User Manual of Access Controller

Version V1.2

Thank you for purchasing NC-Link Access Controller. This manual will instruct you how to configure and manage the APs with this controller, enable you to use it in a perfect status.
Please check the Package before use it.

Package Contents

Item	Description	Unit	QTY
1	Access Controller	PCS	1
2	Power Cord	PCS	1
3	Mounting Accessory(H91G)	Set	1
4	Quick Installation Guide	PC	1

1. Manual Instruction

This manual is subject to tell users how to use this Wireless Access Controller 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

1.2 Conventions

If without extra explanation, this device, or WIFI management platform mentioned on this guide stands for AC Controller Wifi management platform, short for AC Controller

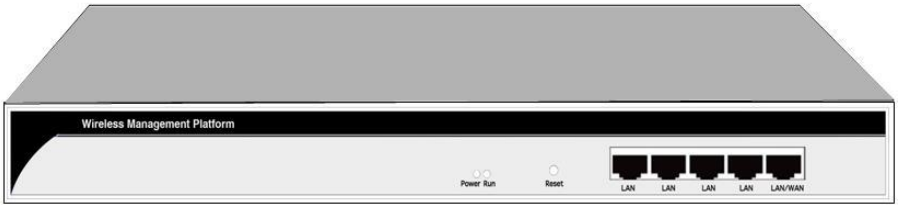
2. Product Introduction

Access Controller is a highly performance Wi-Fi management platform, especially for Wi-Fi in hotel or Small & Medium Enterprise.

It's capable for managing all NC-Link Access point, features with AP auto-detection, AP status preview, AP configuration, MAC filtering, AP software upgrade simultaneously, AP group ect. Match up with NC-Link Access Point to provide high performance & reliable solution.

2.1 Product Layout

2.1.1 Front Panel



LED Indicator

LED	Name	Indication
Power	Power Light	Power is ON, means status is up
		Power is OFF, mean status is down
Run	System Light	Flashing, means system status is normal
		OFF or Solid, means status is abnormal

Reset Button

If need to restore the Access Controller into factory default, please do following procedure: Power on AC Controller, use a pin to press and hold the reset button until all LED becomes quick-flash.

Then release the button and wait for AC Controller to reset to factory default setting. After reset, the default IP address of Access Controller is **192.168.10.1**, default user name and password are **admin**.

RJ45 Connector

5 x 10/100M/1000Mbps auto-negotiation RJ45 Ethernet Port

Notice:

LAN/WAN port is LAN port only on the default mode, only when WAN setting is enabled then LAN/WAN port will change to WAN port.

2.1.2 Rear Panel

DC Connector

DC Connector located on the right side of Access Controller's rear panel, input power is AC 100-240V~ 50/60Hz 0.3A

Grounding For Lightening

Please deploy ground connection to avoid lightening stroke, detail installation please refer to "Grounding For Lightening Guide".

3. Login

Please make sure the following items before login the Access Controller.

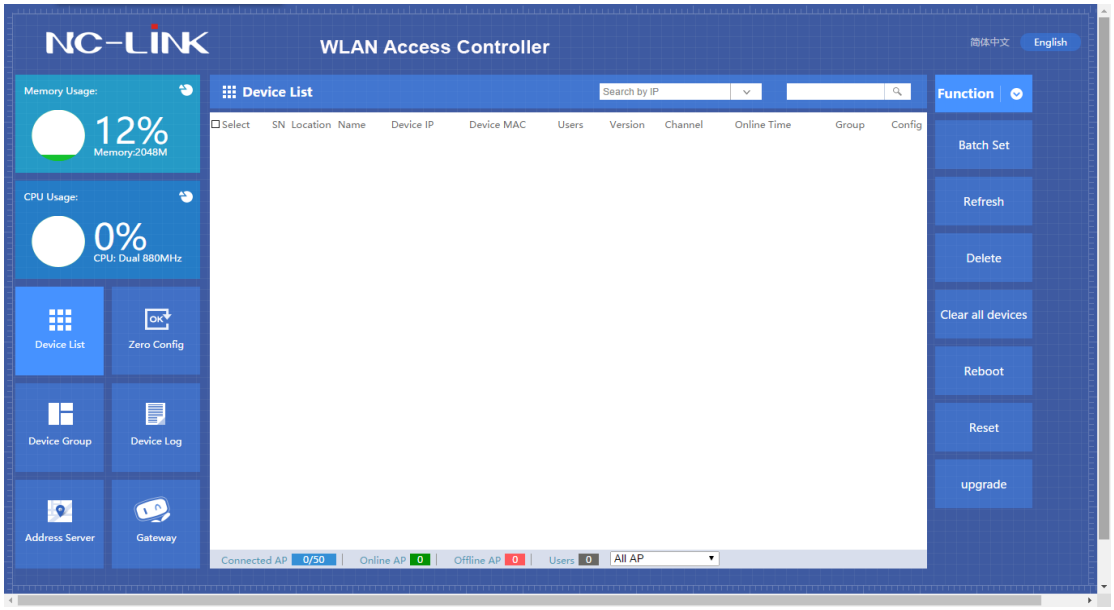
- Access Controller has normal powered on, LAN port has been connected with the management host
- The management host has been properly installed IE 7.0 or higher browser version
- IP Address is dynamic

Login Steps:

Open IE browser, input **http://192.168.10.1** in the address bar to login AC Controller's Web management interface.

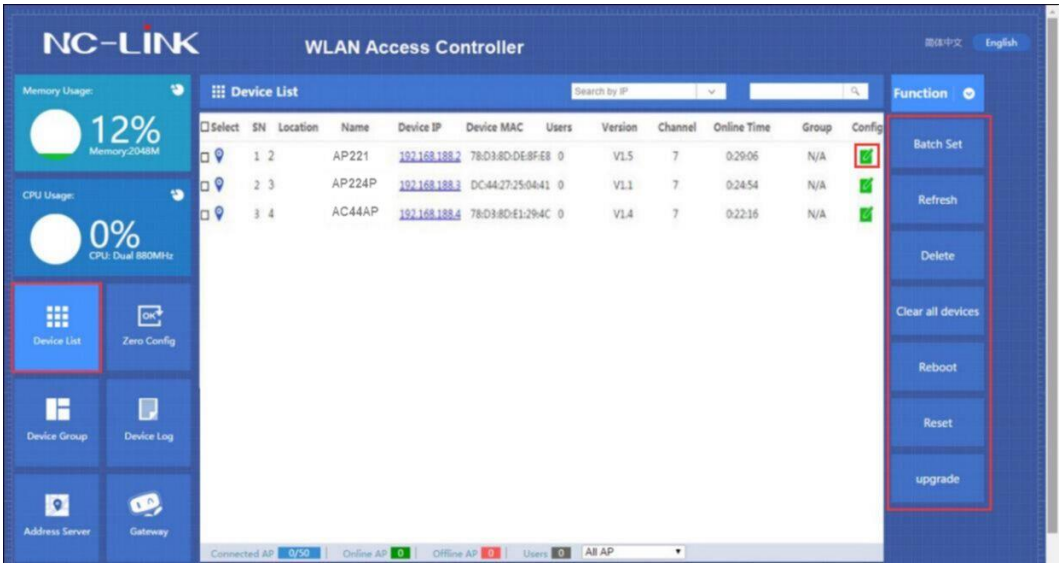
Access Controller login screen require user name and password, the default is admin, input and click "**OK**"

After login, you can see below Web page



4. Function Setting

4.1 Device List



Menu in the right side.

Batch Set: Setting Access Points with same parameters in one time

Refresh: Refresh the status of the Access Point

Delete: Delete the Access Point shown in the list

Clear all devices: Clear all devices shown in the list

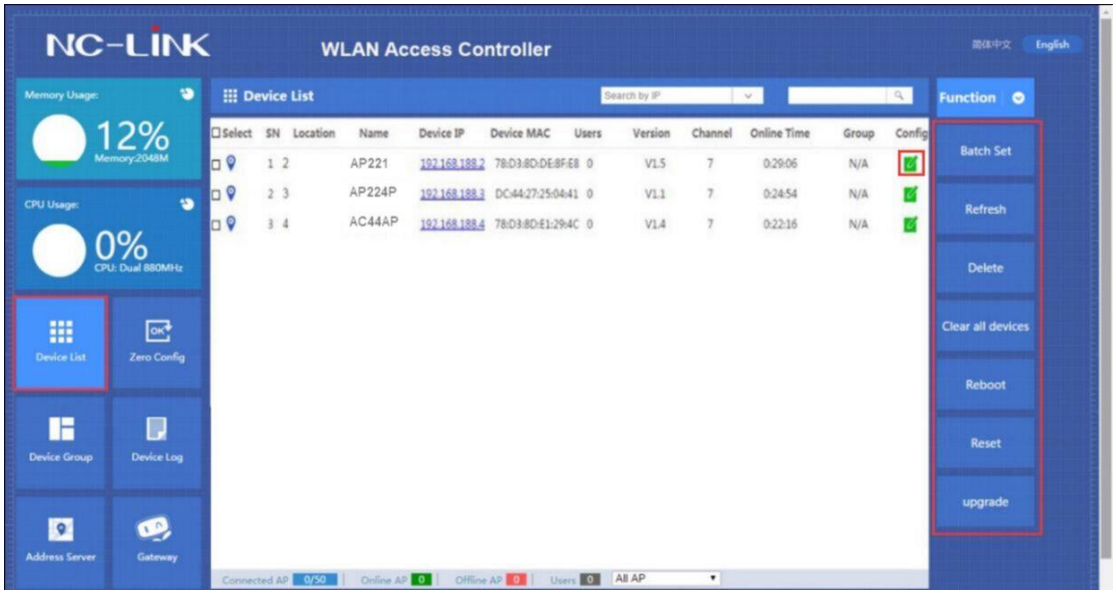
Reboot: Reboot the Access Point you select

