WISNETWORKS

User Manual

WisCloud Access Controller V 2.0

2017/6/9

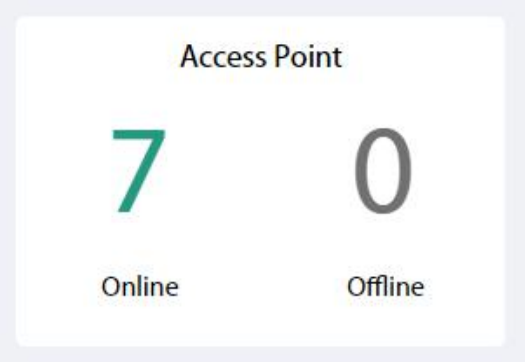
Software Version 3.05.20

Table of contents

Chapter 1 Overview

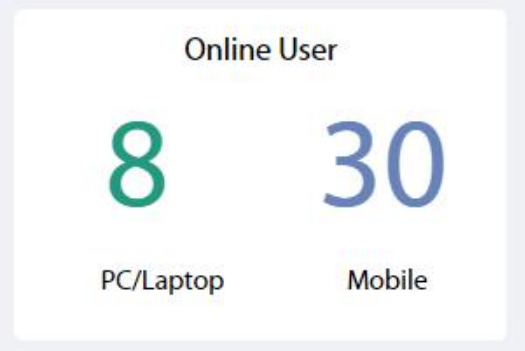
As the pivot of mass management system, WisCloud Controller terminates the respective working approach of each access point and centrally completes the configuration and management for WisCloud APs. It would be much easier to monitor the massive devices and more efficient to maintain the enterprise networks.

1.1 Access Point



Online: Display the online access points.
Offline: Display the offline access points.

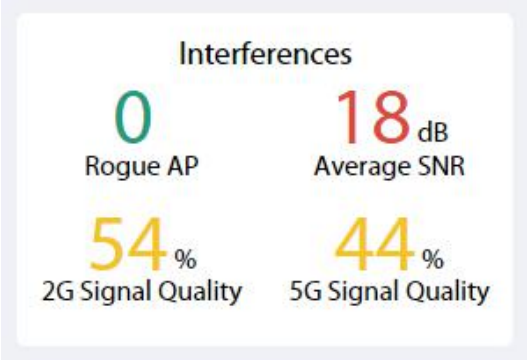
1.2 Online Use



PC/Laptop: The online users who connect through the PC or laptop.

Mobile: The online users who connect through the mobile.

1.3 Interferences



Rogue AP: Display the Access points which are not managed by the Access controller.

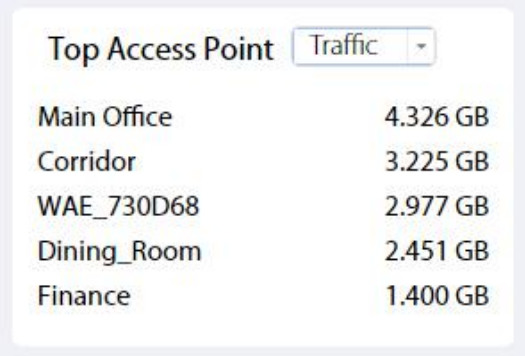
Average SNR: Display the average of signal noise ratio. ***(0~20 is blue, 20~30 is yellow, 30+ is red).***

2G Signal Quality: The signal quality of 2G is displayed. ***(0~40 is blue, 40~80 is yellow, 80+ is red).***

5G Signal Quality: The signal quality of 5G is displayed. ***(0~40 is blue, 40~80 is yellow, 80+ is red).***

1.4 Top Access Point

User: Show the top 5 AP of the most connected users.



Traffic: Show the top 5 AP of the most value of the throughput.

1.5 Total User

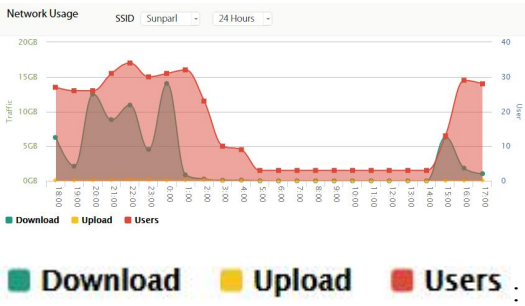
Display the total number of the connected users.

SSID 1: Display the SSID which the users connect and the connected numbers in the 2 GHz radio band.

SSID 2: Display the SSID which the users connect and the connected numbers in the 5 GHz radio band.

1.6 Network Usage

The graph displays the upload or download traffic and the number of users on different time of a day.



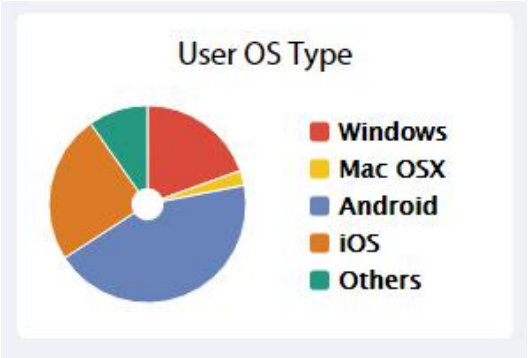
Choose one of them to see the graph separately.

SSID: Select one of the SSID to see the graph.

