



## **User Manual of NC-AC44APP/NC-AC21AP**



**Version V1.0**

Thank you for purchasing NC-Link Access Point. This manual will instruct you how to configure and the AP, enable you to use it in a perfect status. Please check the Package before use it.

## Package Contents

Item	Description	Unit	QTY
1	Access Point	PCS	1
2	PoE Injector (NC-AC21AP)	PCS	1
3	Mounting Accessory	Set	1
4	Quick Installation Guide	PC	1

## 1. Manual Instruction

This manual is subject to tell users how to use this Wireless Access Point properly. Contents include description of this platform's properties, and how to configure this platform. Pre-reading this manual before operation is highly recommended.

### 1.1 Target Reader

This manual is for those familiar with basic networking knowledge and terminology

## 2. Product Introduction

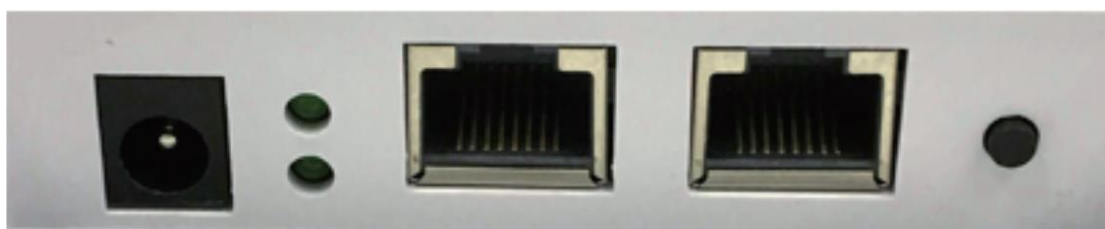
NC-AC44APP/NC-AC21AP are highly performance Wi-Fi Access Point, complied with IEEE 802.11ac/n/g/b/a.

NC-AC44APP is 1200Mbps, 867Mbps @5.8GHz, 300Mbps @2.4GHz

NC-AC21AP is 750Mbps, 433Mbps @5.8GHz, 300Mbps @2.4GHz

### 2.1 Product Layout

#### 2.1.1 Interface



**DC Jack:** It is used for 12V direct current power supply.

**WAN/PoE:** The WAN/PoE port is used to connect to the power and Internet.

**LAN:** Then LAN port is used for bridging.

**Reset:** Press the Reset button about **15 seconds**, then release to reset. The default IP address is **192.168.188.253**

Default password is **admin**

#### **RJ45 Connector**

NC-AC44APP with 2 x 10/100M/1000Mbps auto-negotiation RJ45 Ethernet Port

NC-AC21AP with 2 x 10/100Mbps auto-negotiation RJ45 Ethernet Port

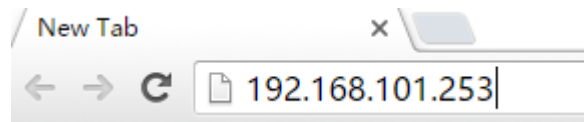
### **3. Login**

Connect your PC to the NC-AC44APP **LAN Port**, then login Web Management Page with default IP Address: <http://192.168.188.253>

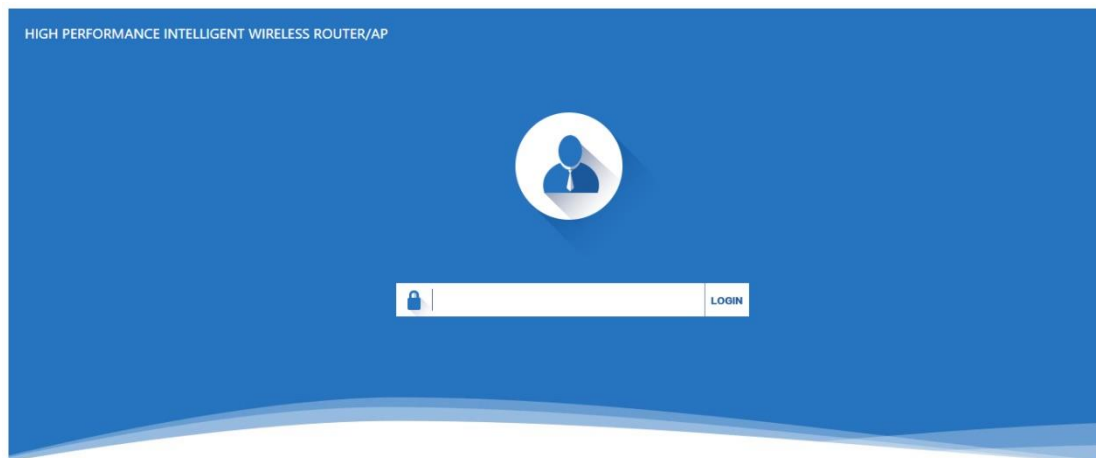
Default password: **admin**. Below base on **Chrome** browser.

#### **Login Steps:**

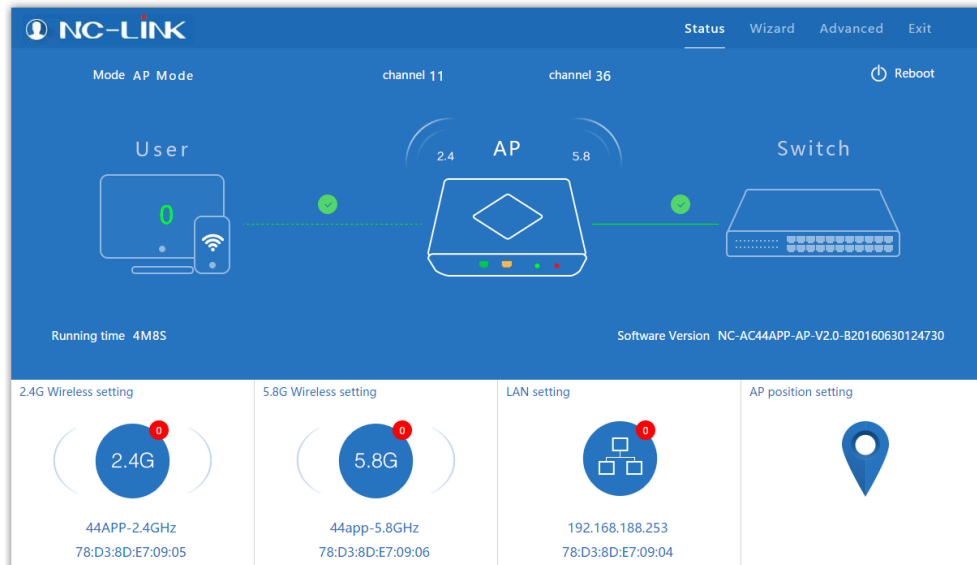
Open Chrome browser, input **http://192.168.188.253** in the address bar to login Access Point



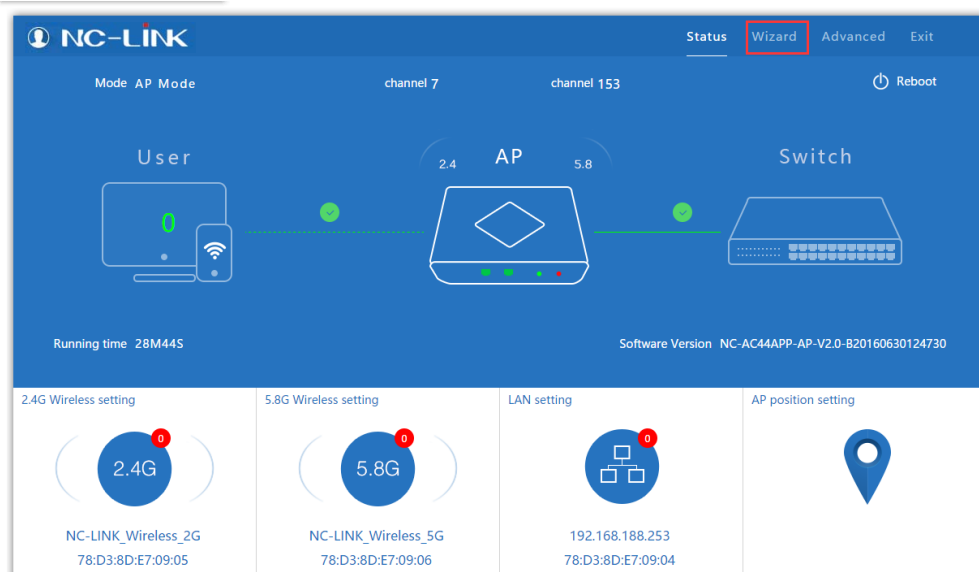
Login screen require password, the default is admin, input it and click “**LOGIN**”

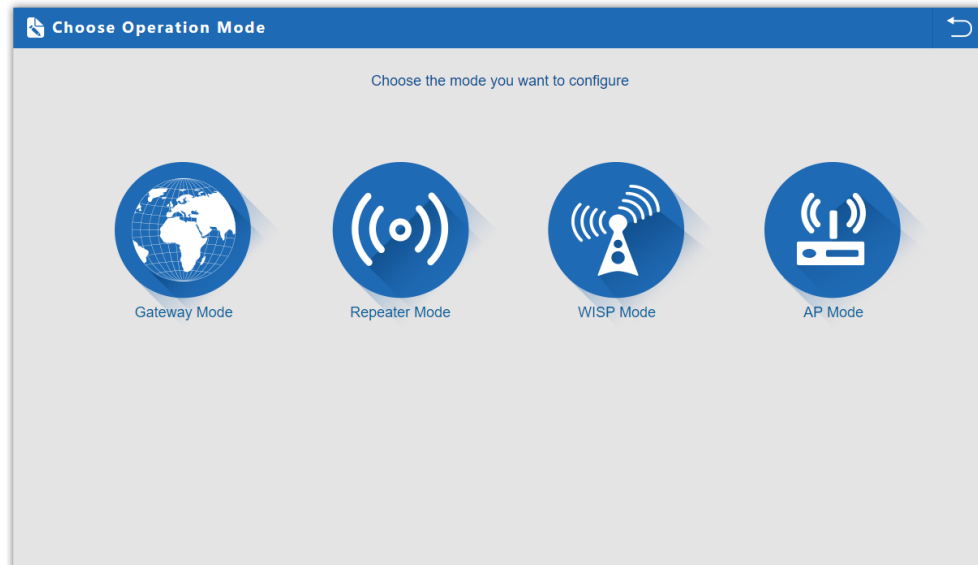


After login, you can see below Web page.



