



DG-WM2003SIE

User Manual

V1.0

2017-11-08

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1. Hardware and Operation Mode Instruction



Package Contents

Before using this access point, please check if there is anything missing in the package, and contact your dealer of purchase to claim for missing items:

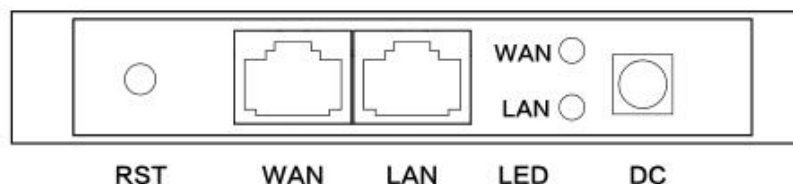
- DG-WM2003SIE Ceiling Mount AP Router
- DC 12V Power Adapter
- Patch Cord
- User Manual CD
- Mounting Screws

1.1. LED Indicator

Green:- Power Indicator

Blue:- WiFi Indicator

1.2. AP Interface



RST	Reset Button, it make AP Router revert to default settings after pressing it for 15 seconds.
WAN	WAN Port, connect with ADSL modem or Internet mainly. It will be LAN port under Wireless AP Router and WiFi Repeater operation mode
LAN	LAN Port to end users
LED	LED Indicator for WAN port and LAN port
DC	DC power connector

1.3. Power Supply

1.3.1 PoE Adapter Power Supply:

The connection diagram shown as P1, internet cable connect to PoE adapter's LAN Port, Ceiling AP Router's WAN port connect to PoE adapter's PoE Port, then PC will access into ceiling AP Router through cable or wireless.

The wireless AP Router support 48V IEEE802.3af PoE, so PoE adapter should be 48V IEEE802.3af PoE standard.



P1

1.3.2. PoE Switch Power Supply

The connection diagram shown as P2, Internet cable from PoE Switch to Ceiling AP Router's WAN Port, then PC access into ceiling AP Router via wired/wireless.

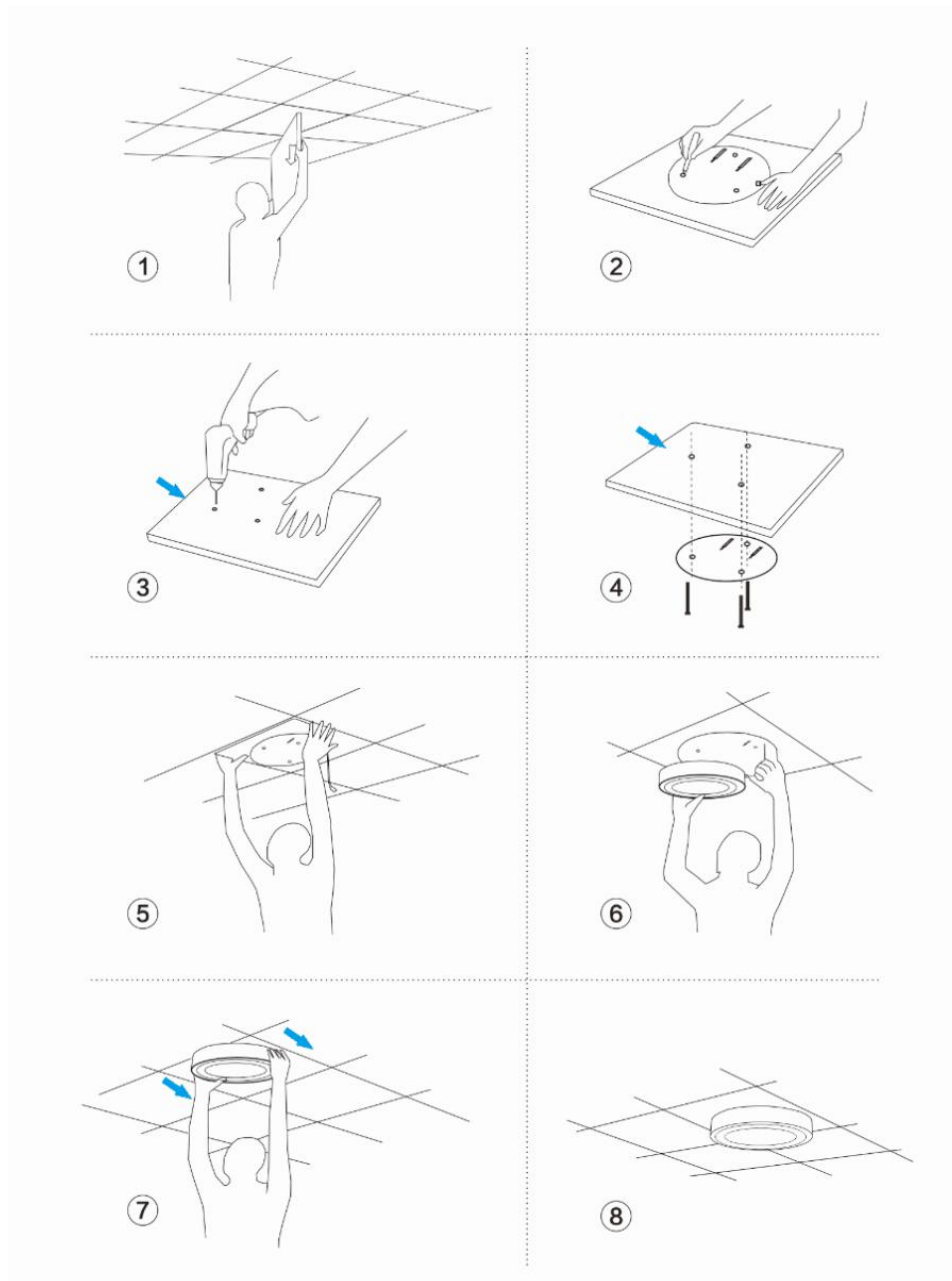
Pls note the wireless AP Router support 48V IEEE802.3af PoE, the PoE switch should comply with 48V IEEE802.3af PoE standard.



P2

1.4. AP Router Installation

For the Ceiling Wireless AP Router, will be installed under ceiling based on following steps:

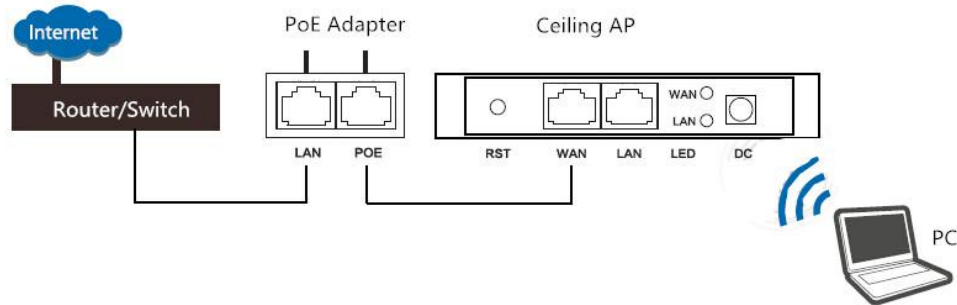


2. Connect Wireless AP Router with PC

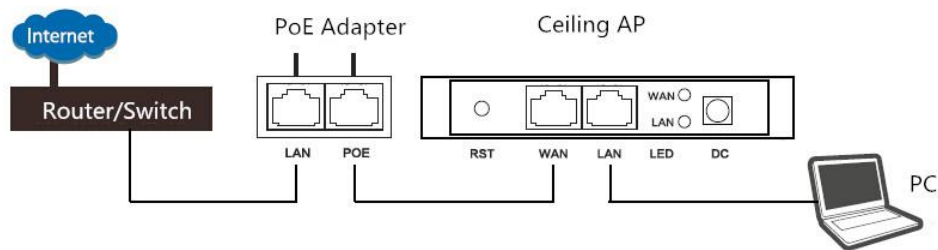
You can connect the PC with wireless AP Router by Wireless SSID and LAN cable:

The diagram of wireless connection showed as follow:

Pls note: the default SSID is **DG-WM2003SIE**, SSID's password is **blank**



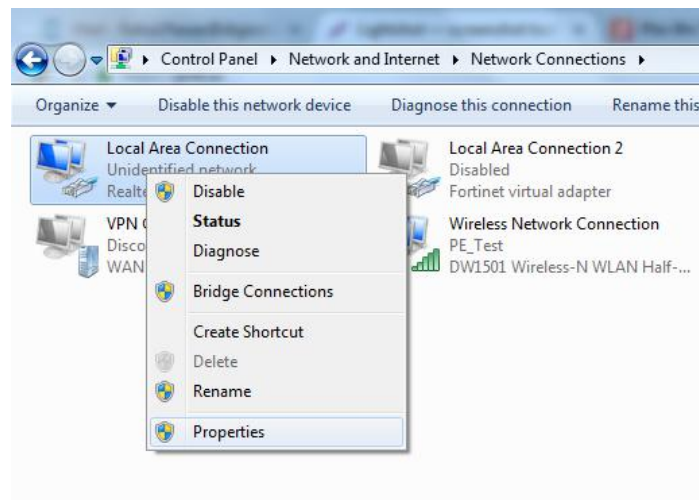
P3. Connect the PC to AP Router using WiFi as shown above



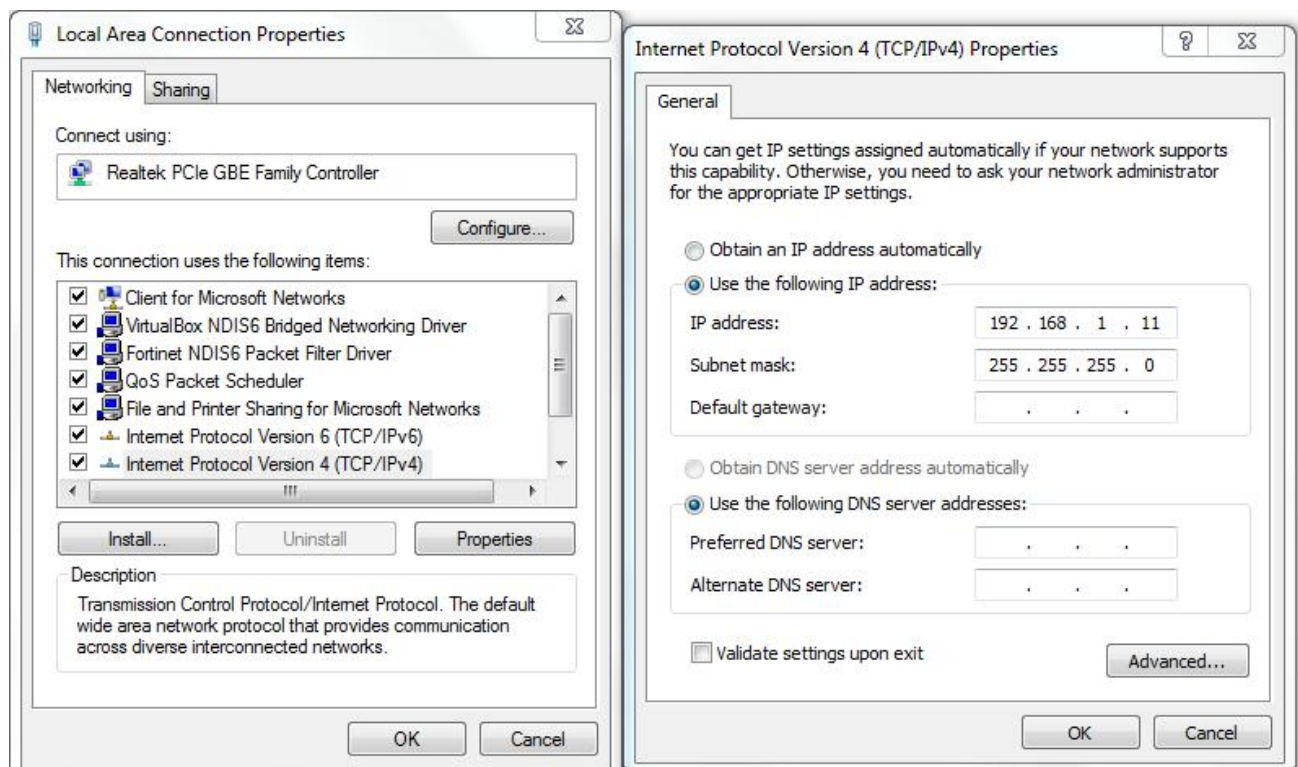
P4. Connect the PC to AP Router using LAN cable as shown above

3. Login

1. Connect the Ceiling AP Router with computer by wired or wireless
2. The default IP address of this wireless AP Router is 192.168.1.200. Configure the PC's local connection. IP address as 192.168.1.X (X is number from 2 to 254), subnet mask is 255.255.255.0.



