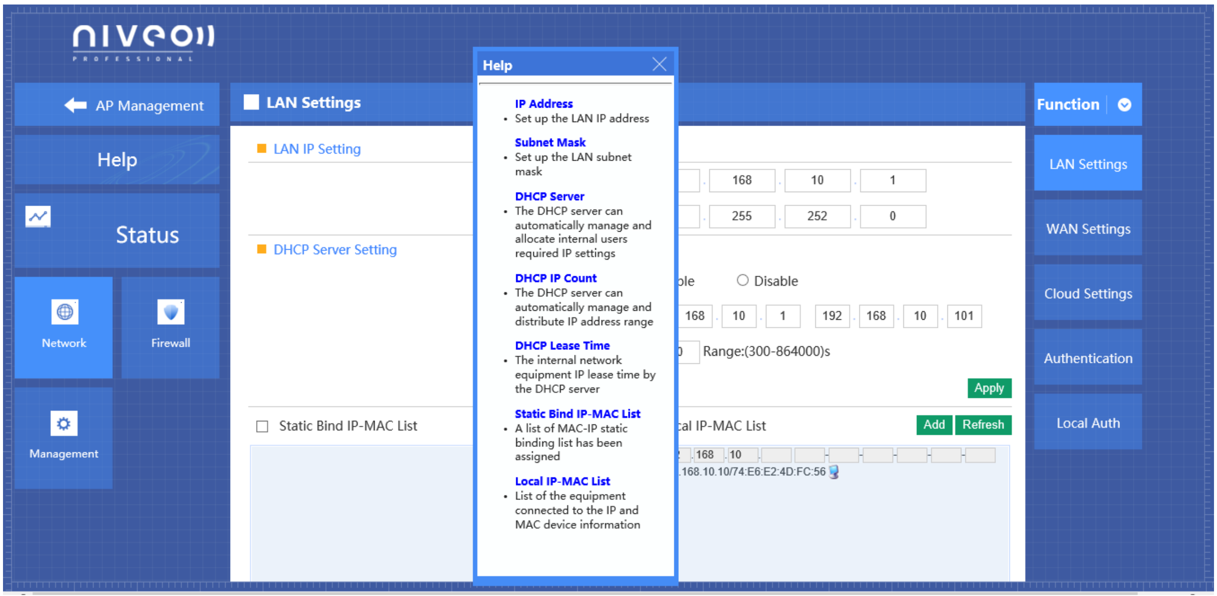
MANUAL NWAC7000

Wireless Management Platform

Contents



Help

IP Address
- Set up the LAN IP address

Subnet Mask
- Set up the LAN subnet mask

DHCP Server
- The DHCP server can automatically manage and allocate internal users required IP settings

DHCP IP Count
- The DHCP server can automatically manage and distribute IP address range

DHCP Lease Time
- The internal network equipment IP lease time by the DHCP server

Static Bind IP-MAC List
- A list of MAC-IP static binding list has been assigned

Local IP-MAC List
- List of the equipment connected to the IP and MAC device information

Chapter 1 Manual Introduction

This manual is subject to tell users how to use this WLAN management platform properly for those familiar with basic networking knowledge and terminology.

This user manual including the connection of AC controller, description of this platform’s properties, and how to configure this platform; Pre-reading this manual before operation is highly recommended.

Chapter 2:Product Introduction

2.1 Products description

NWAC7000 is a high performance WLAN controller, especially for Indoor and Outdoor wireless access points which set up in hotel or small-medium sized enterprise;

It’s capable for managing all Access point, support AP auto-detection, AP status preview, AP configuration, MAC filtering, simultaneous AP software upgrade to provide high quality & performance & reliability. Easy installation & maintenance WIFI service to different clients

2.2 Products Properties

2.2.1Hardware Property

- Deploy dual core CPU, 880Mhz frequency

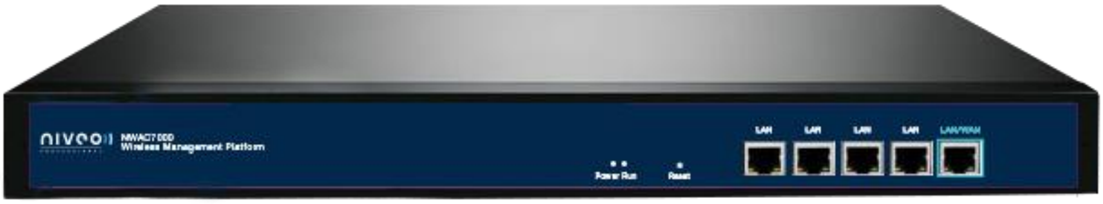
- Deploy high capacity&speed memory, up to 516M DDR3 SDRAM;
- 5 * 10/100/1000Mbps Gigabit Ethernet ports

2.2.2 Software Property

- The NWAC7000 detects and connects automatically to Wireless Access points. There is no need to configure each AP individually: complete centralized AP management utility
- Monitor remotely the real time , auto inspection of APs, automatic reboot functionality.
- Simultaneous reconfiguration of SSID, Security type and connection type
- Remote adjustment of AP RF power output for maximum Ap coverage
- Remote control of LED lights
- AP address server for automatic assighnment of IP address, in preferred address range.
- Remote management of Channel selection and location remarks.
- MAC filtering for segmentation and securing users.
- Full management by easy WEB interface

2.3 Product Layout

NWAC7000 front panel is like following:



LED indicator:

LED Light	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 stable steady, means status is abnormal

Reset button:

If need to restore the NWAC7000 into factory default, pls do following procedure:

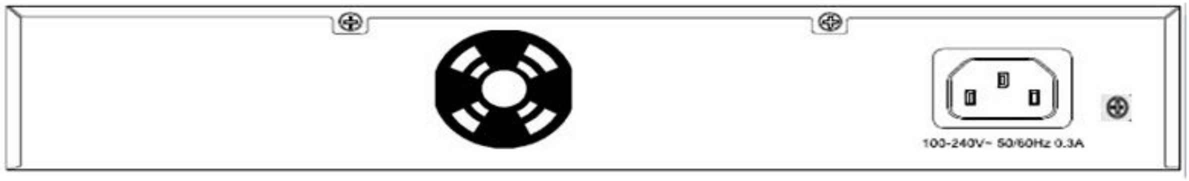
Power on NWAC7000, use a pin to press and hold the reset button until all LED start flashing quickly from flashing slowly. Then release the button and wait for NWAC7000 to reboot to its factory default settings. After that, the default IP address of NWAC7000 is still 192.168.10.1,default user name and password are unchanged : **admin/admin**

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;

2.3.2 Rear Panel

Rear panel of NWAC7000



DC Jacket

DC Jacket located on the right side of NWAC7000's rear panel, input power should be ac power 100-240V~ 50/60Hz 0.3A

Anti-thunder ground connection: ⊕

Please deploy ground connection to avoid lightening stroke, by copper core cable in yellow and green jacket;

For detailed installations please refer to related manuals, like <<Anti-thunder installation guide in devices>>

Attention:

Please use original power cord for installation;

Set locate power outlet near the devices, to make safer and easier installation and operation.

The usage of an UPS system is advised.

Chapter 3 Configuration Guide

3.1 Login Web Interface

Pls confirm the following points before login NWAC7000:

1) Connect the management host(PC) to LAN port of AC controller or UP-link port of switch in the network

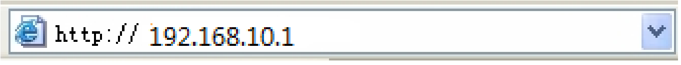
2) The management host(PC) has been properly installed IE 7.0 or higher browser version

3) The management host's IP address has been into set the same network segment with NWAC7000, namely 192.168.10.X (X is between 2-254 arbitrary integer Number), a subnet mask of 255.255.255.0.

4) In order to ensure a better effect of Web interface displays, it is recommended to adjust the display resolution to 1024 × 768 or more pixels.

Operation Steps:

A. Open IE browser,Input http://192.168.10.1/ in the address bar to login NWAC7000 Web management interface.



http:// 192.168.10.1

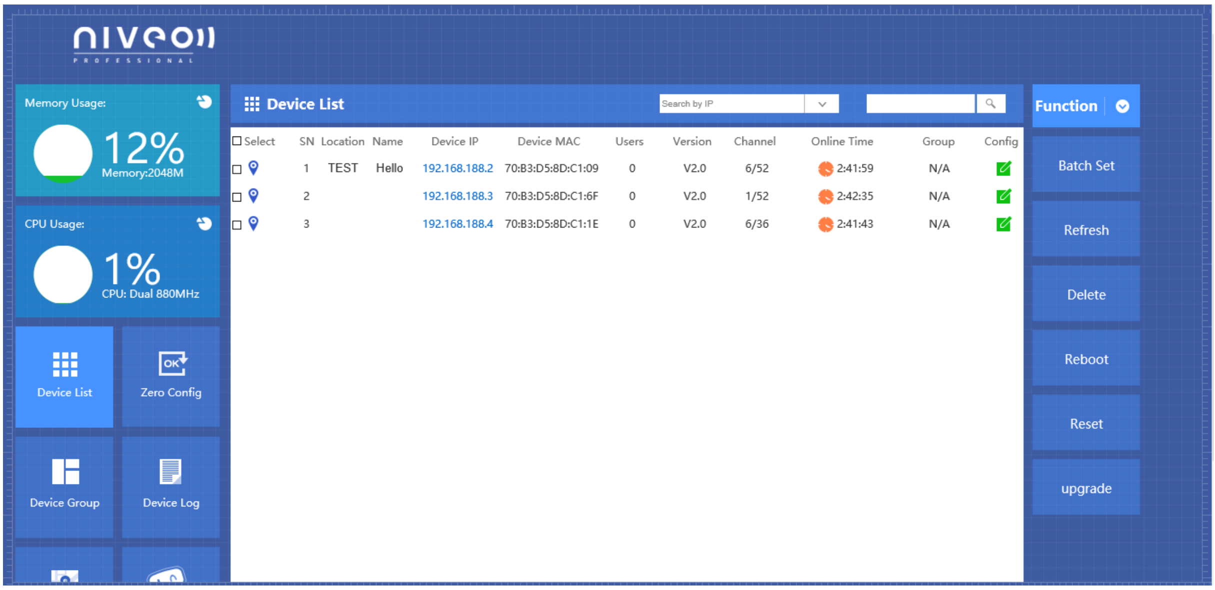
B. Now please enter username and password. Factory default is:

Username: admin

Password: admin

Click: “OK”

C. After a successful login, then see NWAC7000 Web interface page:



□ Select	SN	Location	Name	Device IP	Device MAC	Users	Version	Channel	Online Time	Group	Config
□	1	TEST	Hello	192.168.188.2	70:B3:D5:8D:C1:09	0	V2.0	6/52	2:41:59	N/A	✓
□	2			192.168.188.3	70:B3:D5:8D:C1:6F	0	V2.0	1/52	2:42:35	N/A	✓
□	3			192.168.188.4	70:B3:D5:8D:C1:1E	0	V2.0	6/36	2:41:43	N/A	✓

In the above Web Interface Page, there are three parts.

The main menu area on the left, to show this WLAN controller’s main function.

It is the AP List on the middle part, to show the Wireless AP info which can be accessed by this WLAN controller.

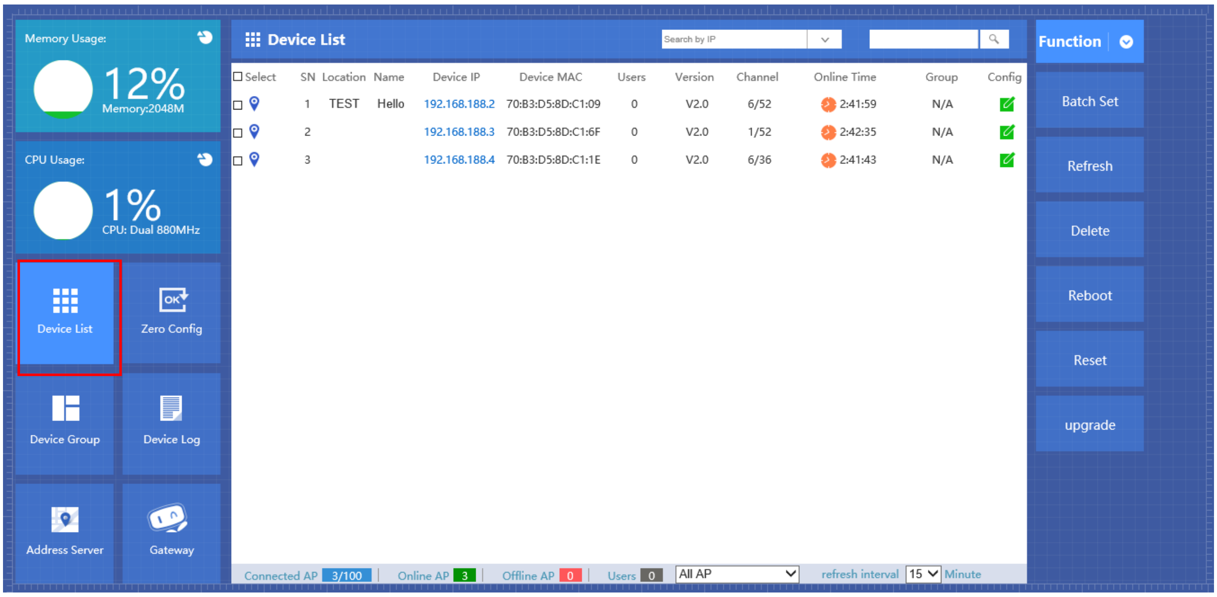
Function list are on the right part. For example, click Device List, then all functions of Device List are displayed.

Chapter 4 Function Setting

4.1 Device List

Device list show the current wireless AP accessed by the NWAC7000, display the total quantity/Online/Offline Wireless AP connected to NWAC7000,

Then Wireless AP’s name, IP address, MAC address, QTY of end users, Firmware version, Channel as showed in following picture:



□ Select	SN	Location	Name	Device IP	Device MAC	Users	Version	Channel	Online Time	Group	Config
□	1	TEST	Hello	192.168.188.2	70:B3:D5:8D:C1:09	0	V2.0	6/52	2:41:59	N/A	✓
□	2			192.168.188.3	70:B3:D5:8D:C1:6F	0	V2.0	1/52	2:42:35	N/A	✓
□	3			192.168.188.4	70:B3:D5:8D:C1:1E	0	V2.0	6/36	2:41:43	N/A	✓

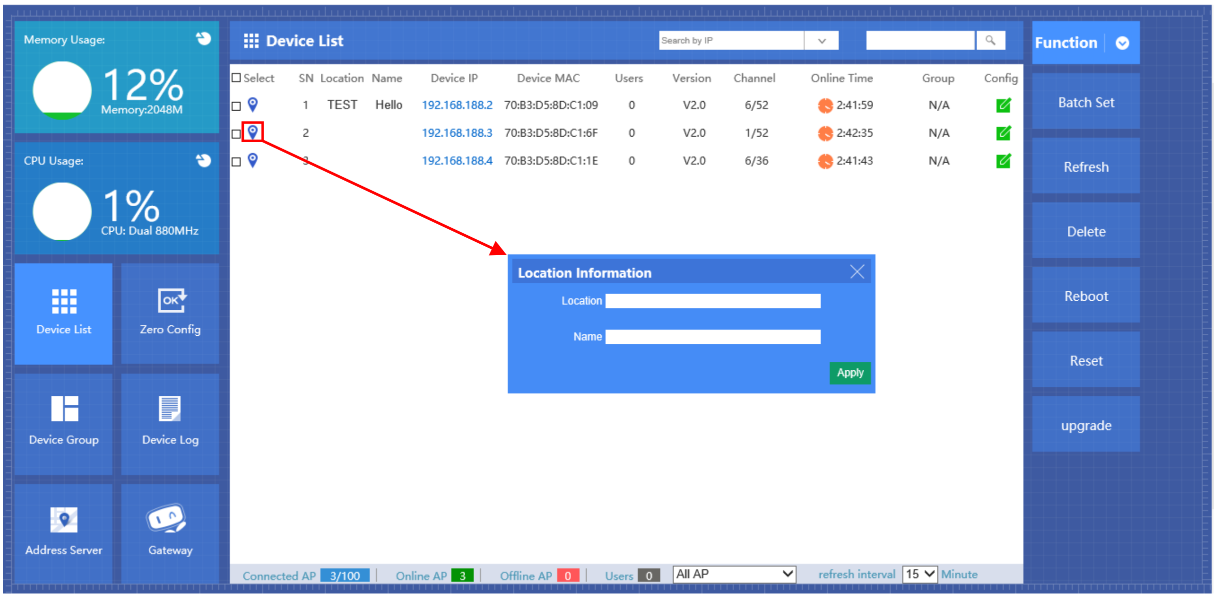
Connected AP 3/100 | Online AP 3 | Offline AP 0 | Users 0 All AP refresh interval 15 Minute

Let’s introduce following button one by one:

☐ Select **Select:** click the white box to make hook, to select this AP

📍 **Blue balloon:** Click it to set the AP’s Location and Device name, fill in the right info if needed, will be showed in Device list when Apply.

