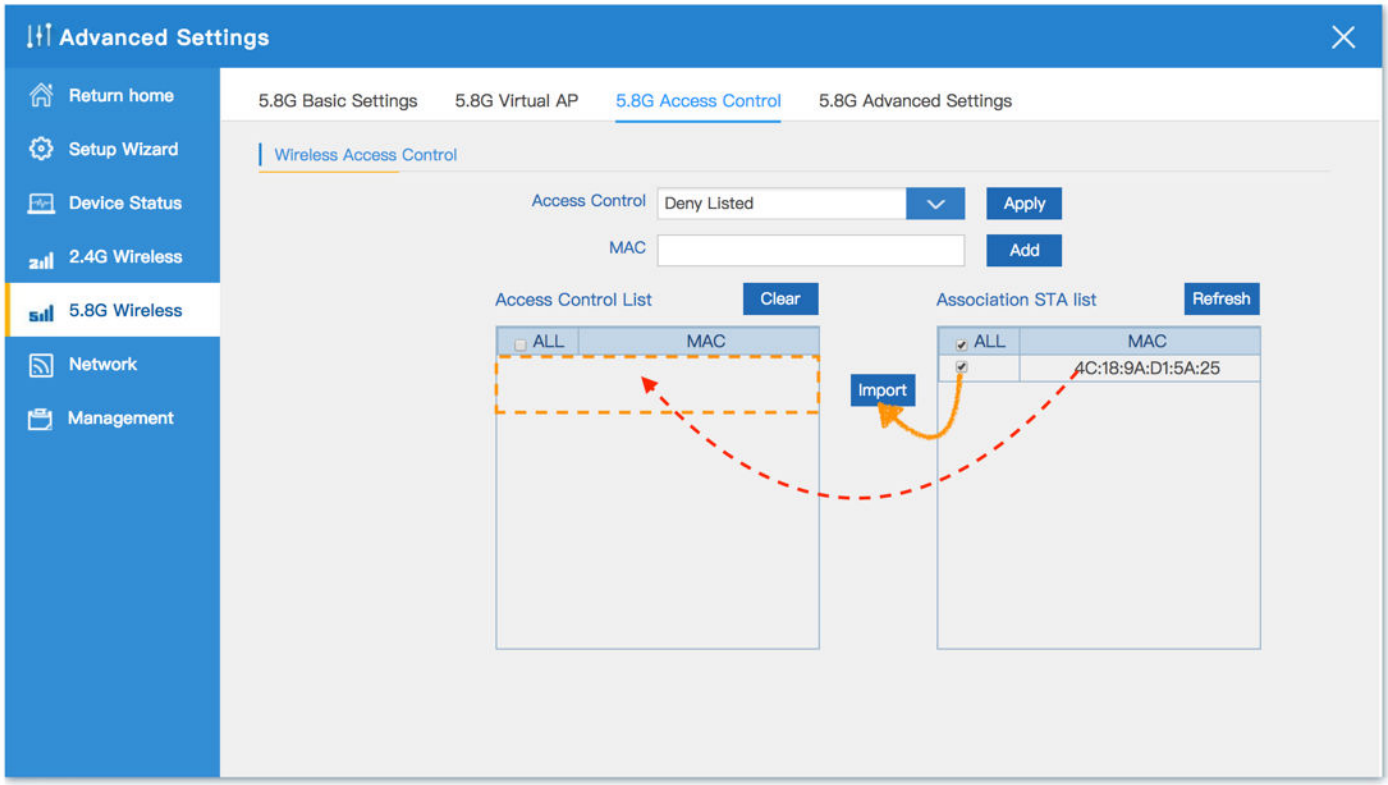
3. Only users who have joined the MAC address list can access the wireless AP. The following is a demonstration of teaching . Add the user MAC address in the list to the access control list



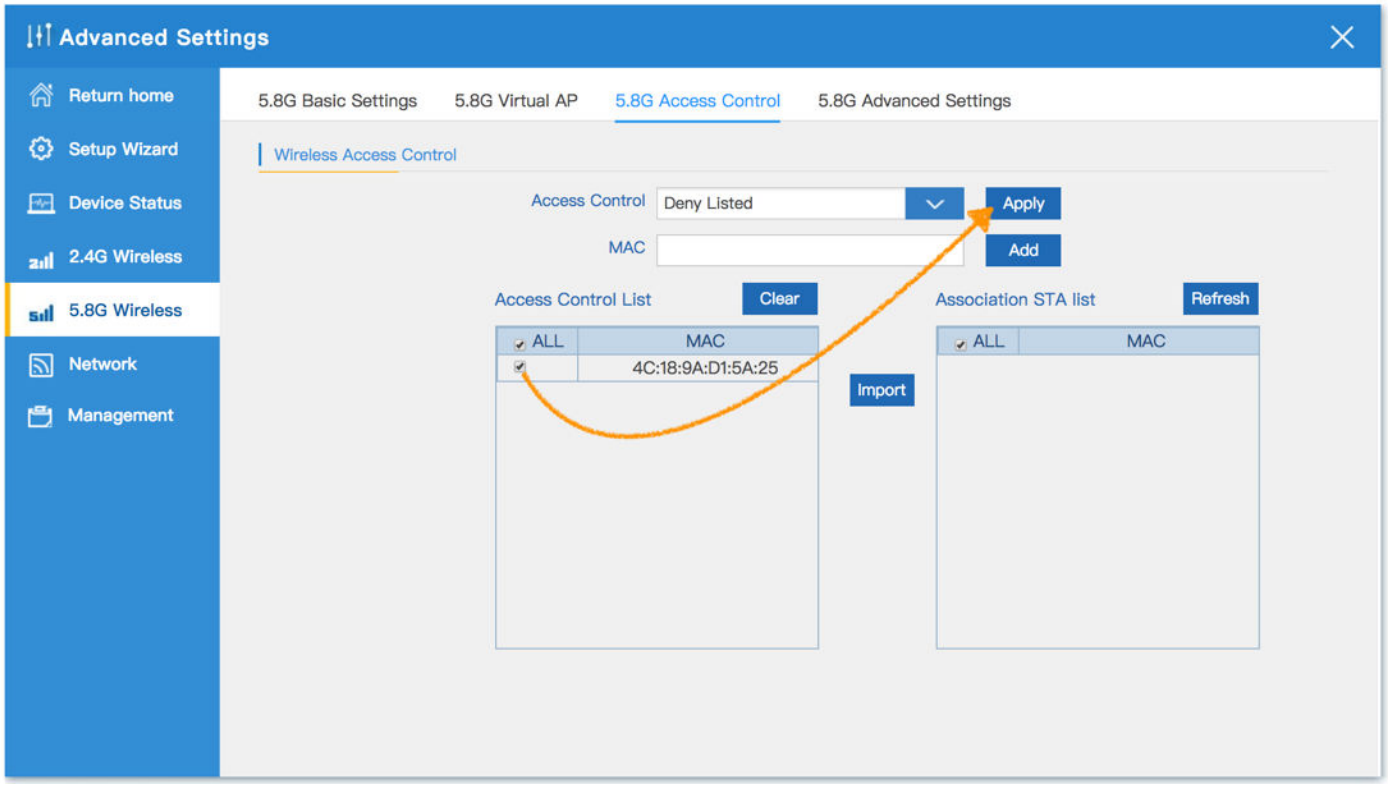
4. After the user's MAC address is added to the access control list, Click Apply. After setting is completed, it will start to allow users access to this wireless AP function



5. Users who have joined the MAC address list are denied access to the wireless AP. The following is a demonstration of teaching . Add the user MAC address in the list to the access control list

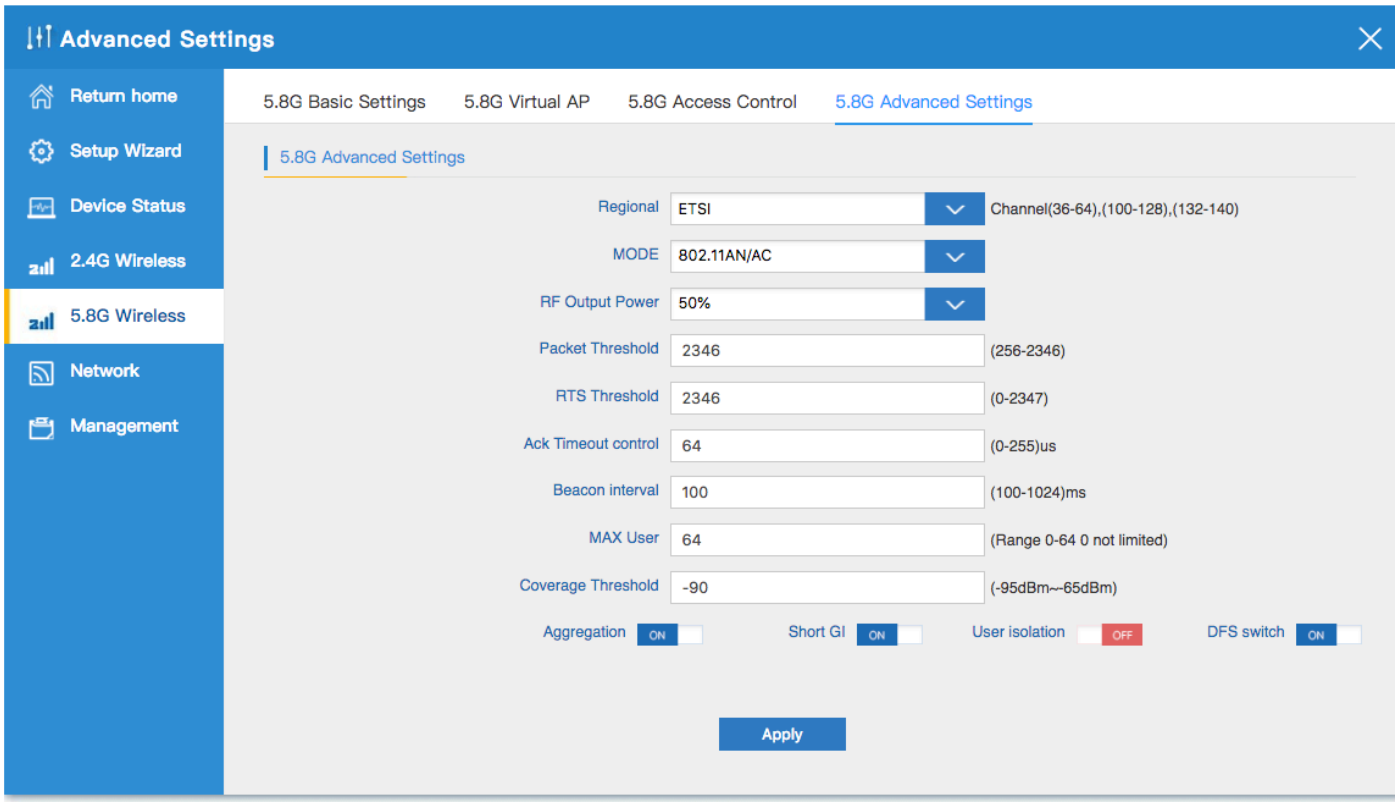


6. After the user's MAC address is added to the access control list, Click Apply. After setting is completed, it will start to deny users access to this wireless AP function



7. In this page, will show the regional, mode, RF Power, Max user access...

Remark : In Regional, the default is Debug, which including the frequency of 5.180GHz to 5.825GHz, but some local laws will prohibit this, so, pls strictly abide by local laws and by cautious in using them.

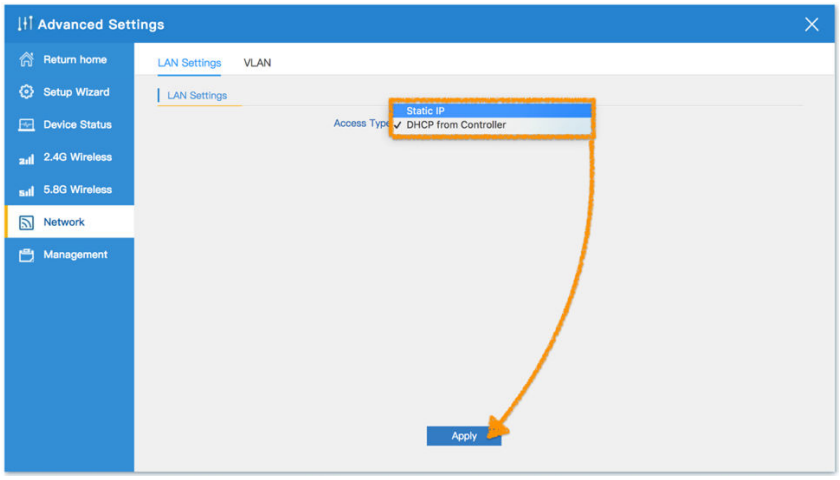


CHAPTER 5 Enable the status of Repeater Mode or AP Mode

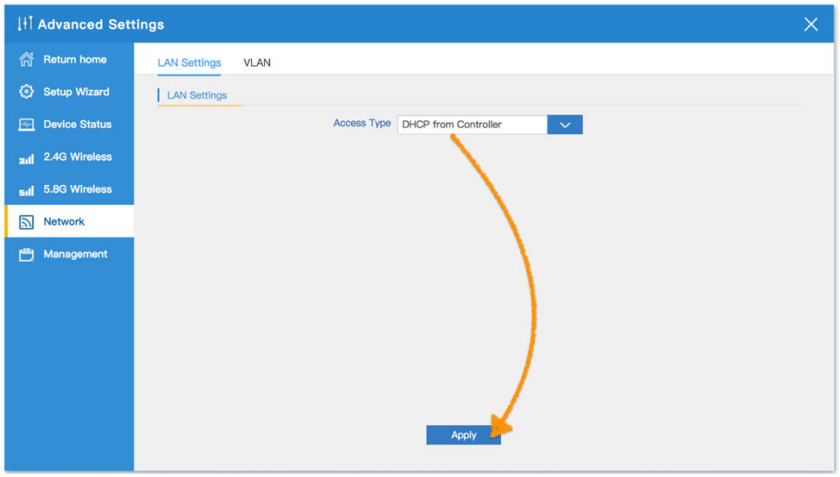
5.1 Network

5.1.1 LAN Settings:

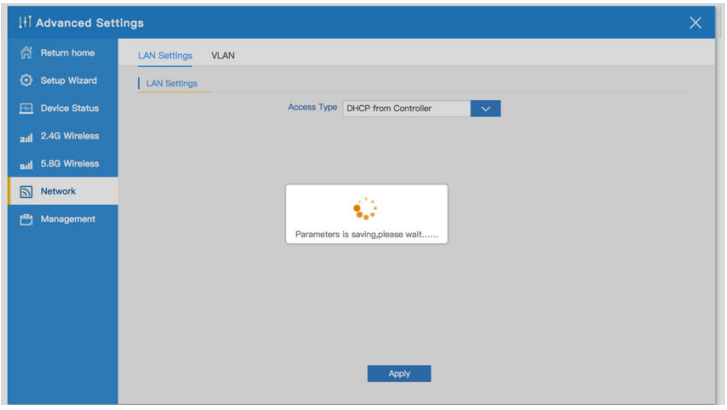
1. Can choose two kinds of usage modes (Static IP, DHCP for Controller) which can be selected according to the current network architecture environment.



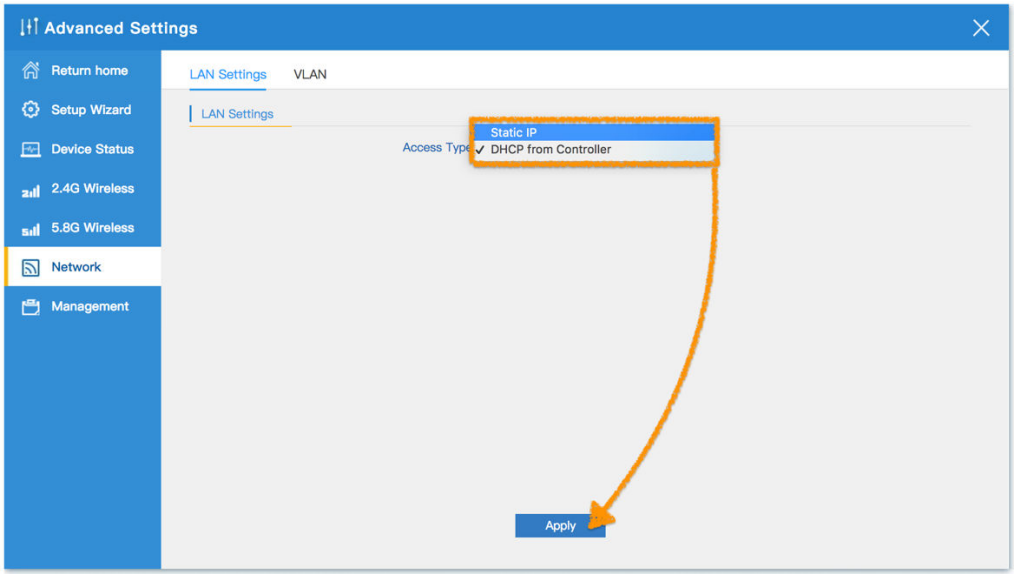
2. Use DHCP for Controller mode, please confirm that the current network architecture has IP address allocation.



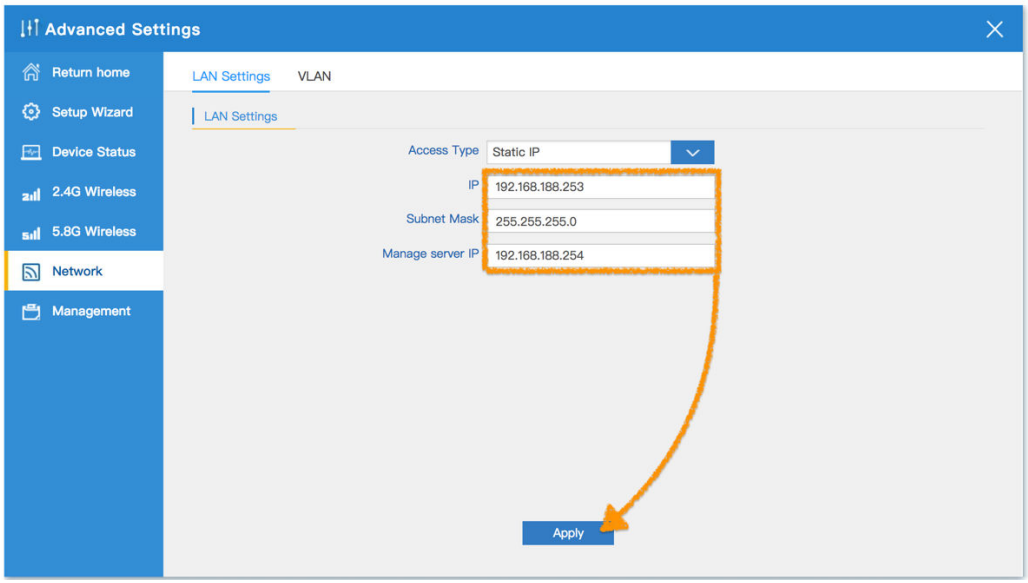
3. Click Apply, Wait for DHCP Controller Mode is Enable, please wait about 20~30 seconds.