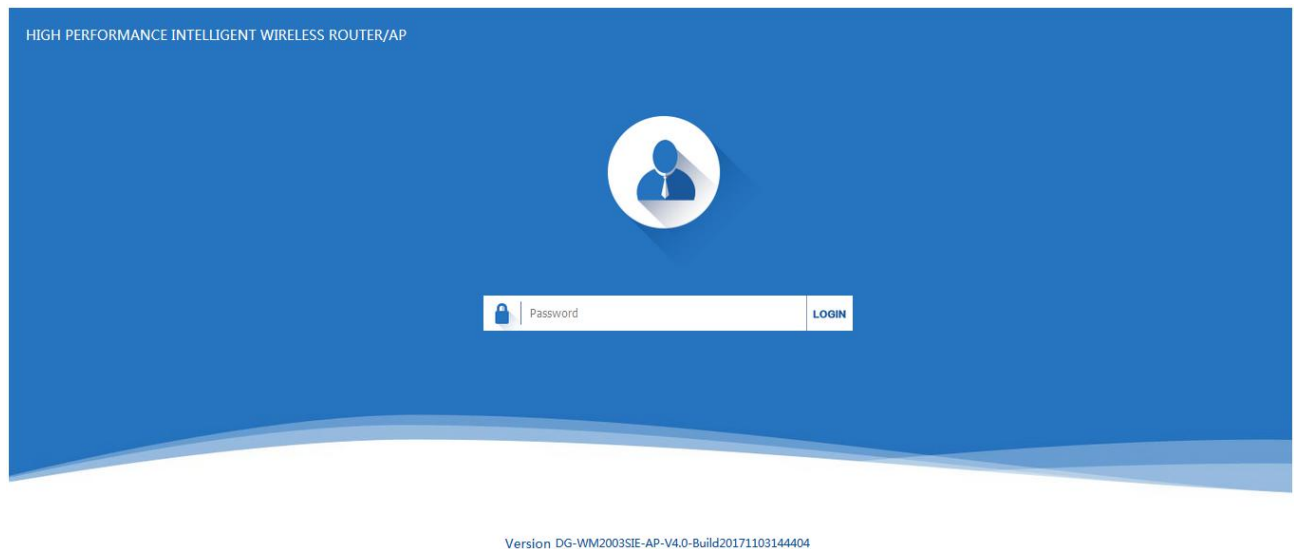
P5



P6

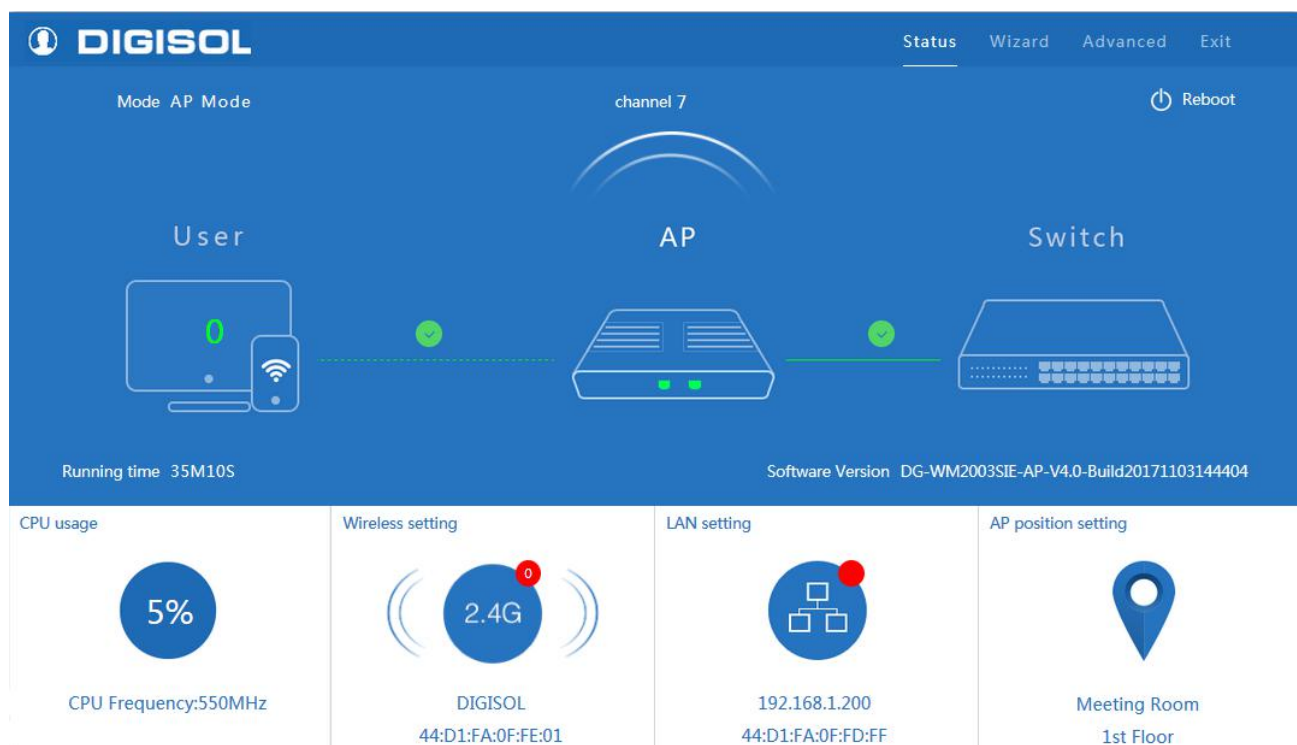
8

3. Input 192.168.1.200 into browser, login page will appear, the default login password: admin.



P7: Login Page

4. After login the following page appear which shows Device Status. This page will show the device default operation mode, Channel, Connection status, CPU usage, Wireless settings, LAN Setting, Wireless AP's Location, Hardware/Firmware version.

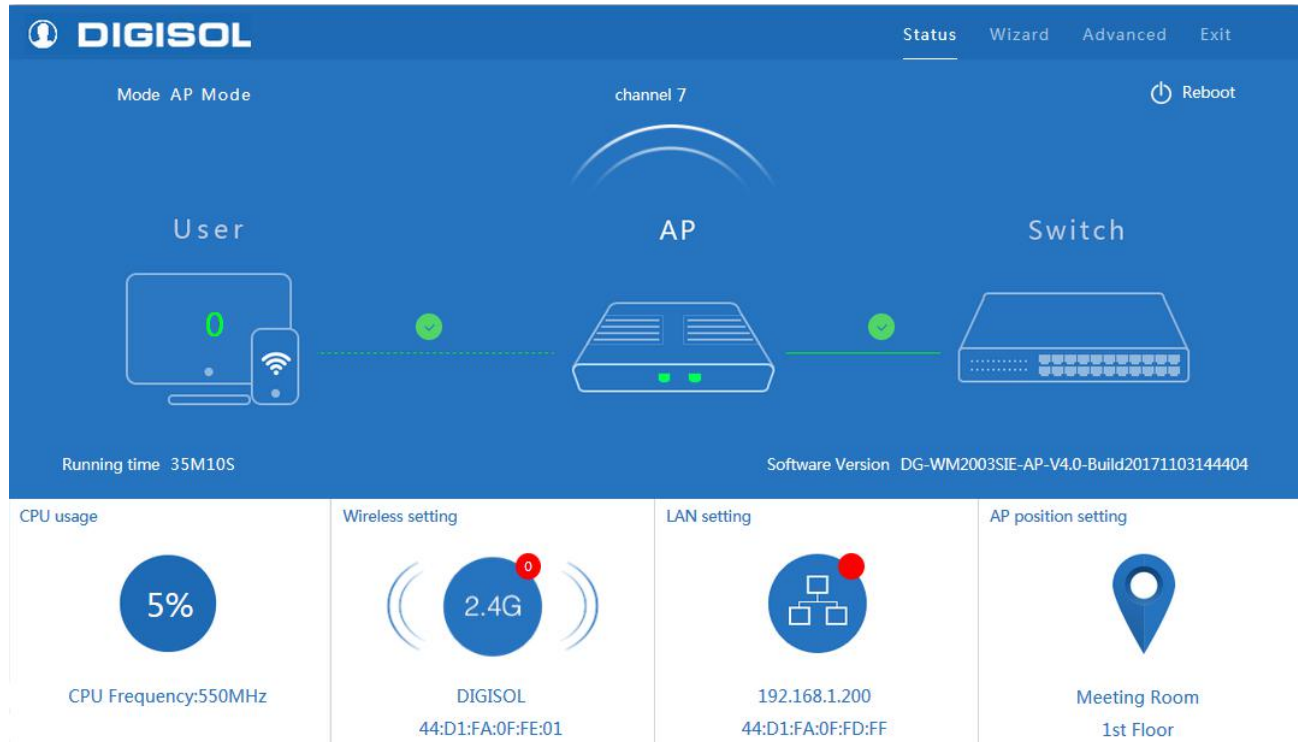


P8: Device Status

4. WEB GUI interface Setting

4.1. Status

After login, the Device Status and home page will be showed

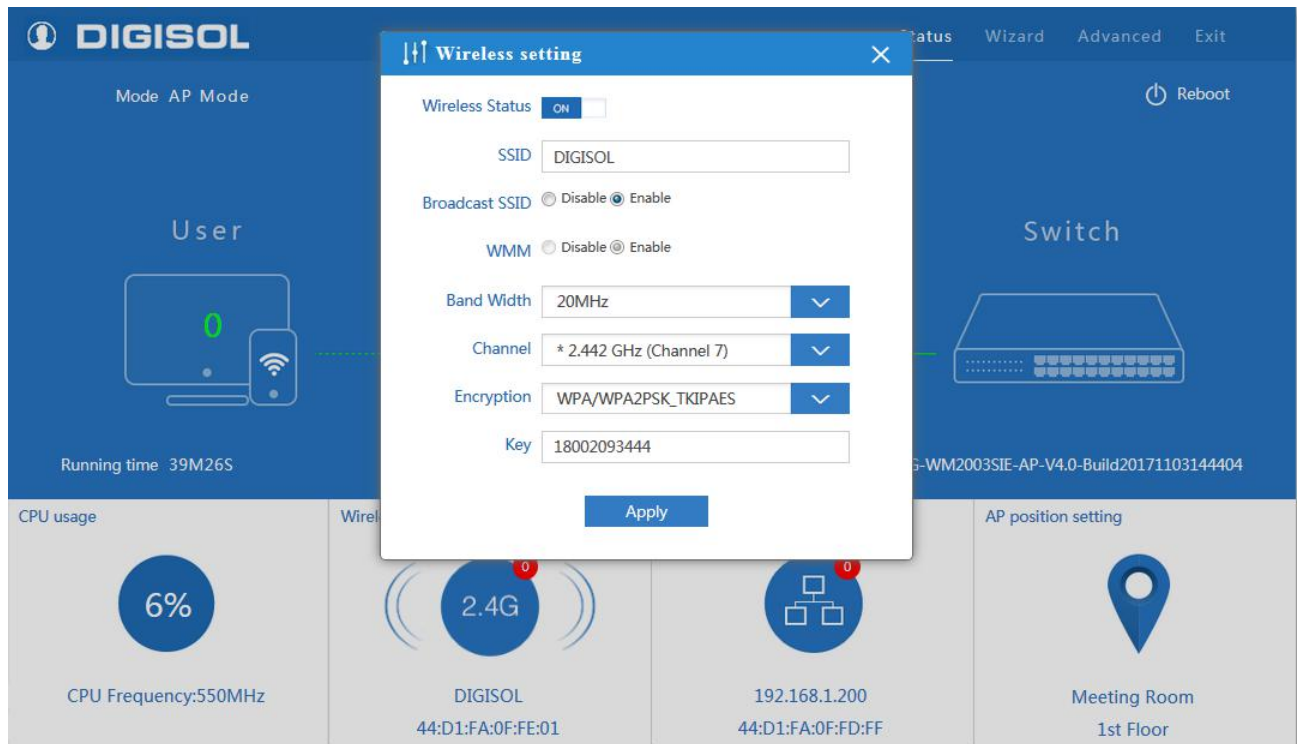


P9: Device Status

This page, show the device default operation mode, channel, end user QTY, connection status, CPU usage status, Wireless, LAN and AP location info.

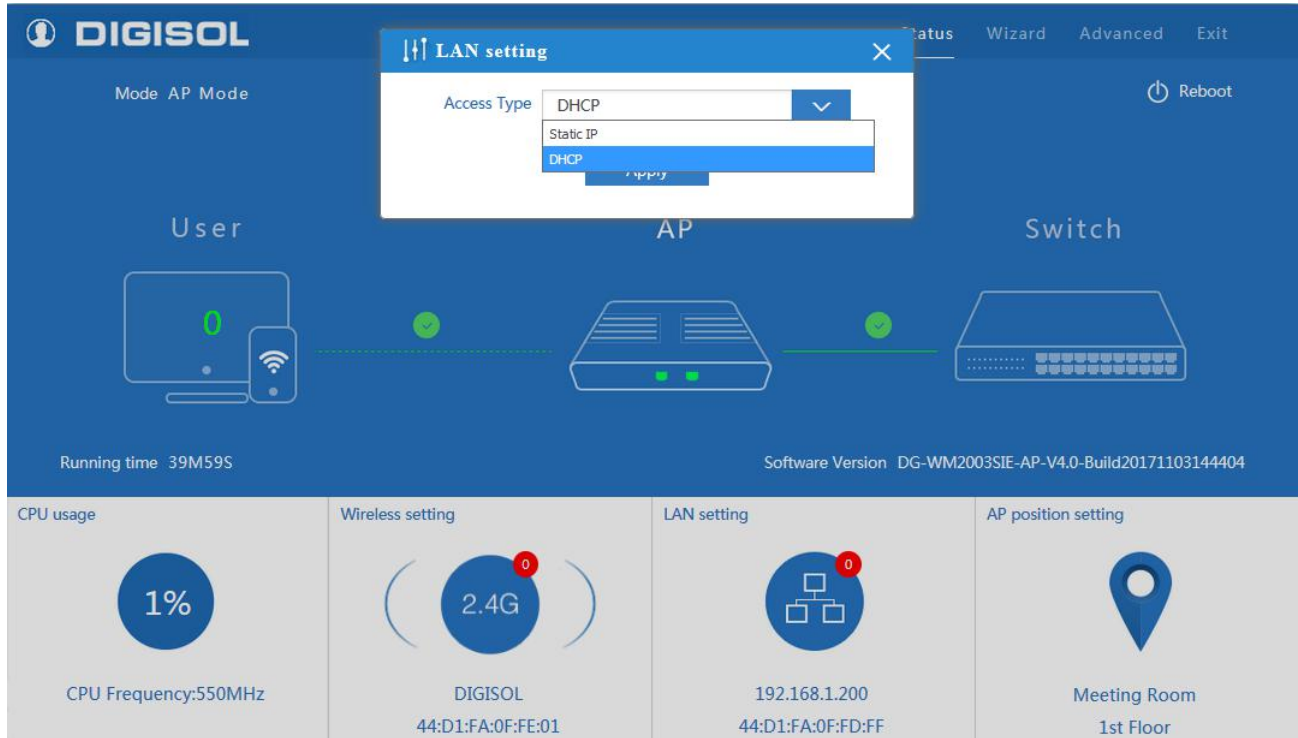
Then in Wireless Setting, GUI configuration page shown as below:

User can configure the SSID, Password, Band width, Channel then Apply to finish.