Picture showed as follow:



☐ Select	SN	Location	Name	Device IP	Device MAC	Users	Version	Channel	Online Time	Group	Config
☐ 📍	1	TEST	Hello	192.168.188.2	70:B3:D5:8D:C1:09	0	V2.0	6/52	2:41:59	N/A	✓
☐ 📍	2			192.168.188.3	70:B3:D5:8D:C1:6F	0	V2.0	1/52	2:42:35	N/A	✓
☐ 📍	3			192.168.188.4	70:B3:D5:8D:C1:1E	0	V2.0	6/36	2:41:43	N/A	✓

Connected AP 3/100 | Online AP 3 | Offline AP 0 | Users 0 | All AP | refresh interval 15 Minute

SN: Show how many AP access by this AC controller

Location: show where the AP physical location is.

Name: what’s the name of this AP.

Device IP: AP’s IP address, click this IP address, can access into AP’s GUI when you set an static IP address for your PC in same IP segment.

When there are multiple APs in the device list and you want to find out one AP, you can input this AP’s IP address for quick search.

Device MAC: AP’s MAC address, if you want to find out one AP quickly by MAC address, just input the MAC address in top of this GUI, then search.

Users: How many end users access into this AP

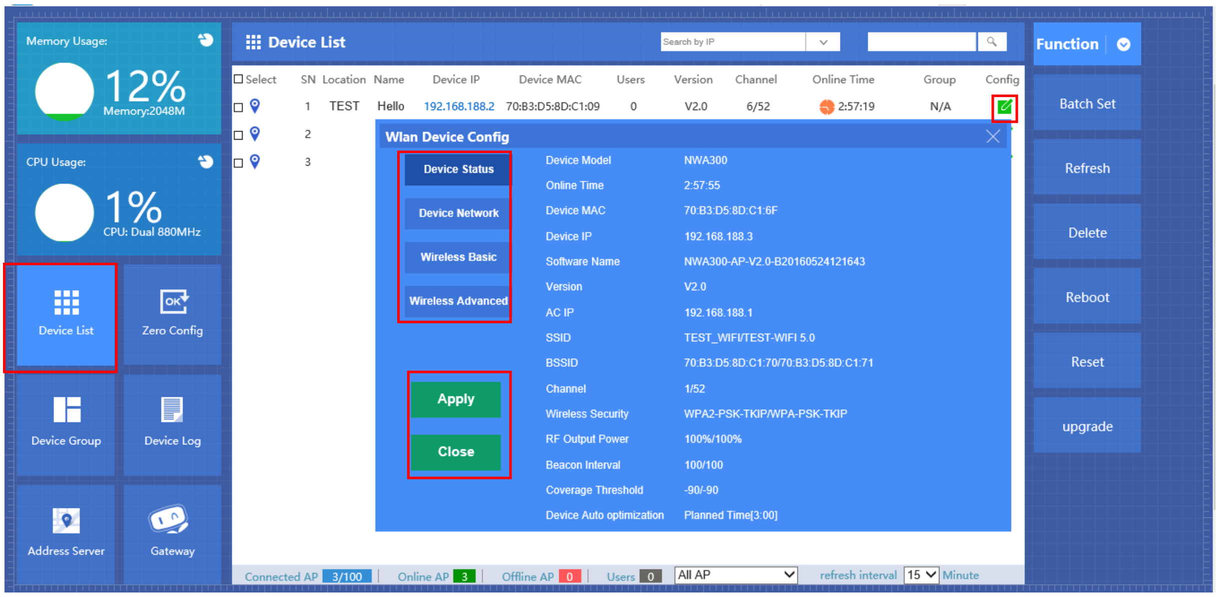
Version: The firmware version of this AP

Channel: the channel of this wireless AP

Online Time: How long this wireless AP online and access into this AC controller.

Group: you can set some AP in one group, then this part will show group name mainly.

Config: click ✎ will show following picture:



Device List

Select	SN	Location	Name	Device IP	Device MAC	Users	Version	Channel	Online Time	Group	Config
□	1	TEST	Hello	192.168.188.2	70:B3:D5:8D:C1:09	0	V2.0	6/52	2:57:19	N/A	✎
□	2										
□	3										

Device Model NWA300
Online Time 2:57:55
Device MAC 70:B3:D5:8D:C1:6F
Device IP 192.168.188.3
Software Name NWA300-AP-V2.0-B20160524121643
Version V2.0
AC IP 192.168.188.1
SSID TEST_WIFI/TEST-WIFI 5.0
BSSID 70:B3:D5:8D:C1:70/70:B3:D5:8D:C1:71
Channel 1/52
Wireless Security WPA2-PSK-TKIP/WPA-PSK-TKIP
RF Output Power 100%/100%
Beacon Interval 100/100
Coverage Threshold -90/-90
Device Auto optimization Planned Time[3:00]

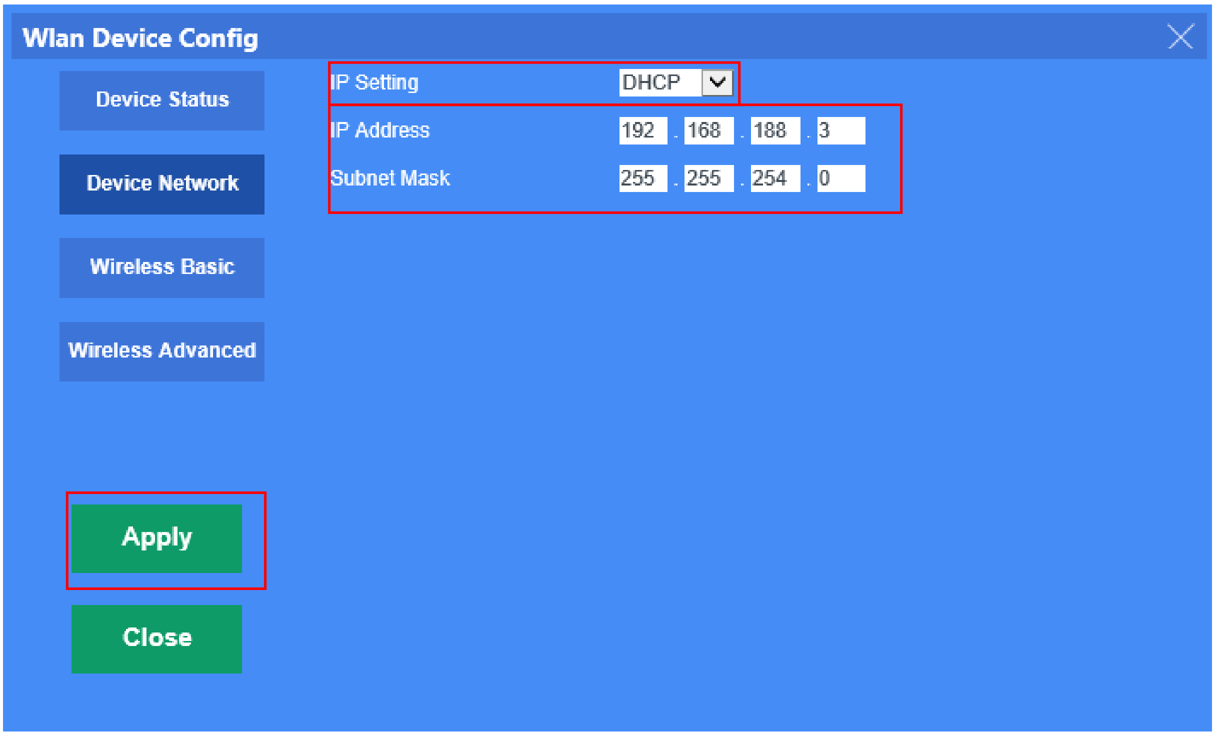
Connected AP 3/100 | Online AP 3 | Offline AP 0 | Users 0 | All AP | refresh interval 15 Minute

This picture, will show each AP’s status, Basic info, and advanced setting.

If any changement you want to make, then Apply to finish.

Device Status: show AP’s Model number, online time, MAC address, IP address, firmware info, channel, RF Power showed in above picture.

Device Network: Show the Wireless AP’s WAN network info and IP address



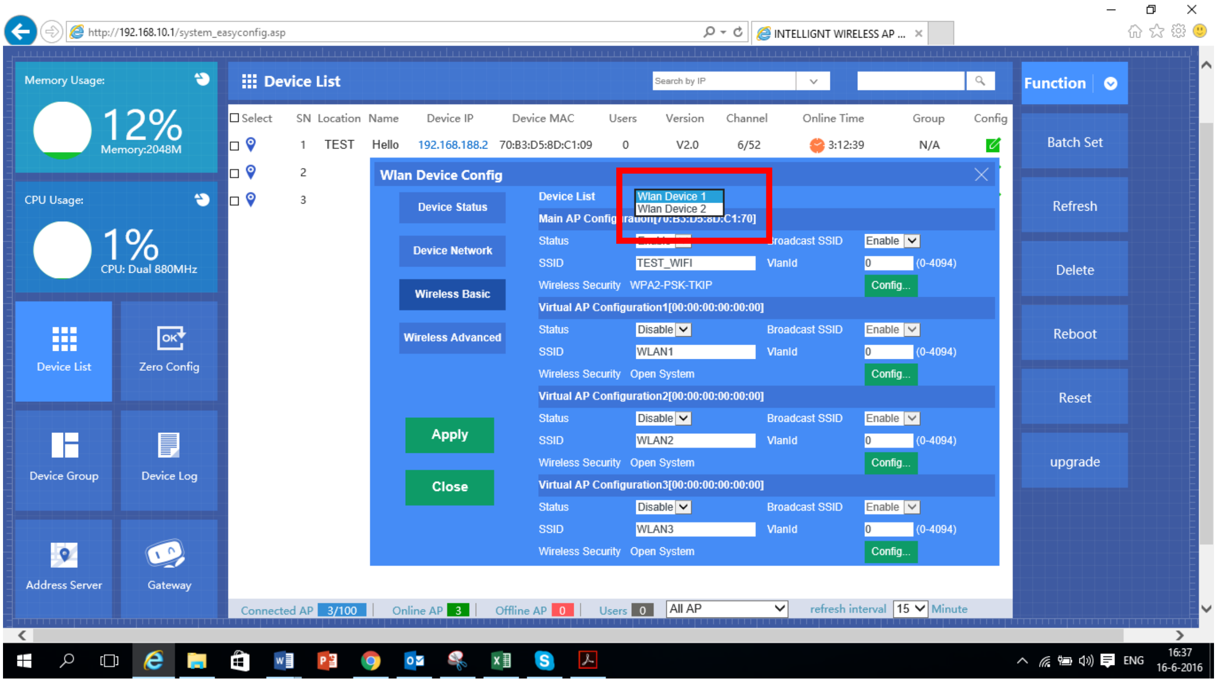
IP Setting DHCP
IP Address 192 . 168 . 188 . 3
Subnet Mask 255 . 255 . 254 . 0

Wireless Basic: Mainly to setup the AP's SSID, VLAN, Security.

For the VLAN, the top networking should be with VLAN switch, and input the switch's VLAN ID in the blank part. The VLAN ID range is 0~4094.

Since this is a DUAL band AP, both bands need to be configurated.

WlanDevice 1 is the 2.4Ghz band, Wlan deveice 2 is the 5.0GHz band



http://192.168.10.1/system_easyconfig.asp

INTELLIGNT WIRELESS AP ...

Memory Usage: 12% Memory:2048M

CPU Usage: 1% CPU: Dual 880MHz

Device List

Select	SN	Location	Name	Device IP	Device MAC	Users	Version	Channel	Online Time	Group	Config
□	1	TEST	Hello	192.168.188.2	70:B3:D5:8D:C1:09	0	V2.0	6/52	3:12:39	N/A	
□	2										
□	3										

Wlan Device Config

Device List: Wlan Device 1 / Wlan Device 2

Main AP Configuration[70:B3:D5:8D:C1:70]

Status: Enable | Broadcast SSID: Enable
SSID: TEST_WIFI | VlanId: 0 (0-4094)
Wireless Security: WPA2-PSK-TKIP | Config...

Virtual AP Configuration1[00:00:00:00:00:00]

Status: Disable | Broadcast SSID: Enable
SSID: WLAN1 | VlanId: 0 (0-4094)
Wireless Security: Open System | Config...

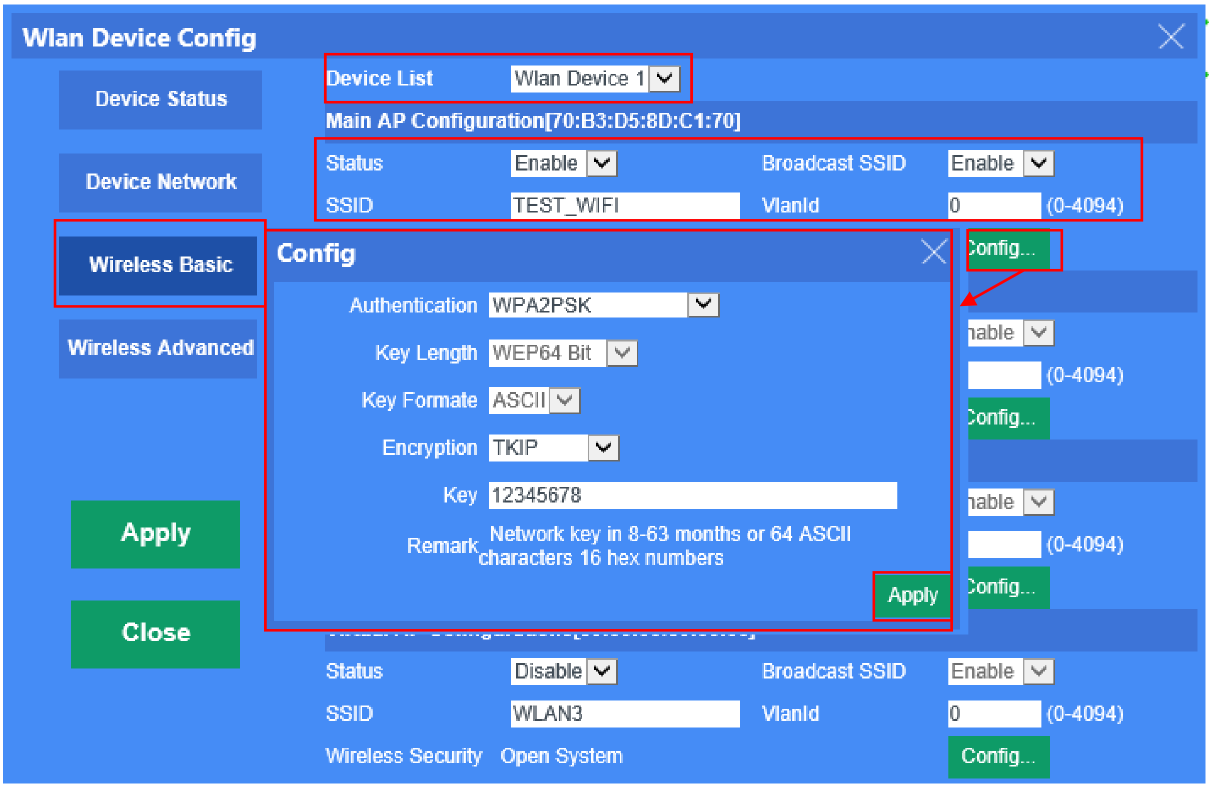
Virtual AP Configuration2[00:00:00:00:00:00]

Status: Disable | Broadcast SSID: Enable
SSID: WLAN2 | VlanId: 0 (0-4094)
Wireless Security: Open System | Config...