24 Hours/30 Days: Select the period time to check.

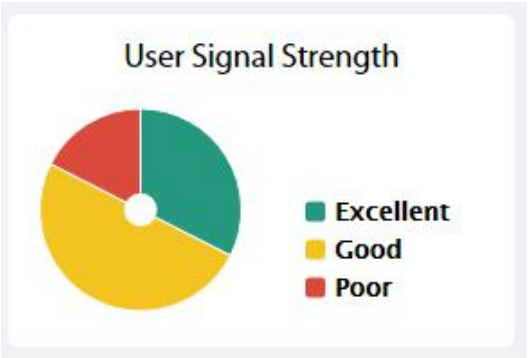
1.7 User OS Type

The graph displays different OS type of the connected users.



1.8 User Signal Strength

The graph displays the signal strength of the connected users.

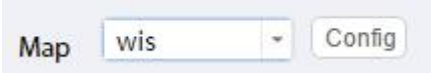


Chapter 2 MAP

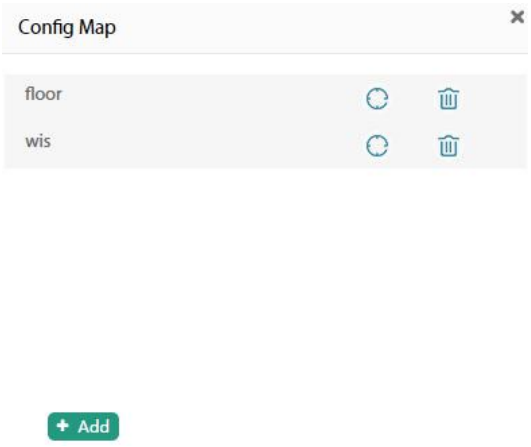
The Access Controller software allows you to upload custom map images of your location for a visual representation of your wireless network.

Once you've created the map, you can upload it to the Access Controller software by performing the following steps:

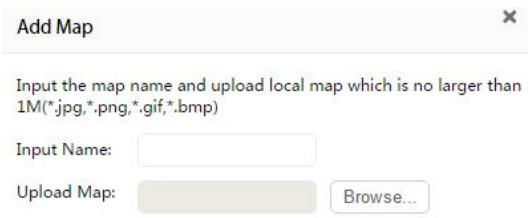
1. Click Config



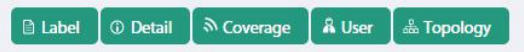
2. Click Add to add a new map



3. Input a name of the map and upload it from your local file.



Click any of the following options to display Access Point labels, details, wireless coverage, and topology on the map.



Label: Display the name applied to the Access Point.

Detail: Display the Access Point name, MAC address, IP address, state, channel and the number of connected users.

Coverage: Display a visual representation of the wireless range covered by the Access Point.

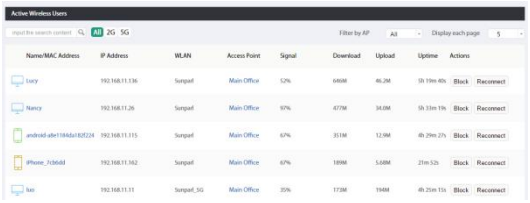
User: Display the number of users that each Access Point contained.

Topology: Display a representation of the connection between Access Points.

Chapter 3 User

The Users tab displays a list of users that are connected to the primary wireless network of the Access Point. You can click any of the column headers to change the list order.

3.1 Active Wireless Users



Name/MAC Address: Display the hostname, alias or MAC address of the connected user. You can click the name to get additional details. See "3.3 user details" on page 7.

IP Address: Display the IP address of the connected user.

WLAN: Display the network name or SSID of the wireless network in use.

Access Point: Display the hostname, alias, or MAC address of the AP. You can click the name to get additional details on the AP.

Signal: Display the percentage of signal strength between the user and AP.

Download: The total amount of data download by the user is displayed.

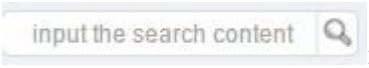
Upload: The total amount of data upload by the user is displayed.

Uptime: The amount of time the user has been connected for this session.

Actions: Click a button to perform the desired action:

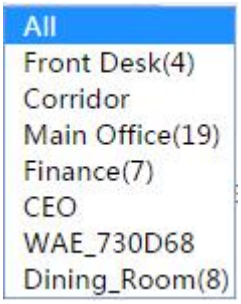
·***Block*** **：** Block this user from accessing the AP and add the client device to the Blocked Device list.

·***Reconnect*** **：** Reconnect this user to the Access Point and remove the client device from the Blocked Device list.

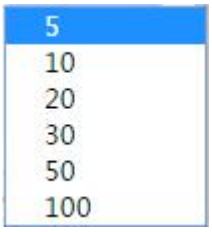


: Input the content to search for.

: When select ***2G*** is only to display users of the 2.4 GHz wireless network. When select ***5G*** is only to display users of the 5 GHz wireless network. When select ***All*** is to display all users.

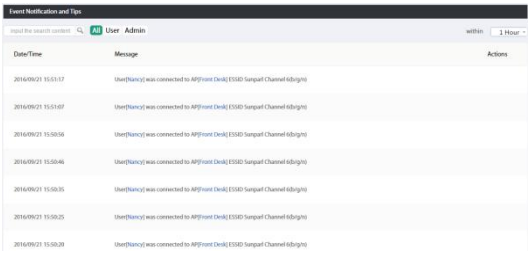


Filter by AP: Drop-down menu of all available Access Points. Select one to filter the results and only display users connected to the selected AP.