Reset: Reset the Access Point you select

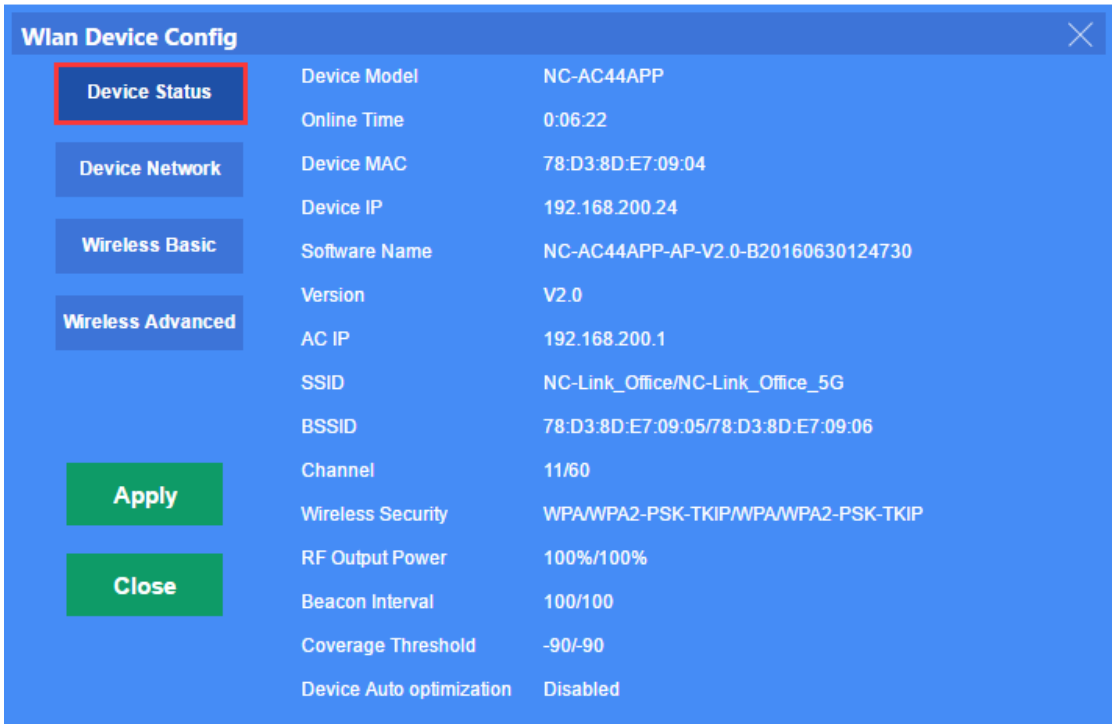
Upgrade: Upgrade the Access Point you select

Notice:

All the functions in the right menu, you have to select at least one device.



The Access Points display in the list, you can also set particular one through click edit  of the device.



Device Status

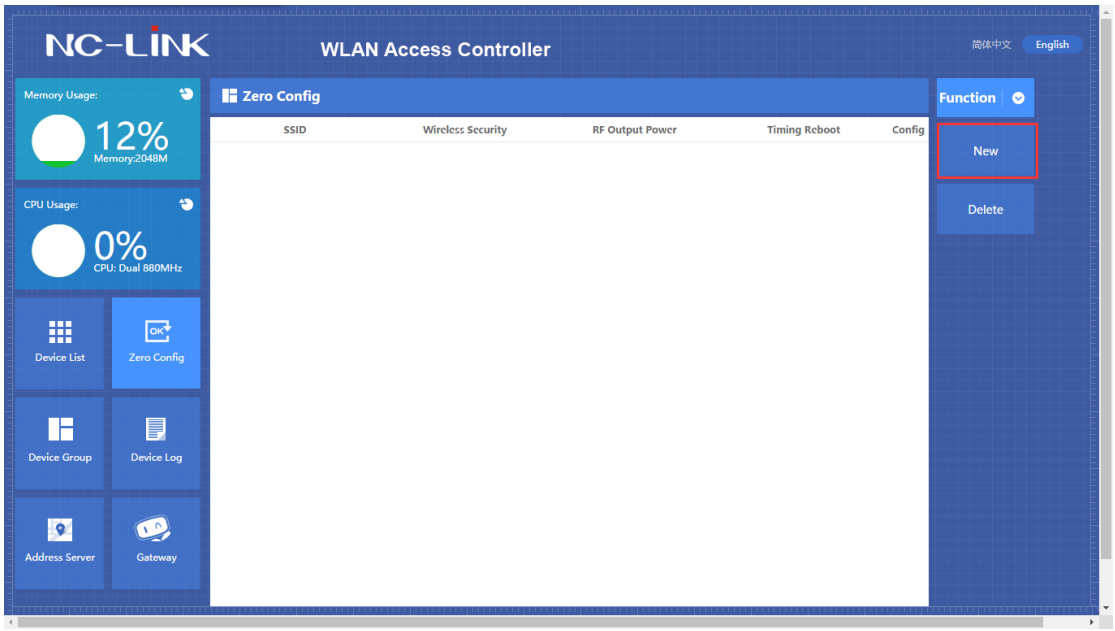
Device Network

Wireless Basic

Wireless Advanced

4.2 Zero Config

Zero Config is a configuration assigned by controller when the Access Point is detected with default setting. Like Access Point is first connect to controller or the Access Point after reset to default setting.



Click "New" to set the Zero Config

Set the Group Name of the Zero Config, and also you can set the detail time to make it reboot to optimize the devices status.

The first part is the Wireless Basic.

Device List: Wlan Device 1 is for 2.4GHz; Wlan Device 2 is for 5.8GHz

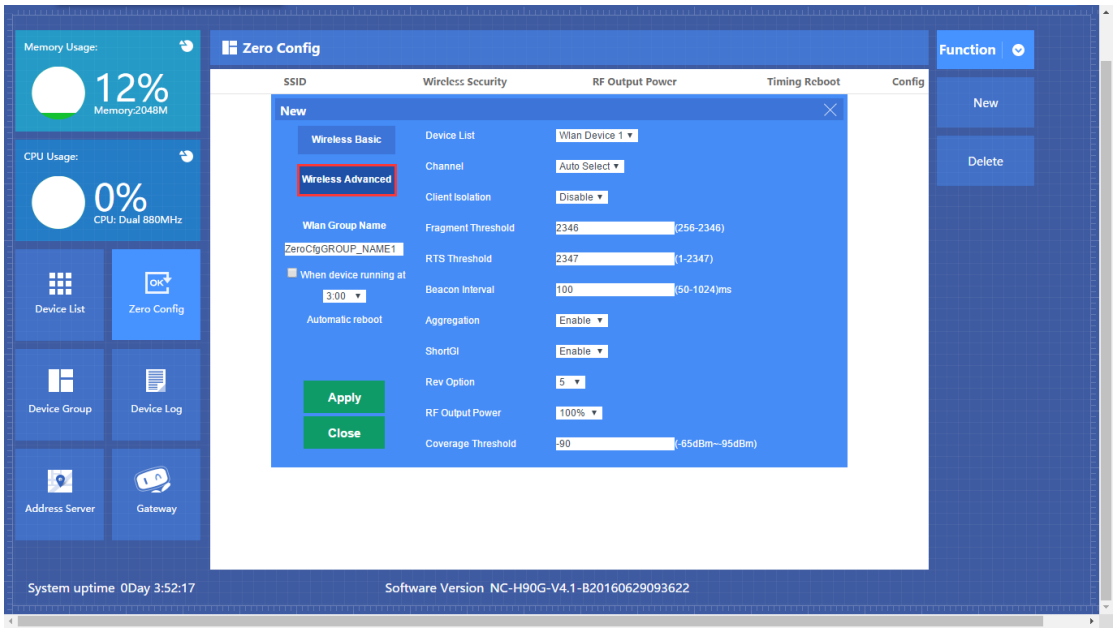
Status: Enable or Disable the wireless signal

Broadcast SSID: Enable or Disable broadcast SSID

SSID: Set the SSID

VlanId: Set the VLAN ID if needed

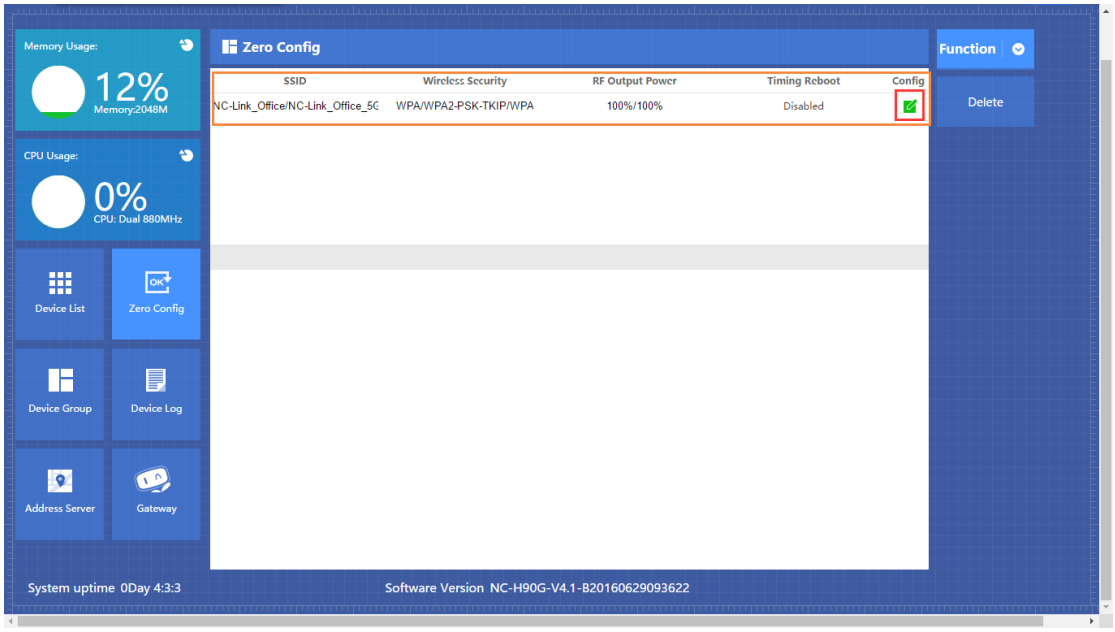
Wireless Security default is Open. Click the "**Config**" to set the encryption you need.