Virtual AP Configuration3[00:00:00:00:00:00]

Status: Disable | Broadcast SSID: Enable
SSID: WLAN3 | VlanId: 0 (0-4094)
Wireless Security: Open System | Config...

Connected AP 3/100 | Online AP 3 | Offline AP 0 | Users 0 | All AP | refresh interval 15 Minute



Wlan Device Config

Device List: Wlan Device 1

Main AP Configuration[70:B3:D5:8D:C1:70]

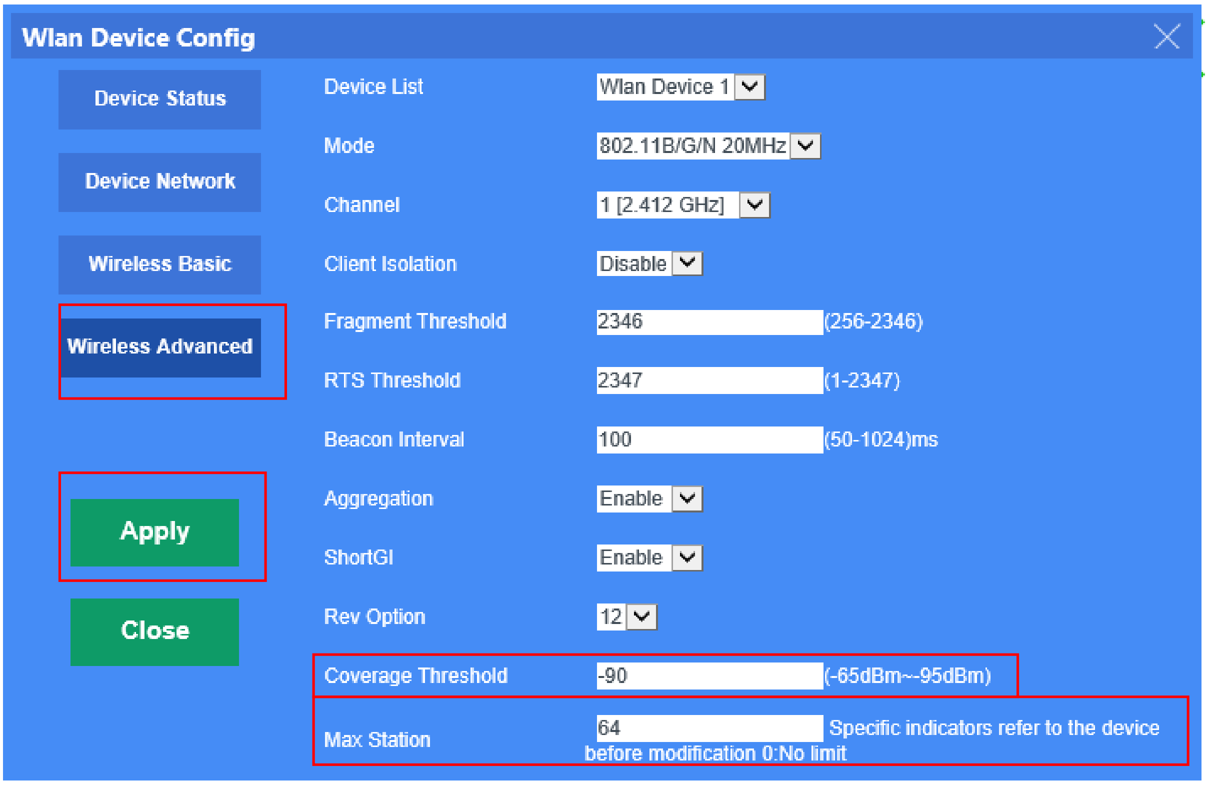
Status: Enable | Broadcast SSID: Enable
SSID: TEST_WIFI | VlanId: 0 (0-4094)

Config

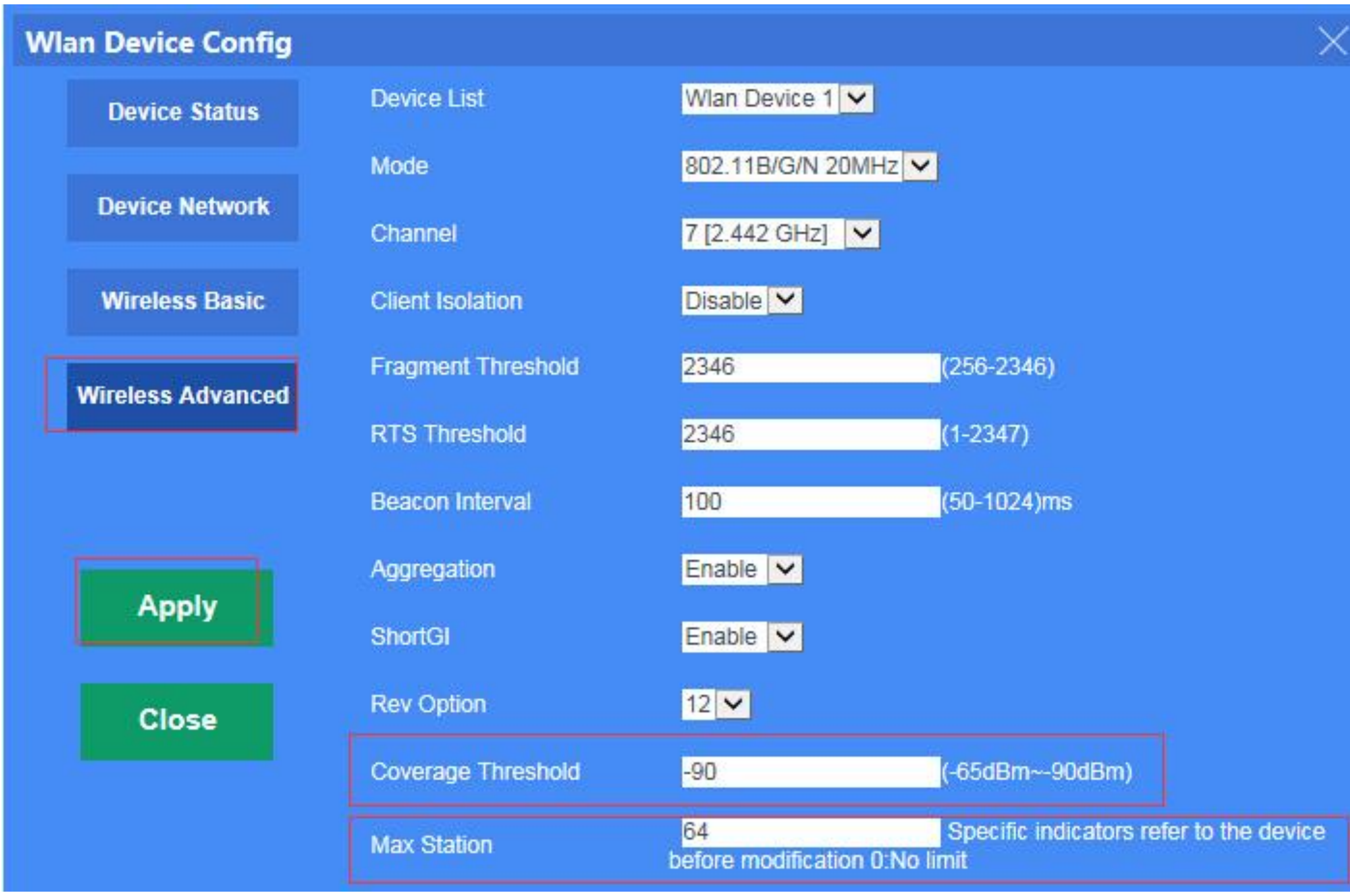
Authentication: WPA2PSK
Key Length: WEP64 Bit
Key Formate: ASCII
Encryption: TKIP
Key: 12345678
Remark: Network key in 8-63 months or 64 ASCII characters 16 hex numbers

Status: Disable | Broadcast SSID: Enable
SSID: WLAN3 | VlanId: 0 (0-4094)
Wireless Security: Open System | Config...

Wireless Advanced: user can configure the AP's mode, channel, Fragment Threshold, coverage threshold, Max Station



Device List	Wlan Device 1	
Mode	802.11B/G/N 20MHz	
Channel	1 [2.412 GHz]	
Client Isolation	Disable	
Fragment Threshold	2346	(256-2346)
RTS Threshold	2347	(1-2347)
Beacon Interval	100	(50-1024)ms
Aggregation	Enable	
ShortGI	Enable	
Rev Option	12	
Coverage Threshold	-90	(-65dBm--95dBm)
Max Station	64	Specific indicators refer to the device before modification 0:No limit



Device List	Wlan Device 1	
Mode	802.11B/G/N 20MHz	
Channel	7 [2.442 GHz]	
Client Isolation	Disable	
Fragment Threshold	2346	(256-2346)
RTS Threshold	2346	(1-2347)
Beacon Interval	100	(50-1024)ms
Aggregation	Enable	
ShortGI	Enable	
Rev Option	12	
Coverage Threshold	-90	(-65dBm--90dBm)
Max Station	64	Specific indicators refer to the device before modification 0:No limit

Remark: For Fragment Threshold, RTS Threshold, Beacon Interval, Aggregation, ShortGI, Rev Option, we recommand to keed in default.

Max Station, mean QTY of end users. 0 mean no limited.

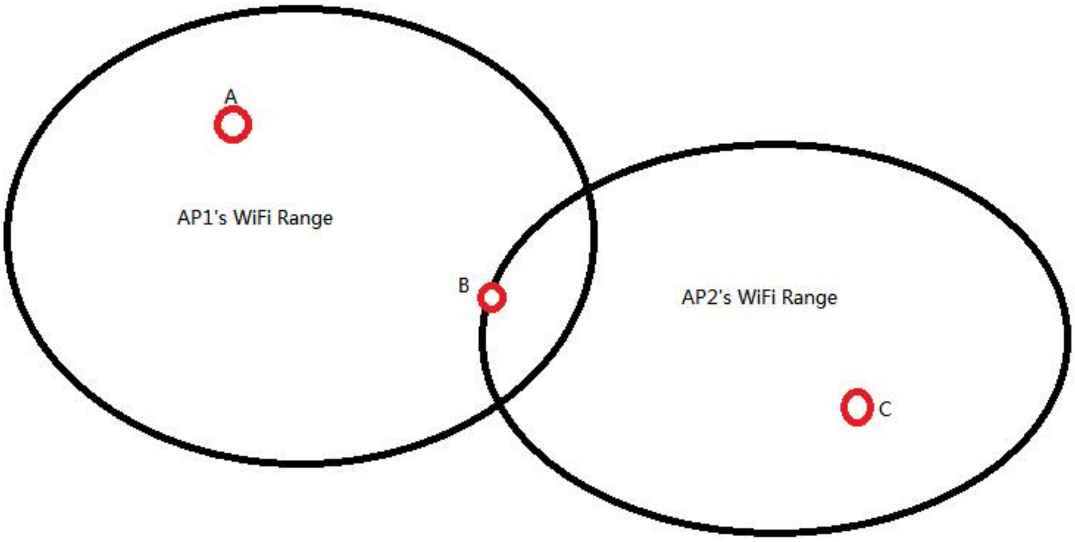
Coverage Threshold: Applicated in Roaming mainly, the working status showed as follow:

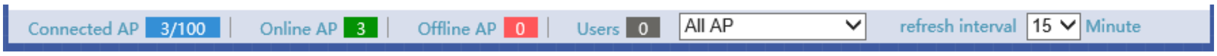
Set AP1's Coverage Threshold is -75dBm

Set AP2's Coverage Threshold is -90dBm

AP1 and AP2, with same SSID and password

End user move from A to B to C, then will connect with AP1 in place A, connect with AP2 in place B and C, even AP1's signal strength stronger than AP2; Just because in place B, AP2's Coverage Threshold less than AP1




Connected AP 3/100 | Online AP 3 | Offline AP 0 | Users 0 All AP refresh interval 15 Minute

Connected AP: Show how many pieces AP connected into this AC controller, and how many AP can access into this AC controller.

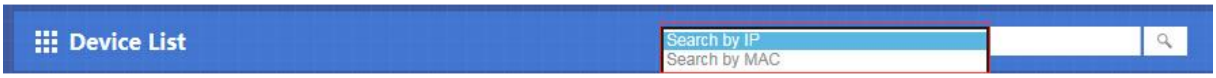
Online AP: QTY of AP which online in this AC controller

Offline AP: QTY of AP which offline in this AC controller

Users: Mean how many end users access into this AC controller.

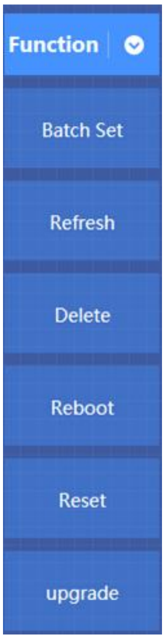
ALL AP: Mean now show all the online AP, offline AP. Can select online AP or offline AP.

Refresh Interval: mean how long this AC controller will refresh the AP QTY.



Search by IP: mean search the wireless AP by IP address, make hook in the white box, input IP address, then search.

Search by MAC: mean search the wireless AP by MAC address, make hook in the white box, input MAC address, then search



Batch Set: mean can configure the wireless AP's data in batch.

Refresh: Scan the AP list again.

Delete: Select some AP, then delete from this AC controller.

Reboot: Select some AP, then restart this AP

Reset: Select some AP, revert to factory default.

Upgrade: can upgrade firmware for wireless AP

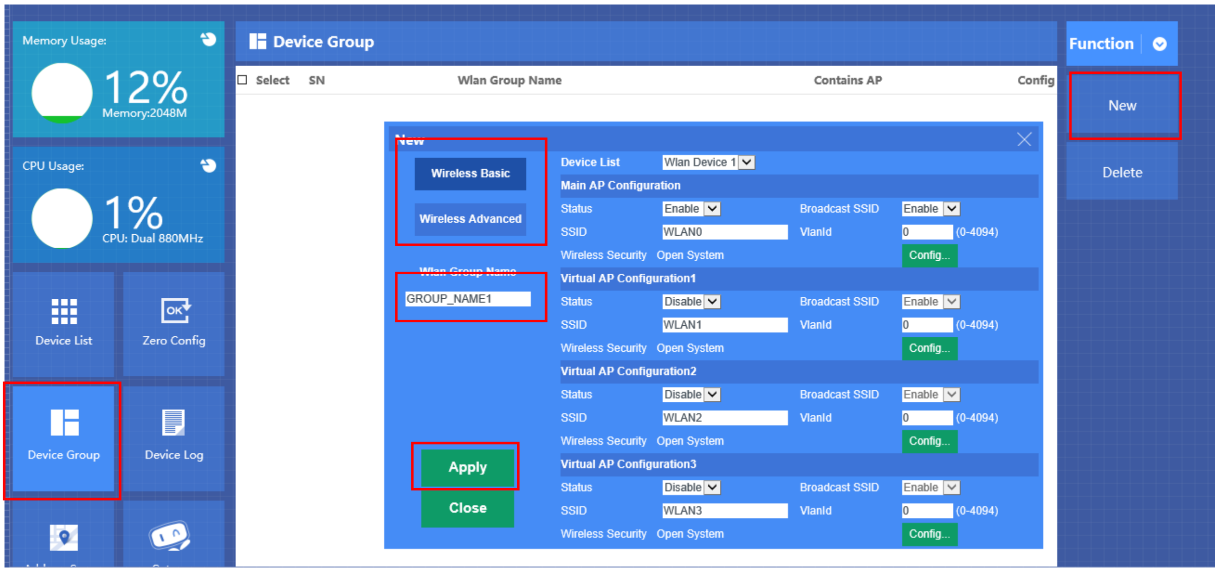
4.2 Device Group

Click Device Group at first, then will show New/Delete,

Cick New, then configure the data in Wireless Basic and Wireless Advanced part;

Pls note, this data will be applied for all the APs in this group. After finish all, set a group name, then Apply to finish.