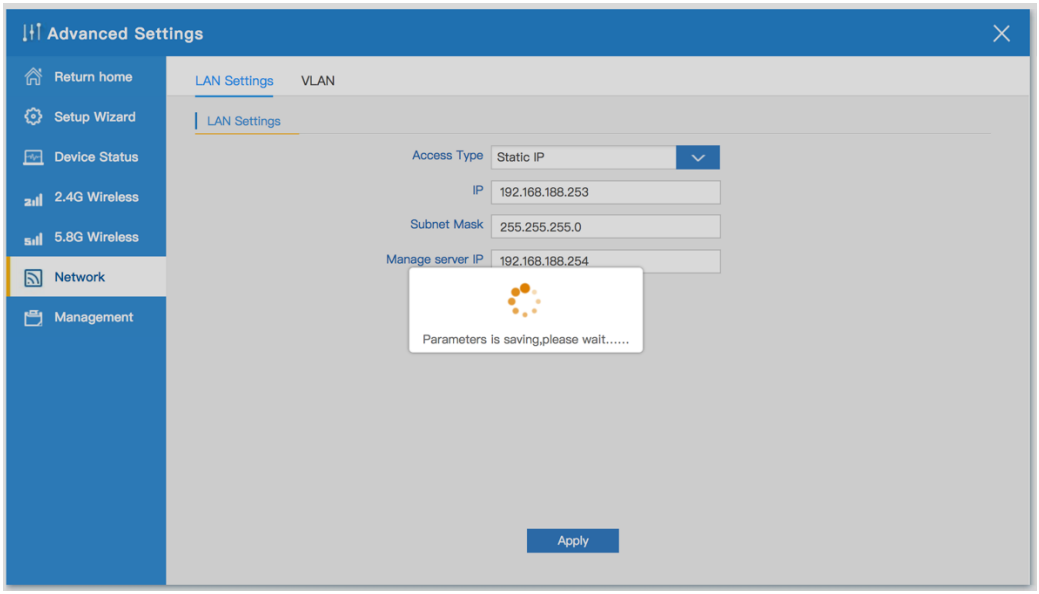
4. The following example for Static IP Mode



5. Sample Static IP mode setting method, then click Apply to continue.
(Please contact with ISP for correct IP address, Subnet MasDNS address)

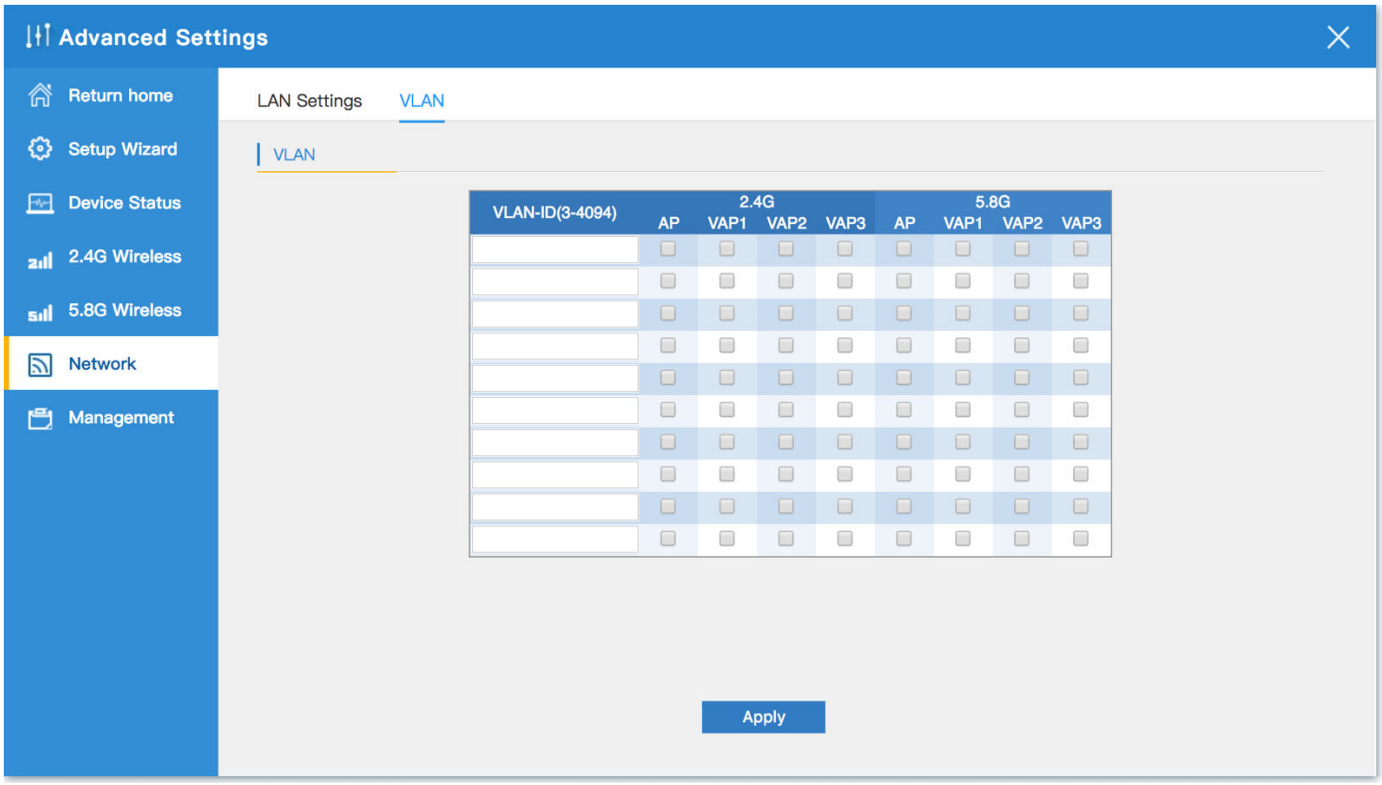


6. Click Apply, Wait for Static IP Mode is Enable, please wait about 40~50 seconds.



5.1.2 VLAN :

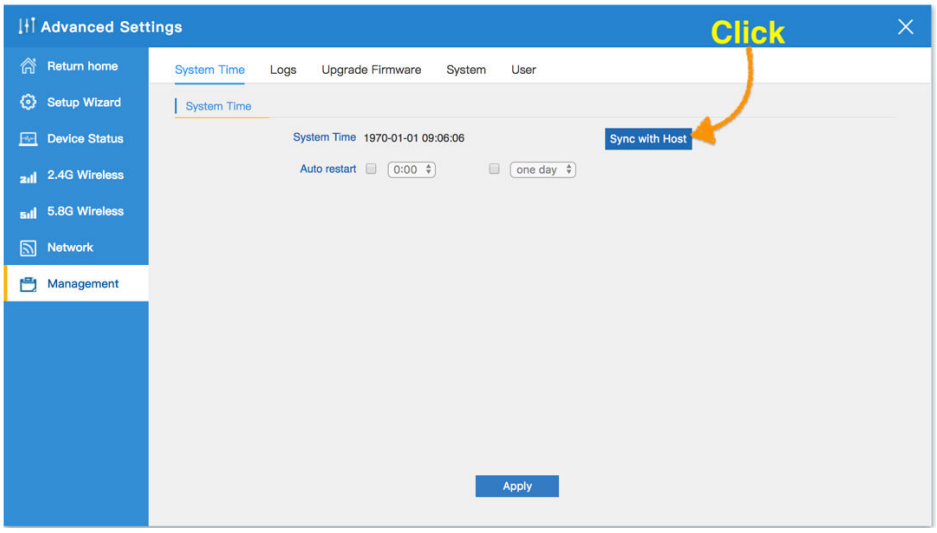
- Please confirm before you can use ,Need support IEEE 802.1Q and VLAN Tagging Managed Switch, Specify WiFi SSID for WAP-8123 , corresponding to the VLAN-ID (3-4094).



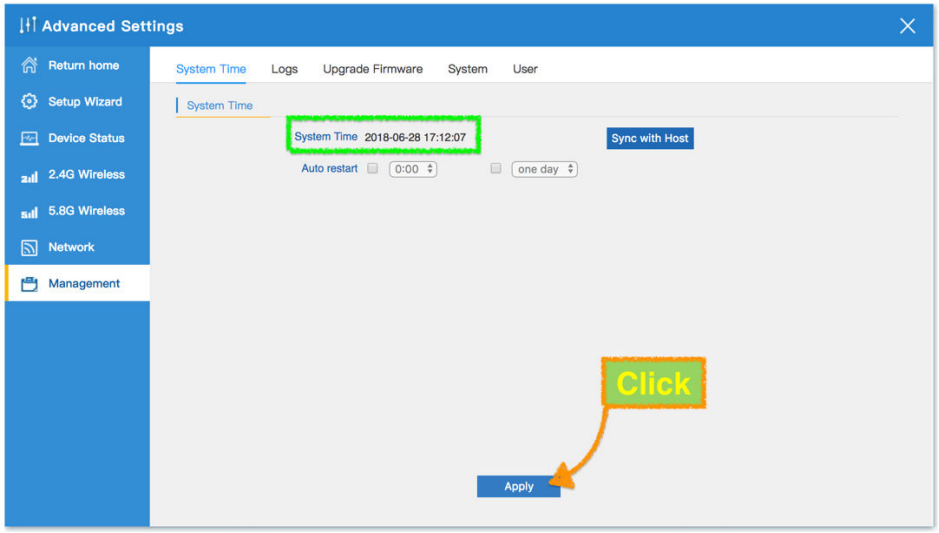
5.2 Management

5.2.1 System Time :

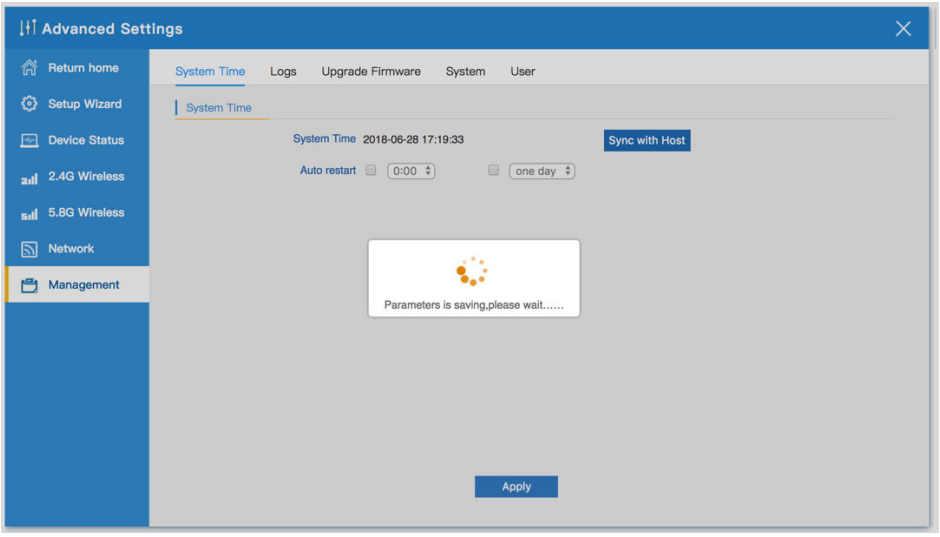
1. Click on Sync with Host to automatically update to the current Time.



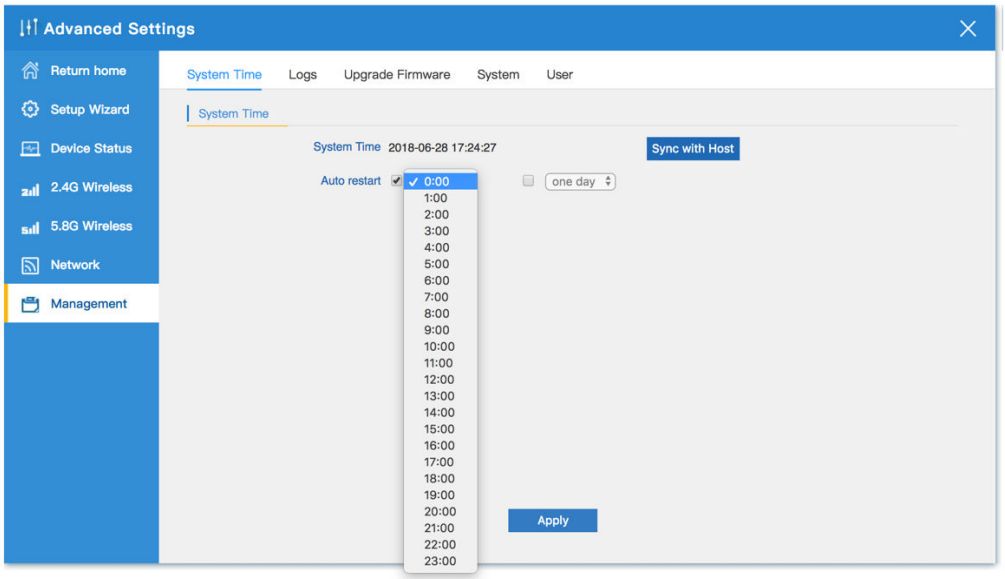
2. Confirm that System Time is correctly refreshed to the current time, Click Apply



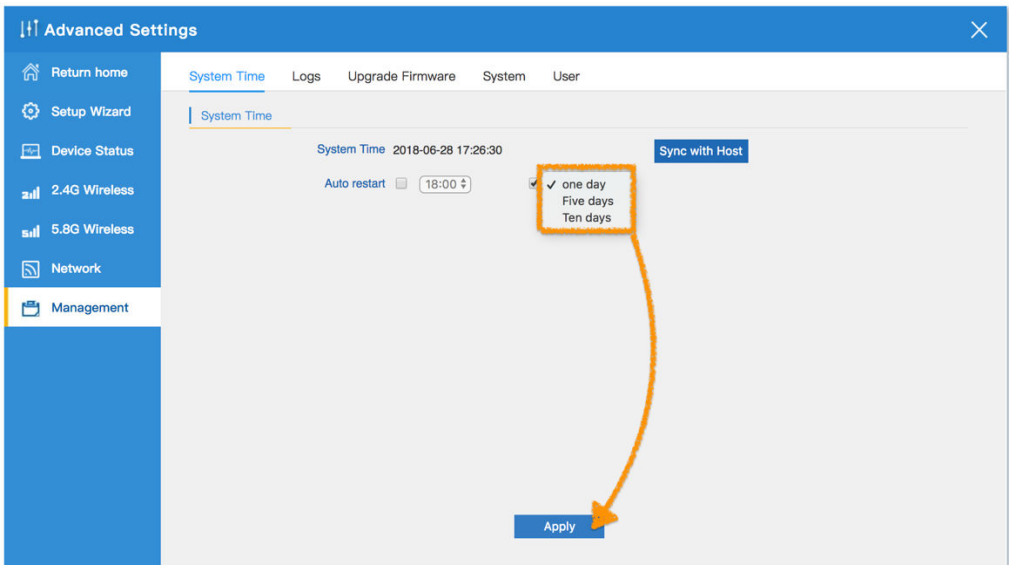
3. Enable System for update to the current Time, please wait about 30~50 seconds.



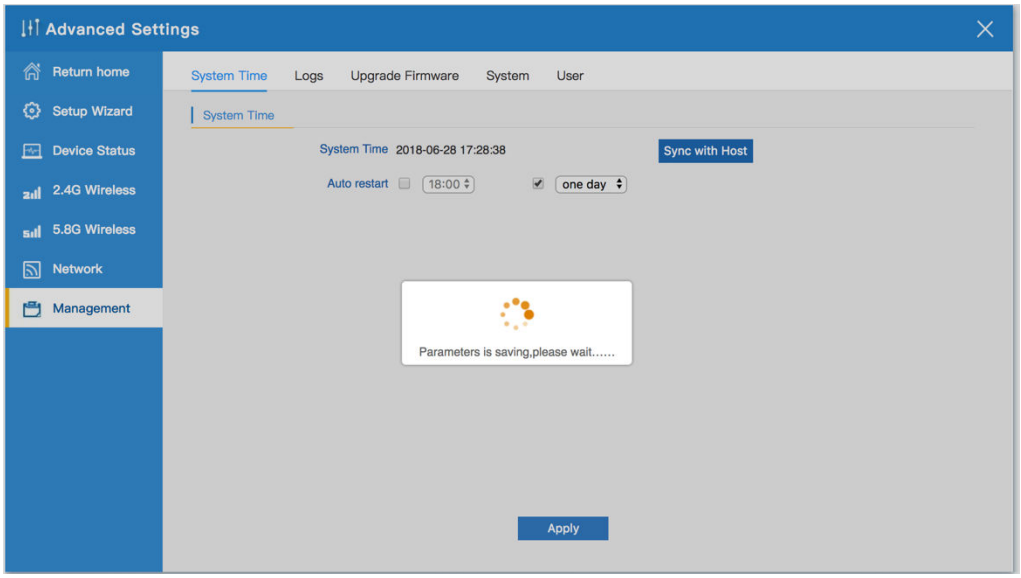
4. Define the system reboot time(0:00~23:00)



5.Can choose every day or every five days or every 10 days , System Reboot Automatically.

