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User Guide

IP-COM Software Controller

IP-COM
World Wide Wireless

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Preface

Thank you for choosing IP-COM! Please read this user guide before you start. This user guide walks you through all functions on the web UI of Software Controller.



This user guide applies to the Software Controller of the 1.1.0.0 version.

Conventions

The typographical elements that may be found in this document are defined as follows.

Item	Presentation	Example
Cascading menus	>	Internet Settings > LAN Setup
Parameter and value	Bold	Set SSID to Tom .
Variable	Italic	Format: <i>XX:XX:XX:XX:XX:XX</i>
UI control	Bold	On the Quick Setup page, click the Save button.

The symbols that may be found in this document are defined as follows.

Symbol	Meaning
 Note	This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to device.
 Tip	This format is used to highlight a procedure that will save time or resources.

For More Documents

Software Controller can manage iUAP series APs in a unified manner. For more about this series of APs, refer to user guides of target models.

Search target product models on our official website www.ip-com.com.cn to obtain the latest product documents.

Product document overview

Document	Overview
User Guide	Walks you through detailed functions and configurations of Software Controller, including all the functions on its web UI.
Quick Configuration Guide	Walks you through installation and Quick Setup, including Software Controller installation, network configuration, and so on.

Technical Support

If you need more help, contact us by any of the following means. We will be glad to assist you as soon as possible.



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info@ip-com.com.cn



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1 Quick Installation

1.1 System Requirements

Supported OS:

Windows 10/7

Recommended system configurations:

Windows 10 (64-bit), 4 GB or more RAM, 50 GB or more free space in system partition.

Minimum system configurations:

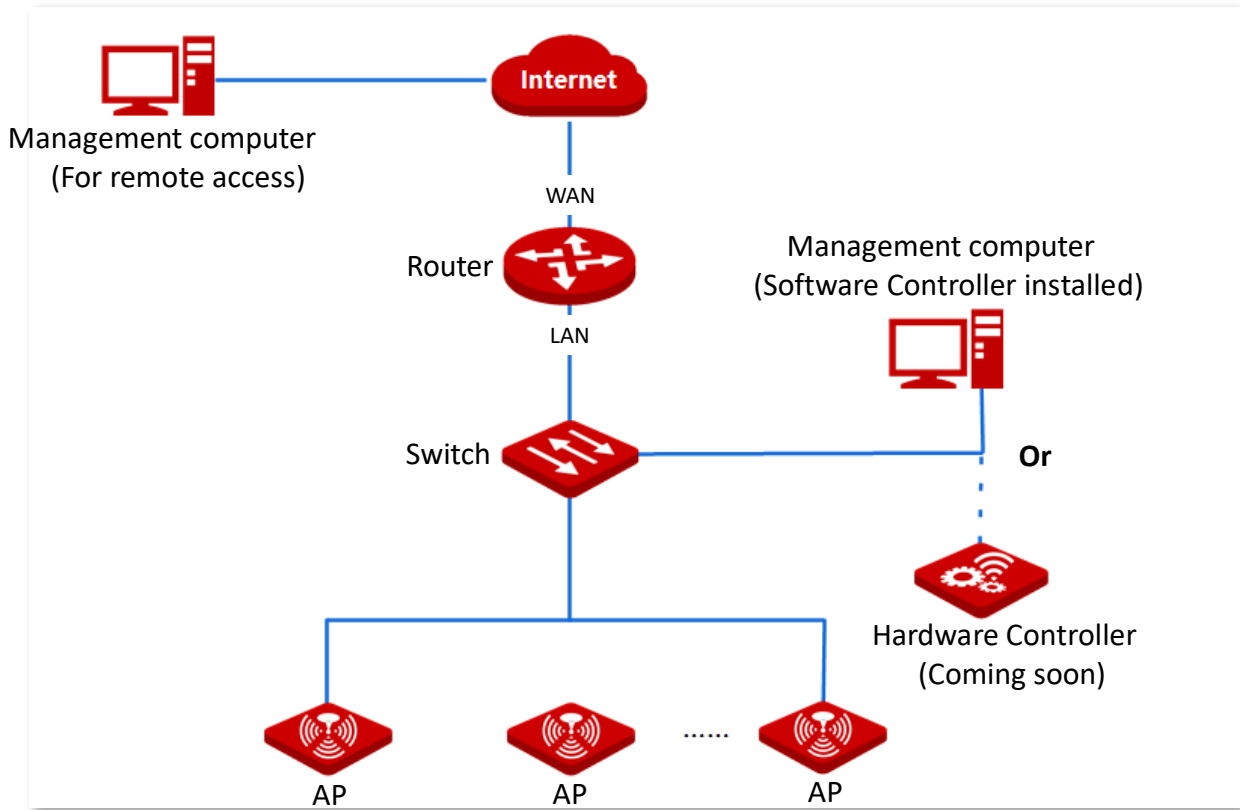
Windows 7 (32-bit), 2 GB or more RAM, 10 GB or more free space in system partition.

Compatible web browser:

- Google Chrome: Stable version officially released within the last 2 years
- Firefox: Version 60.0 or above
- Opera: Stable version officially released within the last 2 years
- Edge: Stable version officially released within the last 1 year
- IE: IE 10 or above

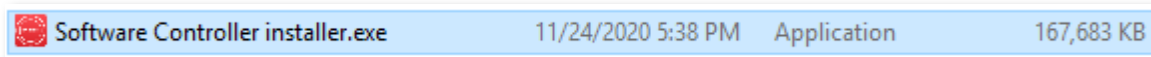
1.2 Application Scenario

The Software Controller allows you to manage your iUAP series APs using a web browser.

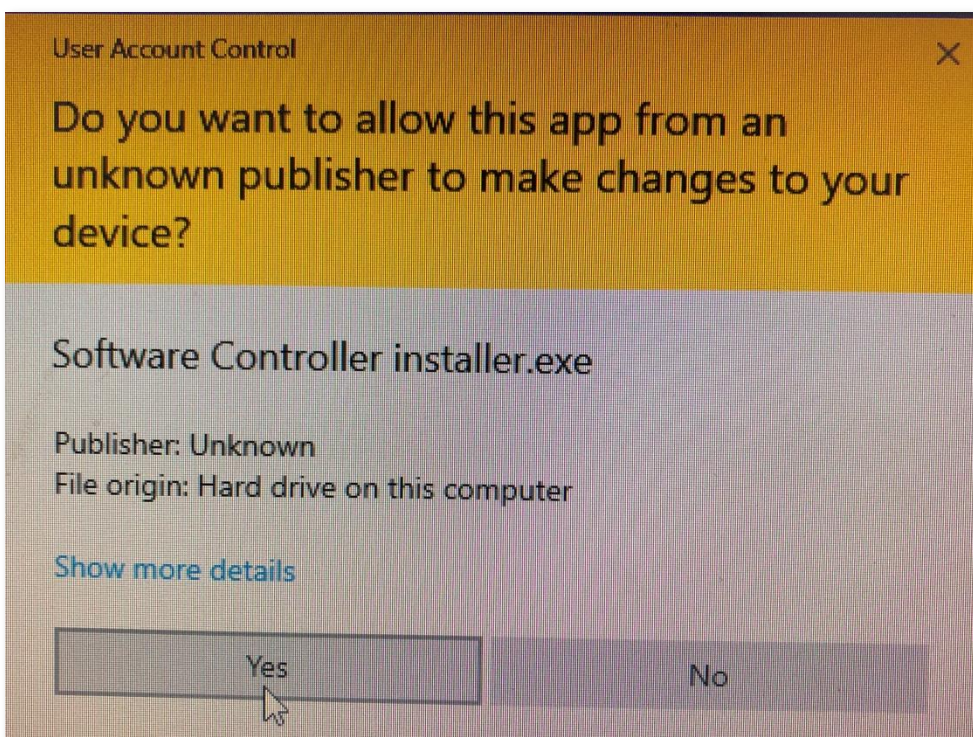


1.3 Install Software Controller (Example: Windows 10)

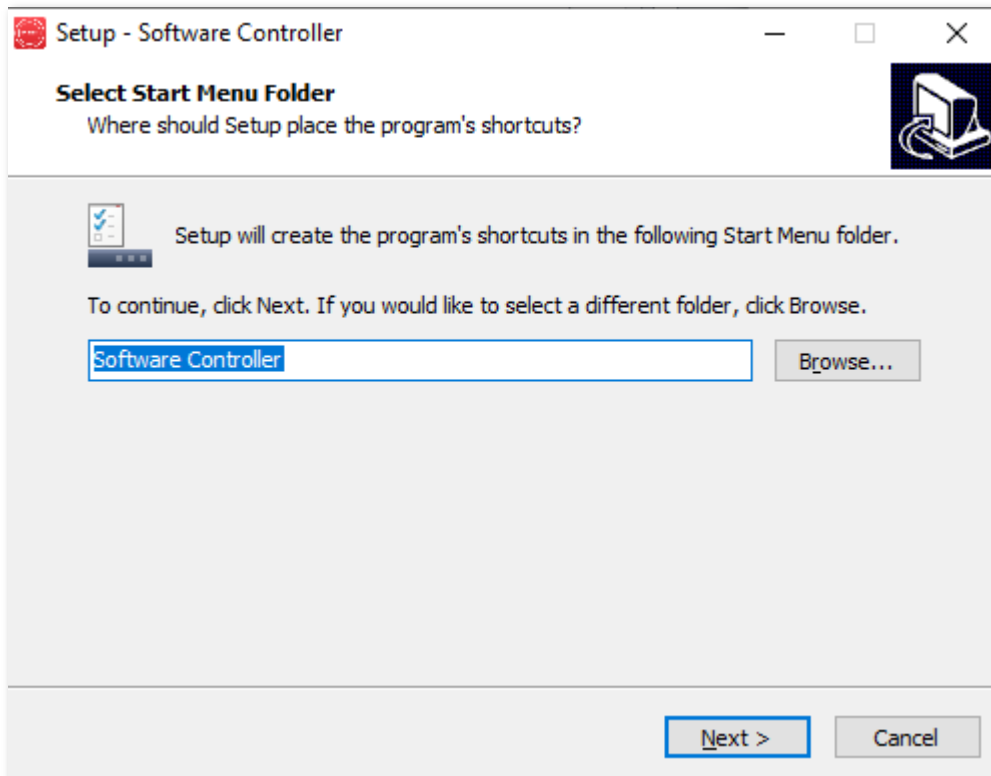
1. Download the installation package of the Software Controller at www.ip-com.com.cn
2. Double-click the **Software Controller installer.exe** file.



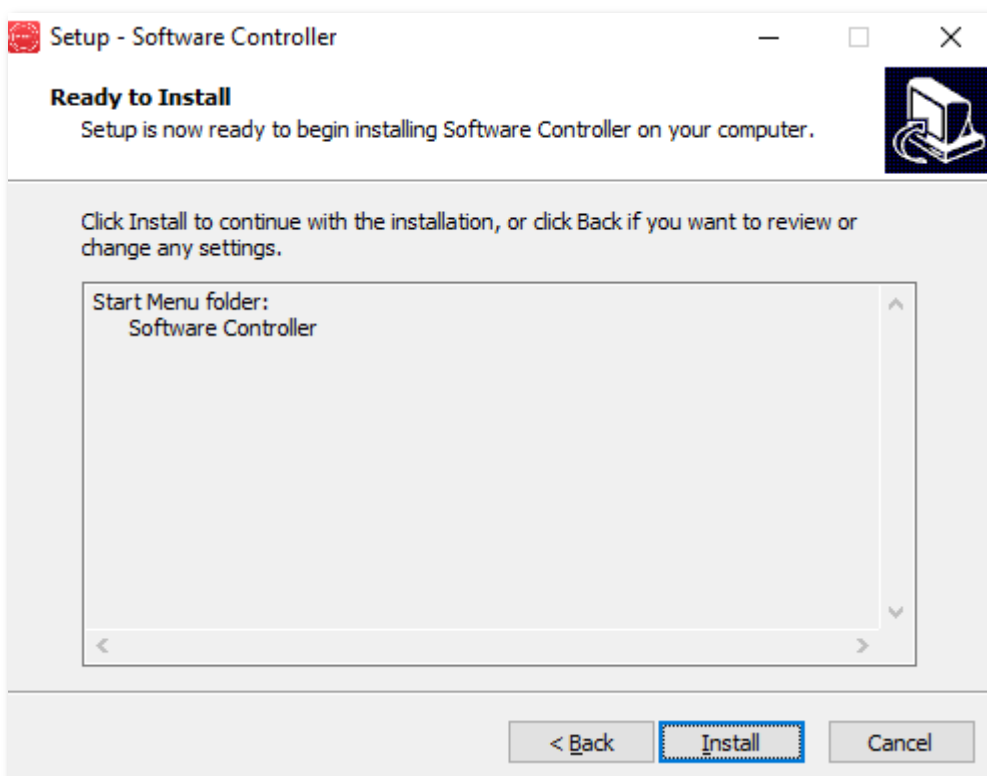
3. Click **Yes** in the pop-up window.



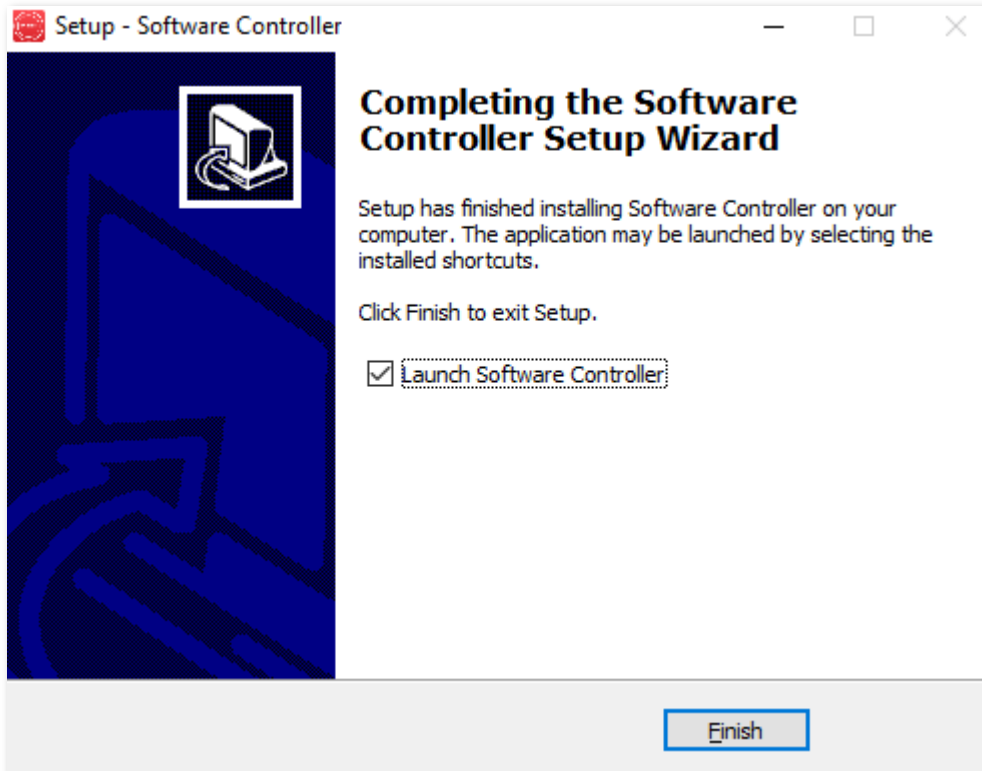
4. Customize an installation path as needed, and click **Next**.



5. Click **Install**.



6. Wait for the installation to complete and click **Finish**.



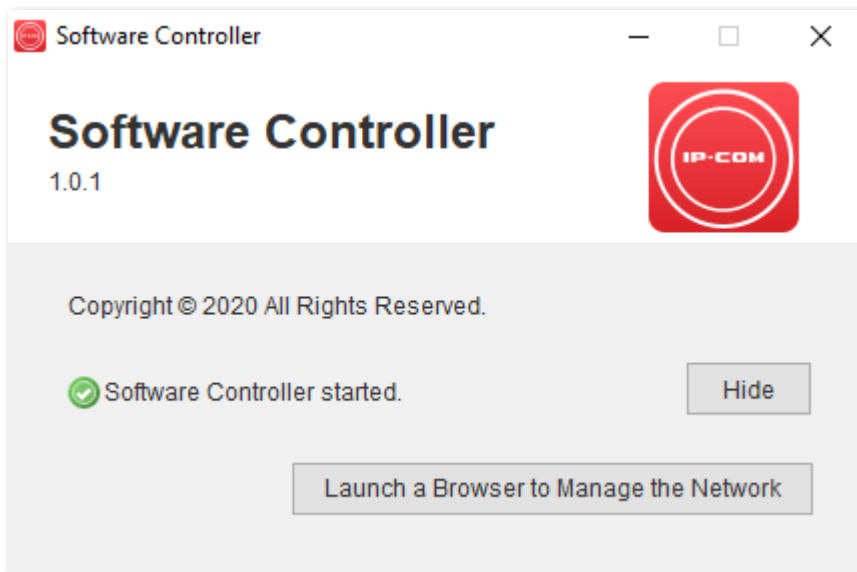
1.4 Configure Software Controller

You can log in to the Software Controller either using an IP-COM Cloud Network account (for both local access and [remote access](#)) or a local account (only for local access). Please choose a login type based on your actual scenario.

- If the computer installed with a Software Controller **has internet availability**, you can use both accounts, but [IP-COM Cloud Network Account](#) is recommended.
- If the computer installed with a Software Controller **has no internet availability**, you can only use a [local account](#).

1.4.1 Option A: Log in Using an IP-COM Cloud Network Account

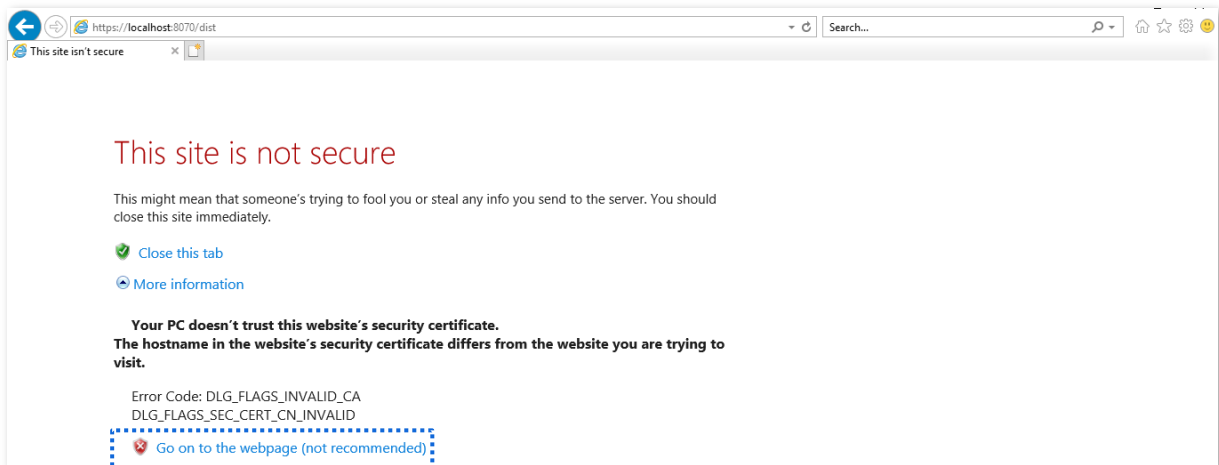
1. Start the Software Controller and click **Launch a Browser to Manage the Network**.



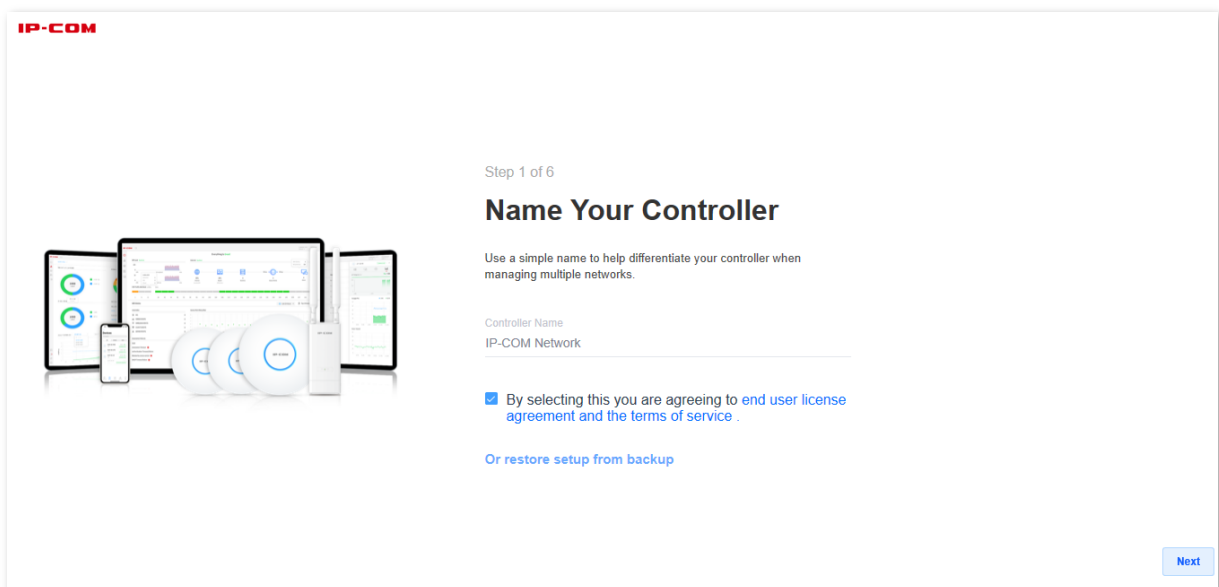
2. Click **More information > Go on to the webpage (not recommended)**. Internet Explorer is used here as an example.



Software Controller supports HTTPS login. When you access its web UI, a prompt message indicating that the web address is not secure, for example, this site is not secure, may appear. Ignore the message and go on to visit the webpage.



3. Customize a Controller name as needed, check **By selecting this you are agreeing to end user license agreement and the terms of service**, and click **Next** in the lower right corner.

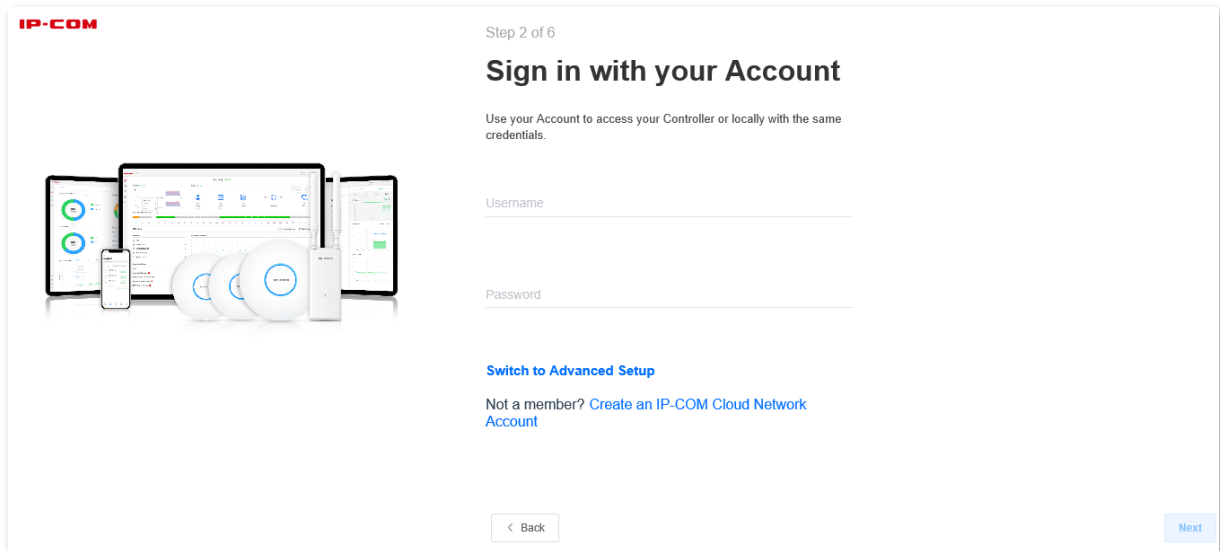


Alternatively, you can click **Or restore setup from backup** to use a file that contains your previous settings.

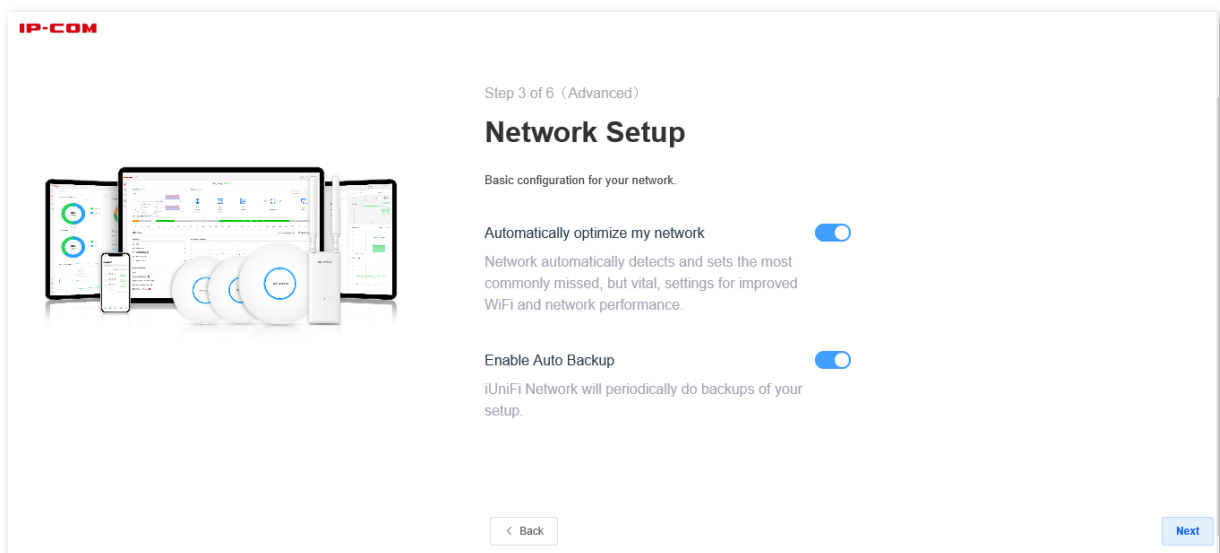
4. Enter your IP-COM Cloud Network username and password and click **Next** in the lower right corner.



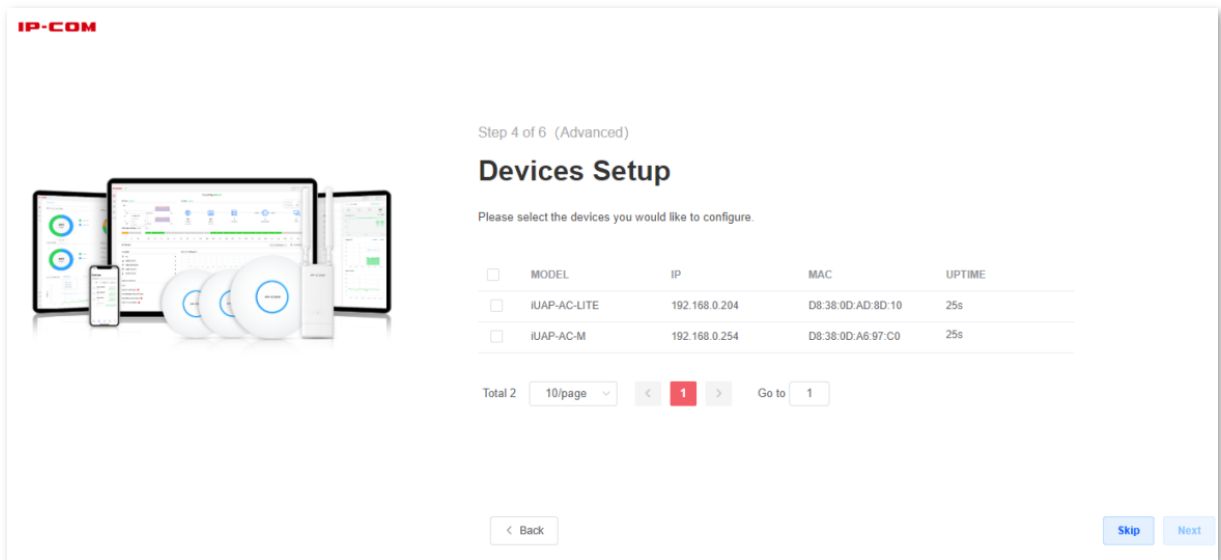
If you do not have an IP-COM Cloud Network account, please register one by following the on-screen instructions. Only through an IP-COM Cloud Network account can you realize [Remote access](#).



5. Toggle off **Automatically optimize my network** and **Enable Auto Backup** as needed and click **Next** in the lower right corner.



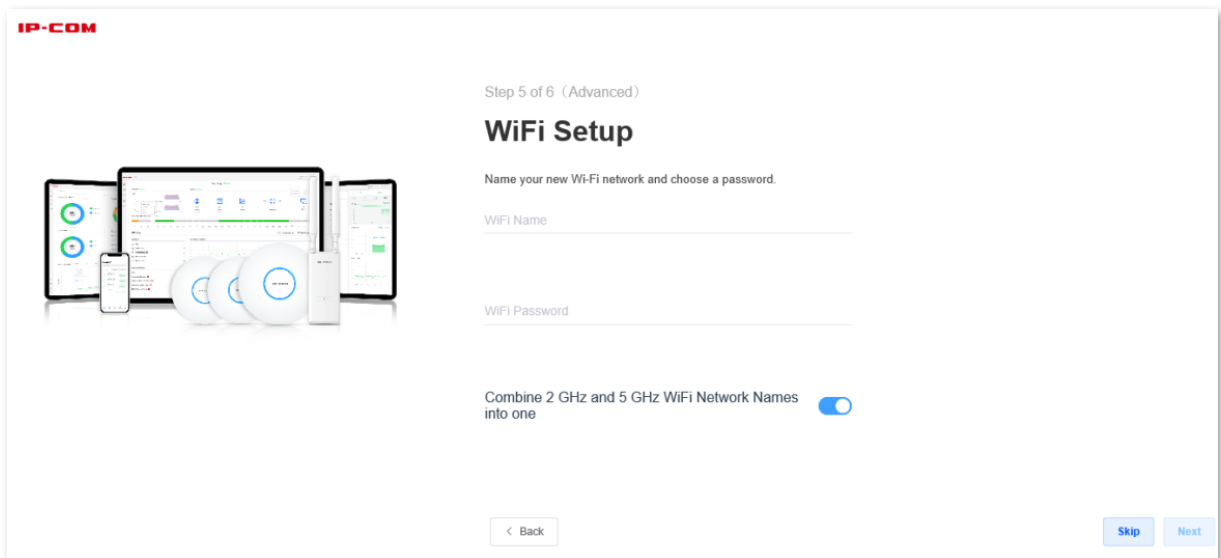
6. Wait until the iUAP series APs are displayed in the device list, select the APs you wish to adopt and click **Next** in the lower right corner.



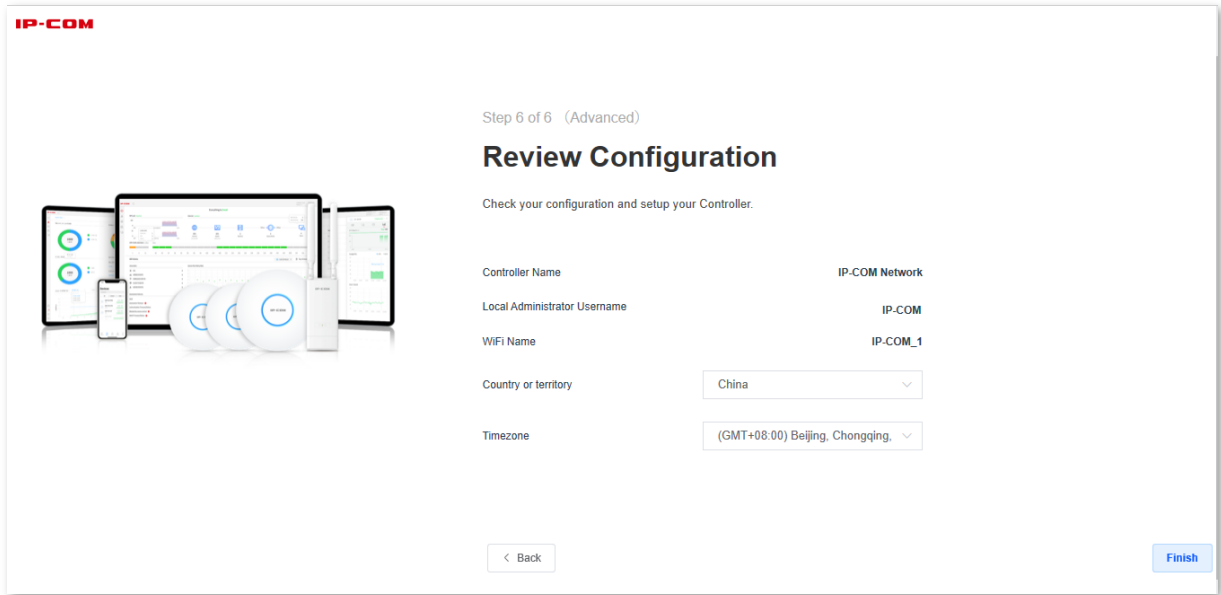
If your APs do not appear in the list, try the following solutions:

- Verify that the IP address of your management computer and IP addresses of your APs are in the same network segment. For example, if the IP address of your AP is **192.168.0.254**, then the IP address of your management computer should be **192.168.0.X** (X ranges from 2 to 253 and is not occupied).
- Verify that your APs are in factory settings.

7. Set **WiFi Name** and **WiFi Password** for the primary WiFi network of the AP and click **Next** in the lower right corner.



8. Check your configurations, select **Country or territory** and **Timezone** and click **Finish**. (The parameters in the following figure serve as examples only)

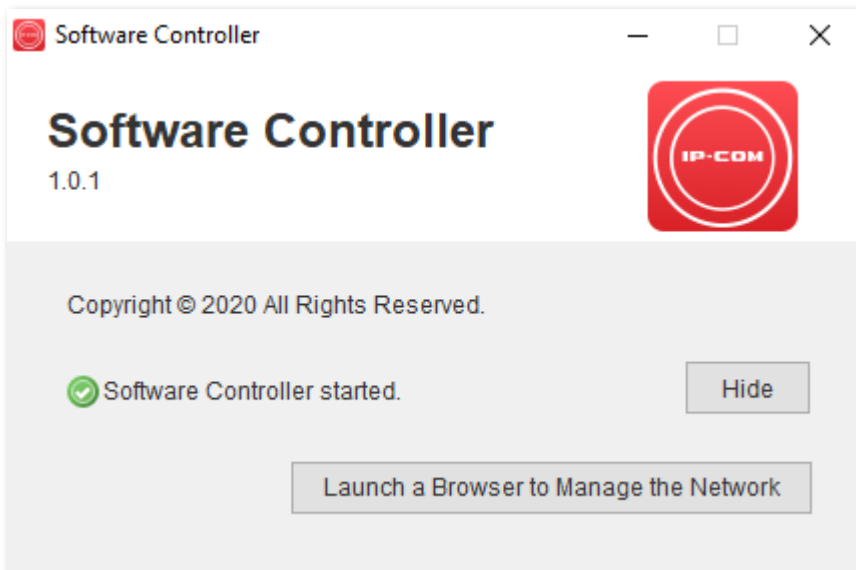


Done.

If you want to perform more configurations, log in to the Software Controller again.