For detail procedure, pls refer to following picture:



Wlan Group Name: GROUP_NAME1

Device List: Wlan Device 1

Main AP Configuration
Status: Enable   Broadcast SSID: Enable
SSID: WLAN0   VlanId: 0 (0-4094)
Wireless Security: Open System   Config...

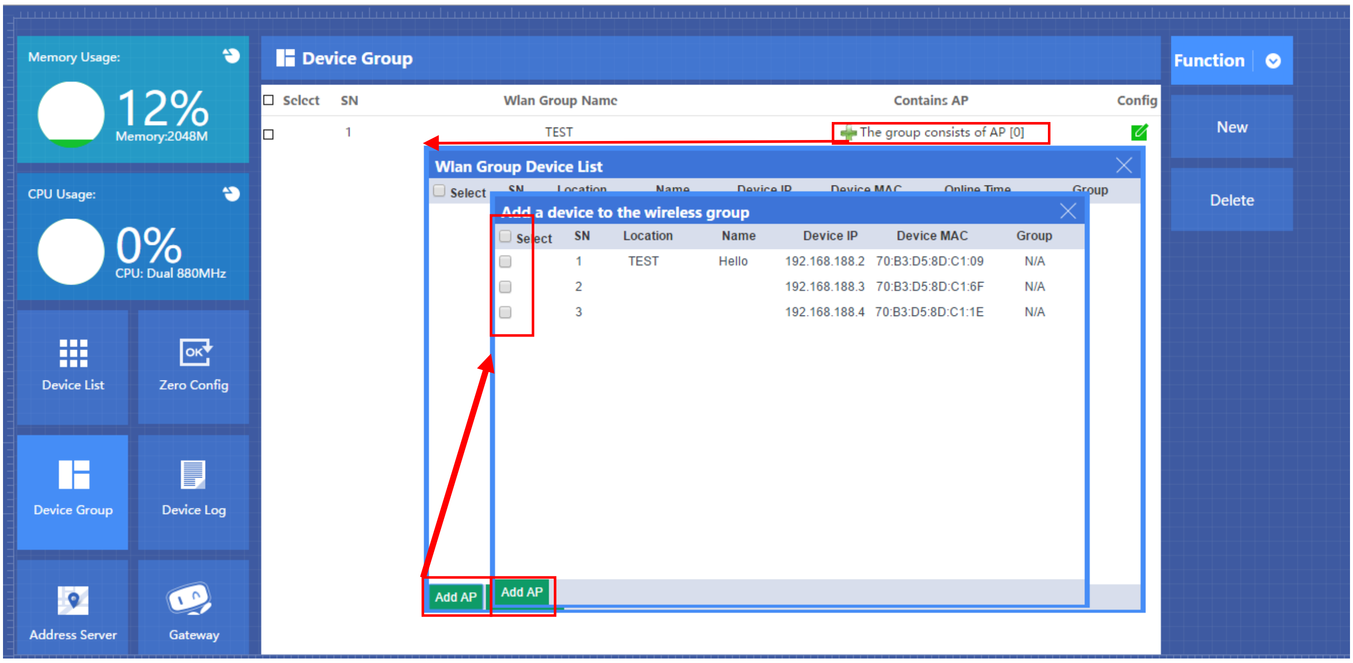
Virtual AP Configuration1
Status: Disable   Broadcast SSID: Enable
SSID: WLAN1   VlanId: 0 (0-4094)
Wireless Security: Open System   Config...

Virtual AP Configuration2
Status: Disable   Broadcast SSID: Enable
SSID: WLAN2   VlanId: 0 (0-4094)
Wireless Security: Open System   Config...

Virtual AP Configuration3
Status: Disable   Broadcast SSID: Enable
SSID: WLAN3   VlanId: 0 (0-4094)
Wireless Security: Open System   Config...

Add /Remove AP into group:

Pls follow the steps showed in following picture:



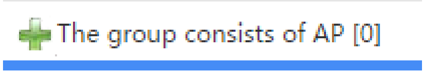
□ Select	SN	Wlan Group Name	Contains AP	Config
□	1	TEST	The group consists of AP [0]	

□ Select	SN	Location	Name	Device IP	Device MAC	Online Time	Group

Add a device to the wireless group

□ Select	SN	Location	Name	Device IP	Device MAC	Group
□	1	TEST	Hello	192.168.188.2	70:B3:D5:8D:C1:09	N/A
□	2			192.168.188.3	70:B3:D5:8D:C1:6F	N/A
□	3			192.168.188.4	70:B3:D5:8D:C1:1E	N/A

Please click :

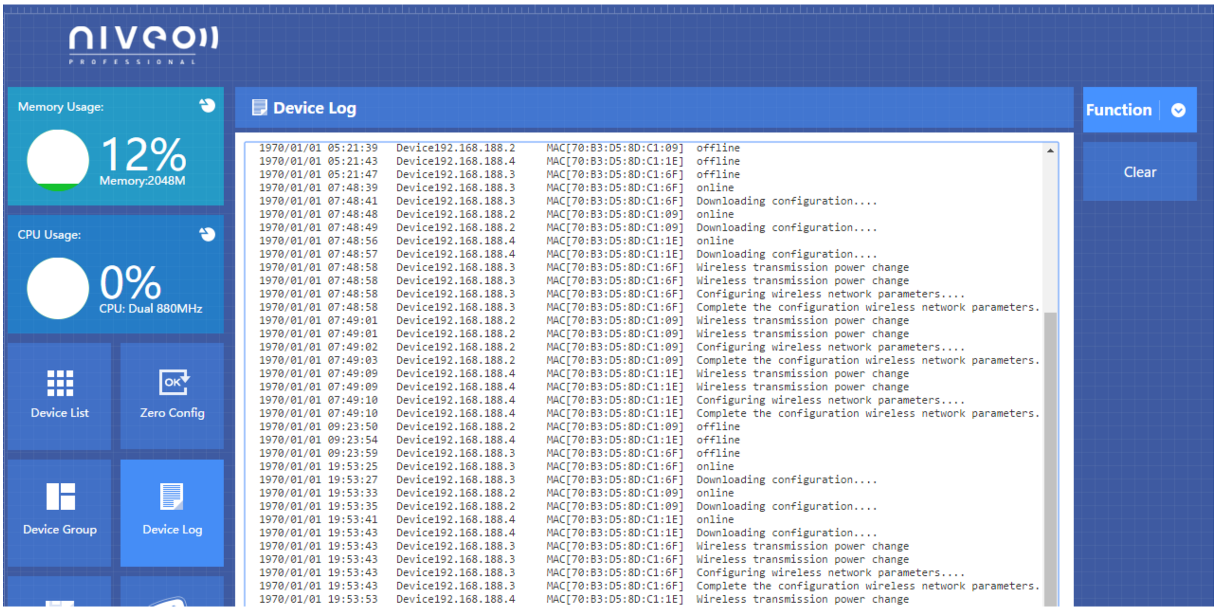

The group consists of AP [0]

Then add APP to Wlan group device List

Select APs and add these APs

4.3 Device Log

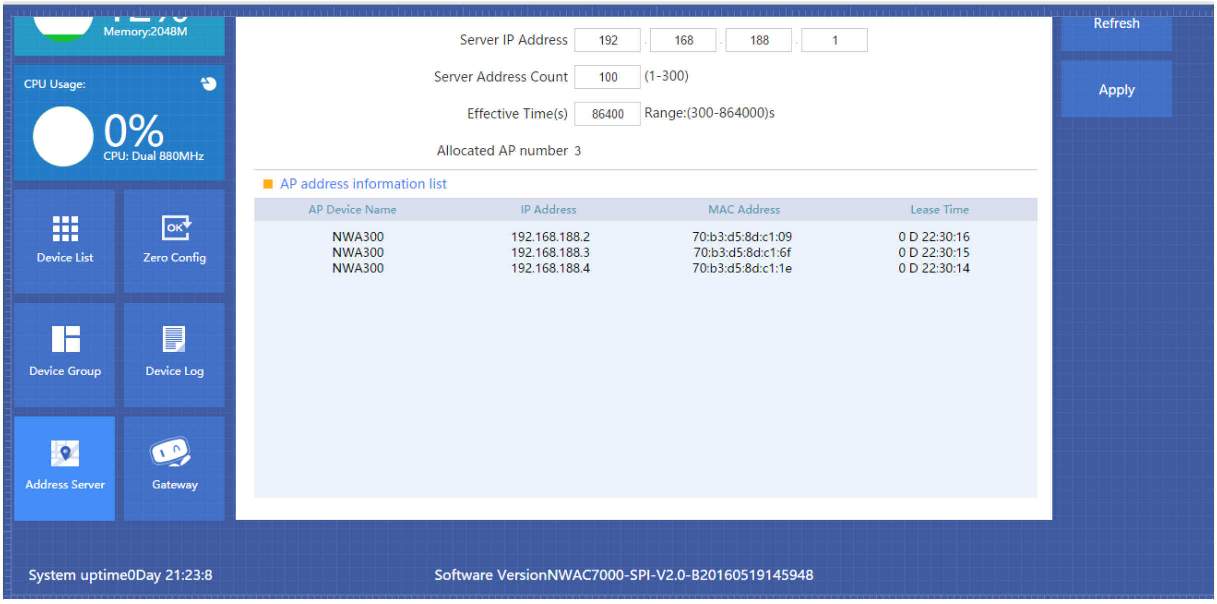
Device Log show AP’s record, such as on line recording, offline recording, device configuration record.



```
1970/01/01 05:21:39   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  offline
1970/01/01 05:21:43   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  offline
1970/01/01 05:21:47   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  offline
1970/01/01 07:48:39   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  online
1970/01/01 07:48:41   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Downloading configuration....
1970/01/01 07:48:48   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  online
1970/01/01 07:48:49   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  Downloading configuration....
1970/01/01 07:48:56   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  online
1970/01/01 07:48:57   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  Downloading configuration....
1970/01/01 07:48:58   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Wireless transmission power change
1970/01/01 07:48:58   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Wireless transmission power change
1970/01/01 07:48:58   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Configuring wireless network parameters....
1970/01/01 07:48:58   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Complete the configuration wireless network parameters.
1970/01/01 07:49:01   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  Wireless transmission power change
1970/01/01 07:49:01   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  Wireless transmission power change
1970/01/01 07:49:02   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  Configuring wireless network parameters....
1970/01/01 07:49:03   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  Complete the configuration wireless network parameters.
1970/01/01 07:49:09   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  Wireless transmission power change
1970/01/01 07:49:09   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  Wireless transmission power change
1970/01/01 07:49:10   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  Configuring wireless network parameters....
1970/01/01 07:49:10   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  Complete the configuration wireless network parameters.
1970/01/01 09:23:50   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  offline
1970/01/01 09:23:54   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  offline
1970/01/01 09:23:59   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  offline
1970/01/01 19:53:25   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  online
1970/01/01 19:53:27   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Downloading configuration....
1970/01/01 19:53:33   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  online
1970/01/01 19:53:35   Device192.168.188.2    MAC[70:B3:D5:8D:C1:09]  Downloading configuration....
1970/01/01 19:53:41   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  online
1970/01/01 19:53:43   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  Downloading configuration....
1970/01/01 19:53:43   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Wireless transmission power change
1970/01/01 19:53:43   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Wireless transmission power change
1970/01/01 19:53:43   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Configuring wireless network parameters....
1970/01/01 19:53:43   Device192.168.188.3    MAC[70:B3:D5:8D:C1:6F]  Complete the configuration wireless network parameters.
1970/01/01 19:53:53   Device192.168.188.4    MAC[70:B3:D5:8D:C1:1E]  Wireless transmission power change
```

4.4 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 when operation.



Server IP Address 192 . 168 . 188 . 1

Server Address Count 100 (1-300)

Effective Time(s) 86400 Range:(300-864000)s

Allocated AP number 3

AP address information list

AP Device Name	IP Address	MAC Address	Lease Time
NWA300	192.168.188.2	70:b3:d5:8d:c1:09	0 D 22:30:16
NWA300	192.168.188.3	70:b3:d5:8d:c1:6f	0 D 22:30:15
NWA300	192.168.188.4	70:b3:d5:8d:c1:1e	0 D 22:30:14

System uptime0Day 21:23:8

Software VersionNWAC7000-SPI-V2.0-B20160519145948

Please use the correct IP address range.

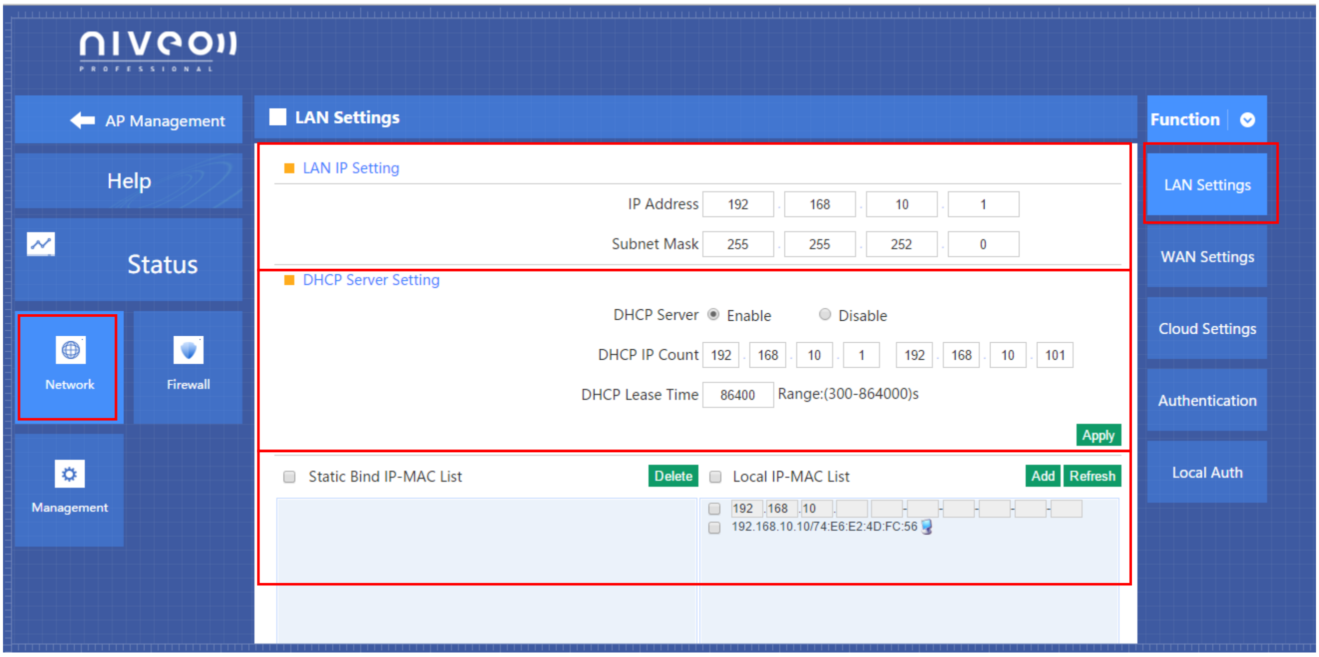
Server IP Address: modify the default AP address server’s IP address; (default is 192.168.188.1)

Server Subnet: Modify AC controller’s subnet; 255.255.255.0 in default

Server Address Pool: When wireless AP connected with this address server, then address server will assign IP address for wireless AP. (The default IP address pool is 192.168.188.2-192.168.188.254)

4.5 Gateway

4.5.1 LAN Setting



LAN Settings

LAN IP Setting

IP Address 192 . 168 . 10 . 1

Subnet Mask 255 . 255 . 252 . 0

DHCP Server Setting

DHCP Server ● Enable ○ Disable

DHCP IP Count 192 . 168 . 10 . 1 192 . 168 . 10 . 101

DHCP Lease Time 86400 Range:(300-864000)s

□ Static Bind IP-MAC List

□ Local IP-MAC List

□ 192 . 168 . 10

□ 192.168.10.10/74:E6:E2:4D:FC:56

LAN IP Setting:

Set IP address for LAN

Subnet mask

Set Subnet mask for LAN

DHCP Server

DHCP server enable mean it will assign IP address for users.