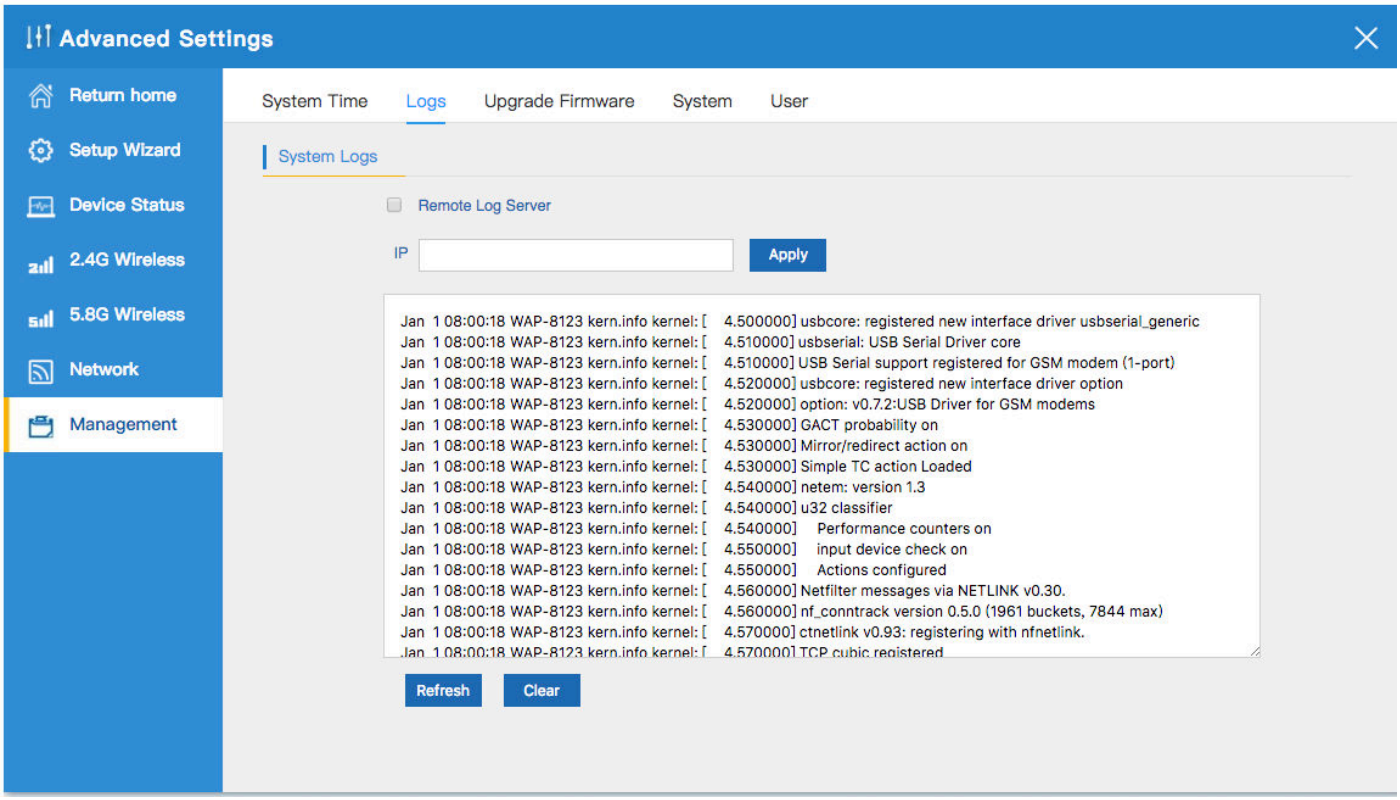


6. Enable Define the system reboot time, please wait about 30~50 seconds.



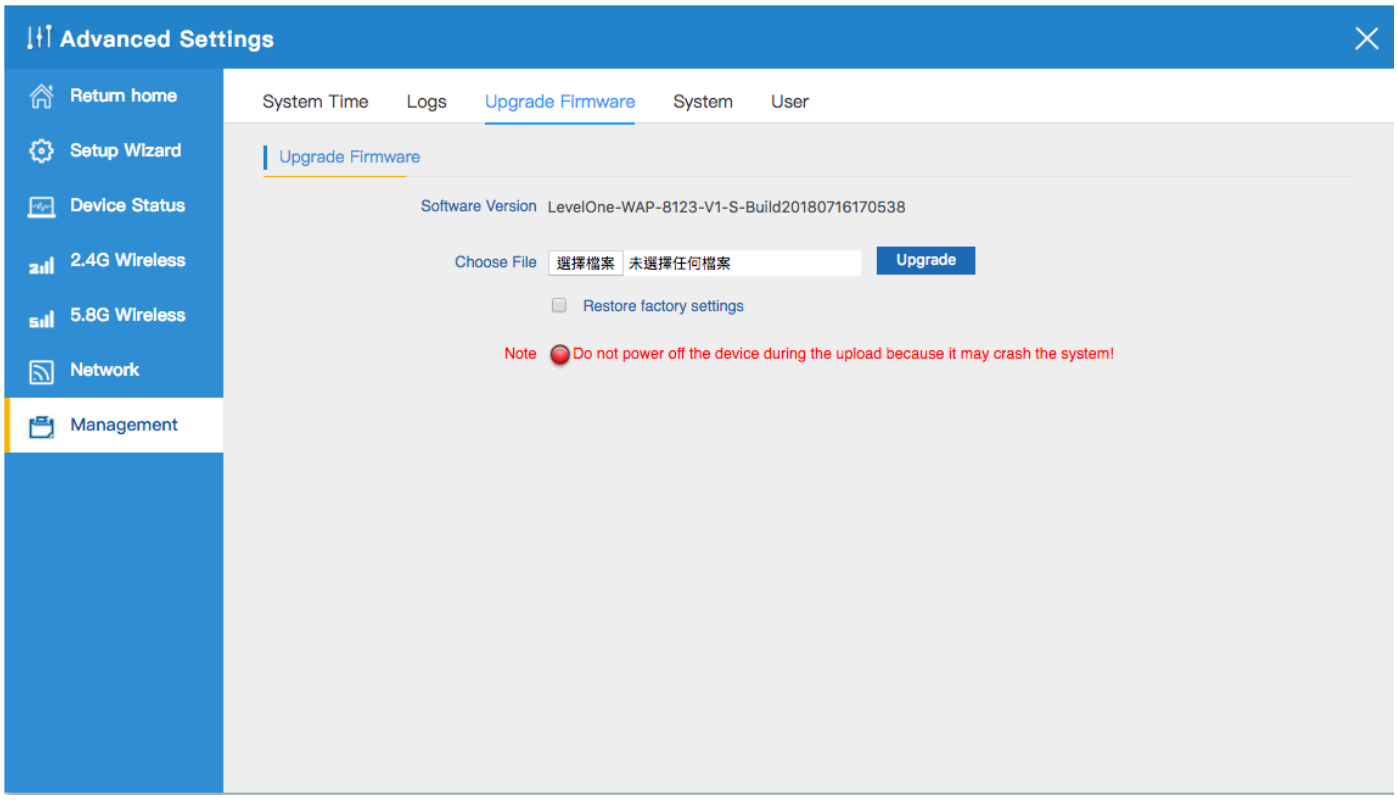
5.2.2 Logs :

- In Logs part, you can copy the running history of the device to consult the engineers when you have any trouble



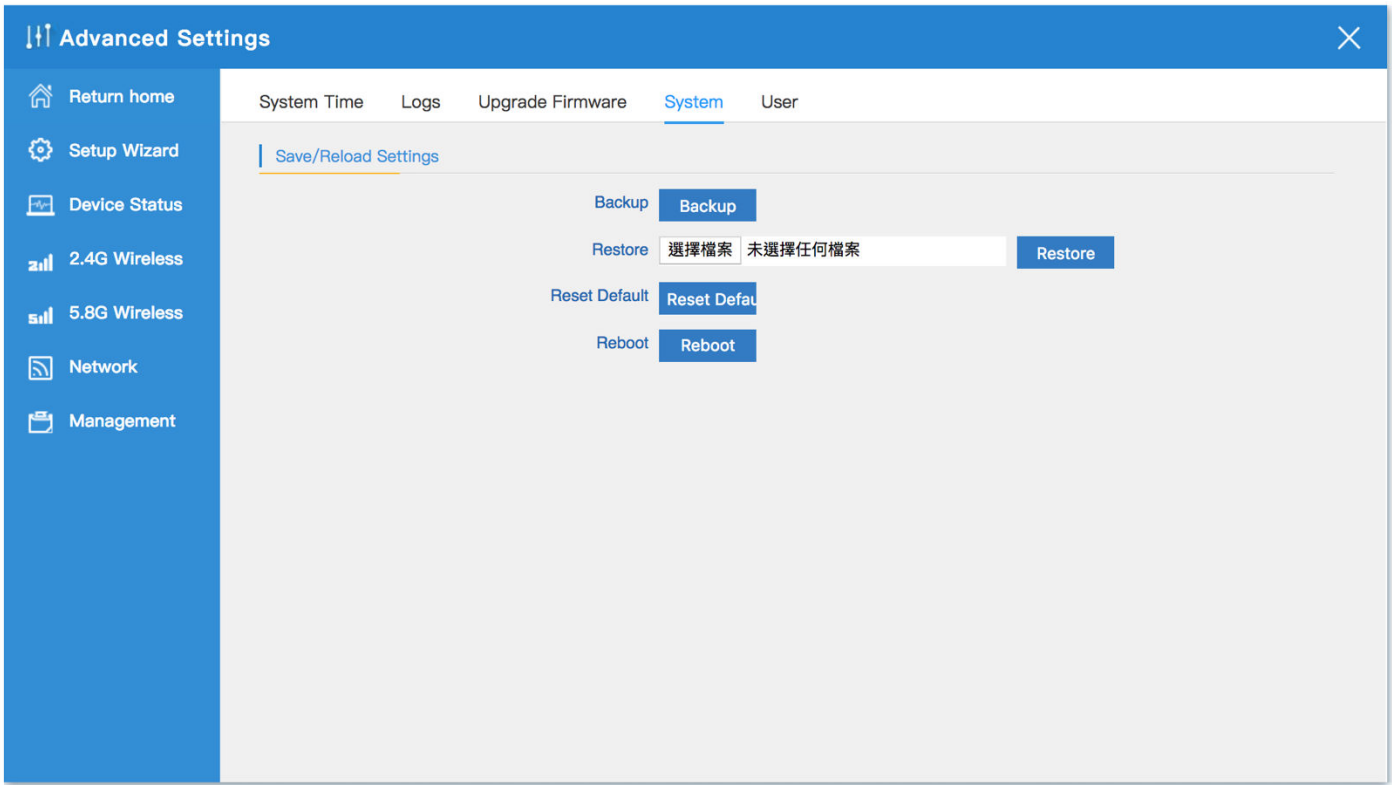
5.2.3 Upgrade Firmware :

- Allows you to browse the new firmware in your computer and upgrade. Please do not power off the device during upgrade. (**Note :** The update firmware is recommended to use the connection RJ45 Network Cable update . Not recommended to use the wireless connection method to update the firmware.)



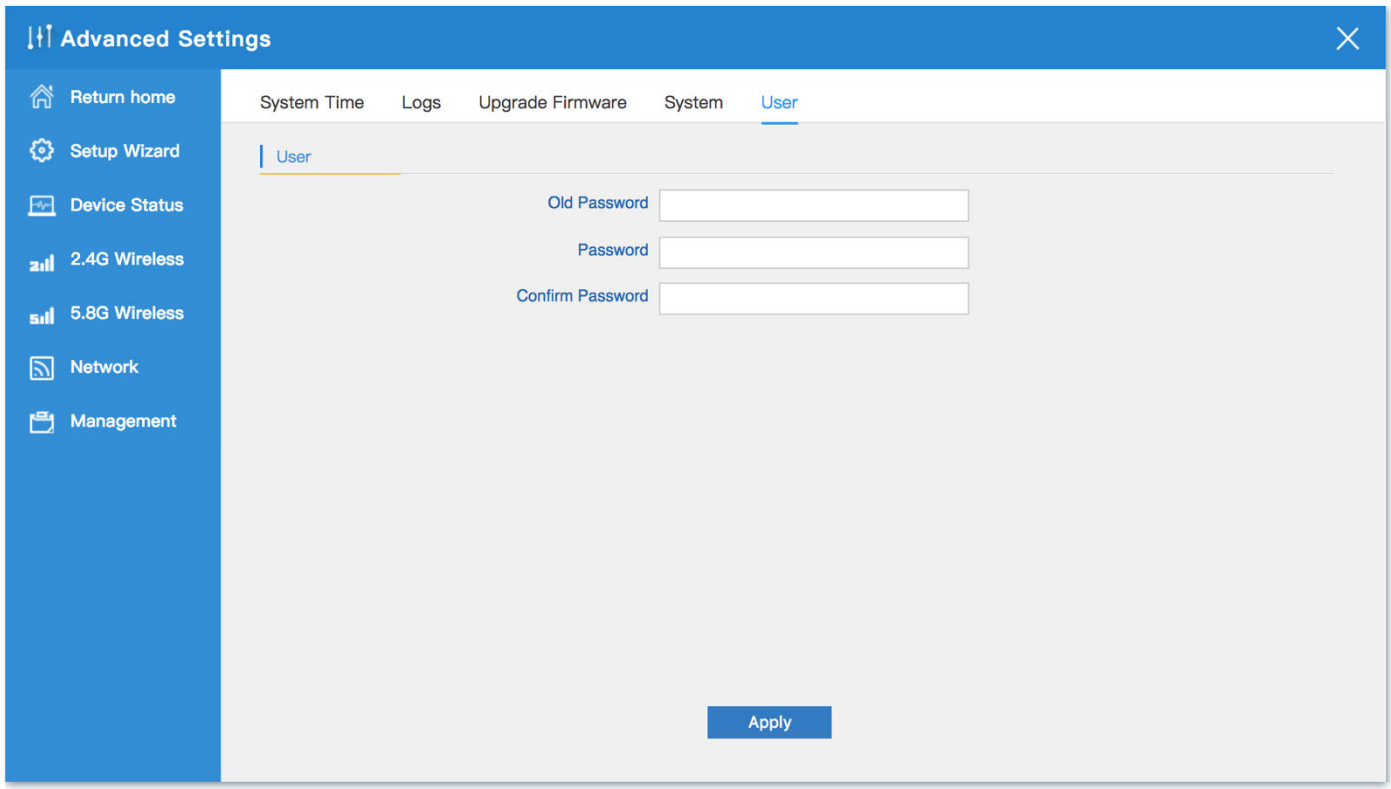
5.2.4 System :

- You are able to backup the current configuration to your PC and restore by applying the configuration file from your PC. And you can Reset and Reboot the device with just one click

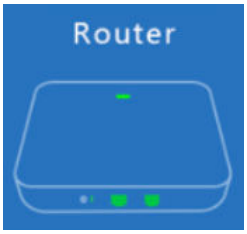


5.2.5 User :

- Management and change the password for Log in



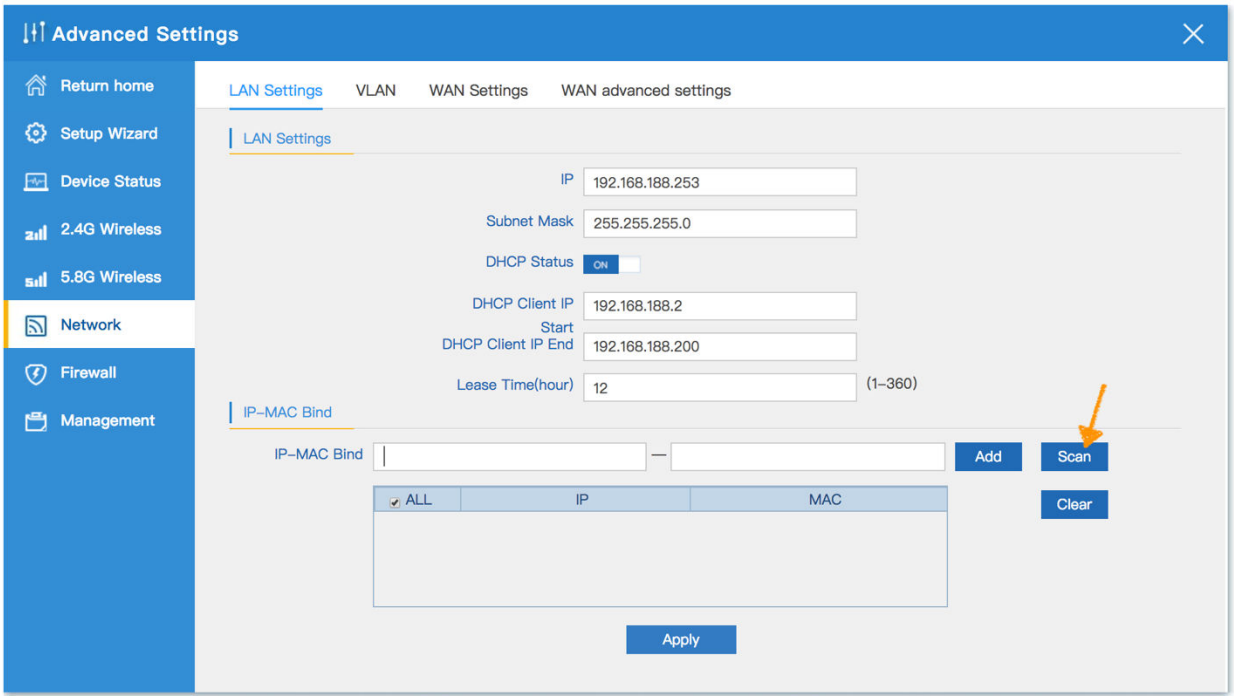
CHAPTER 6 Enable the status of Gateway Mode or WISP Mode



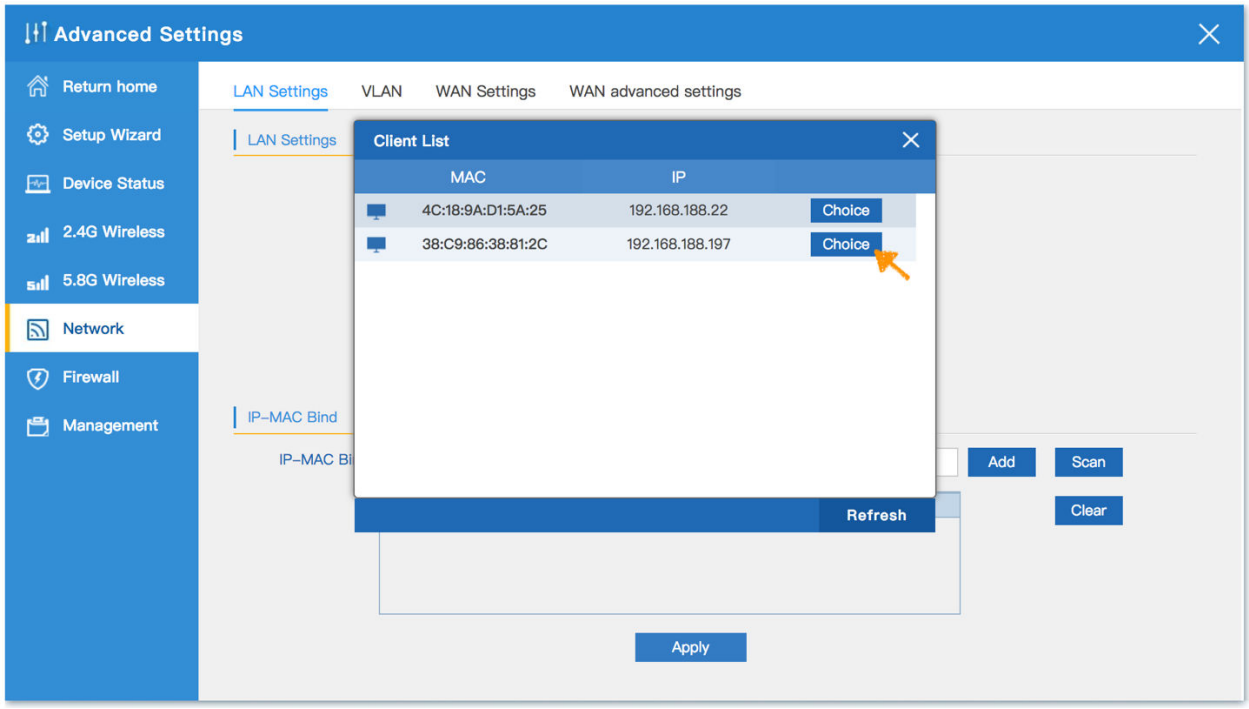
6.1 Network

6.1.1 LAN Settings :

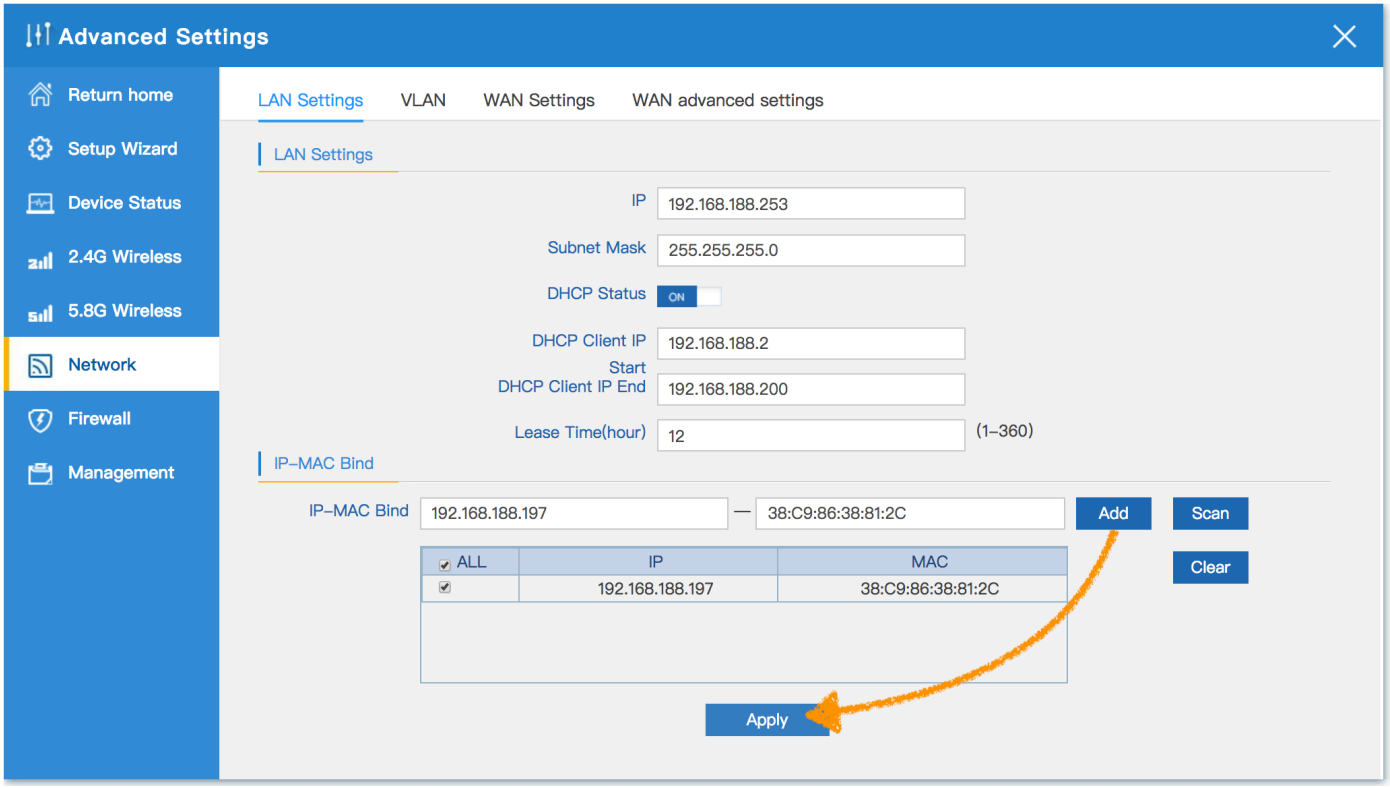
1. Set the specified device retention IP for easy management. The following is a demonstration of teaching .