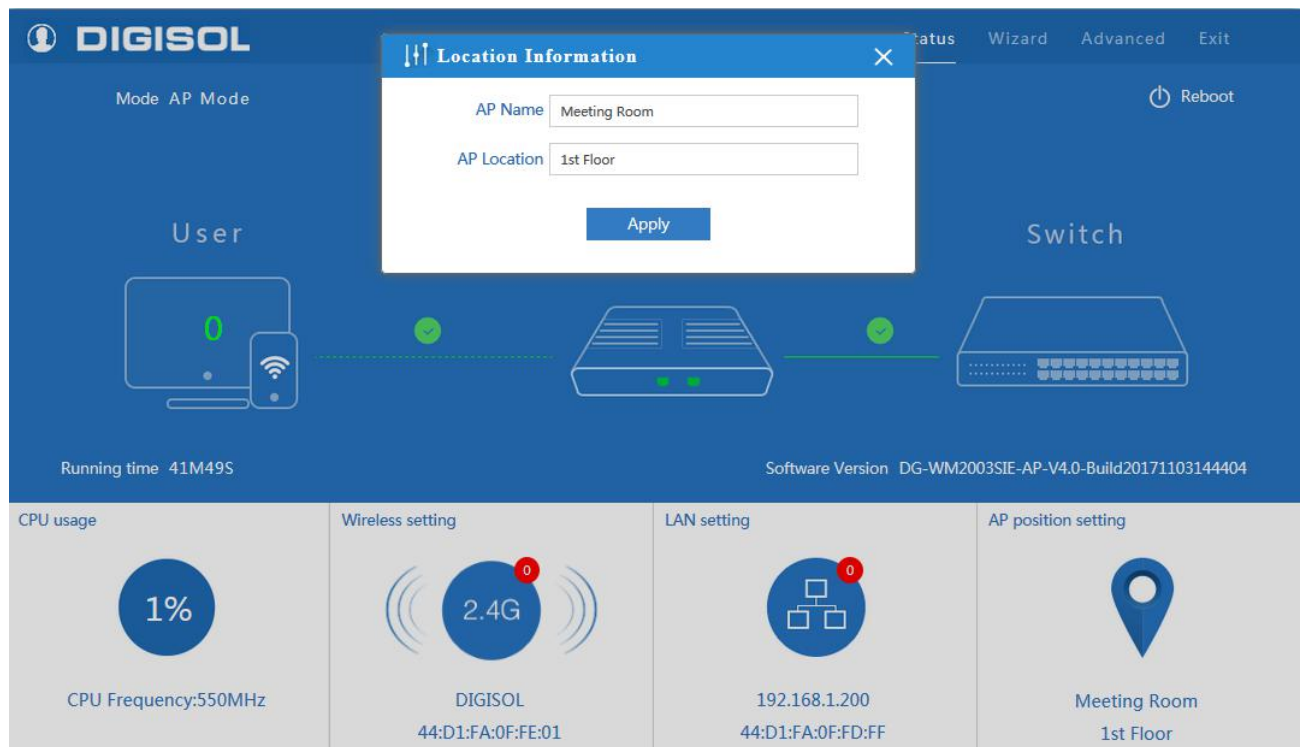
P10: Wireless Setting

As shown below user can set LAN Setting to configure the DHCP or Static IP address.



P11: LAN Setting

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

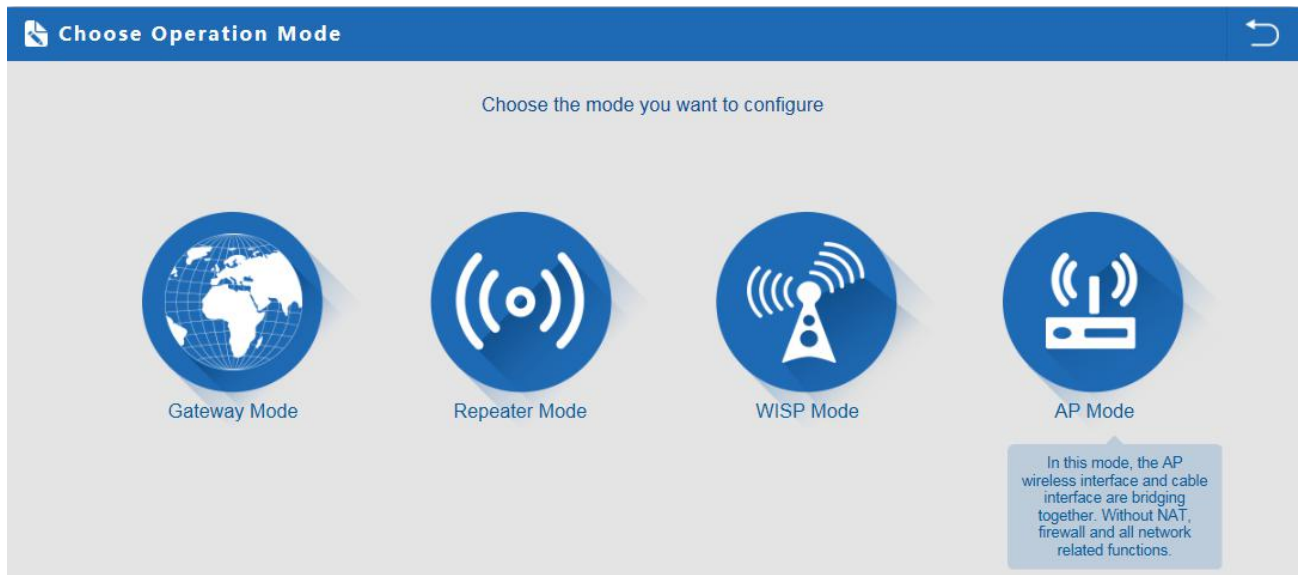


P12: AP Location Setting

4.2. Wizard Configuration

Wizard: It instructs users to configure wireless AP Router's operation mode based on needs, there are four operation modes including Gateway, Repeater, WISP, and Wireless AP. Please confirm the operation mode first before starting the configuration.

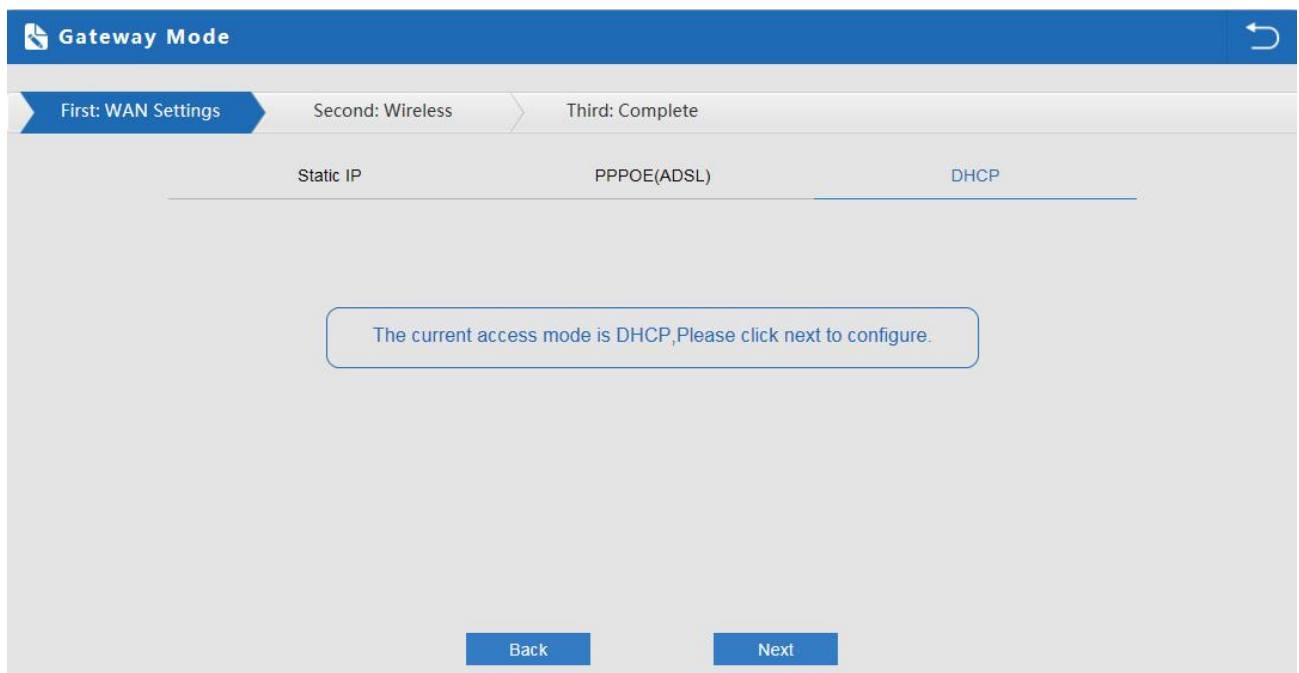
Clicking Wizard in Status page will pop up the following page to configure the operation mode and there are explanations for each operation mode for better application.



P13: Wizard Configuration

4.2.1 Gateway Mode

Before Clicking the Gateway mode, confirm your internet will be Static IP, PPPoE, or DHCP. Then clicking on the Gateway mode will pop up the below image. Please choose the right WAN setting mode, then click next to continue. Then configure the wireless parameters and click next.



P14: WAN setting in Gateway mode

Gateway Mode

First: WAN Settings
Second: Wireless
Third: Complete

Wireless Settings

Wireless Settings

WLAN Status ☒ ON ☐ wireless analyzer

SSID DIGISOL

Channel * 2.442 GHz (Channel 7)

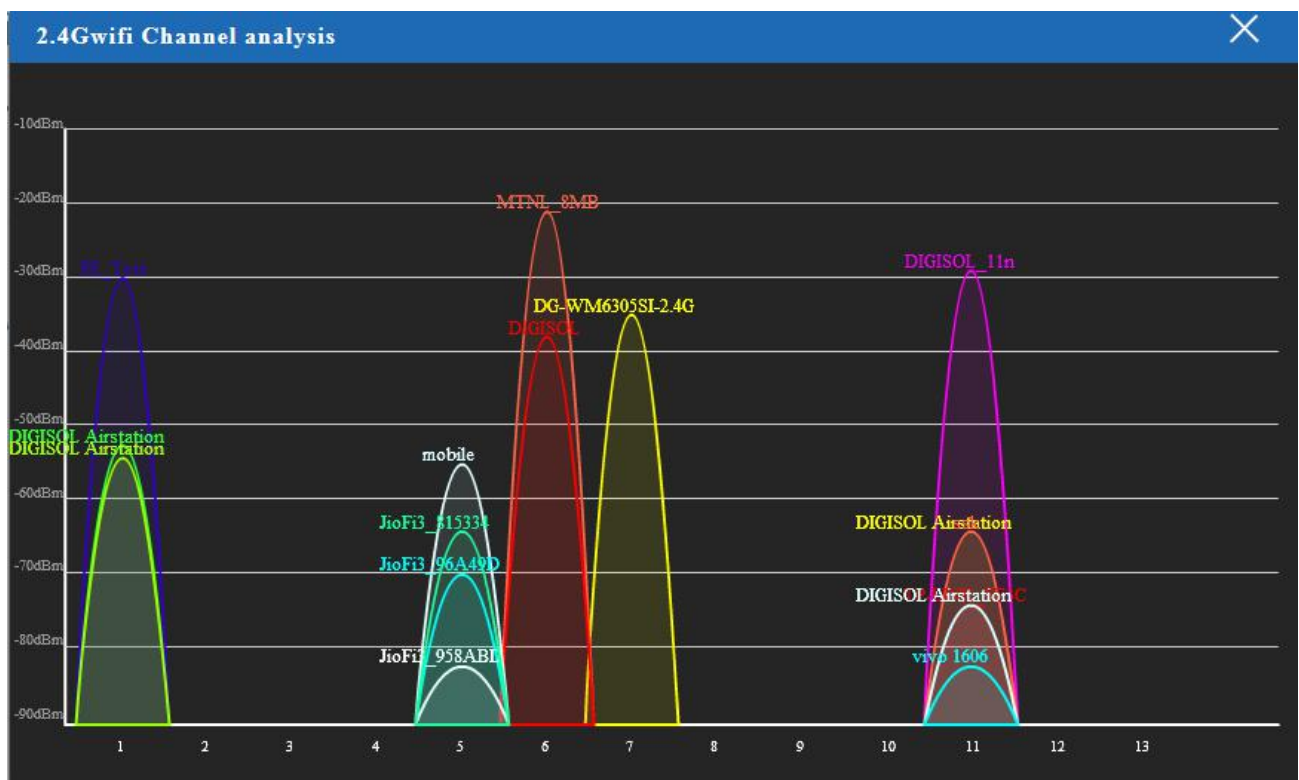
Encryption WPA/WPA2PSK_TKIPAES

Key 12345678

Back
Next

P15: Wireless setting in Gateway mode

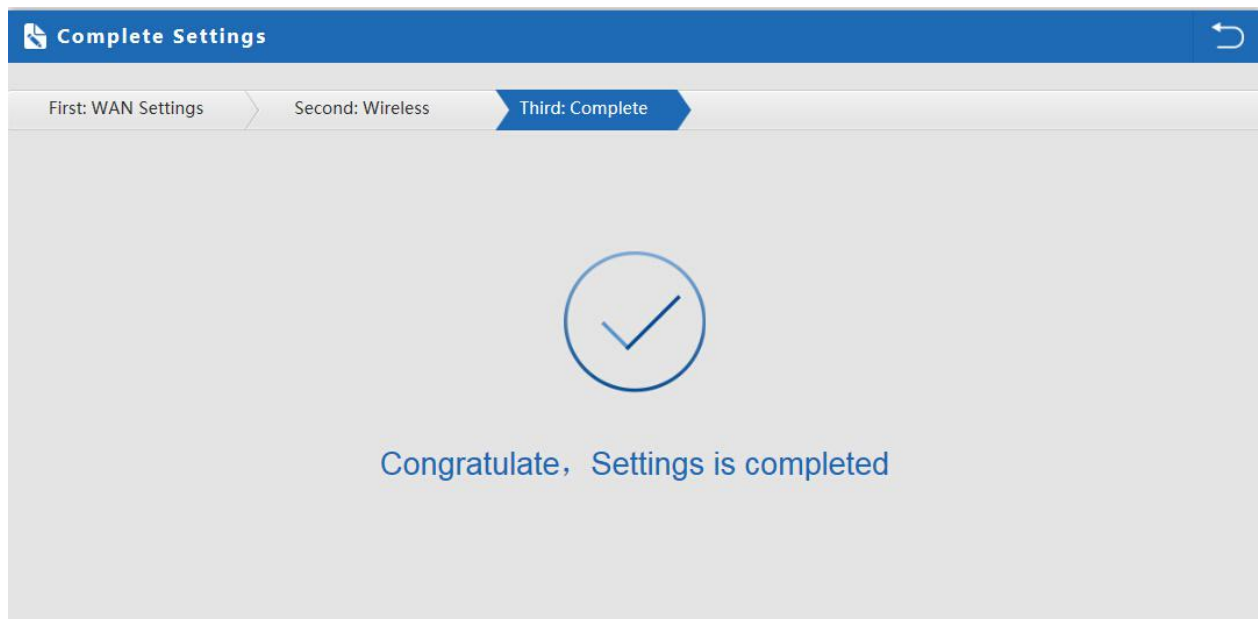
Please note: to make the device work in some clear channel, user can click wireless analyzer at first. Check Less AP in the channel, and then select your channel accordingly, then Wireless performance will be more stable. Picture shown as below:



P16: Wireless Analyzer

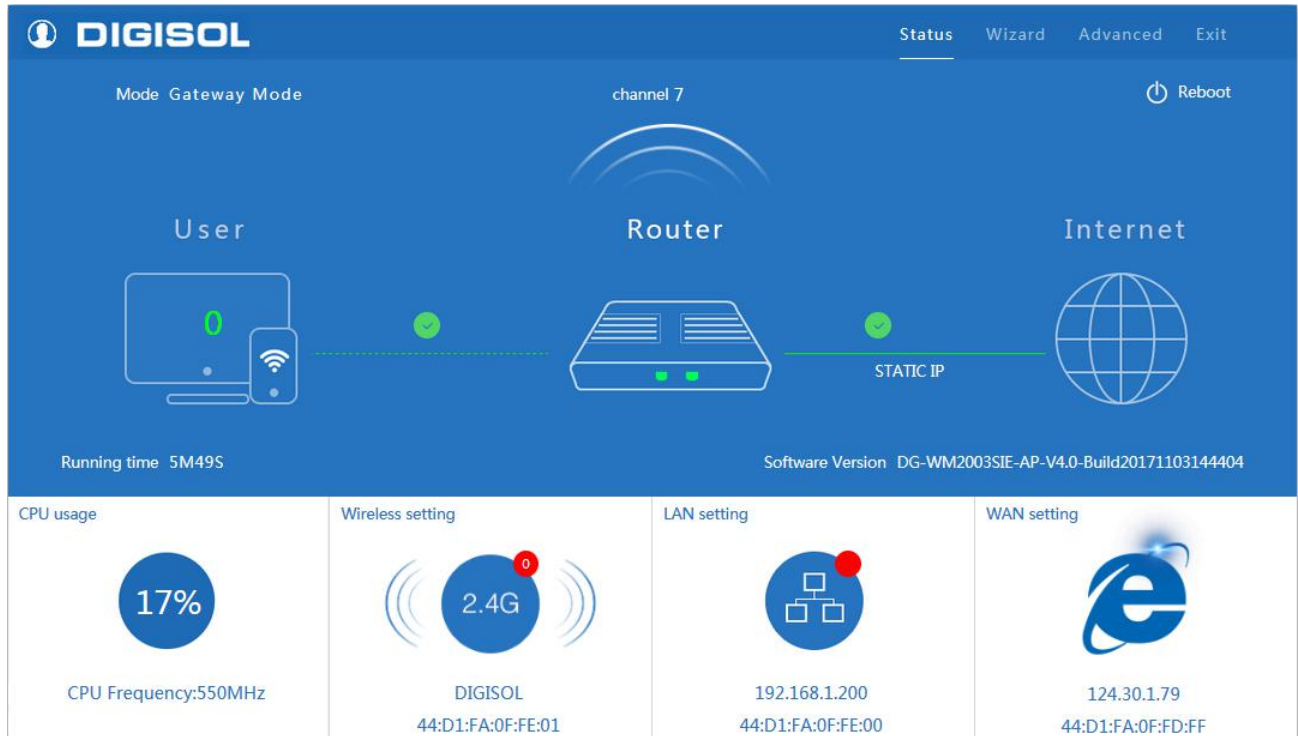
Clicking next will complete the Gateway mode setting and show following picture:

Please Note: The equipment will restart automatically for the changes to take effect.



P17: Settings complete in Gateway mode

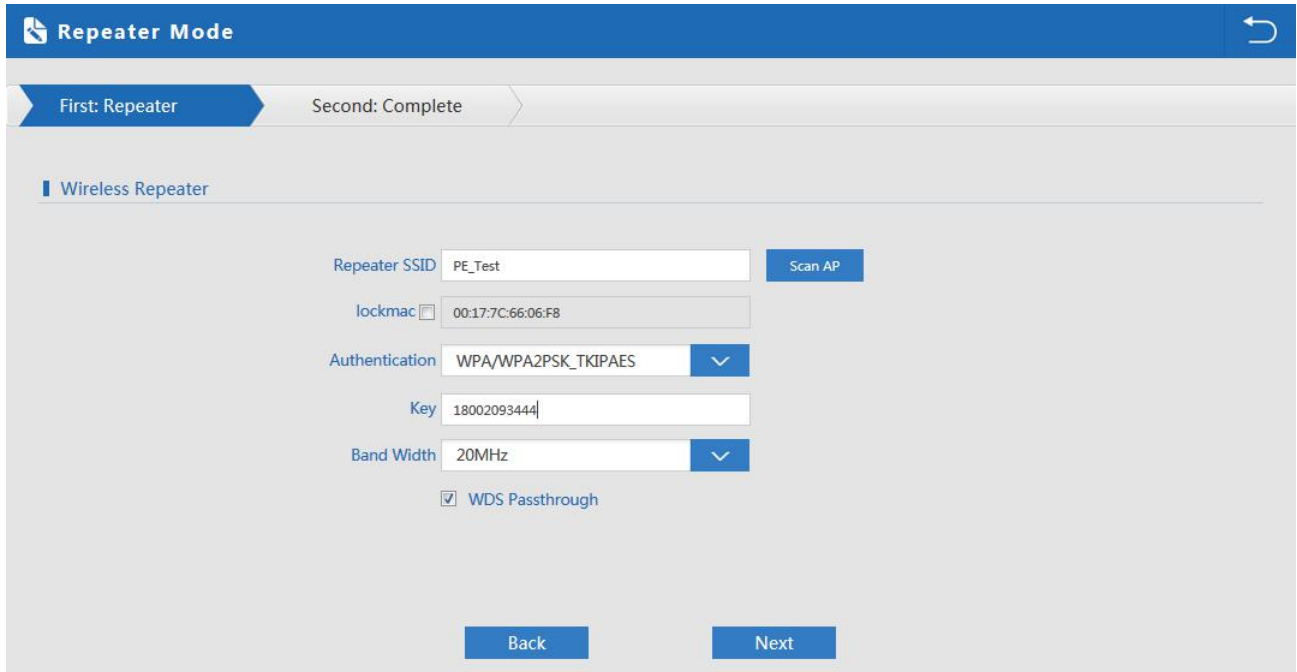
When return to Status page, will show Wireless router's SSID, Internet connection, LAN connection status shown as below.



P18: Status in Gateway mode

4.2.2. WiFi Repeater mode

1. Login the Web management page, click “Wizard” then “WiFi Repeater”
2. Scan AP and select the AP’s SSID want to bridge then input the AP’s key, click next to complete.

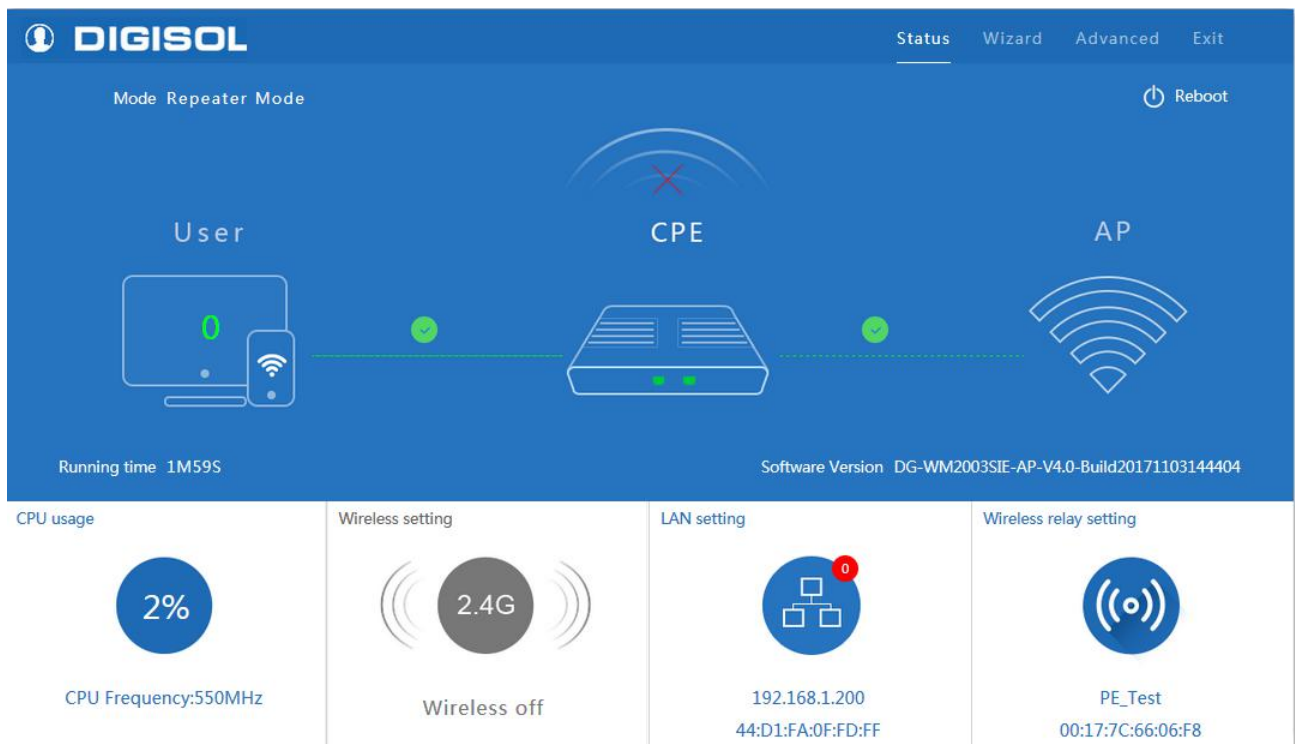


The screenshot shows the 'Repeater Mode' configuration page. At the top, there's a blue header with 'Repeater Mode' and a return button. Below the header, a progress bar indicates 'First: Repeater' (active) and 'Second: Complete'. The main section is titled 'Wireless Repeater'. It contains several input fields: 'Repeater SSID' with the value 'PE_Test' and a 'Scan AP' button; 'lockmac' with a checkbox and the value '00:17:7C:66:06:F8'; 'Authentication' with a dropdown menu showing 'WPA/WPA2PSK_TKIPAES'; 'Key' with the value '18002093444'; and 'Band Width' with a dropdown menu showing '20MHz'. There is also a checkbox for 'WDS Passthrough' which is checked. At the bottom, there are 'Back' and 'Next' buttons.

P19: Repeater mode

Click Return button, will back to Status, show Repeater mode data, will show fail or success, and user can configure this data in this page if required.

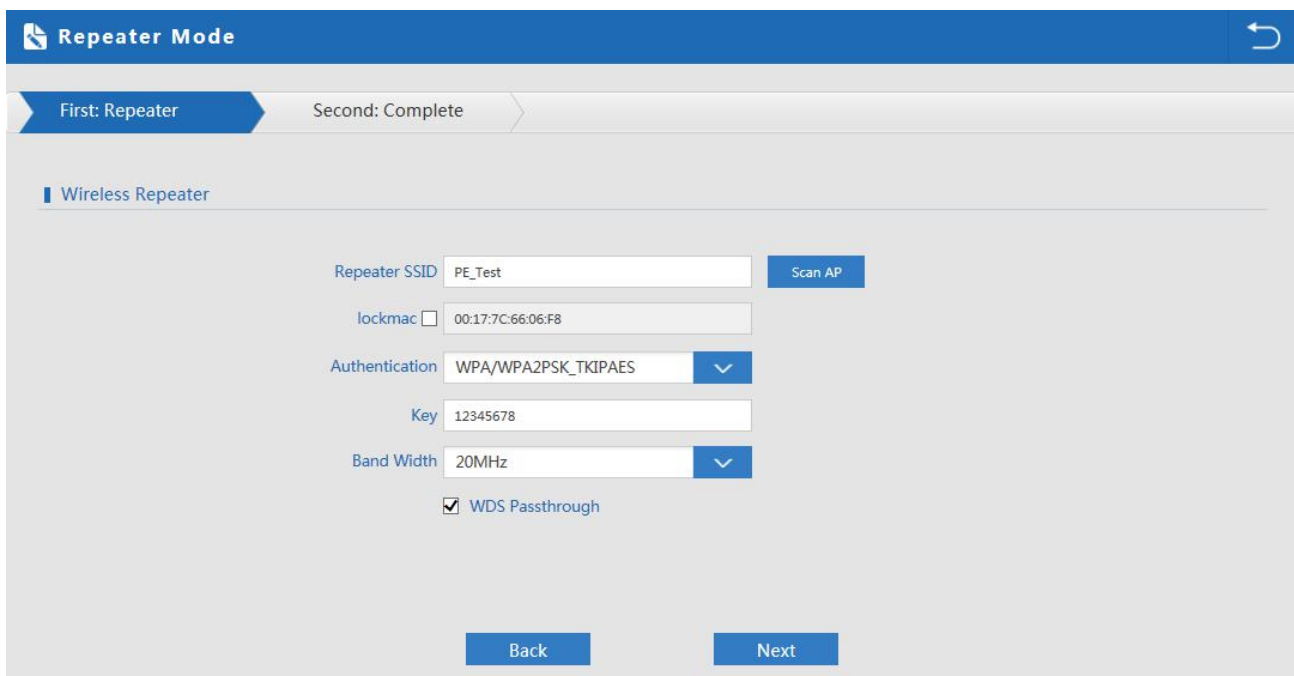
Please Note: The equipment will restart automatically for the changes to take effect.



P20: Status in Repeater mode

In wifi repeater operation mode, the default is SSID disable. If you want to enable SSID, then click Wireless Setting.

Pls note, when click wireless relay setting, following page will pop up, you can make changes from here easily.