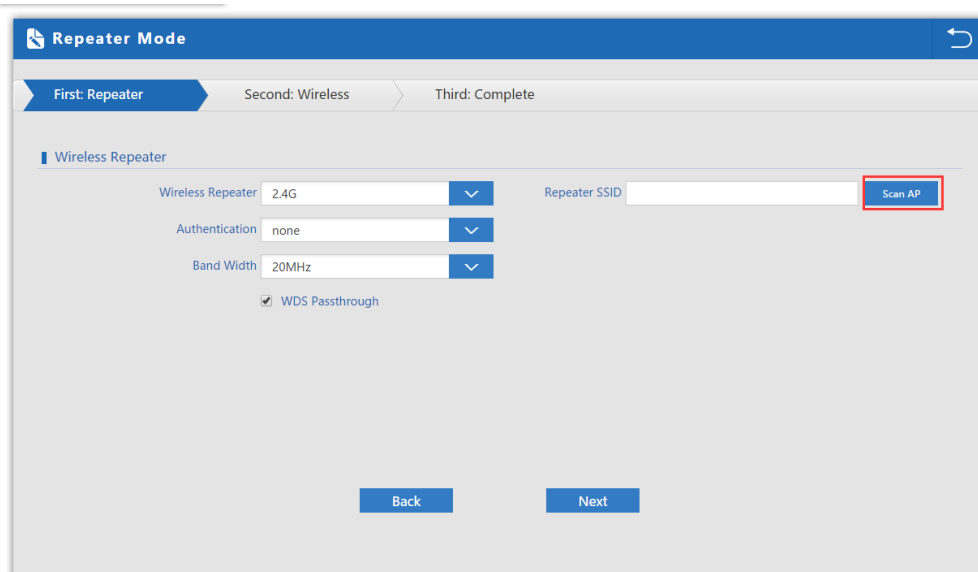
Click **“Wizard”** to start operating mode configuration.



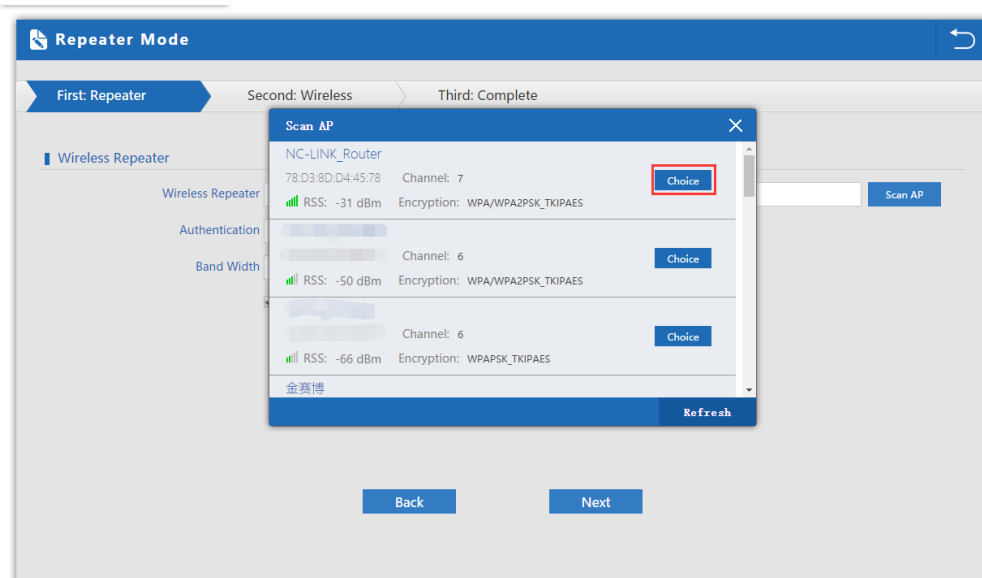


#### 4. Repeater Mode Configuration

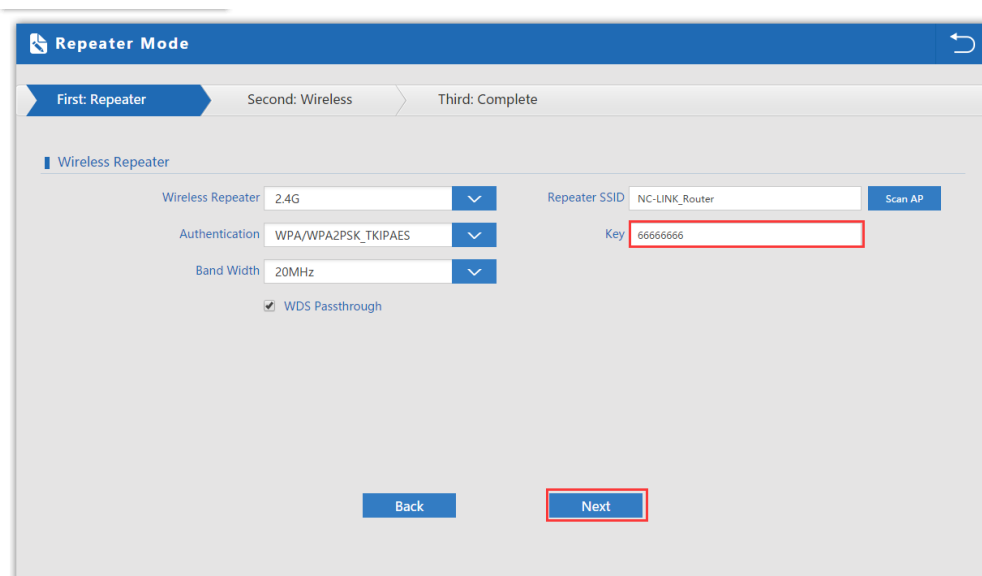
a) Select the AP radio frequency and **"Scan AP"**



b) Select the AP signal you want to repeat



c) Input the **Password** and click **"Next"**



d) Configure wireless parameter then click **"Next"**

Repeater Mode

First: Repeater Second: Wireless Third: Complete

Wireless Settings 2.4G/5.8G

5.8G Wireless Settings

5.8GHz WLAN Status ☒ ON ☐ 5G wireless analyzer

SSID NC-LINK\_Wireless\_5G

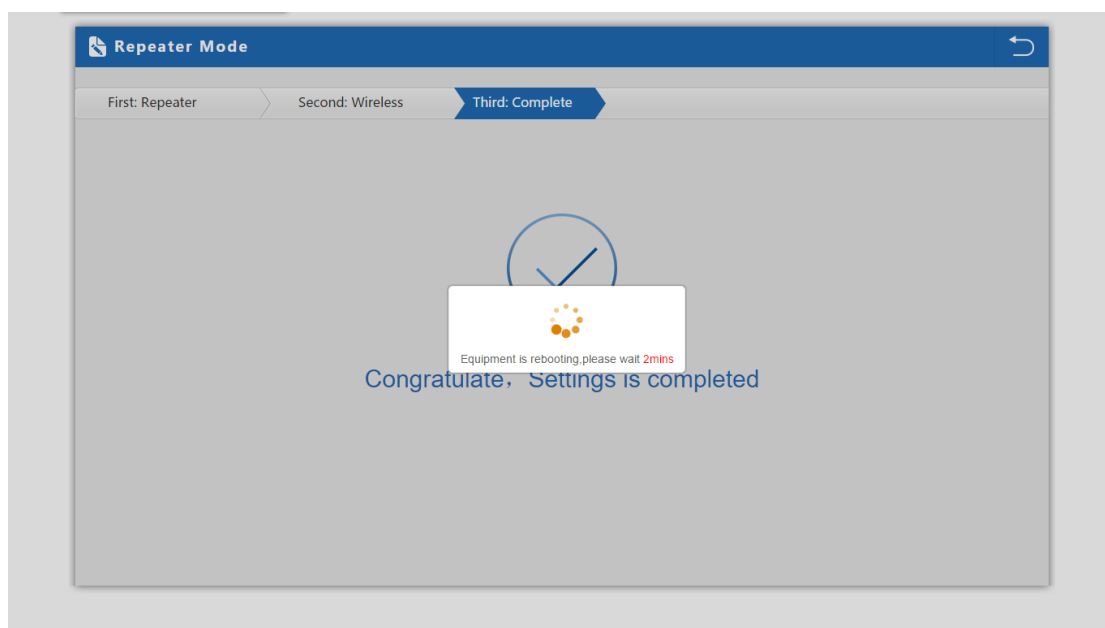
Channel \* 5.765 GHz (Channel 153)