1.4.2 Option B: Log in Using a Local Account

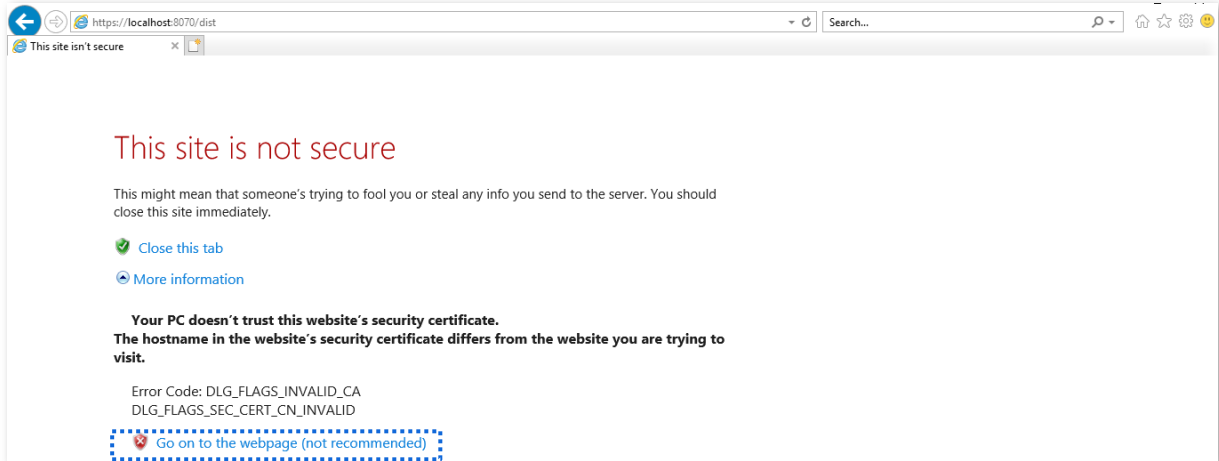
1. Start the Software Controller and click **Launch a Browser to Manage the Network**.



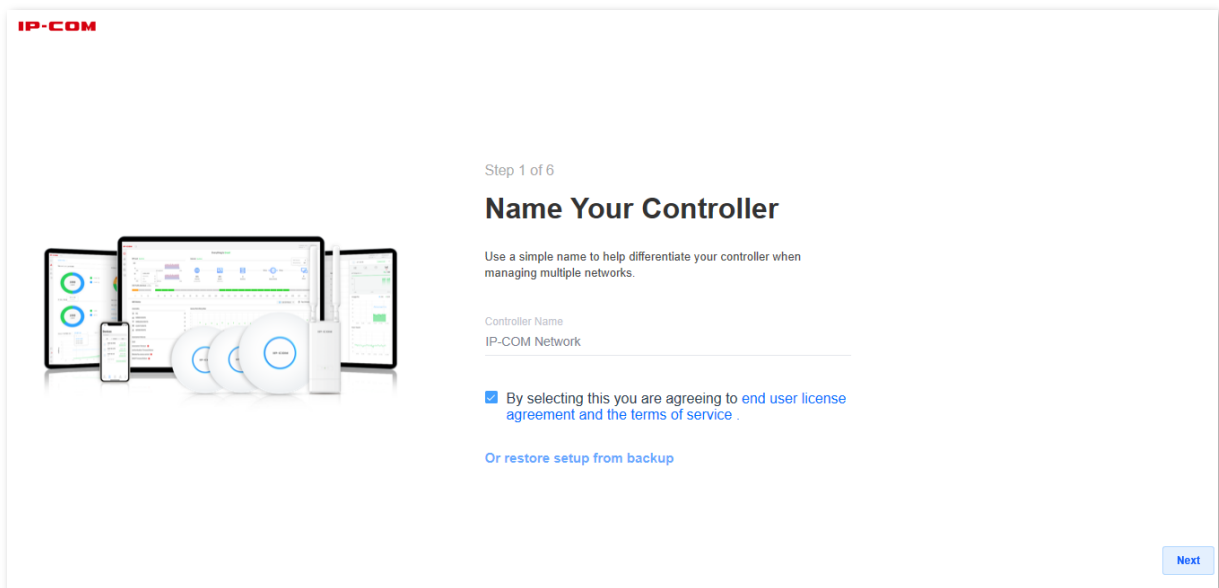
2. Click **More information > Go on to the webpage (not recommended)**. Internet Explorer is used here as an example.



Software Controller supports HTTPS login. When you access its web UI, a prompt message indicating that the web address is not secure, for example, this site is not secure, may appear. Ignore the message and go on to visit the webpage.

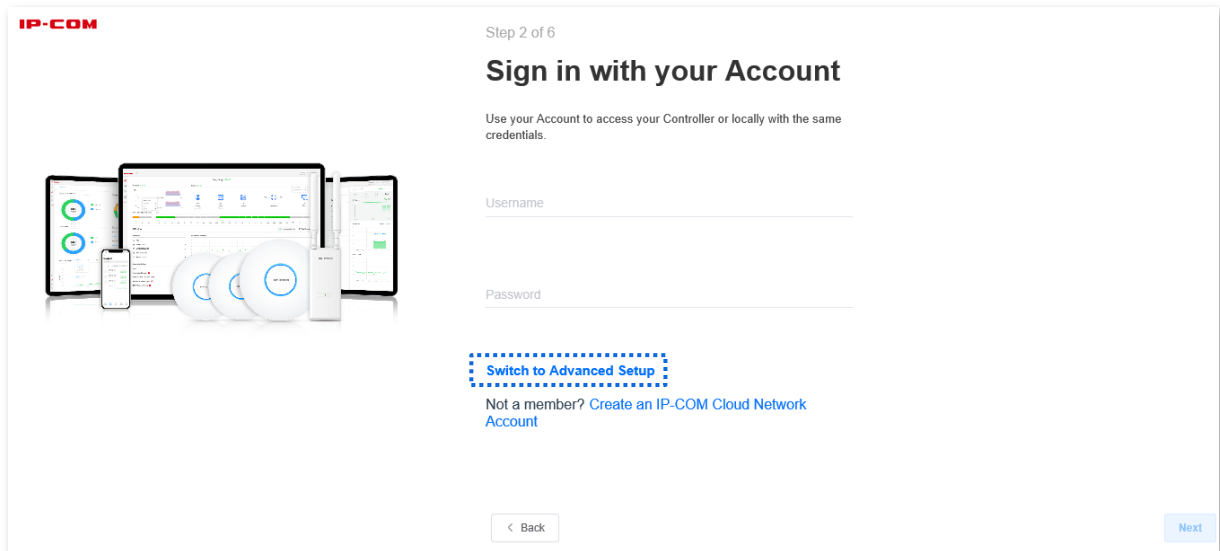


3. Customize a Controller name as needed, check **By selecting this you are agreeing to end user license agreement and the terms of service**, and click **Next** in the lower right corner.

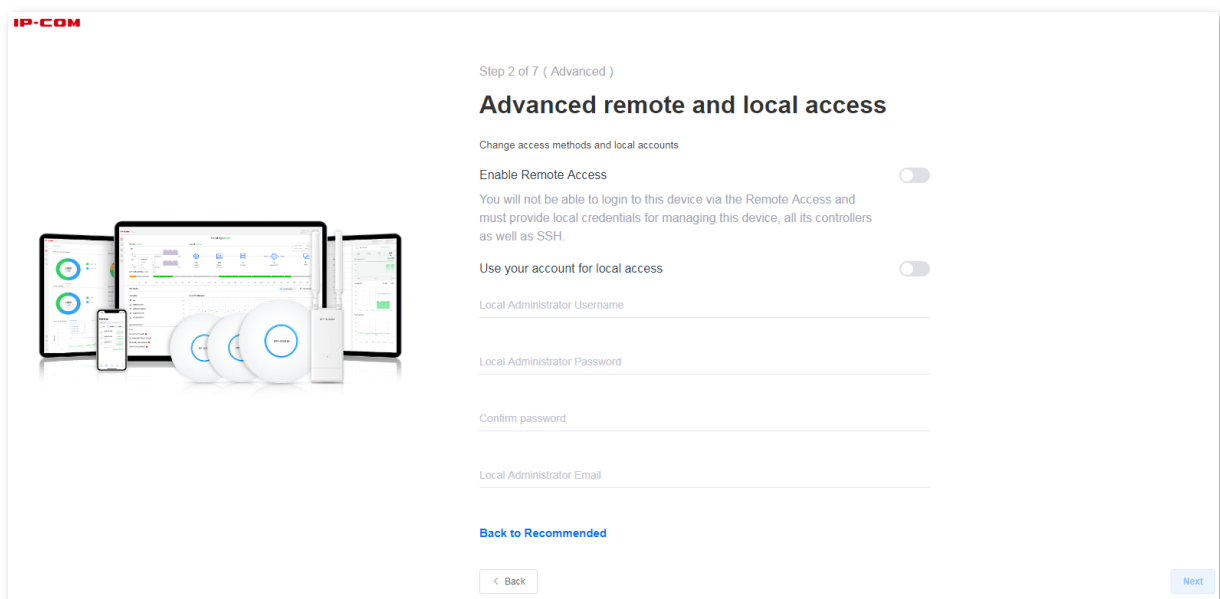


Alternatively, you can click **Or restore setup from backup** to use a file that contains your previous settings.

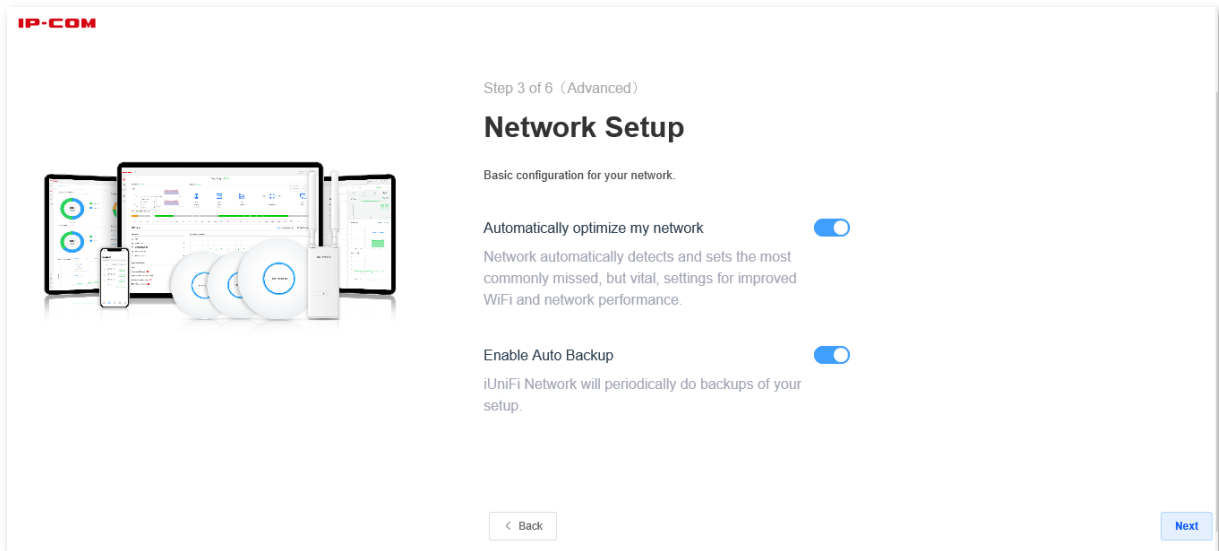
4. Click **Switch to Advanced Setup**.



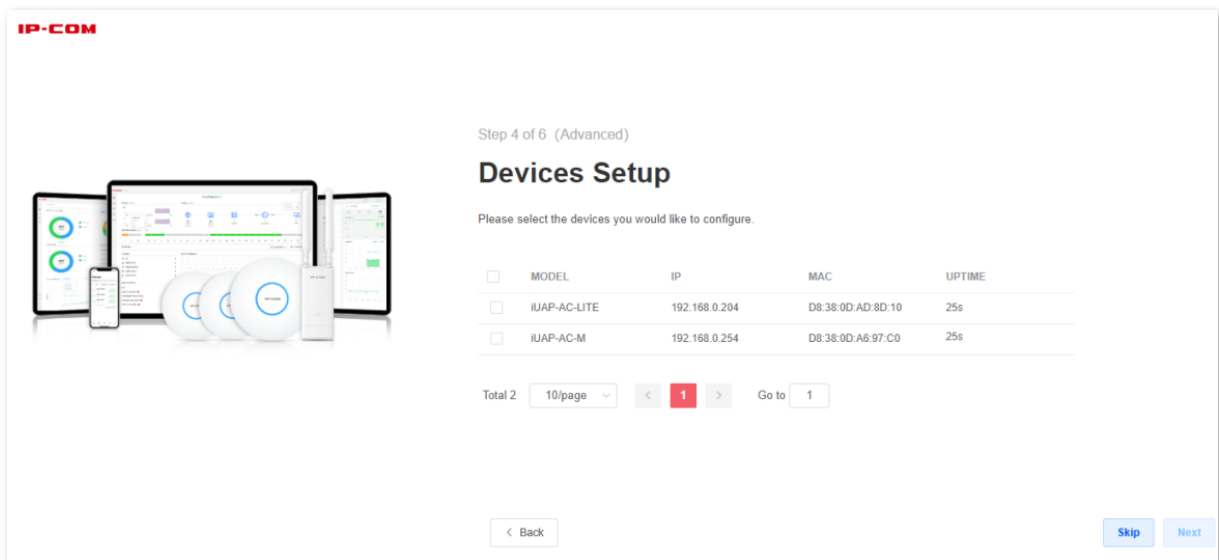
5. Toggle off **Enable Remote Access** and **Use your account for local access**, register an account by following the on-screen instructions, and click **Next** in the lower right corner.



6. Toggle off **Automatically optimize my network** and **Enable Auto Backup** as needed and click **Next** in the lower right corner.



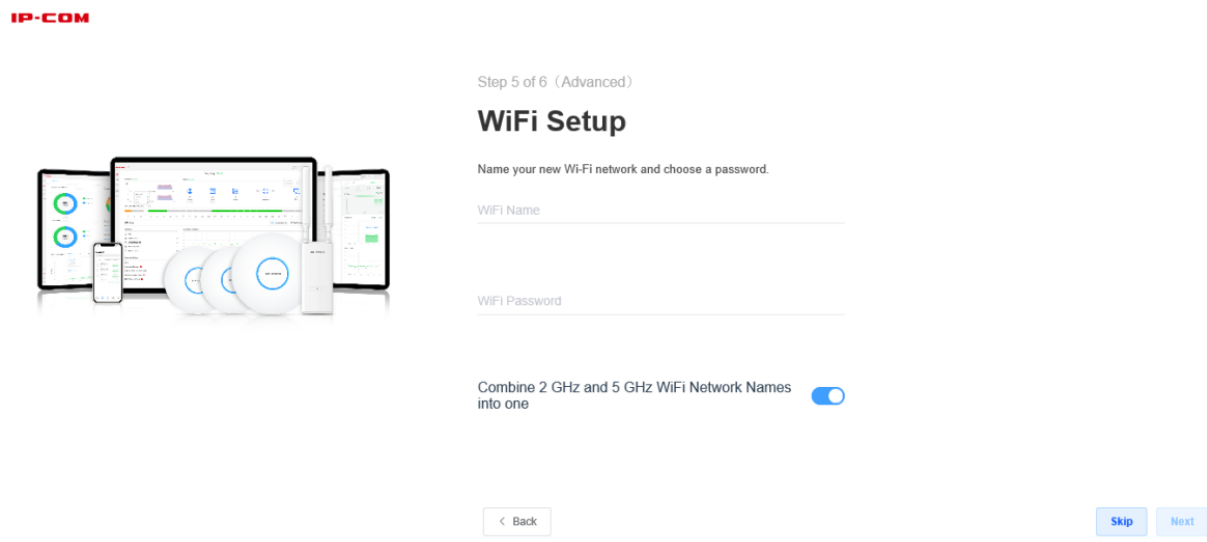
7. Wait until the iUAP series APs are displayed in the device list, select the APs you wish to adopt and click **Next** in the lower right corner.



If your APs do not appear in the list, try the following solutions:

- Verify that the IP address of your management computer and IP addresses of your APs are in the same network segment. For example, if the IP address of your AP is **192.168.0.254**, then the IP address of your management computer should be **192.168.0.X** (X ranges from 2 to 253 and is not occupied).
- Verify that your APs are in factory settings.

8. Set **WiFi Name** and **WiFi Password** for the primary WiFi network of the AP and click **Next** in the lower right corner.



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Step 5 of 6 (Advanced)

WiFi Setup

Name your new Wi-Fi network and choose a password.

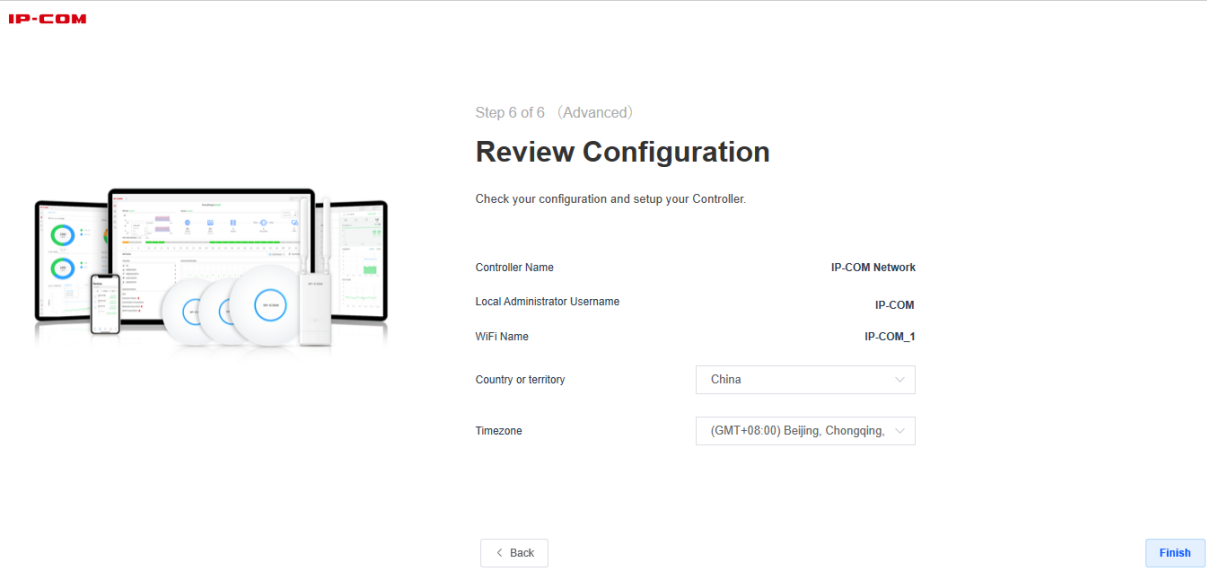
WiFi Name

WiFi Password

Combine 2 GHz and 5 GHz WiFi Network Names into one

[< Back](#) [Skip](#) [Next](#)

9. Check your configurations, select **Country or territory** and **Timezone** and click **Finish**.



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Step 6 of 6 (Advanced)

Review Configuration

Check your configuration and setup your Controller.

Controller Name IP-COM Network

Local Administrator Username IP-COM

WiFi Name IP-COM_1

Country or territory China

Timezone (GMT+08:00) Beijing, Chongqing, ...

[< Back](#) [Finish](#)

Done.

If you want to perform more configurations, log in to the Software Controller again.

1.5 Remote Access

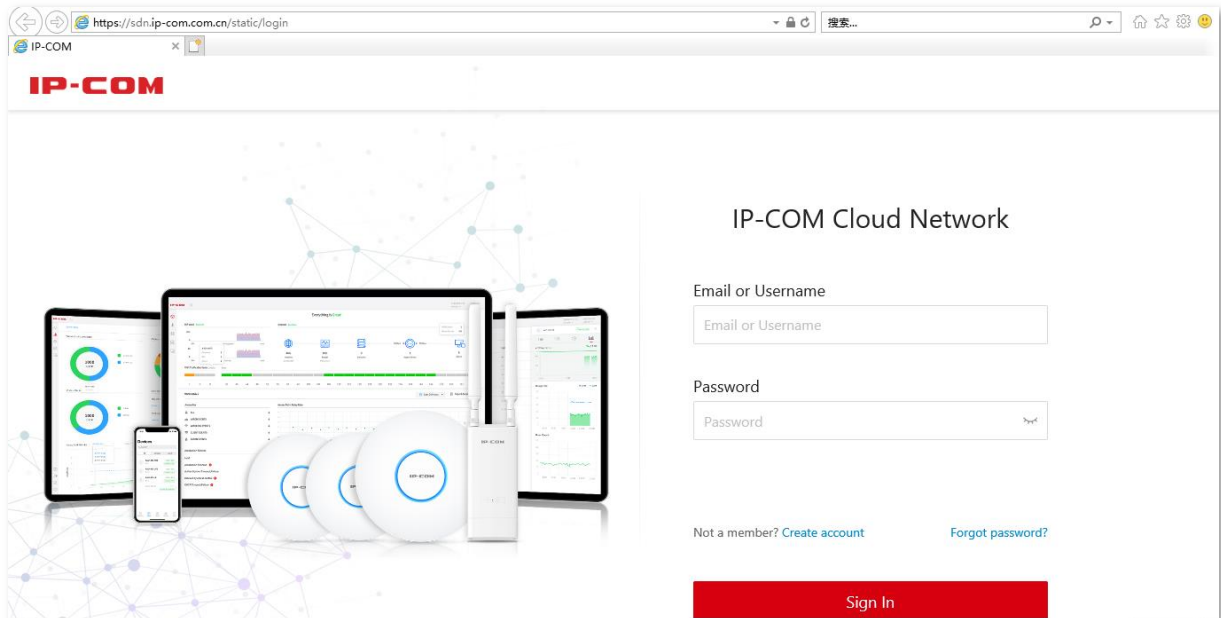
Only through an IP-COM Cloud Network account can you remotely manage your Software Controllers. If you do not have an IP-COM Cloud Network account, register one at sdn.ip-com.com.cn

1.5.1 Scenario A: You Have Logged in Using an IP-COM Cloud Network Account

To achieve remote access:

On a computer that has connected to the internet, visit sdn.ip-com.com.cn and log in to IP-COM Cloud Network using your IP-COM Cloud Network account.

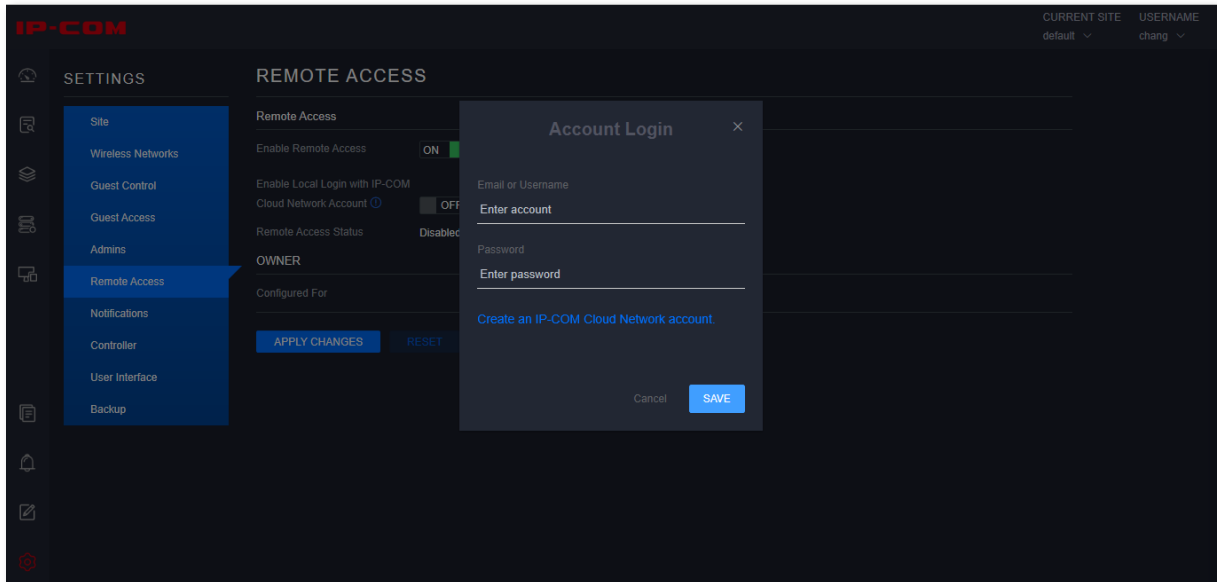
☑. You can remotely manage all the Software Controllers under this IP-COM Cloud Network account.



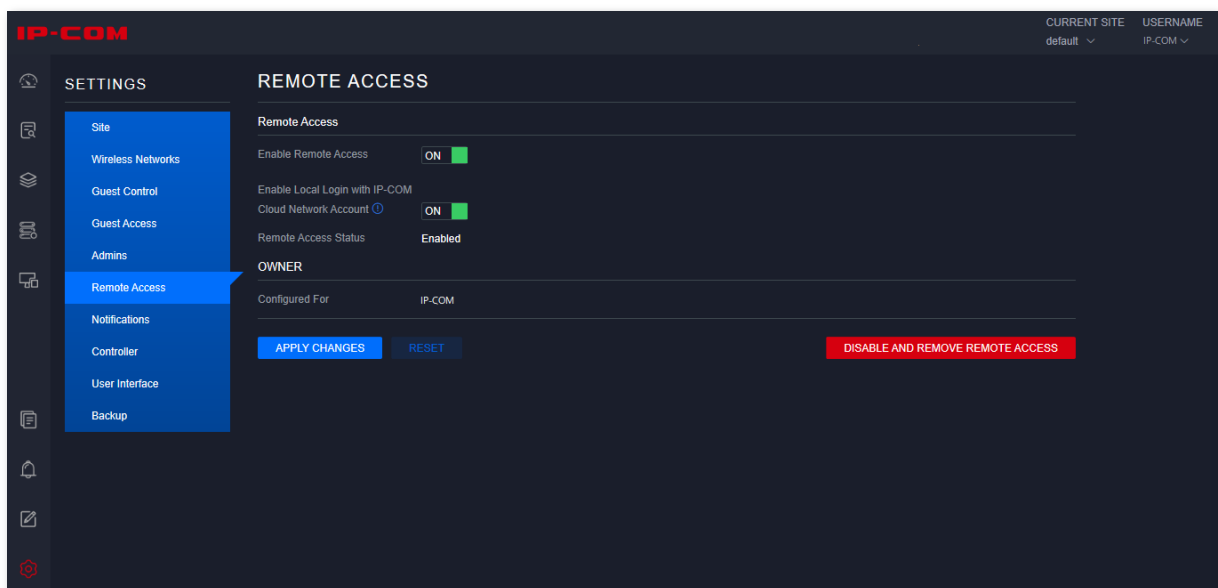
1.5.2 Scenario B: You Have Logged in Using a Local Account

To achieve remote access:

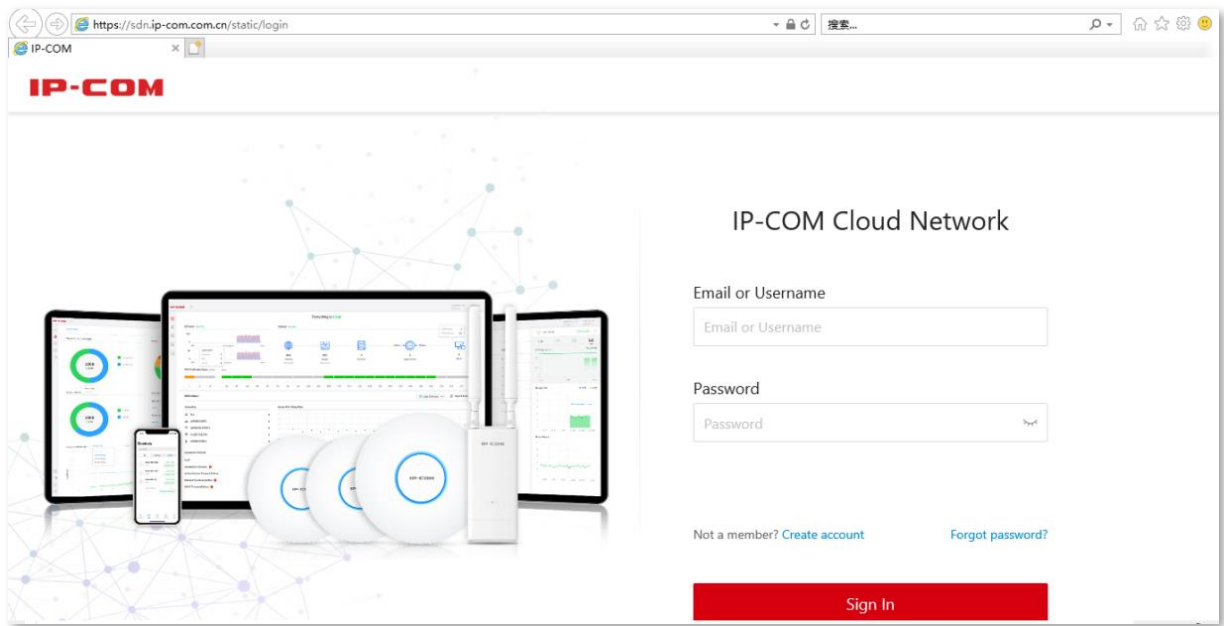
1. On the homepage of the Software Controller, go to **Settings > Remote Access**, toggle on **Enable Remote Access**, enter IP-COM Cloud Network account and password, and click **Save**.



2. If you wish to replace your local username, password, and email with those of the IP-COM Cloud Network account as of the first successful login using the IP-COM Cloud Network account, toggle on **Enable Local Login with IP-COM Cloud Network Account** and click **Apply Changes**.



3. Visit sdn.ip-com.com.cn and log in to IP-COM Cloud Network using your IP-COM Cloud Network account.



☑. You can remotely manage all the Software Controllers under this IP-COM Cloud Network account.

2 IP-COM Cloud Network

2.1 Introduction

You can access the Software Controller either via the IP-COM Cloud Network account or the Hardware Controller. This section introduces how to access the Software Controller via the Hardware Controller and the IP-COM Cloud Network account.

2.2 Hardware Controller

The Hardware Controller includes the pre-installed Software Controller.

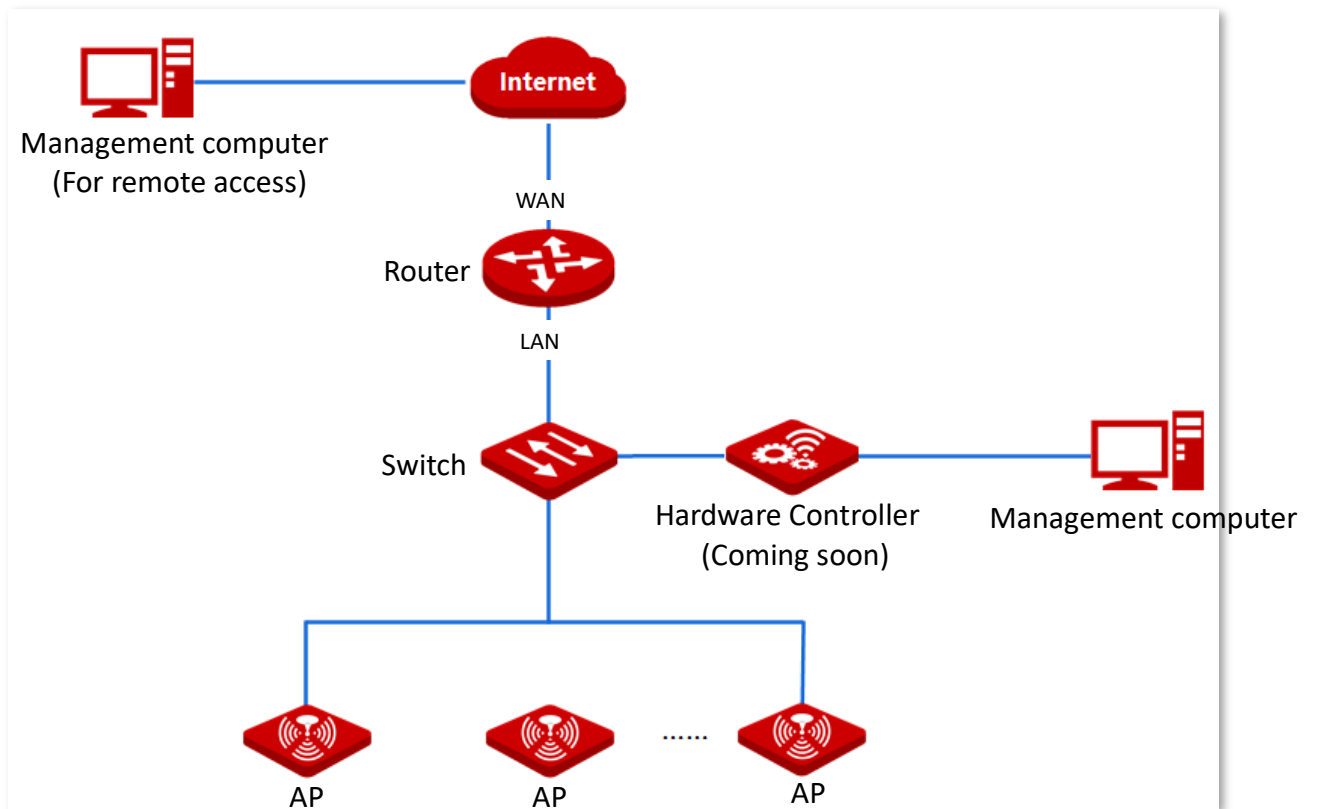
2.2.1 System Requirement

Web browsers:

- Google Chrome: Stable version officially released within the last 2 years
- Firefox: Version 60.0 or above
- Opera: Stable version officially released within the last 2 years
- Edge: Stable version officially released within the last 1 year
- IE: IE 10 or above

2.2.2 Network Topology

The Hardware Controller allows you to manage your iUAP series APs without a management station running the Software Controller.



2.2.3 Software Installation

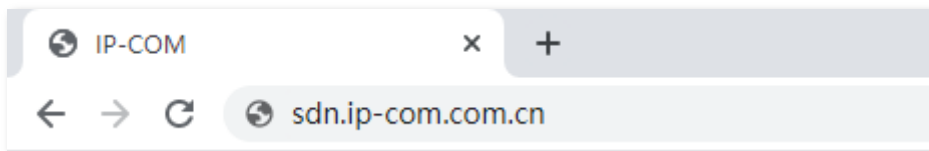
After installing the Hardware Controller, follow the instructions in the user guide of Hardware Controller to launch the included Software Controller.

2.3 IP-COM Cloud Network Account

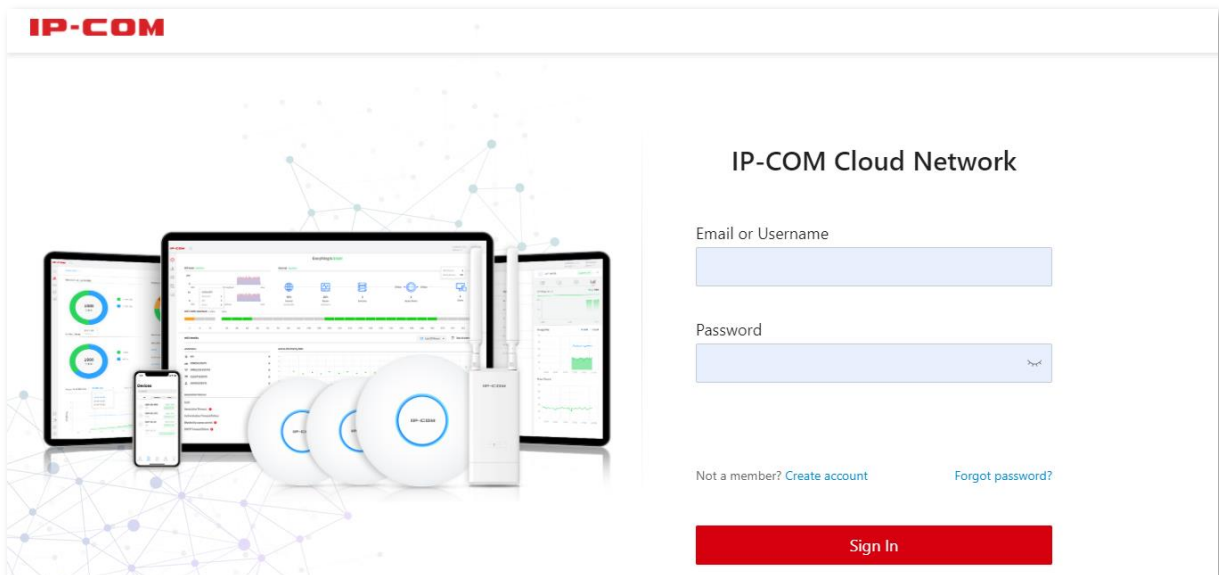
You must be a super administrator for initial cloud management. Once a super administrator enabled cloud access, then any admin can enable cloud access as well.