2.Click Choice

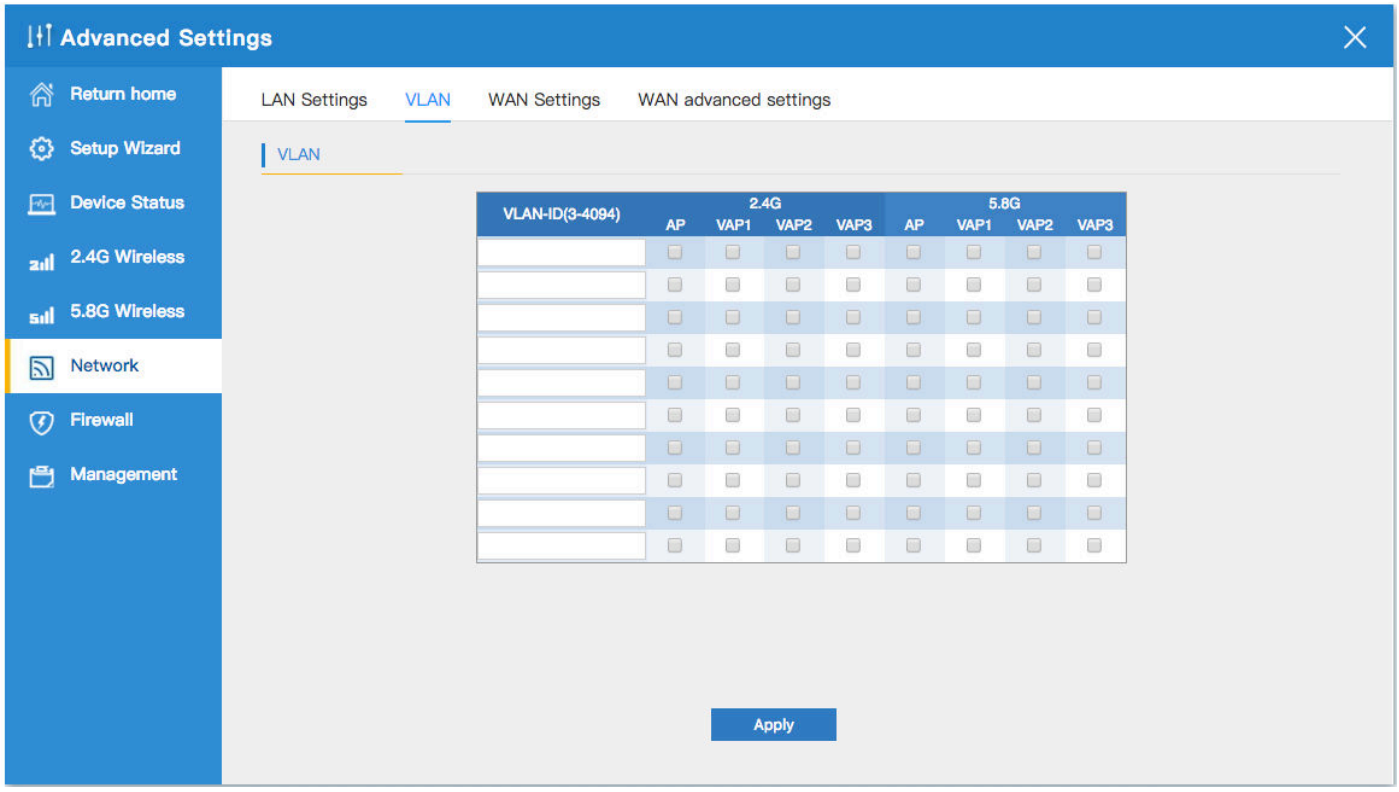


3.Add the user MAC address in the list to the access control list . Completed the reserved IP settings



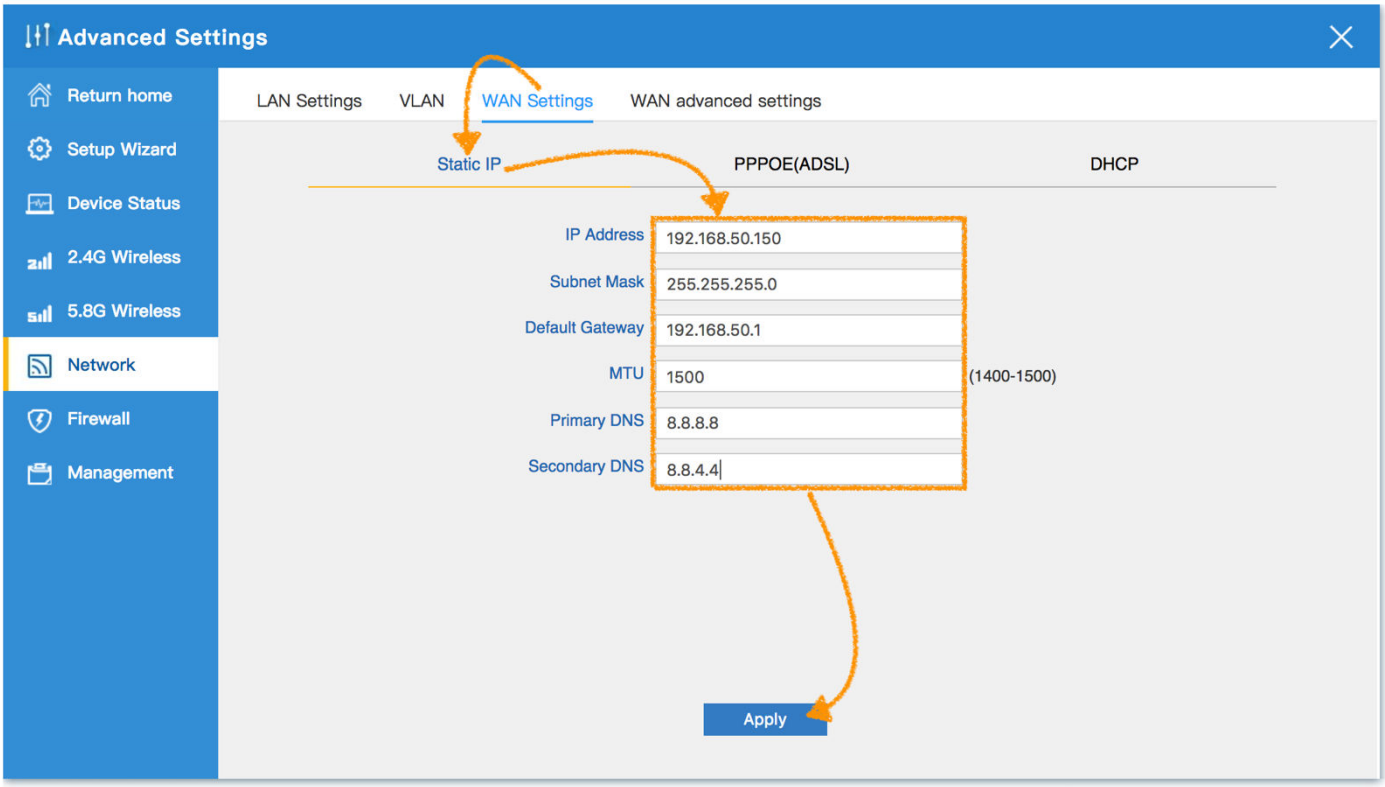
6.1.2 VLAN :

- Please confirm before you can use ,Need support IEEE 802.1Q and VLAN Tagging Managed Switch, Specify WiFi SSID or WAN/LAN Port for WAP-8123 , corresponding to the VLAN-ID (3-4094).

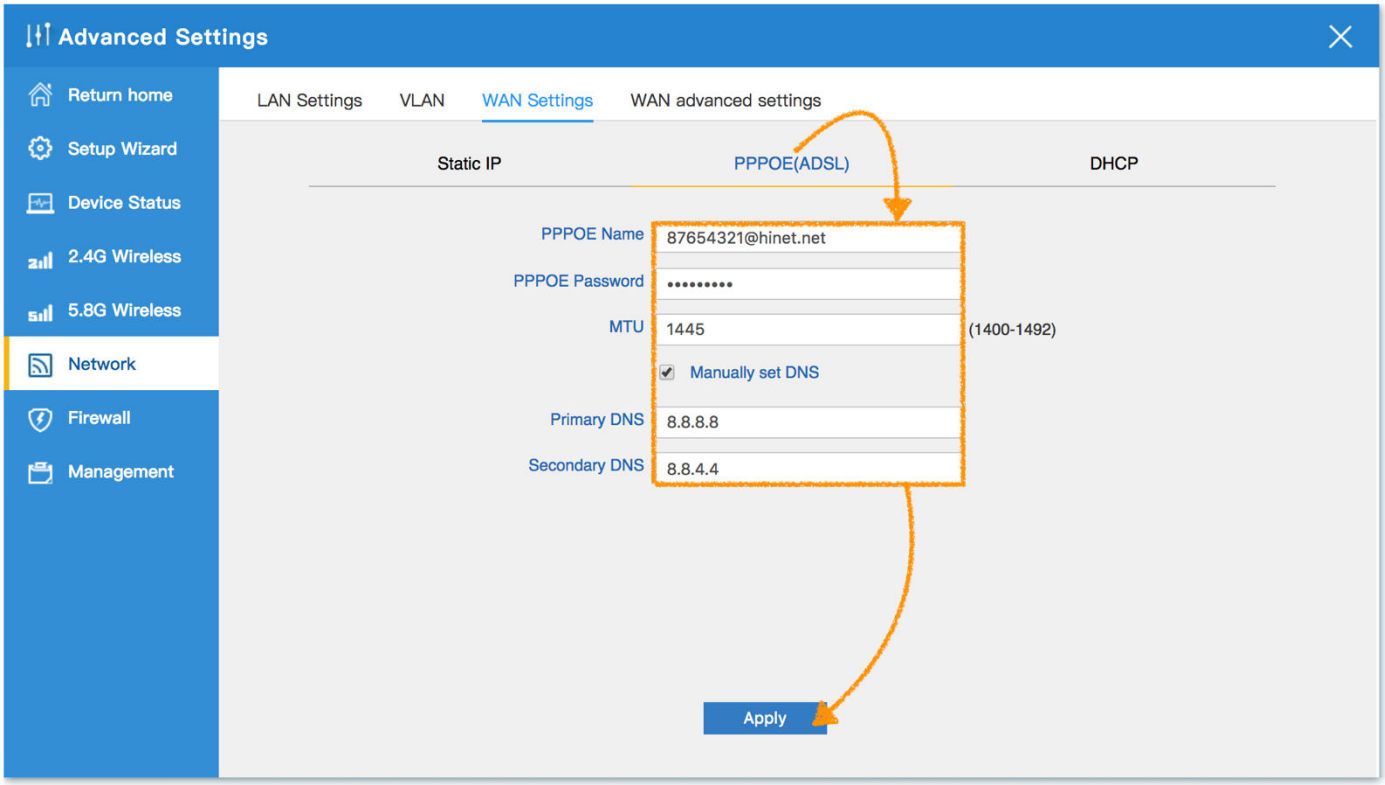


6.1.3 WAN Settings :

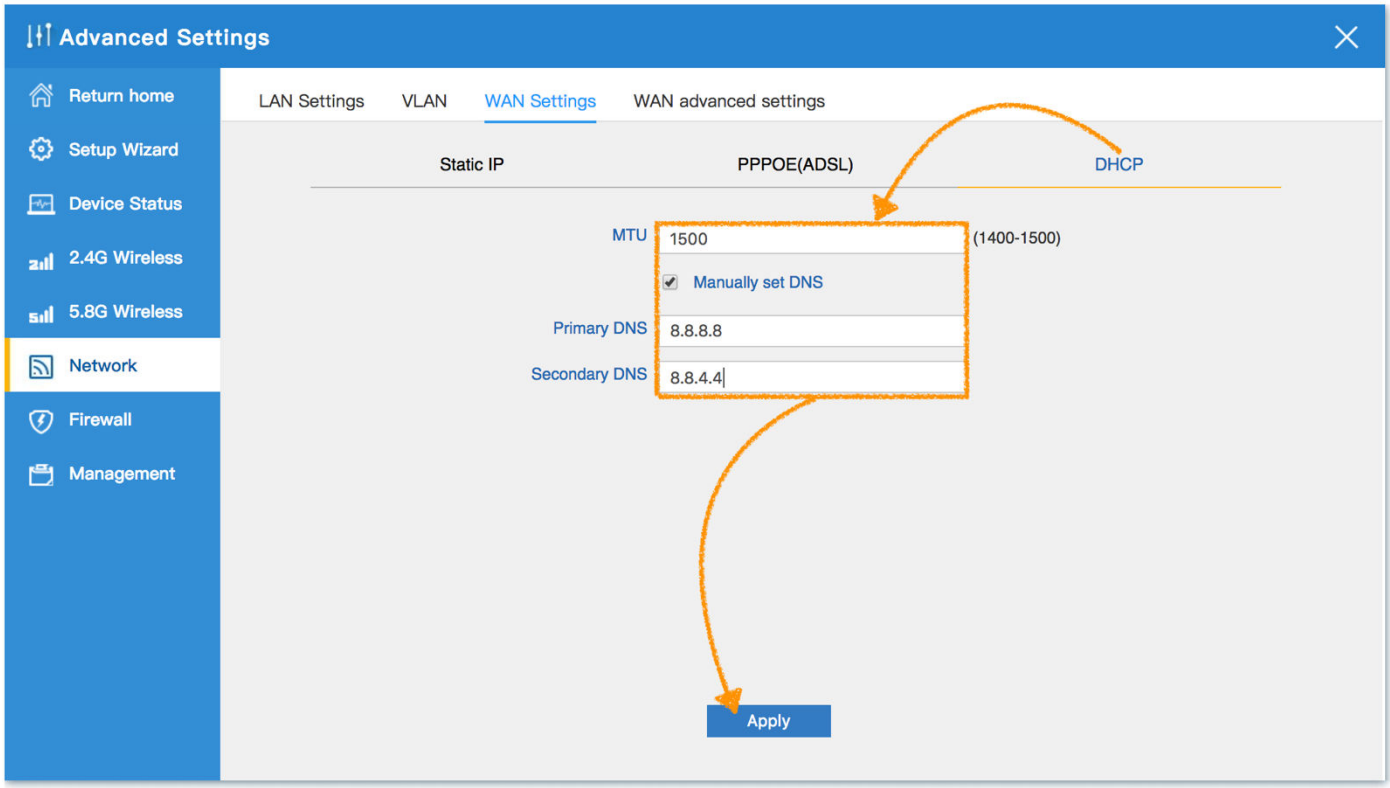
1. Please check with the ISP first how to access the Internet , The following is a demonstration of Static IP teaching .



2.The following is a demonstration of PPPoE teaching .

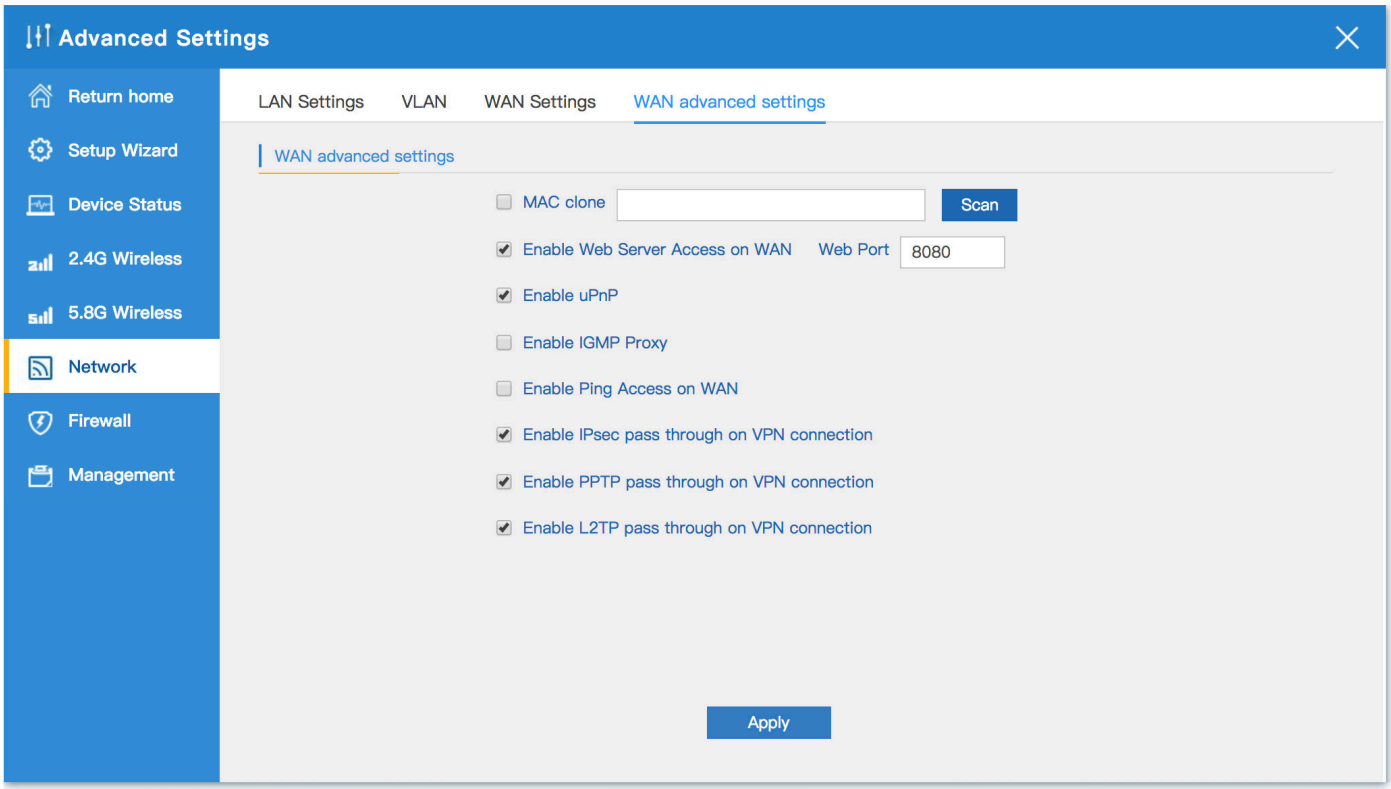


3.The following is a demonstration of DHCP teaching .