Encryption WPA/WPA2PSK\_AES

Key 66666666

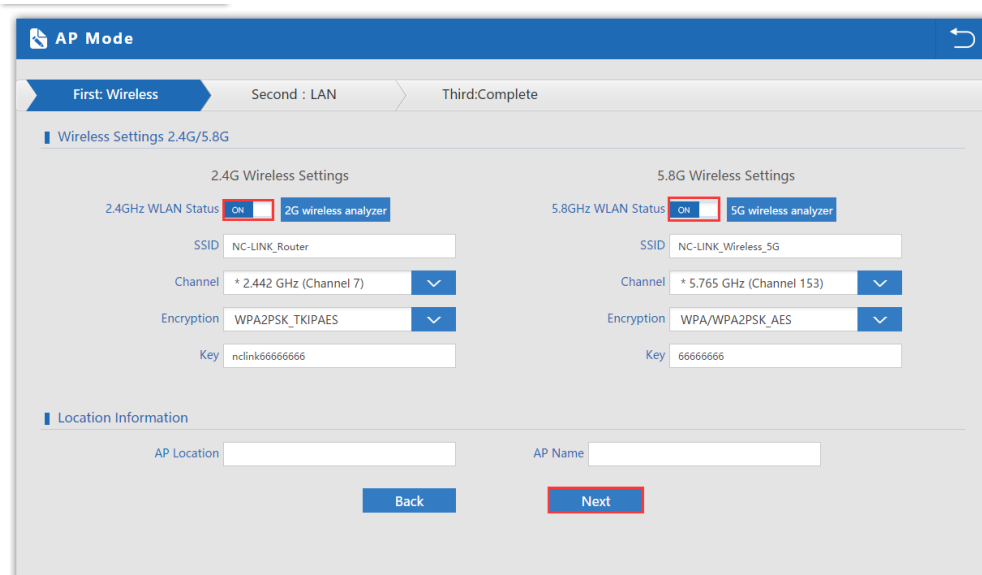
Back Next

e) Configuration complete, device will reboot in **2 minutes**



## 5. AP Mode Configuration

a) Configure the wireless parameter as you want then click **"Next"**

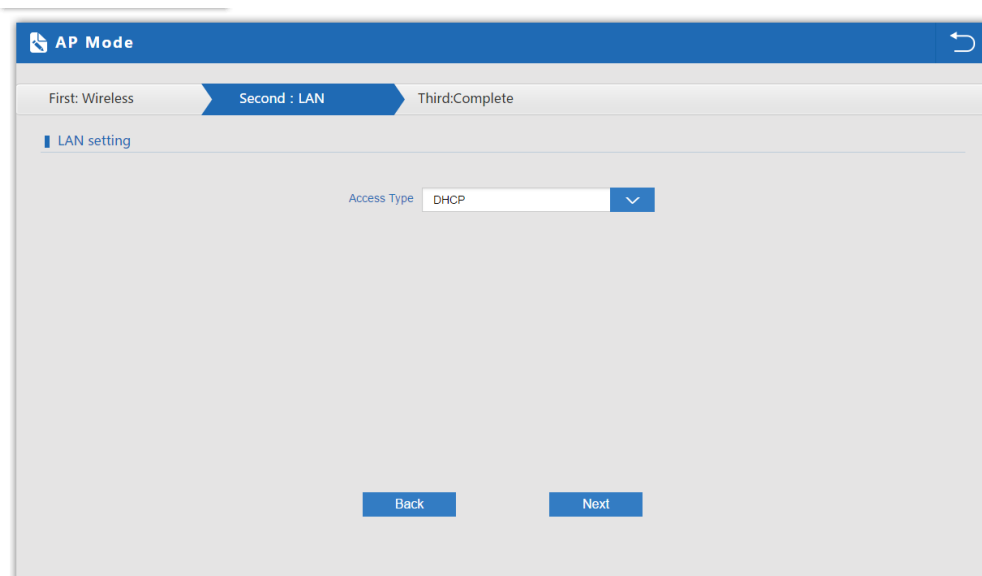


The screenshot shows the 'AP Mode' configuration window with a progress bar indicating 'First: Wireless', 'Second: LAN', and 'Third: Complete'. The 'Wireless Settings 2.4G/5.8G' section is active. It contains two columns of settings:

- 2.4G Wireless Settings:**
  - 2.4GHz WLAN Status: ☒ ON
  - 2G wireless analyzer: ☐
  - SSID: NC-LINK\_Router
  - Channel: \* 2.442 GHz (Channel 7)
  - Encryption: WPA2PSK\_TKIPAES
  - Key: nclink66666666
- 5.8G Wireless Settings:**
  - 5.8GHz WLAN Status: ☒ ON
  - 5G wireless analyzer: ☐
  - SSID: NC-LINK\_Wireless\_5G
  - Channel: \* 5.765 GHz (Channel 153)
  - Encryption: WPA/WPA2PSK\_AES
  - Key: 66666666

Below these settings is the 'Location Information' section with fields for 'AP Location' and 'AP Name'. At the bottom are 'Back' and 'Next' buttons, with 'Next' highlighted by a red box.

b) If Internet to LAN Port is DHCP, just click **"Next"**



The screenshot shows the 'AP Mode' configuration window with the progress bar updated to 'Second: LAN'. The 'LAN setting' section is active, showing a single configuration option:

- Access Type: DHCP

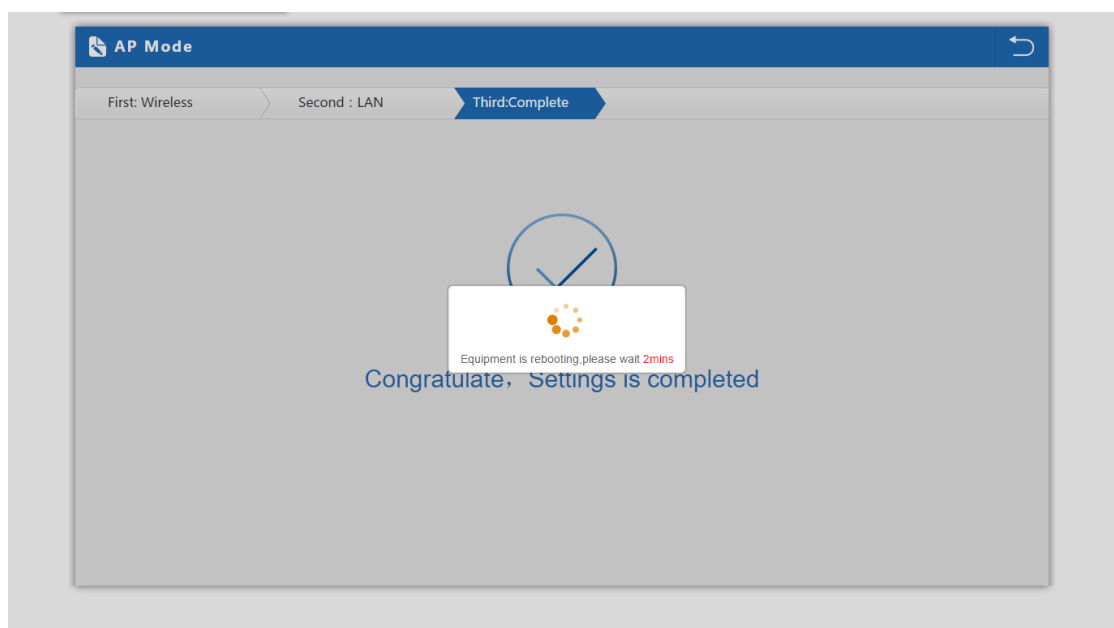
At the bottom are 'Back' and 'Next' buttons.



c) If Internet to LAN Port need static IP, input as it required then **"Next"**

The screenshot shows the 'AP Mode' configuration interface. At the top, there are three tabs: 'First: Wireless', 'Second : LAN' (which is active), and 'Third:Complete'. Below the tabs, there is a section titled 'LAN setting'. In this section, the 'Access Type' is set to 'Static IP'. Below this, there are four input fields: 'IP' (192.168.188.253), 'Subnet Mask' (255.255.255.0), and 'Manage server IP' (192.168.188.1). At the bottom of the interface, there are two buttons: 'Back' and 'Next'.

d) Configuration complete, device will reboot in **2 minutes**



## 6. Gateway Mode Configuration

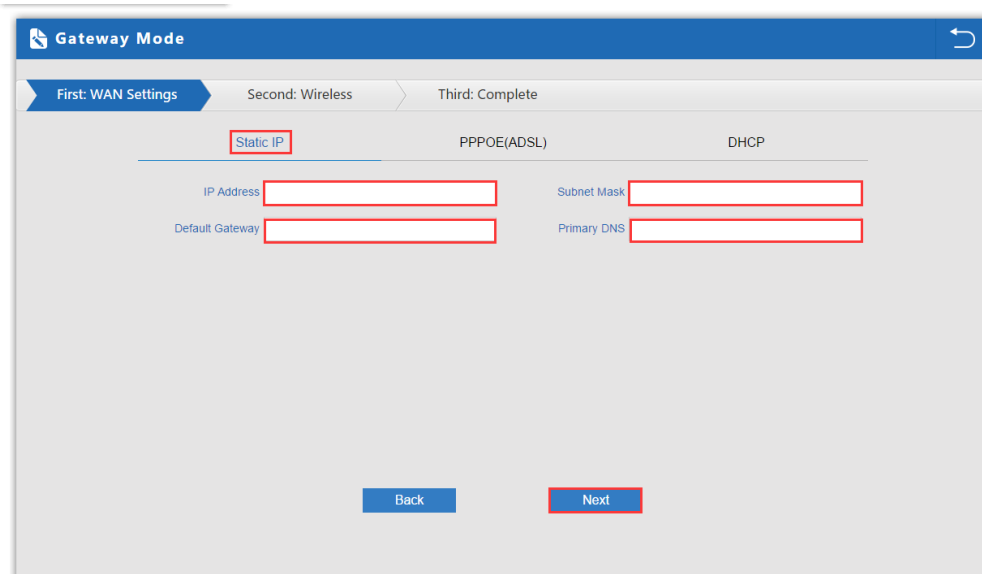
a) WAN is DHCP access type, just click "**Next**"

The screenshot shows the 'Gateway Mode' configuration window. At the top, there are three tabs: 'First: WAN Settings', 'Second: Wireless', and 'Third: Complete'. Under 'First: WAN Settings', there are three radio button options: 'Static IP', 'PPPOE(ADSL)', and 'DHCP'. The 'DHCP' option is selected and highlighted with a red box. Below these options, a message box states: 'The current access mode is DHCP, Please click next to configure.' At the bottom of the window, there are two buttons: 'Back' and 'Next'. The 'Next' button is highlighted with a red box.

b) WAN is PPPoE access type, input the **Username** and **Password** then click "**Next**"

The screenshot shows the 'Gateway Mode' configuration window. At the top, there are three tabs: 'First: WAN Settings', 'Second: Wireless', and 'Third: Complete'. Under 'First: WAN Settings', there are three radio button options: 'Static IP', 'PPPOE(ADSL)', and 'DHCP'. The 'PPPOE(ADSL)' option is selected and highlighted with a red box. Below these options, there are two input fields: 'PPPOE Name' and 'PPPOE Password'. Both input fields are highlighted with red boxes. At the bottom of the window, there are two buttons: 'Back' and 'Next'. The 'Next' button is highlighted with a red box.