The second part is the Wireless Advanced.

Device List: Wlan Device 1 is for 2.4GHz; Wlan Device 2 is for 5.8GHz
Client Isolation: Enable or Disable client isolation
RF Output Power: To set the RF Output Power of the device, it divided into 100%, 75%, 50%, 25%, 12.5%
Coverage Threshold: To limit the RSSI of the access device
Note: Other advanced setting is for more professional or maintenance person, suggest to keep them as default.

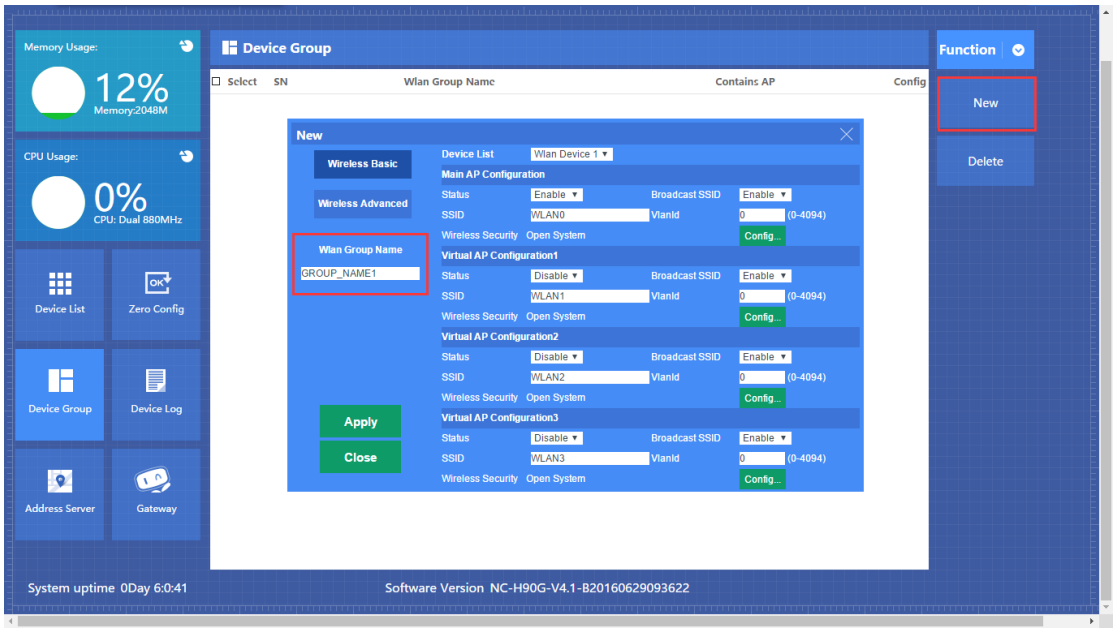
Wlan Device 2 is also the same way for setting if it needs 5.8GHz. After all the parameter finished, click "**Apply**" and you will see the Zero Config is generated and show as below:



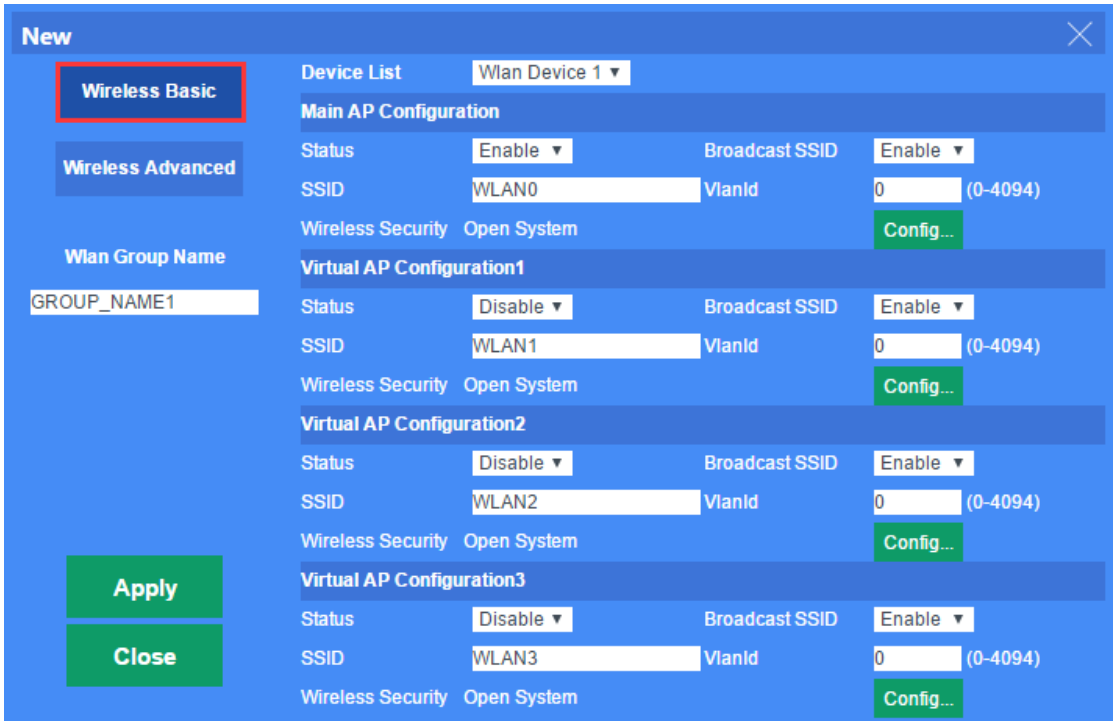
If you need to edit the current Zero Config, you can click the  to adjust it.

4.3 Device Group

With device group, you can change the group devices information together, such as SSID and password. Click New to set a new group.