6.1.4 WAN advanced settings:

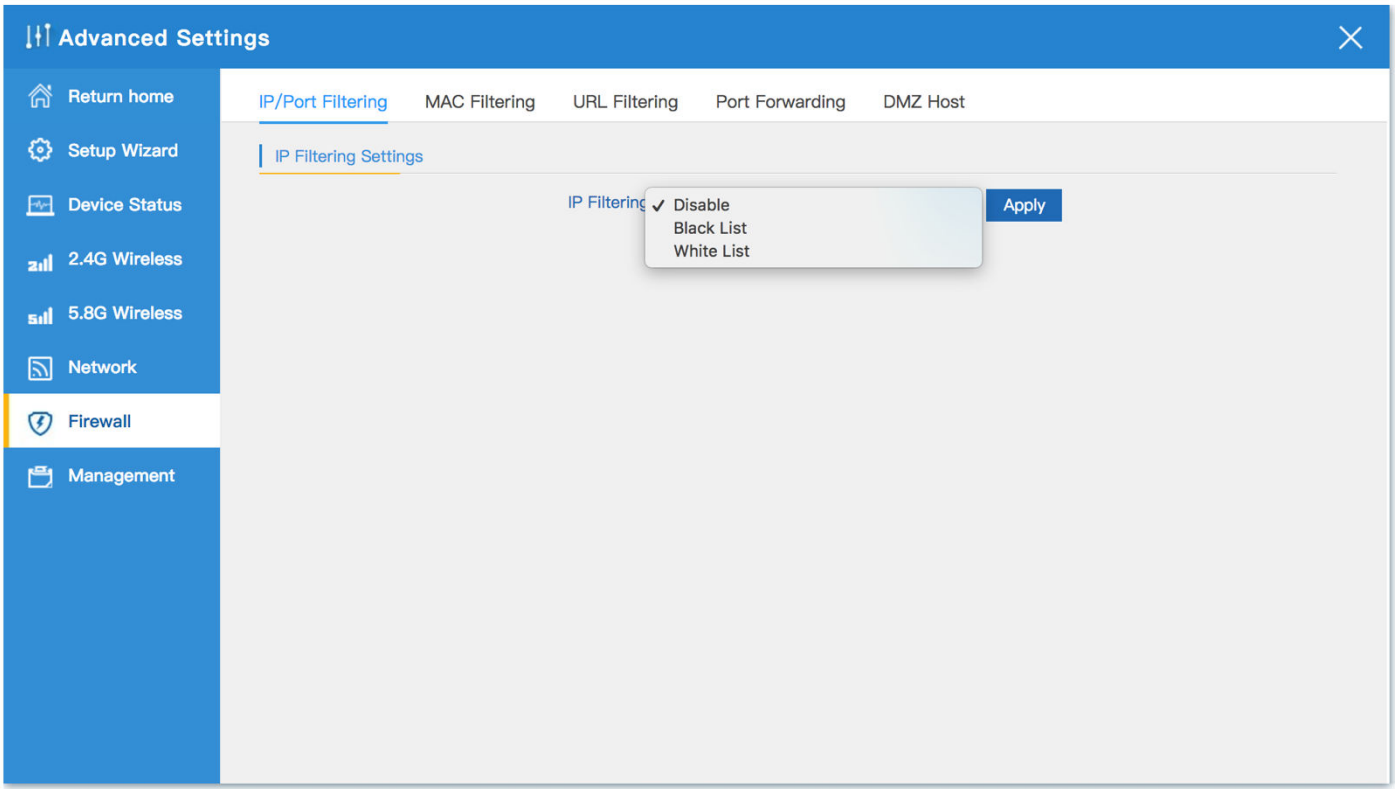
- Internet security does not recommend enable Ping Access on WAN to prevent interested people from knowing the real IP address



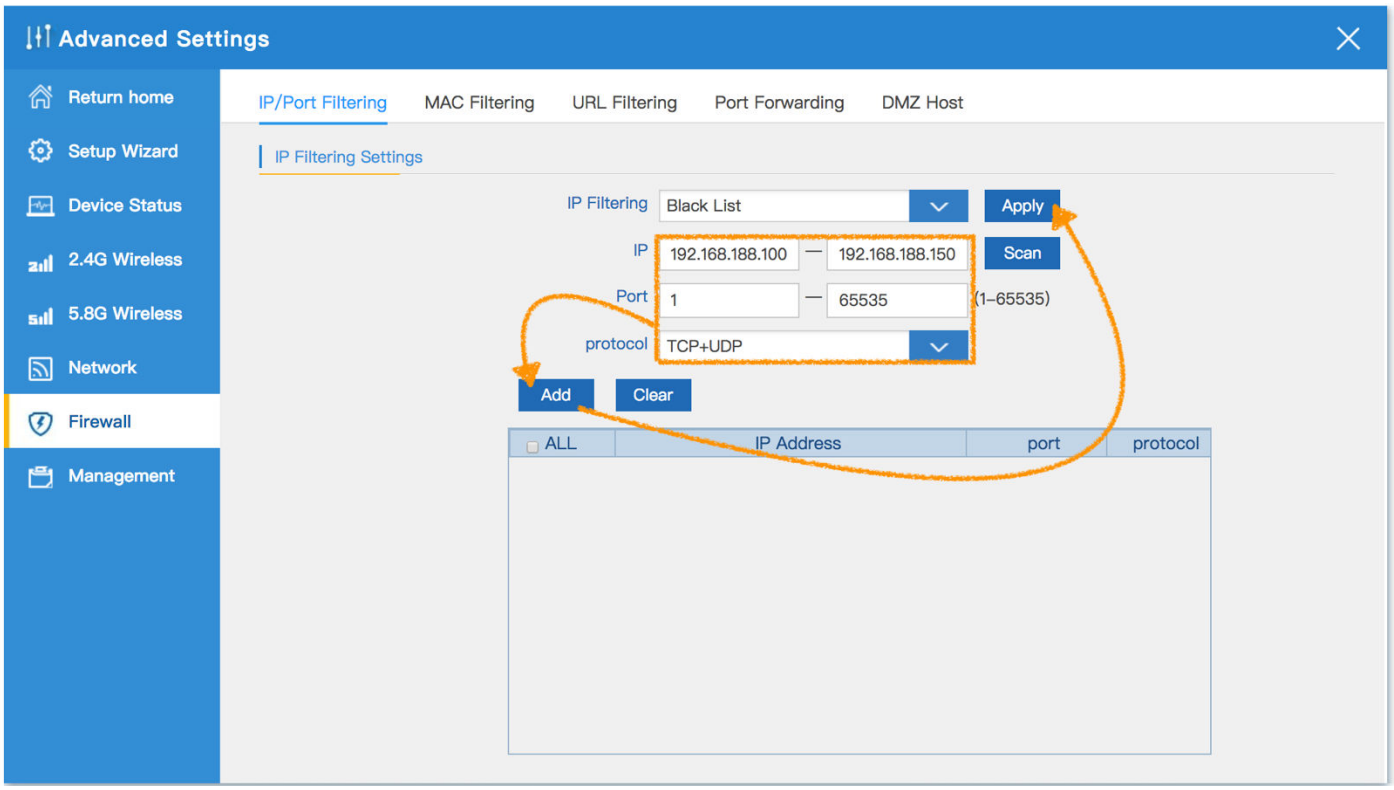
6.2 Firewall

6.2.1 IP/Port Filtering :

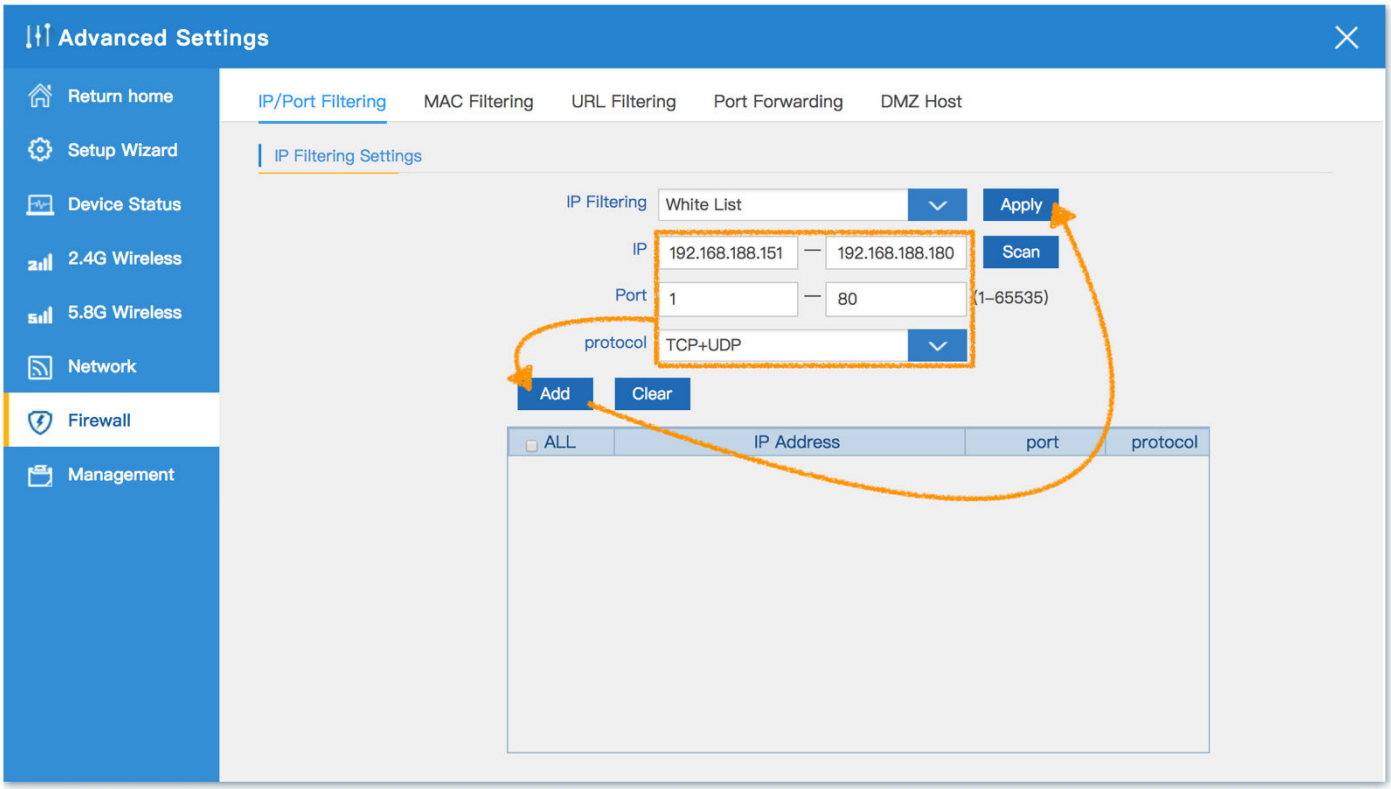
1.Factory default value is Disable, Can be set to whitelist or blacklist. The following will begin to introduce how to set the enable function



2.Black List : IP Address that can be specified as a separate or range , and then specifies the port range (1~65535) and protocol(TCP/UDP) .

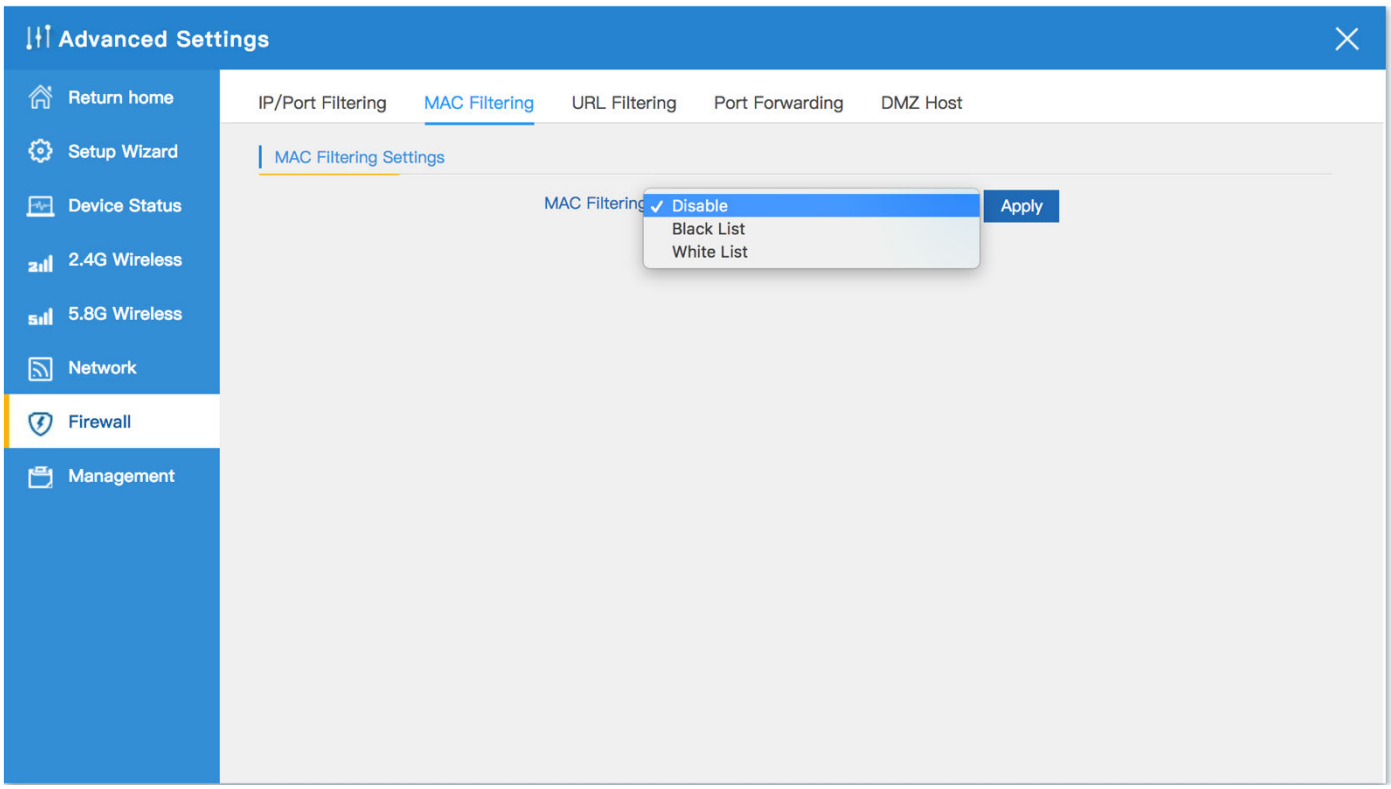


3.White List : IP Address that can be specified as a separate or range , and then specifies the port range (1~65535) and protocol(TCP/UDP) , which is set as the status of the allow.

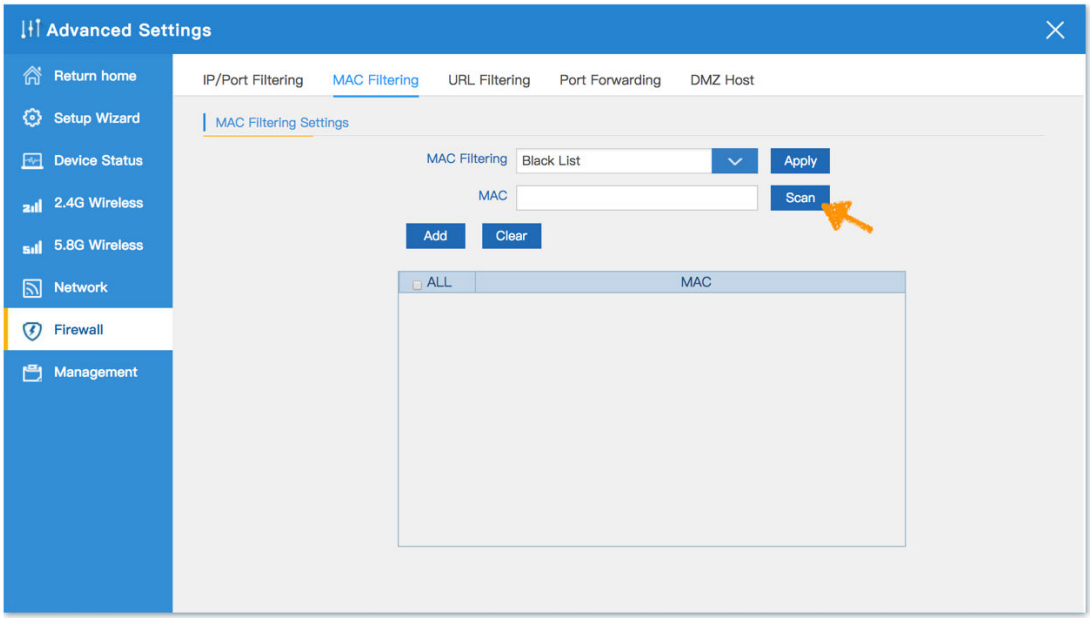


6.2.2 MAC Filtering :

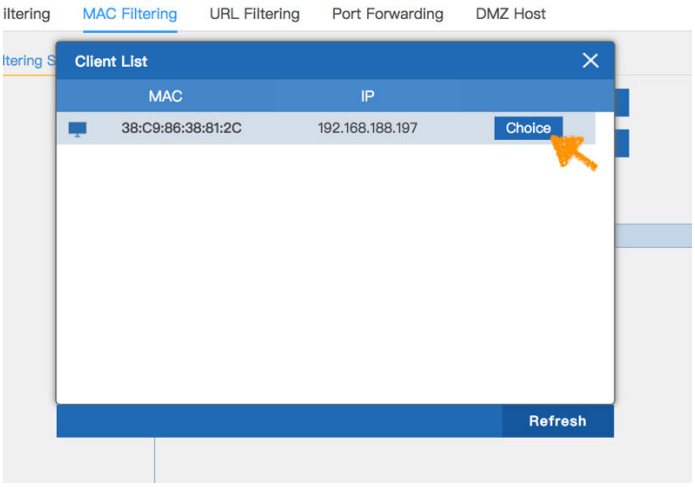
1.Factory default value is disable, Can be set to whitelist or blacklist. The following will begin to introduce how to set the enable function



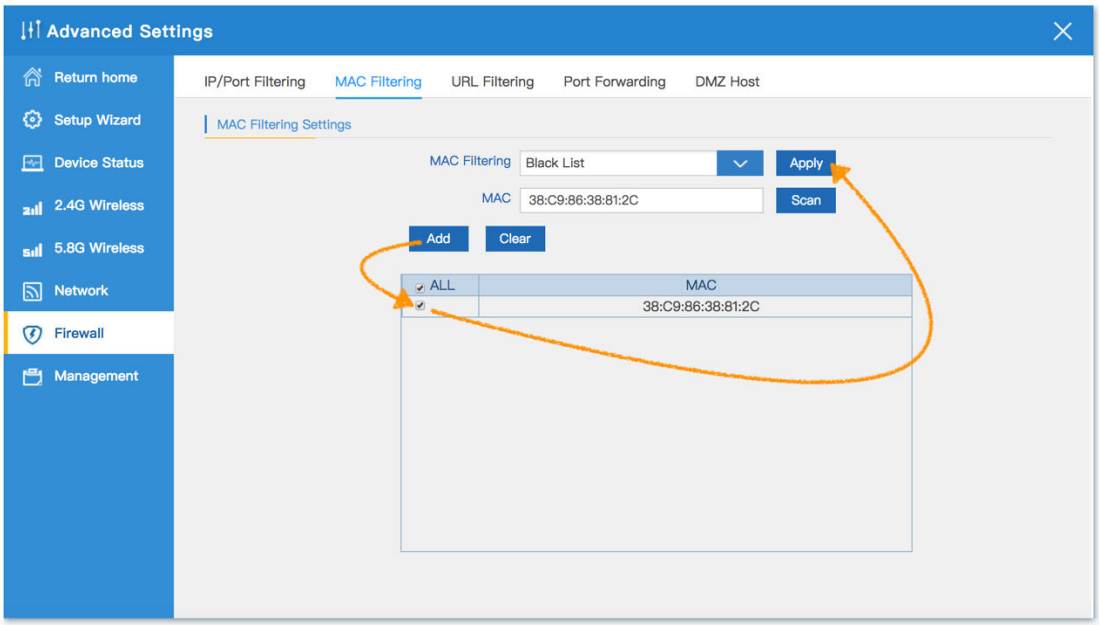
2.Black List : Scan specified mode or manual input mode to set, you can block the specified MAC address to connect to the Internet, leaving only link Regional network function.