DHCP IP Count

DHCP Client IP mean the IP address range assigned by DHCP Server.

DHCP Lease Time

The networking device get IP lease time from DHCP server.

Static Bind IP-MAC List

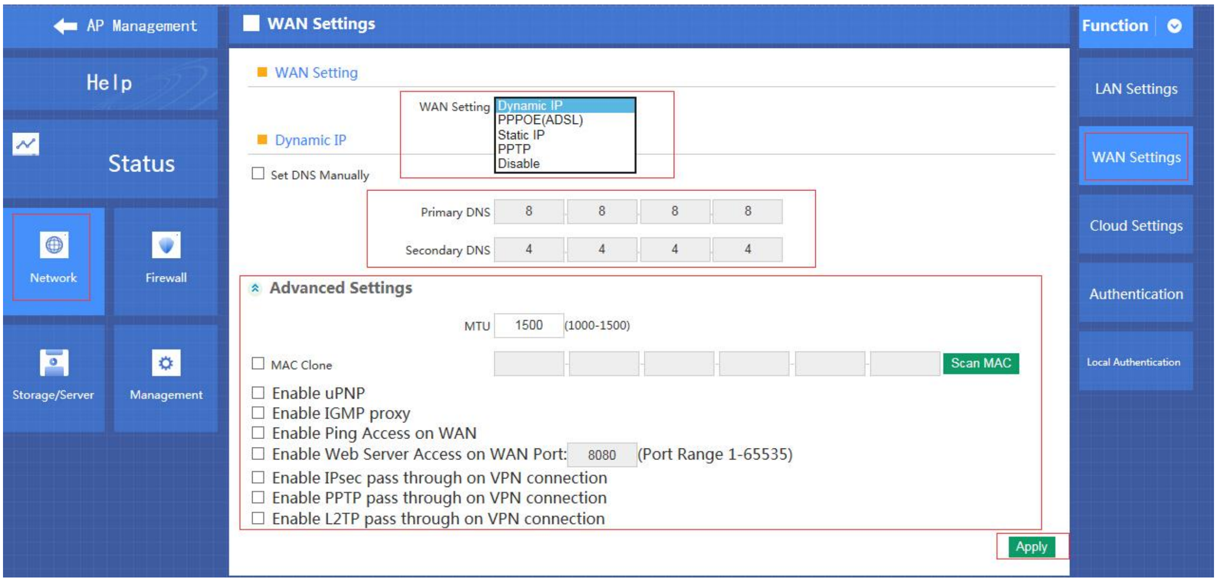
Can delete it the IP/MAC address from this list if no need to bind.

Local IP-MAC List

Can add/refresh the IP/MAC list connected into this AC controller.

4.5.2 WAN Setting

Click Gateway will automatically jump to the WAN settings as below;



WAN Settings

WAN Setting

WAN Setting: Dynamic IP / PPPOE(ADSL) / Static IP / PPTP / Disable

Dynamic IP

□ Set DNS Manually

Primary DNS 8 . 8 . 8 . 8

Secondary DNS 4 . 4 . 4 . 4

Advanced Settings

MTU 1500 (1000-1500)

□ MAC Clone

□ Enable uPNP

□ Enable IGMP proxy

□ Enable Ping Access on WAN

□ Enable Web Server Access on WAN Port: 8080 (Port Range 1-65535)

□ Enable IPsec pass through on VPN connection

□ Enable PPTP pass through on VPN connection

□ Enable L2TP pass through on VPN connection

When select to intelligent gateway, NWAC7000 will have a router function, can work as a main router with Gigabit WAN/LAN port. It support Dynamic IP, Static IP; PPPOE; PPTP.

Dynamic IP: WAN interface obtains IP and DNS information through DHCP mode.

PPPOE(ADSL): WAN interface obtains IP and DNS information via PPPOE dial-up mode.

Static IP: Set IP and DNS information for WAN interface manual

PPTP: WAN interface obtains IP and DNS information via PPTP mode

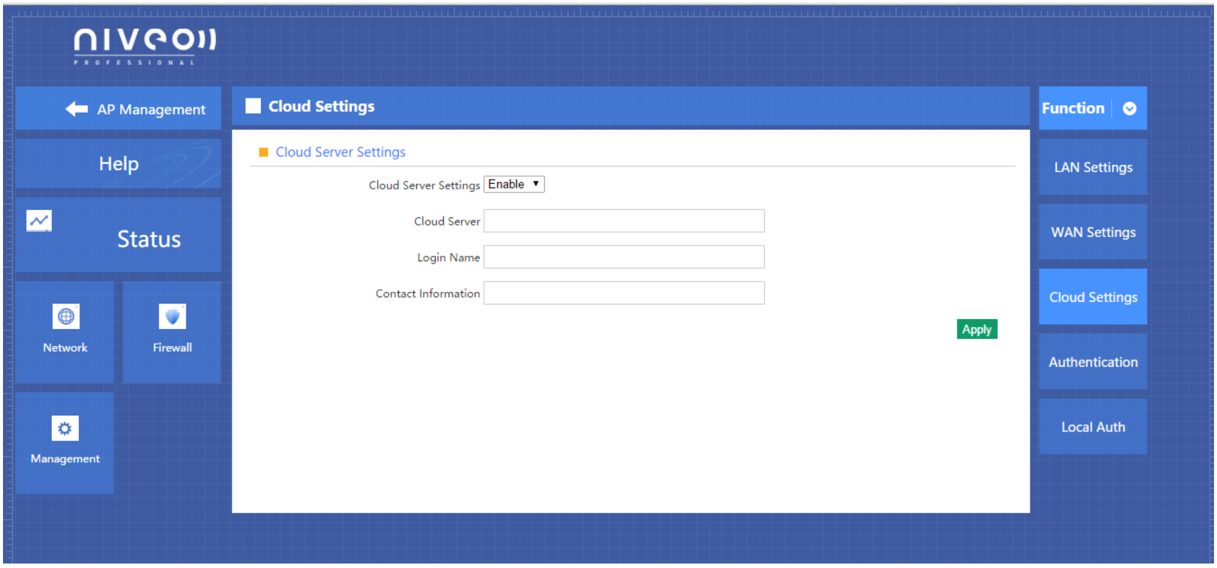
MAC Clone: Specifies the WAN interface MAC, by clicking [Search MAC Address] button, and then will pop up a connected device's MAC, select the MAC desired to clone. You can manually specify the MAC

Enable IGMP Proxy: Enables IGMP proxy, this feature can be forwarded IGMP data from WAN to the LAN

Enable Ping Address on WAN: This feature allows outer net to ping WAN

Enable Web Server Address on WAN port: Enable this feature, allows to manage NWAC7000 from outer net via a specified remote management port

4.5.3 Cloud Setting



Cloud Settings

Cloud Server Settings

Cloud Server Settings: Enable

Cloud Server:

Login Name:

Contact Information:

Cloud Server Setting: Enable or Disable.

Cloud Server: Input the cloud server's IP address or domain name.

Login Name: mean the account name in this cloud server.

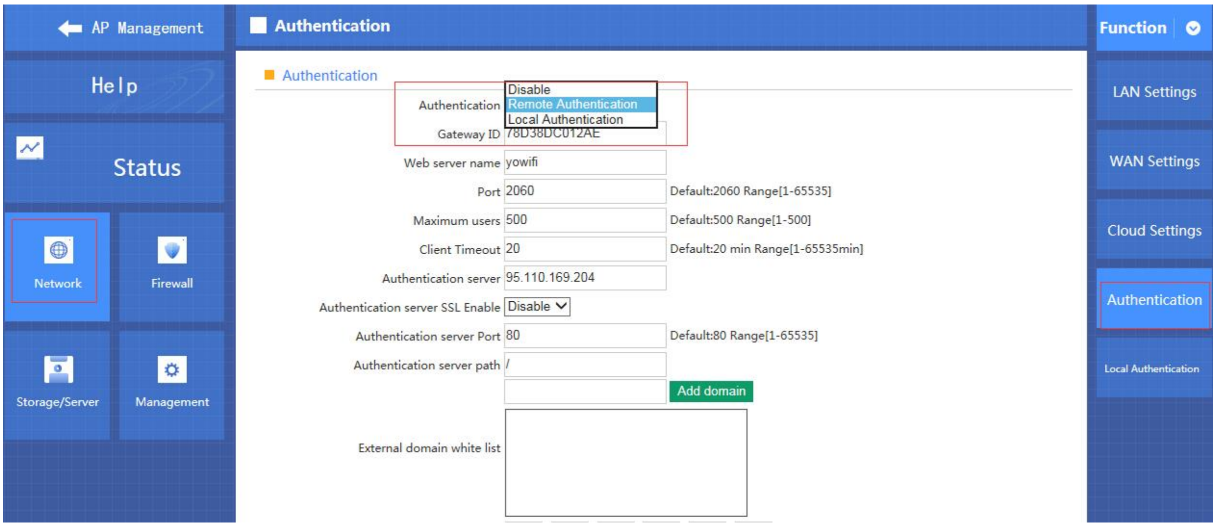
Contact information: input if you have.

4.5.4 Authentication

A. Remote Authentication:

Remote Authentication: work with cloud server to do the advertisement or portal authentication.

Pls note: the cloud server should support wifidog.



Authentication
Authentication: Disable / Remote Authentication / Local Authentication
Gateway ID 78D38DC012AE
Web server name yowifi
Port 2060 Default:2060 Range[1-65535]
Maximum users 500 Default:500 Range[1-500]
Client Timeout 20 Default:20 min Range[1-65535min]
Authentication server 95.110.169.204
Authentication server SSL Enable Disable
Authentication server Port 80 Default:80 Range[1-65535]
Authentication server path /
External domain white list

How to make NWAC7000 work with your authentication server:

Gateway ID: Mean Gateway's MAC address.

In this part, our NWAC7000 should work in Intelligent Gateway, mean this ID is the MAC of NWAC7000.

Web server name: this name is from server supplier, can fill or not fill. Take our cloud Platform for example: input wifidog in this part.

Port: this part should match with the server's port, the default is 2060, the range is 1~65535

Maximum users: mean the end user will comply with this authentication; Default is 500, range is 1~500.

Client Timeout: the authentication time, default is 20 mins, the range is 1~65535 min.

Authentication Server: mean the server name which support wifidog for authentication, it is an important data.

Authentication server SSL enable: disable or enable, based on server.

Authentication server port: matched with server data, default is 80, the range is 1~65535.

Authentication server path: the patch of authentication server. If no data, pls use default.

External domain white list: User can visit this domain directly, no need any authentication.

Add external domain white list: Just input the domain in yellow part, then click add domain.

Delete external domain white list: click ⊗ this button to delete it

MAC white list: User with MAC address in MAC white list can access into Internet directly, no need authentication.

Add white MAC: Input the MAC address in blue part, or scan the MAC address, then click add MAC.

Delete White MAC: click ⊗ this button to delete it.

After finished this settings, then Apply to complete the Remote authentication setting and make it work with authentication server.

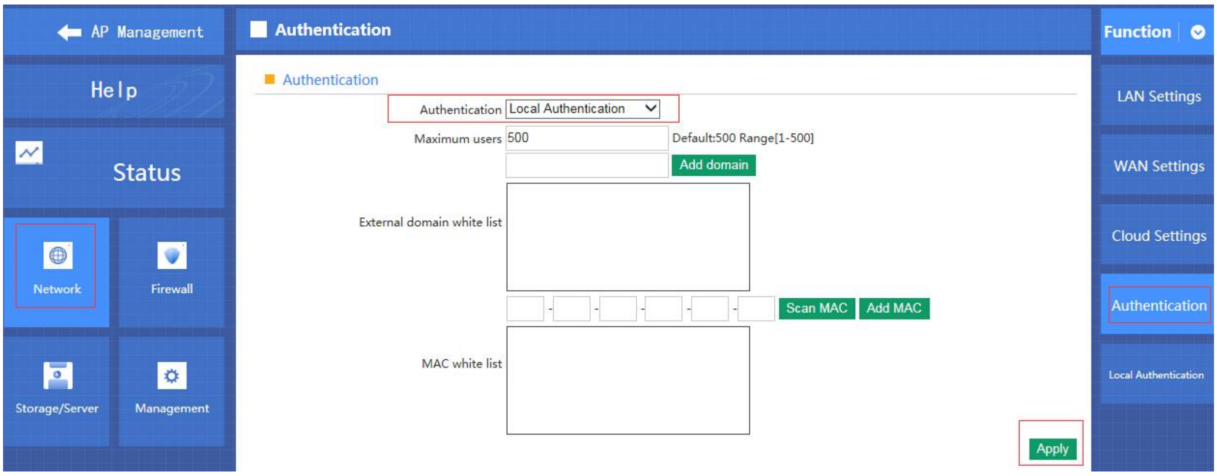
B. Local Authentication:

For Local Authentication, just do advertisement in AC controller part, no need to access into cloud server.

Maximum users: max user QTY will do the authentication.

External domain white list: User can visit this domain directly, no need any authentication

MAC white list: the MAC address will not do the authentication.