Display each page: Select how many results to display per page as shown below.

3.2 Event Notification and Tips



Date/Time: Display the date and time the client was connected.

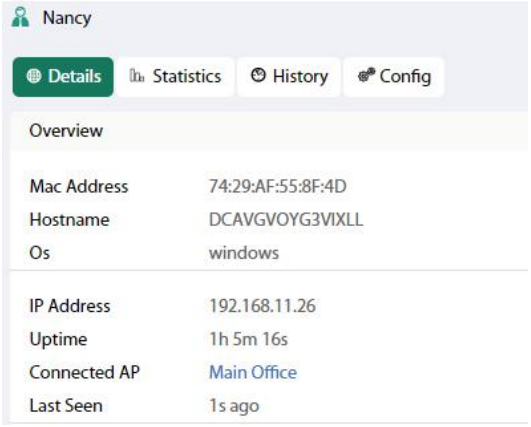
Message: Display the state of connectivity between the AP and user.

: To check all messages, click ***All***. To check the user's connectivity, click ***User.*** To check the message of administrator's operation, click ***Admin***.

Within: Filter by time duration as follows.

3.3 User details

3.3.1 Details-*Overview*



MAC Address: Display the MAC address of the connected user.

Hostname: Display the hostname of the connected user

OS: The operation system of the user is displayed.

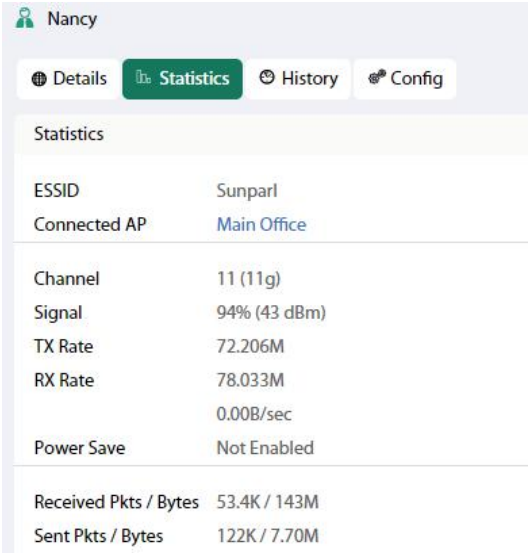
IP Address: Display the IP address of the connected user.

Uptime: The amount of time the user has been connected for this session

Connected AP: The name of the AP the user connected is displayed.

Last Seen: Display the last time the user connected.

3.3.2 Statistics



ESSID: Display the network name or SSID of the wireless network in use.

Connected AP: Display the name, alias or MAC address of the AP in use.

Channel: Display the wireless channel in use.

Signal: Display the signal strength.

TX Rate: Display the TX (transmit) rate.

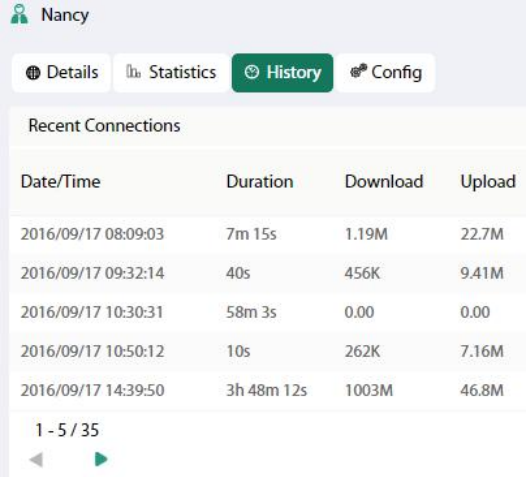
RX Rate: Display the RX (receive) rate.

Power Save: Display the status of the power save mode.

Received Pkts/Bytes: Display the amount of data received by the user in packets and bytes.

Sent Pkts/Bytes: Display the amount of data sent by the user in packets and bytes.

3.3.3 History-*Recent Connections*



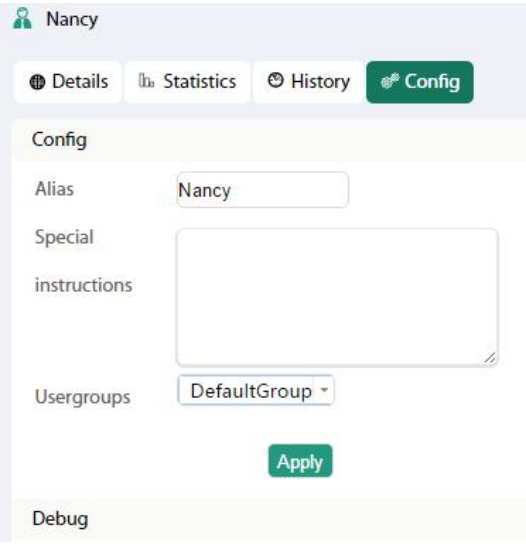
Date/Time: Display the date and time the user first connected to the AP.

Duration: Display the length of the time the user connected to the AP.

Download: The amount of data download by the user during the session is displayed.

Upload: The amount of data upload by the user during the session is displayed.