2.3.1 Login

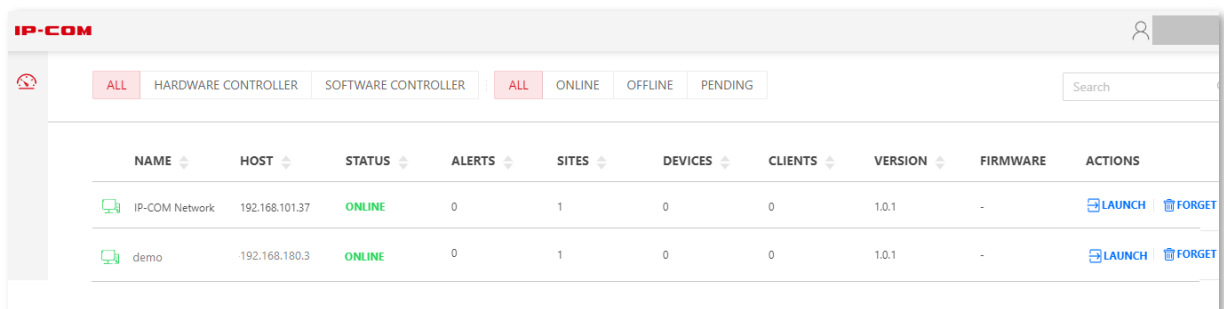
1. Launch a web browser and visit sdn.ip-com.com.cn



2. Enter your **Email or Username** and **Password**, and click **Sign In**.



A list of Software Controllers appears.



NAME	HOST	STATUS	ALERTS	SITES	DEVICES	CLIENTS	VERSION	FIRMWARE	ACTIONS
IP-COM Network	192.168.101.37	ONLINE	0	1	0	0	1.0.1	-	LAUNCH FORGET
demo	192.168.180.3	ONLINE	0	1	0	0	1.0.1	-	LAUNCH FORGET





You can apply one of the following primary filters:

- **All:** displays all controllers.
- **Hardware Controller:** displays only Hardware Controllers.
- **Software Controller:** displays only Software Controllers.

You can also apply one of the following secondary filters:

- **All:** displays all controllers.
- **Online:** displays all online controllers.
- **Offline:** displays all offline controllers.
- **Pending:** displays all pending controllers waiting for approval.

Window elements description

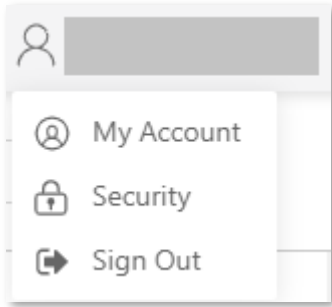
Element	Description
Search	Enter the text you want to search for in the search box and click  . You can click any column headers to change the list order.
(icon) 	It specifies the type of the device running the controller is a computer. Green indicates that the controller is online and gray indicates that the controller is offline.
Name	It specifies the name of the controller. You can click anywhere on the row where the target controller resides to get its additional details at the right side of the screen.
Host	It specifies the IP address of the host running the controller.
Status	It specifies the status of the controller. <ul style="list-style-type: none">- Online ONLINE : The controller is available.- Offline OFFLINE : The controller is not available.
Alerts	It specifies the number of alerts for the controller.
Sites	It specifies the total number of sites under the controller.
Devices	It specifies the total number of devices managed by the controller.
Clients	It specifies the total number of clients on the sites under the controller.
Version	It specifies the software version number of the Software Controller.
Firmware	It specifies the firmware version number of the Hardware Controller.
Actions	It specifies the actions you can perform on the controller. <ul style="list-style-type: none">- Launch: Click  to remotely access the controller.- Forget: Click  to remove the controller from your IP-COM Cloud Network account.

2.3.2 Admin

In the top right corner of the screen, click the account icon  to display the options:

- [My Account](#)
- [Security](#)
- [Sign Out](#)

My Account



Click **My Account** to change your profile details. See the following figure.

A 'Profile' settings window with a close button (X) in the top right corner. The window contains several input fields and dropdown menus. Under the 'Profile' section, there are fields for 'Username', 'Email', and 'Language' (set to 'English'). Under the 'Address' section, there are fields for 'Country or Territory' (set to 'UnitedStates'), 'City', 'Street Address', 'Street Address 2', 'State', and 'Postal Code'. At the bottom right, there are two buttons: 'Cancel' and 'Confirm'.

Parameter description

Parameter	Description
Profile	<p>It specifies the basic settings of your account.</p> <ul style="list-style-type: none">- Username: It specifies your login username.- Email: It specifies the email address of your IP-COM Cloud Network account.- Language: The default language is English.

Parameter	Description
Address	<p>It specifies your detailed address information.</p> <ul style="list-style-type: none"> - Country or Territory: It specifies the country or territory you reside in. - City: It specifies the city you reside in. - Street Address: It specifies the address of the street you reside on. - Street Address 2: It specifies the address of the other street you may reside on. - State: It specifies the state you reside in. - Postal Code: It specifies the postal code of your region.

Security

Click **Security** to change the duration of your session and change your account password. See the following figure.

X

Security

Password

Old Password

New Password

Confirm New Password

Session Timeout

Session Timeout

Cancel
Confirm

Parameter description

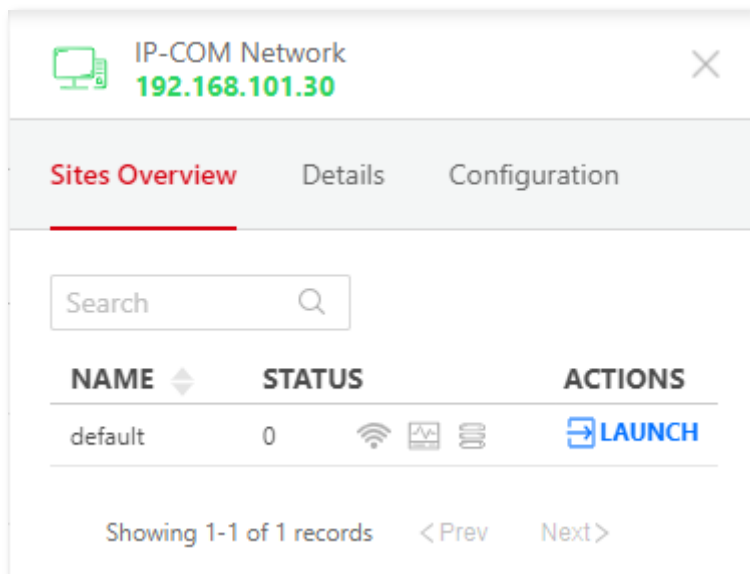
Parameter	Description
Password	It is used to change your account password. <ul style="list-style-type: none">– Old Password: It specifies the current account password.– New Password: It specifies the new account password, which should be 8 to 32 ASCII characters.– Confirm New Password: Enter the new account password again.
Session Timeout	It specifies the duration of your IP-COM Cloud Network session. If this duration is exceeded, you will be automatically logged out for security purposes.

Sign Out




Click **Sign Out** to manually sign out of the IP-COM Cloud Network account.

2.3.3 Additional Details

On the homepage of the IP-COM Cloud Network, click a Software Controller to display more information on the right side of the screen.

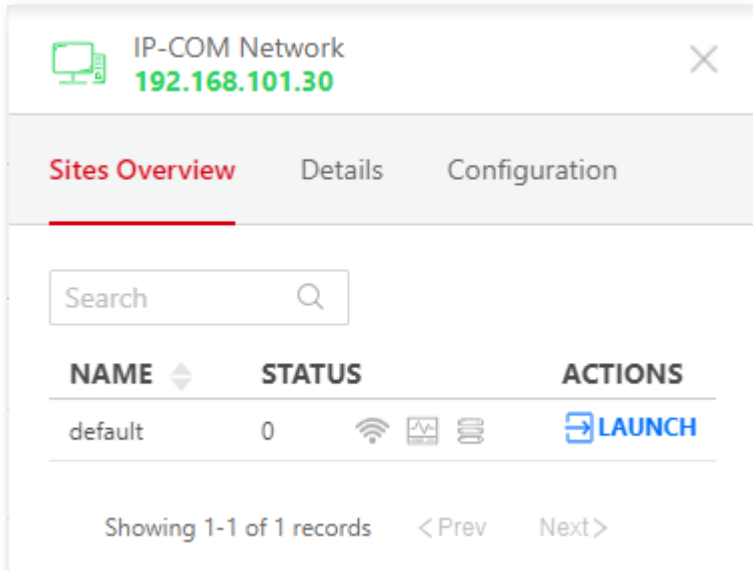


Window elements description






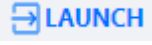
Element	Description
(icon) 	It specifies the status of the Software Controller. Green indicates that the controller is online and gray indicates that the controller is offline.
	: The Software Controller is online.
	: The Software Controller is offline.

Element	Description
(Controller name)	It specifies the name of the Software Controller.
(IP address)	It specifies the IP address of the host running the Software Controller.

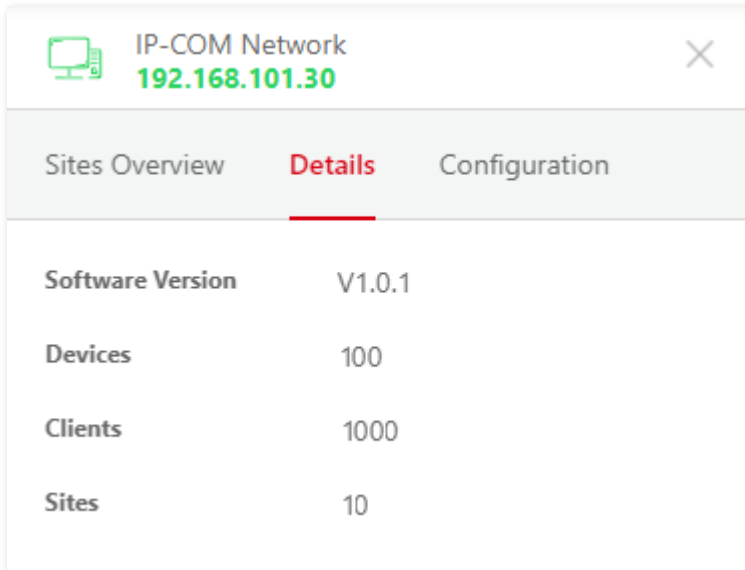
Sites Overview



Parameter description

Parameter	Description
Search	Enter the text you want to search for in the search box and click  .
Name	<p>It specifies the name of the site.</p> <p> Tip</p> <p>You can click the Name column header to change the list order.</p>
Status	<p>It specifies the number of unread alerts and the status of each network node.</p> <ul style="list-style-type: none"> - (Unread alerts): It specifies the number of unread alerts. - ( ,  , ): It specifies the status of each network node, which are wireless network, gateway, and wired network respectively. The status is indicated by color. <ul style="list-style-type: none"> • Green: indicates all the devices of the node are online. • Red: indicates all the devices of the node are offline. • Yellow: indicates some devices of the node are offline. • Gray: indicates there are no devices available.
Actions	<p>It specifies the actions you can perform on the Software Controller.</p> <p>Click  to remotely access the Software Controller.</p>

Details



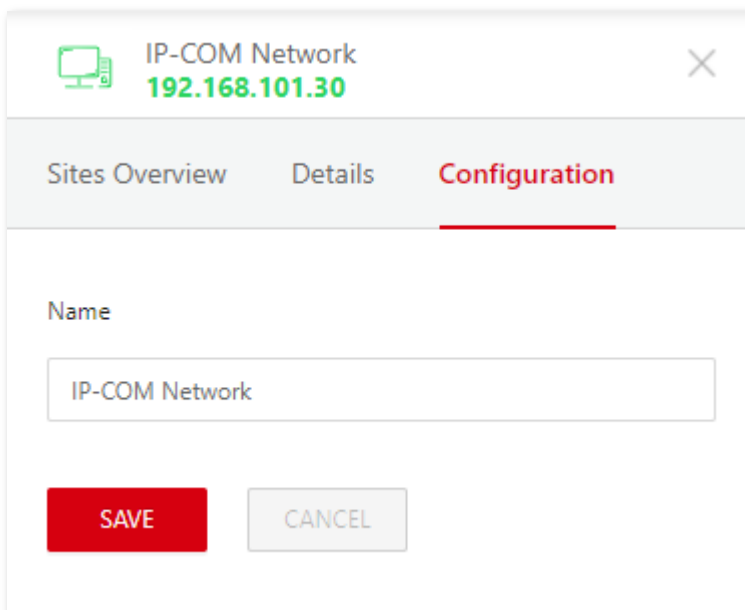
The screenshot shows a window titled "IP-COM Network" with the IP address "192.168.101.30". The window has three tabs: "Sites Overview", "Details" (which is selected and highlighted with a red underline), and "Configuration". Below the tabs is a table with the following data:

Software Version	V1.0.1
Devices	100
Clients	1000
Sites	10

Parameter description

Parameter	Description
Software Version	It specifies the software version number of the Software Controller.
Devices	It specifies the total number of devices managed by the Software Controller.
Clients	It specifies the total number of clients on the sites under the Software Controller.
Sites	It specifies the total number of sites under the Software Controller.

Configuration



The screenshot shows a window titled "IP-COM Network" with the IP address "192.168.101.30". The window has three tabs: "Sites Overview", "Details", and "Configuration" (which is selected and highlighted with a red underline). Below the tabs is a form with a "Name" label and a text input field containing "IP-COM Network". At the bottom of the form are two buttons: a red "SAVE" button and a grey "CANCEL" button.

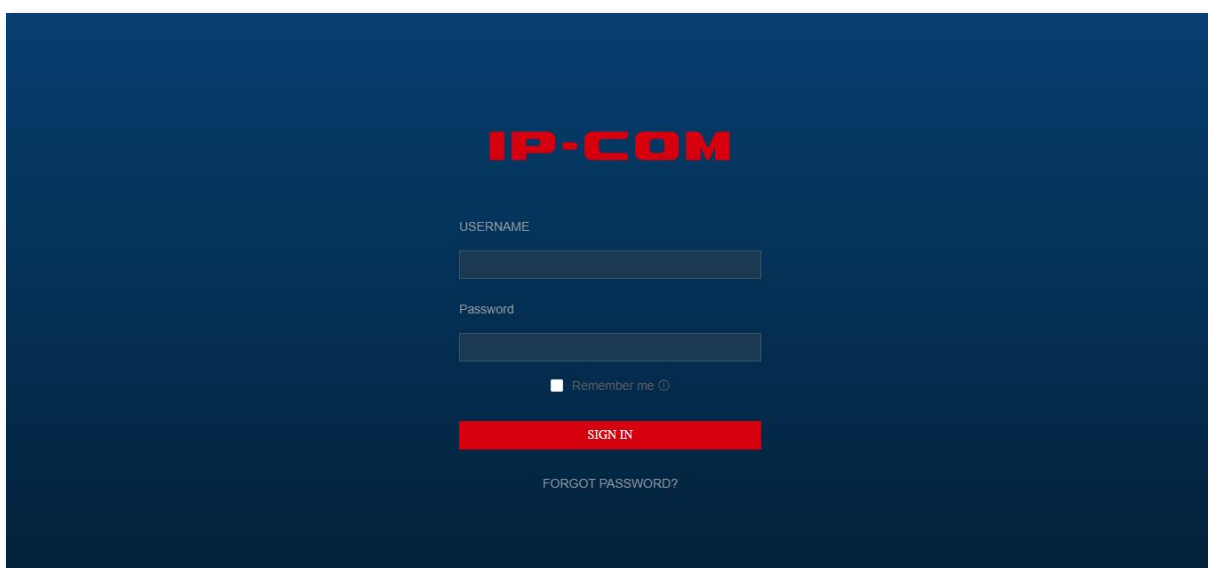
Click **Configuration** to modify the name of the Software Controller.

3 Use the Software Controller

The Software Controller allows you to manage your iUAP series APs using a web browser.

To access the page, perform the following steps:

1. Launch the Software Controller application if you have not started it. The IP-COM login screen appears.
2. Enter the username and password and click **Sign In**.



3.1 Navigation Bar

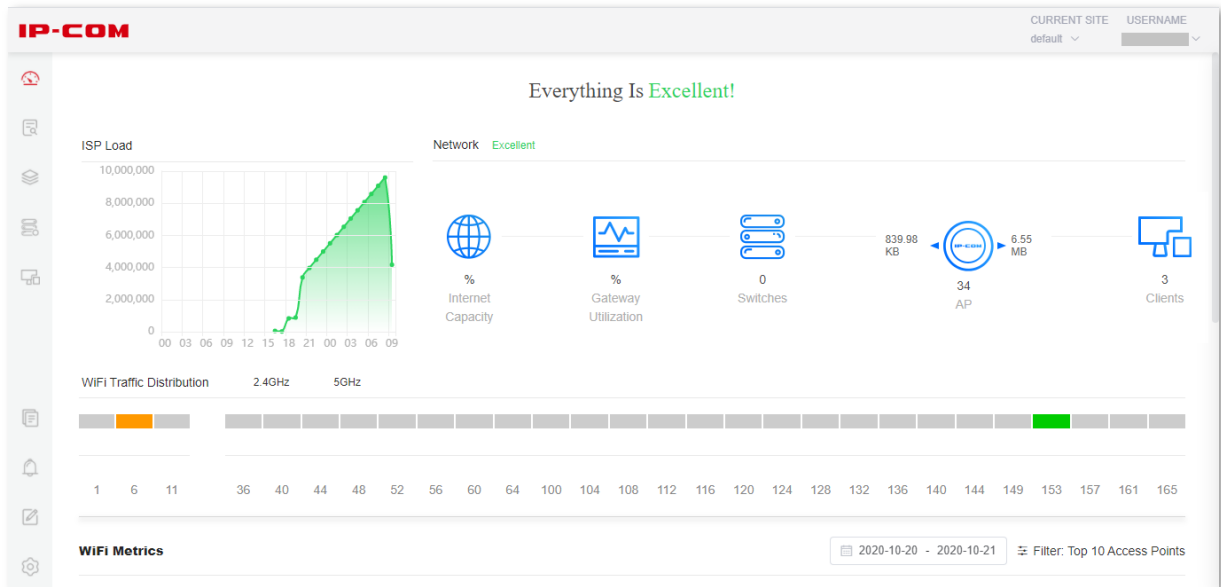
The Software Controller consists of five primary pages. This User Guide elaborates on each page with a chapter. For details on a specific page, refer to the target chapter:

- [4 Dashboard](#)
- [5 Statistics](#)
- [6 Map](#)
- [7 Devices](#)

- [9 Clients](#)

3.2 Common Interface Options

The common interface options are accessible from all tabs in the Software Controller interface.



3.2.1 Current Site

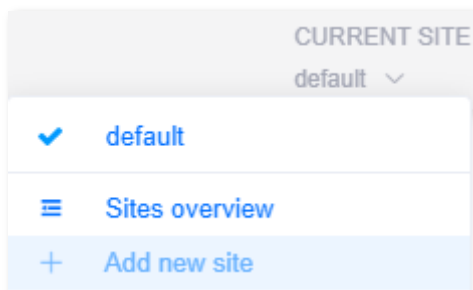
The Software Controller can manage multiple networks, which are called sites. Each site has its own configurations, maps, statistics, guest portals, and site administrator accounts. These sites are logically separated, and the initial site is called **default**.

Unless you manually switched sites, all the statistics displayed belong to the current site.

To view available sites or create a new site, click the arrow icon  to display the options:

- [Sites Overview](#)
- [Add New Site](#)

See the following figure.



Sites Overview

To view the list of available sites, click **Sites overview**. See the following figure.

Sites overview									
NAME	ALERTS	LAN ACTIVE	LAN INACTIVE	LAN PENDING	WLAN ACTIVE	WLAN INACTIVE	WLAN PENDING	WLAN CLIENTS	LAN CLIENTS
IP-COM_2	0	0	0	0	0	0	0	0	0
IP-COM_1	0	0	0	0	0	0	0	0	0
default	250	0	0	0	34	0	0	3	0

Total 3 50/page < 1 > Go to 1

Parameter description

Parameter	Description
Name	It specifies the name of the site. Click the name of the target site to enter it.
Alerts	It specifies the number of unread alerts.
LAN Active	It specifies the number of online wired devices under the site.
LAN Inactive	It specifies number of offline wired devices under the site.
LAN Pending	It specifies the number of wired devices waiting to be adopted under the site.
WLAN Active	It specifies the number of online wireless devices under the site.
WLAN Inactive	It specifies the number of offline wireless devices under the site.
WLAN Pending	It specifies the number of wireless devices waiting to be adopted under the site.
WLAN Clients	It specifies the number of wireless clients under the site.
LAN Clients	It specifies the number of wired clients under the site.

Add New Site

To create a new site, click **Add new site**. See the following figure.

Add a new site ×

Site Name

Cancel
SAVE

Parameter description

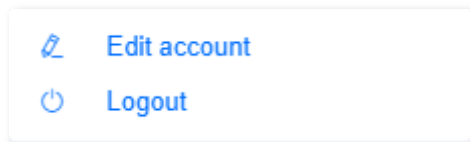
Parameter	Description
Site Name	It specifies the name of the new site. This name will be displayed in the Current Site drop-down menu.
Cancel	Click it to discard the made changes.
Save	Click it to save the made changes.

3.2.2 Username

In the upper right corner of the screen, click **Username** to display the options:

- [Edit Account](#)
- [Logout](#)

See the following figure.



Edit Account

To change the login username and password, click **Edit account**. See the following figure.

Edit account
×

Password

Name

ipcom_admin

Email

admin@ip-com.com

New Password

Confirm Password

ALERTS

Enable alert emails

Cancel

SAVE

Parameter description

Parameter	Description
Password	Enter the current password of your login account.
Name	It specifies the name of your login account and it cannot be edited.
Email	It specifies the email address of the login account and you can edit it.
New Password	Enter the new password for the login account.
Confirm Password	Enter the new password again.
Enable alert emails	Check it to enable email notifications.
Save	Click it to save the made changes.
Cancel	Click it to discard the made changes.

If you changed any items on this page (parameter **Name** is not editable), use the changed account information to log in to the Software Controller.

If you want to use your IP-COM Cloud Network account information to log in again, perform the following steps:

1. Log in using the changed account, go to **Settings > Remote Access**, toggle off **Enable Remote Access** and **Enable Local Login with IP-COM Cloud Network Account**, and click **Apply Changes**.
2. (Optional) If you logged in to the Software Controller by launching from the IP-COM Cloud Network, start the Software Controller locally and log in using the changed account. Go to **Settings > Remote Access**.
3. Toggle on **Enable Remote Access** and **Enable Local Login with IP-COM Cloud Network Account**, and click **Apply Changes**.

Done.

You can log in to the Software Controller using your IP-COM Cloud Network account and the changed account is overwritten by the IP-COM Cloud Network account.



Modifications to the **Enable alert emails** check box will not be overwritten.

Logout

To manually log out of the Software Controller, click **Logout**.

3.2.3 Properties

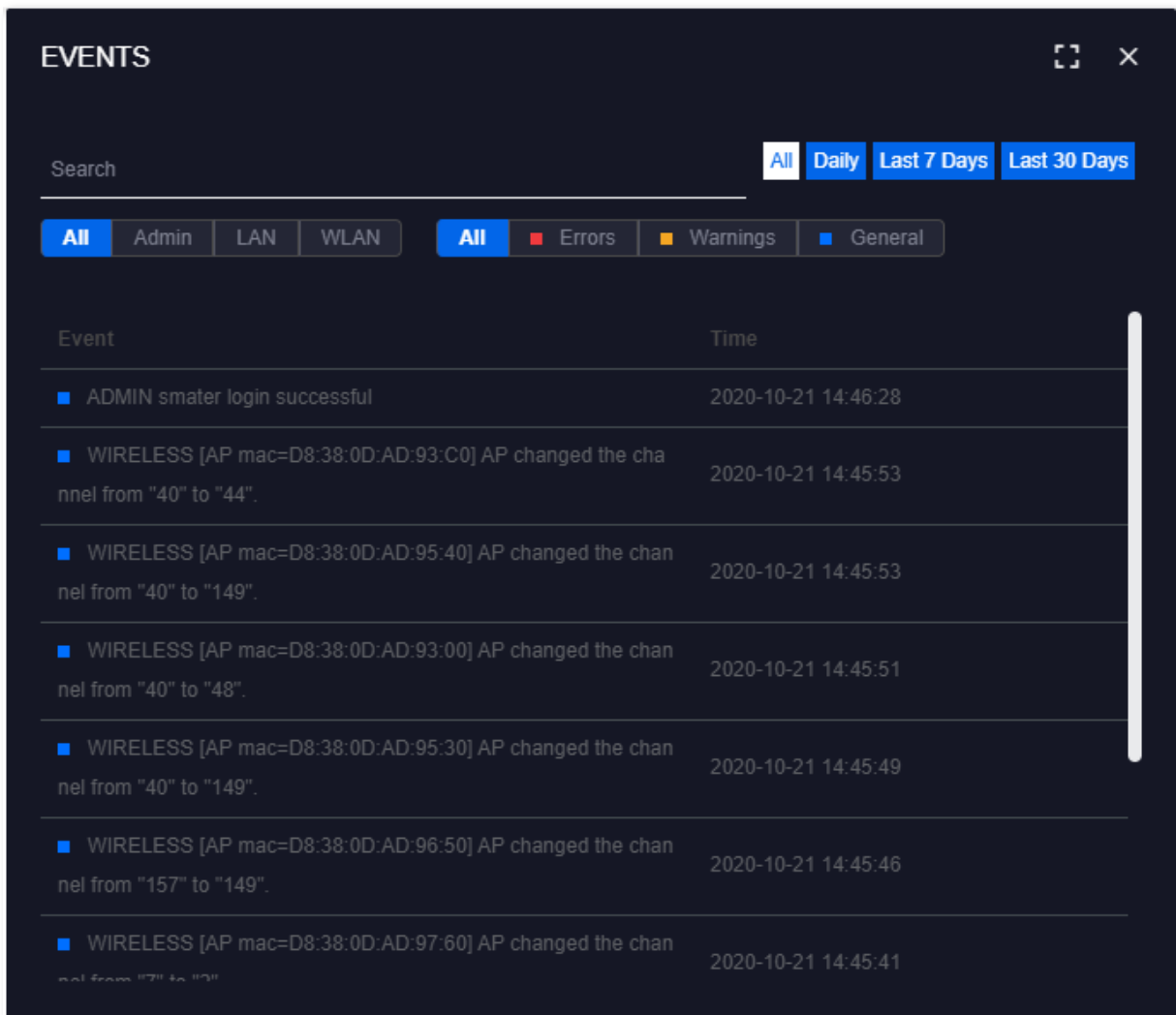
The **Properties** panel is hidden by default. To display it, select a device.

Information about each selected device appears as a popup within the panel. The displayed information varies depending on the device type. For more information, see the target chapter:





- [AP Details](#)
- [Wireless Client Details](#)

3.2.4 Events

The Events page displays a list of recent events, along with the corresponding MAC address, message, date and time. See the following figure.




Window elements description

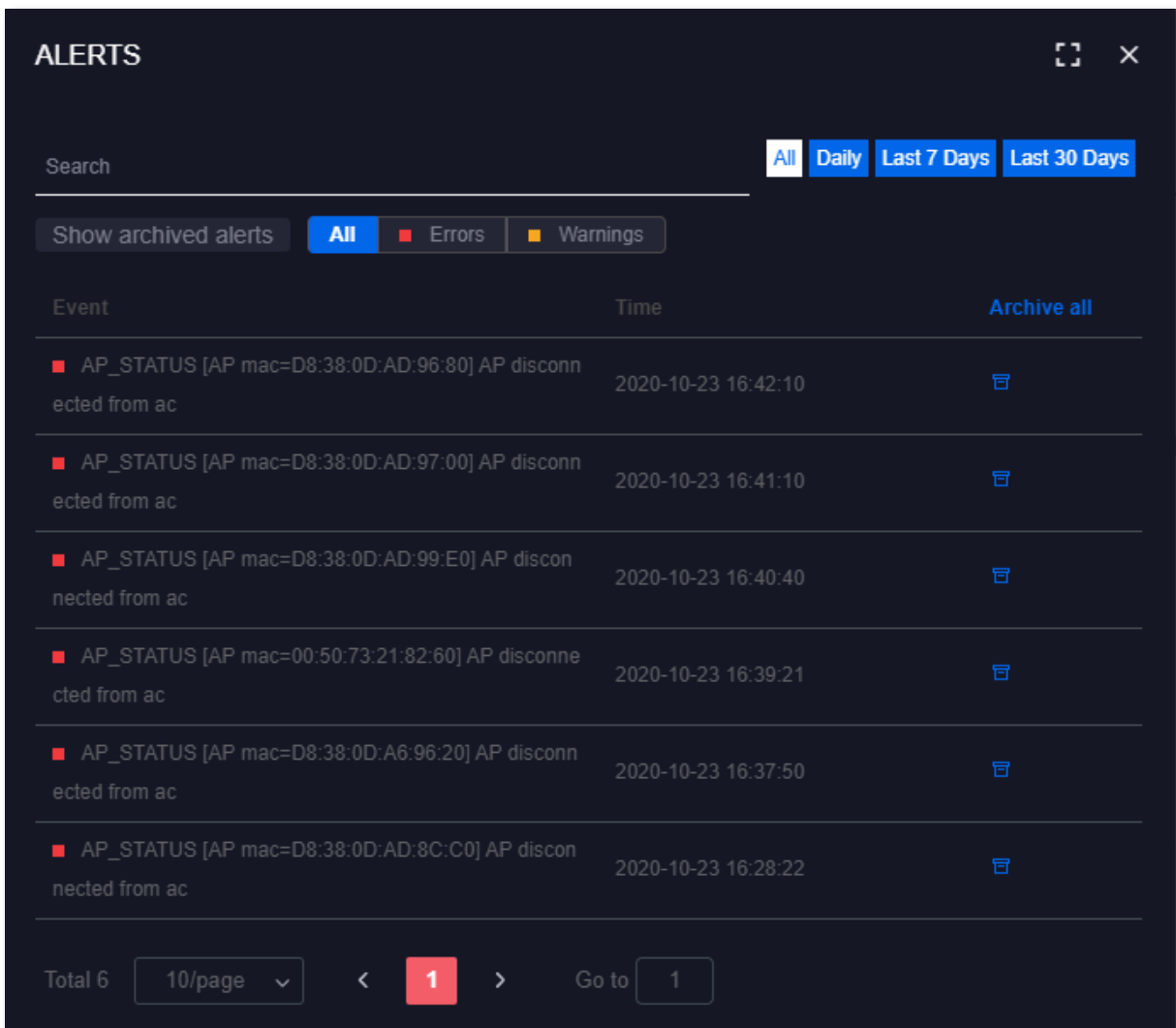
Element	Description
(Maximize/Minimize) 	Click  to maximize the screen size. Click it again to minimize the screen size.
(Close) 	Click  to close the screen.
Search	Enter the text you want to search for in the search box. Simply begin typing; there is no need to press Enter .

Element	Description
(Filter)	<p>You can apply one of the following filters to filter recent events based on the time period you specify:</p> <ul style="list-style-type: none"> - All: displays all the events. - Daily: displays recent events for a one-day duration. - Last 7 Days: displays recent events for a week's duration. - Last 30 Days: displays recent events for a month's duration. <p>You can also apply one of the following filters:</p> <ul style="list-style-type: none"> - All: displays all the recent events. - Admin: displays only the recent events for the administrator. - LAN: displays only the recent events for the wired networks. - WLAN: displays only the recent events for the wireless networks. <p>You can also apply one of the following filters:</p> <ul style="list-style-type: none"> - All: displays all the recent events. - Errors: displays only the error-level events. - Warnings: displays only the warning-level events. - General: displays only the general-level events.





3.2.5 Alerts



When there is a new alert, a red dot  appears on the alert icon.

The Alerts page displays a list of important events, along with the corresponding MAC address, message, date and time. See the following figure.



Window elements description

Element	Description
(Maximize/Minimize) 	Click  to maximize the screen size. Click it again to minimize the screen size.
(Close) 	Click  to close the screen.
Search	Enter the text you want to search for in the search box. Simply begin typing; there is no need to press Enter .

Element	Description
(Filter)	<p>You can apply one of the following filters to filter recent alerts based on the time period you specify:</p> <ul style="list-style-type: none"> - All: displays all the recent alerts. - Daily: displays recent alerts for a one-day duration. - Last 7 Days: displays recent alerts for a week's duration. - Last 30 Days: displays recent alerts for a month's duration. <p>You can also apply one of the following filters:</p> <ul style="list-style-type: none"> - All: displays all the recent alerts. - Errors: displays only the error-level alerts. - Warnings: displays only the warning-level alerts.
Show archived alerts	Click it to display only the archived alert messages.
Archive all	Click it to archive all the alert messages to the archived alert list. All the archived alerts are collected under the Show archived alerts header and deleted from the current alert list.
(Archive) 	Click  to archive the selected alert message.

3.2.6 Help Center

This page is used to seek online support. Our support staff will handle your problems within 24 hours.

To enter the page, choose **Help Center**. This page is available only to super administrators. See the following figure.

Welcome to 24/7 iUniFi support. ✕

Hi. How can we help you?

Introduce yourself *

name, Email

or sign in with

choose a Product *

AP ▾

Message *

submit

3.2.7 Settings

Site

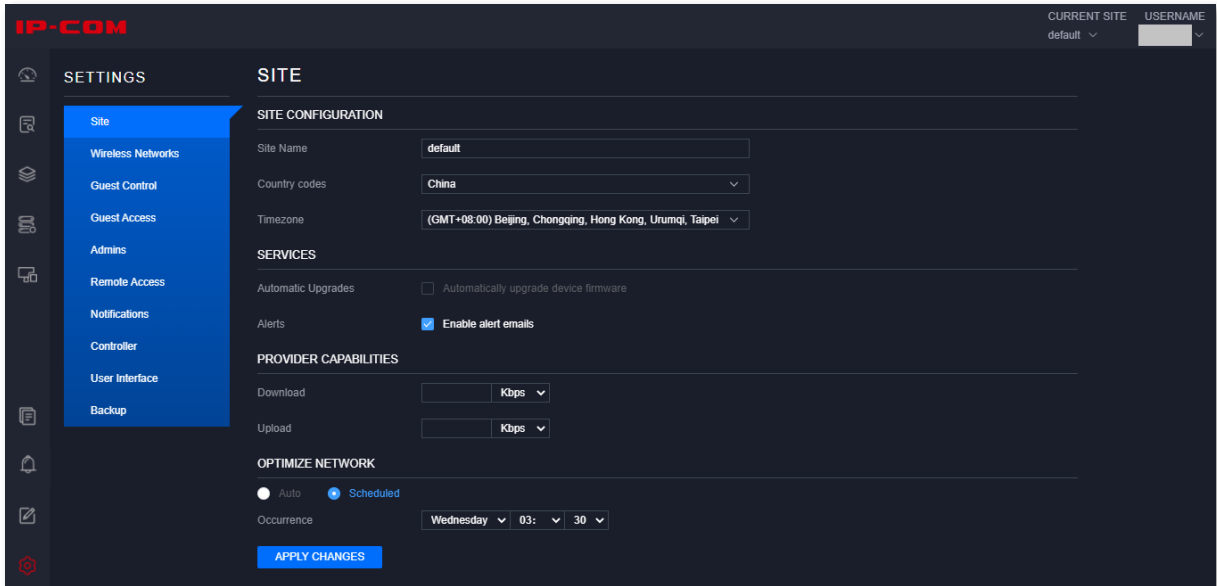
Overview

This page is used to configure the site-specific settings. To switch sites, select a different site from the **Current Site** drop-down menu in the upper right corner of any screen.

Site Configuration

This module is used to configure some basic settings of the site.

To enter the module, choose **Settings > Site**.



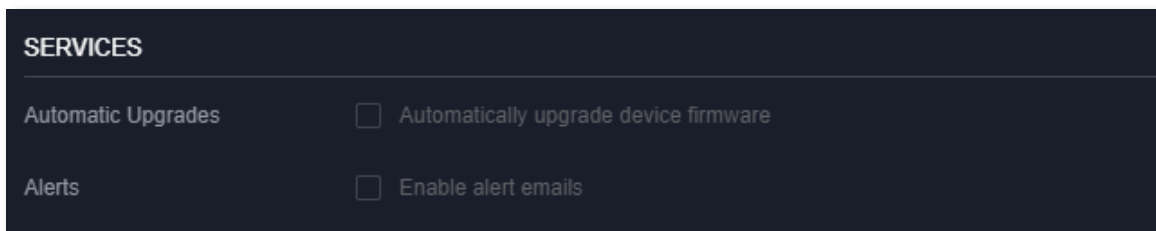
Parameter description

Parameter	Description
Site Name	Click it to change the name of the site.
Country or Territory	Click it to select the appropriate country or territory.
Timezone	Click it to select the appropriate timezone.