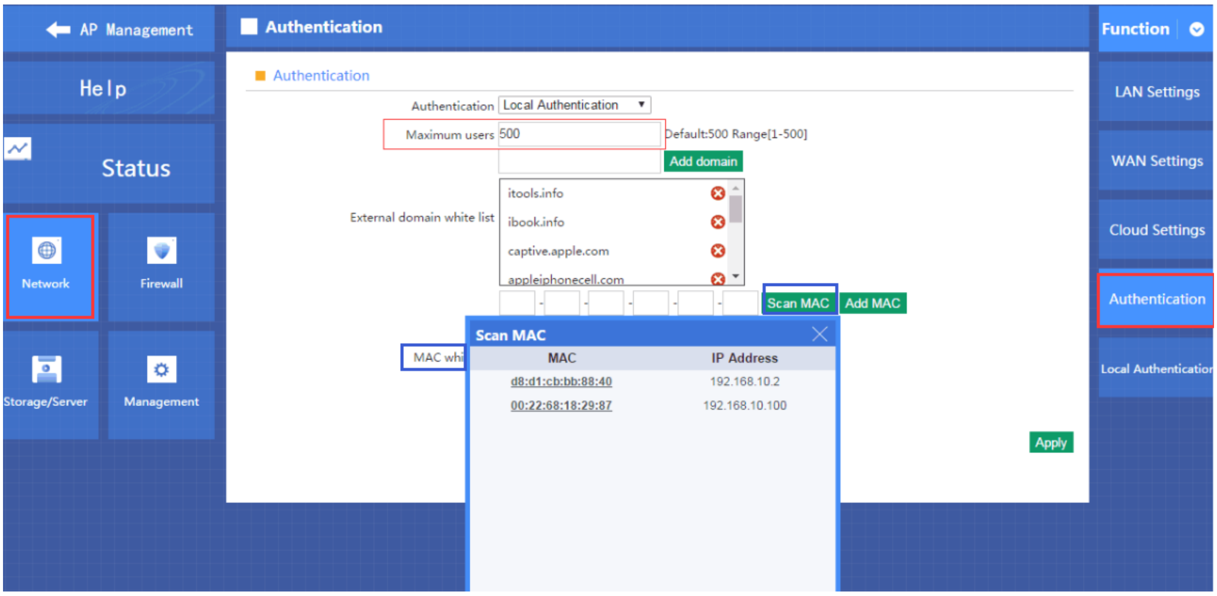
Authentication

Authentication: Local Authentication

Maximum users: 500 Default:500 Range[1-500]

External domain white list

MAC white list



Authentication

Authentication: Local Authentication

Maximum users: 500 Default:500 Range[1-500]

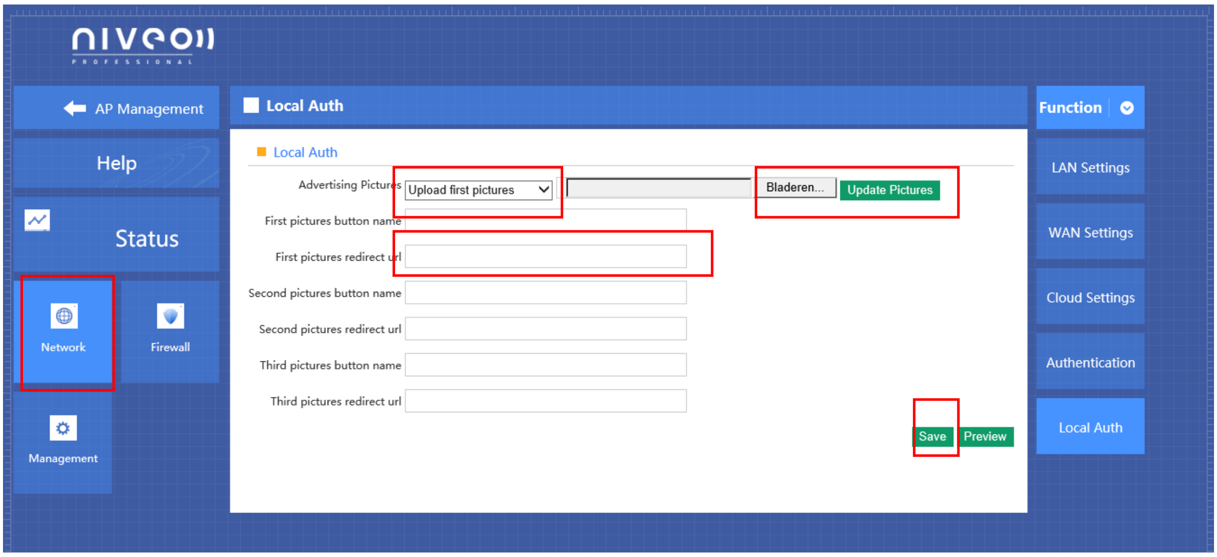
External domain white list:
itools.info
ibook.info
captive.apple.com
appleiphonecell.com

Scan MAC

MAC	IP Address
d8:d1:cb:bb:88:40	192.168.10.2
00:22:68:18:29:87	192.168.10.100

When choose Local Authentication in Authentication part, then Apply; please upload the pictures should show to end users.

The step showed as following picture.



Local Auth

Advertising Pictures: Upload first pictures

First pictures button name

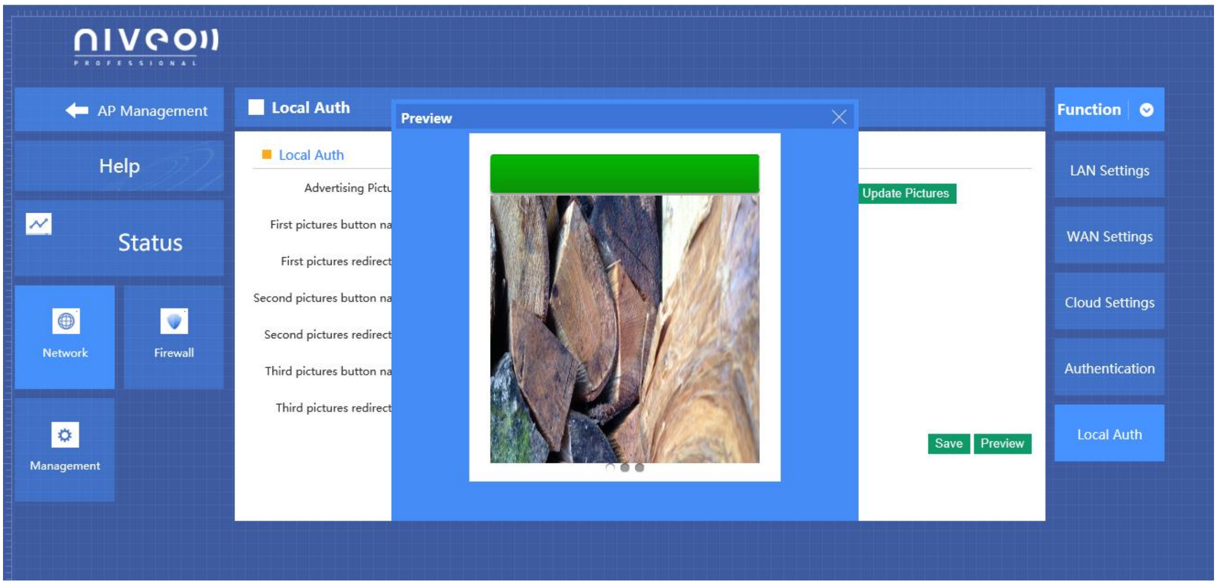
First pictures redirect url

Second pictures button name

Second pictures redirect url

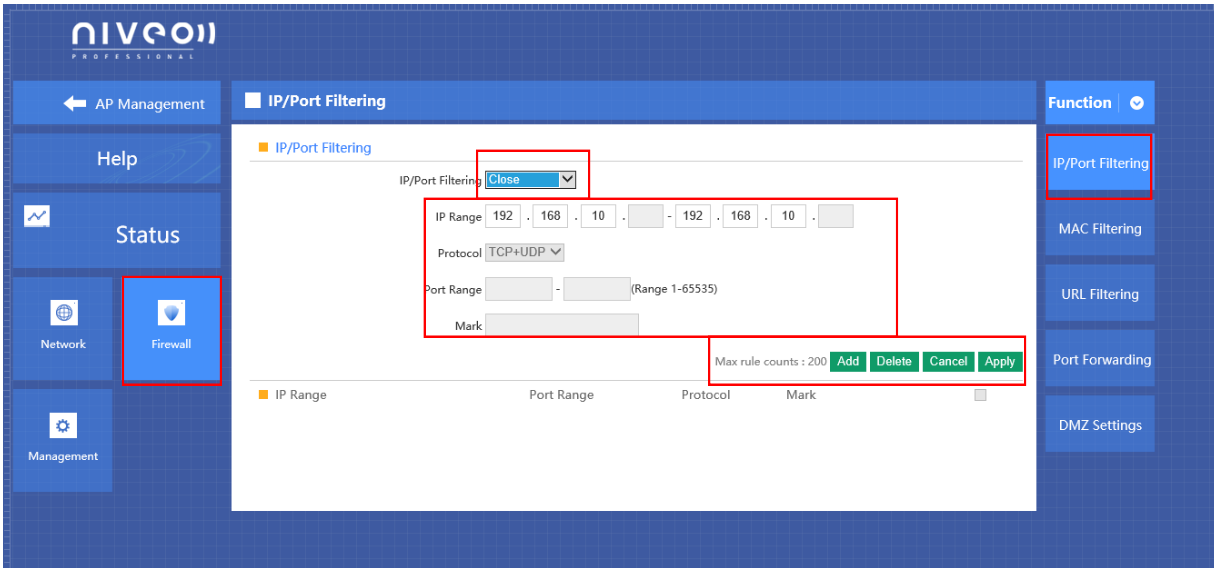
Third pictures button name

Third pictures redirect url



4.6 Firewall

4.6.1 IP/Port Filtering



IP/Port Filtering

IP/Port Filtering Close

IP Range 192 . 168 . 10 . - 192 . 168 . 10 .

Protocol TCP+UDP

Port Range - (Range 1-65535)

Mark

Max rule counts : 200

IP Range	Port Range	Protocol	Mark	□

P4-6-1

IP/Port Filtering

IP/Port forwarding enabled, router will limited the data forwarding according to the filtering rule. If the filtering rule is [refuse] , then the router will refuse to forward the data in accordance with filtering rule.; If the filtering rule is [allow], the router will forward the data in accordance with filtering rule.

IP Range

Set IP address range

Protocol

Set filtering rule protocol

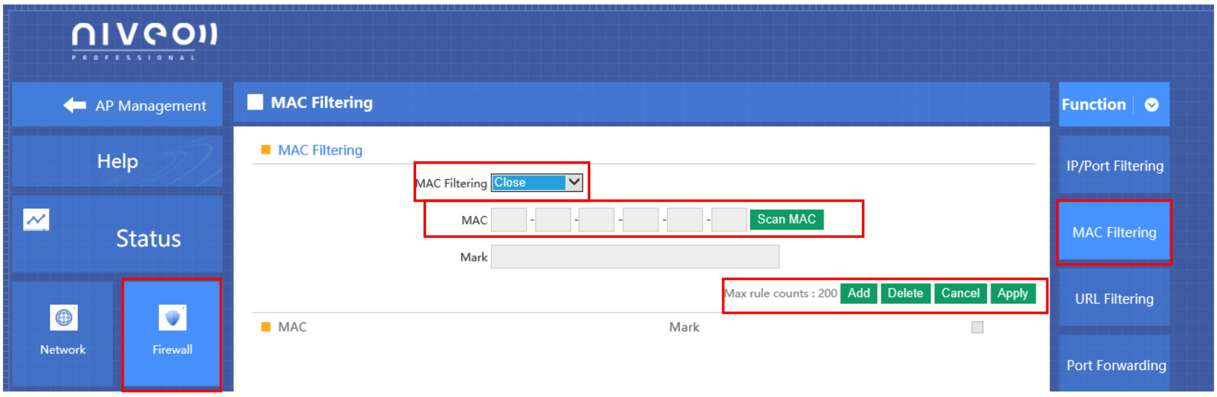
Port Range

Set filtering port range

Mask

A simple description of the entry rules, for user’s easy management;

4.6.2 MAC Filtering



MAC Filtering

MAC Filtering: Close

MAC: - - - - -

Mark:

Max rule counts : 200

MAC Filtering

Enabling Mac filtering, router will restrict data forwarding based on the selected filtering rules; When selected **Close**, router will decline the pointed incoming data; When selected as **Open**, then router will allow the pointed incoming rules;

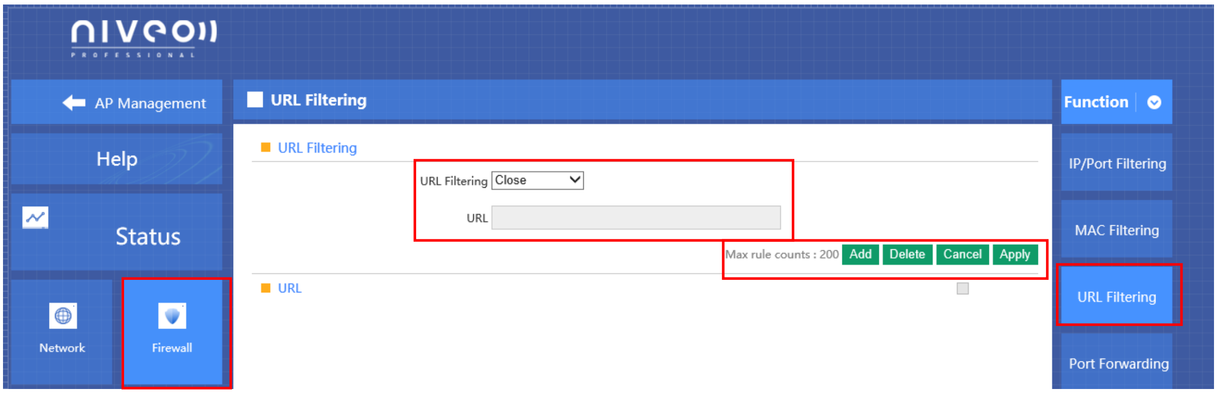
Mac address

Set up rules in mac address, users can click **Searching Mac Address** from the clients in routers, or can set up the mac address manually;

Mask

A simple description of the entry rules, for user’s easier management;

4.6.3 URL Filtering



URL Filtering

URL Filtering: Close

URL:

Max rule counts : 200

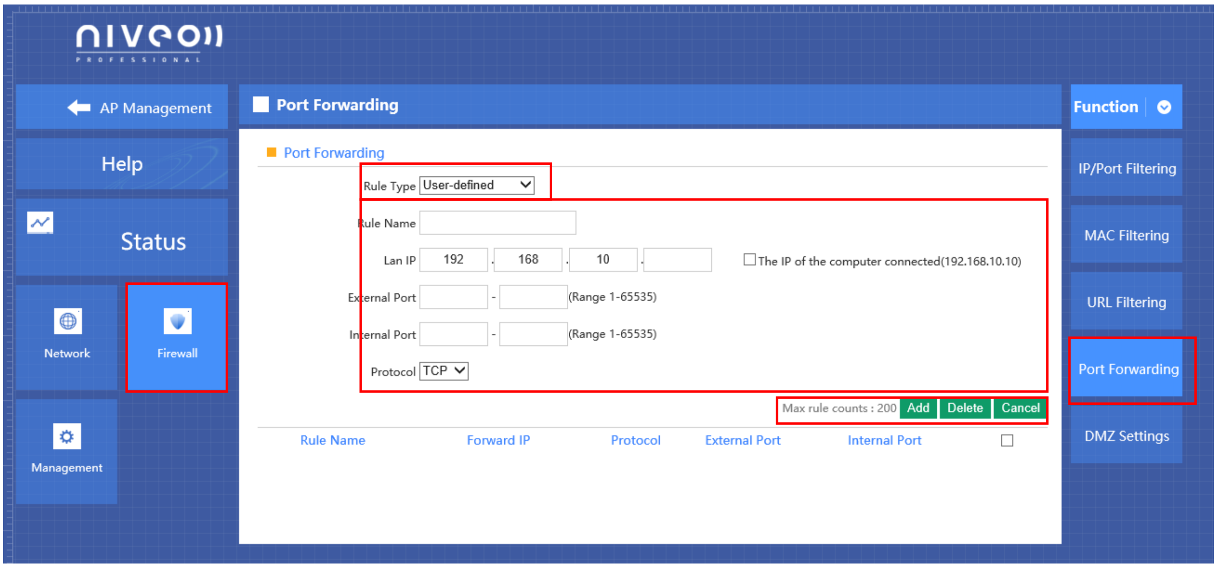
URL Filtering

Enabling URL filtering, router will restrict access to the pointed URL;

URL address

Set up the declined URL address

4.6.4 Port Forwarding



Port Forwarding

Rule Type: User-defined

Rule Name:

Lan IP: 192 . 168 . 10 . ☐ The IP of the computer connected(192.168.10.10)

External Port: - (Range 1-65535)

Internal Port: - (Range 1-65535)