- c) WAN is Static IP access type, input all the information require then click **"Next"**



**Gateway Mode**

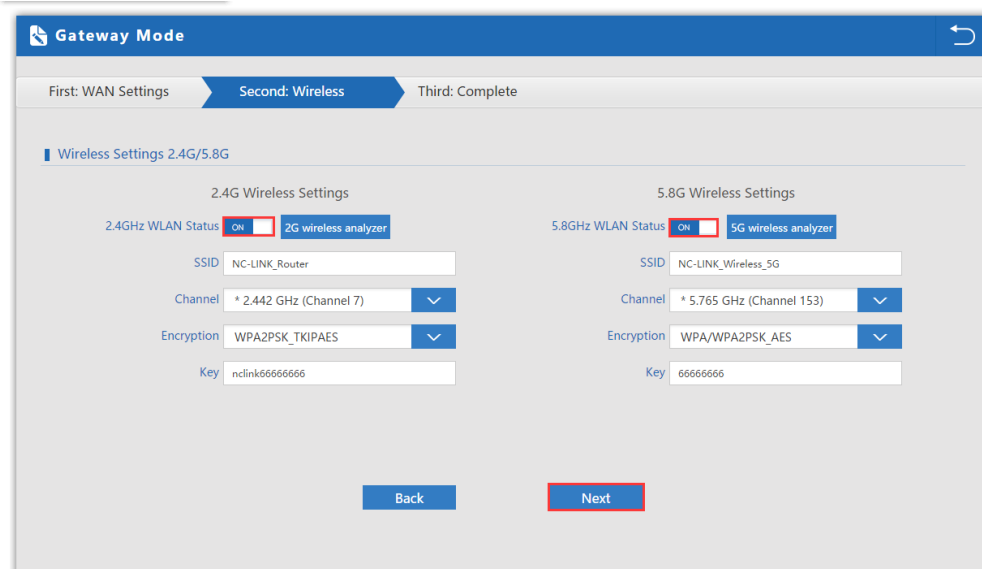
First: WAN Settings   Second: Wireless   Third: Complete

**Static IP**   PPPOE(ADSL)   DHCP

IP Address  Subnet Mask

Default Gateway  Primary DNS

- d) Configure the wireless parameter as you want then click **"Next"**



**Gateway Mode**

First: WAN Settings   **Second: Wireless**   Third: Complete

**Wireless Settings 2.4G/5.8G**

**2.4G Wireless Settings**

2.4GHz WLAN Status ☒ **2G wireless analyzer**

SSID

Channel

Encryption

Key

**5.8G Wireless Settings**

5.8GHz WLAN Status ☒ **5G wireless analyzer**

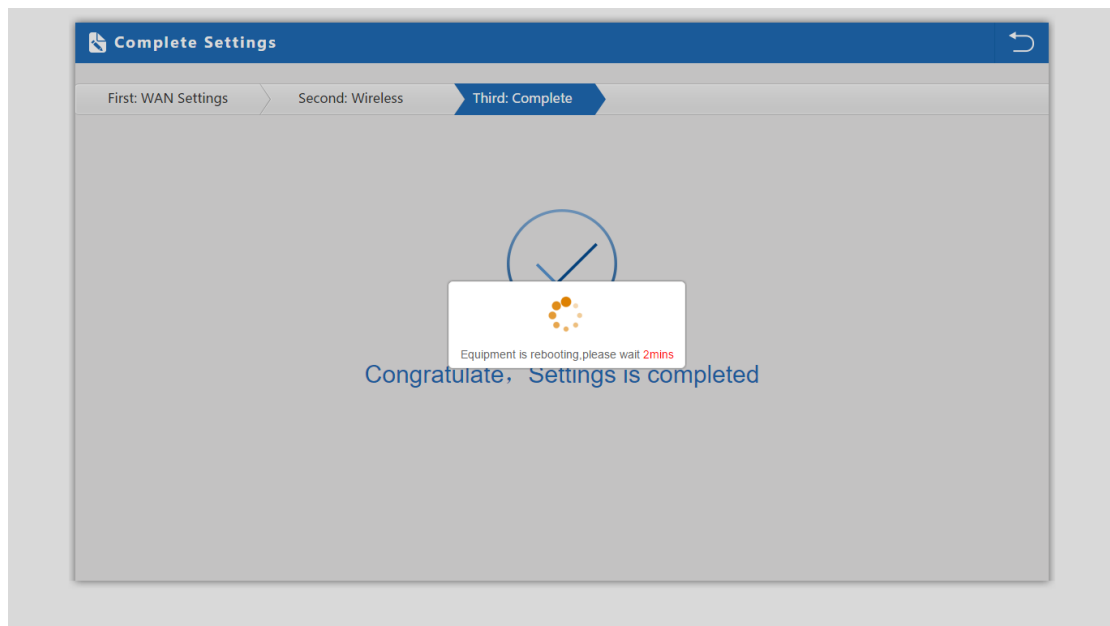
SSID

Channel

Encryption

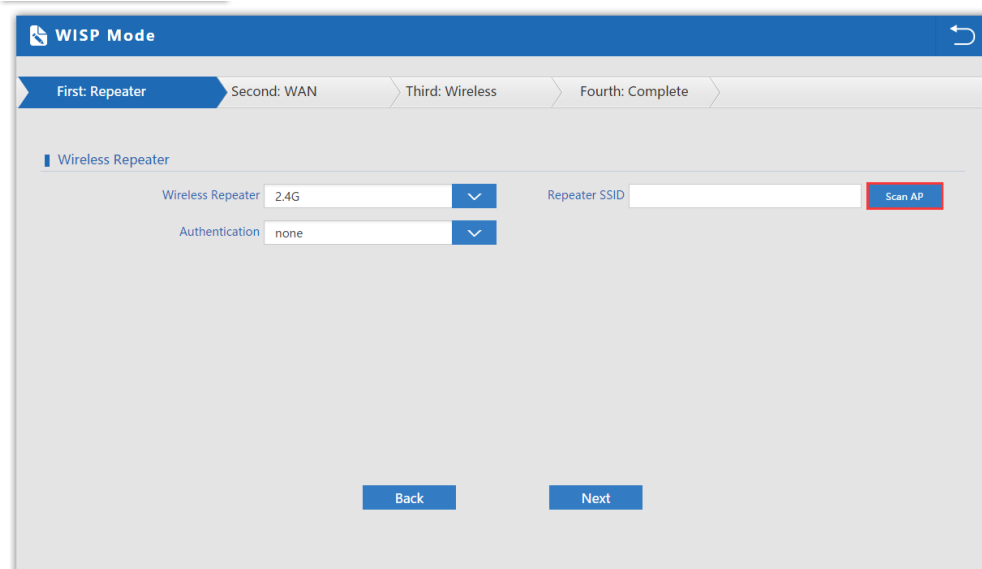
Key

e) Configuration complete, device will reboot in **2 minutes**



## 7. WISP Mode Configuration

a) Select the AP frequency then **"Scan"**



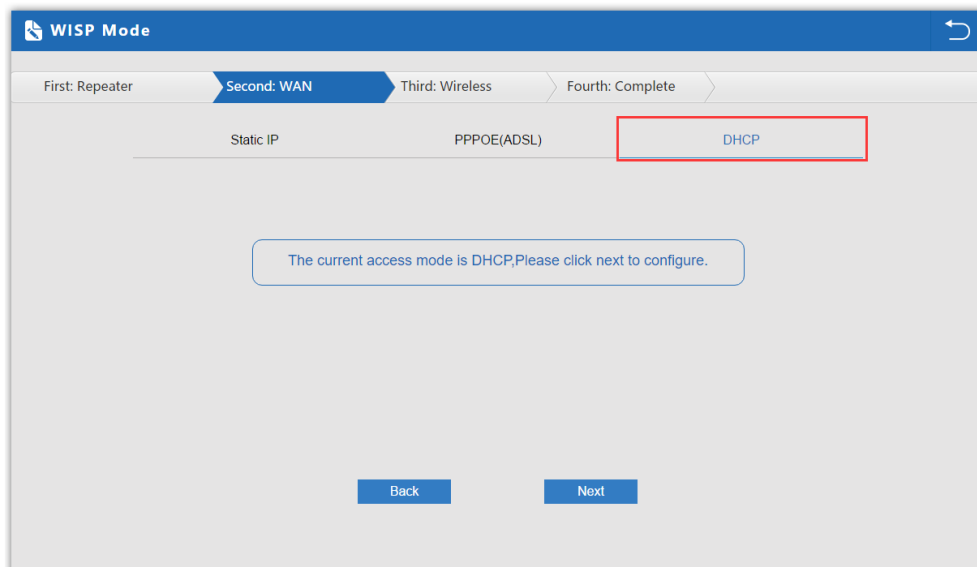
b) Select the AP signal you want to repeat

The screenshot shows the 'WISP Mode' configuration window. The 'First: Repeater' tab is active. A 'Scan AP' dialog box is open, displaying a list of detected APs. The first entry is 'NC-LINK\_Router' with MAC address '78:D3:8D:D4:45:78', Channel '7', RSSI '-31 dBm', and Encryption 'WPA/WPA2PSK\_TKIPAES'. A red box highlights the 'Choice' button next to this entry. Other entries show different channels and RSSI values. The dialog has a 'Refresh' button at the bottom right. The main window has 'Back' and 'Next' buttons at the bottom.