Services

This module is used to configure the automatic upgrade function and email alert function.

To enter the module, choose **Settings > Site**.



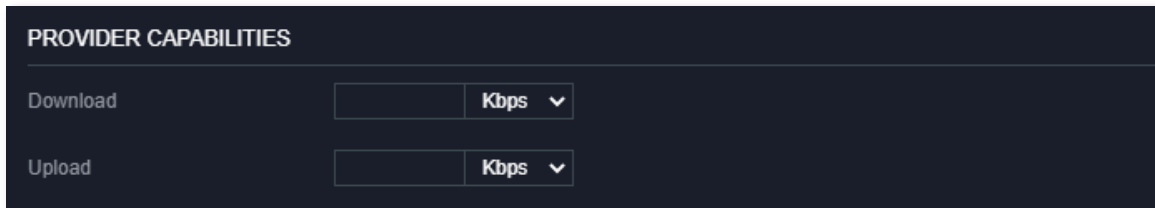
Parameter description

Parameter	Description
Automatic Upgrades	After this function is enabled, the Software Controller will automatically upgrade the firmware of your devices when a new firmware version is available.
Alerts	After this function is enabled, alert emails will be sent to the email addresses of the administrators.

Provider Capabilities

This module is used to configure the upload and download internet bandwidth.

To enter the module, choose **Settings > Site**.




PROVIDER CAPABILITIES

Download Kbps ▾

Upload Kbps ▾

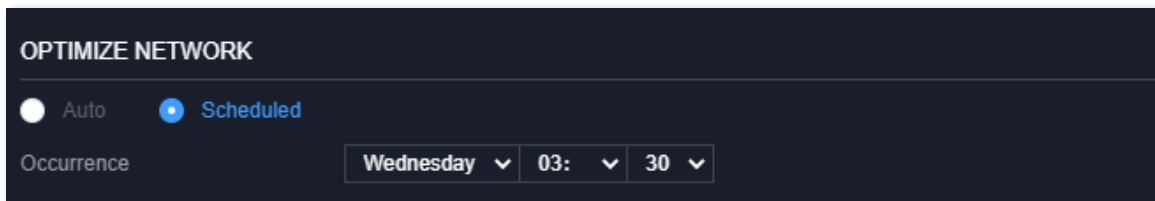
Parameter description

Parameter	Description
	It specifies the download/upload bandwidth of your bandwidth package.
Download/Upload	 Tip
	This function is not supported in this version .

Optimize Network

This module is used to configure network optimization settings.

To enter the module, choose **Settings > Site**.



OPTIMIZE NETWORK

Auto Scheduled

Occurrence

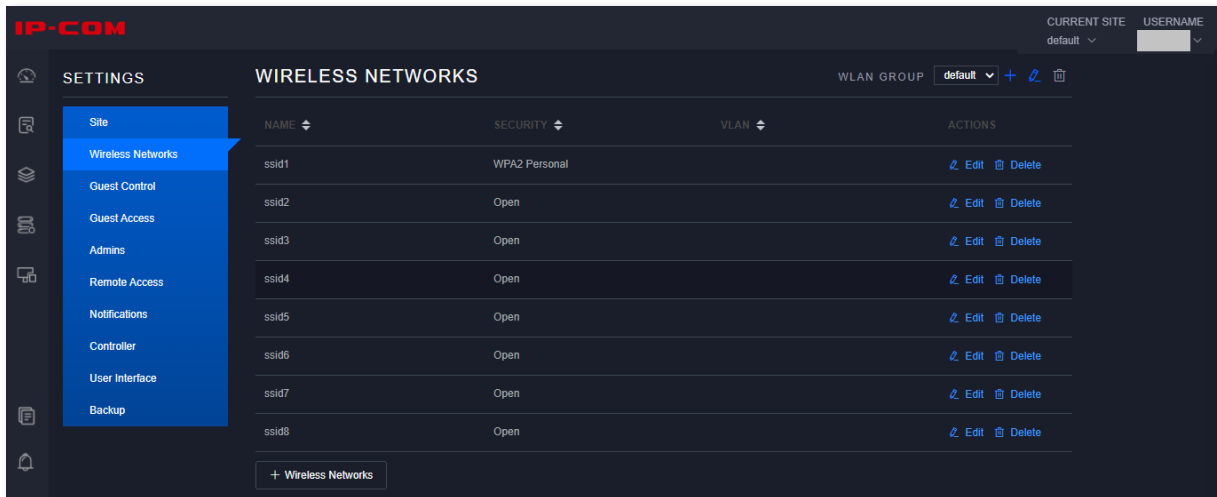
Parameter description

Parameter	Description
Optimize Network	<ul style="list-style-type: none">- Auto: If you choose this option, the Software Controller will automatically optimize your networks. Click Enable Auto Optimization to start the auto optimization process.- Scheduled: If you choose this option, the Software Controller will optimize your networks at the time point you specified. Select the time point when you want network optimization to occur in the Occurrence drop-down menu.
Apply Changes	Click it to save the made changes.
Reset	Click it to discard the made changes and restore to the default settings.
Delete Site	Click it to delete the site.






Wireless Networks

This page is used to configure wireless networks for the selected site. You can add up to eight wireless networks per WLAN group.


To enter the page, choose **Settings > Wireless Networks**.



Parameter description

Parameter	Description
WLAN Group	<p>Click the drop-down menu to select the target WLAN group. The default WLAN group is created by default.</p> <ul style="list-style-type: none"> Click  to add a new WLAN group. Click  to edit the current WLAN group. Click  to delete the current WLAN group.
Name	It specifies the wireless network name (SSID).
Security	It specifies the encryption type of the wireless network.
VLAN	It specifies the VLAN ID of the wireless network.
Actions	<p>It specifies the actions you can perform on the wireless networks.</p> <ul style="list-style-type: none"> Click  Edit to edit the wireless network. Click  Delete to delete the wireless network.
+ Wireless Networks	Click it to add a new wireless network. You can add up to eight wireless networks for each WLAN group.

Create New WLAN Group


To create a new WLAN group, click  in the upper right corner of the screen. See the following figure.

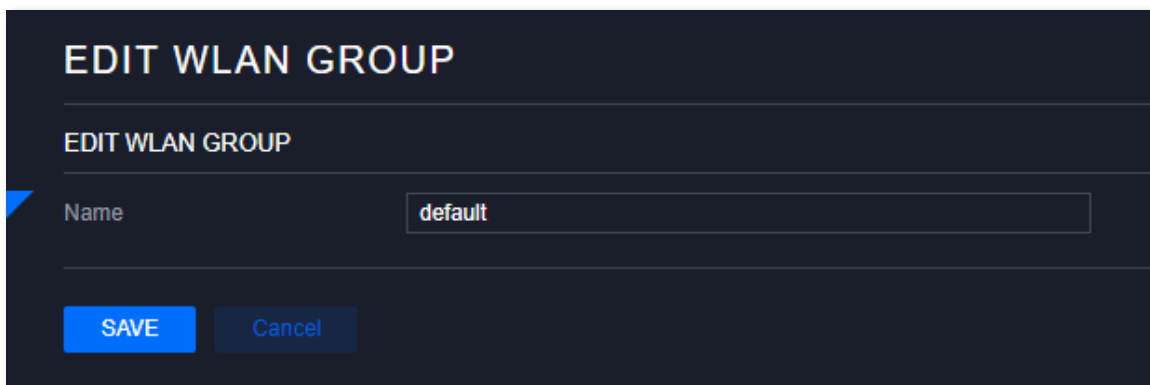


Parameter description

Parameter	Description
Name	It specifies the name of the new WLAN group. It should be 1 to 32 bytes in length and composed of uppercase or lowercase letters, digits, or underscores.
Save	Click it to save the made changes.
Cancel	Click it to discard the made changes.

Edit WLAN Group

To edit the created WLAN group, click  in the upper right corner of the screen. See the following figure.



Parameter description

Parameter	Description
Name	Enter the new name. It should be 1 to 32 bytes in length and composed of uppercase or lowercase letters, digits, or underscores.
Save	Click it to save the made changes.
Cancel	Click it to discard the made changes.

Create New Wireless Network

To add a new wireless network, click **+ Wireless Networks**. See the following figure.

CREATE NEW WIRELESS NETWORK

CREATE NEW WIRELESS NETWORK

Name/SSID

Enabled Enable this wireless network

Security Open WEP WPA Personal WPA2 Personal

VLAN Use VLAN

Fast Roaming Enable fast roaming

Hide SSID Prevent this SSID from being broadcast

Combine Name/SSID Combine 2 GHz and 5 GHz WiFi Network Names into one

5G Priority Enable 5G priority

Parameter description

Parameter	Description
Name/SSID	It specifies the wireless network name (SSID).
Enabled	Check it to make the wireless network active.
Security	It specifies the encryption type of the wireless network. The encryption types include Open , WEP , WPA Personal , and WPA2 Personal .
VLAN	After this function is enabled, IEEE 802.1q VLAN is applied. Enter the VLAN ID in the neighboring box.
Fast Roaming	After this function is enabled, the AP automatically switches connected clients with low RSSI to other APs with a better signal.
Hide SSID	After this function is enabled, this SSID will not be broadcast. The wireless network does not appear in the available network list on such clients as smartphones, and this enhances the security of the wireless network. If you want to connect to a hidden wireless network, manually enter the SSID of the wireless network on your devices.
Combine Name/SSID	After this function is enabled, the 2.4 GHz wireless network name (SSID) and the 5 GHz wireless network name (SSID) are combined into one. Only one wireless network name (SSID) is displayed. The AP will automatically select the optimum frequency for you whenever you connect to the wireless network.
5G Priority	After this function is enabled, dual-band wireless clients will be connected to the 5 GHz wireless network (SSID) by priority if both the 2.4 GHz and 5 GHz wireless networks are available. In this way, clients are moved onto the 5 GHz band, and load and interference on the 2.4 GHz band are also reduced, improving user experience.

Parameter	Description
Save	Click it to save the made changes.
Cancel	Click it to discard the made changes.

Security Mode

A wireless network uses radio, which is open to the public, as its data transmission medium. If the wireless network is not protected by necessary measures, any client can connect to the network to use the resources of the network or access unprotected data over the network. To ensure communication security, transmission links of wireless networks must be encrypted for protection.

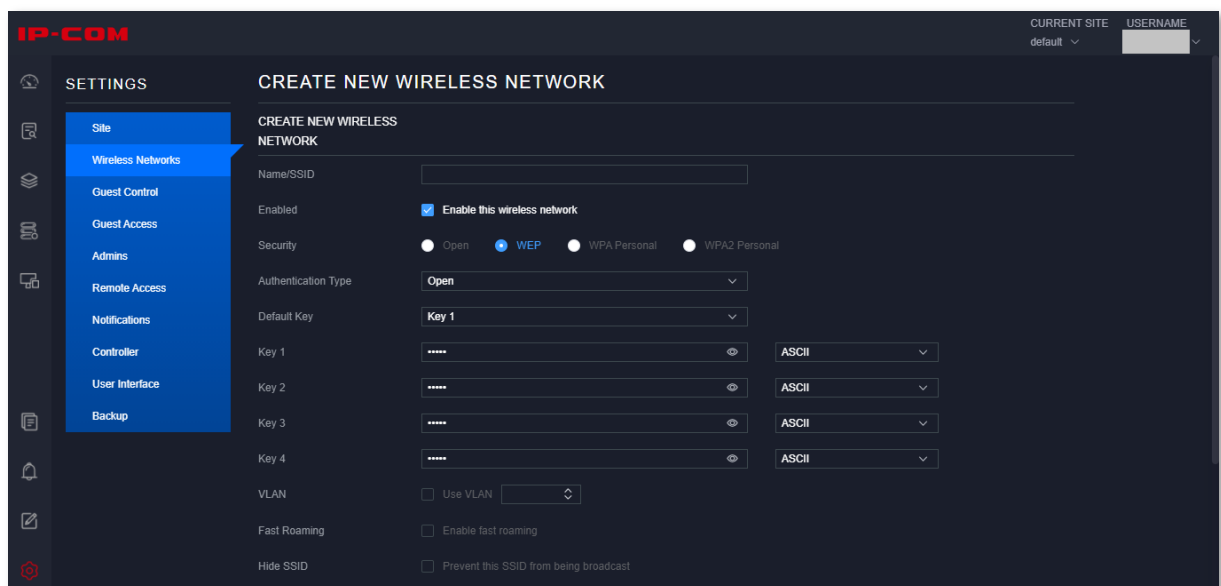
The Software Controller supports various security modes for network encryption, including **Open**, **WEP**, **WPA Personal**, and **WPA2 Personal**.

■ Open

It indicates that any wireless device can connect to the WiFi network. This option is not recommended because it leads to network insecurity.

■ WEP

It uses a static key to encrypt all exchanged data, and ensures that a WLAN has the same level of security as a wired LAN. However, data encrypted based on WEP can be easily cracked. In addition, WEP supports a maximum WiFi network throughput of only 54 Mbps. Therefore, this security mode is not recommended.



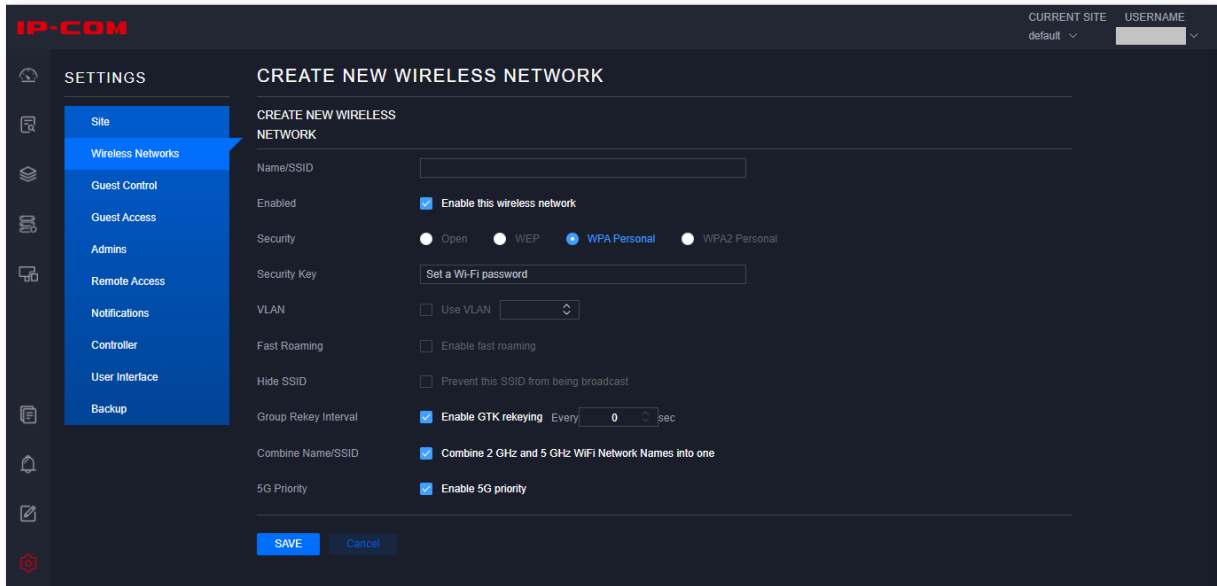
Parameter description

Parameter	Description
Authentication Type	<p>It specifies the authentication type for the WEP security mode. The options include Open and Shared. The options share the same encryption process.</p> <ul style="list-style-type: none">– Open: It specifies that authentication is not required and data exchanged is encrypted with WEP. In this case, a wireless client can connect to the wireless network corresponding to the selected SSID without being authenticated, and the data exchanged between the client and the network is encrypted in WEP security mode.– Shared: It specifies that a shared key is used for authentication and data exchanged is encrypted with WEP. In this case, a wireless client must use a preset WEP key to connect to the wireless network corresponding to the selected SSID. The wireless client can be connected to the wireless network only if they use the same WEP key.
Default Key	<p>It specifies the WEP key for the current wireless network.</p> <p>For example, if Default Key is set to Key 2, a wireless client can connect to the wireless network corresponding to the selected SSID only with the password specified by Key 2.</p>
Key 1/2/3/4	<p>4 WEP keys are allowed at the same time, but only the one specified by the Default Key is valid. The key type includes ASCII and Hexadecimal.</p> <ul style="list-style-type: none">– ASCII: 5 or 13 ASCII characters are allowed in the key.– Hex: 10 or 26 hexadecimal characters (range: 0-9, a-f, and A-F) are allowed in the key.
Group Rekey Interval	<p>After this function is enabled, the GTK (Group Temporal Key) will be updated after the interval specified in seconds. The default value is 0 seconds, which indicates that the GTK is not updated.</p>

■ WPA Personal and WPA2 Personal

They belong to pre-shared key or personal key modes.

WPA Personal and WPA2 Personal adopt a pre-shared key for authentication, while the AP generates another key for data encryption. This prevents the vulnerability caused by static WEP keys, and makes the three security modes suitable for ensuring security of home WiFi networks. Nevertheless, because the initial pre-shared key for authentication is manually set and all devices use the same key to connect to the same AP, the key may be disclosed unexpectedly. This makes the security modes not suitable for scenarios where high security is required.



Parameter description

Parameter	Description
Security	<p>It specifies the personal or pre-shared key security mode, including WPA Personal and WPA2 Personal.</p> <ul style="list-style-type: none"> – WPA Personal: It indicates that the wireless network corresponding to the selected SSID is encrypted with WPA Personal. – WPA2 Personal: It indicates that the wireless network corresponding to the selected SSID is encrypted with WPA2 Personal.
Security Key	It specifies the password users use to connect to the wireless network.
Group Rekey Interval	After this function is enabled, the GTK (Group Temporal Key) will be updated after the interval specified in seconds. The default value is 0 seconds, which indicates that the GTK is not updated.

Guest Control

Overview

This page is used to set guest control rules for clients connecting to your wireless networks. The guest control function is disabled by default. When this function is disabled, clients can directly connect to the internet without performing any operation.

The guest control function is not supported [in this version](#).

The Software Controller supports 5 types of authentication, including [No authentication](#), [Simple password](#), [Hotspot](#), [Facebook WiFi](#), and [External portal server](#).

■ No authentication

When a user connects to a wireless network with guest control rules applied and visits a webpage, the browser will automatically redirect to the authentication portal. The user needs to click **Connection** on the authentication portal to gain internet access.



The no authentication type helps increase traffic to your webpage and enhance your publicity.

■ **Simple password**

When a user connects to a wireless network with guest control rules applied and visits a webpage, the browser will automatically redirect to the authentication portal. The user needs to enter the guest password and click **Connection** on the authentication portal to gain internet access.

■ **Hotspot**

When a user connects to a wireless network with guest control rules applied and visits a webpage, the browser will automatically redirect to the authentication portal. The possible portals include:

- **Guest Access** portal. In this case, the user needs to enter the username and password set in the **Guest Access** page and click **Connection** on the authentication portal to gain internet access.
- **Social login** portal. In this case, the user needs to click  or  on the authentication portal and follow the on-screen instructions to gain internet access.

■ **Facebook WiFi**

The Facebook WiFi authentication type is not available [in this version](#).

The Facebook WiFi authentication type requires Facebook interconnection. Please refer to **Software Controller FAQ > How to configure Facebook WiFi authentication** available at <https://www.ip-com.com.cn/en/product/download/SoftwareController.html>

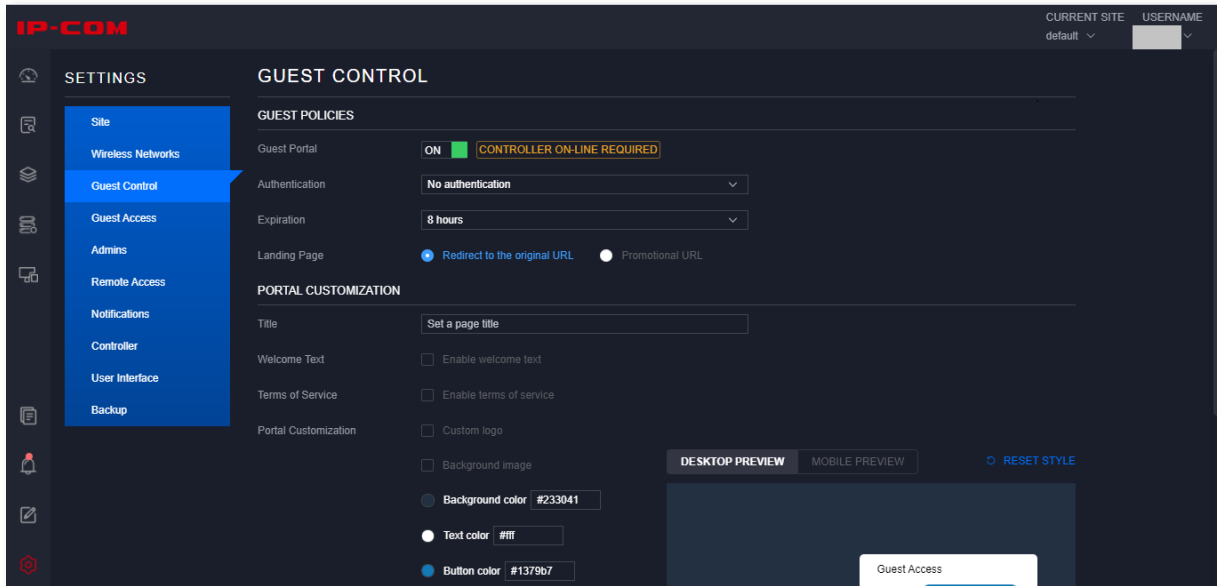
■ **External portal server**

When a user connects to a wireless network with guest control rules applied and visits a webpage, the browser will automatically redirect to the authentication portal hosted by the external server. The user needs to follow the on-screen instructions to gain internet access.

Guest Policies

This module is used to select the authentication type and configure the related parameters.

To enter the module, choose **Settings > Guest Control**. The following figure displays the page when Guest Control function is enabled.



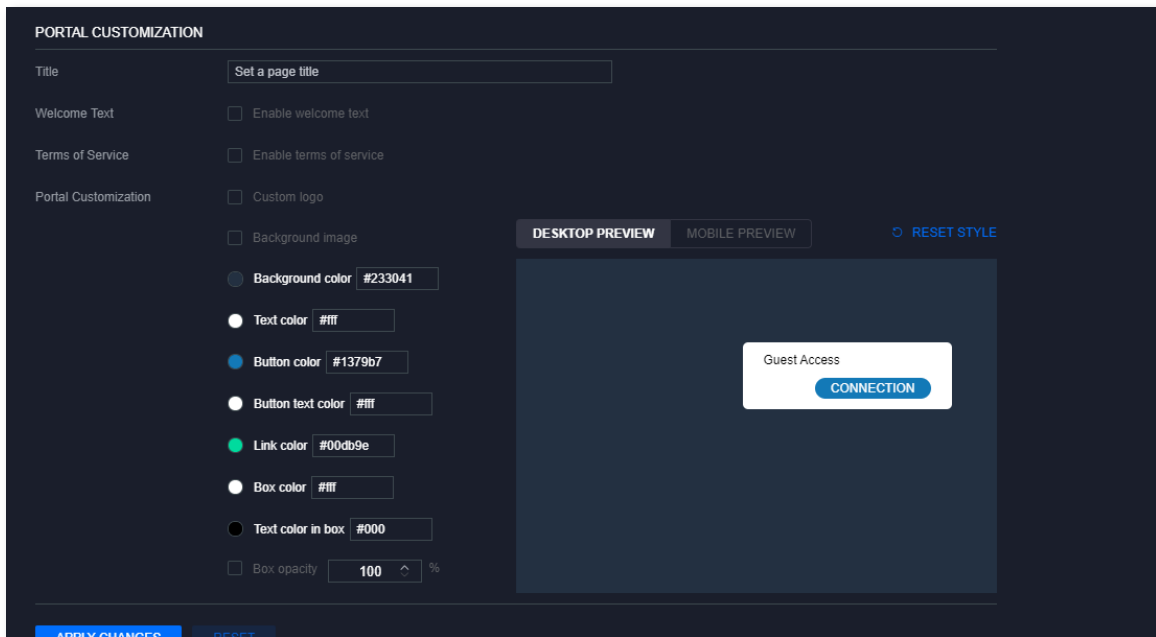
Parameter description

Parameter	Description
Guest Portal	After this function is enabled, you can customize the guest portal to set guest control rules.
Authentication	After you enable Guest Portal, the authentication options will appear. You can also choose to require Enable terms of service . In this case, users will need to accept the terms of service and click Connection to gain internet access. Authentication options include: No authentication , Simple password , Hotspot , Facebook WiFi , and External portal server .
Guest Password	This parameter is available only when Authentication is set to Simple password . It specifies the password users have to enter to gain internet access.
Custom Portal	This parameter is available only when Authentication is set to External portal server . It specifies the IP address of the server that offers the authentication service.
Expiration	It specifies the guest login expiration after a specified period of time. After this period is surpassed, the user will need to re-authenticate to gain internet access.
Landing Page	It specifies the page users are redirected to after passing the authentication. <ul style="list-style-type: none"> – Redirect to the original URL: Users are redirected to the URL they visited before the authentication. – Promotional URL: Users are redirected to the URL you specify here.

Portal Customization

This module is used to customize the related authentication portal.

To enter the module, choose **Settings > Guest Control**. The following figure displays the page when Guest Control function is enabled.



Parameter description

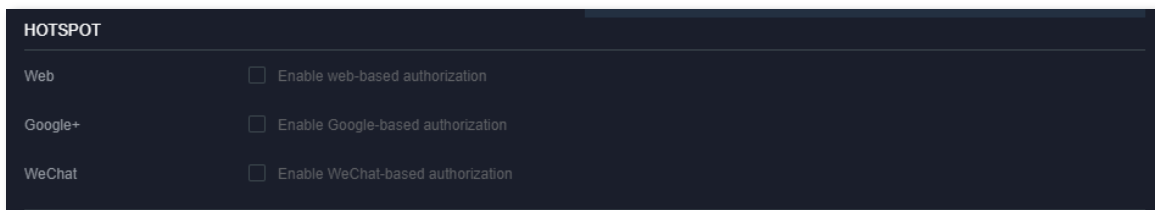
Parameter	Description
Title	It specifies the title of your guest portal.
Welcome Text	Check Enable welcome text to add a welcome message. You can click Edit to edit your welcome message.
Terms of Service	Check Enable terms of service to add a terms of service you want users to accept. You can click Edit to edit your terms of service.
Custom logo	Click Upload image and upload the logo you want to use on the guest portal.
Background image	Click Upload image and upload the background image you want to use on the guest portal.
Background color	Click the circle icon before Background color and choose the color you want to display on the background of the guest portal.
Text color	Click the circle icon before Text color and choose the color you want to use on the text on the guest portal.
Button color	Click the circle icon before Button color and choose the color you want to use on the button on the guest portal.
Button text color	Click the circle icon before Button text color and choose the color you want to use on the button text on the guest portal.
Link color	Click the circle icon before Link color and choose the color you want to use on the link on the guest portal.
Box color	Click the circle icon before Box color and choose the color you want to use on the box on the guest portal.
Text color in box	Click the circle icon before Text color in box and choose the color you want to use on the text in box on the guest portal.
Box opacity	Click Box opacity to change the opacity of the box background color.

Parameter	Description
Desktop Preview	This preview mode is enabled by default. It displays the portal in the desktop view.
Mobile Preview	This preview mode displays the portal in the mobile view.
Reset Style	Click it to reset portal customization changes to the default settings.
Apply Changes	Click it to save the made changes.
Reset	Click it to discard the made changes and restore to the default settings.

Hotspot

This module is used to choose the nested hotspot authorization, including web, Google+, and WeChat.

To enter the module, choose **Settings > Guest Control**. The following figure displays the page when Guest Control function is enabled and **Authentication** is set to **Hotspot**.



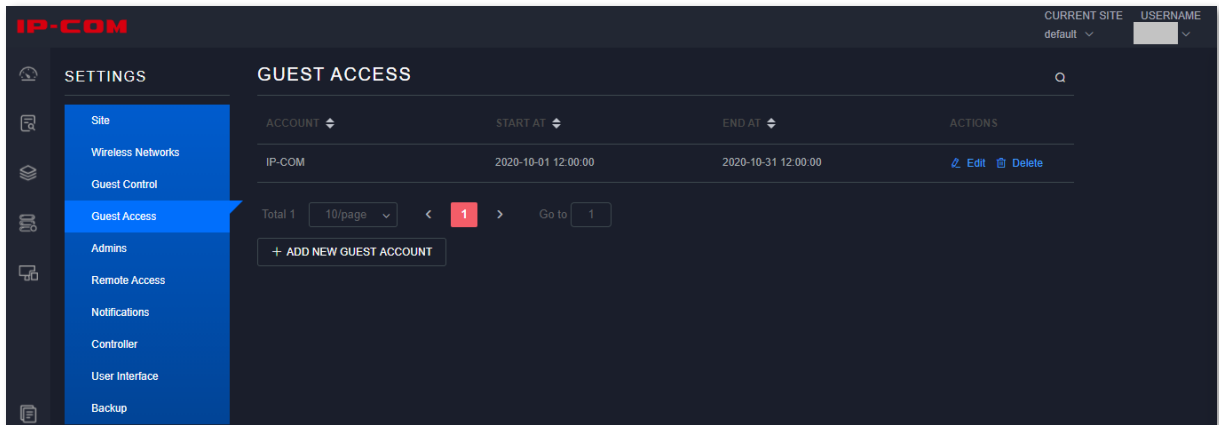
Parameter description

Parameter	Description
Web	This parameter is available only when Authentication is set to Hotspot . Click Enable web-based authorization to enable this authorization type. After this authorization is enabled, users will have to enter the guest access username and password to gain internet access.
Google+	This parameter is available only when Authentication is set to Hotspot . Click Enable Google-based authorization to enable this authorization type. After this authorization is enabled, users will have to log in via Google to gain internet access.
WeChat	This parameter is available only when Authentication is set to Hotspot . Click Enable WeChat-based authorization to enable this authorization type. After this authorization is enabled, users will have to log in via WeChat to gain internet access.
Apply Changes	Click it to save the made changes.
Reset	Click it to discard the made changes and restore to the default settings.



Guest Access

This page is used to set web-based authorization rules, including setting guest access username, password, bandwidth limit, duration, connection limit, number of shared users and so on.

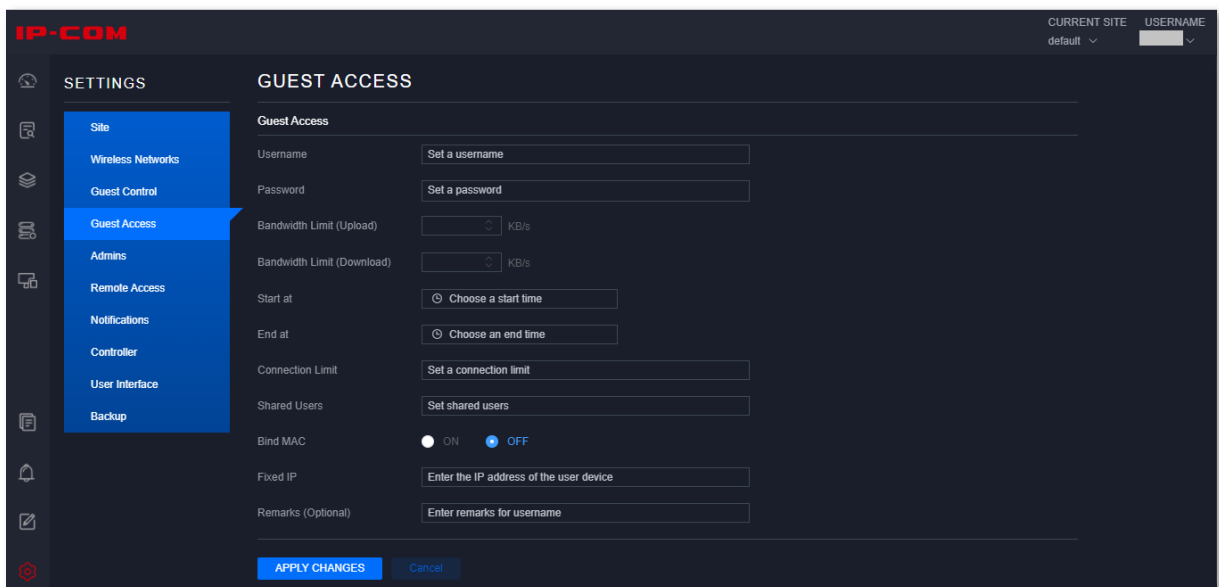
To enter the page, choose **Settings > Guest Access**. The following figure displays the page when a guest access rule is added manually.



Parameter description

Parameter	Description
Account	It specifies the guest access account name.
Start At	It specifies the time point when this guest access account starts being valid.
End At	It specifies the time point when this guest access account stops being valid.
Actions	It specifies the actions you can perform on the guest access rule. <ul style="list-style-type: none"> Click  Edit to edit the guest access rule. Click  Delete to delete the guest access rule.

Click **+ Add New Guest Account** to create a new guest access rule. See the following figure.



Parameter description

Parameter	Description
Username/Password	It specifies the username/password users have to enter to gain internet access when web-based authorization is enabled.
Bandwidth Limit (Upload)	It specifies the maximum bandwidth the user is allowed to use for upload.
Bandwidth Limit (Download)	It specifies the maximum bandwidth the user is allowed to use for download.
Start at	It specifies the time point when this guest access rule starts being valid.
End at	It specifies the time point when this guest access rule stops being valid.
Connection Limit	It specifies the maximum number of concurrent connections can be established.
Shared Users	It specifies the number of users that are allowed to gain internet access using this guest account.
Bind MAC	After this function is enabled, only the user device with the specified MAC address can access the internet using this guest account. This function is disabled by default.
MAC Address	This parameter is available only when Bind MAC is ON . It specifies the MAC address of the user device that can access the internet using this guest access account.
Fixed IP	It specifies the IP address of the user device that can access the internet using this guest access account. If you enabled the Bind MAC function as well, then only the user device with both the specified MAC address and fixed IP address can use this guest access account to gain internet access.
Remarks	It specifies the remarks you set for this guest access account. This parameter is optional.
Apply Changes	Click it to save the made changes.
Cancel	Click it to discard the made changes and restore to the default settings.

Admins

This page is used to create administrator accounts. You can create [super administrator](#), [administrator](#), and [read only administrator](#).

■ Super Administrator

The super administrator account is created either during the Quick Setup Wizard or when you enabled the remote access function. The super administrator account has all the site permissions, including Allow device configuration, Allow device adoption and removal, Allow editing dashboards, Allow system stats access, and Allow read only access to all sites. Besides, the super administrator can add, delete, or modify the information of other non-super administrator accounts. You can create 4 super administrator accounts at most.

■ Administrator

The administrator account is created by the super administrator. By default, the administrator account has all the site permissions, including Allow device configuration, Allow device adoption and removal, Allow editing dashboards, Allow system stats access, and Allow read only access to all sites, and these permissions cannot be modified. You can create 16 administrator accounts at most.