Protocol: TCP

Max rule counts : 200

Rule Name	Forward IP	Protocol	External Port	Internal Port	☐

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

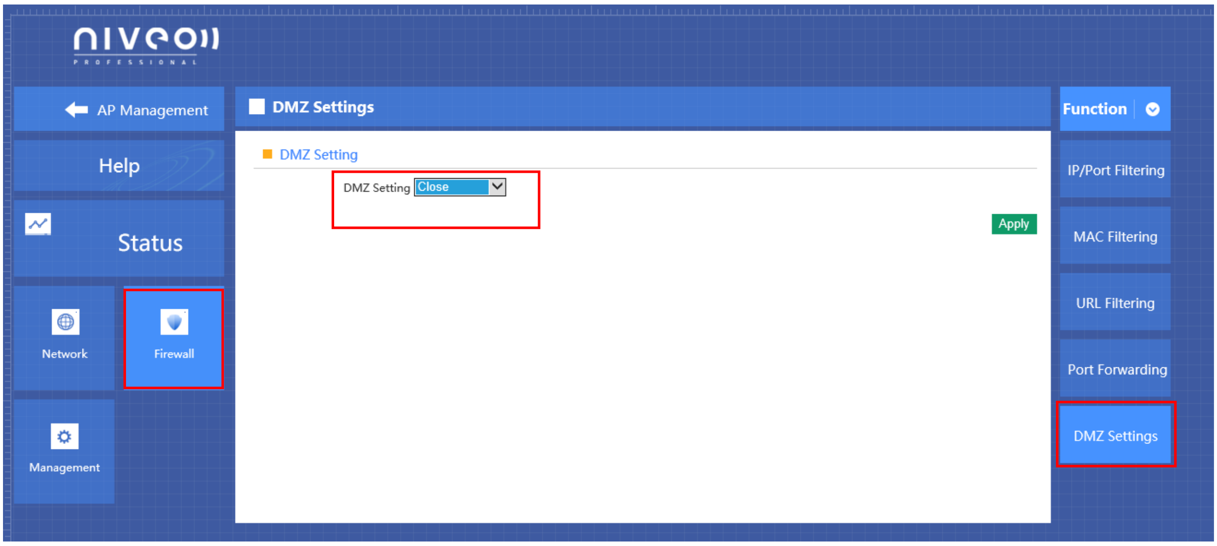
Internal port

Internal port number of port forwarding

Protocol

Protocol used for port forwarding

4.6.5 DMZ Settings



DMZ Setting Close

DMZ

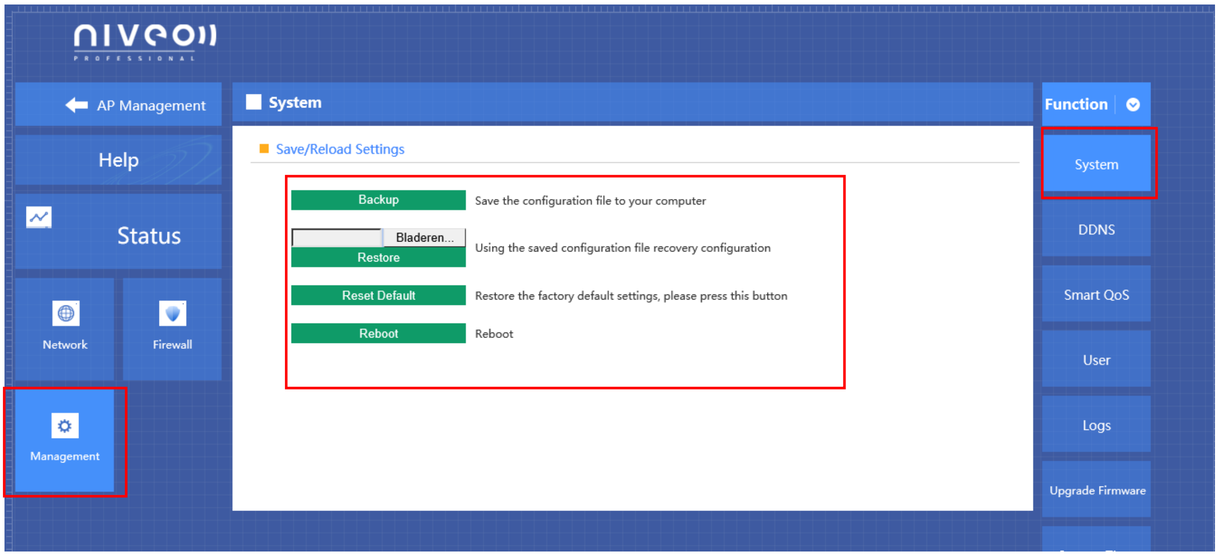
DMZ is short for demilitarized zone; It's a compartment between security zone and non-security zone, in order to solve the problem of external network cannot access into internal server after firewall installation; This DMZ zone is a small network zone between external and internal network; While in 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

4.8 Management

4.8.1 System management



Save the configuration file to your computer

Using the saved configuration file recovery configuration

Restore the factory default settings, please press this button

Reboot

Backup

Save the configuration files to your computer

Restore

Using the saved configuration file recovery configuration

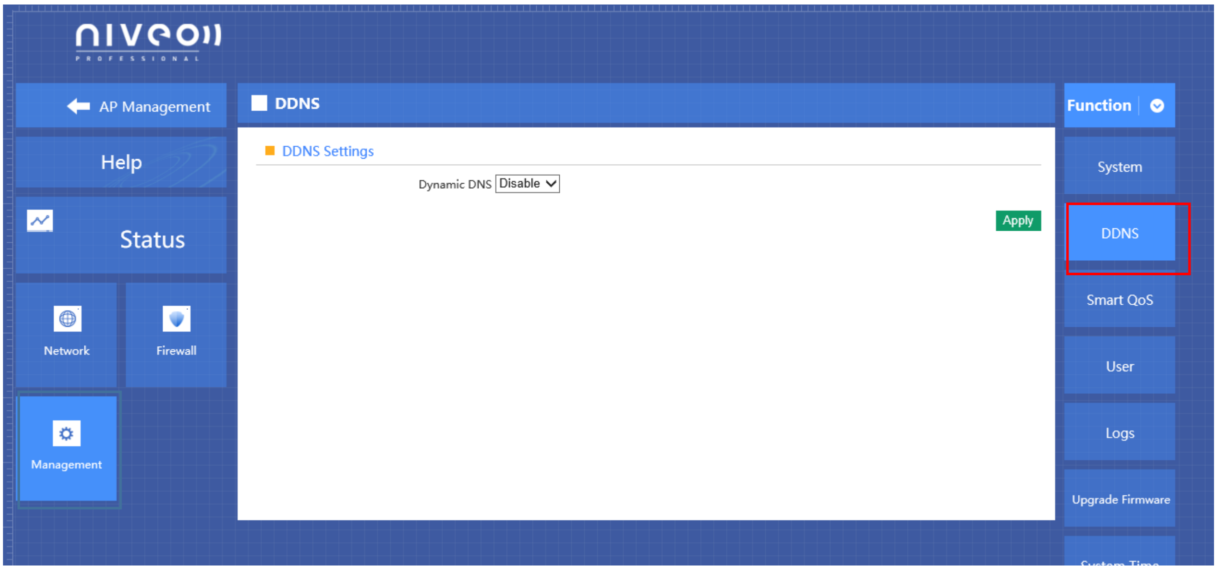
Restore default

Restore the factory default settings, please press this button

Reboot

Reboot the system

4.8.2 DNS

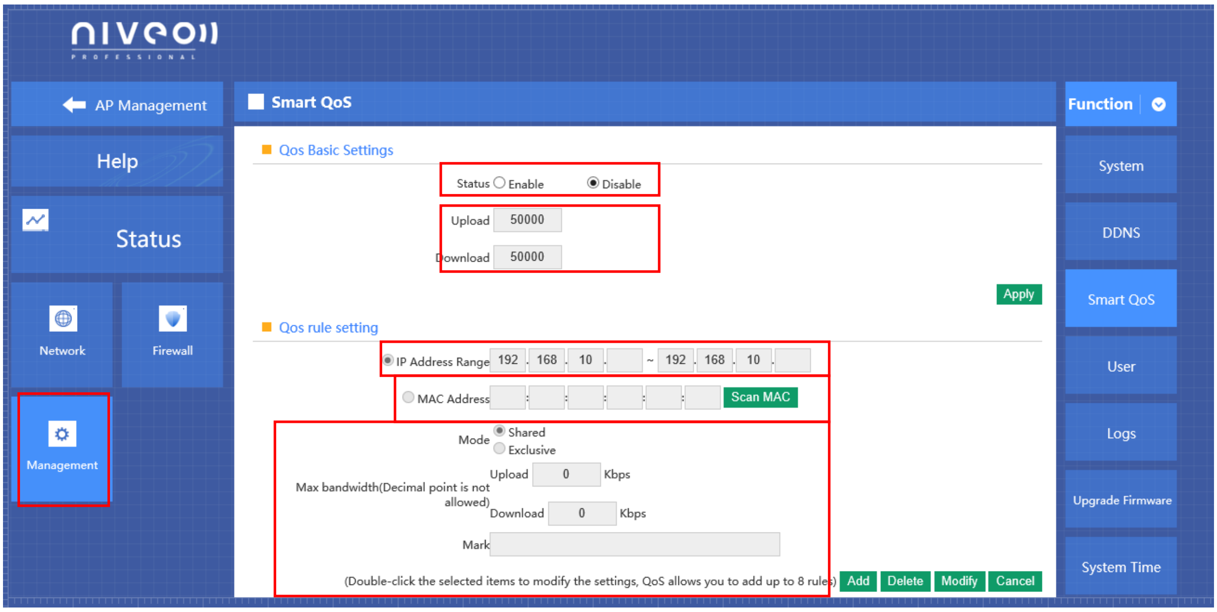


DDNS Settings

Dynamic DNS Disable

Enable or disable DNS

4.8.3QoS



Smart QoS

Qos Basic Settings

Status ○ Enable ● Disable

Upload 50000

Download 50000

Qos rule setting

● IP Address Range 192 . 168 . 10 . ~ 192 . 168 . 10 .

○ MAC Address : : : : :

Mode ● Shared ○ Exclusive

Max bandwidth(Decimal point is not allowed) Upload 0 Kbps

Download 0 Kbps

Mark

(Double-click the selected items to modify the settings, QoS allows you to add up to 8 rules)

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

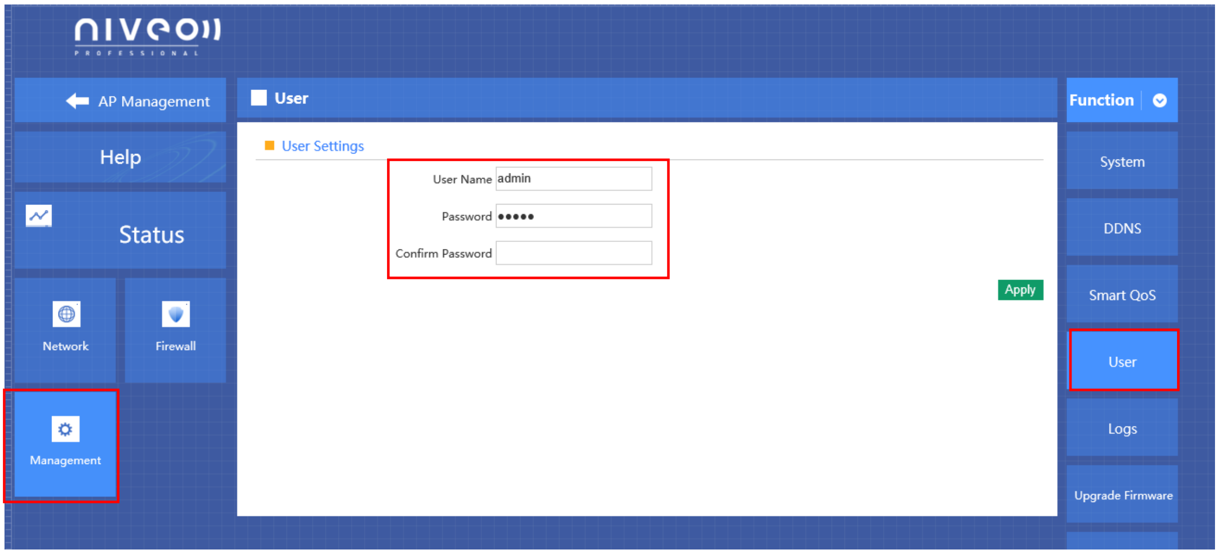
QoS mode settings, shared mode means under the QoS rules, the main PC within all IP range can share the specified bandwidth;

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

Max bandwidth

Max bandwidth under QoS rules

4.8.4 User management



User Settings

User Name admin

Password ●●●●●

Confirm Password

User Name

Reset new log-in user name

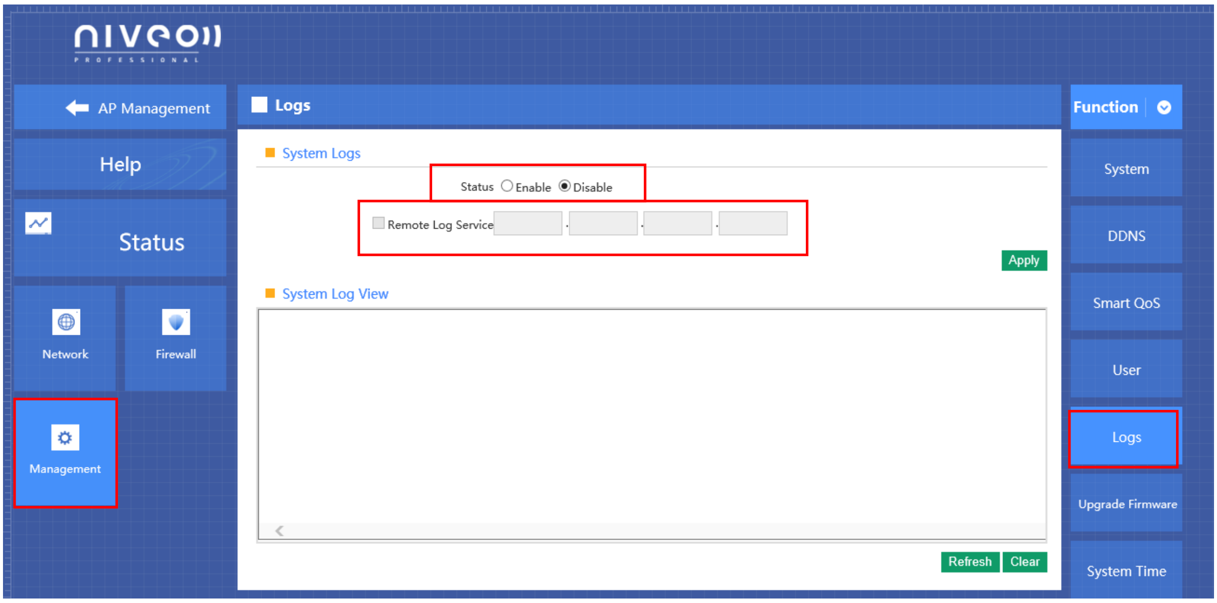
Password

Reset new log-in password

Confirm Password

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

4.8.5 Device Log



System Logs

Status ○ Enable ● Disable

□ Remote Log Service . . .