3.3.4 Config

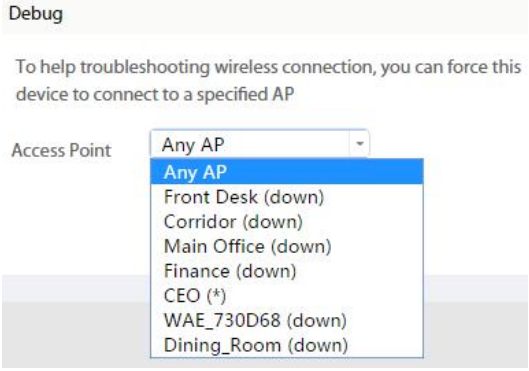


Alias: Enter a name for the user.

Special Instruction: Enter a description or comments for the user.

Usergroups: Assign a user group to the user or keep the default group.

Debug



·***Access Point:*** Select One of the Access Points to connect to the device.

Chapter 4 Access Point

The Access Points tab displays a list of managed Access Points. You can see more configuration details of the AP.

4.1 Managed Access Point

Name/MAC Address: Display the hostname, alias or MAC address of the AP. You can click name to get additional details on the AP. See "4.6 Access Point details" on page 13.

Group Name: Display the group name of the AP.

IP Address: Display IP address of the Access Point.

Status: Display the status of the AP as follows.

- ***Run:*** When the AP connected to the Access Controller, it shows run.
- ***Timeout:*** When disconnected in 5 minutes, it shows timeout.
- **Offline:** When disconnected in 1 hour, it shows offline.
- ***Retired:*** When disconnected in one day, it shows retired.
- ***Init:*** When the Access Controller restart, the AP can't run, it shows init.

Users: Display the number of the user connected to the AP.

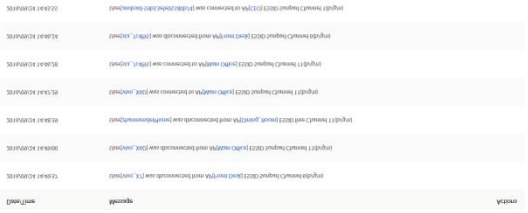
Download: The total amount of data download by the AP is displayed.

Upload: The total amount of data upload by the AP is displayed.

Channel: Display the transmit/receive channel being used by the AP. The radio band is represented as (ng) for 2.4 GHz and (na) for 5 GHz.

Actions: Click a button to perform the desired action.

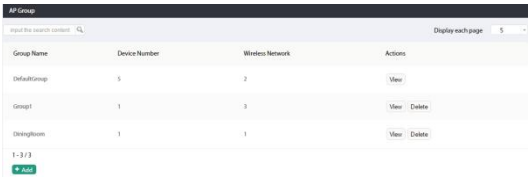
- ***Locate:*** Locate the AP on the map. The button will flash green until the button is clicked again. The LED on the AP will flash so that you can place it in the correct location on the map. The LED will flash until the button is clicked again.
- ***Restart:*** Restart the selected Access Point.
- ***Remove:*** Remove the selected Access Point.
- ***Upgrade:*** After upgrade the Access Controller, it will be shown to upgrade the AP.



Date/Time: Display the date and time the client was connected.

Message: Display the state of connectivity between the AP and user.

4.2 AP Group



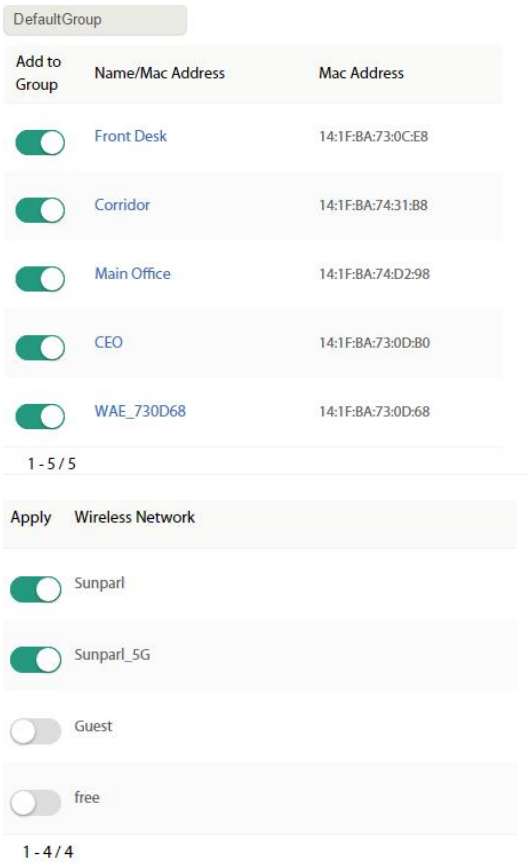
Group Name: Display the group name of the AP.

Device Number: Display the number of the AP which the group contains.

Wireless Network: Display the number of the wireless network the group has.

Action: Click a button to perform the desired action.

View



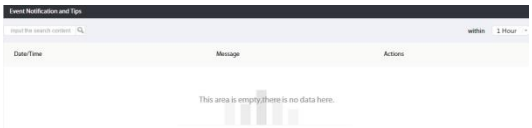
·***Add to Group:*** Add the Access Point to a group.

·***Name/MAC Address:*** Display the name or MAC address of the device.

·***MAC Address:*** Display the MAC address of the device.