c) Input the **Password** and click "Next"

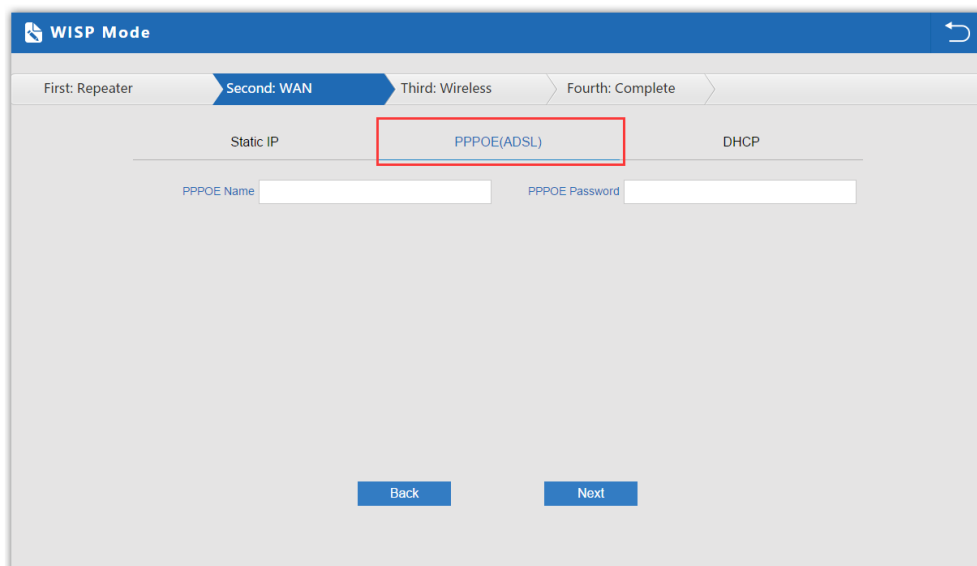
The screenshot shows the 'WISP Mode' configuration window with the 'First: Repeater' tab active. The 'Wireless Repeater' section is expanded. The 'Wireless Repeater' dropdown is set to '2.4G'. The 'Repeater SSID' is 'NC-LINK\_Router'. The 'Authentication' dropdown is set to 'WPA/WPA2PSK\_TKIPAES'. The 'Key' field contains '66666666' and is highlighted with a red box. A 'Scan AP' button is visible. The 'Next' button at the bottom is also highlighted with a red box.

d) WAN is DHCP access type, just click **"Next"**



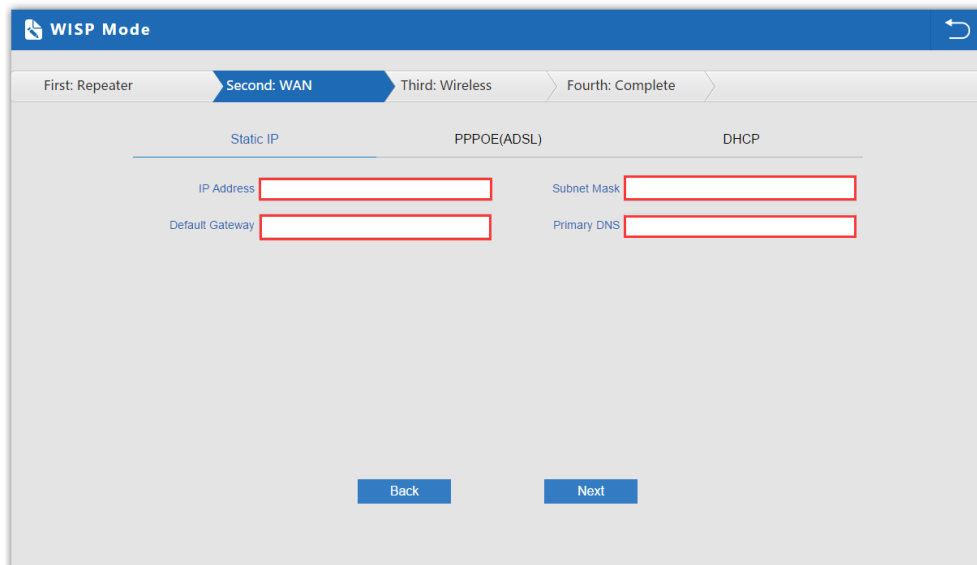
The screenshot shows the 'WISP Mode' configuration window. At the top, there's a progress bar with four steps: 'First: Repeater', 'Second: WAN', 'Third: Wireless', and 'Fourth: Complete'. The 'Second: WAN' step is active. Below the progress bar, there are three radio button options: 'Static IP', 'PPPOE(ADSL)', and 'DHCP'. The 'DHCP' option is selected and highlighted with a red rectangle. Below these options, a message box states: 'The current access mode is DHCP, Please click next to configure.' At the bottom of the window, there are two buttons: 'Back' and 'Next'.

e) WAN is PPPoE access type, input the **Username** and **Password** then click **"Next"**



The screenshot shows the 'WISP Mode' configuration window. At the top, there's a progress bar with four steps: 'First: Repeater', 'Second: WAN', 'Third: Wireless', and 'Fourth: Complete'. The 'Second: WAN' step is active. Below the progress bar, there are three radio button options: 'Static IP', 'PPPOE(ADSL)', and 'DHCP'. The 'PPPOE(ADSL)' option is selected and highlighted with a red rectangle. Below these options, there are two input fields: 'PPPOE Name' and 'PPPOE Password'. At the bottom of the window, there are two buttons: 'Back' and 'Next'.

- f) WAN is Static IP access type, input all the information require then click **"Next"**



WISP Mode

First: Repeater > **Second: WAN** > Third: Wireless > Fourth: Complete

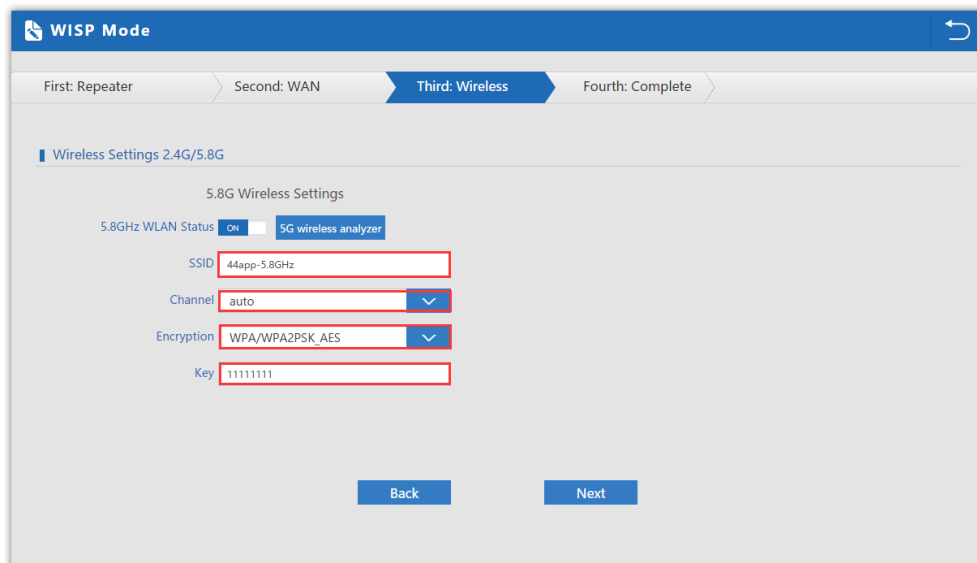
Static IP      PPPOE(ADSL)      DHCP

IP Address  Subnet Mask

Default Gateway  Primary DNS

Back Next

- g) Configure the wireless parameter as you want then click **"Next"**



WISP Mode

First: Repeater > Second: WAN > **Third: Wireless** > Fourth: Complete

Wireless Settings 2.4G/5.8G

5.8G Wireless Settings

5.8GHz WLAN Status: ☒ ON ☐ 5G wireless analyzer

SSID:

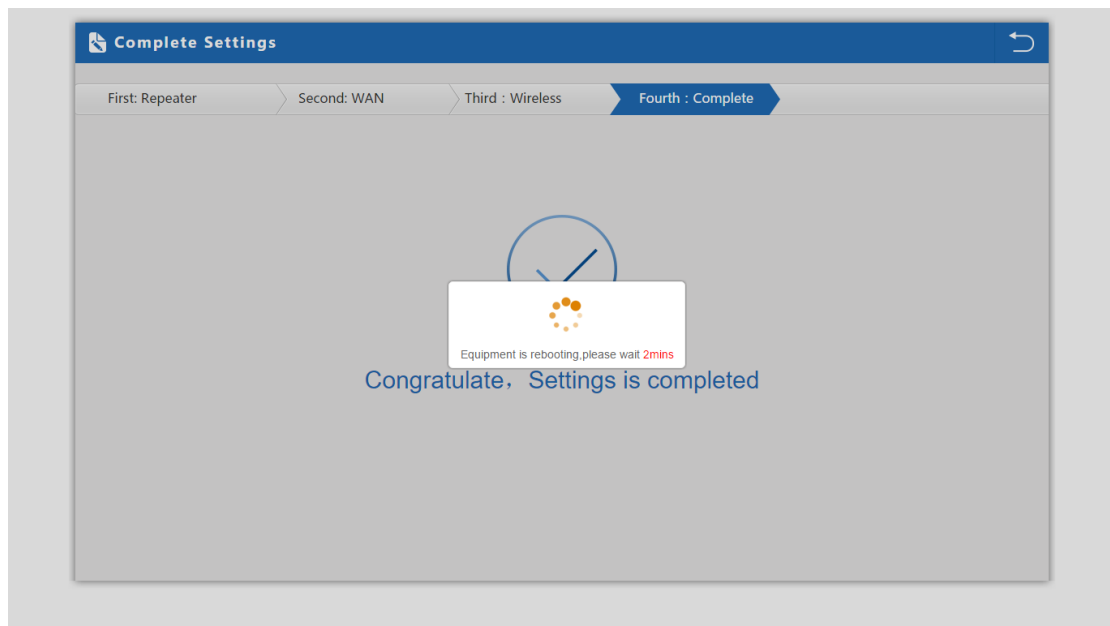
Channel:  ▼

Encryption:  ▼

Key:

Back Next

h) Configuration complete, device will reboot in **2 minutes**



## 8. Advanced

### 8.1 Device Status

#### 8.1.1 Status



#### 8.1.2 2.4G Wireless Status



Status [2.4G Wireless Status](#) 5.8G Wireless Status LAN Status

[2.4G Wireless Status](#)

2.4G Wireless Status Enable

SSID NC-LINK\_Wireless\_2G

MAC 78:D3:8D:E7:09:05

Channel 7

Encryption WPA/WPA2PSK\_AES

Connected Users 0

[Client list](#)

### 8.1.3 5.8G Wireless status

Status 2.4G Wireless Status [5.8G Wireless Status](#) LAN Status

[5.8G Wireless Status](#)

5.8G Wireless Status Enable

SSID NC-LINK\_Wireless\_5G

MAC 78:D3:8D:E7:09:06

Channel 153

Encryption WPA/WPA2PSK\_AES

Connected Users 0

[Client list](#)

### 8.1.4 LAN Status

Status 2.4G Wireless Status 5.8G Wireless Status [LAN Status](#)

[LAN Status](#)

LAN IP 192.168.188.253

Subnet Mask 255.255.255.0

MAC 78:D3:8D:E7:09:04

Manage server IP 192.168.188.1

DHCP Status Disable

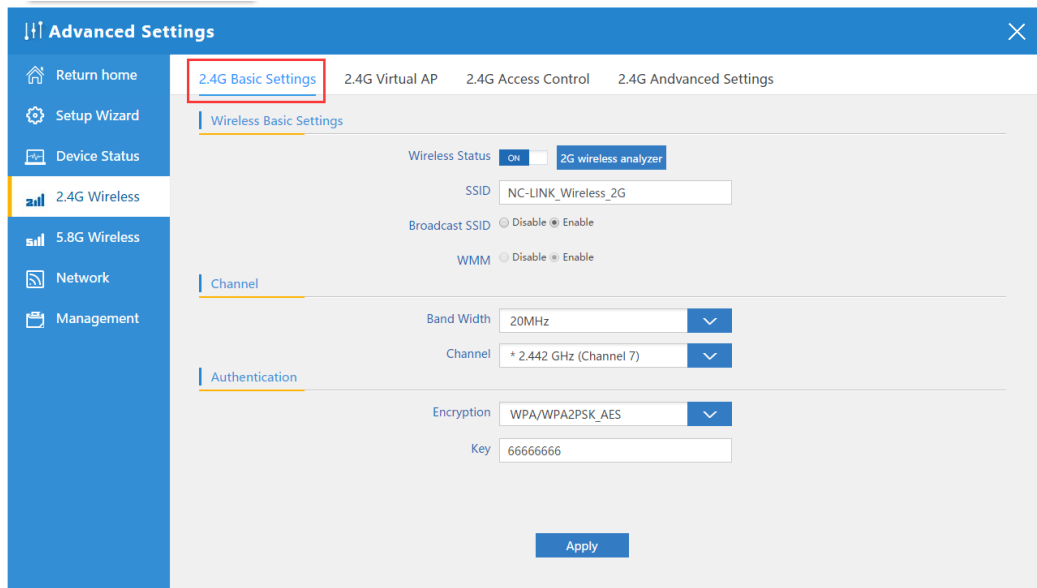
DHCP address range 192.168.188.2 — 192.168.188.252

Assigned IP 0

[Client list](#)

## 8.2 2.4G Wireless

### 8.2.1 2.4G Basic Setting



The screenshot shows the 'Advanced Settings' window with a sidebar on the left containing 'Return home', 'Setup Wizard', 'Device Status', '2.4G Wireless', '5.8G Wireless', 'Network', and 'Management'. The '2.4G Wireless' option is selected. The main panel has tabs for '2.4G Basic Settings' (highlighted with a red box), '2.4G Virtual AP', '2.4G Access Control', and '2.4G Advanced Settings'. Under 'Wireless Basic Settings', there are sections for 'Wireless Status' (with 'ON' selected and a '2G wireless analyzer' button), 'SSID' (set to 'NC-LINK\_Wireless\_2G'), 'Broadcast SSID' (radio buttons for 'Disable' and 'Enable', with 'Enable' selected), and 'WMM' (radio buttons for 'Disable' and 'Enable', with 'Enable' selected). Below these are sections for 'Channel' (with 'Band Width' set to '20MHz' and 'Channel' set to '\* 2.442 GHz (Channel 7)') and 'Authentication' (with 'Encryption' set to 'WPA/WPA2PSK\_AES' and 'Key' set to '66666666'). An 'Apply' button is at the bottom right.

- Wireless Status: ON/OFF the 2.4GHz wireless
- 2G Wireless Analyzer: Analyze the 2.4G wireless signal around help to choose a better channel to avoid interference
- SSID: Set the SSID
- Broadcast SSID: Enable or Disable broadcast SSID
- WMM: Enable or Disable WMM function
- Band Width: Set the Band Width of wireless signal
- Channel: Set the Channel of the wireless signal
- Encryption: Choose the encryption type or open

### 8.2.2 2.4G Virtual AP

**Advanced Settings**

2.4G Basic Settings **2.4G Virtual AP** 2.4G Access Control 2.4G Advanced Settings

2.4G Virtual AP

Virtual AP1 Virtual AP2 Virtual AP3

Wireless Status ☒ ON

SSID VAP0

Broadcast SSID ☐ Disable ☒ Enable

WMM ☐ Disable ☒ Enable

Encryption WPA/WPA2PSK\_AES

Key

Apply

- Wireless Status: ON/OFF the Virtual AP
- SSID: Set the SSID
- Broadcast SSID: Enable or Disable broadcast SSID
- WMM: Enable or Disable WMM function
- Encryption: Choose the encryption type or open

### 8.2.3 2.4G Access Control

**Advanced Settings**

2.4G Basic Settings 2.4G Virtual AP **2.4G Access Control** 2.4G Advanced Settings

Wireless Access Control

Access Control Deny Listed

MAC MAC Access All

Add

Access Control List Clear

Association STA list Refresh

ALL MAC

Import

Allow or deny the Access Control based on MAC address

### 8.2.4 2.4G Advanced Setting

- Regional: set it of your country or region
- MODE: you can choose 802.11N/G, 802.11B/G
- RF Output Power: 100%, 75%, 50%, 25%, 12.5%
- MAX user: limit the number of connect client
- Coverage threshold: limit the number of connect client
- Other advanced Setting: Professional installation or maintenance person can set it accordingly. General, keep it default. Click Apply after setting

## 8.3 5.8G Wireless

### 8.3.1 5.8G Basic Setting

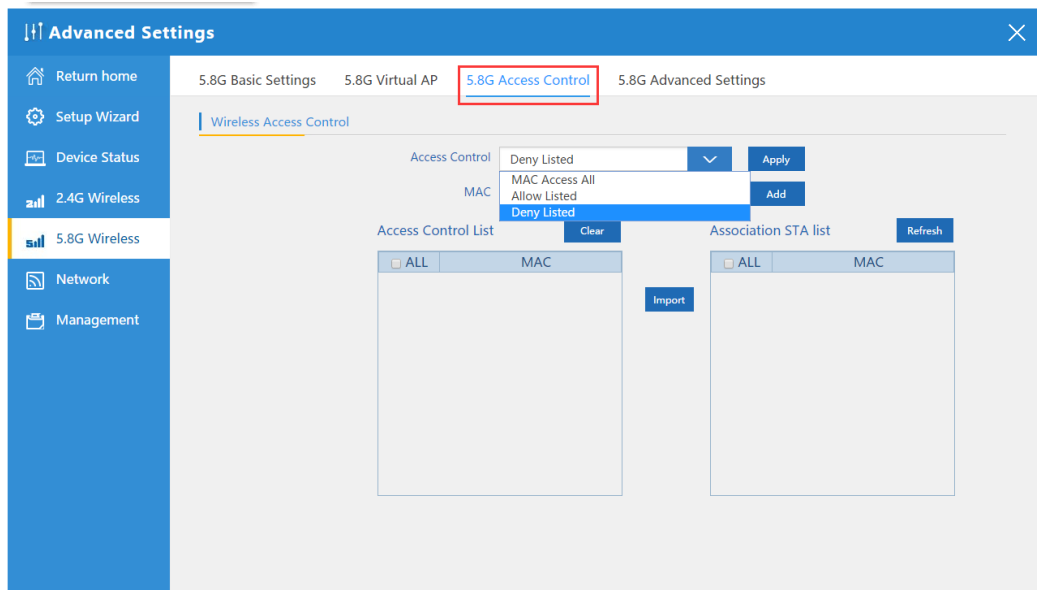
- Wireless Status: ON/OFF the 5.8GHz wireless

- 5G Wireless Analyzer: Analyze the 25.8G wireless signal around help to choose a better channel to avoid interference
- SSID: Set the SSID
- Broadcast SSID: Enable or Disable broadcast SSID
- WMM: Enable or Disable WMM function
- Band Width: Set the Band Width of wireless signal
- Channel: Set the Channel of the wireless signal
- Encryption: Choose the encryption type or open