System Log View

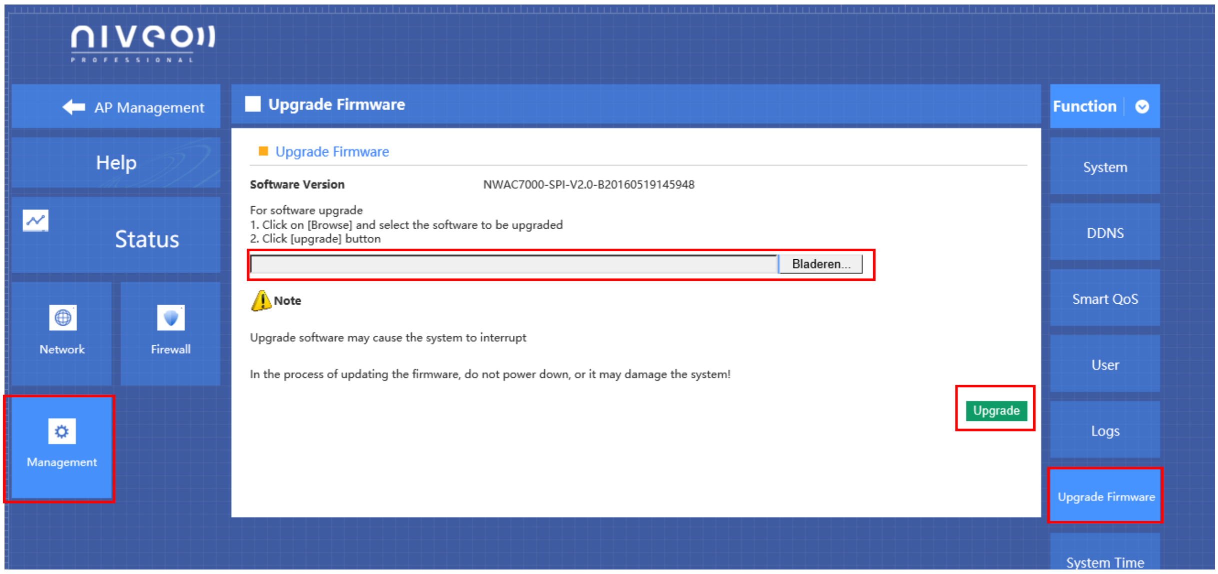
Status

Enable or Disable to show system log

Remote Log Service

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

4.8.6 Upgrade Firmware



Upgrade Firmware

Upgrade Firmware

Software Version NWAC7000-SPI-V2.0-B20160519145948

For software upgrade
1. Click on [Browse] and select the software to be upgraded
2. Click [upgrade] button

Bladeren...

Note

Upgrade software may cause the system to interrupt

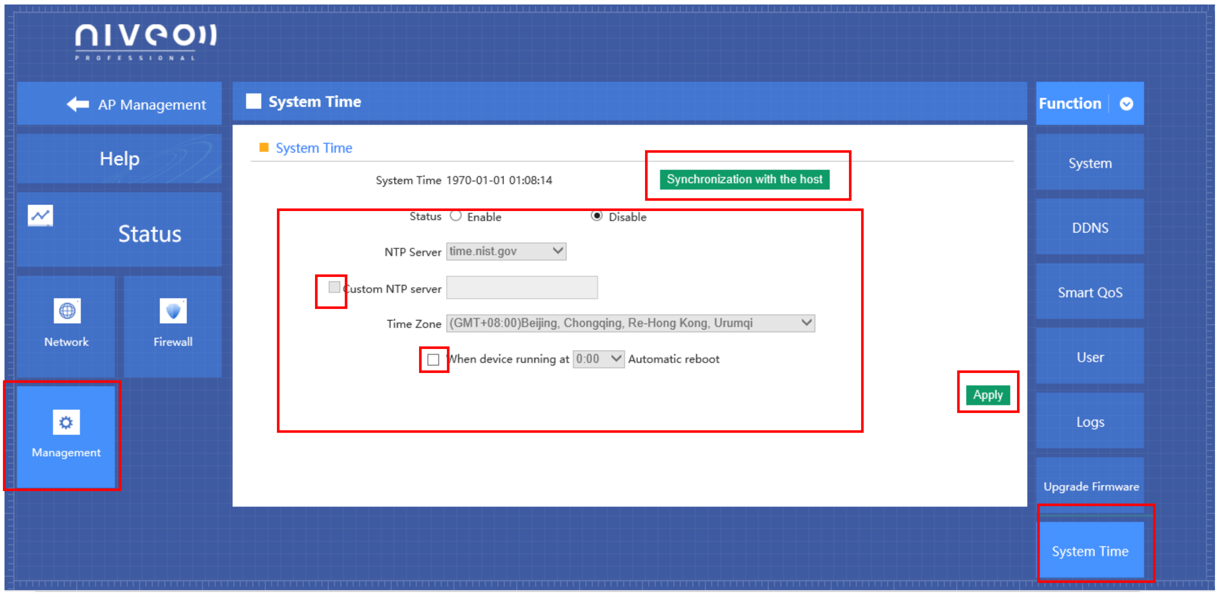
In the process of updating the firmware, do not power down, or it may damage the system!

Upgrade

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 AC controller!

4.8.7 System Time



System Time

System Time 1970-01-01 01:08:14

Status ○ Enable ● Disable

NTP Server time.nist.gov

□ Custom NTP server

Time Zone (GMT+08:00)Beijing, Chongqing, Re-Hong Kong, Urumqi

□ When device running at 0:00 Automatic reboot

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

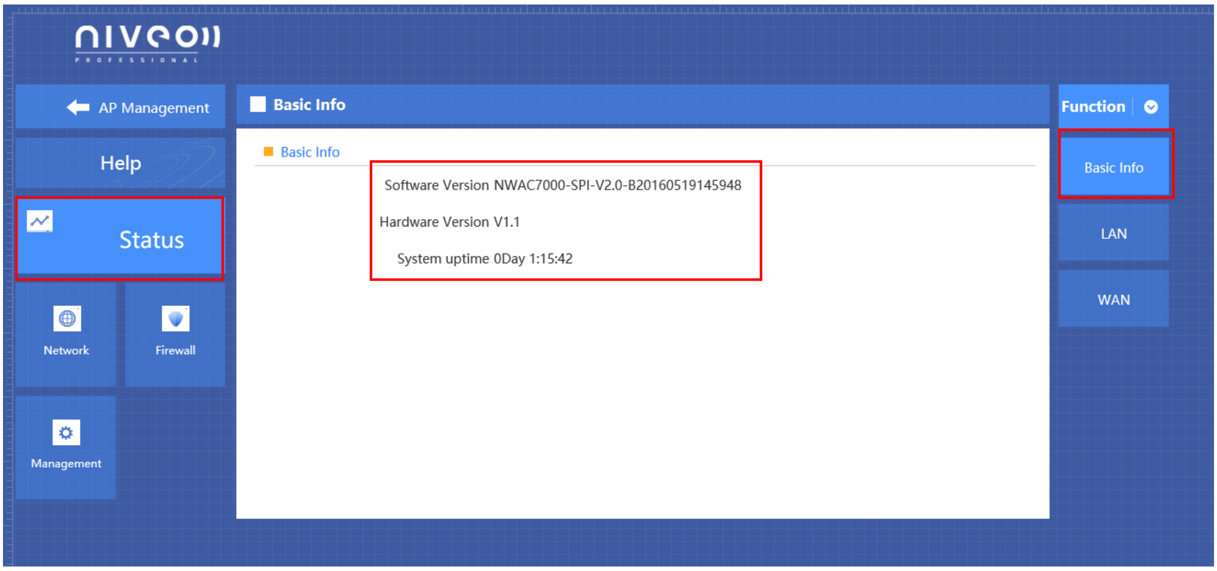
Time Zone

Setting the router’s time zone

4.9 Device Status

4.9.1 Basic Status

Show NWAC7000’s firmware version, hardware version, system uptime.



Basic Info

Software Version NWAC7000-SPI-V2.0-B20160519145948

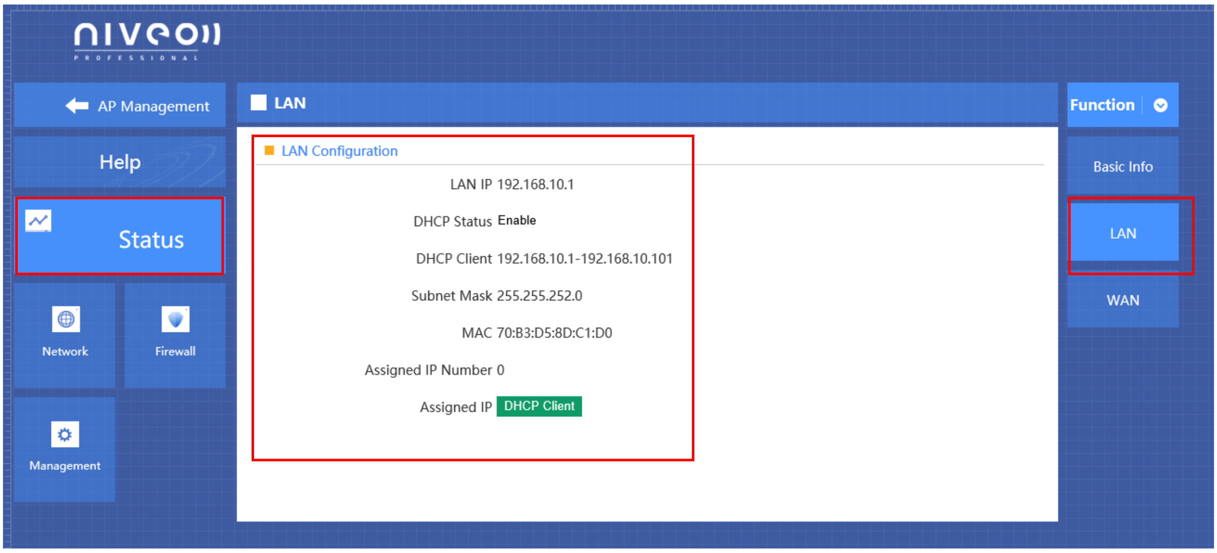
Hardware Version V1.1

System uptime 0Day 1:15:42

4.9.2 LAN Status

LAN Setting

Show NWAC7000’s LAN IP, DHCP server status and MAC address



LAN Configuration

LAN IP 192.168.10.1

DHCP Status Enable

DHCP Client 192.168.10.1-192.168.10.101

Subnet Mask 255.255.252.0

MAC 70:B3:D5:8D:C1:D0

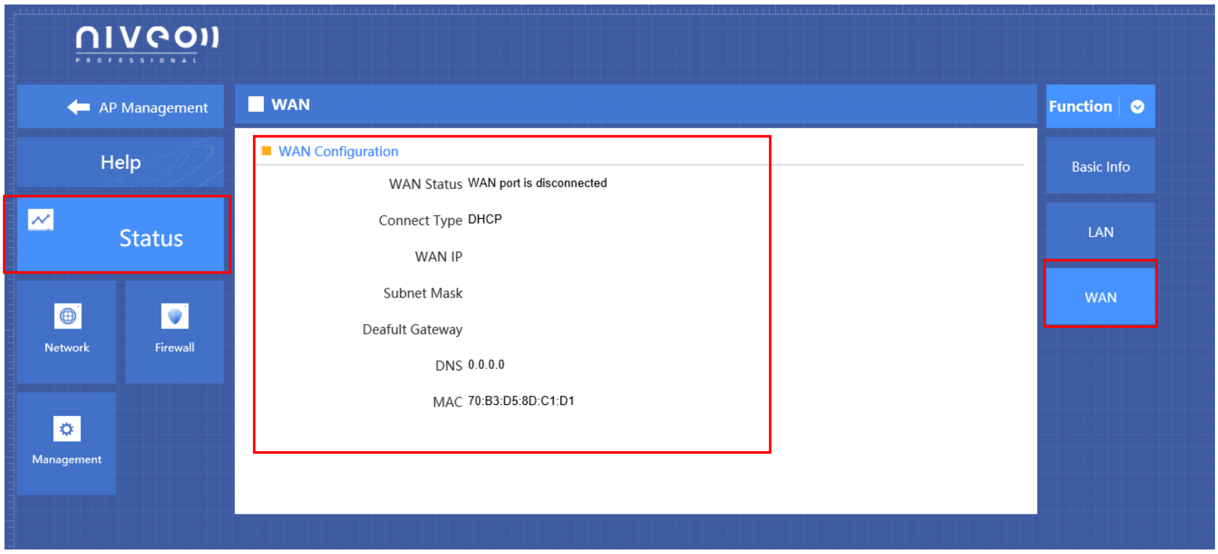
Assigned IP Number 0

Assigned IP DHCP Client

4.9.3 WAN Status

WAN Setting

It shows NWAC7000's WAN status, Connect Type, WAN IP, Subnet Mask, Gateway IP, DNS and MAC info.



WAN Configuration

WAN Status WAN port is disconnected

Connect Type DHCP

WAN IP

Subnet Mask

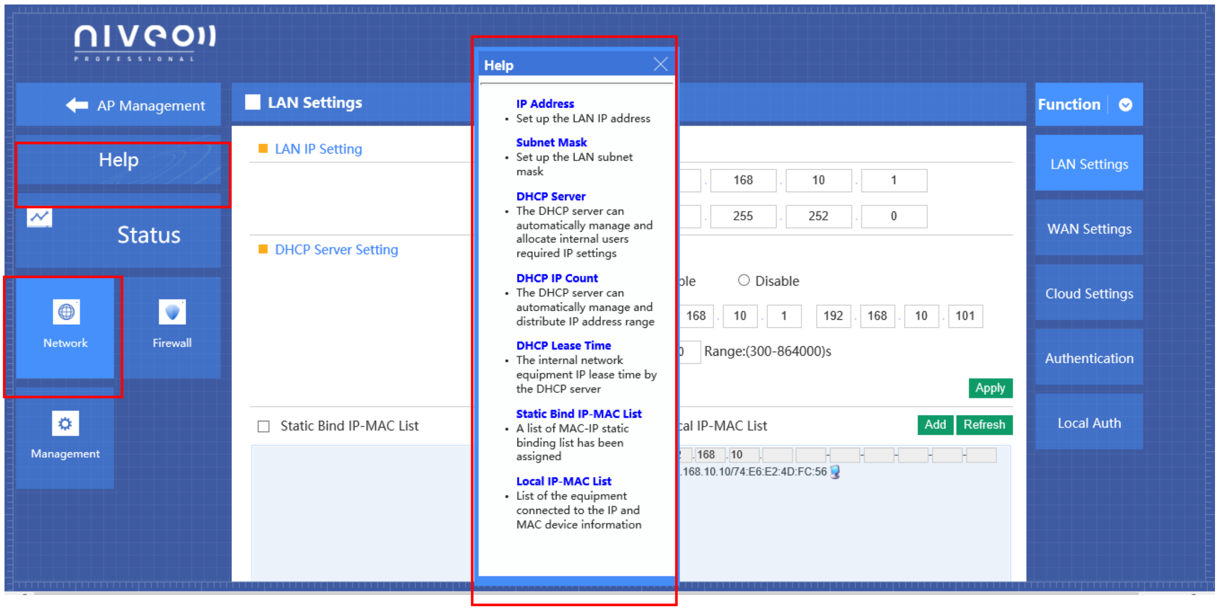
Deafult Gateway

DNS 0.0.0.0

MAC 70:B3:D5:8D:C1:D1

4.10 Help

If you meet with problem in understanding on above info, click help, then will pop up one window for better understanding.



Help

IP Address
- Set up the LAN IP address

Subnet Mask
- Set up the LAN subnet mask

DHCP Server
- The DHCP server can automatically manage and allocate internal users required IP settings

DHCP IP Count
- The DHCP server can automatically manage and distribute IP address range

DHCP Lease Time
- The internal network equipment IP lease time by the DHCP server

Static Bind IP-MAC List
- A list of MAC-IP static binding list has been assigned

Local IP-MAC List
- List of the equipment connected to the IP and MAC device information

Appendix A Product SPEC

Item		Parameter
Standard Protocol		IEEE 802.3、IEEE 802.3u
QTY of manageable AP		Default: 200pcs, Max: 300pcs
CPU		MT7621, 880MHz
FLASH		128Mb
DDR3		DDR3 4096Mb
Power Consumption		< 5W
Interface	LAN port	Four 10/100M/1000M RJ45 port（Auto MDI/MDIX）
	LAN/WAN port	1 LAN/WAN port， Default is LAN port, WAN port when open WAN mode
LED Indicator	Power	Adapter
	Run	System status
Demension (L x W x H)		440mm x200 mm x 45mm
Cooling		Nature cooling + Fan cooling
Working environment		Working temperature：0ºC～40ºC
		Storage temperature：-40ºC～70ºC
		Working Humanity：10%～90%RH (No condensation)
		Storage Humanity：5%～90%RH (No condensation)
Power		100-240V~ 50/60Hz