Repeater Mode

First: Repeater Second: Complete

Wireless Repeater

Repeater SSID PE_Test Scan AP

lockmac ☐ 00:17:7C:66:06:F8

Authentication WPA/WPA2PSK_TKIPAES

Key 12345678

Band Width 20MHz

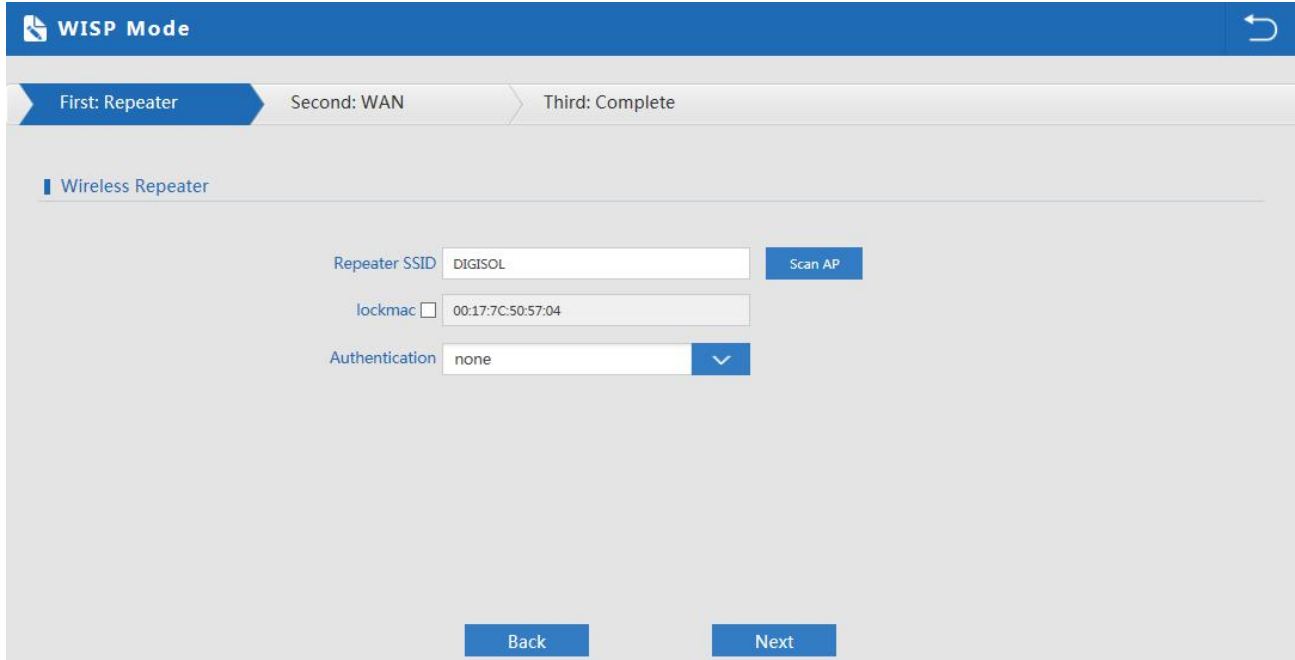
☒ WDS Passthrough

Back Next

P21: Wireless Relay settings

4.2.3. WISP Operation mode

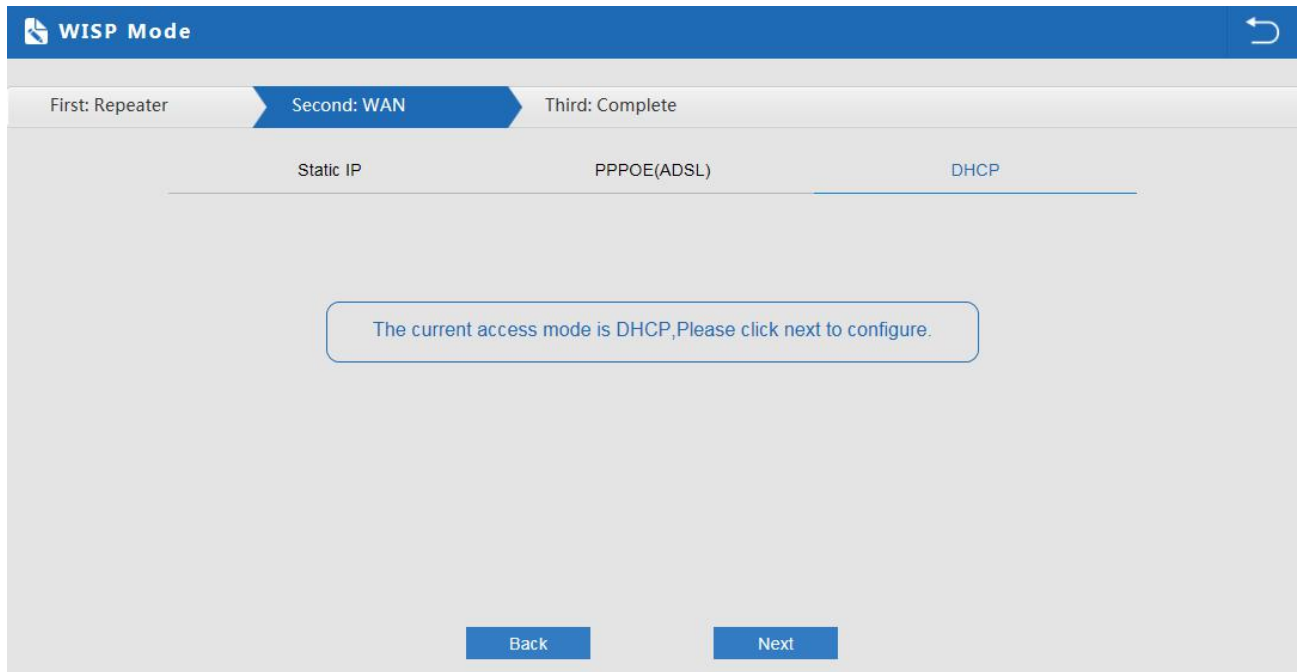
Click WISP operation mode in Wizard, then will pop up the configure page, please set the WISP operation mode based on the steps shown in picture:



P22: WISP mode

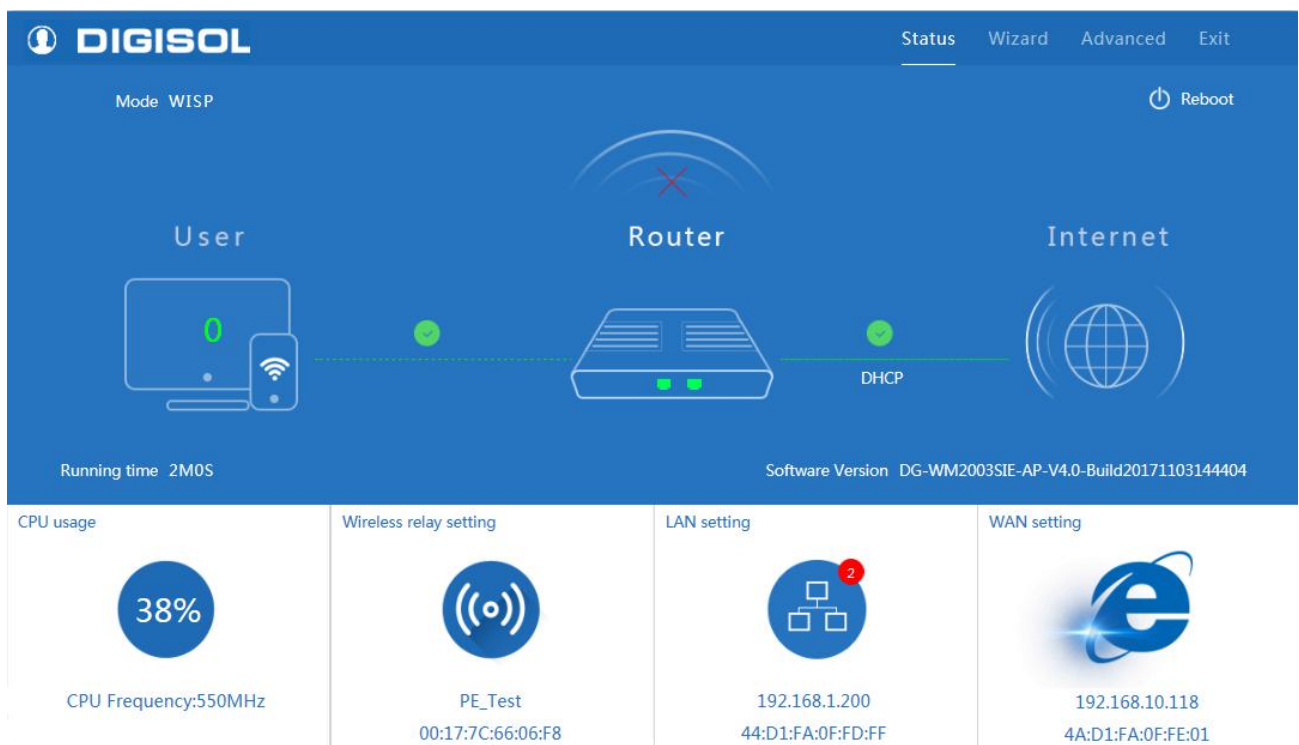
Select the appropriate wireless AP and configure the correct WAN setting in WISP operation mode, then next to complete.

Please Note: The equipment will restart automatically for the changes to take effect.



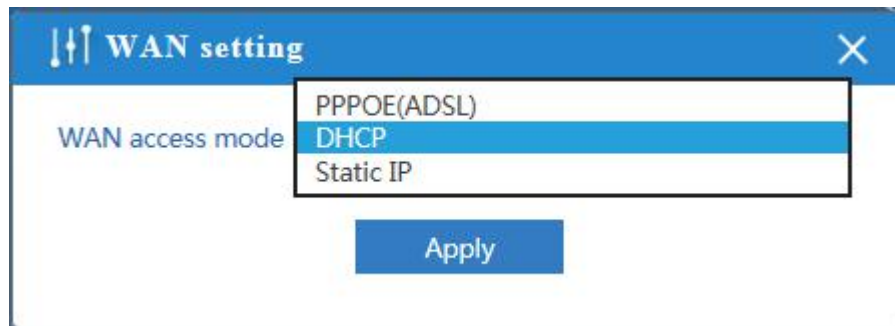
P23: WAN setting in WISP mode

Then complete and back to status, will show the connection fail or success, then can configure the data based on request:



P24: Status in WISP mode

Remark: When click WAN Setting, will pop up following picture to ask you choose PPPoE, DHCP or Static IP

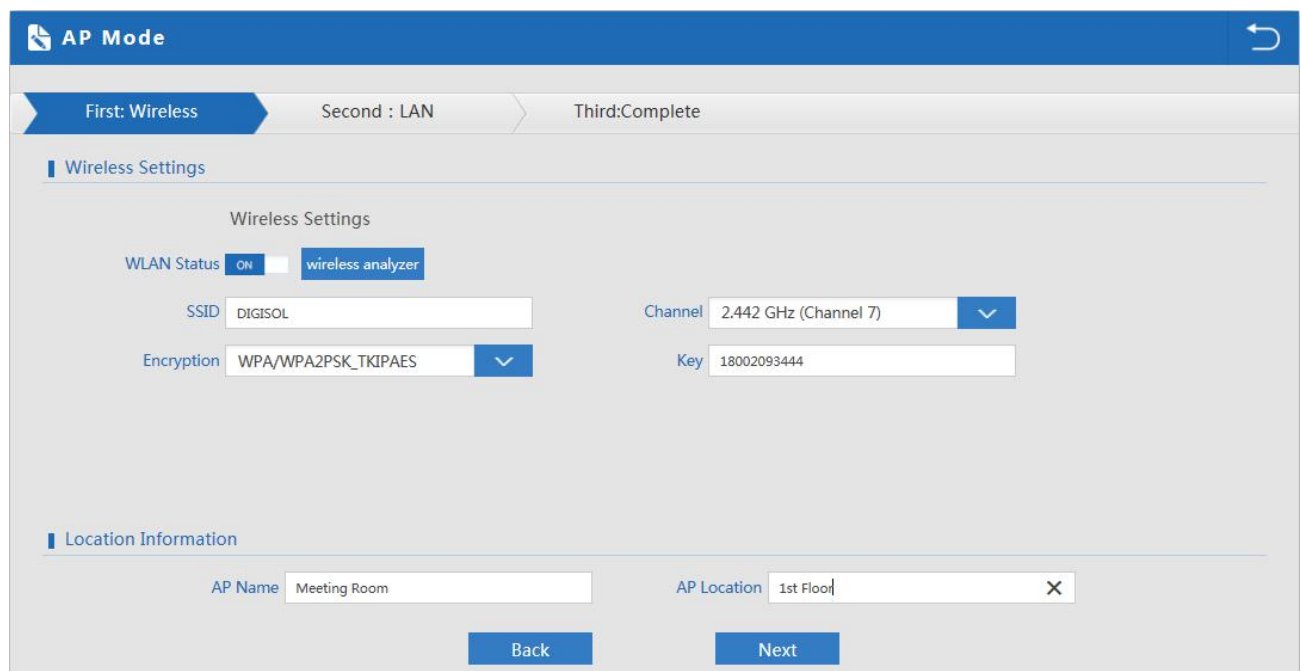


P25: WAN setting in WISP mode

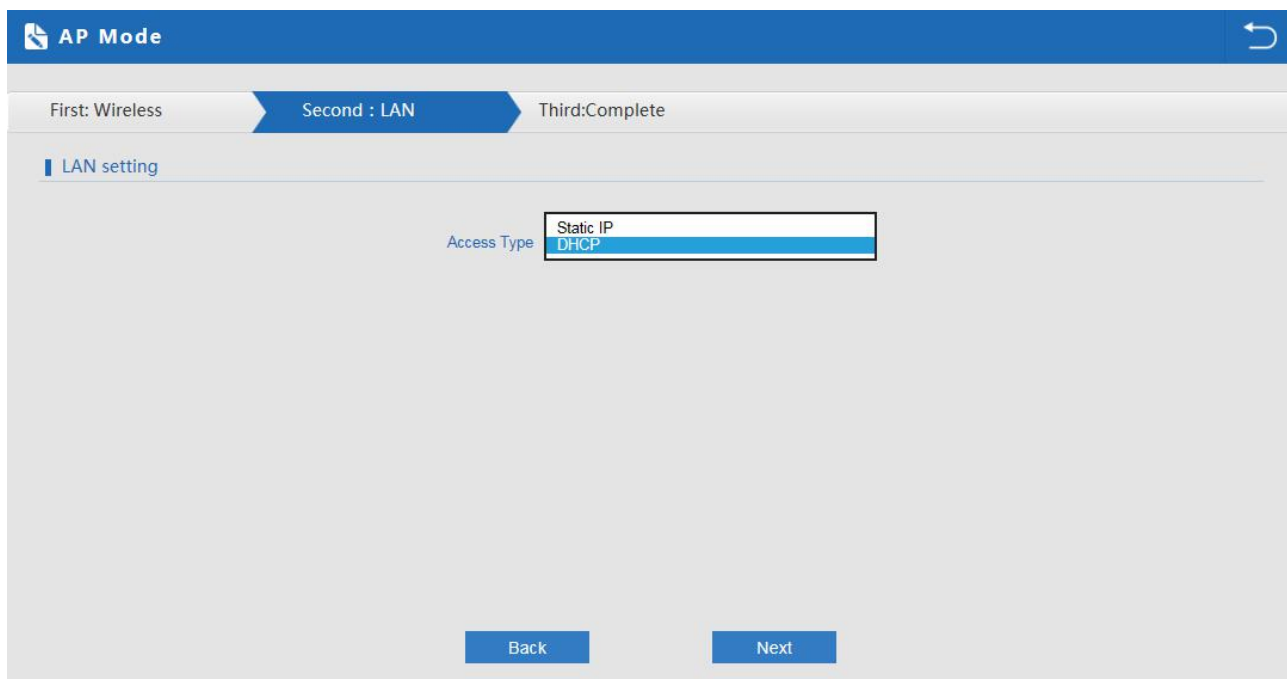
4.2.4. AP Operation mode

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:

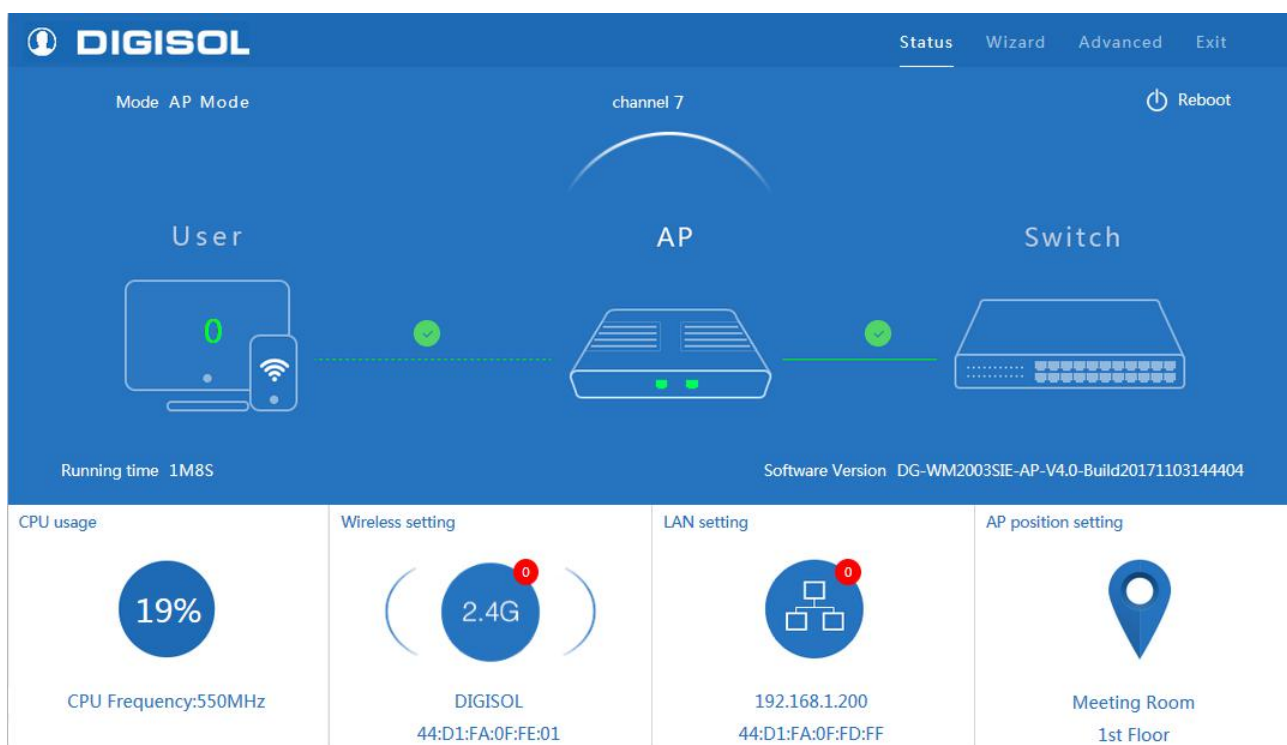


P26: Wireless setting in AP mode



P27: LAN setting in AP mode

Please Note: The equipment will restart automatically for the changes to take effect.



P28: Status in AP mode

4.3. Advanced Setting

In advanced setting you can get wireless AP Router's device status, Wireless setting, Network setting and AP management configuration.

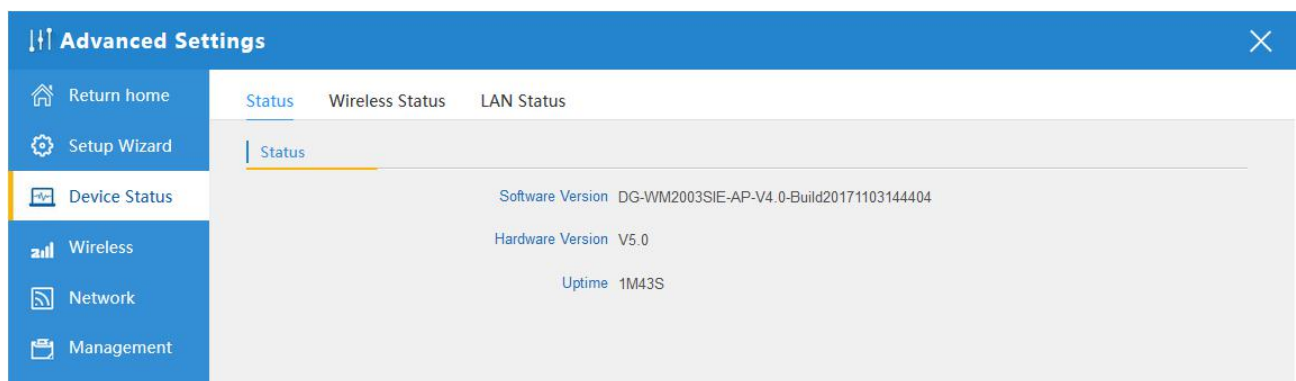
Let's click Advanced Setting in status page, will show Return home, Setup Wizard which we showed before.

Let's see more in Device Status, Wireless, Network and Management in following pages:

4.3.1. Device Status

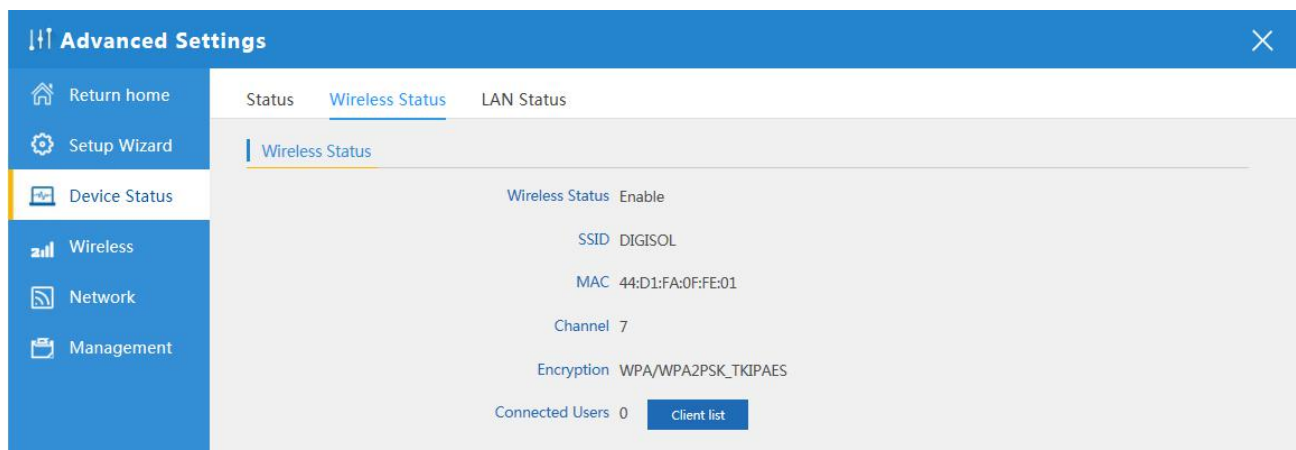
To show the device status, Wireless Status and LAN status.

In status, mainly to check the AP Router's firmware version, hardware version, uptime info.



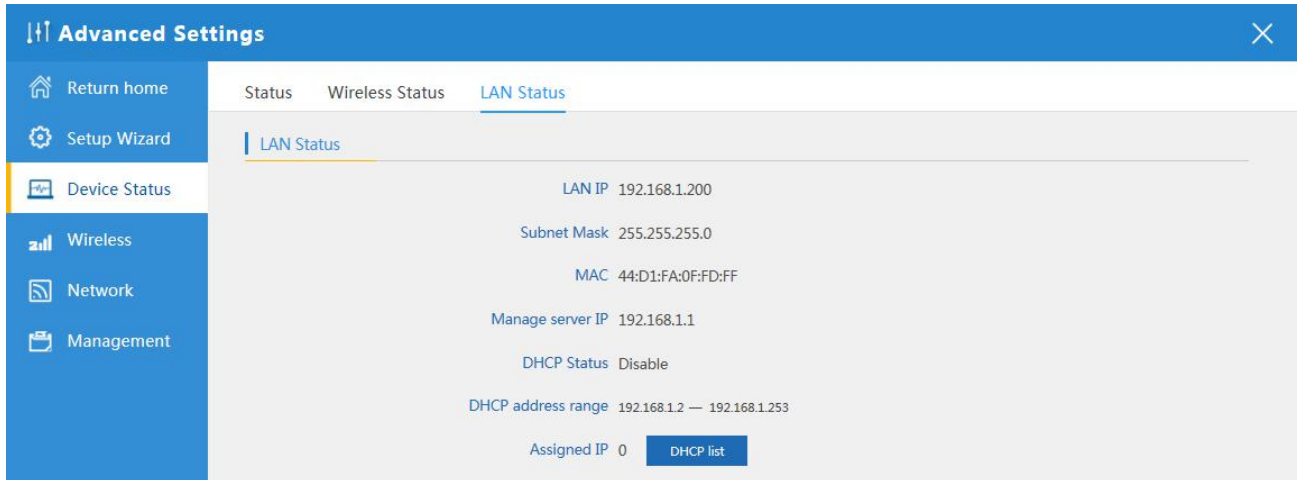
P29: Device Status

Wireless status show wireless AP's SSID, MAC address for WiFi, Channel, Encryption, Client List info.



P30: Wireless Status

In LAN Status, we can check device IP address, Subnet Mask, LAN MAC address and other info showed in following picture.



Advanced Settings

Return home | Setup Wizard | **Device Status** | Wireless | Network | Management

Status | Wireless Status | **LAN Status**

LAN Status

LAN IP 192.168.1.200

Subnet Mask 255.255.255.0

MAC 44:D1:FA:0F:FD:FF

Manage server IP 192.168.1.1

DHCP Status Disable

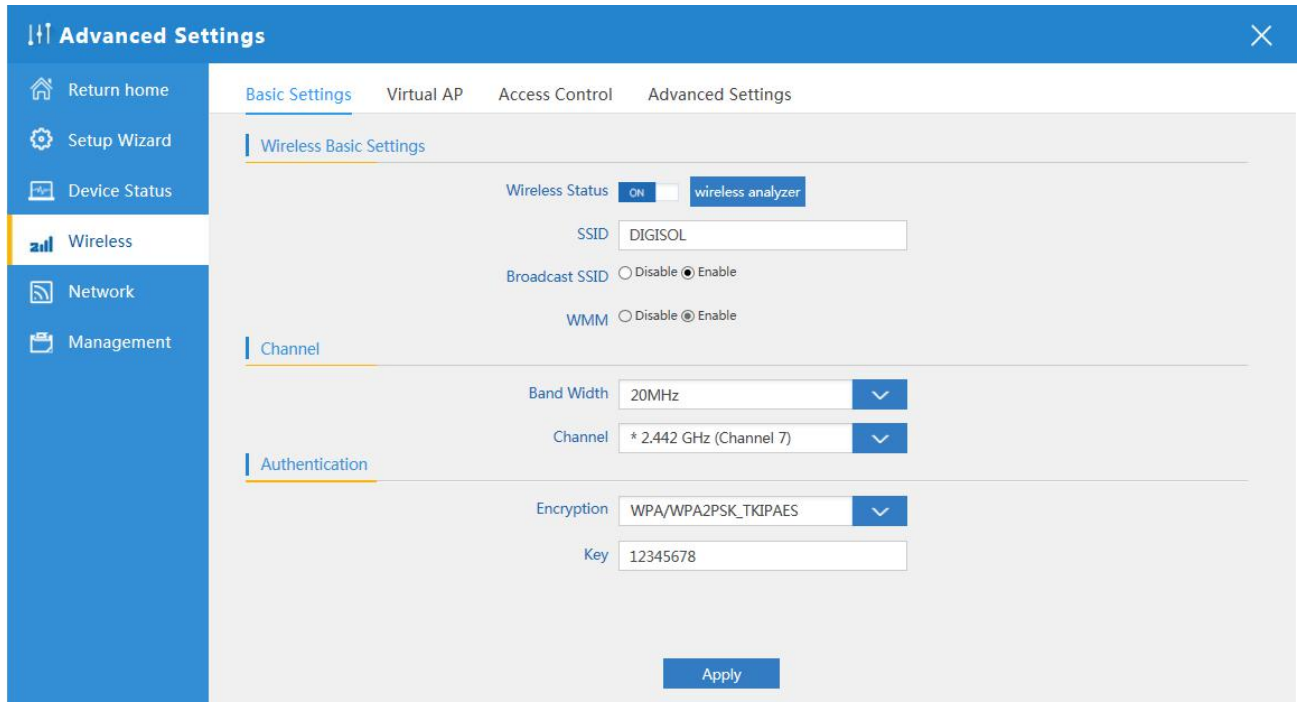
DHCP address range 192.168.1.2 — 192.168.1.253

Assigned IP 0 **DHCP list**

P31: LAN status

4.3.2. Wireless Setting

Wireless setting, mainly to configure the wireless SSID, password, encryption, channel, Multi SSID, tag VLAN & RF power adjust from Basic Setting, Virtual AP, Access control and Advanced Setting:



Advanced Settings

Return home | Setup Wizard | Device Status | **Wireless** | Network | Management

Basic Settings | Virtual AP | Access Control | Advanced Settings

Wireless Basic Settings

Wireless Status **ON** **wireless analyzer**

SSID DIGISOL

Broadcast SSID ☐ Disable ☒ Enable

WMM ☐ Disable ☒ Enable

Channel

Band Width 20MHz

Channel * 2.442 GHz (Channel 7)