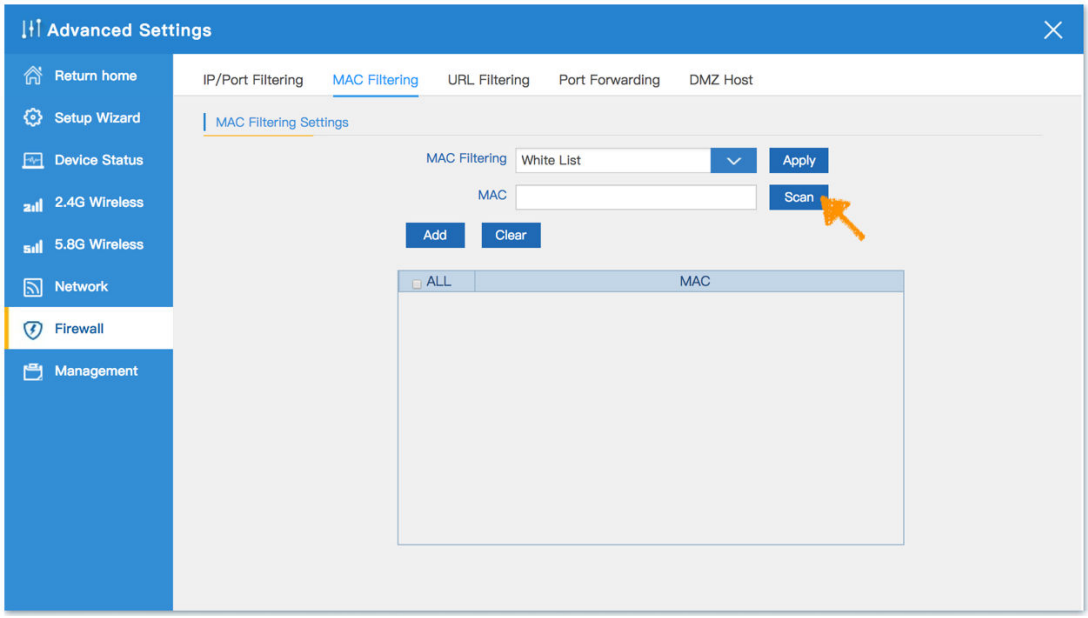
3.Click Choice



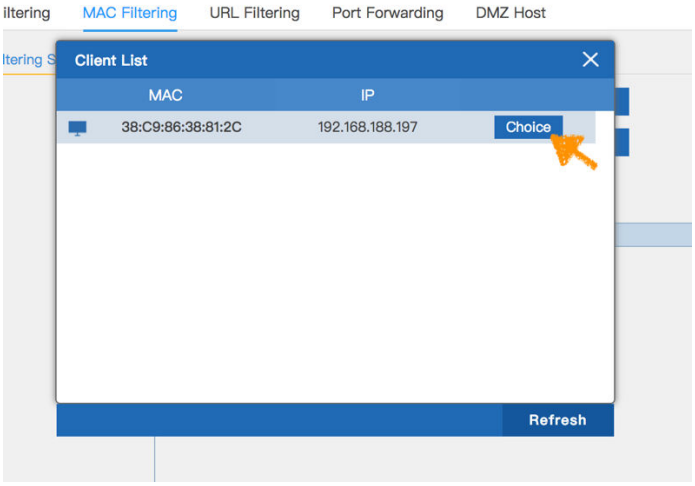
4. Added specified MAC address , Click Apply



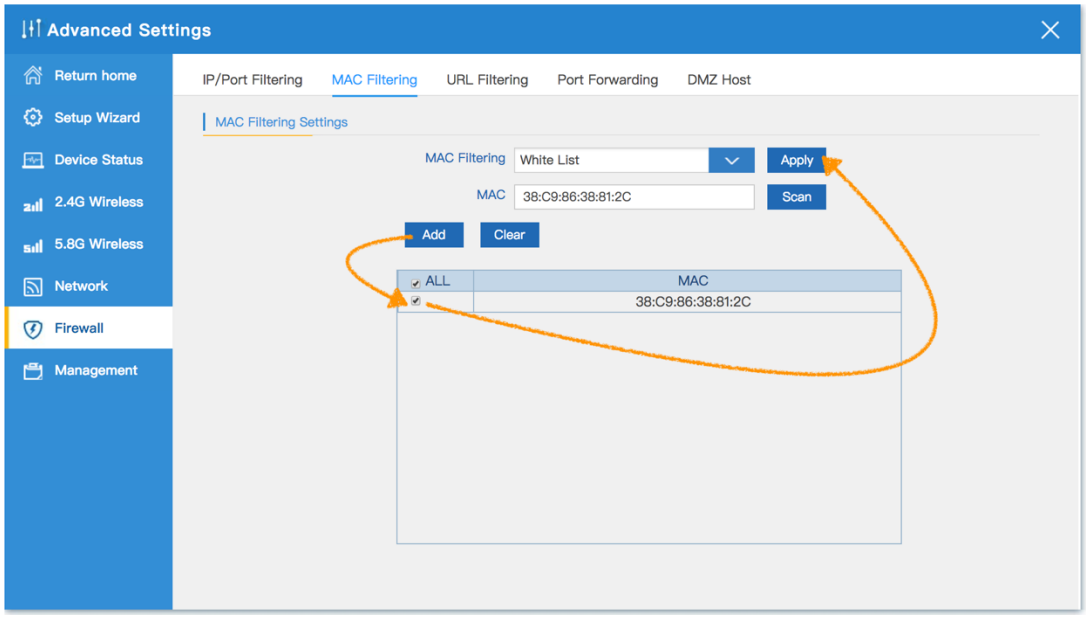
5.White List : Scan specified mode or manual input mode is set to allow the specified MAC address to connect to the Internet



6.Click Choice

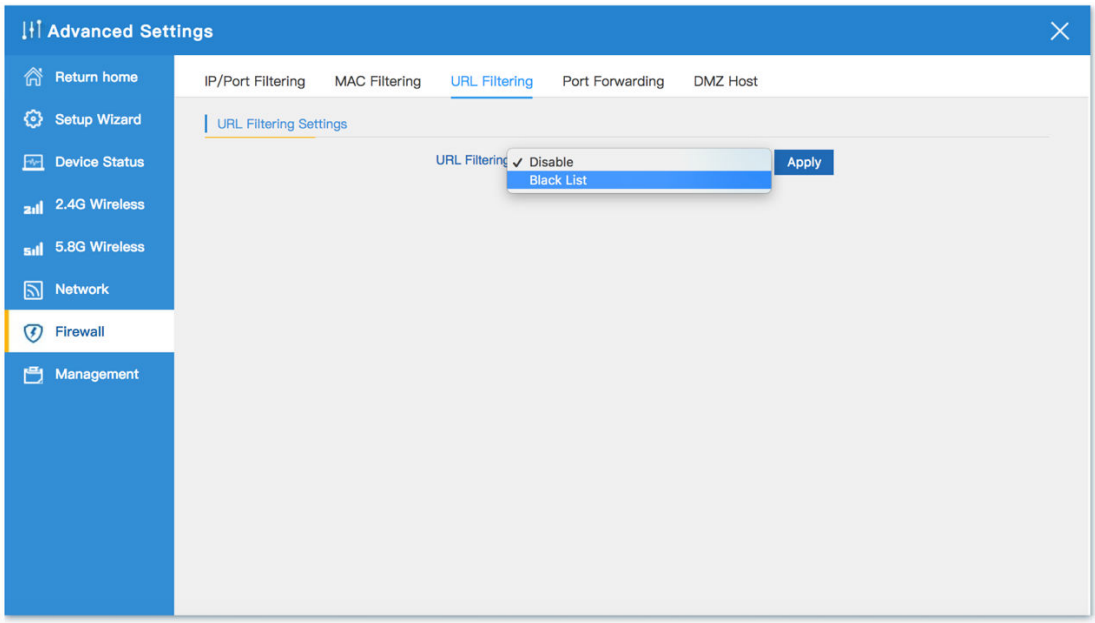


7.Added specified MAC address , Click Apply

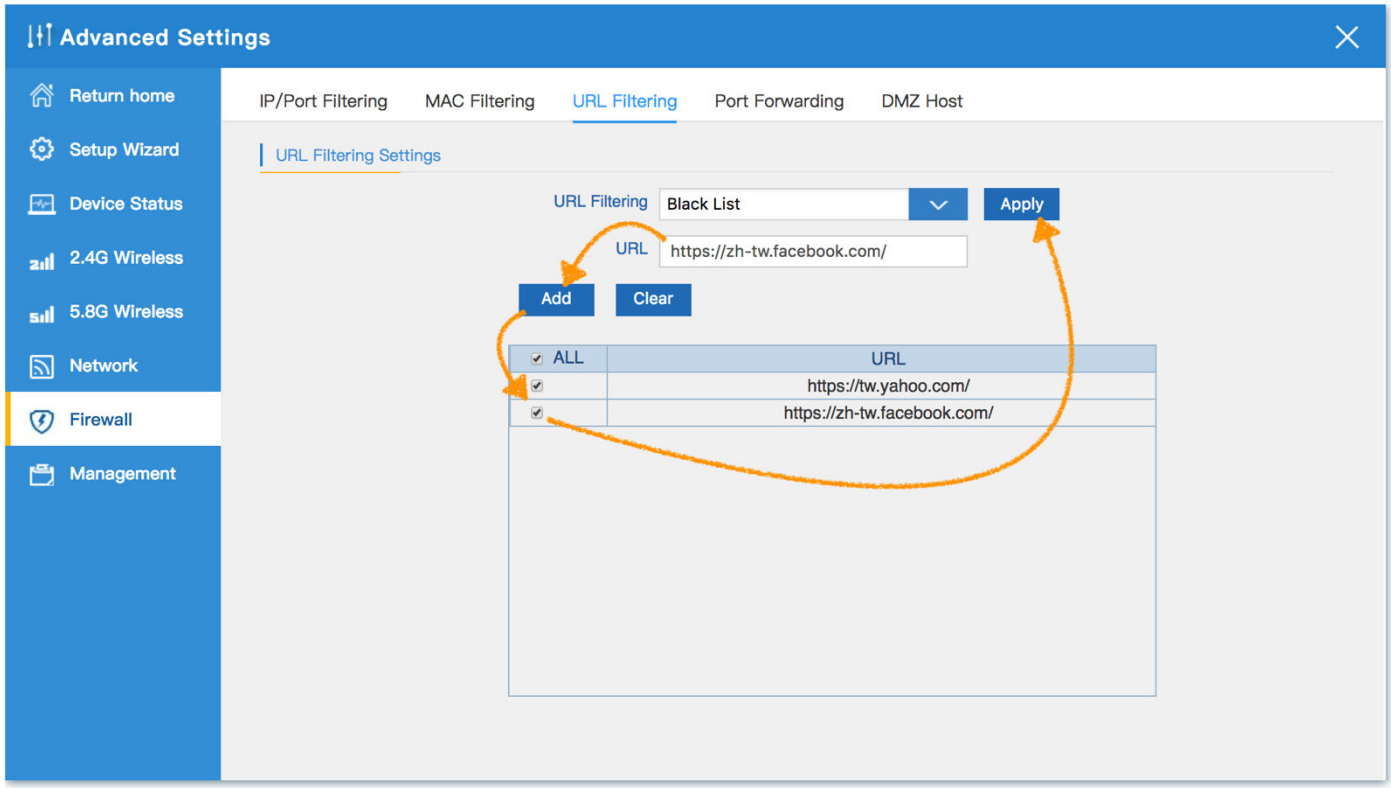


6.2.3 URL Filtering :

1.Factory default value is disable, Can be set to Black List. The following will begin to introduce how to set the enable Black List function



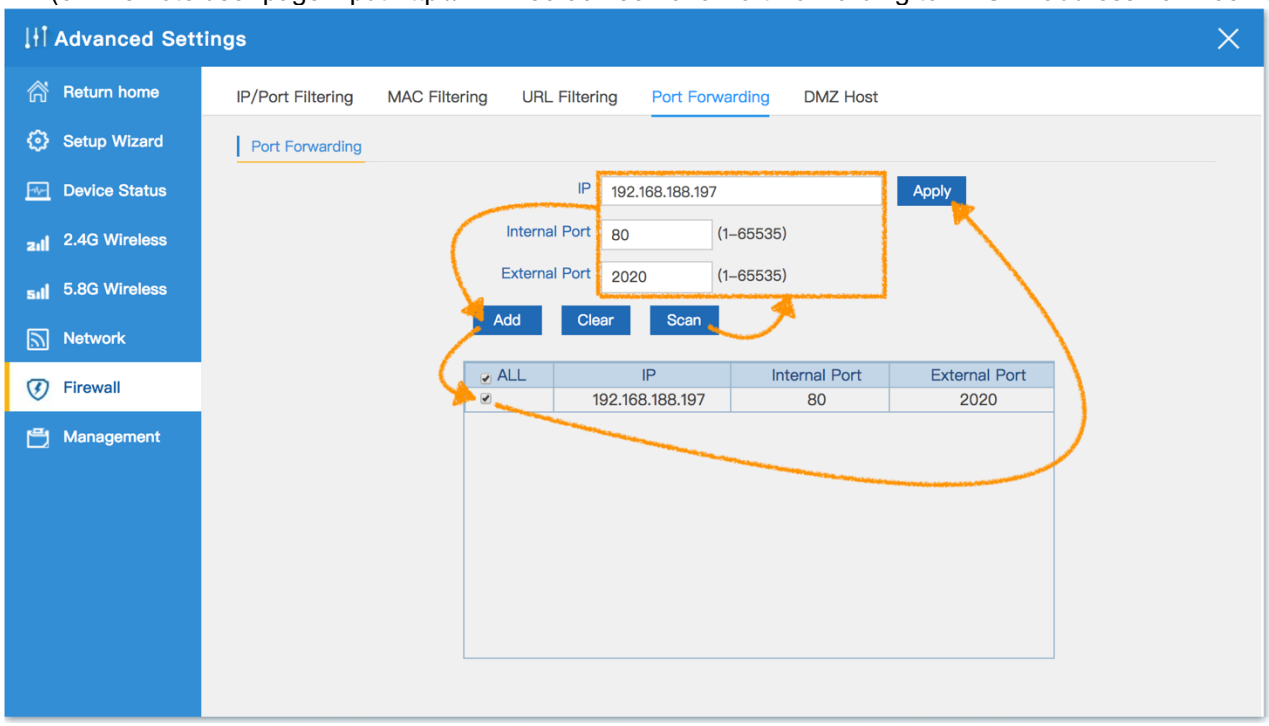
2.**Black List :** Can set the URL refuse to access the list , making all devices unable to connect to the list of websites



6.2.4 Port Forwarding

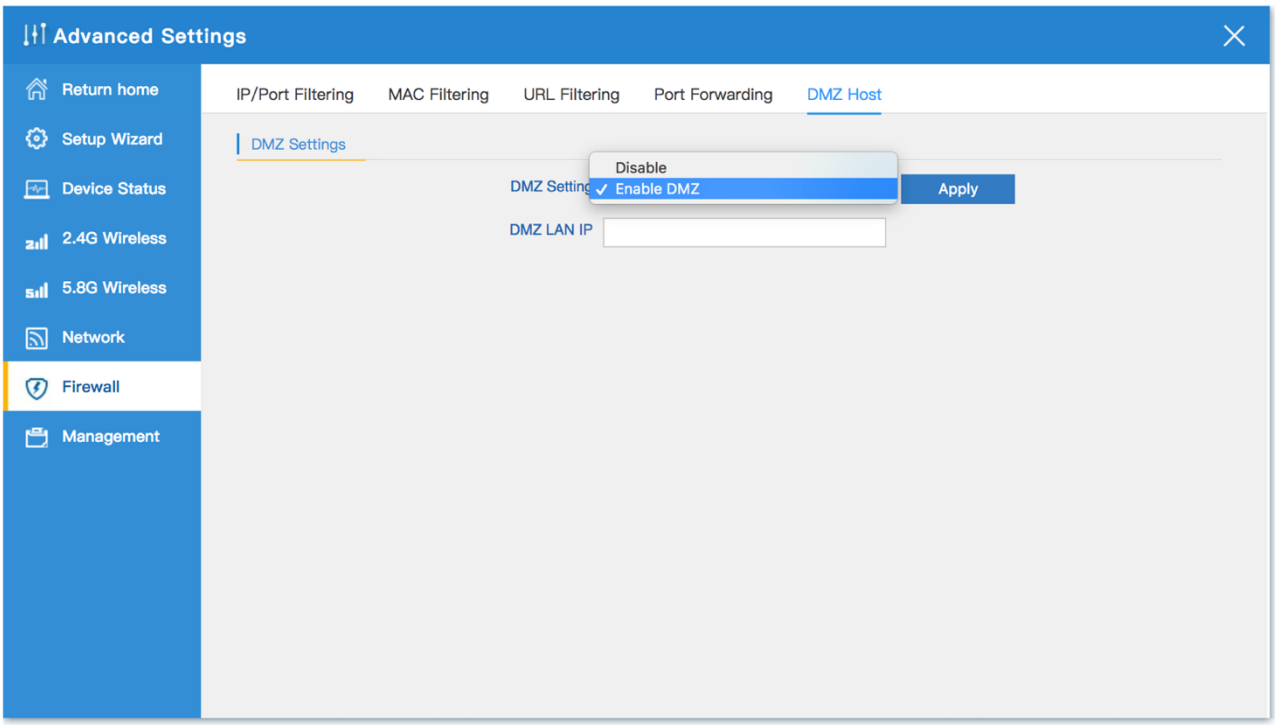
- The scan specified mode or manual input mode is set to allow the specified internal IP address of the External / External port so that other users can connect from the remote network to the WAP-8123 internal network equipment (ex: NAS , IP camera)
- After the setting is completed, the real fixed IP address or DDNS mode can be used to remotely connect to the NAS inside the WAP-8123

(ex: Remote user page input http://111.250.96.135:2020 Port Forwarding to NAS IP address:192.168.188.197:80)