■ **Read Only Administrator**

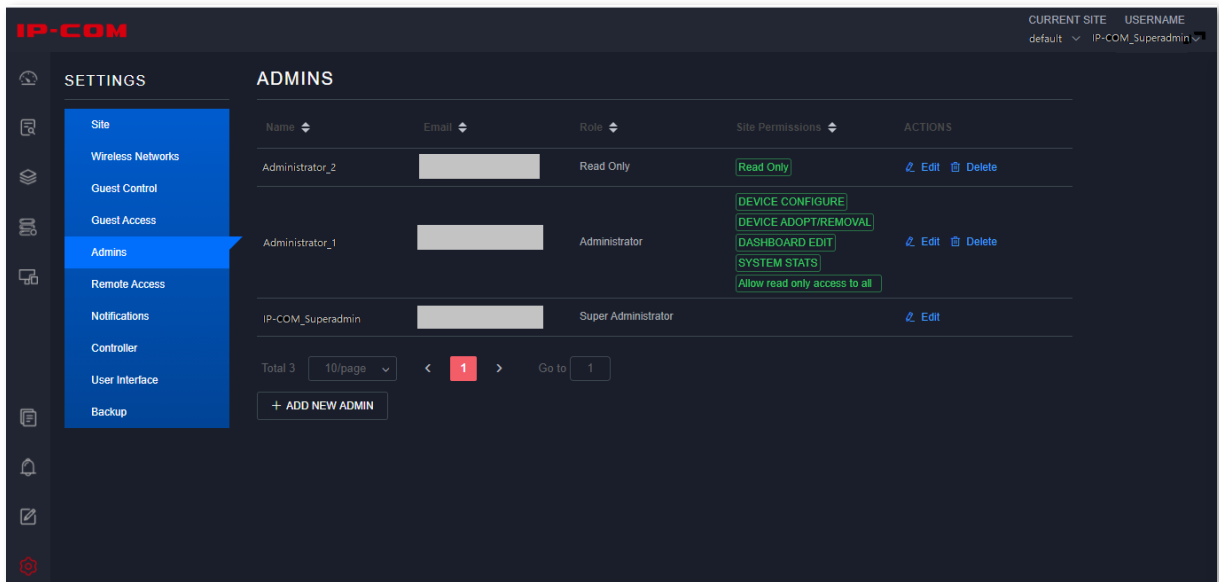
The read only administrator account is created by the super administrator. The read only administrator account has no operate permissions. You can create 64 read only administrator accounts at most.



Note




Ensure that you save the super administrator account login information for future use.

To enter the page, choose **Settings > Admins**. See the following figure.



Parameter description

Parameter	Description
Name	It specifies the name of the administrator.
Email	It specifies the email address of the administrator.
Role	It specifies the permission level of the administrator, including super administrator, administrator, and read only.

Parameter	Description
Site Permissions	<p>It displays the permissions the administrator has over the site.</p> <ul style="list-style-type: none"> Read only administrators have only the read only permissions. Administrators have the permissions of device configuration, device adoption and removal, dashboards editing, system statistics access, and read only access to all site. Super administrators have the permissions of administrators and remote access as well.
Actions	<p>It specifies the actions you can perform on the administrator.</p> <ul style="list-style-type: none"> Click  Edit to edit the administrator. Click  Delete to delete the administrator. Click  INVITE AGAIN to invite the administrator again.

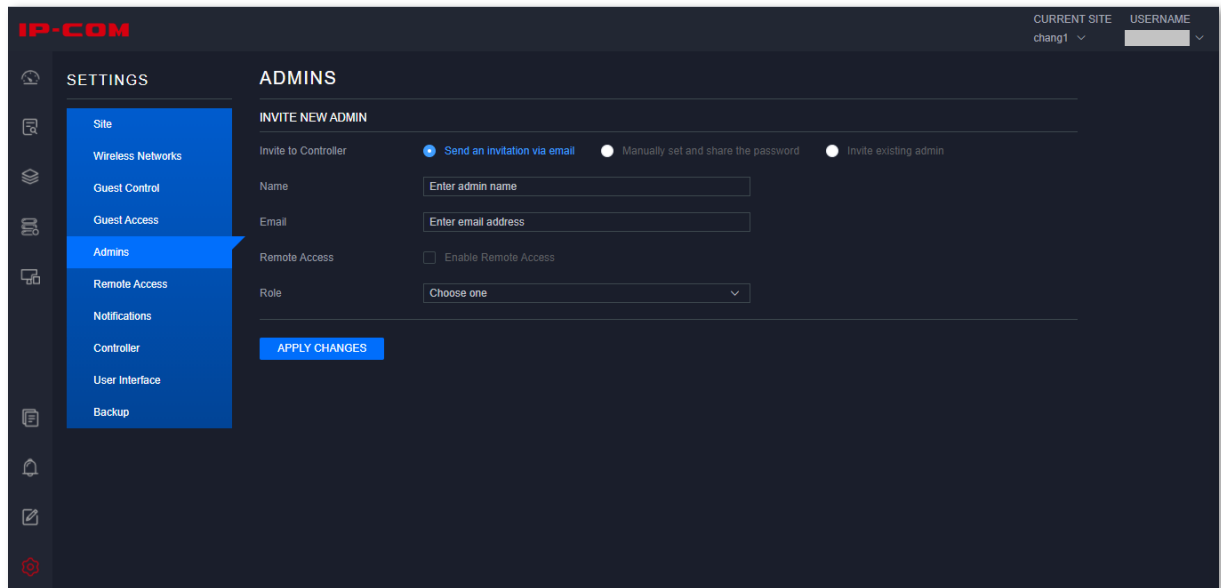


Tip

The super administrator cannot be deleted.

Add New Admin

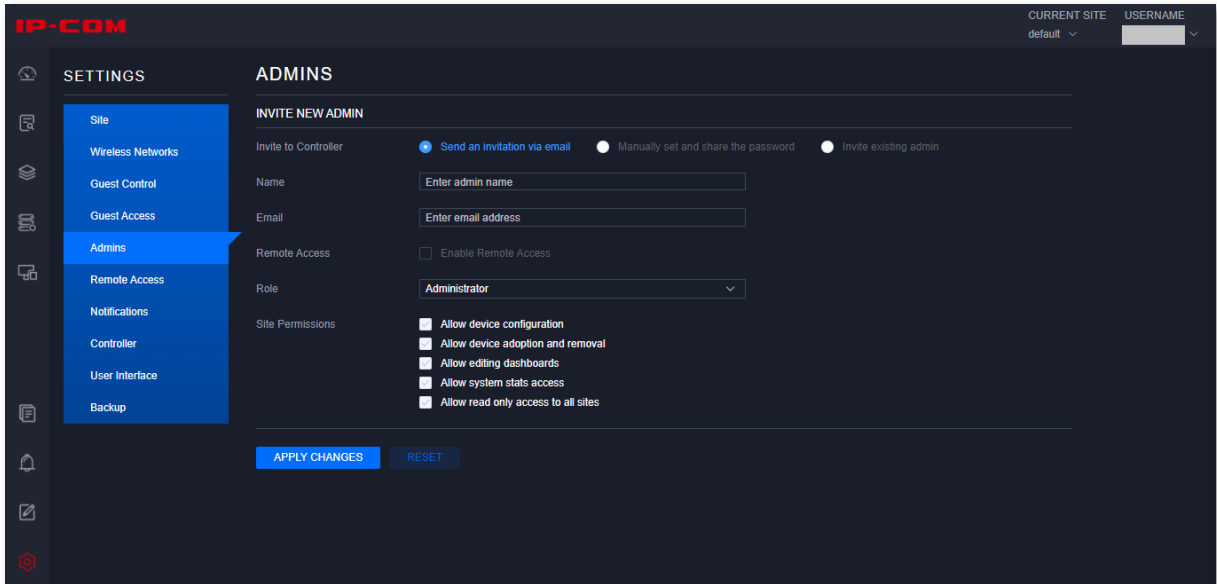
Click **+ Add New Admin** to create a new administrator. See the following figure.



You can create an administrator account by [Send an invitation via email](#), [Manually set and share the password](#), or [Invite existing admin](#).

■ Send an invitation via email

Send an email to the user to invite him/her to be the administrator of the current site.

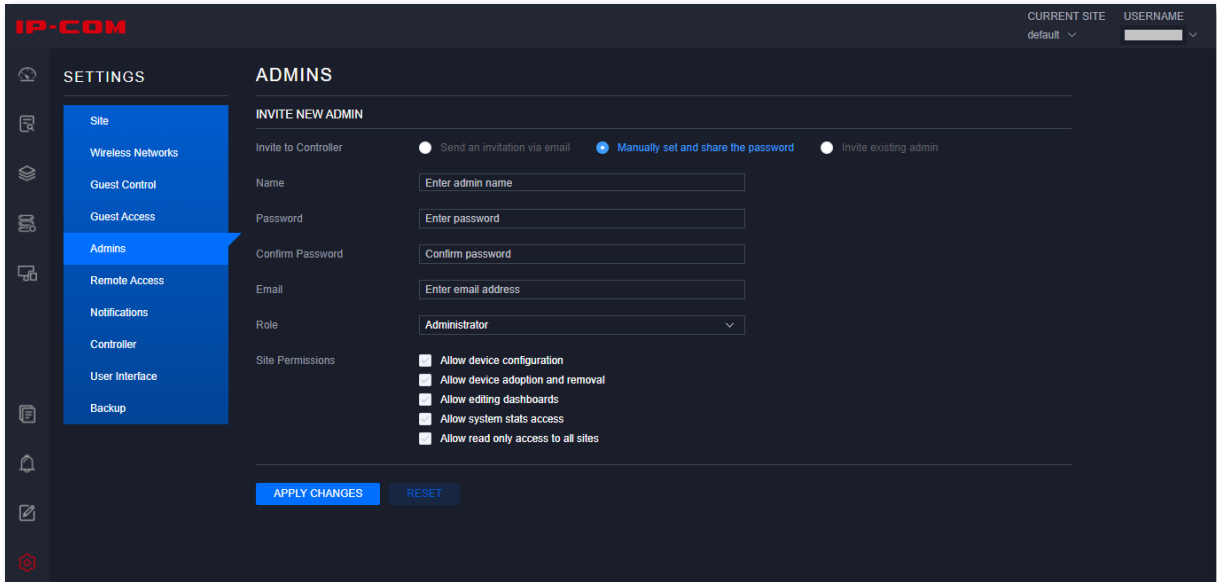


Parameter description

Parameter	Description
Invite to Controller	Choose how you add an administrator. Send an invitation via email: Send an email to the administrator to invite him/her to be the administrator of the current site.
Name	It specifies the name of the new administrator.
Email	It specifies the email address of the new administrator.
Remote Access	Check Enable Remote Access to grant the remote access permission to the new administrator.
Role	It specifies the role you specify for the new administrator. You can select Administrator or Read Only .
Site Permissions	This parameter is available only when Role is set to Administrator . It specifies the permissions of the new administrator, including Allow device configuration , Allow device adoption and removal , Allow editing dashboards , Allow system stats access , and Allow read only access to all sites . These five permissions are granted to administrators by default and cannot be modified.
Apply Changes	Click it to save the made changes.
Reset	Click it to discard the made changes and restore to the default settings.

■ Manually set and share the password

Manually create an administrator for the current site.



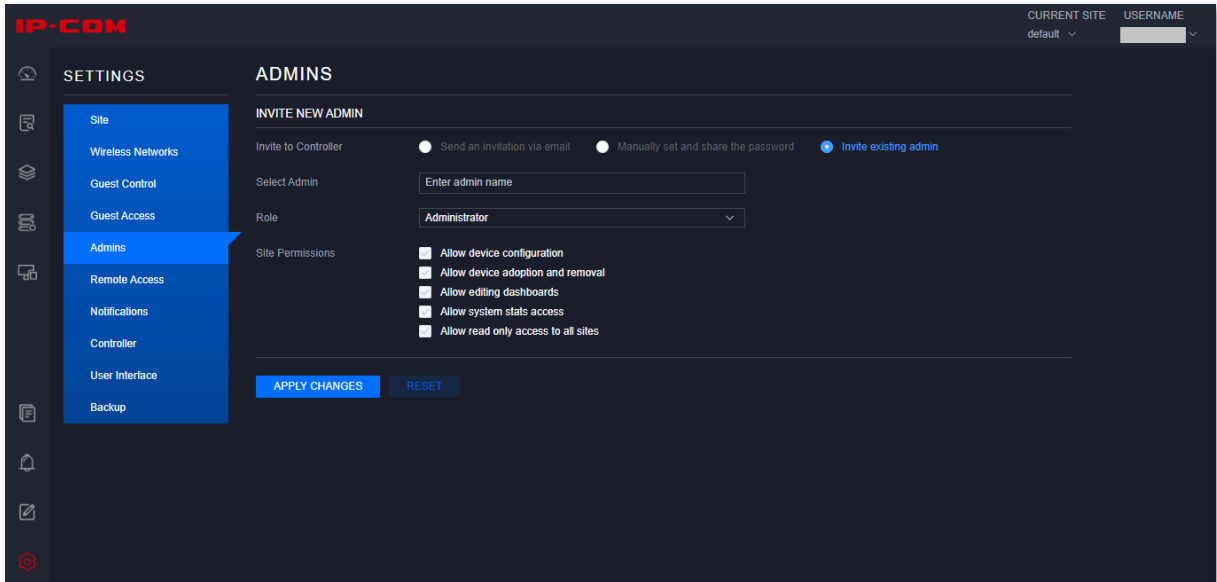
Parameter description

Parameter	Description
Invite to Controller	Choose how you add an administrator. Manually set and share the password: Set up the password and share it with the new administrator.
Name	It specifies the name of the new administrator.
Password	It specifies the password you set for the new administrator.
Confirm Password	Enter the new password again.
Email	It specifies the email address of the new administrator.
Role	It specifies the role you specify for the new administrator. You can select Administrator or Read Only .
Site Permissions	This parameter is available only when Role is set to Administrator . It specifies the permissions of the new administrator, including Allow device configuration , Allow device adoption and removal , Allow editing dashboards , Allow system stats access , and Allow read only access to all sites . These five permissions are granted to administrators by default and cannot be modified.
Apply Changes	Click it to save the made changes.
Reset	Click it to discard the made changes and restore to the default settings.

■ Invite existing admin

Invite administrators of other sites under the Software Controller to be the administrators of the current site.

After the invited administrator became the administrator of the current site, he/she loses their administrator status at their original site.



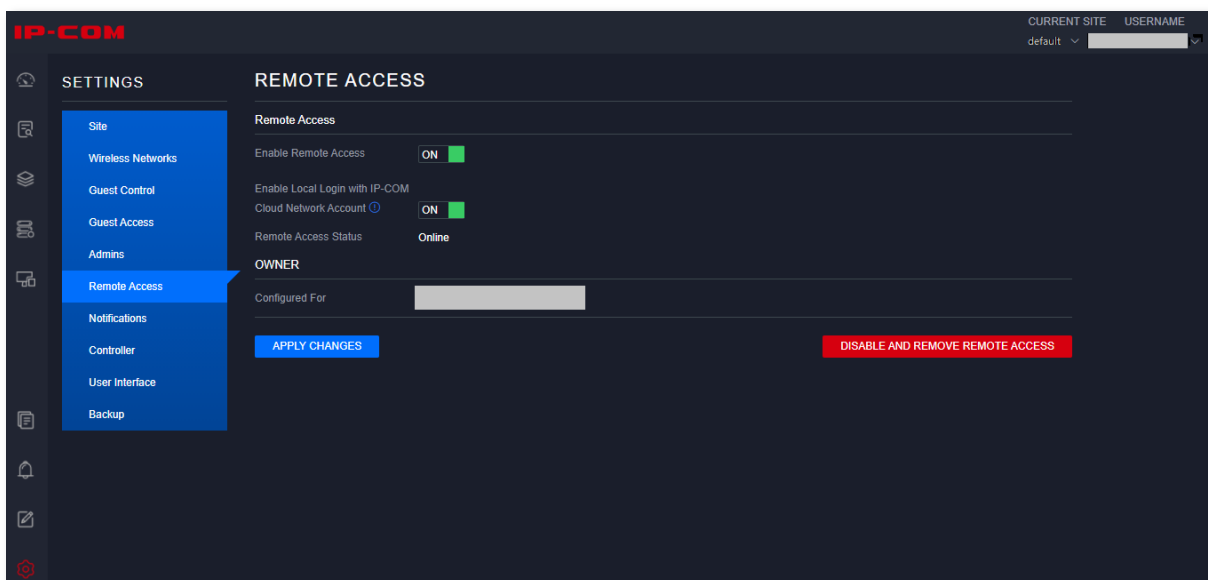
Parameter description

Parameter	Description
Invite to Controller	Choose how you add an administrator. Invite existing admin: Add an administrator from another site.
Select Admin	Enter the name of an existing administrator of another site under the Software Controller.
Role	It specifies the role you specify for the new administrator. You can select Administrator or Read Only .
Site Permissions	This parameter is available only when Role is set to Administrator . It specifies the permissions of the new administrator, including Allow device configuration , Allow device adoption and removal , Allow editing dashboards , Allow system stats access , and Allow read only access to all sites . These five permissions are granted to administrators by default and cannot be modified.
Apply Changes	Click it to save the made changes.
Reset	Click it to discard the made changes and restore to the default settings.


Remote Access

This page is used to set login configurations for remote access.

To enter the page, choose **Settings > Remote Access**. See the following figure.



Parameter description

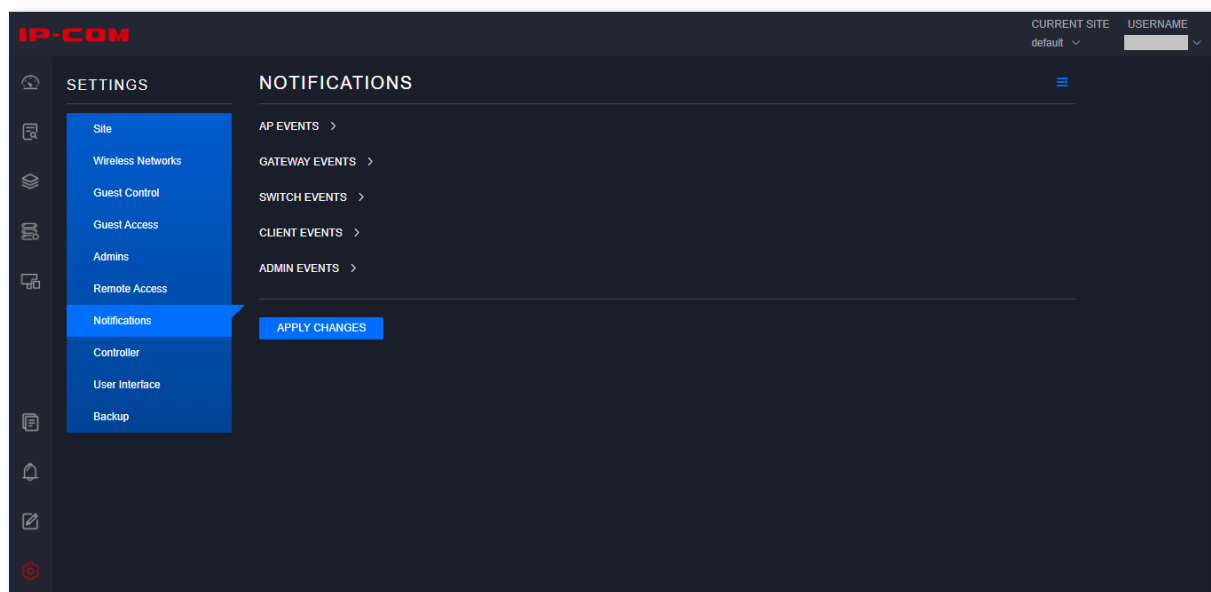
Parameter	Description
Enable Remote Access	<p>Click to toggle on or off remote access.</p> <ul style="list-style-type: none"> – If you log in using an IP-COM Cloud Network account, this parameter is toggled on by default. – If you log in using a local account, this parameter is toggled off by default.
	<p> Note</p> <p>Toggleing on or off this parameter affects remote access for all administrators on this Software Controller.</p>
Account Login	<p>Email or Username</p> <p>This parameter is available only when you log in using a local account and toggle on Enable Remote Access. It specifies the email address or username of your IP-COM Cloud Network account.</p>
	<p>Password</p> <p>This parameter is available only when you log in using a local account and toggle on Enable Remote Access. It specifies the password of your IP-COM Cloud Network account.</p>
	<p>Create an IP-COM Cloud Network account</p> <p>This parameter is available only when you log in using a local account and toggle on Enable Remote Access. If you do not have an IP-COM Cloud Network account, click it and follow the on-screen instructions to register one.</p>

Parameter	Description
Enable Local Login with IP-COM Cloud Network Account	<p>Click to enable or disable local login with IP-COM Cloud Network account.</p> <ul style="list-style-type: none"> - If you log in using an IP-COM Cloud Network account, this parameter is toggled on by default. - If you log in using a local account, this parameter is toggled off by default. <p>After this function is enabled, the username, email, and password of the current local account will be replaced with those of the IP-COM Cloud Network account at the first successful login. You can use only the IP-COM Cloud Network account to log in to the local controller.</p>
Remote Access Status	It specifies the remote access status of the Software Controller.
Configured For	It displays the email address of the IP-COM Cloud Network account.
Disable and Remove Remote Access	Once disabled and removed, remote access from the IP-COM Cloud Network is cut off and the remote access cannot be restored from backups for this controller. You can add remote access again at any time from Remote Access Settings .
Apply Changes	Click it to save the made changes.

Notifications

This page is used to customize the types of notifications you receive from the Software Controller for a variety of events.



To enter the page, choose **Settings > Notifications**. See the following figure.



The Software Controller supports AP events, gateway events, switch events, client events, and admin events. You can click each event category to check the detailed events, and choose

how you want a specific event to be notified, be it on the **Events** page, on the **Alerts** page, or through a notification email sent to the email address of the super administrator.

Window elements description

Element	Description
(Collapse/Expand All) 	Click  to expand all events under their section headings or click it again to collapse all events to their section headings.
AP Events	Click to access AP events notifications.
Gateway Events	Click to access gateway events notifications.
Switch Events	Click to access switch events notifications.
Client Events	Click to access client events notifications.
Admin Events	Click to access administrator events notifications.
Apply Changes	Click it to save the made changes.

Controller

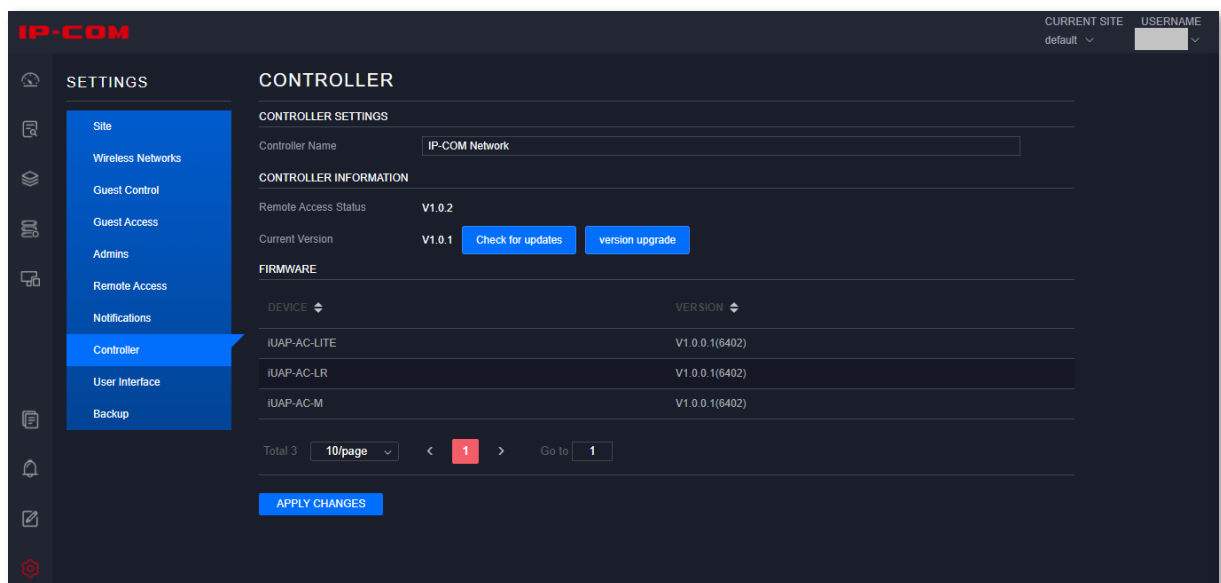
Overview

This page is used to configure controller settings, check the current software version number of the Software Controller, upgrade the Software Controller, and check the device model and device software version supported by the Software Controller.

Controller Settings

This module is used to configure the name of the Software Controller.

To enter the module, choose **Settings > Controller**. See the following figure.



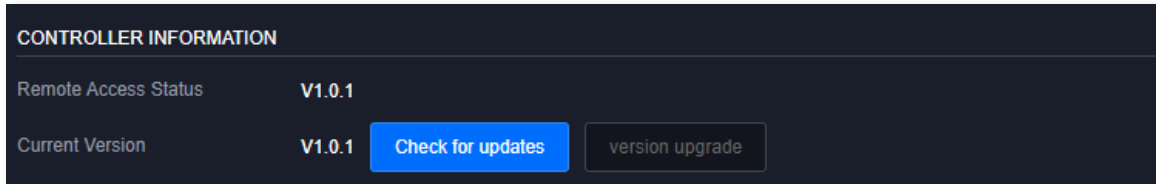
Parameter description

Parameter	Description
Controller Name	It specifies the name of the Software Controller.

Controller Information

This module is used to display the current version number of the Software Controller and upgrade the Software Controller if a new version is available.

To enter the module, choose **Settings > Controller**. See the following figure.



Parameter description

Parameter	Description
Remote Access Status	It specifies the version number of the latest Software Controller available for upgrade.
Current Version	It specifies the current version number of the Software Controller.
Check for updates	Click it to check the latest Software Controller update. The available new version will be displayed in Remote Access Status .
version upgrade	If a new version of Software Controller is available, click it to upgrade the Software Controller.

Firmware

This module displays the device model and device software version number supported by [the current version](#) of the Software Controller.

To enter the module, choose **Settings > Controller**. See the following figure.



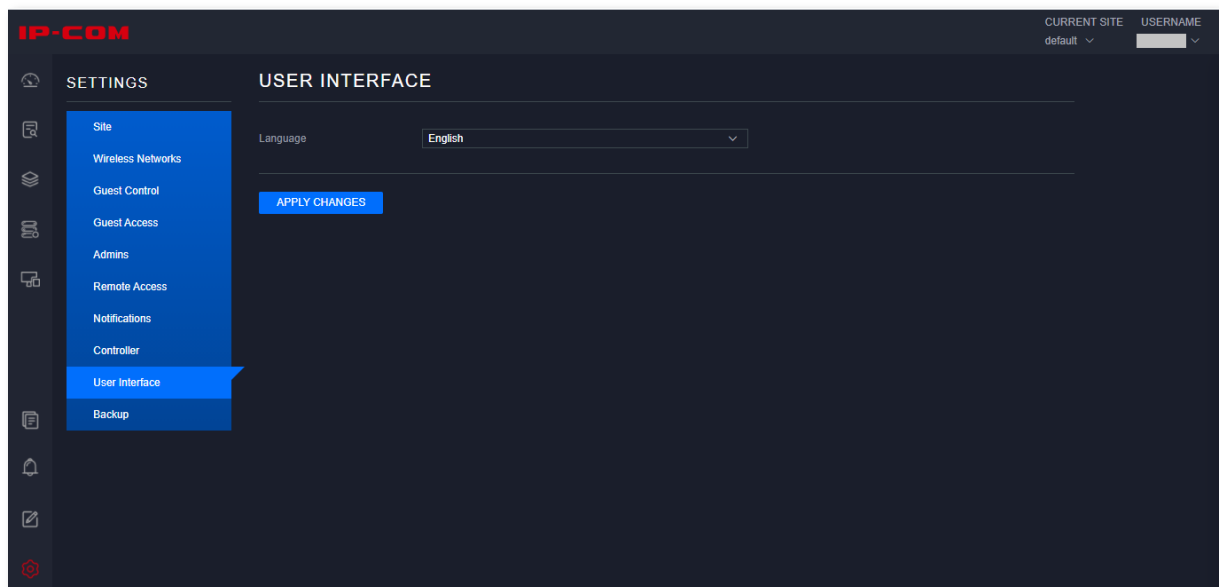
Parameter description

Parameter	Description
Device	It specifies the device model supported by the Software Controller.
Version	It specifies the software version number of the devices supported by the Software Controller.
Apply Changes	Click it to save the made changes.

User Interface

This page is used to set language for the web UI of your Software Controller. The default language is English.

To enter the page, choose **Settings > User Interface**. See the following figure.



Click the **Language** drop-down menu to select the language you want to display on your Software Controller and click **Apply Changes** to save your configurations.

Backup

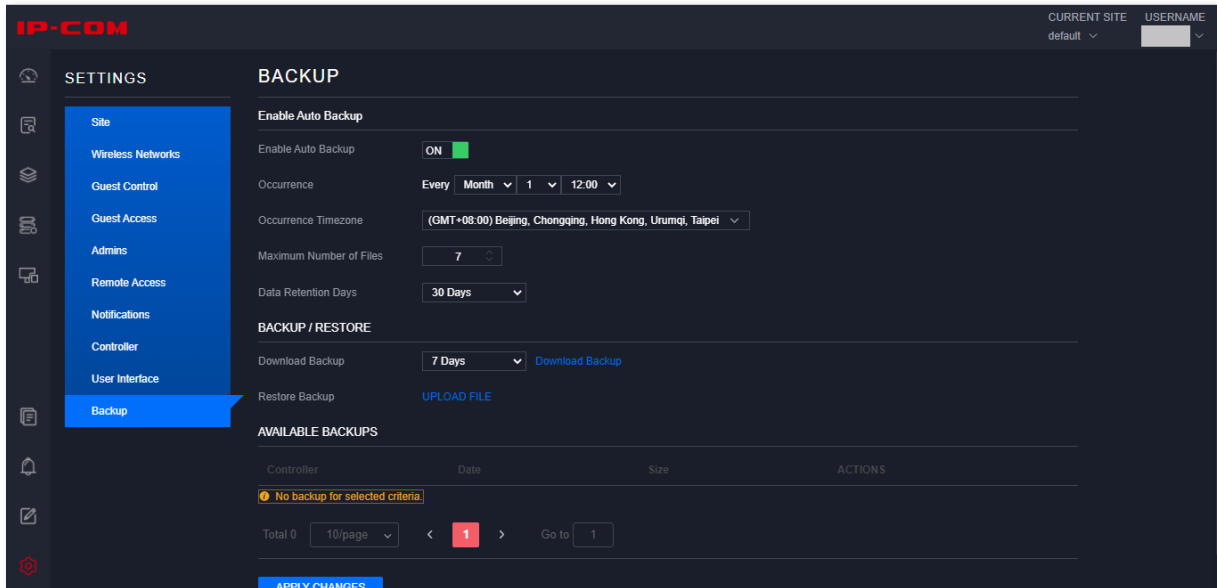
Overview

This page is used to configure automatic backup settings for the Software Controller, download backup files to your local computer and restore configurations from backup files, and check available backups of the Software Controller.

Enable Auto Backup

This module is used to configure the auto backup function and its related parameters.

To enter the module, choose **Settings > Backup**. See the following figure.



Note
If you are using a Hardware Controller, make sure you insert an SD memory card before enabling this function.

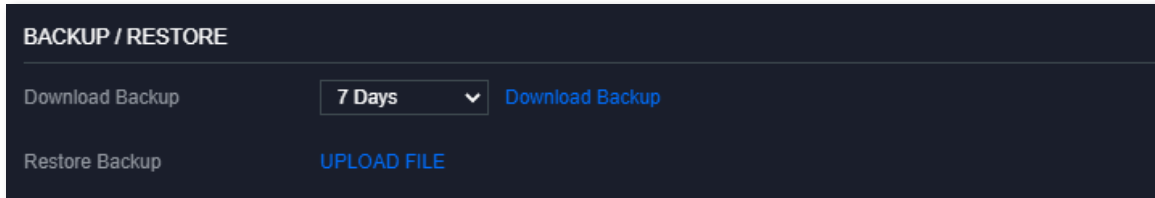
Parameter description

Parameter	Description
Enable Auto Backup	<p>Click to toggle on or off auto backup.</p> <ul style="list-style-type: none"> If you log in using an IP-COM Cloud Network account, this parameter is toggled on by default. If you log in using a local account, this parameter is toggled off by default. <p>After this function is enabled, the Software Controller performs backups of your configurations automatically.</p>
Occurrence	It specifies how often the Software Controller performs auto backup. You can set auto backup to every Hour, Day, Week, Month, and Year . Then, configure the appropriate time, day, and/or month based on your choice.
Occurrence Timezone	It specifies your time zone.
	<p> Tip</p> <p>This time zone you selected determines the time zone of the Software Controller and thus affects all its time-related configurations.</p>
Maximum Number of Files	It specifies the maximum number of backup files to be saved. If this number is surpassed, the oldest backup file is deleted. The default value is 7 .
Data Retention Days	It specifies the length of time in days that data is retained. Options include settings only, 7 Days, 30 Days, 60 Days, 90 Days, 180 Days, 365 Days, and No Limit .

Backup/Restore

This module is used to download backup files for the Software Controller and restore the backup files.

To enter the module, choose **Settings > Backup**. See the following figure.



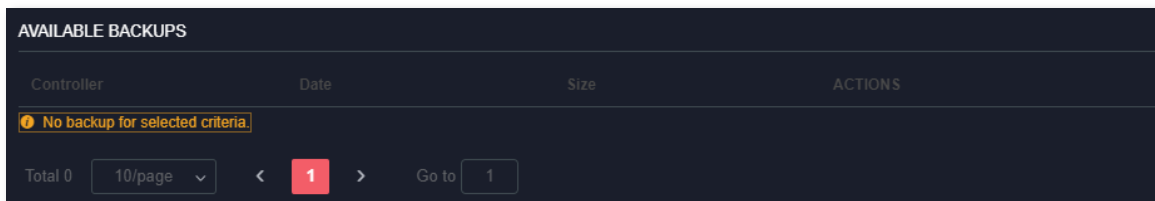
Parameter description

Parameter	Description
Download Backup	Click to select the settings and/or data retention duration for the backup files to be downloaded. Options include settings only, 7 Days, 30 Days, 60 Days, 90 Days, 180 Days, 365 Days, and No Limit . After you made a choice, click Download Backup to download your backup files.
Restore Backup	Click Upload File to upload your backup files to restore the configurations of the Software Controller to those you uploaded.

Available Backups

This module displays the available backups for the Software Controller.

To enter the module, choose **Settings > Backup**. See the following figure.



Parameter description

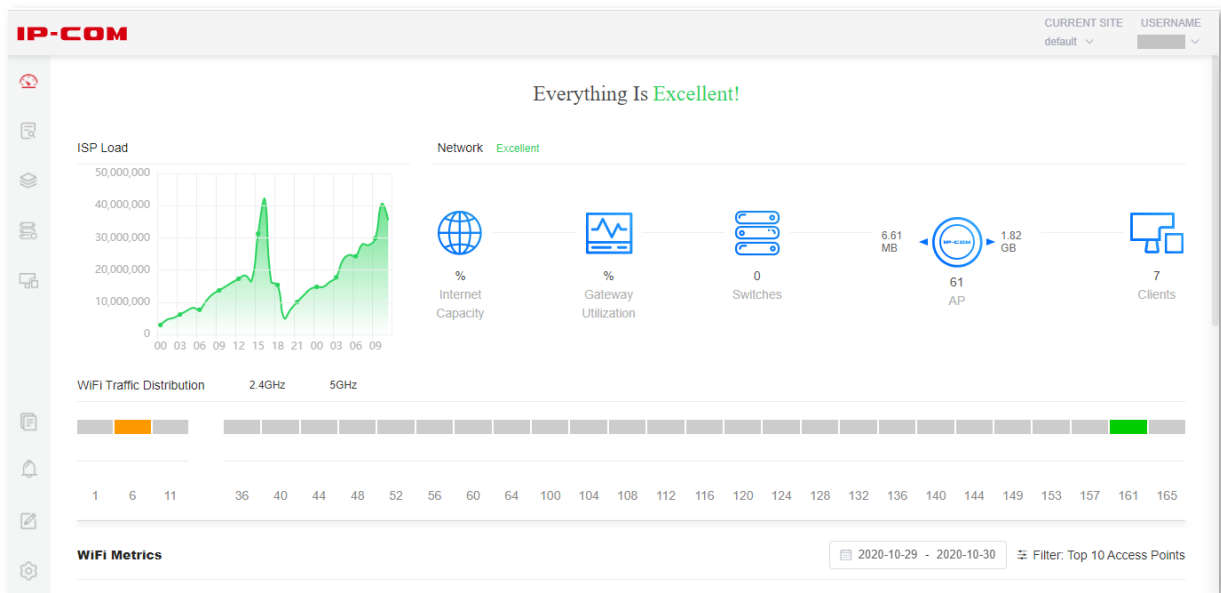
Parameter	Description
Controller	It specifies the name of the Software Controller.
Date	It specifies the date on which the backup file is generated.
Size	It specifies the size of the backup file.
Actions	It specifies the actions you can perform on the backup file. <ul style="list-style-type: none">– Click RESTORE to restore the Software Controller from the backup file.– Click DOWNLOAD to download the backup file.– Click Delete to delete the backup file.
Apply Changes	Click it to save the made changes.