Authentication

Encryption WPA/WPA2PSK_TKIPAES

Key 12345678

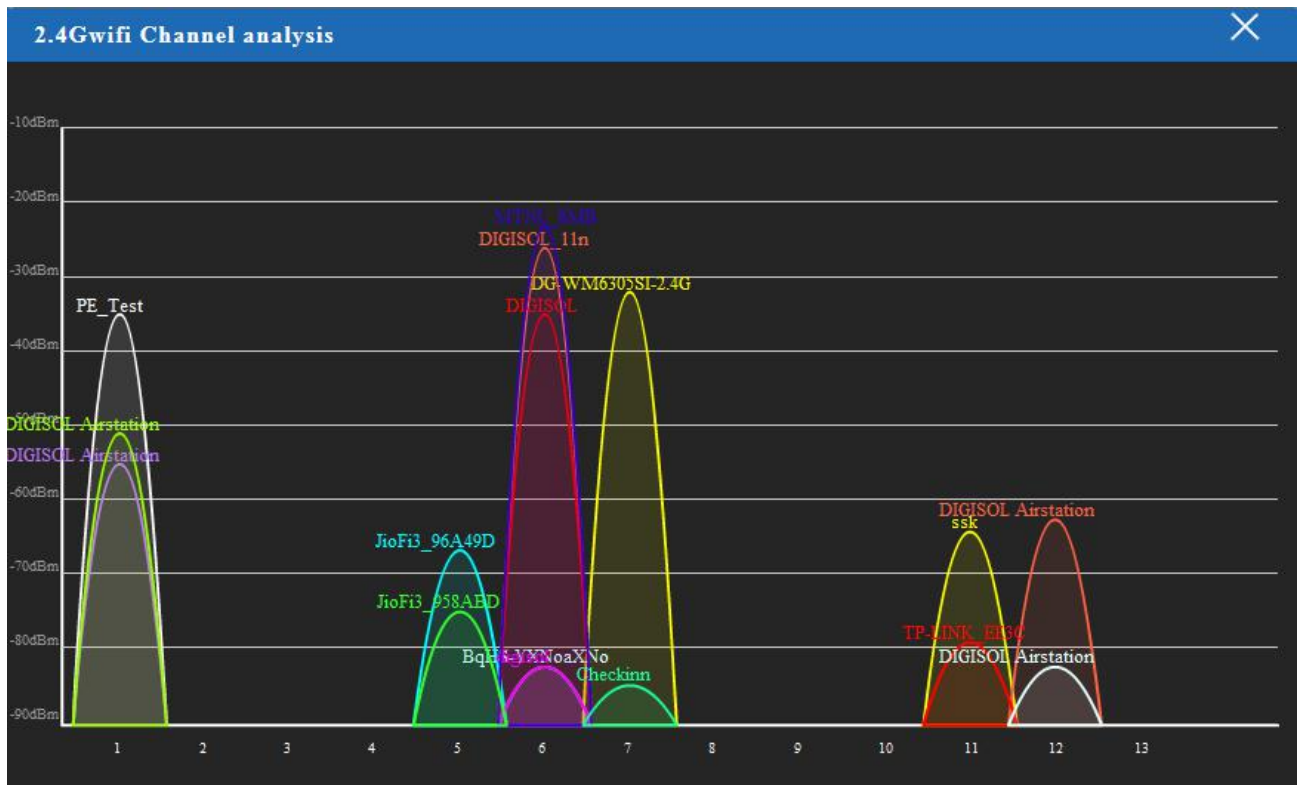
Apply

P32: Basic setting in Wireless

Wireless Status: On mean SSID on, Off mean SSID off.

2G Wireless Analyzer: Mainly to analyze the AP's signal strength and channel, to make user more easy to choose the channel with less wireless AP and to avoid the Wireless Interference.

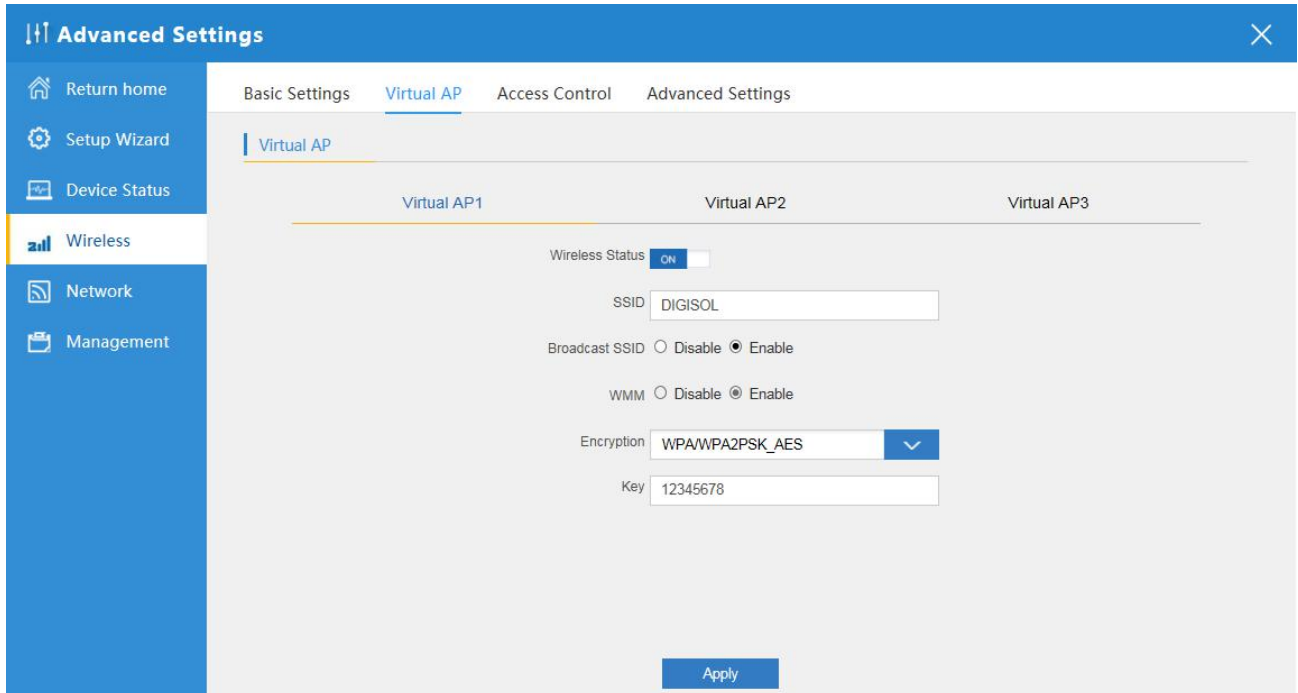
Band Width: 20MHz and 40MHz; 20MHz mean bandwidth is 144Mbps, but stronger penetration ability. 40MHz mean bandwidth is 300Mbps, but some weaker in penetration ability and less stability when wifi interference is strong.



P33: Wireless Analyzer

4.3.3. Virtual AP

There are 3 virtual AP in 2.4G wireless, for use of multi SSID, then users can configure it as shown in following picture.



Advanced Settings

Return home | Setup Wizard | Device Status | **Wireless** | Network | Management

Basic Settings | **Virtual AP** | Access Control | Advanced Settings

Virtual AP

Virtual AP1 | Virtual AP2 | Virtual AP3

Wireless Status: ☒ ON

SSID: DIGISOL

Broadcast SSID: ☐ Disable ☒ Enable

WMM: ☐ Disable ☒ Enable

Encryption: WPA/WPA2PSK_AES

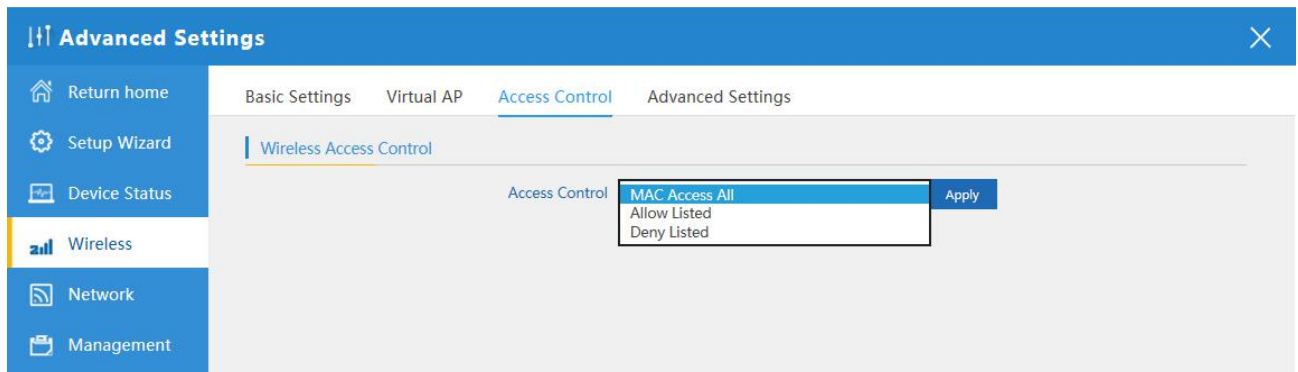
Key: 12345678

Apply

P34: Virtual AP

4.3.4. Access Control

Allow or deny the users access into this device based on MAC address.



Advanced Settings

Return home | Setup Wizard | Device Status | Wireless | Network | Management

Basic Settings | Virtual AP | **Access Control** | Advanced Settings

Wireless Access Control

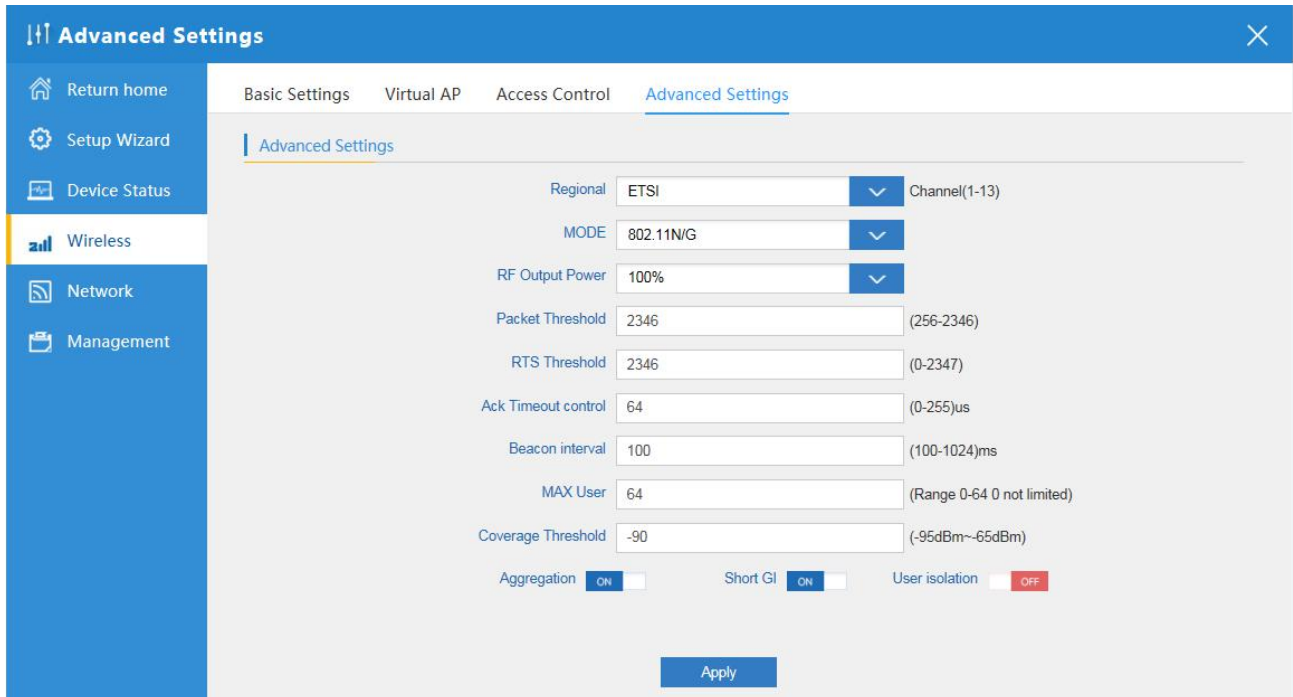
Access Control: **MAC Access All** | Allow Listed | Deny Listed

Apply

P35: MAC Access Control

4.3.5. Advanced Settings

This page, will show the regional info, mode, RF Power, Max user access,etc.



Advanced Settings

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

Advanced Settings

Regional: ETSI Channel(1-13)

MODE: 802.11N/G

RF Output Power: 100%

Packet Threshold: 2346 (256-2346)

RTS Threshold: 2346 (0-2347)

Ack Timeout control: 64 (0-255)us

Beacon interval: 100 (100-1024)ms

MAX User: 64 (Range 0-64 0 not limited)

Coverage Threshold: -90 (-95dBm~-65dBm)

Aggregation: ☒ ON Short GI: ☒ ON User isolation: ☐ OFF

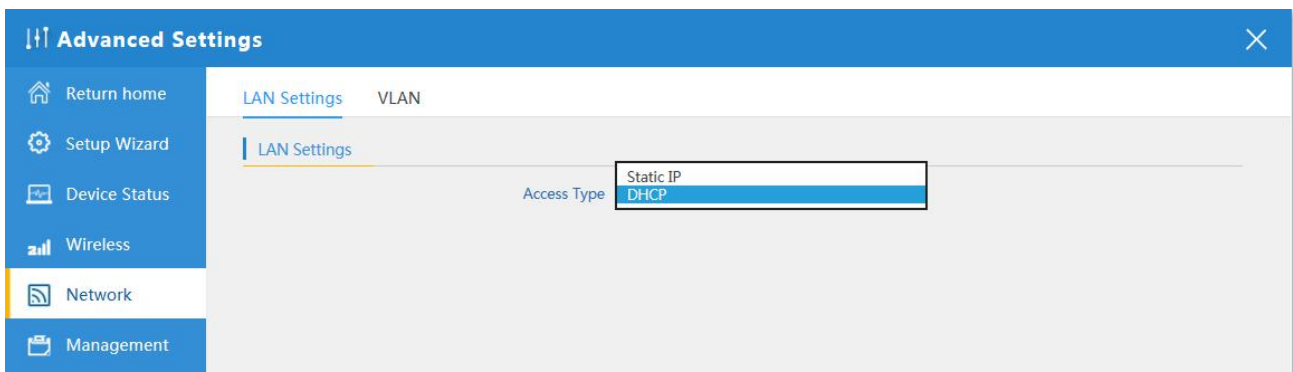
Apply

P36: Advanced Setting

4.3.6. Network Setting

In network, you can configure LAN setting and tag VLAN as follow:

In LAN Settings, mainly including Static IP and DHCP.