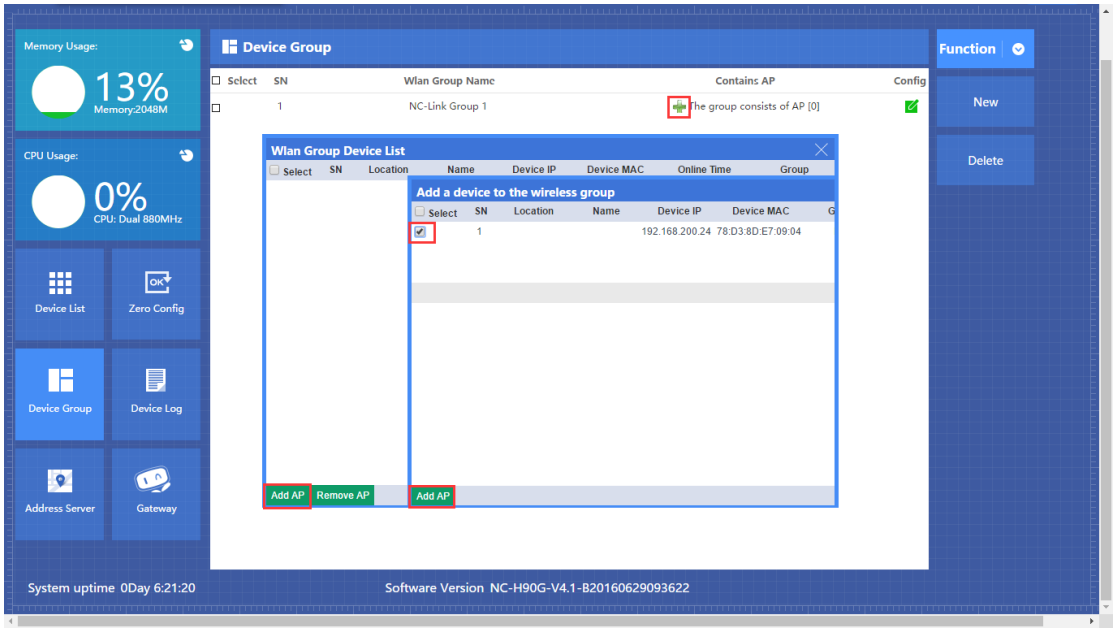


Set the Group Name as you need

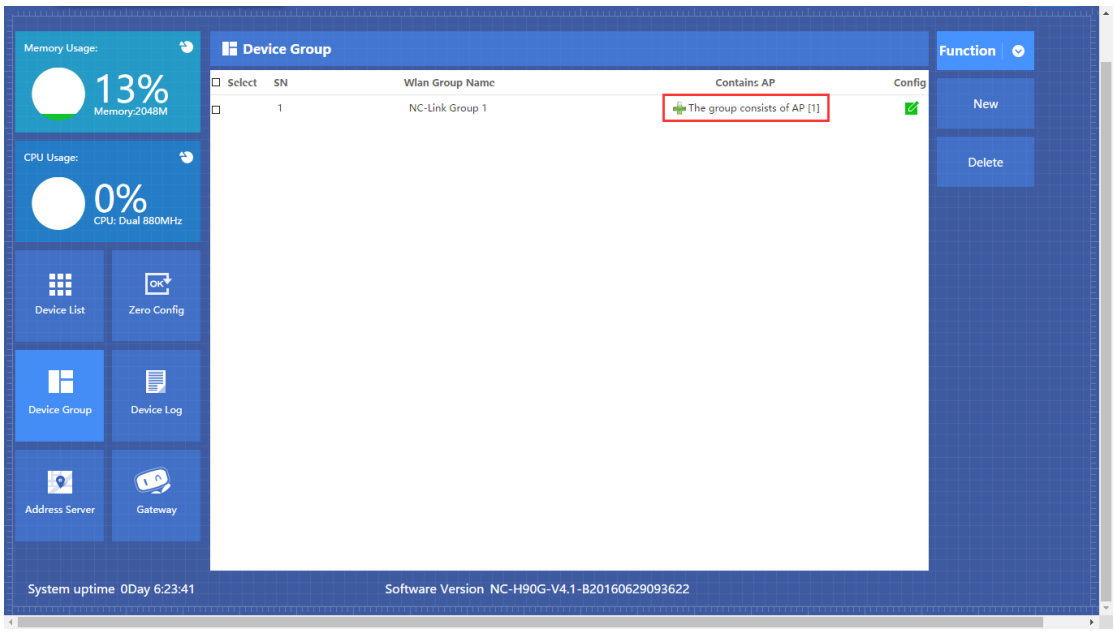


Wireless Basic setting same as Zero Config

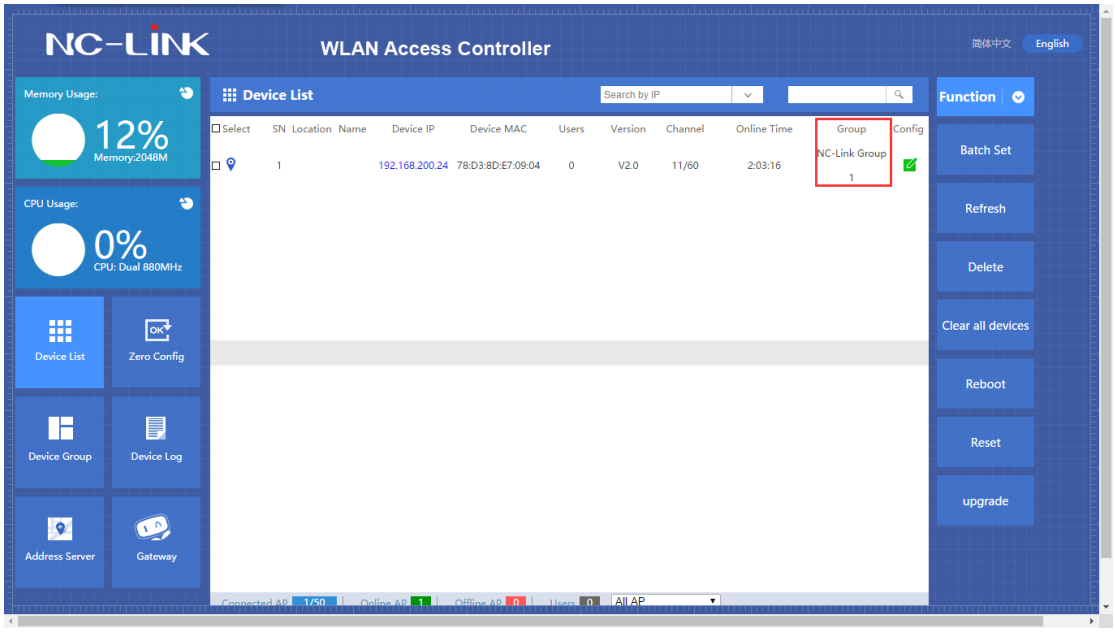
Wireless Advanced setting same as Zero Config



Click  to add Access Point to the Group. Select the AP and click **Add AP**. After finished you can see the AP quantity will change in **Contains AP**.



And also you can see in the **Device List**.

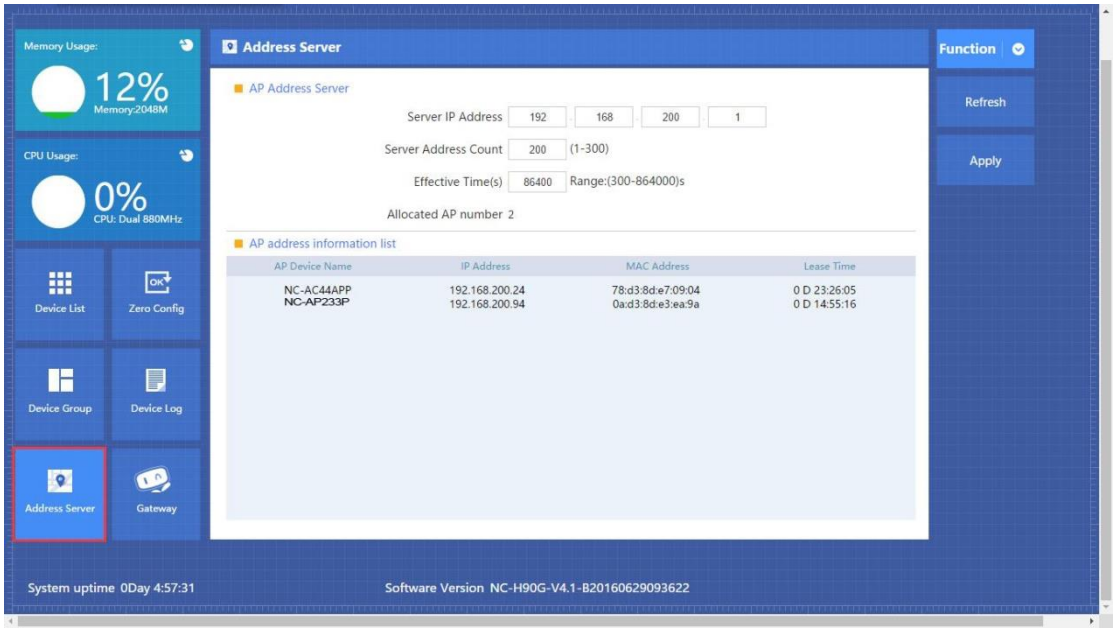


4.4 Device Log

Device Log show AP's record, such as on line record, offline record, device configuration record in the display area. And you can clear the record when it is necessary.

4.5 Address Server

Through Address Server, to set server IP address, subnet mask; Server address Pool, main to assign IP address to the connected wireless AP, no need to specify the IP address for wireless AP manually.

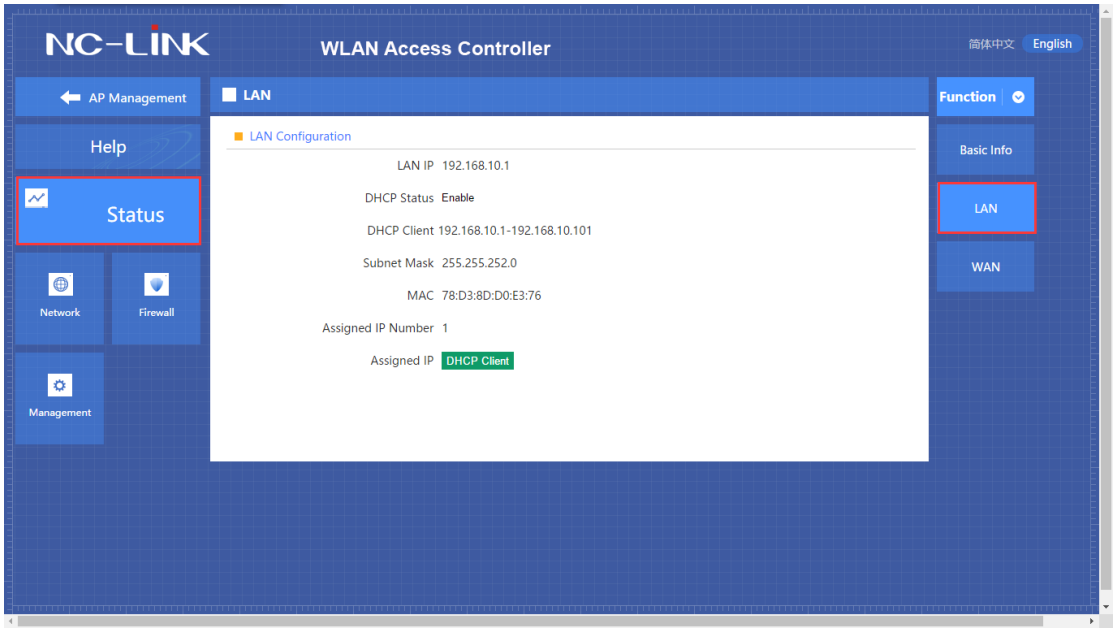


4.6 Gateway

4.6.1 Status

Basic Information

You can find Software, Hardware version of the device in Basic Information.