·***Wireless Network:*** Choose the network name or SSID to apply in the Access Points.

Delete: To delete the group, click it.

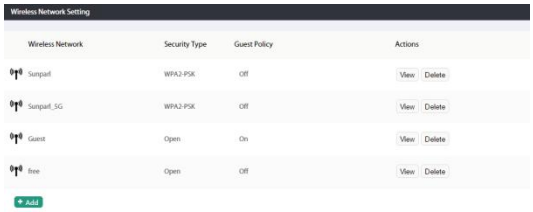


Date/Time: Display the date and time the client was connected.

Message: Display the state of connectivity between the AP and user.

4.3 Wireless Config

4.3.1 Wireless Network Setting



Wireless Network: Display the name of the wireless network or SSID.

Security Type: Display the type of encryption.

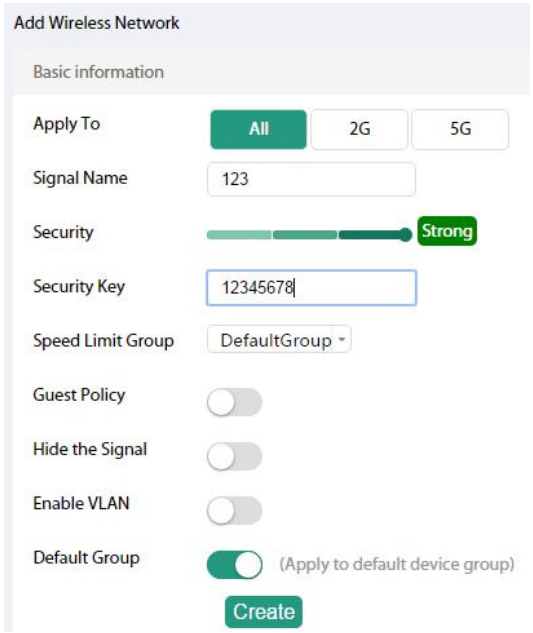
Guest Policy: Display the state of guest policy.

Actions: Click a button to perform a desired action.

·***View:*** Make changes to the wireless network settings.

·***Delete:*** Delete the wireless network.

Add



·***Apply To:*** Choose the appropriate frequency or click all.

·***Signal Name:*** Enter the name of the wireless network.

·***Security Key:*** Input the passphrase that users will use to connect to the wireless network.

·***Speed Limit Group:*** Choose a speed limit group.

·***Guest Policy:*** Select this option to apply the guest policy.

·***Hide the Signal:*** Select this option if you don't want to the wireless network name or SSID to be broadcast.

·***Enable VLAN:*** When you enable the VLAN, you can input the VLAN ID as follows.

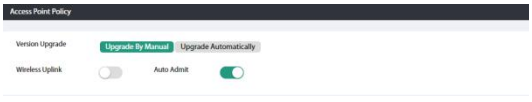
·***Default Group:*** When you enable the default group, it will apply to the default device group.

4.3.2 RF Management

Country Code: Select the one of country codes.

Auto optimization: Select the time interval to automatically optimize the network regularly.

4.3.3 Access Point Policy

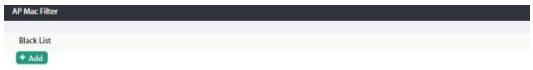


Version Upgrade: Choose a way to upgrade the version of AP. You can upgrade your firmware by manual or automatically.

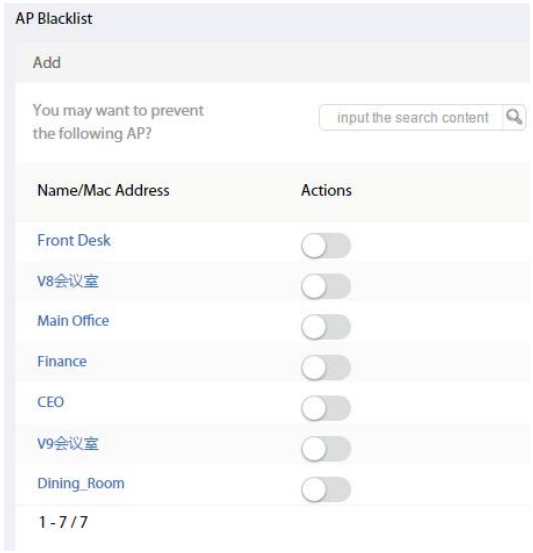
Wireless Uplink: When an Access Point is not connected by a wire, the wireless uplink section lists potential uplink Access Points that can be selected to establish a wireless connection.

Auto Admit: If you enable auto admit, the Access Controller can admit AP in control automatically when the Access Points are scanned.

4.3.4 AP MAC Filter



Add

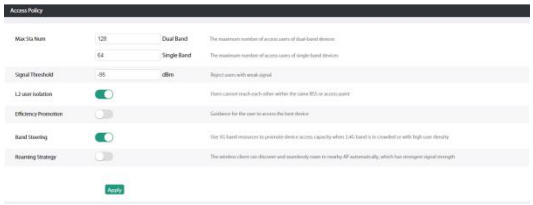


·***Name/MAC Address:*** Display the hostname, alias or MAC address of the AP.

·***Action:*** If you want to prevent the AP, click the button.

4.4 User policy

4.4.1Access Policy



Max Sta Num: There are Dual Band and Single Band.The number show the maximum number of access users.