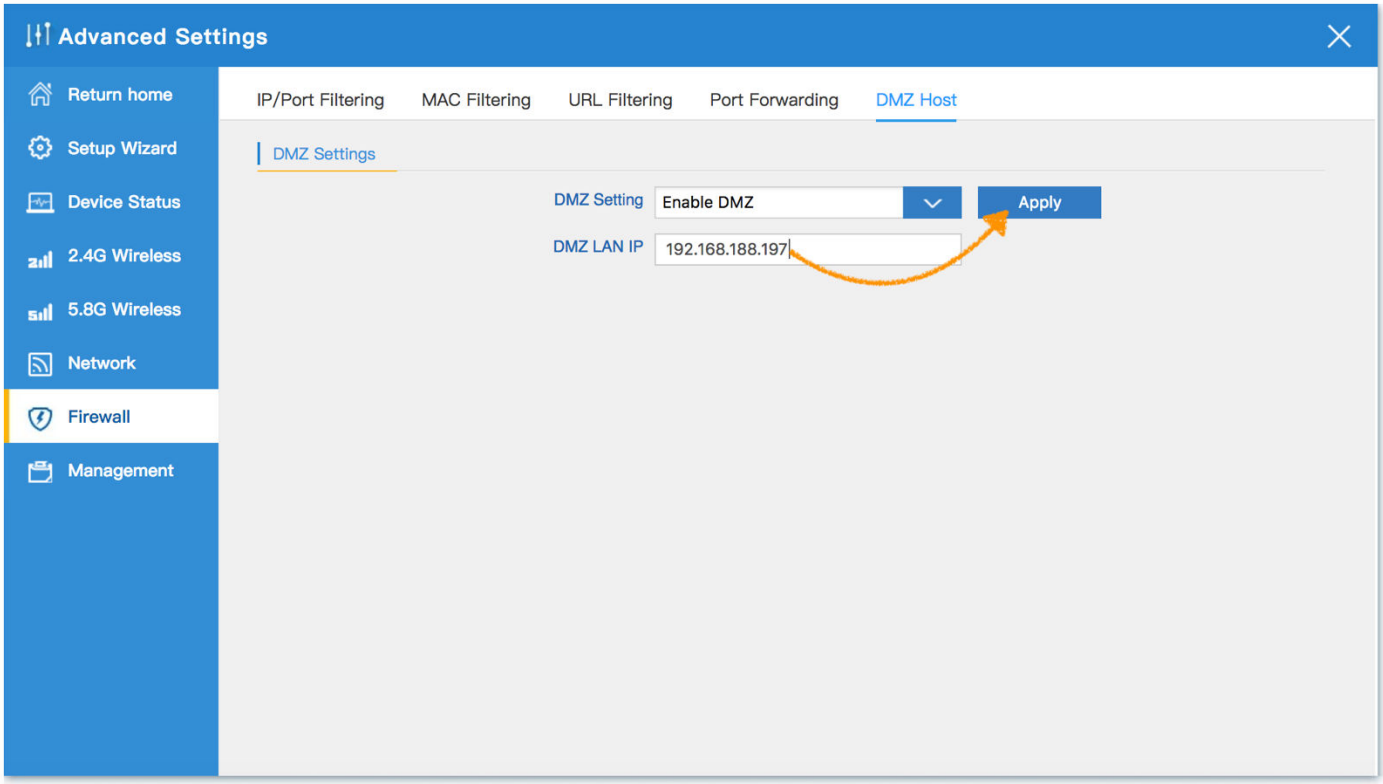
6.2.5 DMZ Host

1.Factory default value is disable . The following will begin to introduce how to set the enable DMZ Host function



2.When enabled, will independent a non-military block for this ip address device.

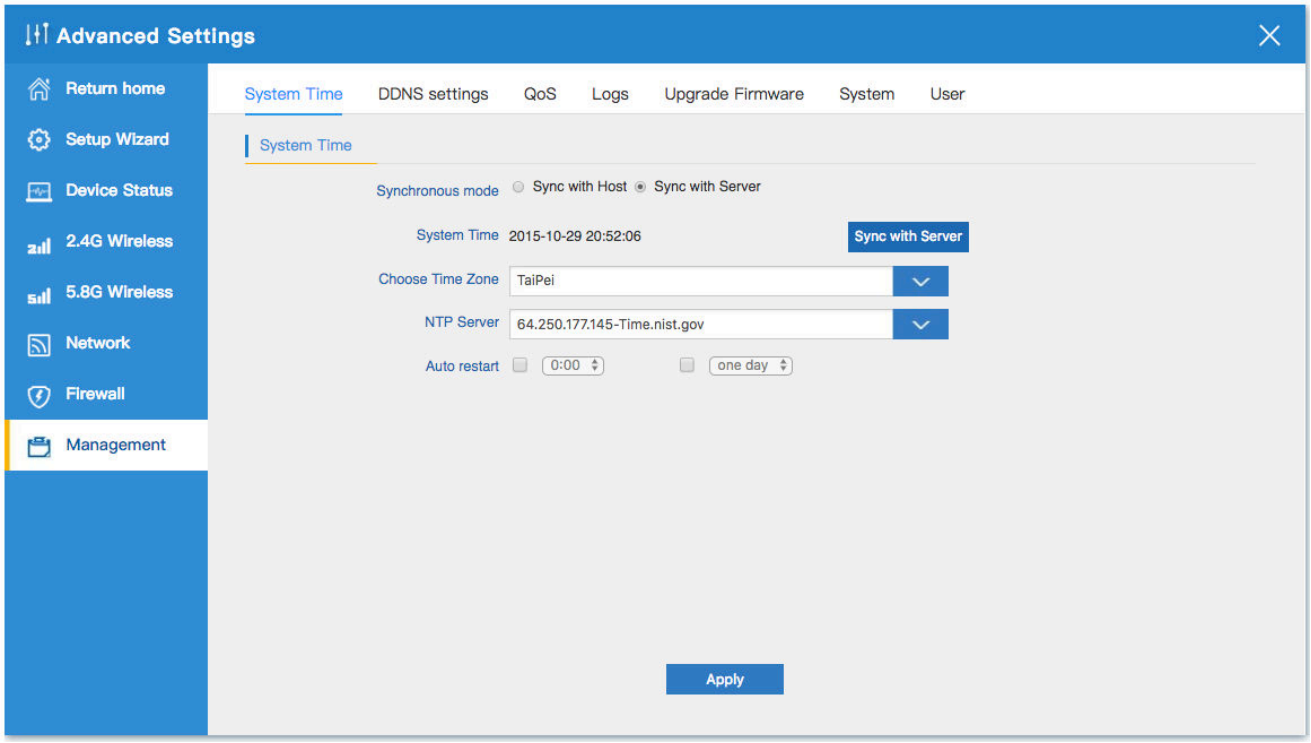
Note : This device will be directly exposed on the Internet, there will be some risk



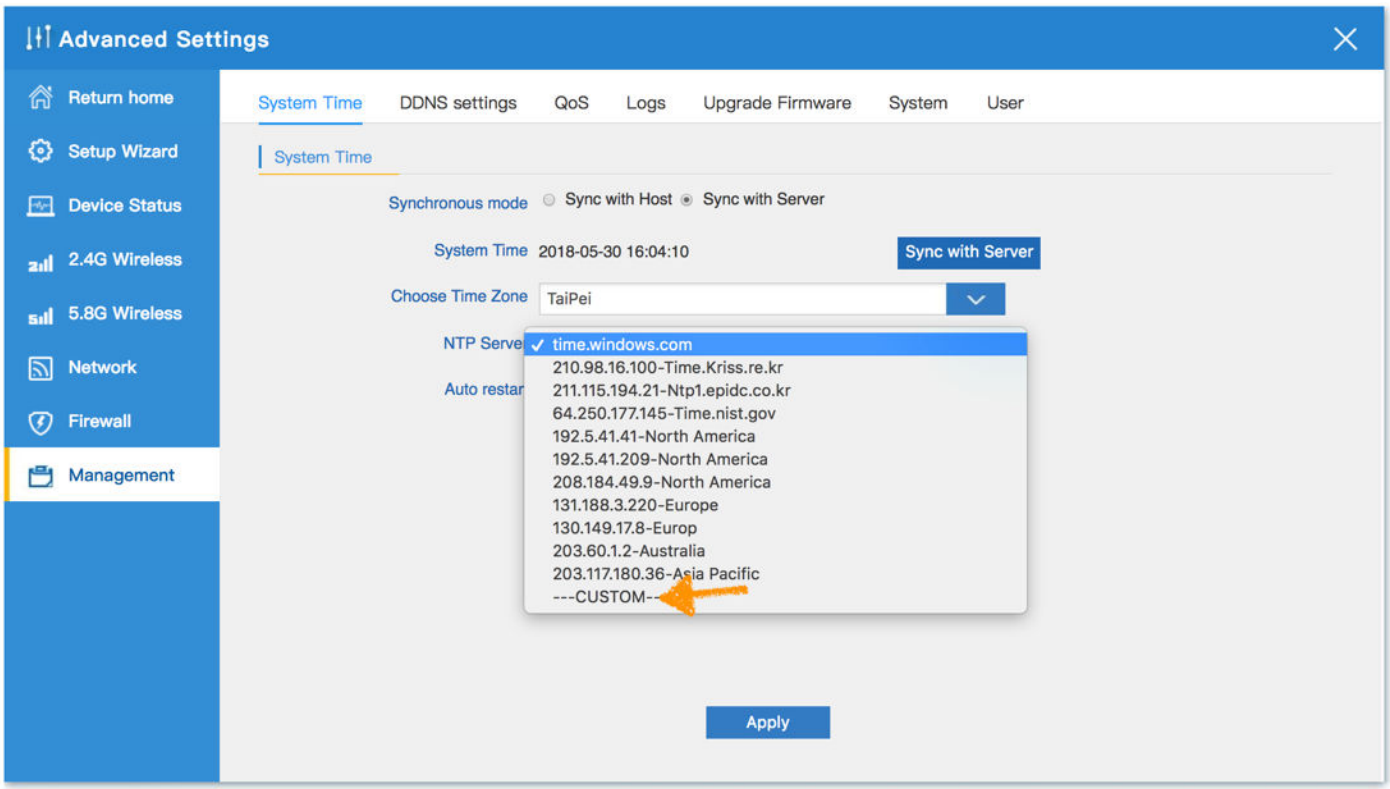
6.3 Management

6.3.1 System Time :

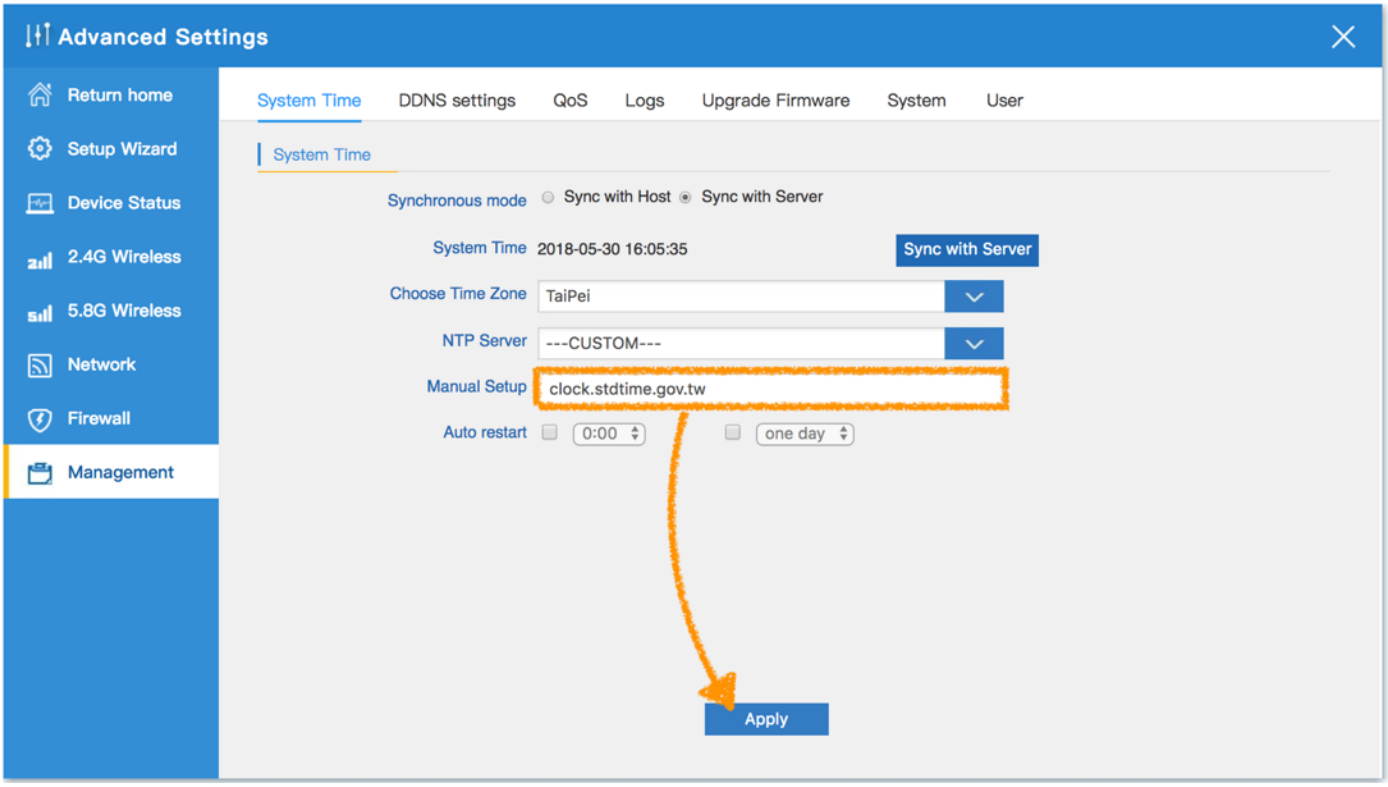
1.Get time from NTP server can only be available under Gateway and WISP Mode. Before sync with host, please select your Time zone. **Auto restart :** Define the system reboot time(0:00~23:00) , Can choose every day or every five days or every 10 days , System Reboot Automatically.



2.Can set up the required NAT Server

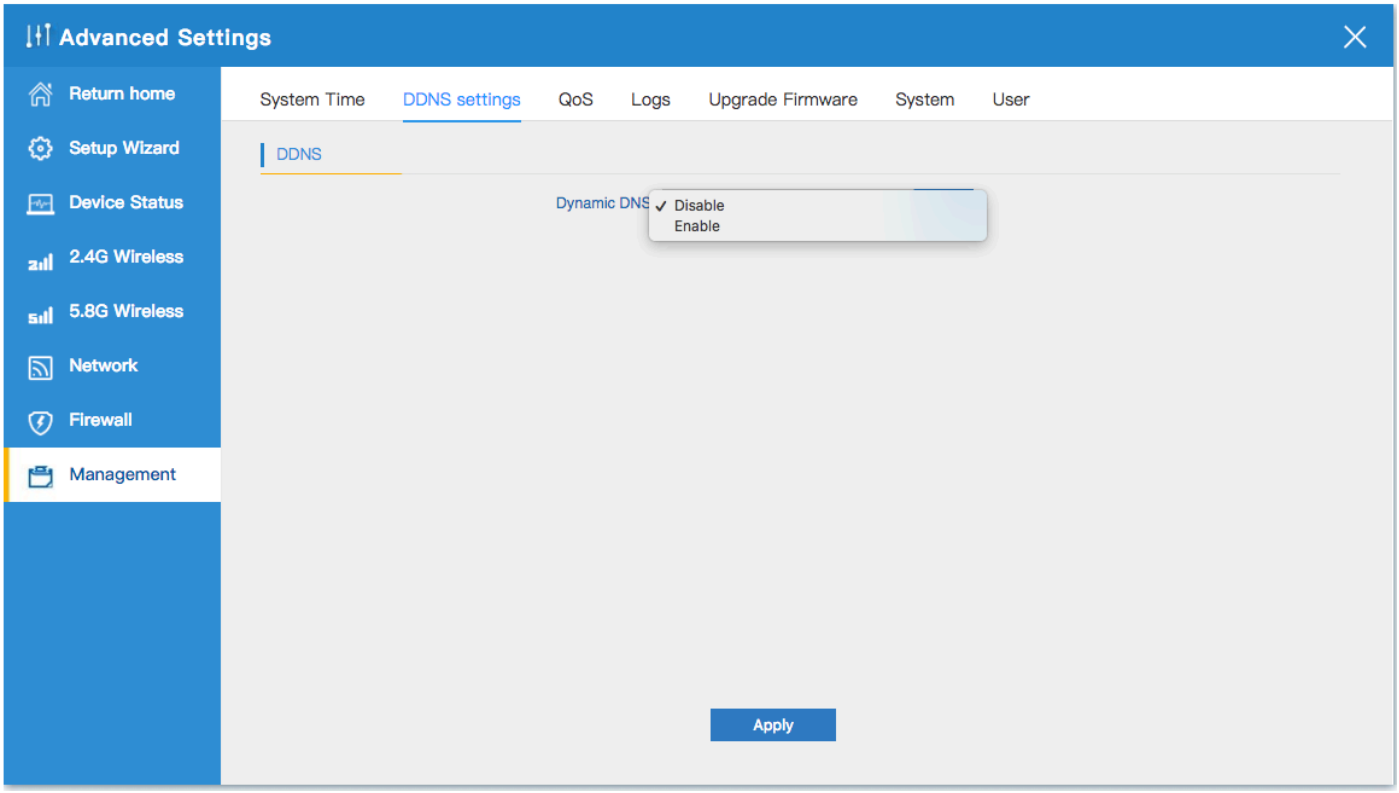


3.Can add NTP Server yourself (ex: Hinet NTP Server)