### 8.3.2 5.8G Virtual AP

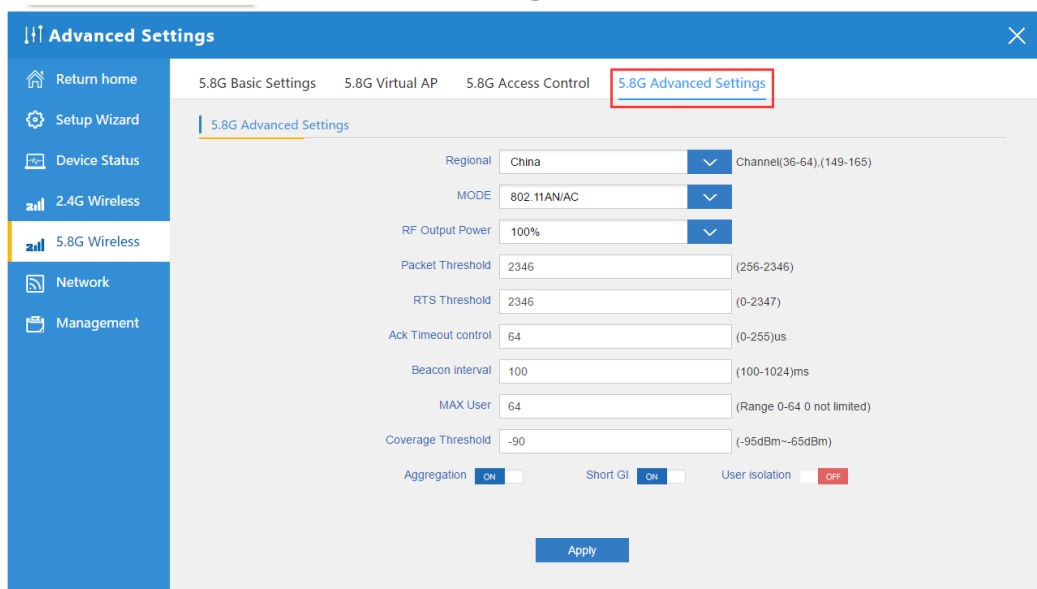
- Wireless Status: ON/OFF the Virtual AP
- SSID: Set the SSID
- Broadcast SSID: Enable or Disable broadcast SSID
- WMM: Enable or Disable WMM function
- Encryption: Choose the encryption type or open

### 8.3.3 5.8G Access Control



Allow or deny the Access Control based on MAC address

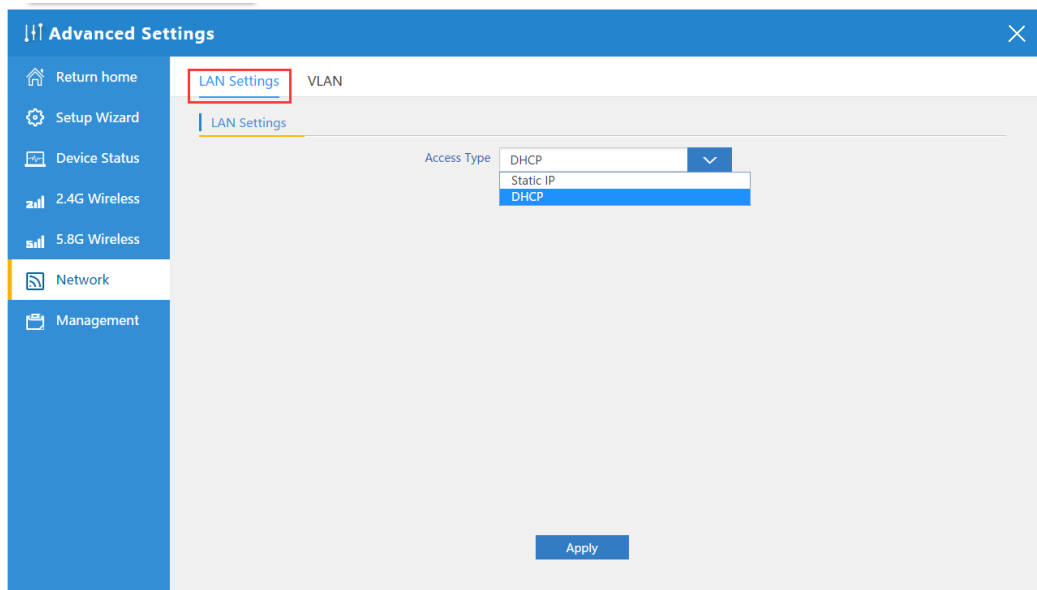
### 8.3.4 5.8G Advanced Setting



- Regional: set it of your country or region
- MODE: you can choose 802.11A, 802.11AN, 802.11AN/AC
- RF Output Power: 100%, 75%, 50%, 25%, 12.5%
- MAX user: limit the number of connect client
- Coverage threshold: limit the number of connect client
- Other advanced Setting: Professional installation or maintenance person can set it accordingly. General, keep it default. Click Apply after setting

## 8.4 Network

### 8.4.1 LAN Settings



**Advanced Settings**

Return home | Setup Wizard | Device Status | 2.4G Wireless | 5.8G Wireless | **Network** | Management

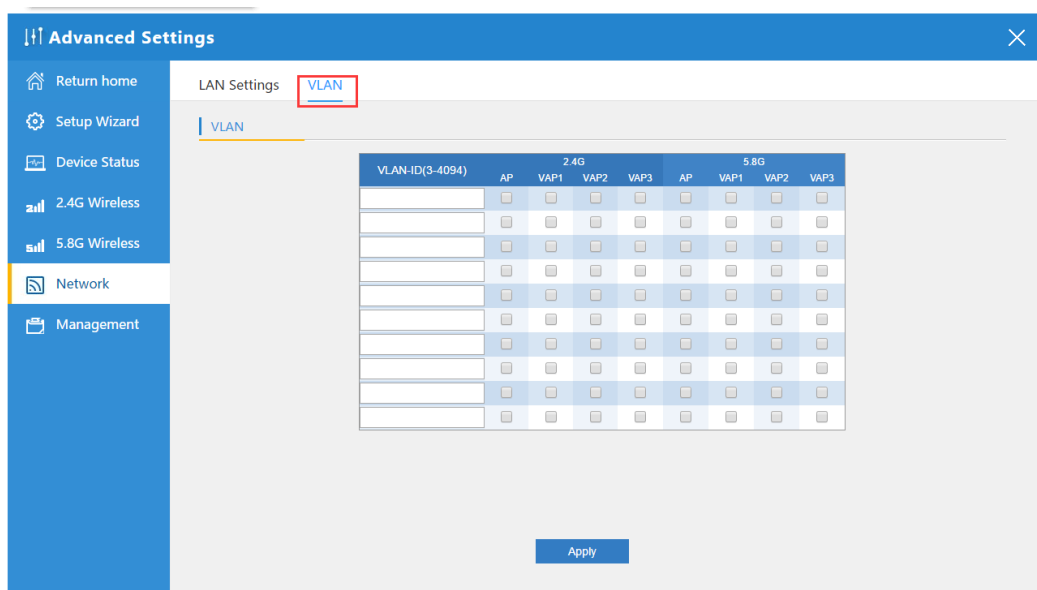
**LAN Settings** | VLAN

Access Type: DHCP (dropdown menu showing Static IP, DHCP)

**Apply**

Setting the Access Type of Internet

### 8.4.2 VLAN



**Advanced Settings**

Return home | Setup Wizard | Device Status | 2.4G Wireless | 5.8G Wireless | **Network** | Management

LAN Settings | **VLAN**

VLAN-ID(3-4094)	AP	2.4G			5.8G		
	VAP1	VAP2	VAP3	VAP1	VAP2	VAP3	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

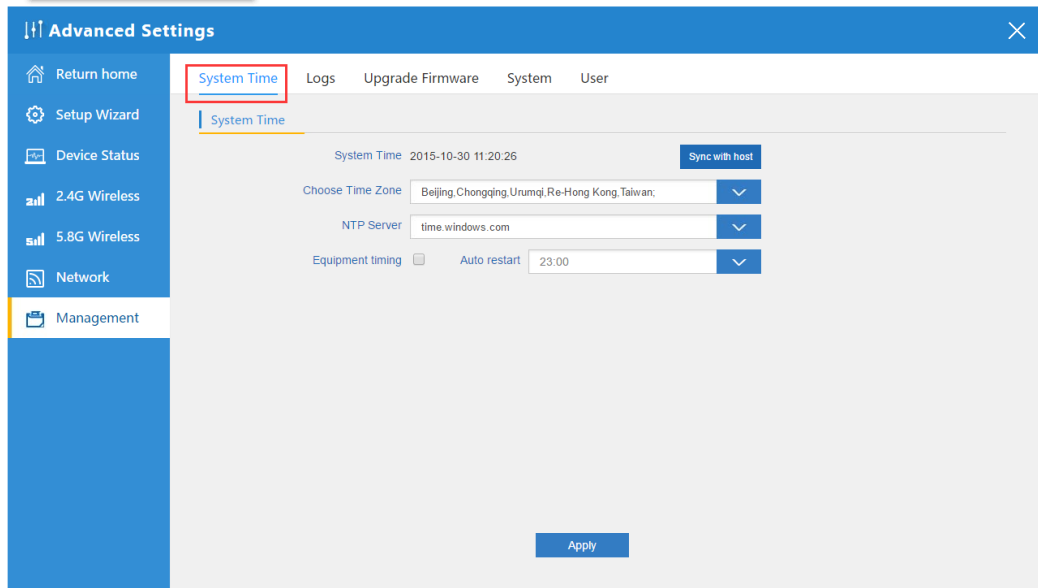
**Apply**

Setting the VLAN base on SSID

## 8.5 Management

### 8.5.1 System Time





**Advanced Settings**

Return home | **System Time** | Logs | Upgrade Firmware | System | User

**System Time**

System Time: 2015-10-30 11:20:26 [Sync with host]

Choose Time Zone: Beijing, Chongqing, Urumqi, Re-Hong Kong, Taiwan; [v]