Signal Threshold: Reject users with weak signal.If the signal less than the index,it will turn off the connect.

L2 user isolation: Users cannot reach each other within the same BSS or access point.

Efficiency Promotion: Guidance for the user to access the best device.

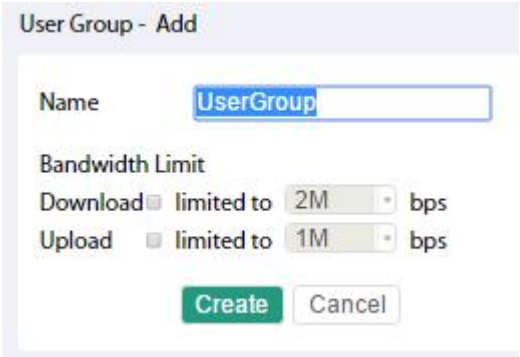
Band Steering: Use 5G band resources to promote device access capacity when 2.4G band is in crowded or with high user density.

Roaming Strategy: The wireless client can discover and seamlessly roam to nearby AP automatically, which has strongest signal strength.

4.4.2Rate Limit Group

Speed Limit Group: display the group name that you have set to limit the bandwidth.

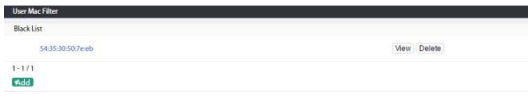
Add



·***Name:*** Enter or edit the name of the user group.

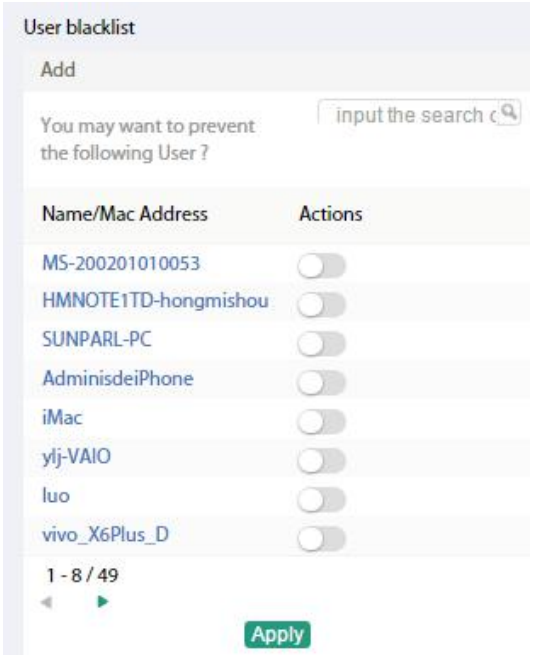
·***Bandwidth:*** Select to limit download and upload bandwidth. Enter the maximum in the blank.

4.4.3User Mac Filter



User MAC Filter: Display the MAC address of the user who has been filtered.

Add

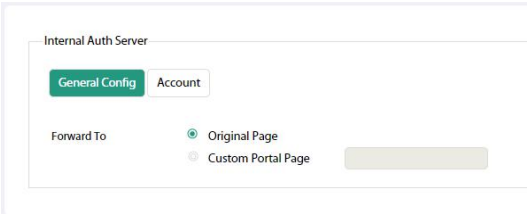


·***Name/MAC Address:*** Display the hostname, alias and MAC address of the users.

·***Action:*** If you want to prevent the user, click the button.

4.5 Guest Policy

4.5.1General Cpnfig

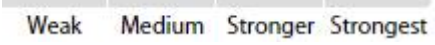


Forward To Original Page or Custom Portal Page: if choice the Custom Portal Page, you can Appoint the address.

4.5.2 Account/Password

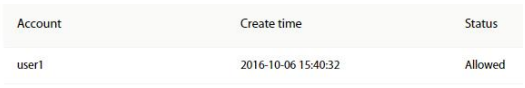
Account: Enter the user name of the account.

Password: Enter the password of the account (at least four characters).

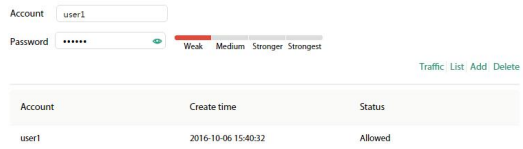


: Display the degree of the encryption.

Traffic: Display the detail information of the account.



List: Display the create time and status of the account.

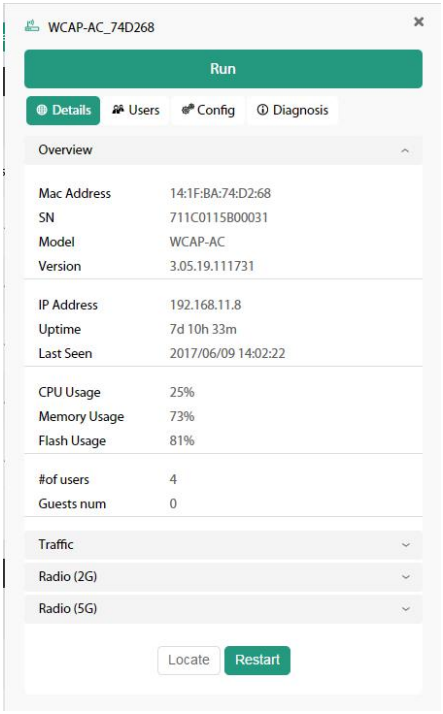


Add/Delete: When you want to add or delete the accounts, you should input the name in the blank.