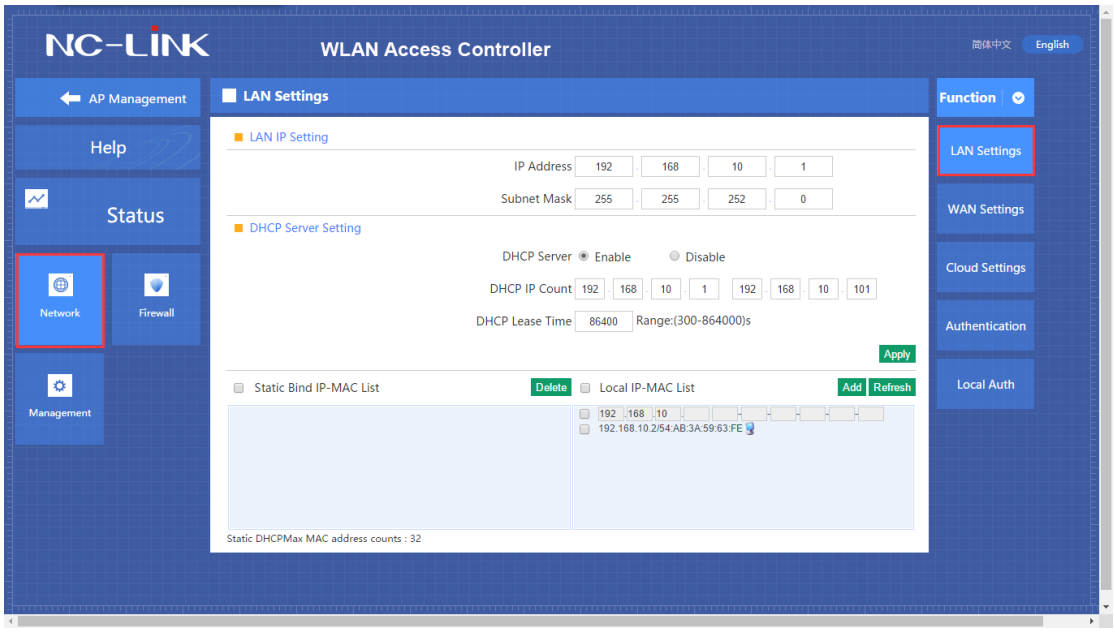


LAN Status

WAN Status

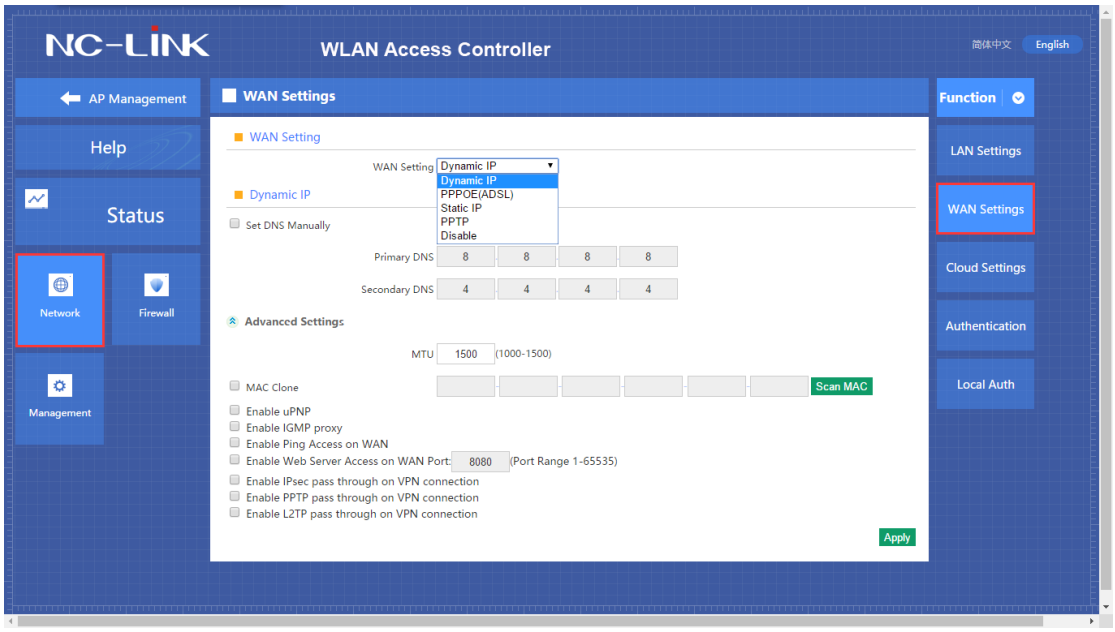
4.6.2 Network

LAN Setting



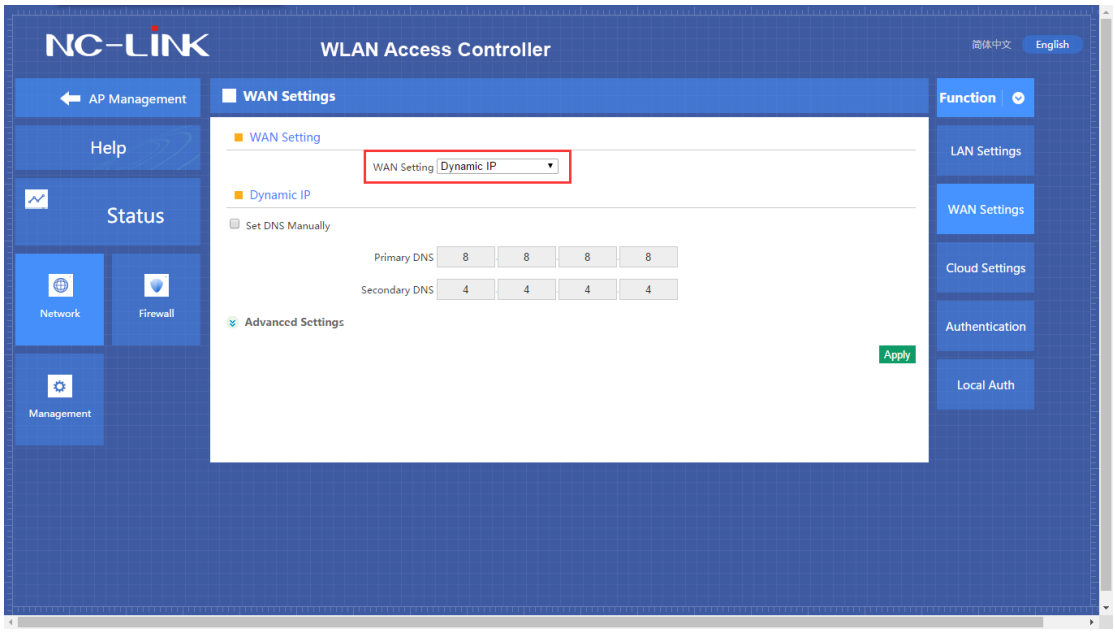
In the network LAN Setting, you can configure the LAN IP Address and DHCP Server Information. Default LAN IP is 192.168.10.1; DHCP Server is enable as default. And you can also binding the IP address with the MAC address.

WAN Setting



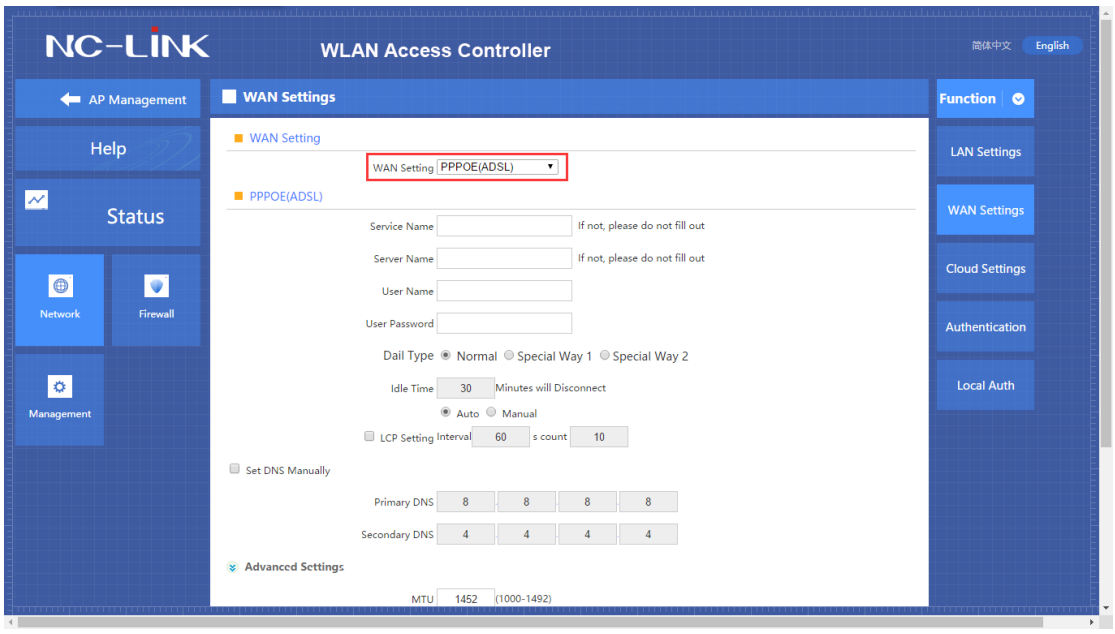
In the WAN Setting, support Dynamic IP, PPPOE(ADSL), Static IP, PPTP access type. In the advanced setting, can enable UPnP, IGMP proxy, Ping on WAN, VPN pass through.

Dynamic IP



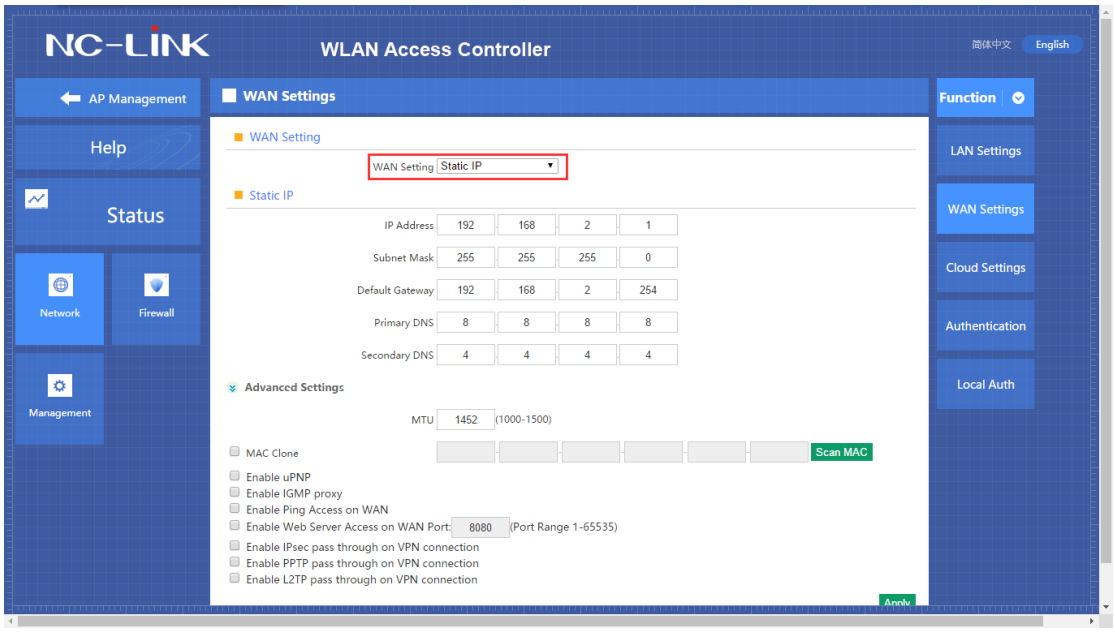
Access Type is Dynamic IP, no need to do any other setting, just click "**Apply**"

PPPOE(ADSL)