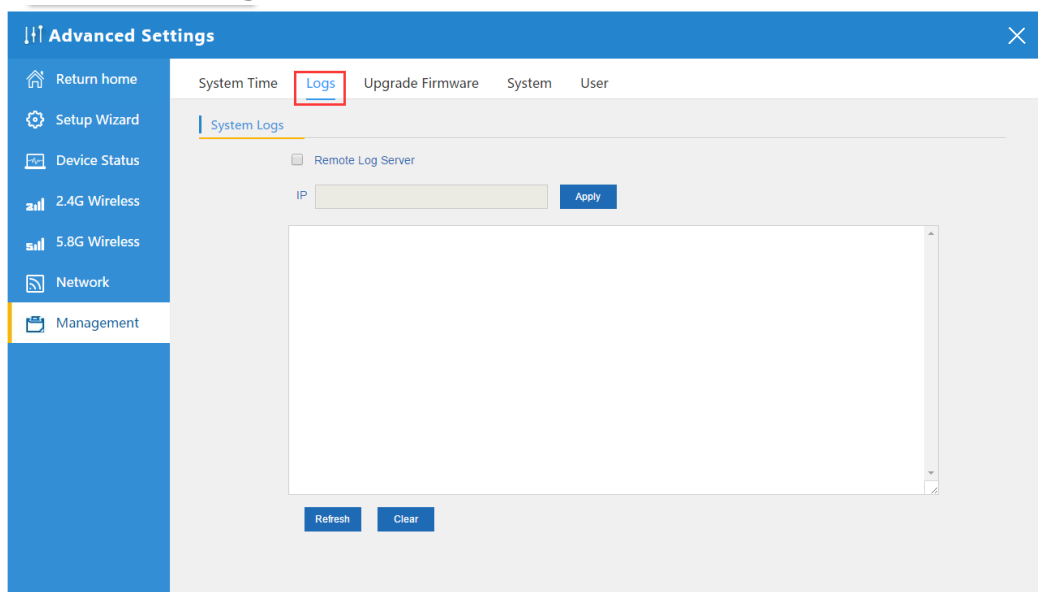
NTP Server: time.windows.com [v]

Equipment timing: ☐ Auto restart: 23:00 [v]

[Apply]

System Time: Set CPE's time

### 8.5.2 Logs



**Advanced Settings**

Return home | System Time | **Logs** | Upgrade Firmware | System | User

**System Logs**

☐ Remote Log Server

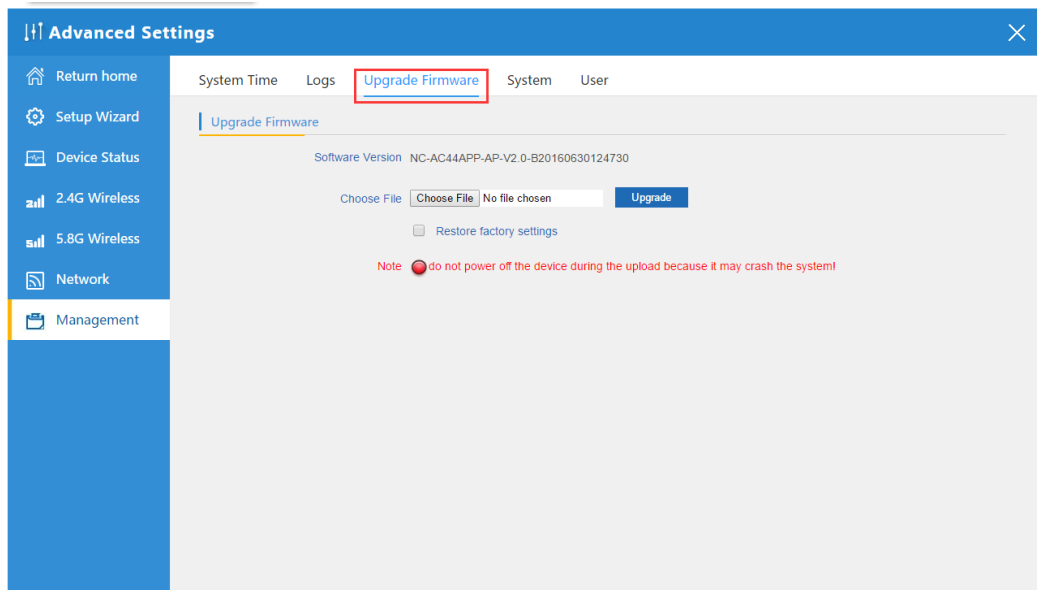
IP: [ ] [Apply]

[Refresh] [Clear]

Logs: the system logs can be enable or disable, user can view the system log

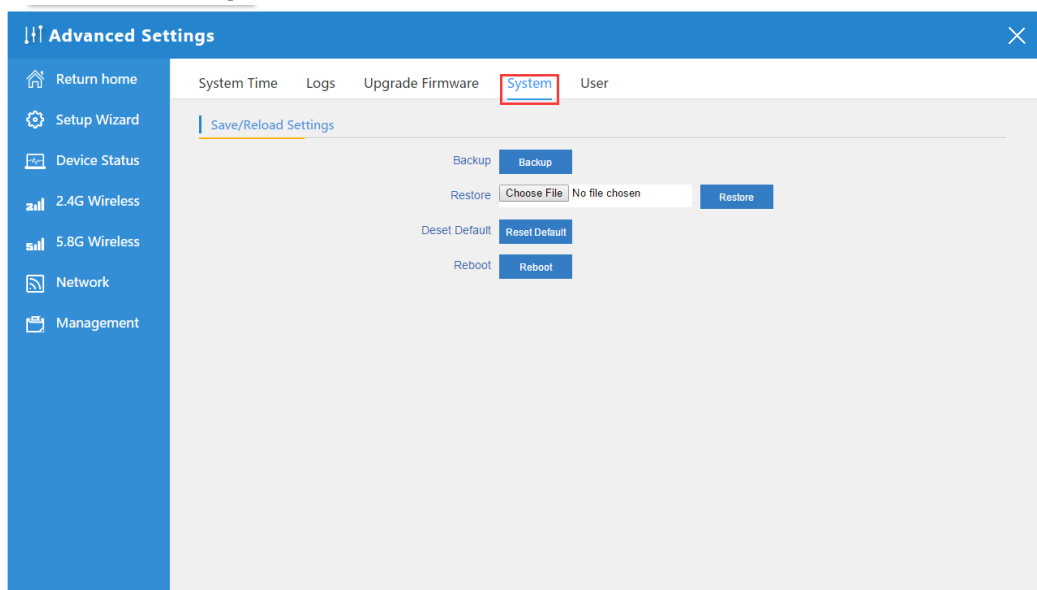


### 8.5.3 Upgrade Firmware



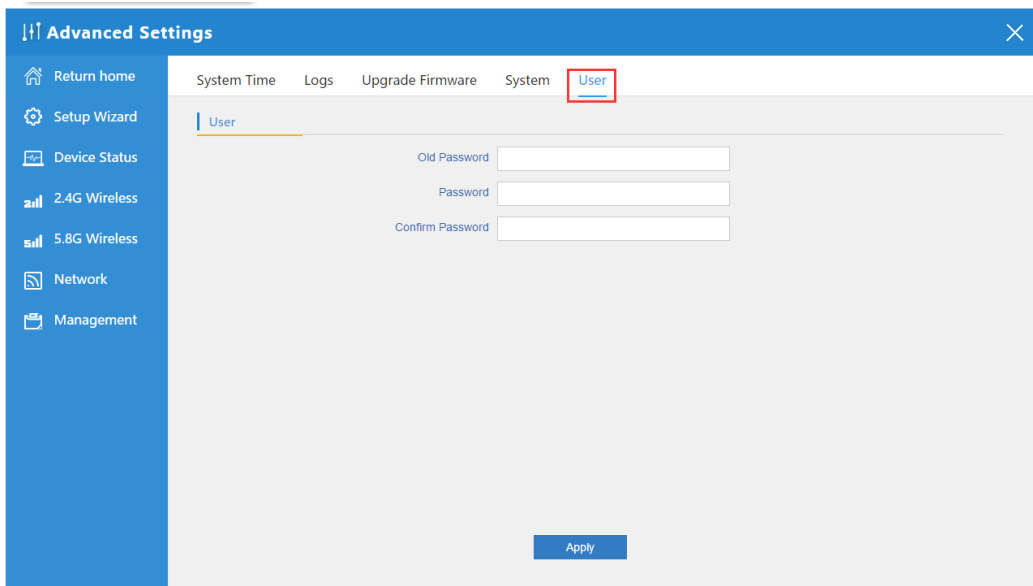
Upgrade Firmware: Upgrade new firmware to access stable function for CPE

### 8.5.4 System



System: from here you can reload the backup file to restore the system, or restore to factory default, reboot the CPE through firmware

### 8.5.5 User



The screenshot shows the 'Advanced Settings' window with the 'User' tab selected. The left sidebar contains navigation options: Return home, Setup Wizard, Device Status, 2.4G Wireless, 5.8G Wireless, Network, and Management. The main content area has tabs for System Time, Logs, Upgrade Firmware, System, and User. The 'User' tab is active, showing three input fields: 'Old Password', 'Password', and 'Confirm Password'. An 'Apply' button is located at the bottom right of the form.

User: Set the CPE's User Name and Password

## 9. Trouble Shooting

Q: Client can not find the SSID

A: To check wireless setting about the broadcast SSID whether enable

Q: Client can not connect to the SSID

A: Firstly, check client quantity whether reach the limit; secondly, check client's RSSI whether lower than the threshold limit; thirdly, check the client whether in the deny list of setting

Q: Client can connect to SSID but can not surf the Internet

A: This mainly due to the DNS issue, check the gateway router for the DNS setting

Q: Client network speed is slow

A: Check the link rate of your connection. If it is low, change other place to get better signal. If it is high, need to check whether has QoS in the gateway router then do some adjustments