4.6 Access Point details

4.6.1 Details

Overview



·**MAC Address:** Display the MAC address of the connected Access Point.

·**SN:** Display the serial number of the Access Point.

Model: Display the model name of the Access Point.

Version: Display the version of the Access Point.

IP Address: The distributed IP address is displayed.

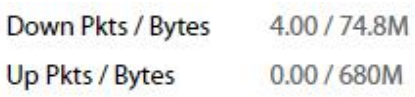
Uptime: The uptime of the Access Point is displayed.

·**CPU Usage/Memory Usage/Flash Usage:** Display the usage of the CPU, memory and flash.

·**#of users:** Display the number of users connected to the primary network.

·**Guests num:** Display the number of users connected to the guest network.

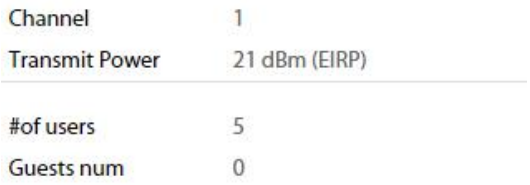
Traffic



·**Down Pkts/Bytes:** Display the amount of data downloaded as packets and bytes.

·**Up Pkts/Bytes:** Display the amount of data uploaded as packets and bytes.

Radio (2G)/Radio (5G): When the Access Point has two radio bands.



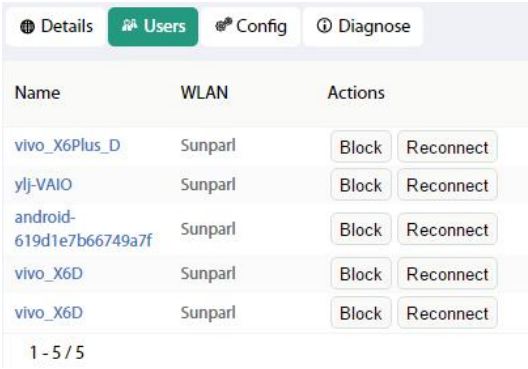
·**Channel:** Display the total channels of 2GHz or 5GHz radio band.

·**Transmit Power:** Display the EIRP in dBm.

·**#of users:** Display the number of users who connected 2GHz or 5GHz band.

·**Guests num:** Display the number of users who connected to the guest network.

4.6.2 Users



Name: Display the hostname, alias, or MAC address of the connected user. You can click the name to get additional details. See "3.3 user details" on page 7.

WLAN: Display the network name or SSID of the wireless network in use.

Action: Select to block and reconnect the users.

4.6.3 Config

General Settings

·**Alias:** Enter or edit the name of the device.

·**AC:** Input the IP address of the Access Controller and reboot the AP. Then the AP will connect to the AC.

Radio(2G/5G)

·**Channel:** Select a channel or keep the default setting ***Auto***. You can also use the default ***HT20*** for 20MHz operation or ***HT40*** for 40MHz operation.

·**Tx Power:** By default the transmit power is set to *Auto*. You can also manually select ***High***, ***Medium***, ***Low***, or ***Custom***.

·**Compatibility:** By default option is set to ***Auto***. You can also manually select ***11n/g***, ***11g*** or ***11n***.

WLANs

You can modify the wireless network, click ***Modify*** as follows.

·**Apply To:** Select ***All***, ***2G*** or ***5G***.

·**Enabled on this AP:** Select the checkbox to enable override settings on the Access Point.

·**Use VLAN ID:** Select the checkbox to enable the VLAN. Enter a value between 2 and 4095.

·**SSID:** Enter the SSID override name to apply the wireless network.

·**PSK:** If the WPA-Personal security option has been applied to the WLAN, the Pre-Shared Key (PSK) for the SSID specified will automatically appear in this field.

Remove: If you no longer wish to manager this AP, you can remove it.

4.6.4 Diagnose

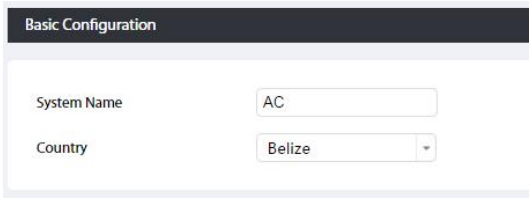
Remote connect: It's for diagnosis.

Diagnostic signal: That's for diagnostic signal of users.

Chapter 5 System

5.1 Basic

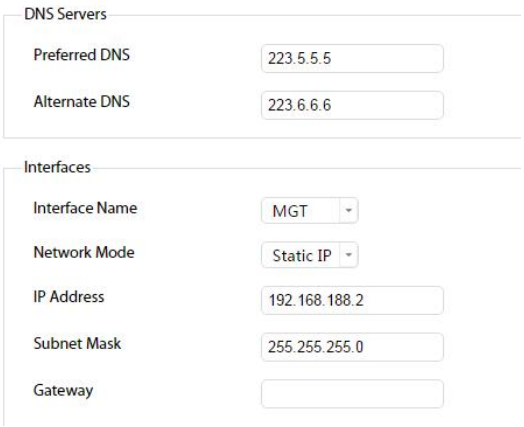
5.1.1 Basic Configuration



System Name: Enter the name of the Access Controller.