Parameter	Description
Reset	Click it to discard the made changes and restore to the default settings.

4 Dashboard

This page provides a visual representation for your network. You can check your ISP load, the devices and clients in your network and their statistics, WiFi traffic distribution statistics, and WiFi metrics.

To enter the page, choose **Dashboard**. See the following figure.

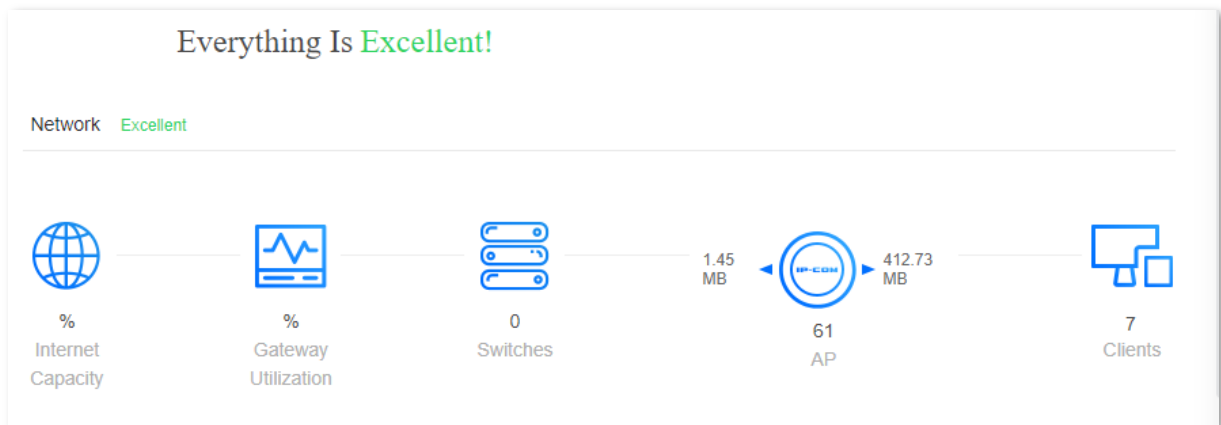


4.1 ISP Load

This function is not supported [in this version](#). Please refer to later version for details.

4.2 Network

This module displays the devices in the network. You can check their numbers and their statistics. See the following figure.



The head title indicates the level of internet quality evaluated based on data uploading and downloading rate, bandwidth, and latency. Possible titles include:

- **Everything Is Excellent:** The internet quality is excellent.
- **Everything Is Good:** The internet quality is just so so.
- **Everything Is Bad:** The internet quality is unsatisfactory.

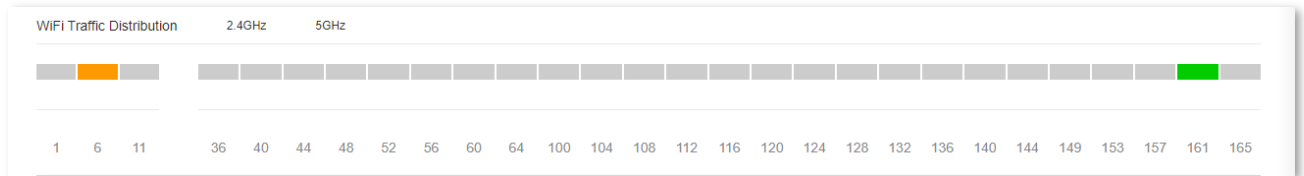
Parameter description

Parameter	Description
Internet Capacity	It displays the internet bandwidth utilization rate. This parameter is not supported in this version .
Gateway Utilization	It displays the CPU utilization of the gateway. This parameter is not supported in this version .
Switches	It displays the number of switches in this network. If you place the mouse over the switch icon, you will see: <ul style="list-style-type: none">- Total Ports: specifies the total number of switch ports.- Available Ports: specifies the number of available switch ports.- Total PoE Power Supply: specifies the total PoE power supplied by the switches. This parameter is not supported in this version .

Parameter	Description
AP	<p>It displays the number of APs in this network.</p> <p>If you place the mouse over the AP icon, you will see:</p> <ul style="list-style-type: none"> – Wireless Clients: specifies the total number of wireless clients connected to the APs. – Client Groups: specifies the number of client groups. This parameter is not supported in this version. <p>The blue triangular icons on both sides of the AP icon indicate the total upload traffic and total download traffic respectively, with the left triangular representing total upload traffic and the right triangular representing total download traffic.</p>
Clients	<p>It displays the number of clients in this network.</p> <p>If you place the mouse over the client icon, you will see:</p> <ul style="list-style-type: none"> – Wireless Clients: specifies the total number of wireless clients connected to the APs. – Wired Clients: specifies the total number of wired clients connected to the APs.

4.3 WiFi Traffic Distribution

This module displays the channels of 2.4 GHz and 5 GHz, and if you place the mouse over a channel, you can view the number of APs and clients of that channel. See the following figure.



There are three blocks for the 2.4 GHz channels and twenty-five blocks for the 5 GHz channels.

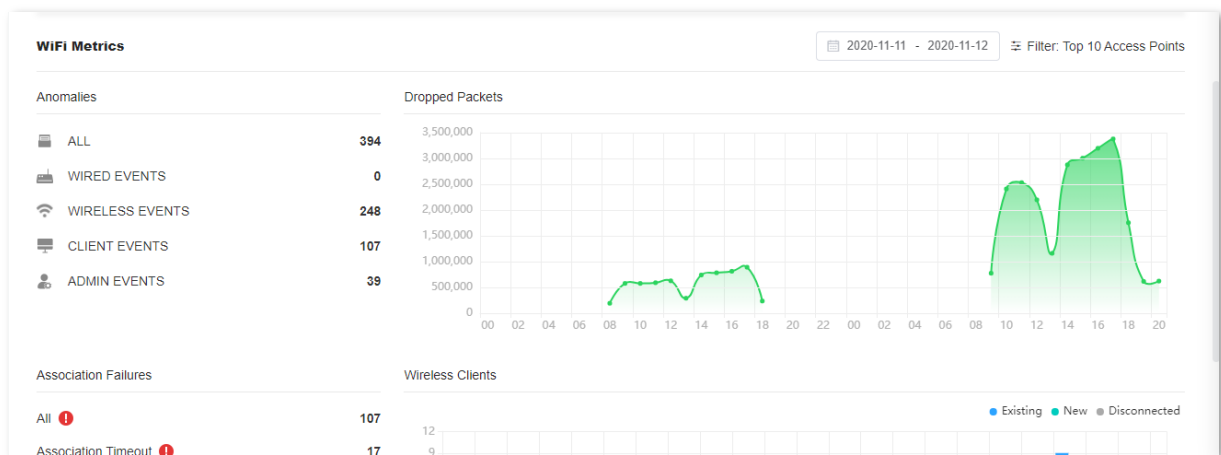
- If there are clients in the 2.4 GHz channel, the corresponding block will be displayed in orange.
- If there are clients in the 5 GHz channel, the corresponding block will be displayed in green.

4.4 WiFi Metrics

This module displays anomalies, dropped packets statistics, association failures, and wireless clients statistics. See the following figure.

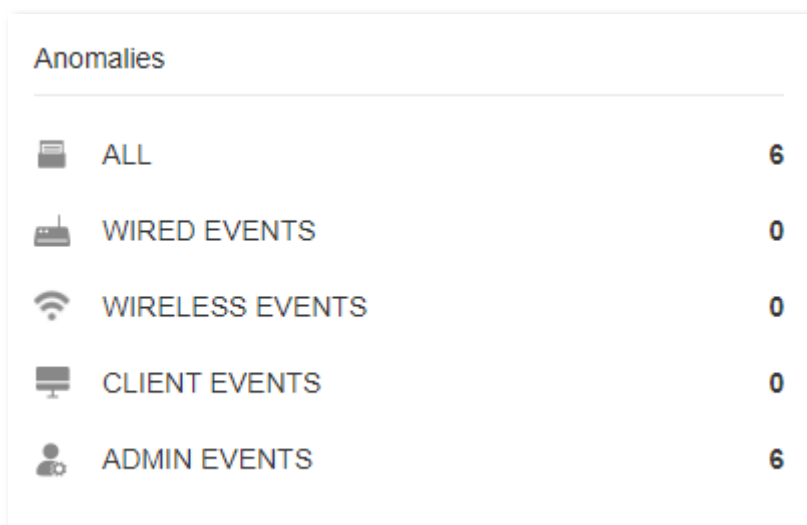
In the upper right corner, you can click the displayed date to specify a period to check the target statistics. You can choose the preset time period **Last 1 Hour**, **Last 24 Hours**, **Last 7 Days**, and **Last 30 Days**, or you can customize a start date and end date by clicking the dates on the calendar. By default, the statistics over the last 24 hours are displayed.

Moreover, you can click **Filter: Top 10 Access Points** to select the specific target APs to check their statistics. By default, the statistics of the top 10 APs are displayed.



4.4.1 Anomalies

This module provides an overview of the abnormal events of the network. You can check how many anomalies are generated in each node. See the following figure.

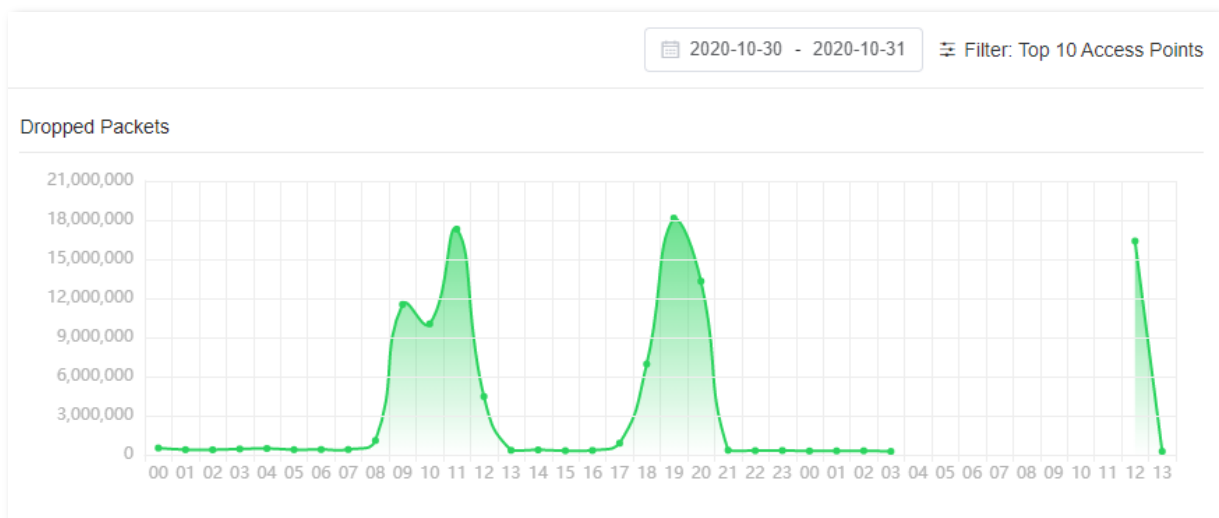


Parameter description

Parameter	Description
All	It specifies the total number of anomalies in the network.
Wired Events	It specifies the number of anomalies generated in the wired network node.
Wireless Events	It specifies the number of anomalies generated in the wireless network node.
Client Events	It specifies the number of anomalies generated in the client node.
Admin Events	It specifies the number of anomalies related to administrators.

4.4.2 Dropped Packets

This module displays the number of dropped packets of APs. See the following figure.



When you place your mouse over this figure, by rolling the mouse wheel up, you can zoom in to get a detailed view. By rolling the mouse wheel down, you can zoom out to get a general view.

In the figure, the X-axis stands for time and the Y-axis stands for the number of dropped packets. If you want to check the statistical details of a specific time point, place your mouse over that time point, and the number of dropped packets of the selected APs during that time period is displayed.

4.4.3 Association Failures

This module displays the statistics of client association failures. You can have an overview of these failures grouped into **Association Timeout**, **WPA Authentication Timeout/Failure**, **Blocked by access control**, and **DHCP Timeout/Failure**. See the following figure.

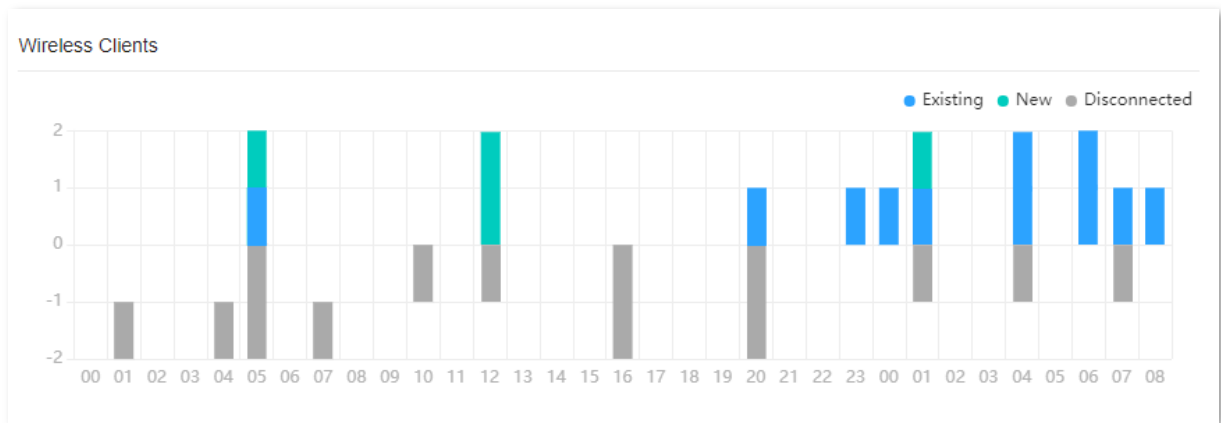
Association Failures	
All !	0
Association Timeout !	0
WPA Authentication Timeout/Failure !	0
Blocked by access control !	0
DHCP Timeout/Failure !	0

Parameter description

Parameter	Description
All	It specifies the total number of association failures generated in this network.
Association Timeout	It specifies the number of association timeout failures generated in this network. If the client conducts no communication with the connected AP for a period longer than the aging time of the AP, client association timeout failure will occur.
WPA Authentication Timeout/Failure	It specifies the number of identity authentication failures generated in this network. If the client entered a wrong WiFi password or failed to pass the portal authentication, WPA authentication timeout/failure will occur.
Blocked by access control	It specifies the number of access failures generated in this network. If the client is blocked from connecting to an AP by the blacklist or whitelist set on the AP, blocked by access control failure will occur.
DHCP Timeout/Failure	It specifies the number of DHCP timeouts/failures generated in this network. If the IP address of the client assigned by the DHCP server was expired or the DHCP server does not assign an IP address to the client, DHCP timeout/failure will occur.

4.4.4 Wireless Clients

This module displays details of the wireless client numbers. See the following figure.



When you place your mouse over this figure, by rolling the mouse wheel up, you can zoom in to get a detailed view. By rolling the mouse wheel down, you can zoom out to get a general view.

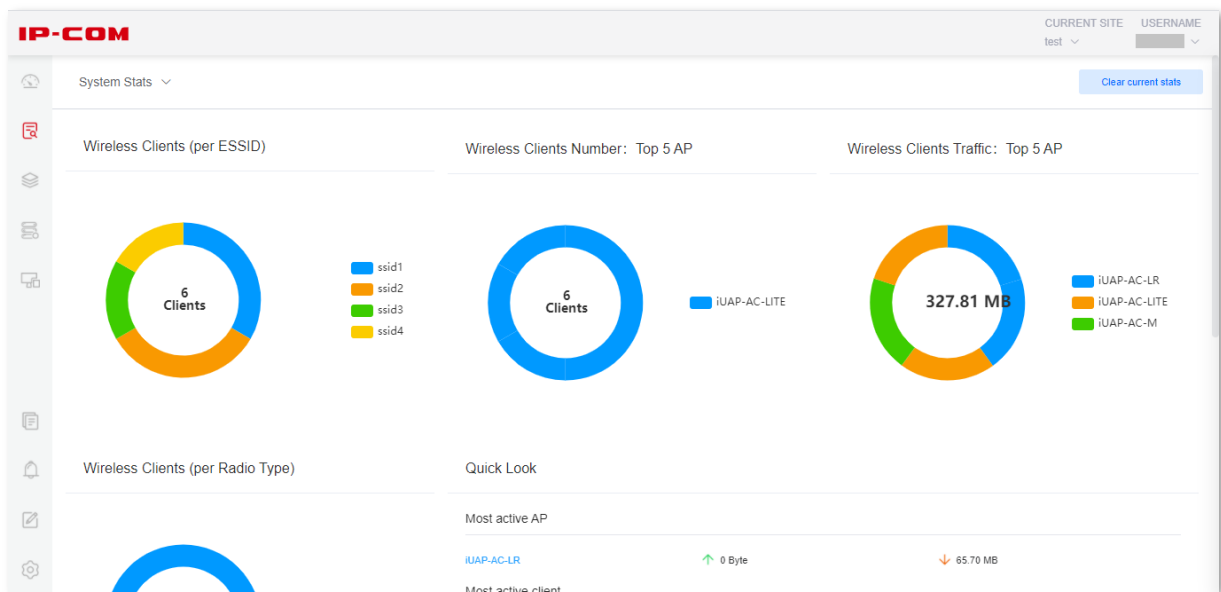
In the upper right corner of **Wireless Clients**, there are three clickable items. They are all enabled by default to display all the types of wireless clients. You can click them to hide the target wireless client type from the figure.

In the figure, the X-axis stands for time, the Y-axis stands for the number of wireless clients, and the color of the bar stands for the type of wireless clients, including existing, new and disconnected. If you want to check the statistical details of a specific bar at a specific time point, place your mouse over that bar, and the statistical details will be displayed.

5 Statistics

This page provides a visual representation for **System Stats**, **Performance**, and **Debugging Metrics**. You can select the target item to check its statistics.

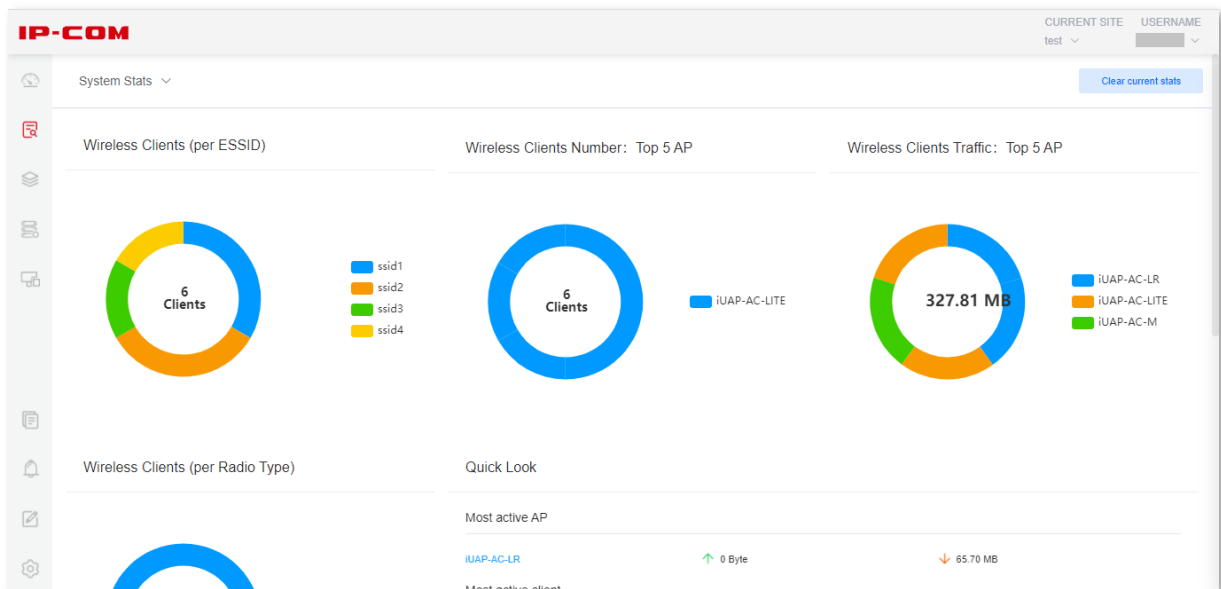
To enter the page, choose **Statistics**. See the following figure.



5.1 System Stats

This page displays the usage statistics of clients and APs, including wireless clients (per ESSID), wireless clients number (top 5 AP), wireless clients traffic (top 5 AP), wireless clients (per radio type), quick look, and recent activities.

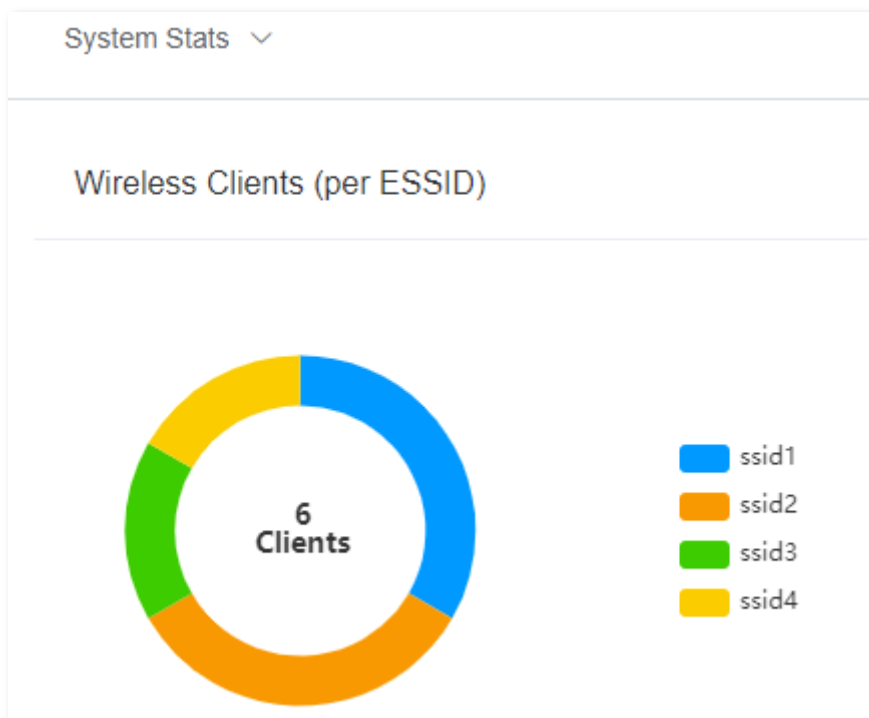
To enter the page, choose **Statistics > System Stats**. See the following figure.



You can click **Clear current stats** in the upper right corner of the screen to clean all the current statistics and start over.

5.1.1 Wireless Clients (per ESSID)

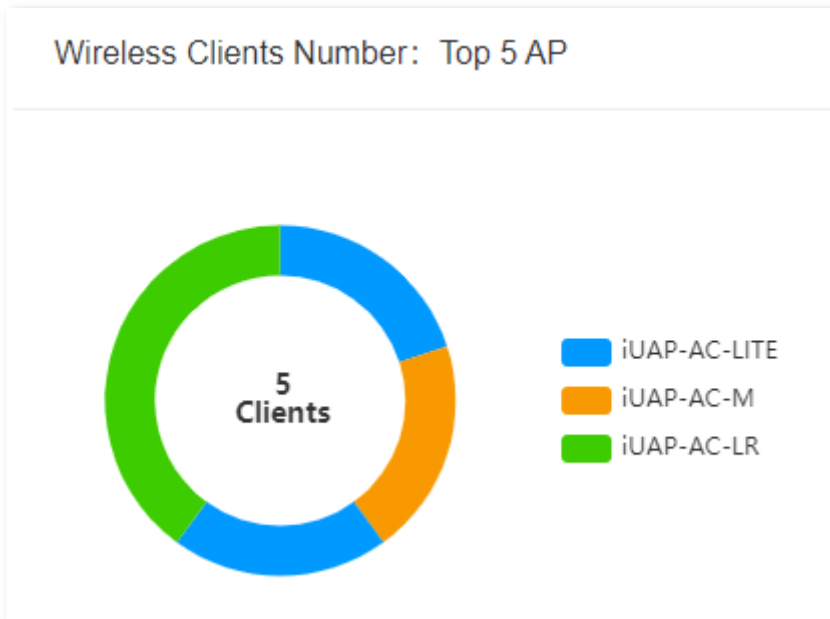
This module displays the number of wireless clients based on Extended Service Set Identifier (ESSID). See the following figure.



You can see the total number of wireless clients. Alternatively, you can place your mouse over the target area to check the corresponding ESSID and the number of wireless clients connected to it.

5.1.2 Wireless Clients Number (Top 5 AP)

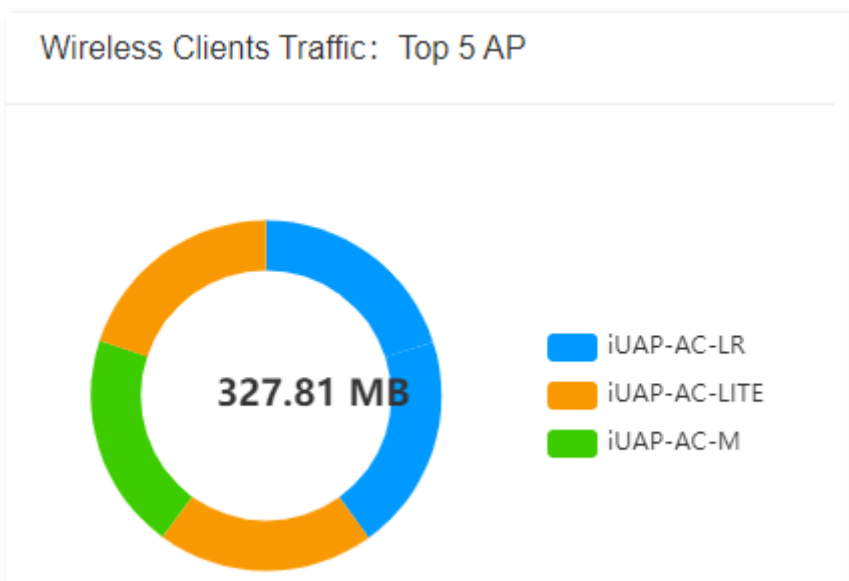
This module displays the statistics of the top 5 APs with the most connected wireless clients up to now. See the following figure.



You can see the total number of wireless clients connected to the top 5 APs. Alternatively, you can place your mouse over the target AP area to check the corresponding AP name and the number of wireless clients connected to it up to now.

5.1.3 Wireless Clients Traffic (Top 5 AP)

This module displays the statistics of the top 5 APs with the highest throughput up to now. See the following figure.

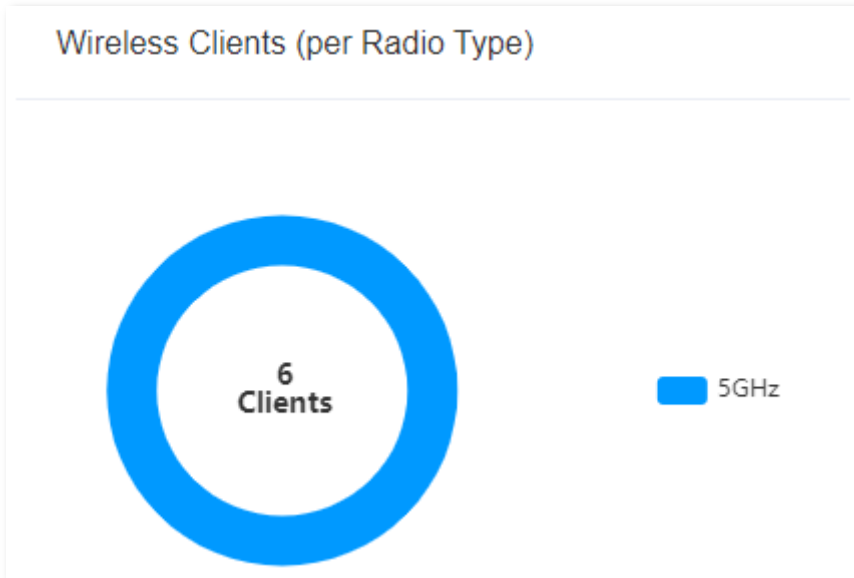


You can see the total throughput of the top 5 APs. Alternatively, you can place your mouse

over the target AP area to check the corresponding AP name and the throughput it generated up to now.

5.1.4 Wireless Clients (per Radio Type)

This module displays the number of wireless clients based on radio type. See the following figure.



You can see the total number of wireless clients. Alternatively, you can place your mouse over the target area to check the corresponding radio type and the number of wireless clients connected to it.

5.1.5 Quick Look

This module displays the details of the most active AP, most active client, and the client with the longest connection period of time. See the following figure.

Quick Look		
Most active AP		
iUAP-AC-LITE	↑ 4.31 MB	↓ 445.31 MB
Most active client		
18:CF:5E:93:14:...	↑ 605.45 KB	↓ 4.53 KB
Longest connected client		
18:CF:5E:93:14:...	MAC: 18:CF:5E:93:14:18	Uptime: 1m 56s

■ Most active AP

This module displays the name of the AP which generates the highest throughput, and up and down bytes up to now.

Click the AP name to expand the details property panel and make configurations.

■ Most active client

This module displays the name of the client which generates the highest up and down bytes up to now, and its up and down bytes data. If you never change the client name, its MAC address is displayed by default.

Click the name or MAC address to expand the details property panel and make configurations.

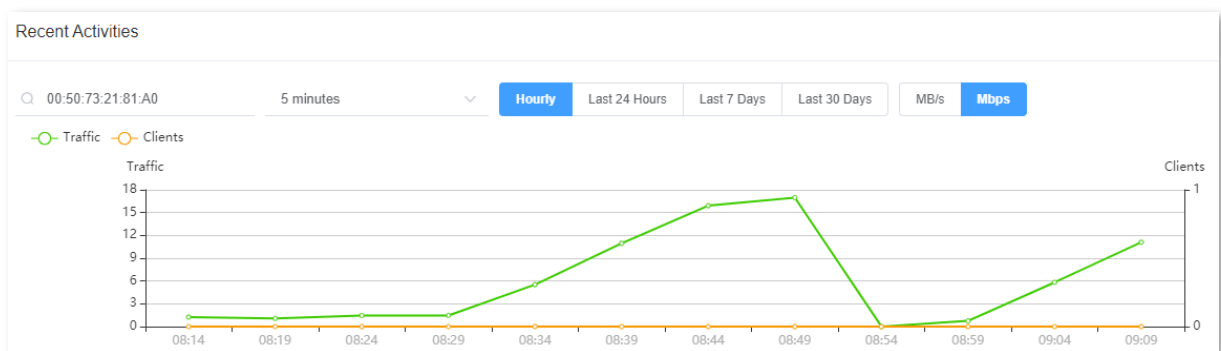
■ Longest connected client

- **(Name or MAC address):** specifies the name or MAC address of the client with the longest connection period of time.
- **MAC:** specifies the MAC address of the client with the longest connection period of time.
- **Uptime:** specifies the duration the client has been connected.

Click the name or MAC address to expand the details property panel and make configurations.



5.1.6 Recent Activities

This module displays the statistics of the connected client number and throughput of a single AP. See the following figure.



Window elements description

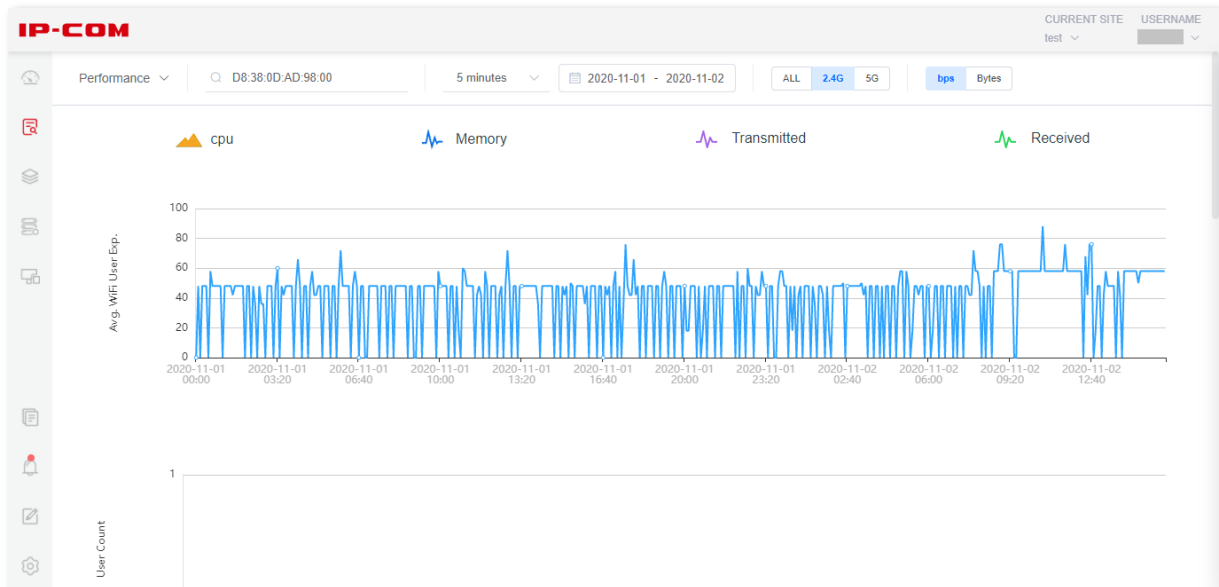
Element	Description
(MAC address)	It specifies the MAC address of the AP whose statistics you want to check. Click it to select the MAC address of the target AP.
(Interval)	It specifies the duration interval of the X-axis. You can choose 5 minutes , Hours , and Daily . The default interval is 5 minutes .

Element	Description
(Duration)	It specifies the total time duration of the X-axis. You can choose Hourly, Last 24 Hours, Last 7 Days, and Last 30 Days .
(Mbps)	It specifies the unit of measurement of traffic. You can choose MB/s to change the unit. The default unit is Mbps .
Traffic	<p>It specifies the network traffic during the selected time period. Place the mouse over a specific time point to view its traffic value.</p> <p>You can click  Traffic to hide the traffic statistics from the Recent Activities graph.</p>
Clients	<p>It specifies the number of connected clients during the selected time period. Place the mouse over a specific time point to view its client number.</p> <p>You can click  Clients to hide the clients statistics from the Recent Activities graph.</p>

5.2 Performance

This page displays the average WiFi user experience, user count, usage, traffic, packets, and dropped packets.

To enter the page, choose **Statistics > Performance**. See the following figure.



You can apply the following headers:

D8:38:0D:AD:8D:10 : Click the MAC address drop-down menu to select the AP whose statistics you want to check.

5 minutes : Click the duration interval drop-down menu to select an interval to check statistics.

2020-11-03 - 2020-11-04 : Click the date drop-down menu to choose a start date and an end date. If you want to check the statistics of a specific day, click that date twice. The start and end dates are coded in azure and the intervening dates are coded in light blue. Click either the outer arrow to change the calendar in one-year increments and click either the inner arrow to change the calendar in one-month increments.

ALL 2.4G 5G : Click to choose the radio band you want to view.

bps Bytes : Click to choose the unit of measurement.

cpu : A solid yellow line displays the CPU usage percentage of the selected AP.

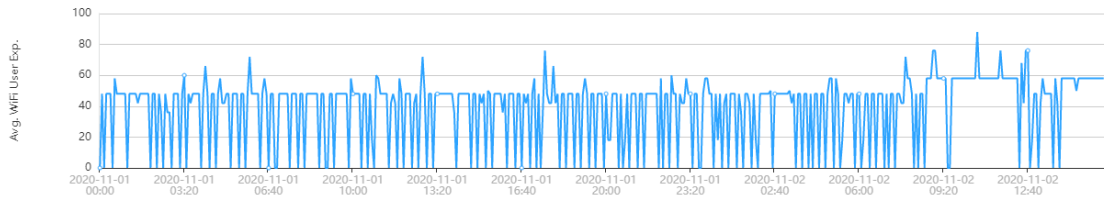
Memory: A solid blue line displays the memory usage percentage of the selected AP.