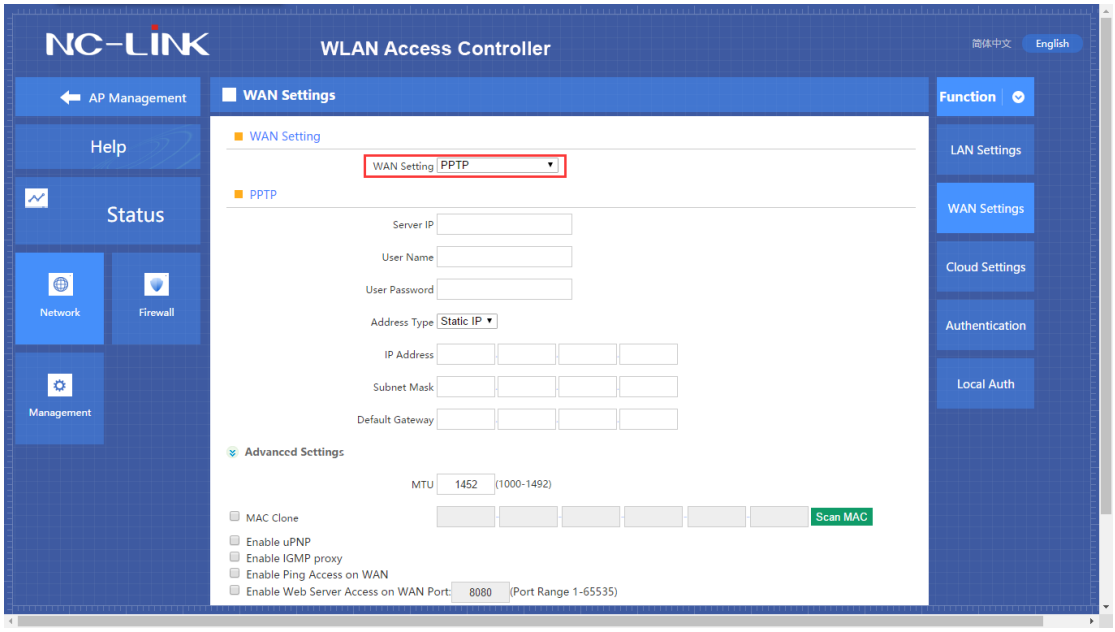
Access Type is PPPOE(ADSL), fill in the information provided by ISP then click "**Apply**"

Static IP



Access Type is Static IP, fill in the information provided by ISP then click "**Apply**"

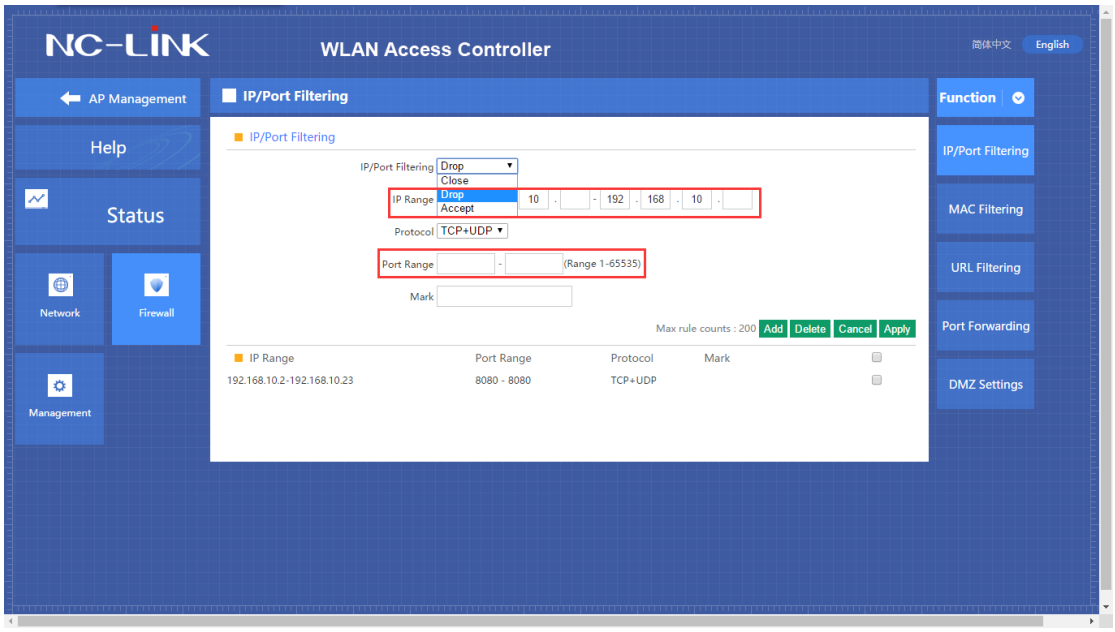
PPTP



Access Type is PPTP, fill in the Server IP, Username, Password ect according to the PPTP server. Then click "**Apply**" to access.

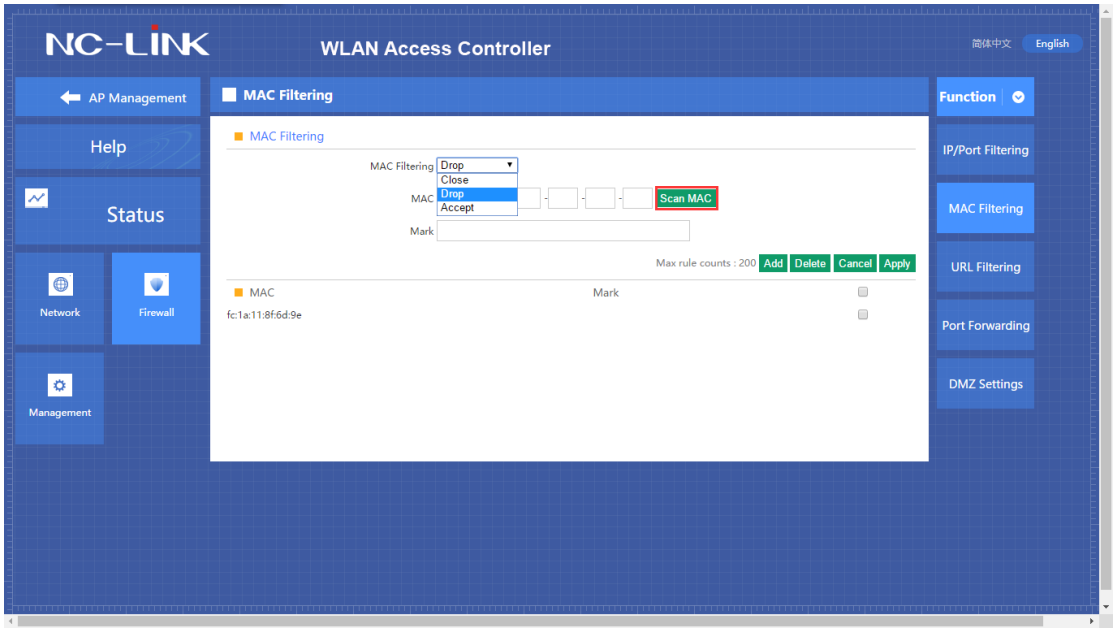
4.6.3 Firewall

IP/Port Filtering



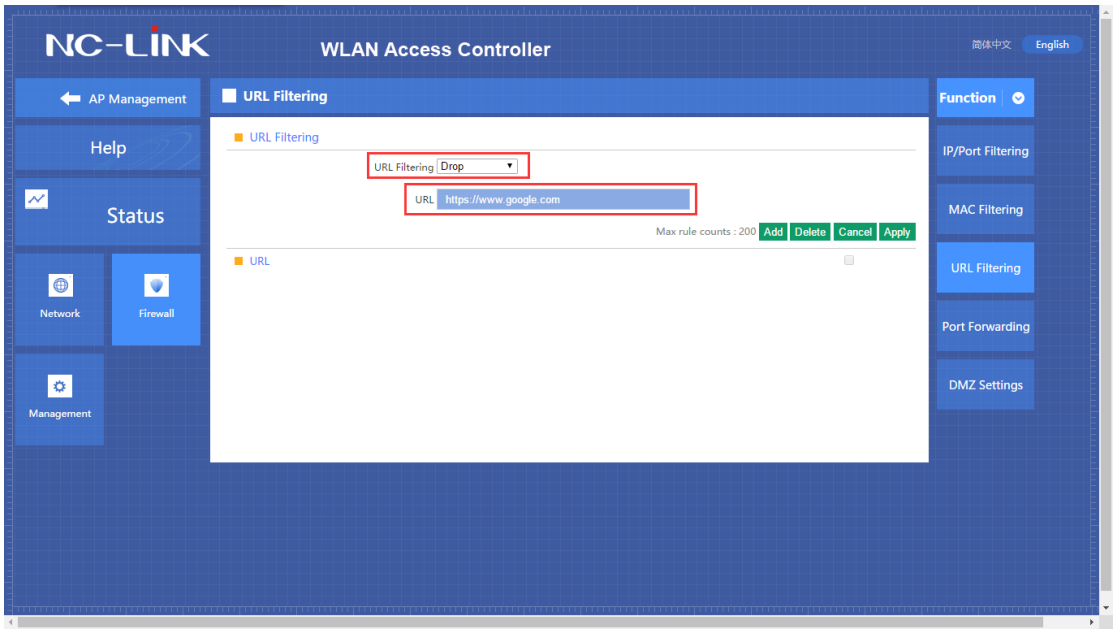
Setting the IP range and Port range to Drop or Accept the data connection. Add it after finished the parameter setting, then "**Apply**". Max 200 rules.