Country: Select the local country code.

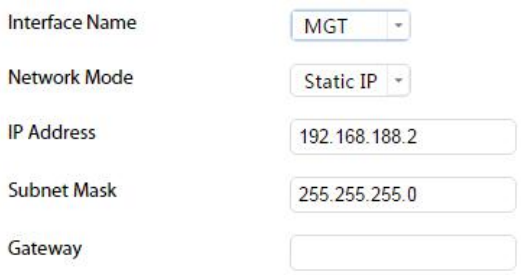
5.1.2 Network



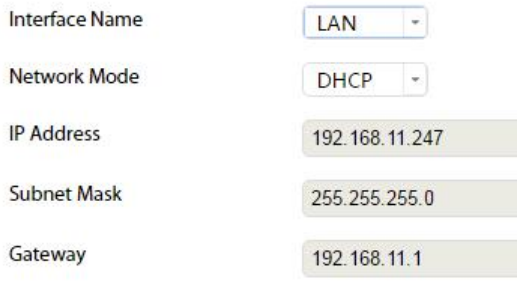
DNS Server: Enter the preferred DNS and alternate DNS.

Interface Name: Display the option of MGT or LAN.

·**MGT:** Configure the static IP address and this IP is used to login in the WCAC. (The default IP is **192.168.188.2**).



·**LAN:**



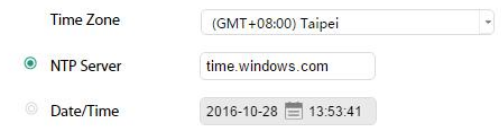
Network Mode: Choose the DHCP or static IP.

IP Address: Display the IP address.

Subnet Mask: Display the subnet mask.

Gateway: Display the gateway address of the DHCP server.

5.1.3 System Time Setting

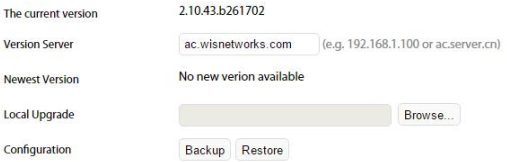


Time Zone: Choose the appropriate time zone.

NTP Server: Enter the NTP server address to update the time automatically.

Date/time: When choose it, you can custom the date and time.

5.2 Service



The current version: Display the current version.

Version Server: Input the IP address or domain name of the server which is used to upgrade the Access Controller. (The default is **ac.wisnetworks.com**).

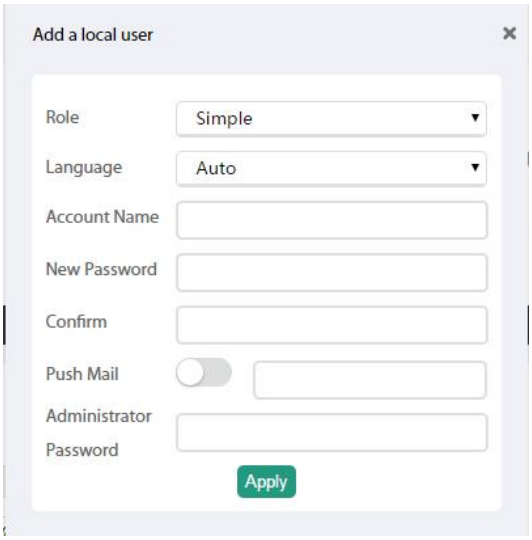
Newest Version: When the server has a new version, there is an option to upgrade. Then click it to upgrade the newest version.

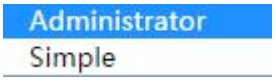
Local Upgrade: Upgrade the new version from the local file.

Configuration: To export the configuration, click ***Backup***. To import the configuration, click ***Restore***.

5.3 Account

To add the new account of the administrators, click ***Add***.



Account Type: 

When you choose the ***Administrator*** type, you can check and configurate the WCAC. When choose the ***Simple,*** you only can check the configuration.

Language: Select the appropriate language.

Account Name: Input the account name.

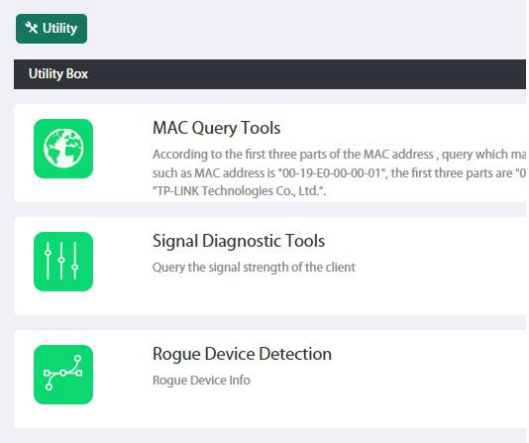
New Password: Input the new password of the account.

Confirm: Input the password again.

Push Mail: To enter the target email address, click it.

Administrator Password: Enter the administrator password.

Chapter 6 Support



MAC Query Tools: According to the first three parts of the MAC address , query which manufacturer the device belongs to. such as MAC address is "00-19-E0-00-00-01", the first three parts are "00-19-E0" , the result of the query can tell you the corresponding manufacturer which is "TP-LINK Technologies Co., Ltd.".

Signal Diagnostic Tools: Query the signal strength of the client.

Rogue Device Detection: Show Rogue Device Info,you can refuce these device accress.