Transmitted: A solid purple line displays the statistics of data transmitted.

Received : A solid green line displays the statistics of data received.

5.2.1 Avg. WiFi User Exp.

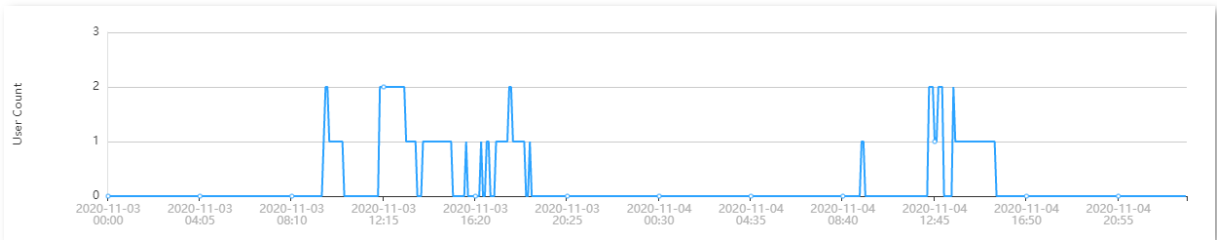
This module displays the statistics of the average [WiFi user experience](#) of the selected AP. See the following figure.



You can see all the statistics during the specified time period. Alternatively, you can place your mouse over a target time point to check the average WiFi user experience at that time point.

5.2.2 User Count

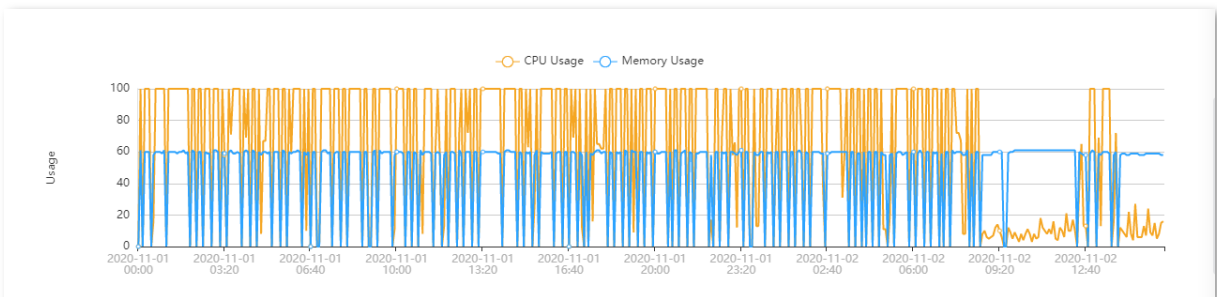
This module displays the number of wireless users connected to the selected AP. See the following figure.



You can see all the statistics during the specified time period. Alternatively, you can place your mouse over a target time point to check the number of connected wireless users at that time point.

5.2.3 Usage

This module displays the statistics of the CPU and memory usage percentage of the selected AP. See the following figure.

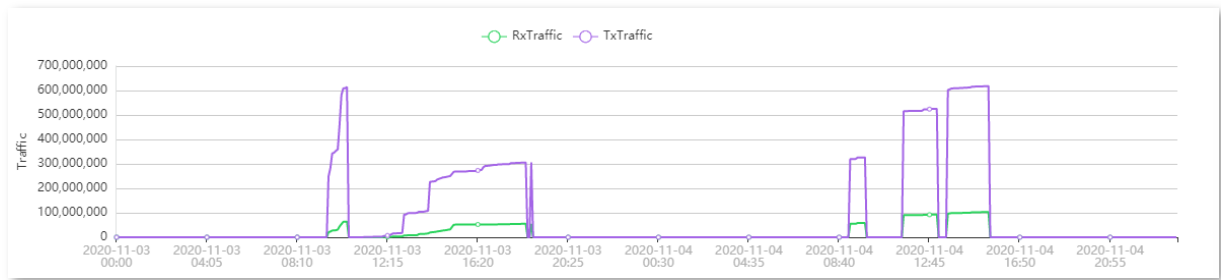


You can see all the statistics during the specified time period. Alternatively, you can place your mouse over a target time point to check the CPU and memory usage percentage at that time point.

5.2.4 Traffic

This module displays the statistics of the wireless throughput generated by the selected AP.

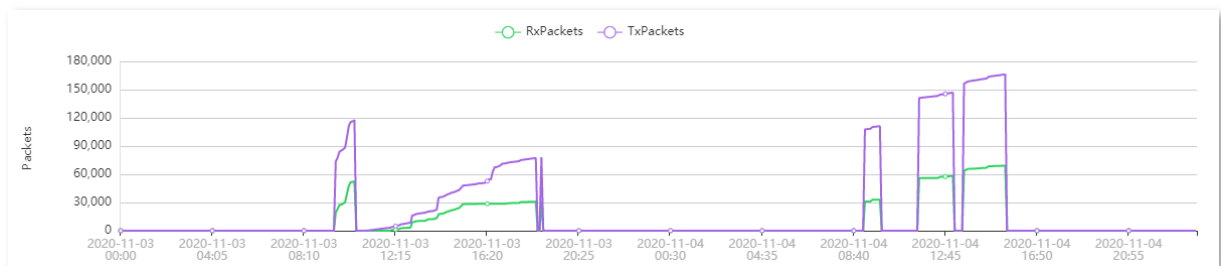
See the following figure.



You can see all the statistics during the specified time period. Alternatively, you can place your mouse over a target time point to check the amount of received and transmitted data at that time point.

5.2.5 Packets

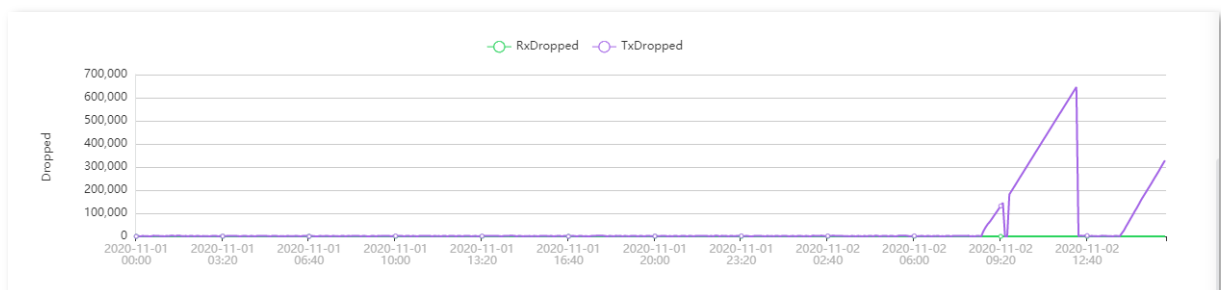
This module displays the number of wireless data packets transmitted and received by the selected AP. See the following figure.



You can see all the statistics during the specified time period. Alternatively, you can place your mouse over a target time point to check the number of received and transmitted data packets at that time point.

5.2.6 Dropped

This module displays the number of receive and transmit wireless data packets dropped by the selected AP. See the following figure.

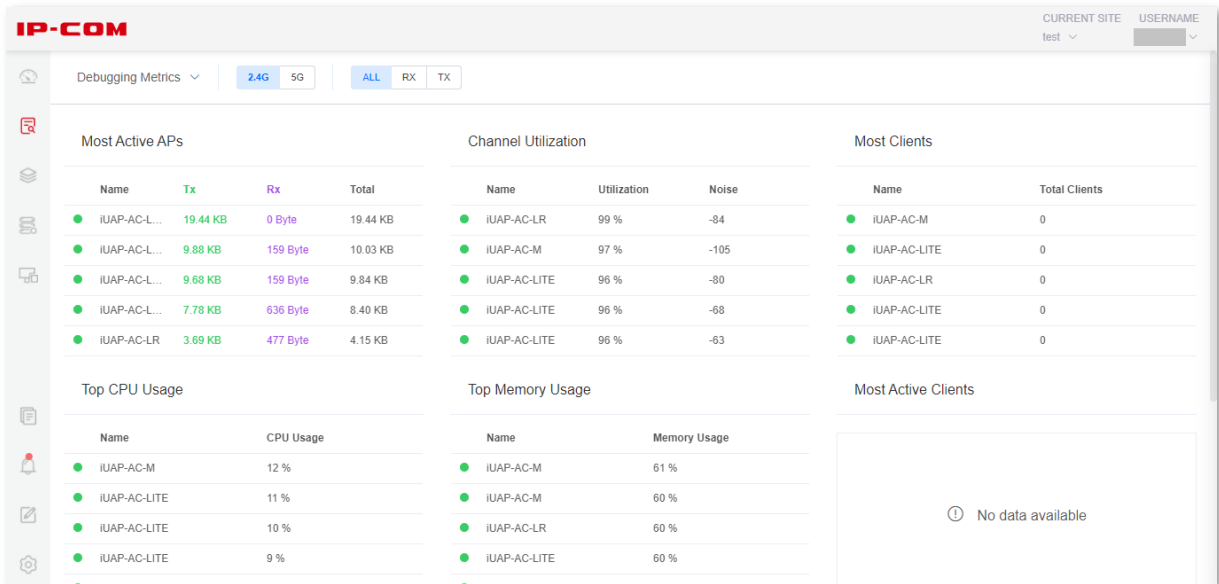


You can see all the statistics during the specified time period. Alternatively, you can place your mouse over a target time point to check the number of received and transmitted data packets dropped at that time point.

5.3 Debugging Metrics

This page displays the statistics related to network commissioning.

To enter the page, choose **Statistics > Debugging Metrics**. See the following figure.



You can apply the following headers:

2.4G **5G** : Click to choose the radio band you want to view.

ALL **RX** **TX** : Click to choose the type of data you want to view. **RX** stands for received data, **TX** stands for transmitted data, and **All** stands for all data.

5.3.1 Most Active APs

This module displays the top 5 APs with the largest throughput. See the following figure.

Name	Tx	Rx	Total
iUAP-AC-L...	19.44 KB	0 Byte	19.44 KB
iUAP-AC-L...	9.88 KB	159 Byte	10.03 KB
iUAP-AC-L...	9.68 KB	159 Byte	9.84 KB
iUAP-AC-L...	7.78 KB	636 Byte	8.40 KB
iUAP-AC-LR	3.69 KB	477 Byte	4.15 KB

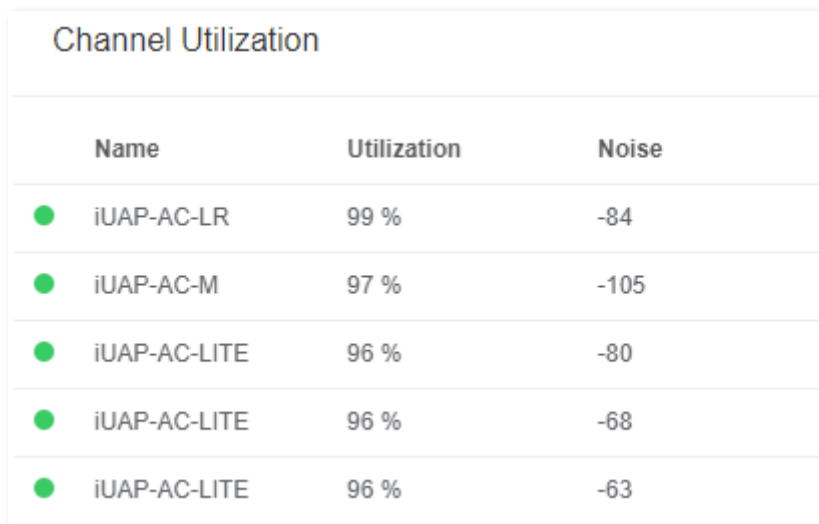
Parameter description

Parameter	Description
Name	It specifies the name of the AP.
Tx	It specifies the amount of data transmitted using the selected radio band.
Rx	It specifies the amount of data received using the selected radio band.
Total	It specifies the amount of data transmitted and received using the selected radio band.

Click anywhere on the row where the target AP is located to expand its property detail panel on the right side of the screen.

5.3.2 Channel Utilization

This module displays the top 5 APs with the largest channel utilization rate. See the following figure.



Name	Utilization	Noise
iUAP-AC-LR	99 %	-84
iUAP-AC-M	97 %	-105
iUAP-AC-LITE	96 %	-80
iUAP-AC-LITE	96 %	-68
iUAP-AC-LITE	96 %	-63

Parameter description

Parameter	Description
Name	It specifies the name of the AP.
Utilization	It specifies the utilization rate of the channel that is being used by the AP.
Noise	It specifies the background noise of the channel that is being used by the AP.

Click anywhere on the row where the target AP is located to expand its property detail panel on the right side of the screen.

5.3.3 Most Clients

This module displays the top 5 APs with the largest number of wireless clients. See the following figure.

Most Clients	
Name	Total Clients
● iUAP-AC-M	0
● iUAP-AC-LITE	0
● iUAP-AC-LR	0
● iUAP-AC-LITE	0
● iUAP-AC-LITE	0

Parameter description

Parameter	Description
Name	It specifies the name of the AP.
Total Clients	It specifies the total number of wireless clients of the AP.

Click anywhere on the row where the target AP is located to expand its property detail panel on the right side of the screen.

5.3.4 Top CPU Usage

This module displays the top 5 APs with the largest percentage of CPU usage. See the following figure.

Top CPU Usage	
Name	CPU Usage
● iUAP-AC-M	12 %
● iUAP-AC-LITE	11 %
● iUAP-AC-LITE	10 %
● iUAP-AC-LITE	9 %
● iUAP-AC-LR	9 %

Parameter description

Parameter	Description
Name	It specifies the name of the AP.

Parameter	Description
CPU Usage	It specifies how much of the total resources of the CPU are being utilized by the AP.

Click anywhere on the row where the target AP is located to expand its property detail panel on the right side of the screen.

5.3.5 Top Memory Usage

This module displays the top 5 APs with the largest percentage of memory usage. See the following figure.

Top Memory Usage	
Name	Memory Usage
iUAP-AC-M	61 %
iUAP-AC-M	60 %
iUAP-AC-LR	60 %
iUAP-AC-LITE	60 %
iUAP-AC-LITE	60 %

Parameter description

Parameter	Description
Name	It specifies the name of the AP.
Memory Usage	It specifies how much of the total memory are being utilized by the AP.

Click anywhere on the row where the target AP is located to expand its property detail panel on the right side of the screen.

5.3.6 Most Active Clients

This module displays the top 5 clients with the largest amount of data received and transmitted. See the following figure.

Most Active Clients			
Name	Tx	Rx	Total
RedmiK20Pr...	1.64 MB	7.79 MB	9.43 MB
WQ-201806...	681.74 KB	24.88 KB	706.62 KB
android-f222...	113.12 KB	909.00 Byte	114.01 KB
android-e7d...	97.52 KB	1.16 KB	98.68 KB
MININT-N29...	41.71 KB	8.33 KB	50.04 KB

Parameter description

Parameter	Description
Name	It specifies the name of the client.
Tx	It specifies the amount of data transmitted using the selected radio band.
Rx	It specifies the amount of data received using the selected radio band.
Total	It specifies the amount of data transmitted and received using the selected radio band.

Click anywhere on the row where the target client is located to expand its property detail panel on the right side of the screen.

5.3.7 Longest Connected Clients

This module displays the top 5 clients with the longest connection period of time. See the following figure.

Longest Connected Clients	
Name	Uptime
Client_01	4m 43s
Client_02	4m 38s
Client_03	3m 36s
Client_04	3m 17s
Client_05	3m 4s

Parameter description

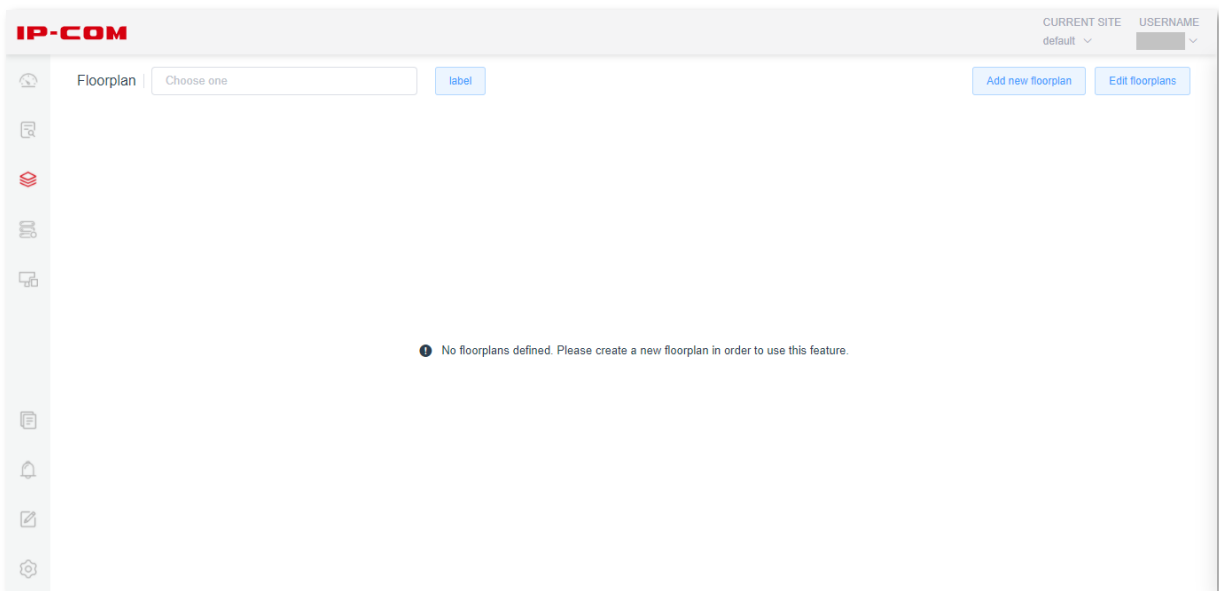
Parameter	Description
Name	It specifies the name of the client.
Uptime	It specifies the duration of time the client has been connected.

Click anywhere on the row where the target client is located to expand its property detail panel on the right side of the screen.

6 Map

This page provides a visual representation for the networks of your sites. You can upload custom map images of your site locations and drag the adopted devices to the target spots on your maps.

To enter the page, choose **Map**. See the following figure.

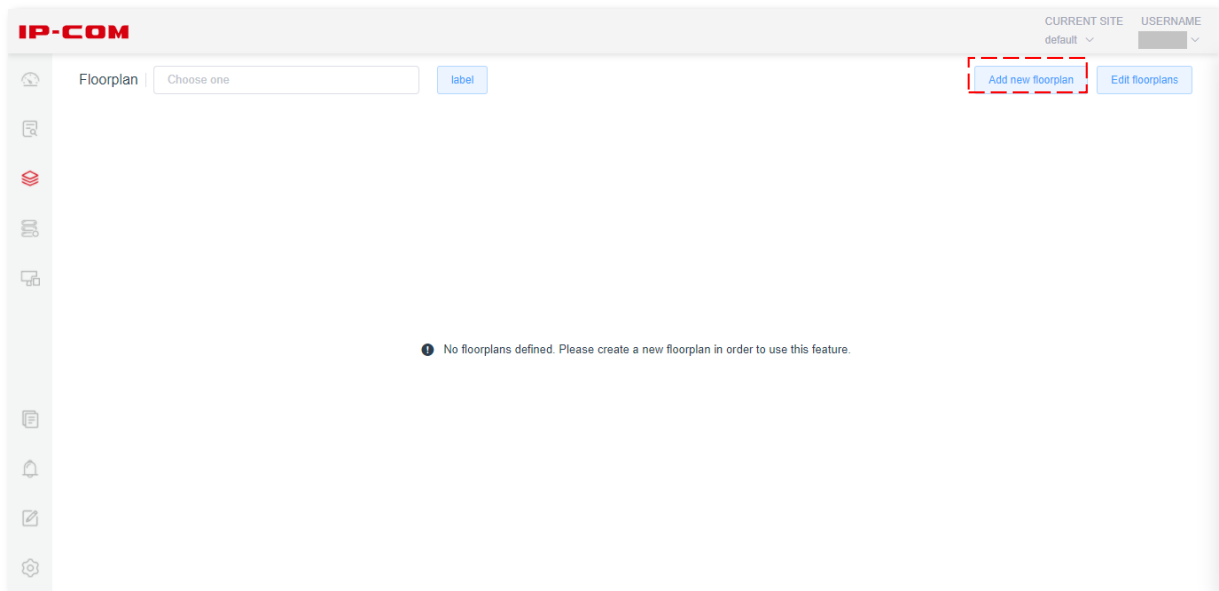


6.1 Add Custom Maps

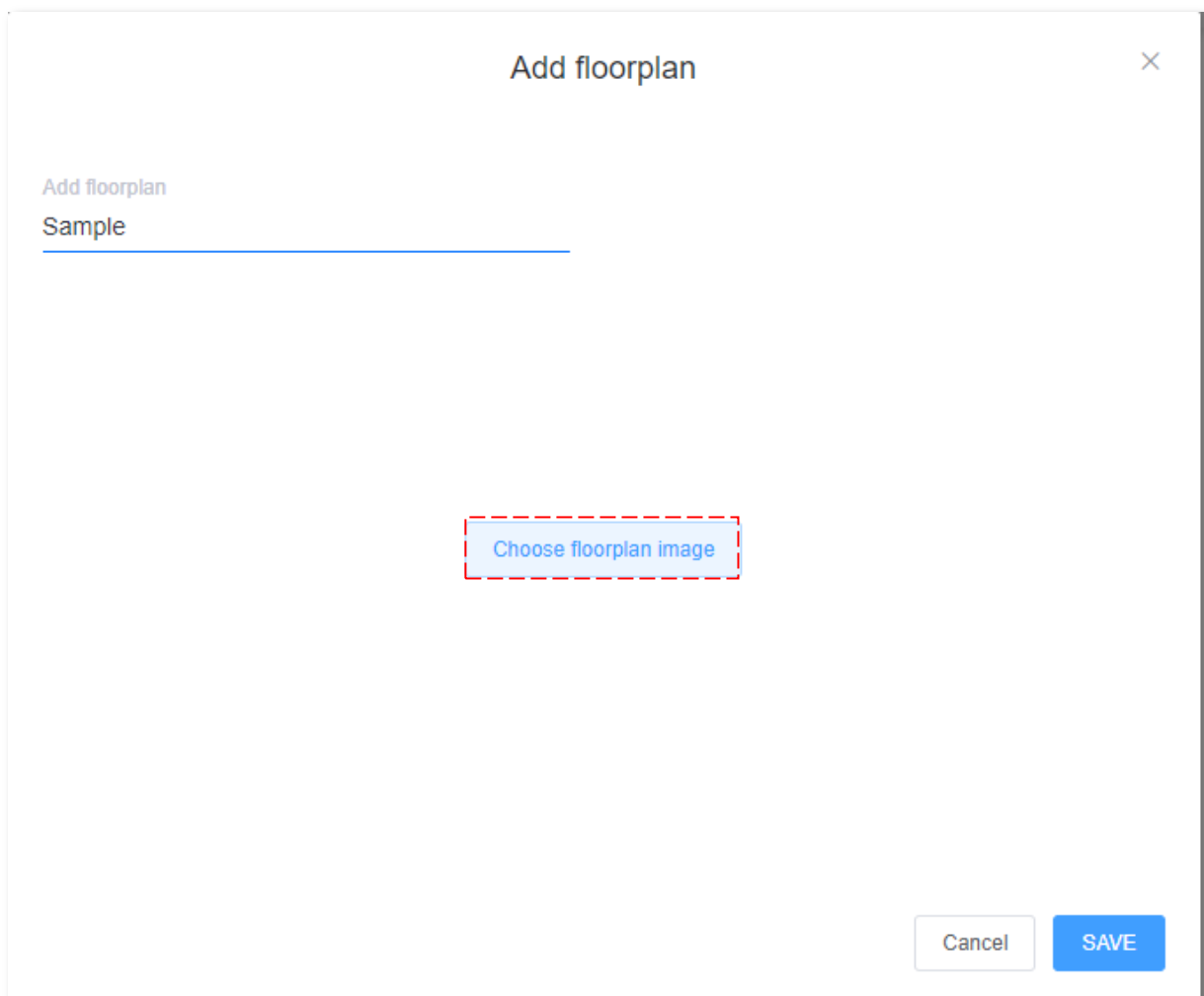
To add a custom map, you must first create an image in .png, .jpg, or .jpeg format.

After you have created the map, you can upload it to the Software Controller. Refer to the following procedures:

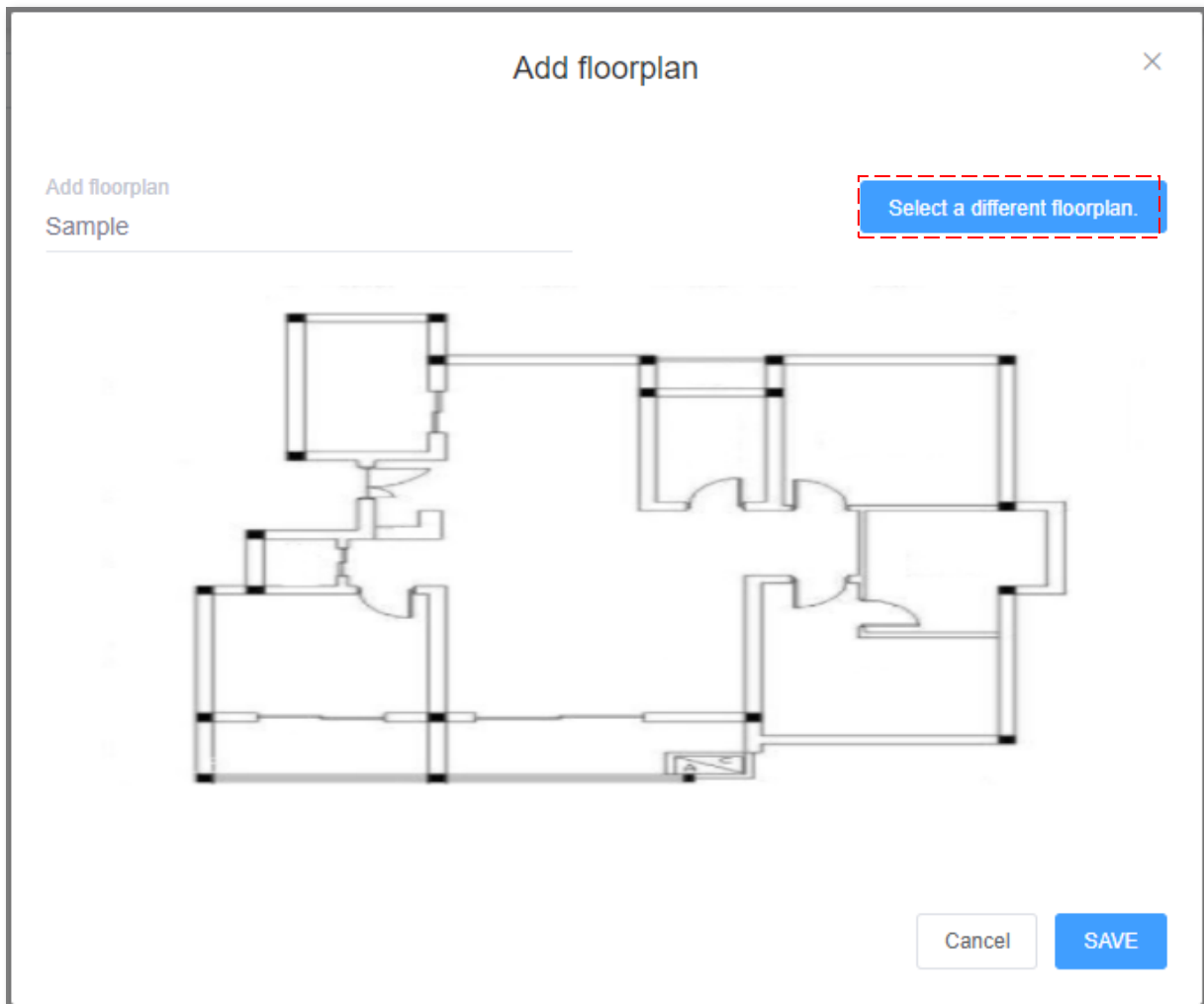
1. Click **Add new floorplan**.



2. Set a floorplan name in the **Add floorplan** field, which is **Sample** in this example.
3. Click **Choose floorplan image** and choose the map image you created.



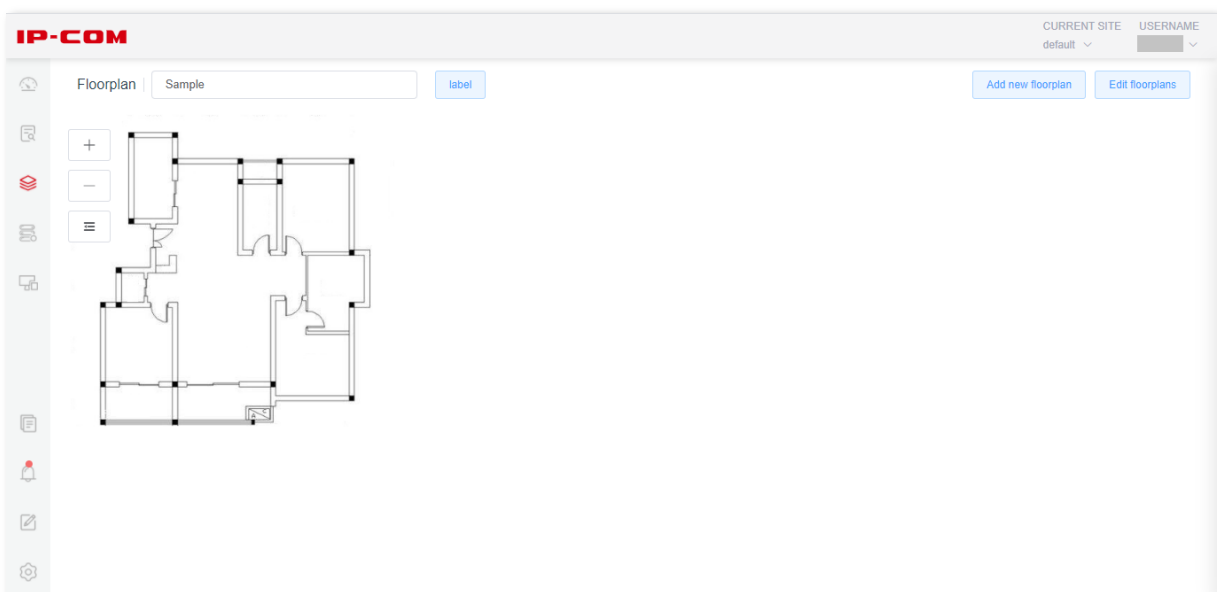
4. (Optional) If you want to change to another floorplan, click **Select a different floorplan** and choose the map image you want.



5. Click **Save**.

----End

The custom map image is added successfully. See the following figure.

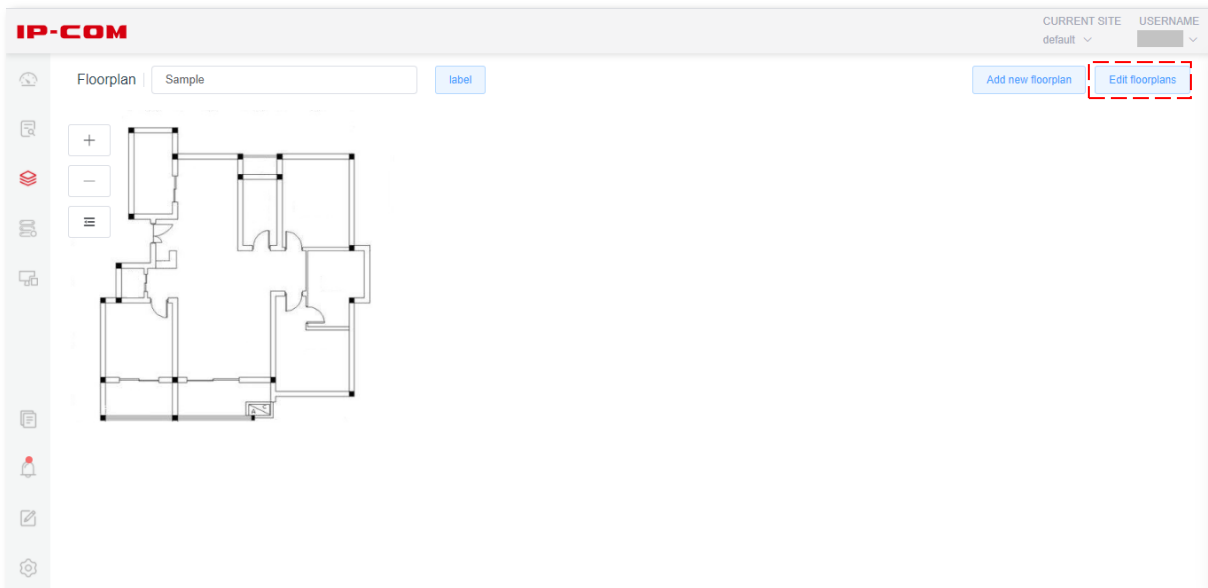


6.2 Edit a Map

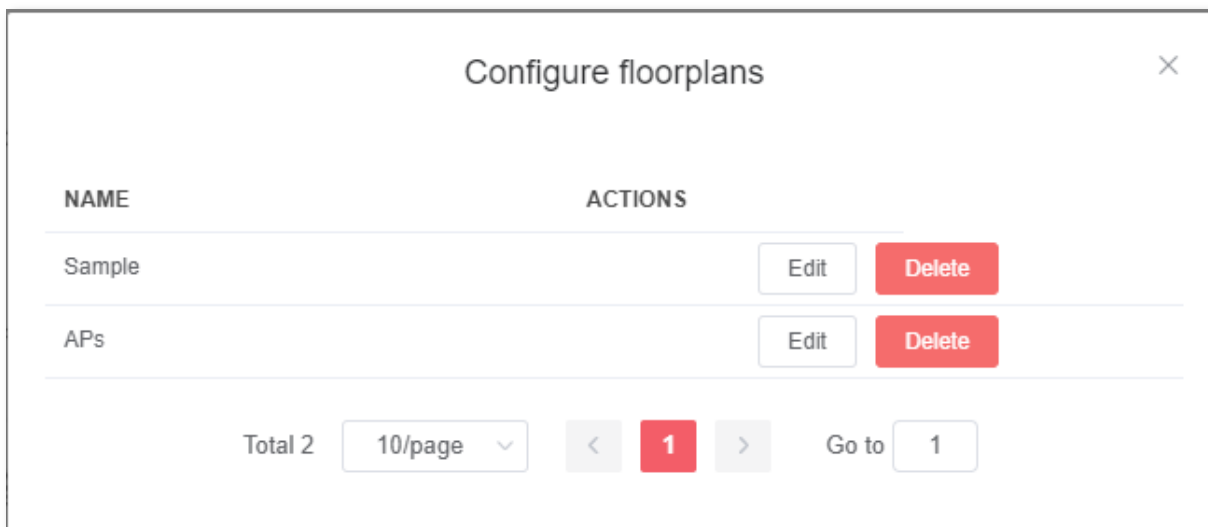
You can edit or delete a map.

Refer to the following procedures:

1. Click **Edit floorplans**.



2. Perform the actions you want on the target floorplans.
 - Click **Edit** to make changes.
 - Click **Delete** to remove the floorplan.