MAC Filtering



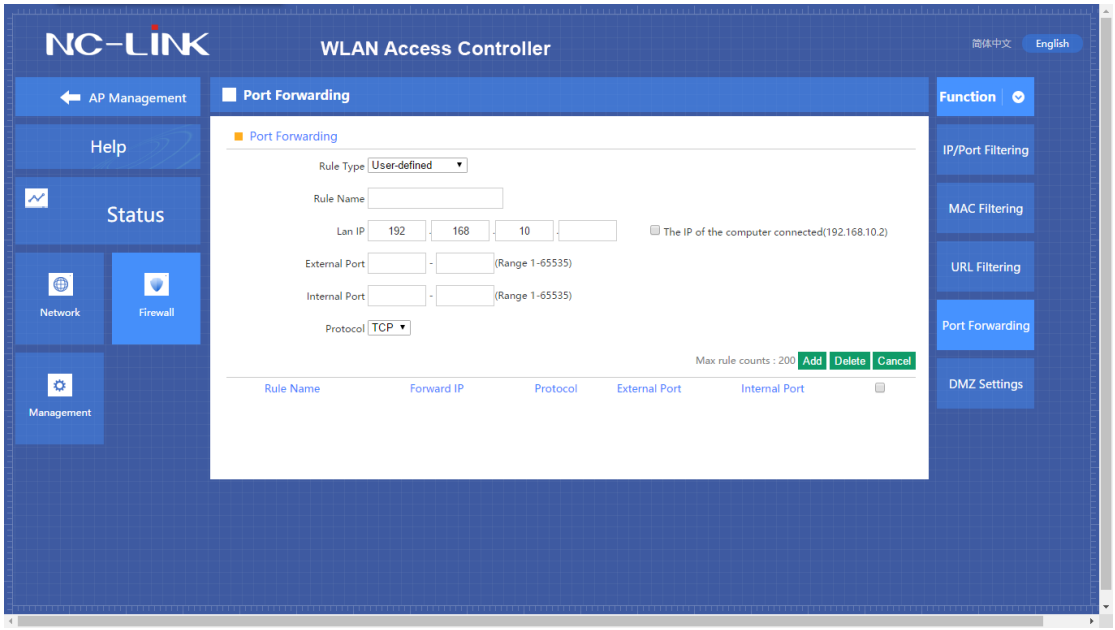
Select Drop or Accept the MAC Filtering. Then you can manually input the MAC or use Scan MAC to list it for you to choose. Add after finished and "**Apply**". Max 200 rules.

URL Filtering



Select Drop URL Filtering and fill in the URL you want to block. Then **Add** and "**Apply**"

Port Forwarding



Port forwarding

Port forwarding is to forward data from one port to another port, enabling external users have access to an internal private IP in LAN, from an external triggered NAT router

Rule Type

Set up rule type, which have specific port number

Rule name

Port forwarding rule name

LAN IP

IP of the port forwarding

External port

External port number of port forwarding

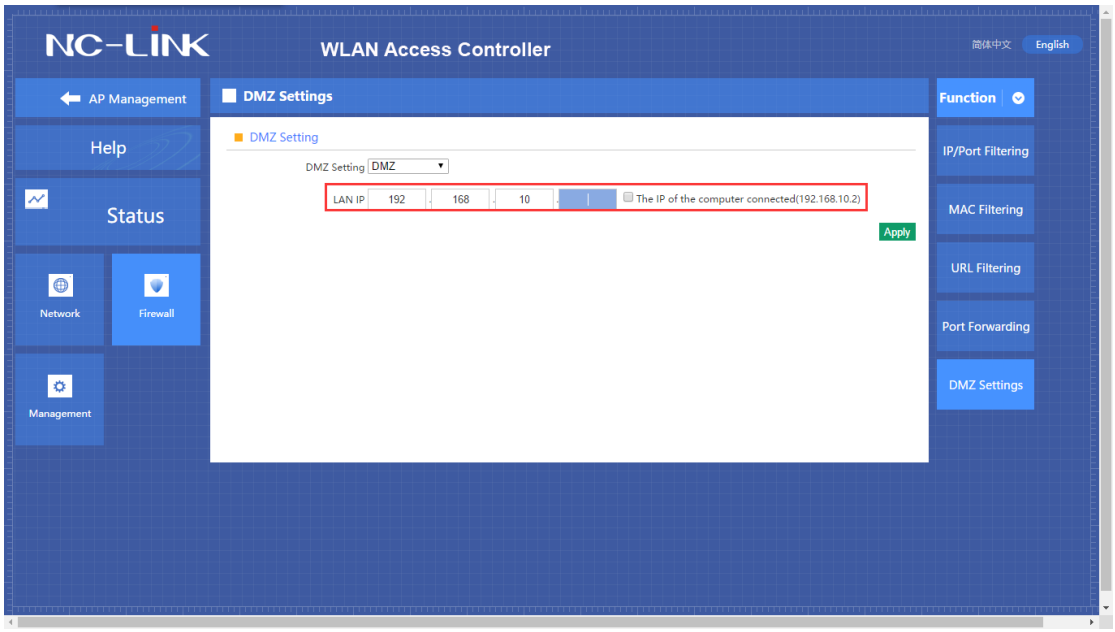
Internal port

Internal port number of port forwarding

Protocol

Protocol used for port forwarding

DMZ Settings



DMZ

DMZ is short for demilitarized zone. It's a compartment between security zone and non-security zone, in order to solve the problem of external network can not access into internal server after firewall installation. This DMZ zone is a small network zone between external and internal network. While in this small zone, users usually place some open server, like web server, FTP server, or forum. DMZ will protect internal network more efficiently, because this network allocation is another obstacle for hackers, compared to normal firewall.

IP LAN IP

IP address of DMZ host

4.6.4 Management

System

Backup

Save the configuration files to your computer

Restore

Using the saved configuration file recovery configuration

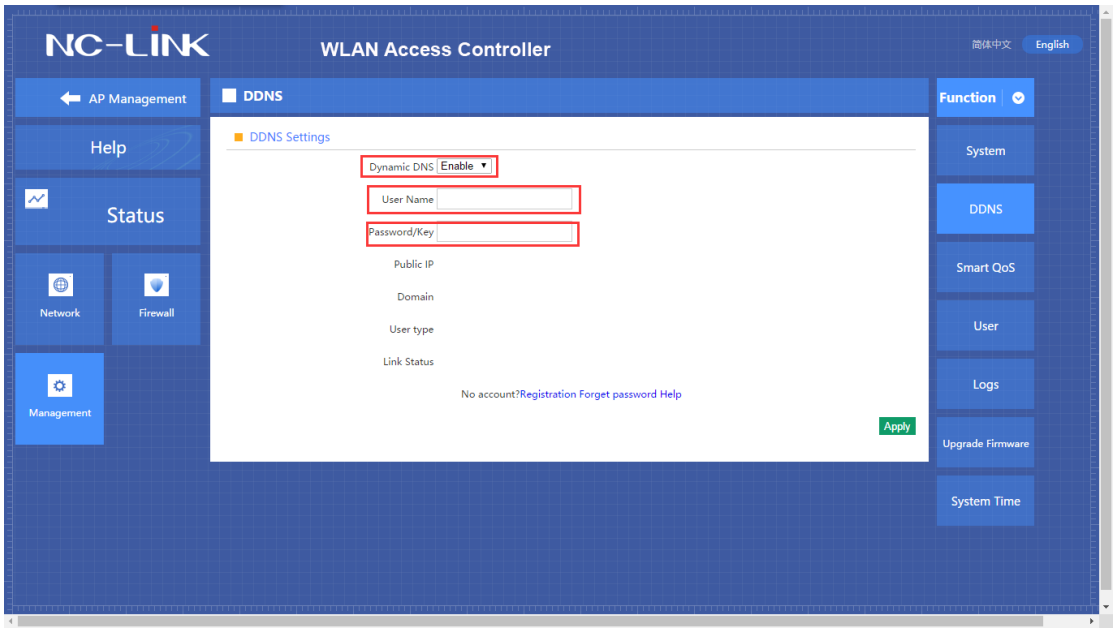
Restore default

Restore the factory default settings, please press this button

Reboot

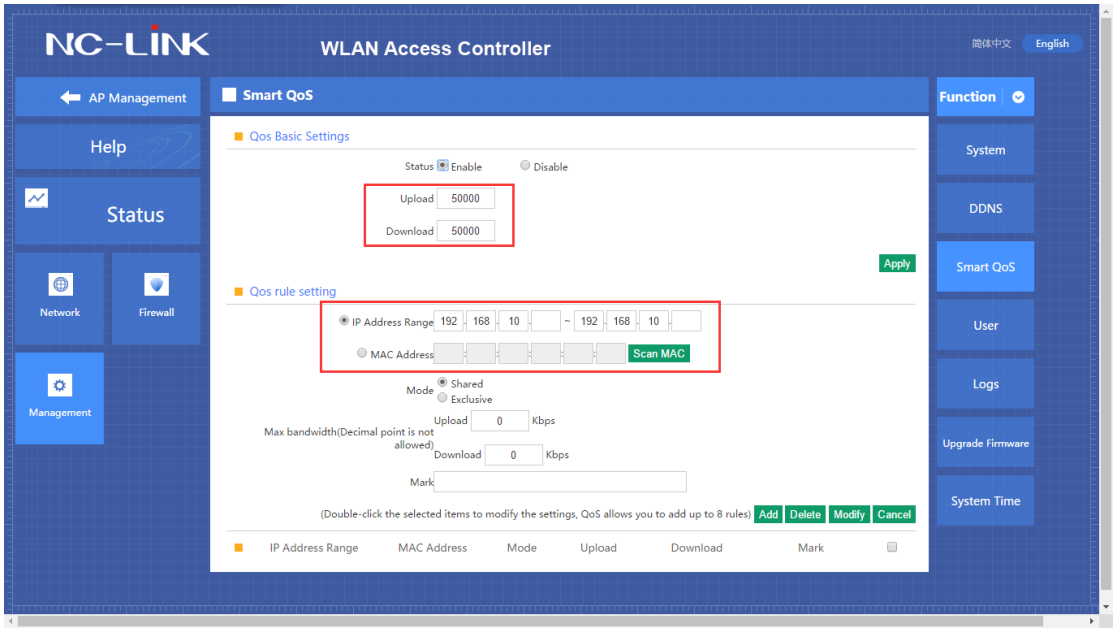
Reboot the system

DDNS



Enable the DDNS. Fill in the User Name and Password then "**Apply**"

Smart QoS



Status

Enable or Disable QoS function

Upload

Set up total uploading bandwidth

Download

Set up total downloading bandwidth

IP Address Range

Set up IP range of bandwidth

MAC address

Set up bandwidth control by mac address, user can choose it from Scan MAC, or setup by manual.