Advanced Settings

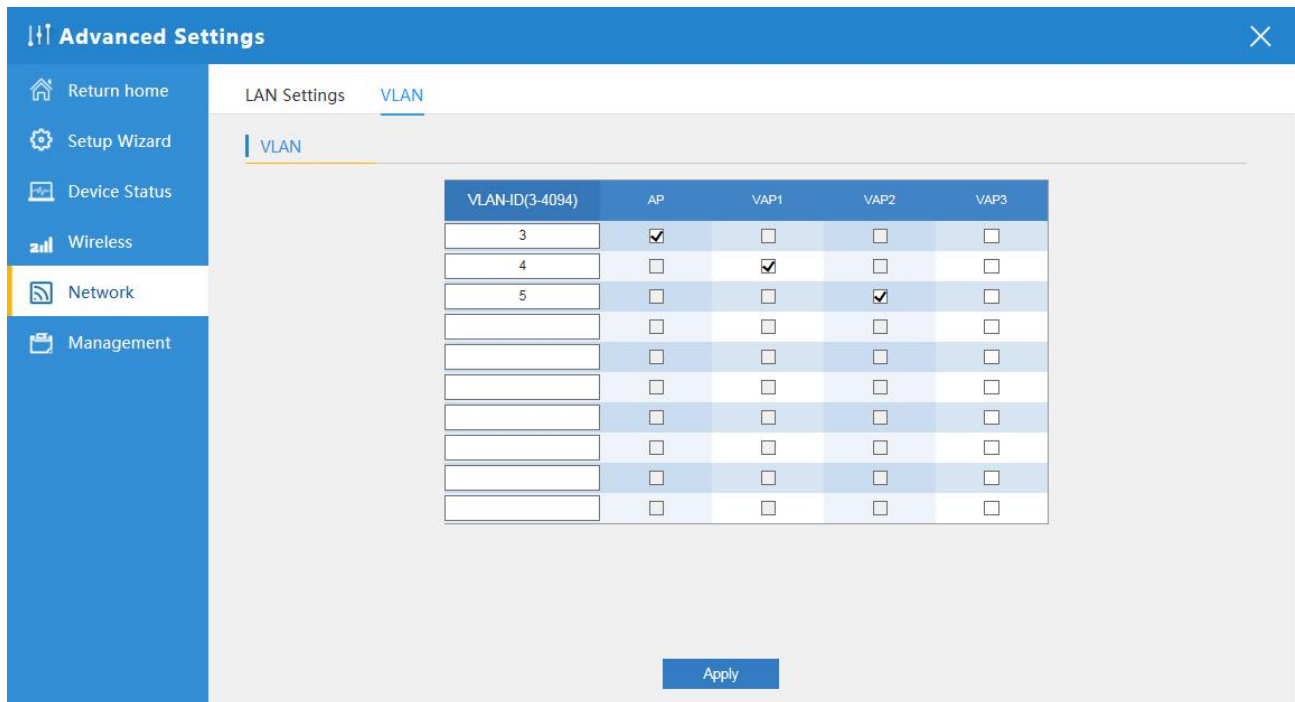
LAN Settings VLAN

LAN Settings

Access Type: Static IP, DHCP

P37: LAN Setting

In VLAN part, you need an VLAN switch and make sure the multi SSID is enable, then input the VLAN ID to different SSID.



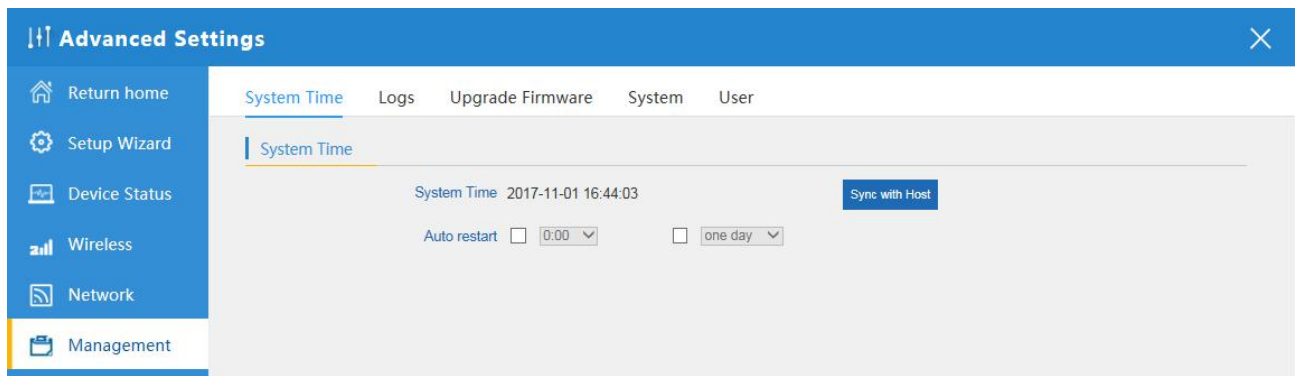
VLAN-ID(3-4094)	AP	VAP1	VAP2	VAP3
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

P38: Tag VLAN setting

4.3.7. Management

It show's the System time, Logs, Upgrade firmware, System, User info.

System Time:- Can configure the device timing

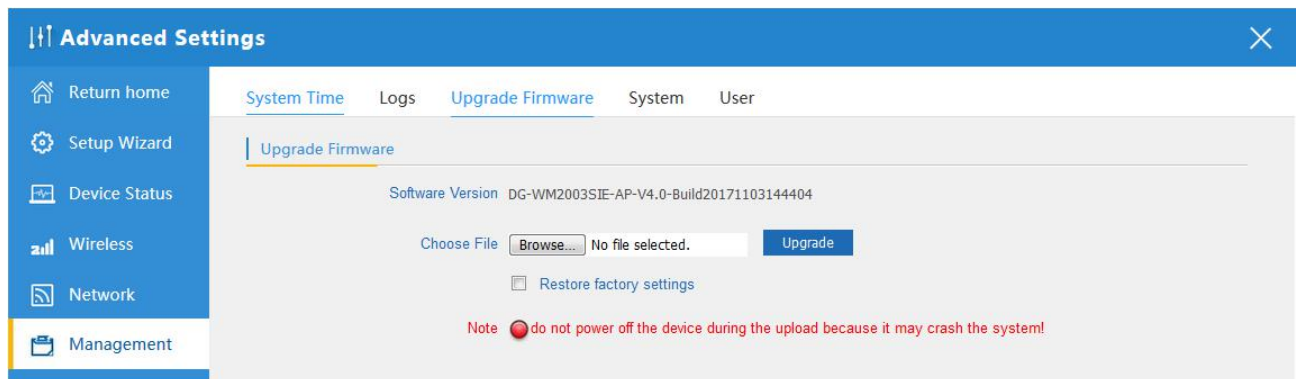


System Time 2017-11-01 16:44:03 [Sync with Host](#)

Auto restart ☐ 0:00 ☐ one day

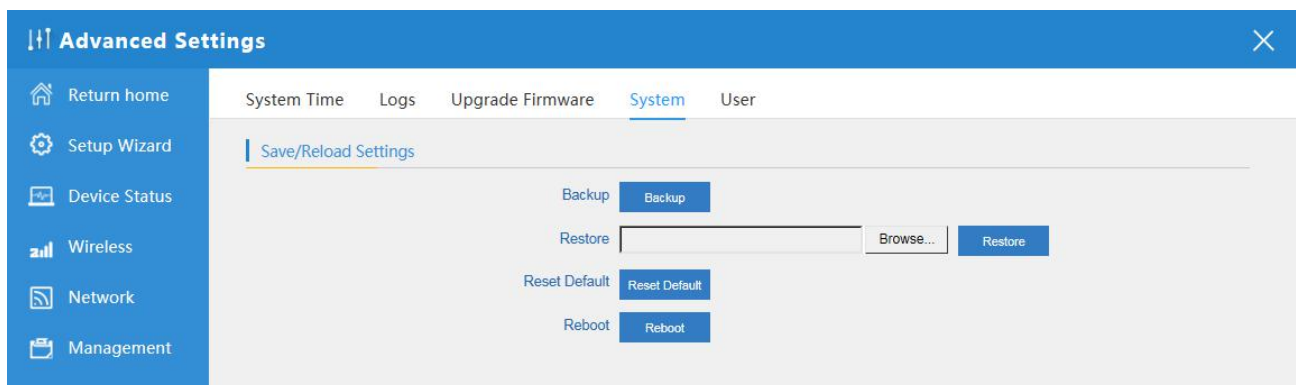
P39: System Time

Upgrade Firmware:- Browse the firmware file and click on upgrade. Wait till the upgrade is successful. The device will reboot automatically and successful firmware upgrade.



P40: Firmware Upgrade

System:- You can save the config or restore the previously saved config or reset the device to its default config.

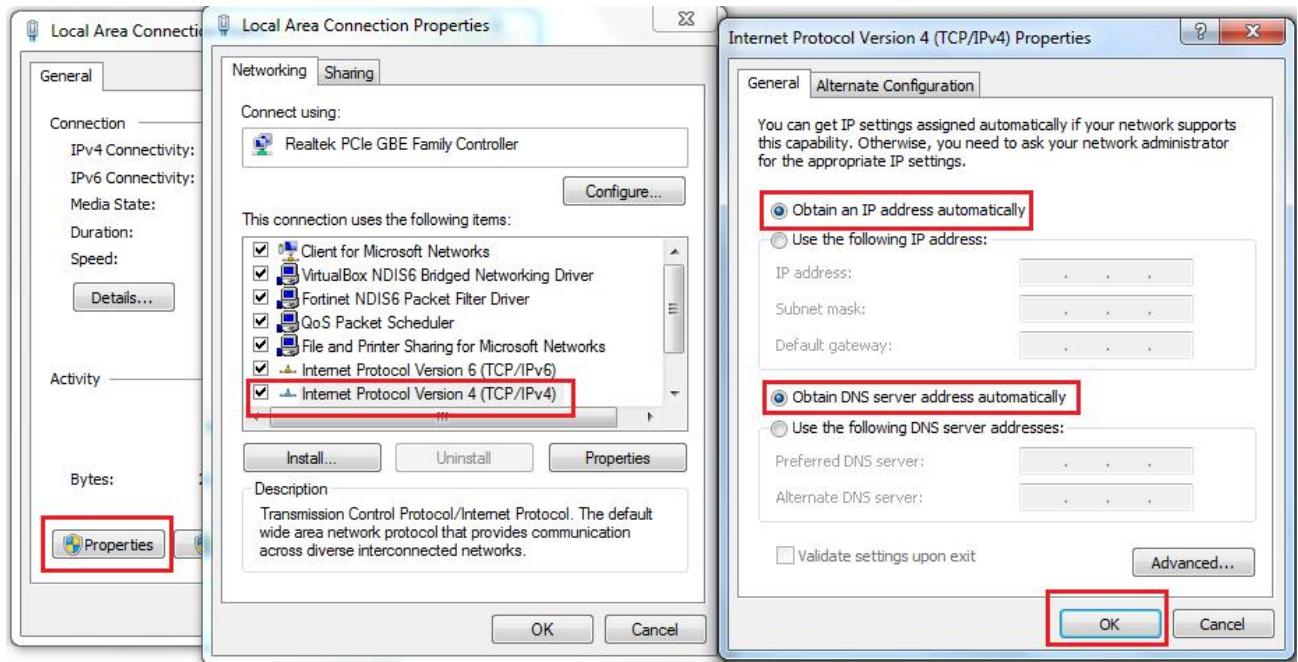


P41: System

5. Share Internet and Obtain IP address automatically

Set computer's TCP/IP as Obtain an IP address automatically, Obtain DNS server address automatically as following picture showed.

The computer will obtain the IP address from router or base station to get Internet.



P42

Troubleshooting

The Failure phenomenon and solution.

If the problems are not listed, please contact the local service or call the Toll Free service. We are willing to offer the service.

Failure phenomenon	Solution
SYS Indicator off	Pls make sure the PoE module connection is right. POE Port connect with AP, LAN port connect with computer
Can't land to Wireless AP Router through Web page	Pls check the IP address of computer and Wireless AP Router to see whether they are in same networking segment, The method is click "start"- "Run" input "cmd", ping 192.168.1.200 to test the device connectivity. Reset Wireless AP Router and load it again; Pls make sure the IP address 192.168.1.200 is not occupied by other device in AP Router's network; Check computer and cable problem, recommend to use 10/100M UTP unshielded cable; Clean up Arp binding from "Start"- "Run" input "cmd" arp -d Clean the IE Brower's temporary files and Cache file。
Wireless AP Router can't connect with AP (the status display unconnected)	Try to scan the available wireless networking again; Make sure the AP's wireless standard is correct; (2.4Ghz signal should connect 2.4Ghz, 5.8Ghz signal should connect 5.8Ghz signal;) The Security and passwords are matched between Wireless AP Router and AP. The signal strength of AP is too weak to connect, should be more than -75dBm;
Can't scan the wireless AP	Scan it several times more; If using 5Ghz to scan, please make sure there are 5G signal existed. Reset the device, scan it again after device restarts;
The connection of Wireless AP Router and AP is success, but the computer can't share internet	Pls Check the computer's IP address and DNS setting. If it is dynamic, set the network card as automatically obtain. If it is static IP, pls contact with ISP for correct IP address and DNS address.

How to Reset Wireless AP Router	Press the “Reset” button more than 15 seconds after power on. The device will restore factory default after it restarts.
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This product comes with three Years warranty. For further details about warranty policy and product registration, please visit support section of www.digisol.com



Limited Lifetime Warranty

This Product is covered under DIGICARE Limited Lifetime Warranty program backed by DIGICARE Service Center. To avail this Limited Lifetime Warranty offer, customer needs to contact DIGICARE's Technical Assistance Center for the same. You may be asked to provide proof of purchase of product for warranty claim of defective product. Please refer website www.digisol.com for the detailed support terms & conditions and support process.

Warranty Policy

1. **Hardware Warranty :** Hardware warranty period shall be limited up to Three years. External Power Adapter shall carry One year warranty only against manufacturing defects. Any repair or replacement will be rendered by DIGICARE at its Service Center only.
2. **Software Warranty :** DIGISOL issues this Limited Software Warranty that the software portion of the product ("Software") will substantially confirm to DIGISOL's then current functional specifications for the software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of one year ("Software Warranty period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation.
3. **Governing Law:** This warranty shall be governed by Indian Laws.
4. **Limited Lifetime Warranty** shall subject to the terms & conditions specified in the DIGISOL PRODUCT WARRANTY policy displayed on www.digisol.com



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