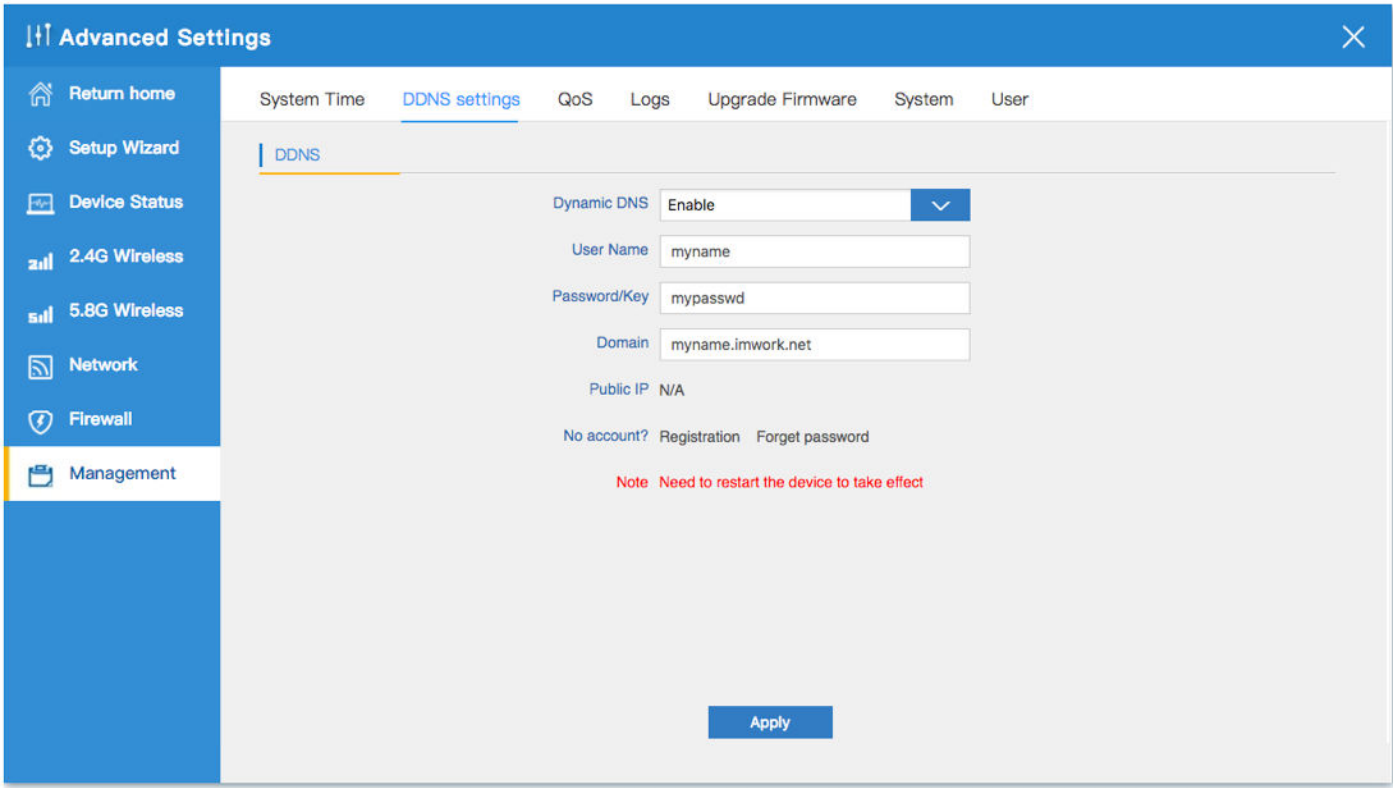


6.3.2 DDNS settings :

1.Factory default value is disable

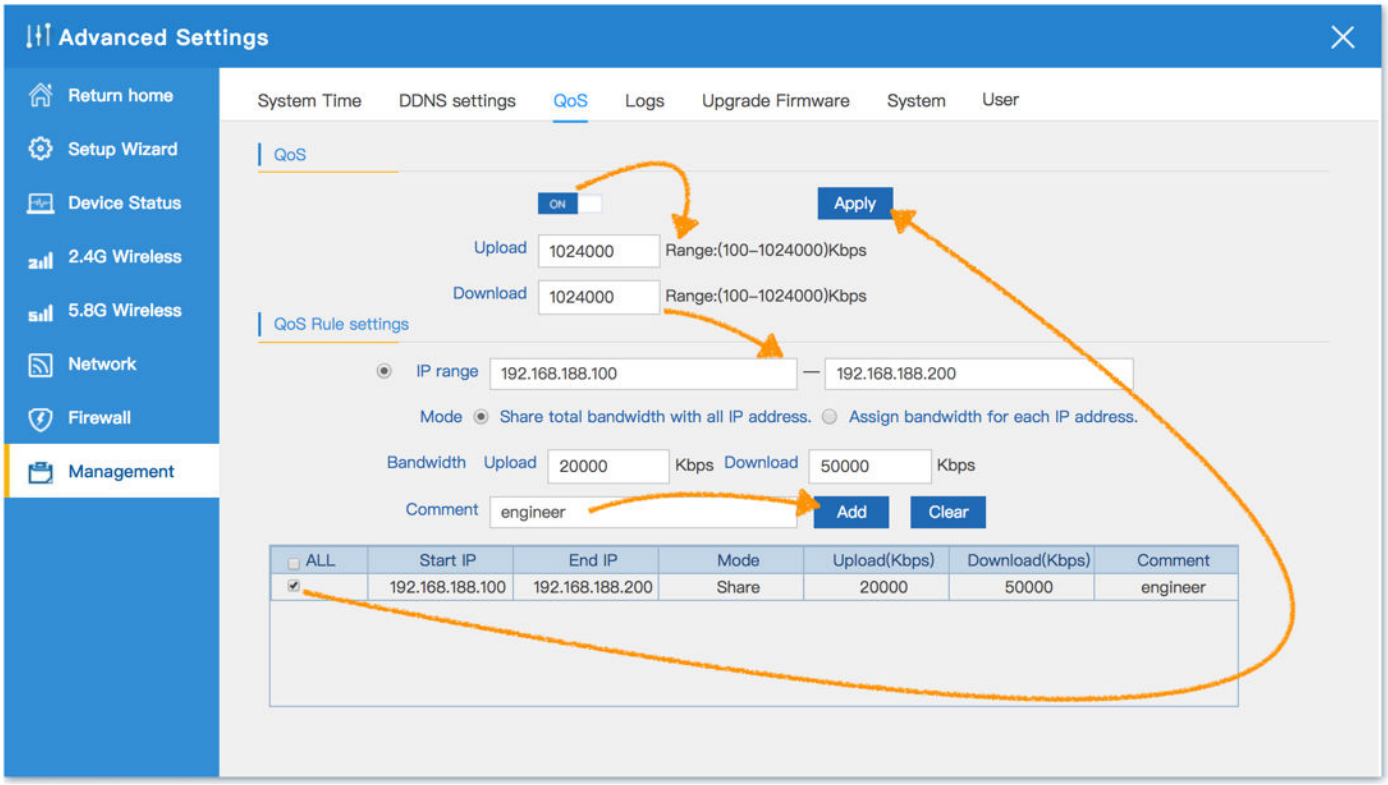


2. For users no apply for an ISP fixed IP address, only Floating real IP address , you can also connect to the network device in WAP-8123 through the DDNS service.



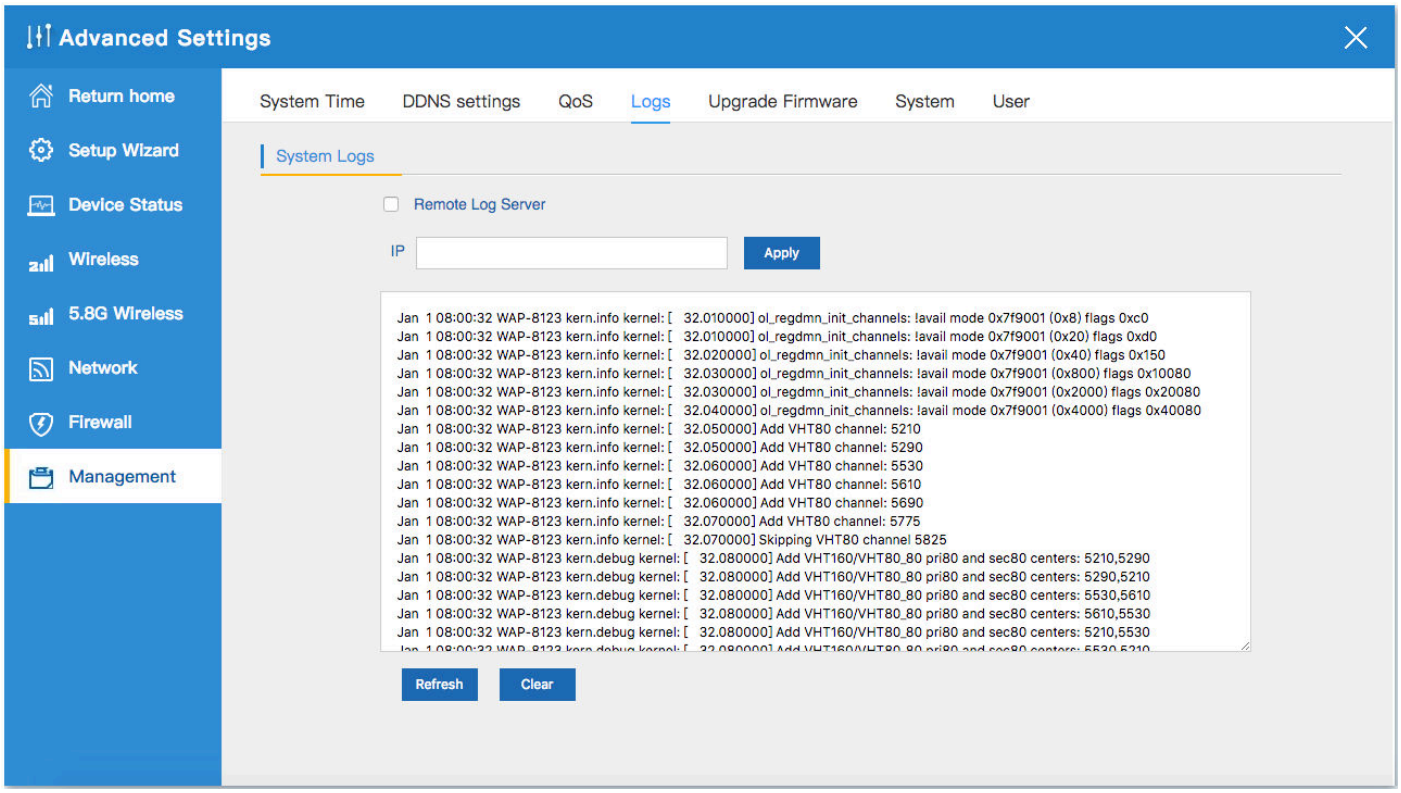
6.3.3 QoS :

- Can manually specify the IP address range of the device to limit the upload and download



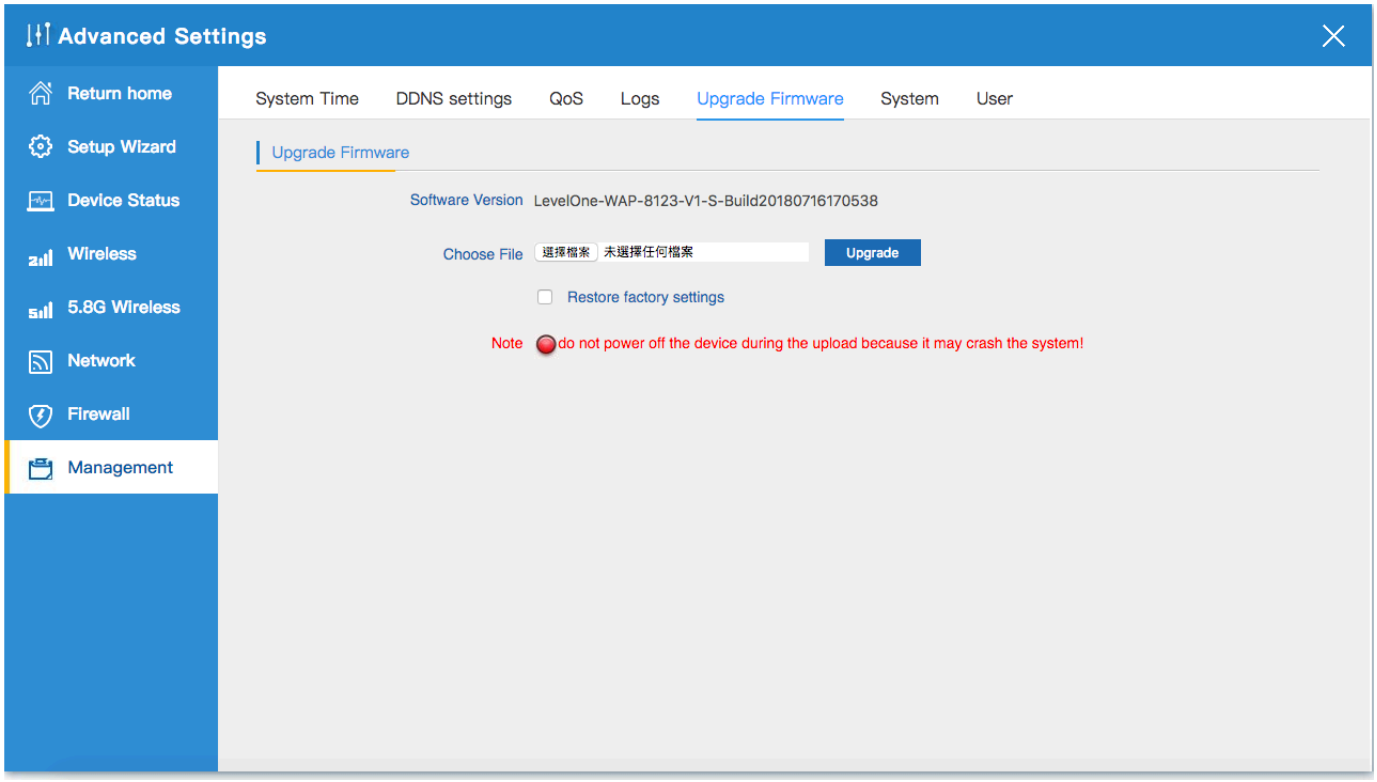
6.3.4 Logs :

- In Logs part, you can copy the running history of the device to consult the engineers when you have any trouble



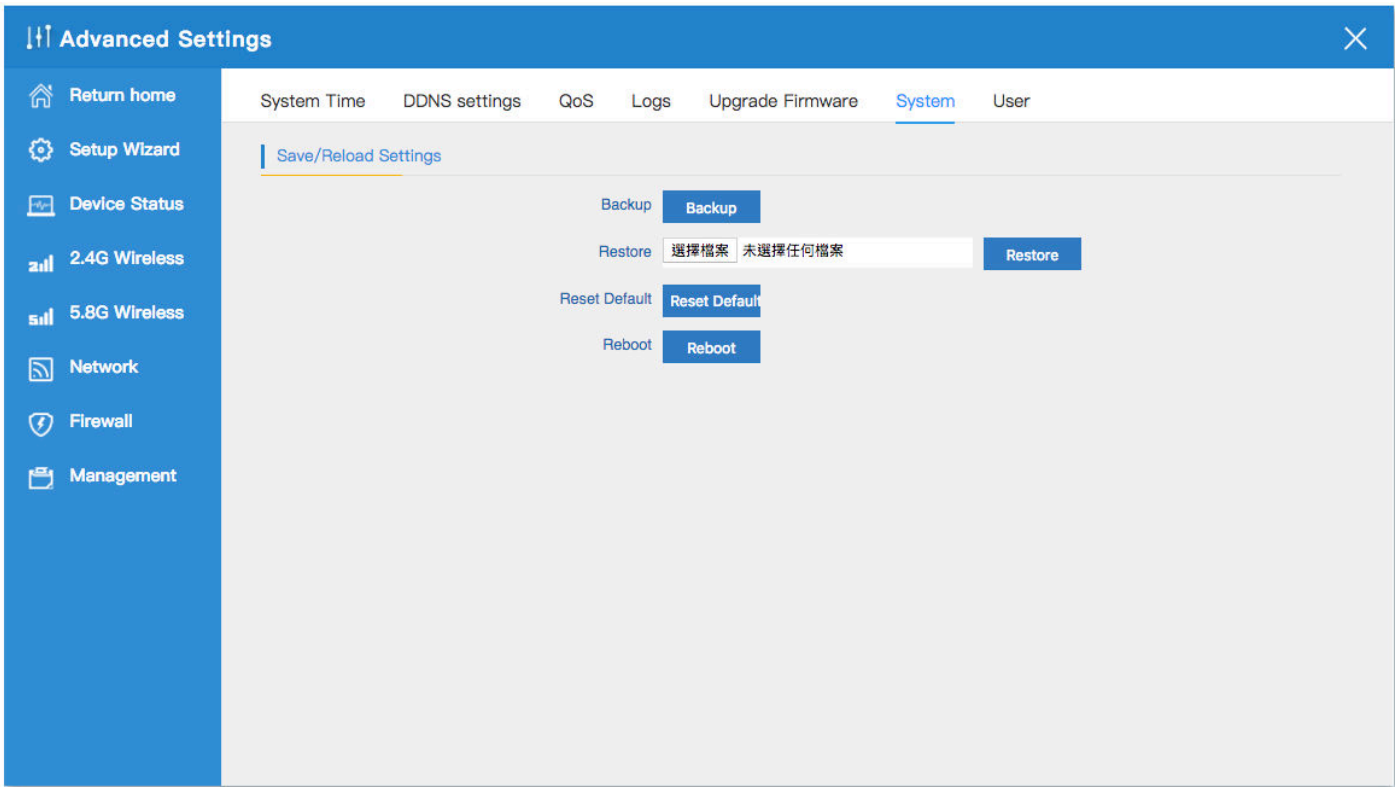
6.3.5 Upgrade Firmware :

- Allows you to browse the new firmware in your computer and upgrade. Please do not power off the device during upgrade.



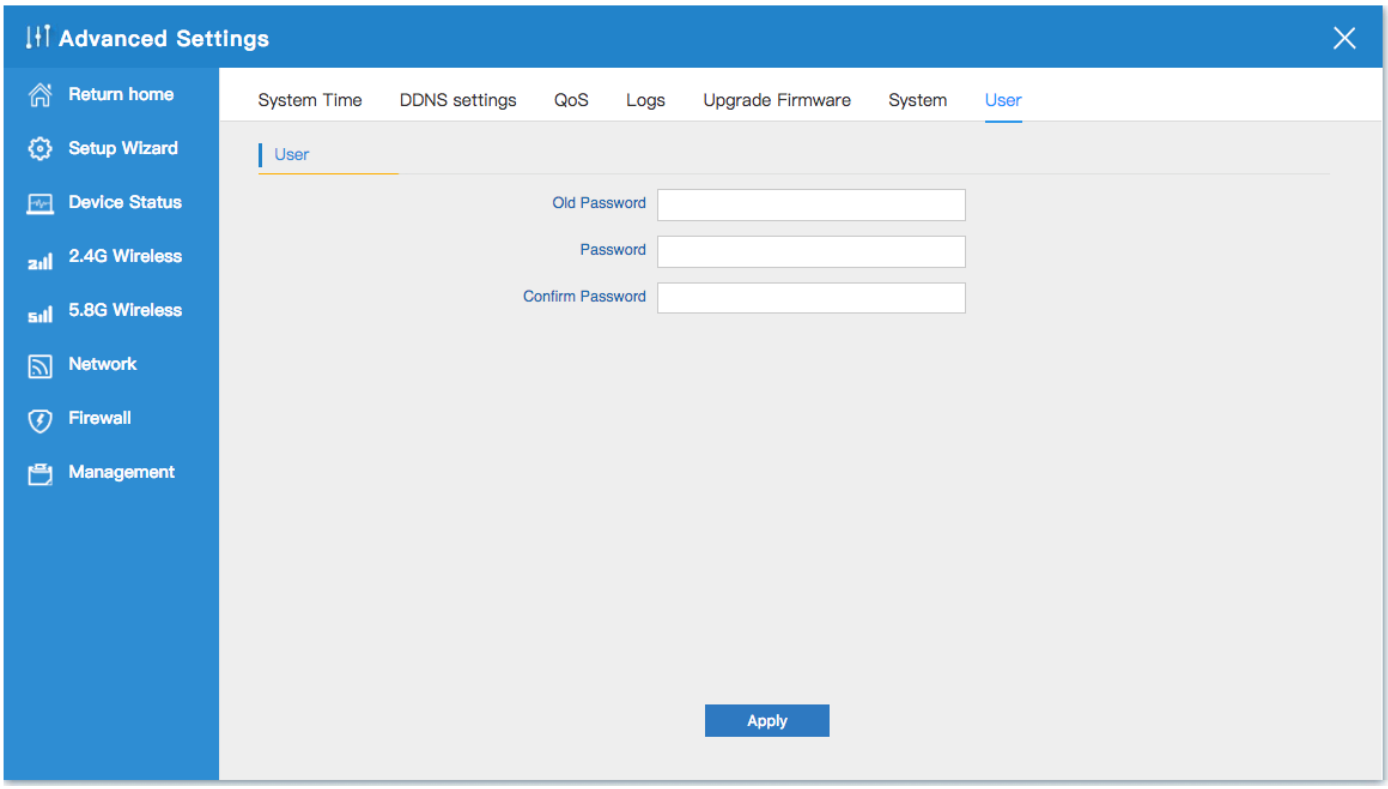
6.3.6 System :

You are able to backup the current configuration to your PC and restore by applying the configuration file from your PC. And you can Reset and Reboot the device with just one click



6.3.7 User :

- Management and change the password for Log in



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