Mode

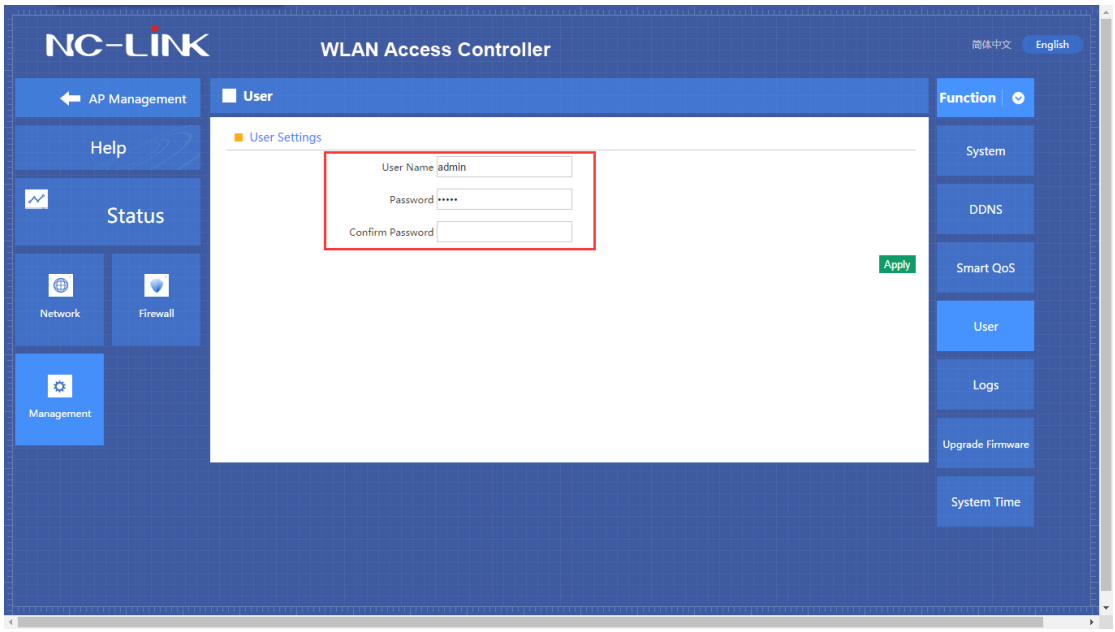
QoS mode settings, shared mode means under the QoS rules, the main PC within all IP range can share the specified bandwidth;

Exclusive mode means single main PC can share the specified bandwidth;

Max bandwidth

Max bandwidth under QoS rule

User



User Name

Reset new log-in user name

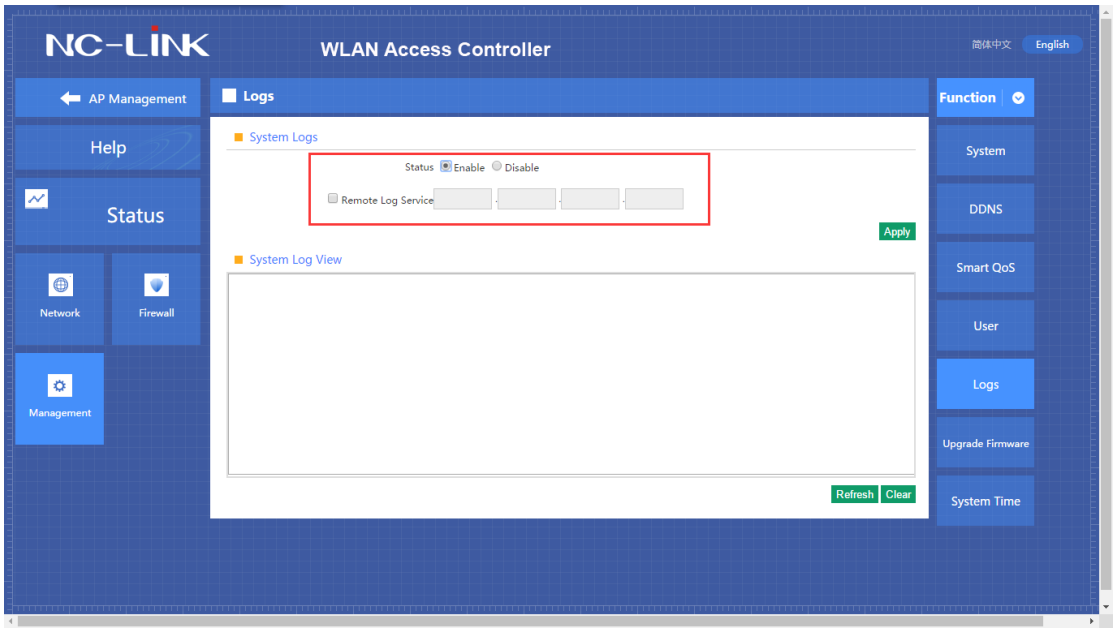
Password

Reset new log-in password

Confirm Password

Comparison to new password, to confirm user input password correctly in two times

Logs



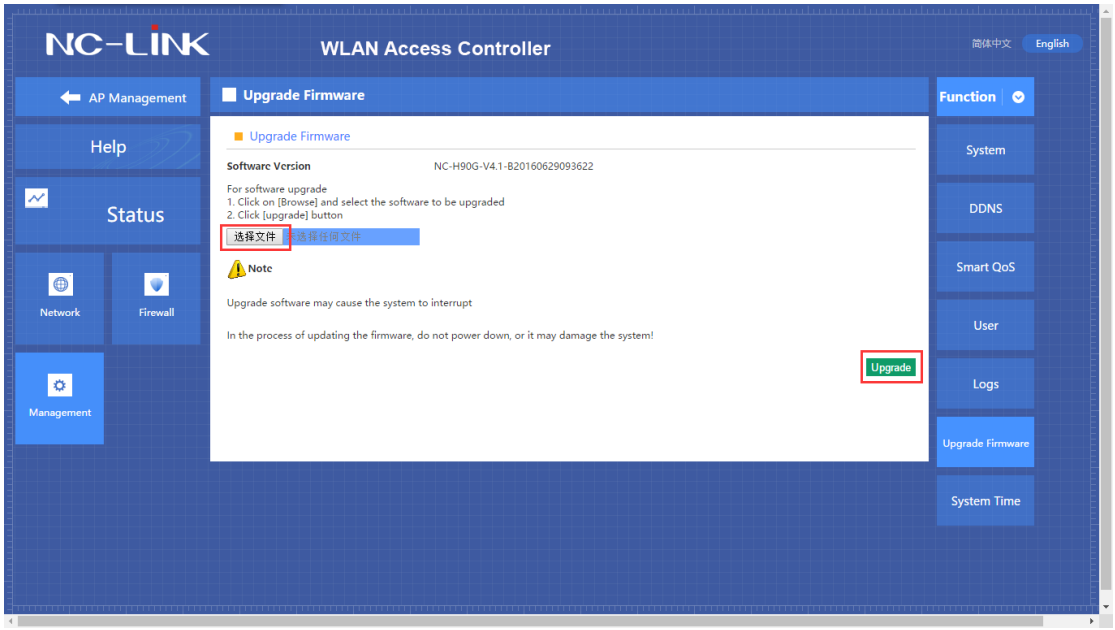
Status

Enable or Disable to show system log

Remote Log Service

To decide whether send System log into some pointed remote server synchronously

Upgrade Firmware

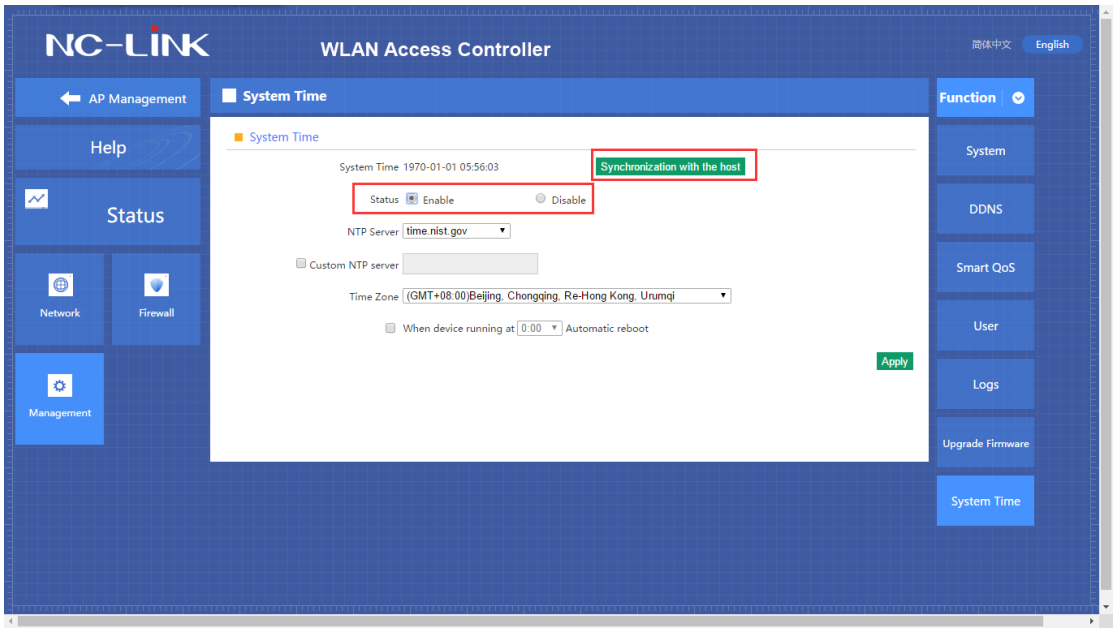


This feature allows the device firmware upgrade.

Noted: Upgrading software may cause system outage, In the process of upgrading the

firmware, do not power off, otherwise it may damage the Access Controller!

System Time



Synchronization with the host

Synchronization time with connected PC and router

Status

Enable or Disable NTP

NTP Server

Select the server time synchronization

Custom NTP Server

Setting user-defined synchronization server IP address

Time Zone

Setting the router's time zone

5. Trouble Shooting

Q1: Controller can't found APs when AP connect with controller

An: The controller automatically discovers APs, APs will be detected and shown on the list within one minute. And make sure the AP and controller are in the same subnet.

Q2: Which APs can apply the Zero Config?

An: Except the APs in "Device Group", other AP will apply Zero Config once detected by controller.

Q3: Current APs configuration don't change after change the Zero Config setting

An: If you change the Zero Config and hope the APs change accordingly, you can realize in two ways. First, delete the APs on the list, and they will change the setting accordingly once detected. Second, power OFF the APs and power ON again.