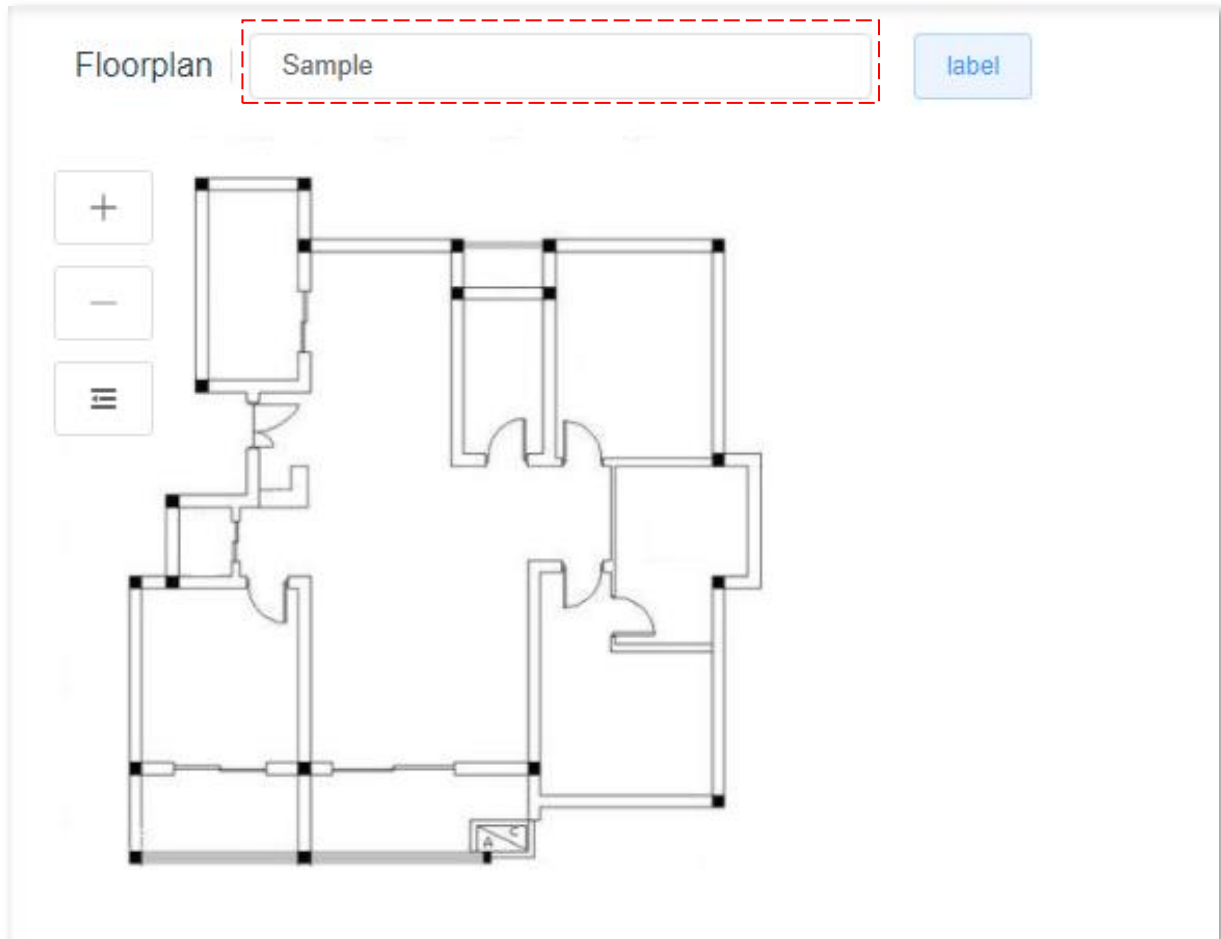
----End


6.3 Place Devices on the Map

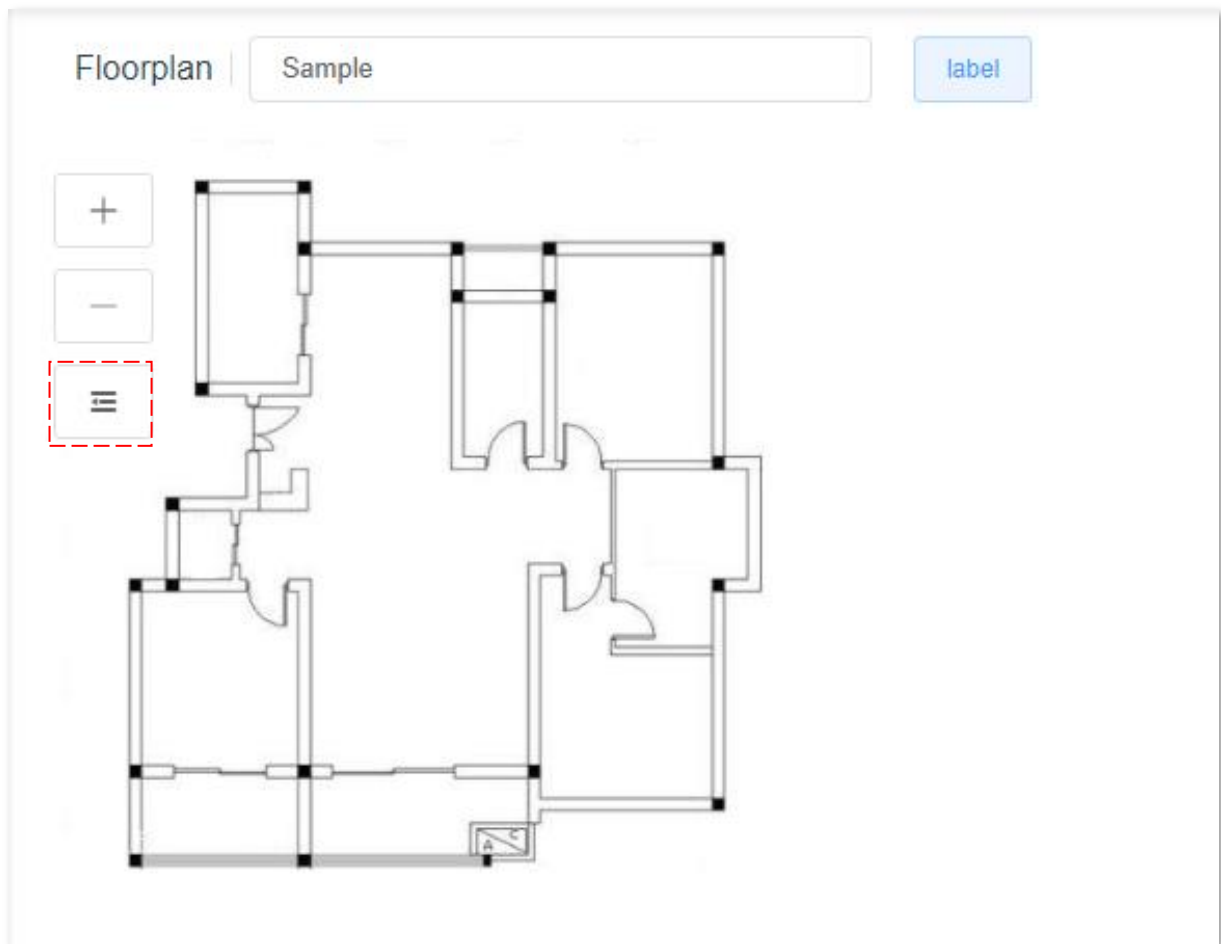
You can drag adopted devices onto the map you designated.

Refer to the following procedures:

1. Click the drop-down menu beside **Floorplan** to select the target floorplan.



2. Click  at the middle left on the page.

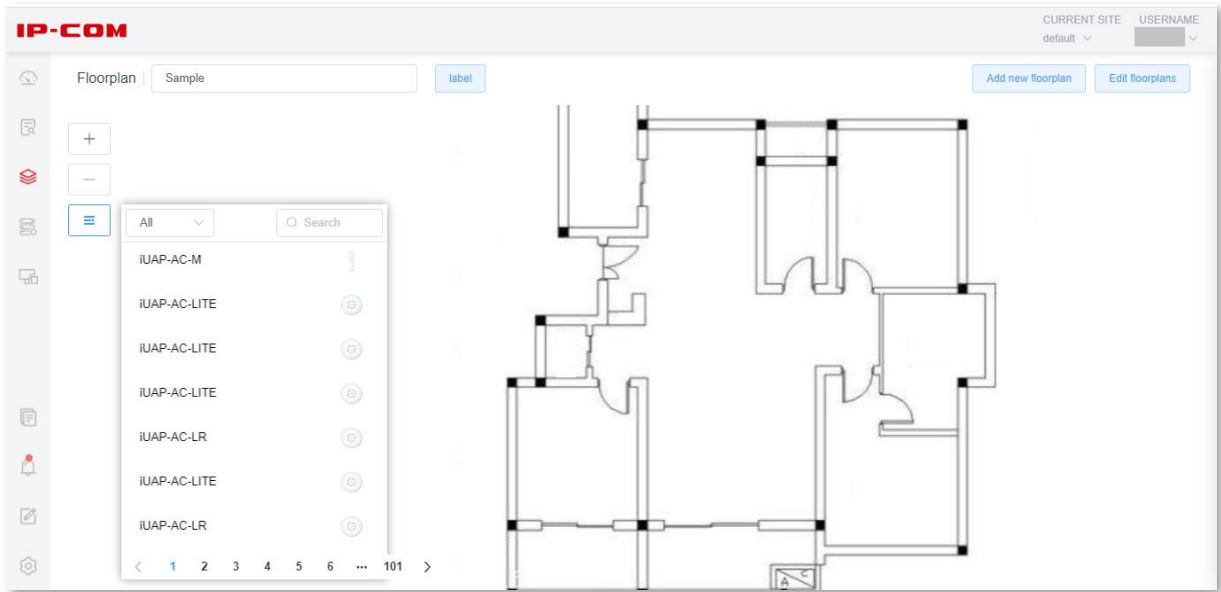


3. Drag each device from the appeared list to the appropriate location on the map. In addition, you can search for the target device in the search box or select the target type of devices from the **All** drop-down menu for quick device locate.



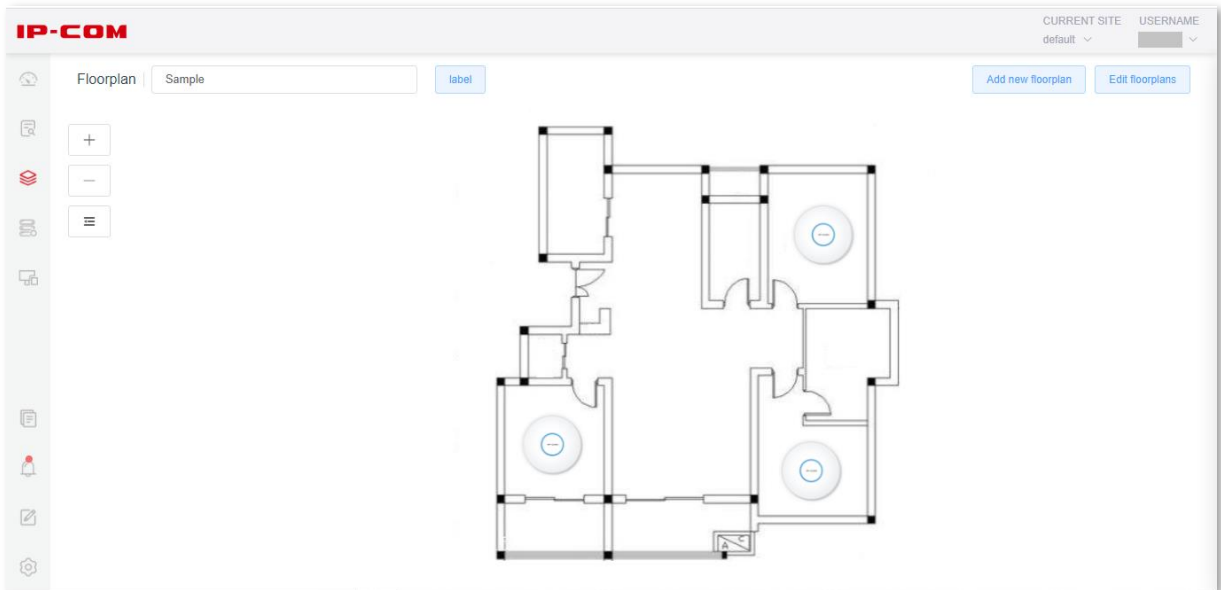
Note

If you cannot drag and drop a device, ensure that you are logging in as a super administrator or an administrator.




----End


Each device appears on the spot where you dropped it.



6.4 Device Information

The device icon indicates the device model.

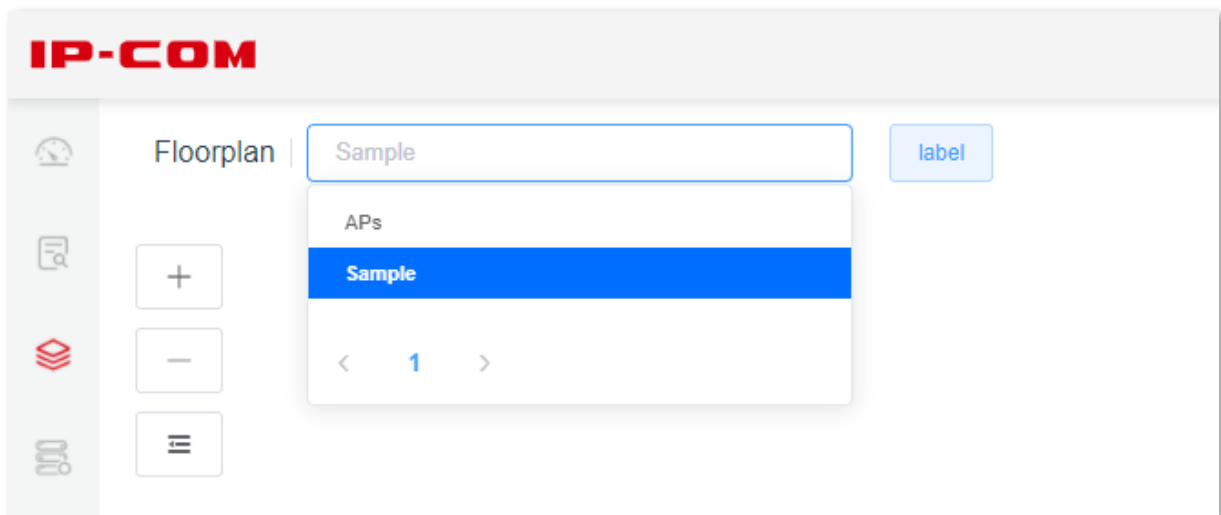
 : iUAP-AC-M

 : iUAP-AC-LR or iUAP-AC-LITE

The offline  mark on the device icon indicates an offline device.

6.5 Map Display Options

If you uploaded multiple map images, you can select which map is to be displayed from the drop-down menu or search for keywords in the search box. Simply begin typing; there is no need to press **Enter**.



Each device is displayed with its device name, IP address, MAC address and model by default. Other labels you can choose include version, uptime, clients, channel-2.4G, channel-5G, and bytes. You can also check **All columns** to select or deselect all labels.

IP-COM CURRENT SITE: default USERNAME:

Floorplan:

- All columns
- Device Name
- IP Address
- MAC Address
- Model
- Version
- Uptime
- Clients
- Channel-2.4G
- Channel-5G
- Bytes

Device Name: iUAP-AC-LITE
IP Address: 172.168.3.209
MAC Address: D8:38:0D:AD:97:B0
Model: iUAP-AC-LITE

6.6 Additional Options

The left side of the map page offers the following options:



Zoom Slider: Used to zoom the map detail in and out.

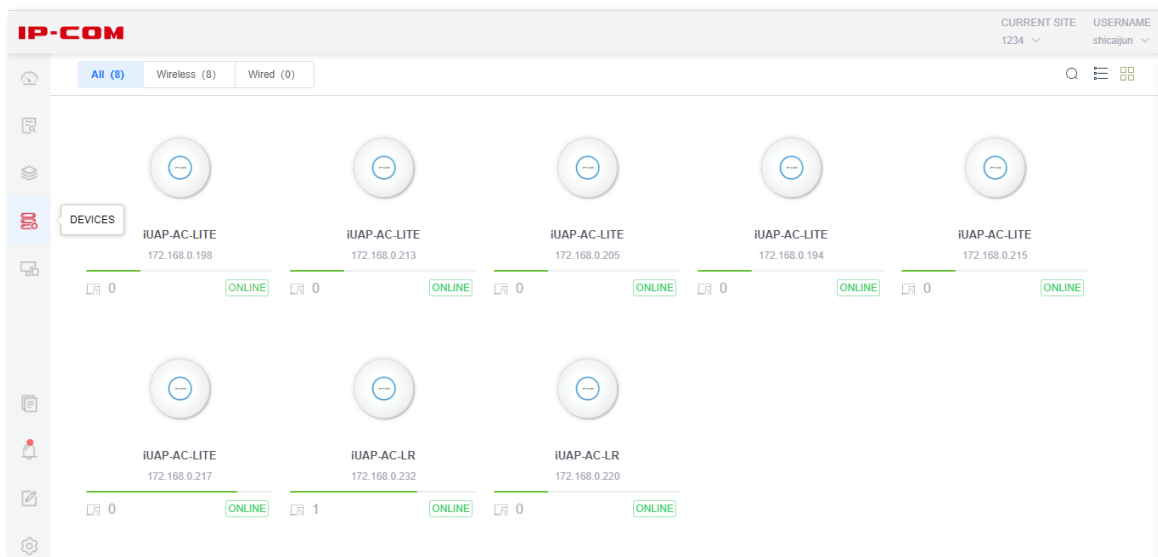




Unplaced Devices: Drag each unplaced device icon from the list to the target spot on the map. (This action requires super administrator or administrator access)

7 Devices

This page displays all the devices detected by the Software Controller. For now, only iUAP-AC-M, iUAP-AC-LR, and iUAP-AC-LITE are supported.

To enter the page, choose **Devices**. See the following figure.



By default, devices are displayed in a spread out form () as shown above. Click  in the upper right corner to display the devices in a list as shown below.

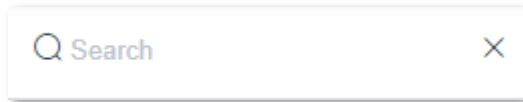
The screenshot shows the IP-COM web interface in list view. The table below contains the data for the 8 devices shown in the previous screenshot. The interface includes a sidebar with navigation icons and a top navigation bar with 'All (8)', 'Wireless (8)', and 'Wired (0)' filters. In the top right corner, there are icons for search, list view, and grid view. At the bottom, there is a pagination control showing 'Total 8', '50/page', and 'Go to 1'.

Device Name	IP Address	MAC Address	Status	Model	Version	Uptime	
iUAP-AC-LITE	172.168.0.198	D8:38:0D:AD:96:C0	ONLINE	iUAP-AC-LITE	V1.0.0.1(6605)	6d 14h 25m 14s	Locate Restart
iUAP-AC-LITE	172.168.0.213	D8:38:0D:AD:95:E0	ONLINE	iUAP-AC-LITE	V1.0.0.1(6605)	6d 14h 25m 10s	Locate Restart
iUAP-AC-LITE	172.168.0.205	D8:38:0D:AD:8D:B0	ONLINE	iUAP-AC-LITE	V1.0.0.1(6605)	6d 14h 25m 7s	Locate Restart
iUAP-AC-LITE	172.168.0.194	D8:38:0D:AD:8C:F0	ONLINE	iUAP-AC-LITE	V1.0.0.1(6605)	6d 14h 25m 10s	Locate Restart
iUAP-AC-LITE	172.168.0.215	D8:38:0D:AD:8C:C0	ONLINE	iUAP-AC-LITE	V1.0.0.1(6605)	6d 14h 25m 6s	Locate Restart
iUAP-AC-LITE	172.168.0.217	D8:38:0D:AD:8C:B0	ONLINE	iUAP-AC-LITE	V1.0.0.1(6605)	6d 14h 24m 52s	Locate Restart
iUAP-AC-LR	172.168.0.232	D8:38:0D:A9:76:60	ONLINE	iUAP-AC-LR	V1.0.0.1(6605)	6d 14h 25m 9s	Locate Restart
iUAP-AC-LR	172.168.0.220	D8:38:0D:A9:74:60	ONLINE	iUAP-AC-LR	V1.0.0.1(6605)	6d 14h 25m 12s	Locate Restart

Filter Target Device Type

- **All:** displays all the devices.
- **Wireless:** displays all the APs.
- **Wired:** displays all the gateways and switches. These devices are not supported for now.

Search



Enter keywords to easily search for and filter out target contents.

Device Display Options




Click it to display devices in a list.




Click it to display devices in a spread out form.

Sort Devices

When devices are displayed in a list, click  on a column header to sort the displayed list in an ascending or descending order.

Customize Columns

When devices are displayed in a list, click  in the farthest right of the column header to customize columns.

The following figure displays columns customizable for APs.

All columns

Device Name

IP Address

MAC Address

Status

Model

Version

Uptime

Uplink

Mem. Usage

CPU Usage

Clients

Channel-2.4G

Channel Bandwidth-2.4G

Radio-2.4G

Channel-5G



Channel Bandwidth-5G

Radio-5G

2.4G Clients

5G Clients


AP customizable column description

Parameter	Description
Device Name	<p>It specifies the AP icon and name.</p> <p>AP icon and name are shown as below. (More device models and types may be supported in later versions of the Software Controller)</p> <p> : iUAP-AC-M</p> <p> : iUAP-AC-LR, iUAP-AC-LITE</p>
IP Address	It specifies the IP address of the AP.
MAC Address	It specifies the physical address of the LAN port of the AP.




Parameter	Description
Status	<p>It specifies the status of the AP. Possible statuses include:</p> <ul style="list-style-type: none"> – Online: The AP is managed by the Software Controller and connected to the network in which the Software Controller is deployed. It belongs to the current site. – Offline: The AP is managed by the Software Controller but not connected to the network in which the Software Controller is deployed. It belongs to the current site. – Connected (Disabled): The AP is connected to the network in which the Software Controller is deployed but is disabled (the Software Controller cannot manage the AP), and the LED indicator and WLAN of the AP are both disabled. – Pending Adoption: The AP is waiting to be managed by the Software Controller and the site to which it belongs is not determined. – Adopting: AP management is under way. – Provisioning: The AP is synchronizing its configurations with those delivered by the Software Controller. – Managed by Other: The AP is managed by another Software Controller. – Restarting: The AP is restarting. – Upgrading: The AP is upgrading.
Model	It specifies the device model of the AP.
Version	It specifies the software version of the AP.
Uptime	It specifies the duration the AP has been running.
Uplink	It specifies the name of the uplink device of the AP.
Mem. Usage	It specifies the real time memory usage of the AP.
CPU Usage	It specifies the real time CPU usage of the AP.
Clients	It specifies the number of the clients connected to the wireless networks of the AP.
Channel-2.4G	It specifies the channel AP utilizes in the 2.4 GHz radio band.
Channel Bandwidth-2.4G	It specifies the channel bandwidth AP utilizes in the 2.4 GHz radio band.
Radio-2.4G	It specifies the transmitted power AP utilizes in the 2.4 GHz radio band.
Channel-5G	It specifies the channel AP utilizes in the 5 GHz radio band.
Channel Bandwidth-5G	It specifies the channel bandwidth AP utilizes in the 5 GHz radio band.
Radio-5G	It specifies the transmitted power AP utilizes in the 5 GHz radio band.
2.4G Clients	It specifies the number of the clients connected to the 2.4 GHz wireless networks of the AP.
5G Clients	It specifies the number of the clients connected to the 5 GHz wireless networks of the AP.

Locate Devices




If there is no  **Locate** button in the row where a device resides, the device does not support the locate function. For now, models supporting the locate function include iUAP-AC-LR and iUAP-AC-LITE.

■ Enable the Locate Function

If you want to quickly locate a device in a network, click  **Locate** in the row where the target device resides to enable the locate function. After the function is enabled, the  **Locate** button turns to  **Located** and the LED indicator of the located device keeps blinking fast. You can locate the target device by following the clue.


■ Disable the Locate Function

If you want to disable the locate function of a device, click  **Located** . After the locate function is disabled, the LED indicator of the device is restored to the status before the location function is enabled.

Restart Devices

Click  **Restart** to restart the target device.

Upgrade Devices

When an upgradable file is detected, the  **Upgrade** button is displayed. You can click it to upgrade the software of the device.

Device Details

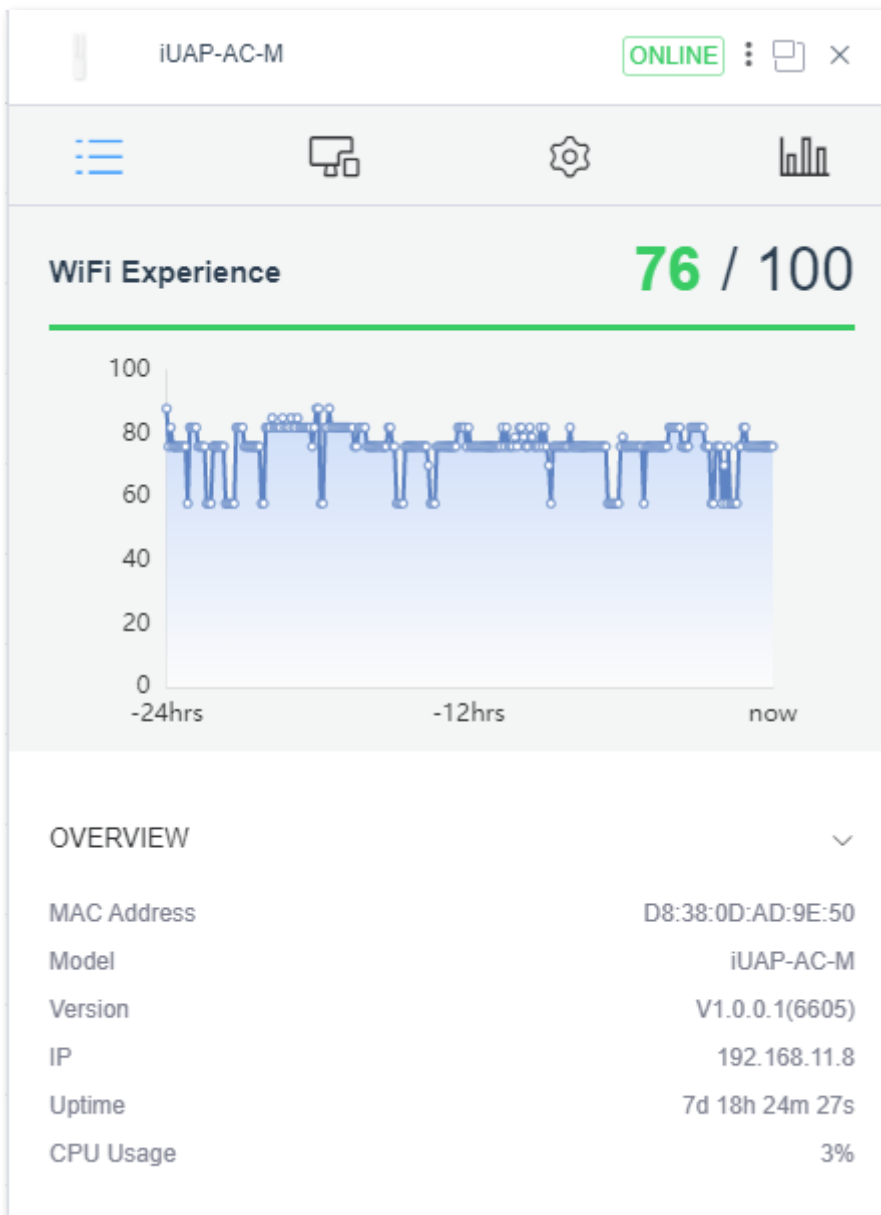
Click anywhere on the row where the target device resides to check the device details and set some configurations for the device.

For AP devices, refer to [AP Details](#).


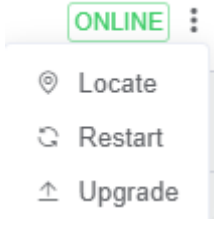
8 AP Details

This page displays AP details, including the general information, clients, settings, and statistics of an AP.

To enter the page, choose **Devices > Wireless**, click an AP, and the details page of the AP pops up from the right side of the screen. See the following figure.











Window elements description

Element	Description
(Appearance & Name)	<p>It specifies the AP icon and name.</p> 
(Status)	<p>It specifies the status of the AP.</p> <ul style="list-style-type: none"> - Online: The AP is managed by the Software Controller and connected to the network in which the Software Controller is deployed. It belongs to the current site. - Offline: The AP is managed by the Software Controller but not connected to the network in which the Software Controller is deployed. It belongs to the current site. - Connected (Disabled): The AP is connected to the network in which the Software Controller is deployed but is disabled (the Software Controller cannot manage the AP), and the LED indicator and WLAN of the AP are both disabled. - Pending Adoption: The AP is waiting to be managed by the Software Controller and the site to which it belongs is not determined. - Adopting: AP management is under way. - Provisioning: The AP is synchronizing its configurations with those delivered by the Software Controller. - Managed by Other: The AP is managed by another Software Controller. - Restarting: The AP is restarting. - Upgrading: The AP is upgrading.
(More actions)	<p>It specifies other actions you can perform on the AP, including locate, restart, and upgrade. This function is valid only for online APs.</p> 
(switch window status)	<p>Click it to switch the status of the AP details window. You can switch between the following two statuses:</p> <ul style="list-style-type: none"> - The window is locked on the right side of the screen. This window status is the default status. - The window hovers above the page. Under such status, you can drag the window to anywhere you want.



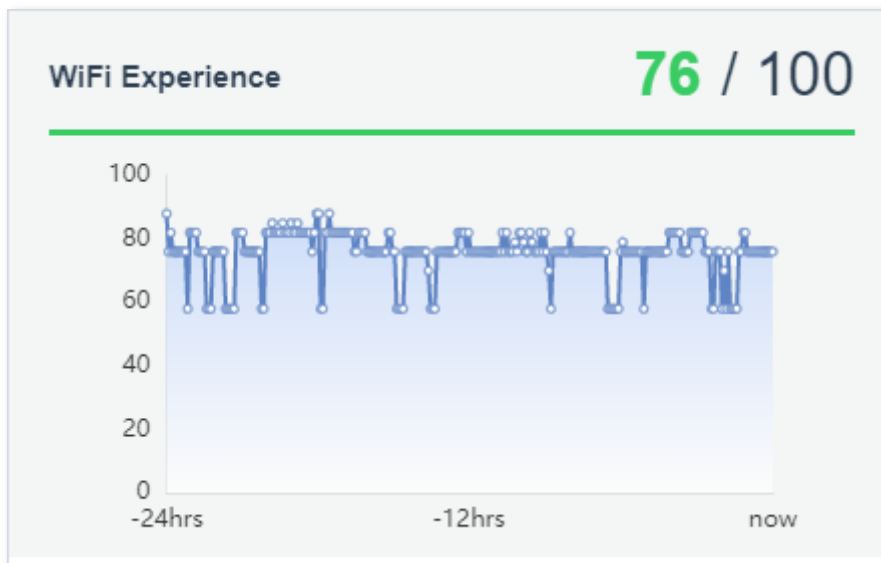
Tip

-  **Located** indicates that the administrator located the AP on the Software Controller and has not disabled the locate function. Click  **Located** to disable the locate function.
- If a button is missing, that action is not allowed under the current status.

Element	Description
(close the window) 	Click it to close the AP details window.
(Details) 	Click it to check the general information of the AP, including its uplink, RF, WLANs and so on.
(Clients) 	Click it to check the details of the clients connected to the AP.
(Settings) 	Click it to modify AP configurations.
(Stats) 	Click it to check the CPU usage, memory usage, and the number of connected clients of the AP.
(Adopt AP) 	Click it to adopt AP to the current site. This function is valid only for AP in the pending adoption status.

8.1 WiFi Experience

This module displays the WiFi experience of the AP during the last 24 hours. The experience is marked out of 100 marks.



The WiFi experience mark is used to evaluate the user experience of the wireless networks of the AP. It is calculated based on the operating status of the AP, including such parameter as its CPU usage, memory usage, capacity, wireless channel utilization, and background noise.

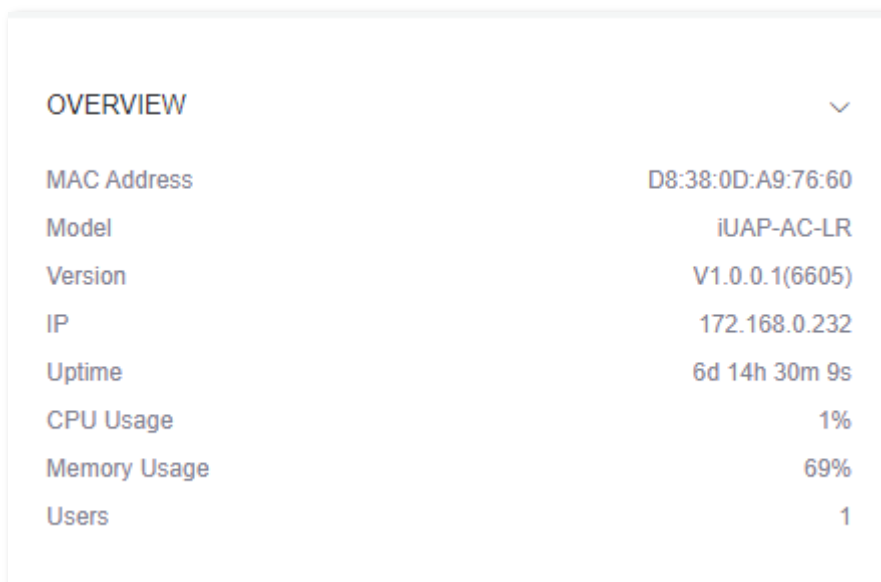


The WiFi experience function is valid only when the Software Controller is running properly. In other words, the WiFi experience cannot be marked when the Software Controller is closed.

8.2 Details

8.2.1 Overview

This module displays the specifications, IP address, uptime, CPU usage, memory usage, and client statistics of an AP. See the following figure.



OVERVIEW	
MAC Address	D8:38:0D:A9:76:60
Model	iUAP-AC-LR
Version	V1.0.0.1(6605)
IP	172.168.0.232
Uptime	6d 14h 30m 9s
CPU Usage	1%
Memory Usage	69%
Users	1

Parameter description

Parameter	Description
MAC Address	It specifies the physical address of the LAN port of the AP.
Model	It specifies the model of the AP.
Version	It specifies the software version number of the AP.
IP	It specifies the IP address of the AP.
Uptime	It specifies the duration the AP has been running.
CPU Usage	It specifies the CPU usage of the AP.
Memory Usage	It specifies the memory usage of the AP.
Users	It specifies the number of clients connected to the wireless networks of the AP.

8.2.2 AP/Port

This module displays the details of the uplink of the AP.

AP/Port	▼
Uplink	
Speed	100 Mbps
Duplex	Full duplex
Down Bytes	36.76 MB
Up Bytes	3.93 GB

Parameter description

Parameter	Description
Uplink	It specifies the name of the uplink device.
Speed	It specifies the maximum speed at which the AP negotiates with its uplink device.
Duplex	It specifies the duplex mode of the AP port connecting to the uplink device.
Down Bytes	It specifies the total bytes downloaded by the AP.
Up Bytes	It specifies the total bytes uploaded by the AP.

8.2.3 2.4G/5G Statistics

This module displays channel configurations, transmit power, transmitted and received data statistics and client statistics.



Tip

If an AP is a single-band AP, only the statistics of that band is displayed.

2.4GSTATISTICS	▼
Channel	9
Channel Bandwidth	20
Transmit Power	28
Tx Bytes	0 Byte
Rx Bytes	0 Byte
Users	0

5GSTATISTICS		▼
Channel		44
Channel Bandwidth		40
Transmit Power		26
Tx Bytes		3.93 GB
Rx Bytes		36.76 MB
Users		1

Parameter description

Parameter	Description
Channel	It specifies the channel AP utilizes to transmit and receive the wireless data in the radio band. 0 indicates that the wireless function is not enabled.
Channel Bandwidth	It specifies the frequency range of the wireless channel AP utilizes in the radio band. 0 indicates that the wireless function is not enabled.
Transmit Power	It specifies the transmit power of the radio band.
Tx Bytes	It specifies the total bytes AP transmitted and received.
Rx Bytes	
Users	It specifies the number of clients connected to the radio band of the AP.

8.2.4 WLANs

This module displays the details of the enabled wireless networks.

WLANs			
Name	MAC	SSID	Channel
ath0	D8:38:0D:A9:76:61	psst-ceshi-w63ap-rua n	9
ath10	D8:38:0D:A9:76:69	psst-ceshi-w63ap-rua n	44

Parameter description

Parameter	Description
Name	It specifies the wireless network interface.

Parameter	Description
MAC	It specifies the BSSID of the wireless network (the MAC address of the wireless network interface).
SSID	It specifies the wireless network name.
Channel	It specifies the channel in which the wireless network operates.

8.3 Clients

This page displays the details of the clients connected to the AP. For now, only wireless clients are supported.

name	IP	Network/SSID
No Data		

Network/SSID	Signal	Speed
No Data		

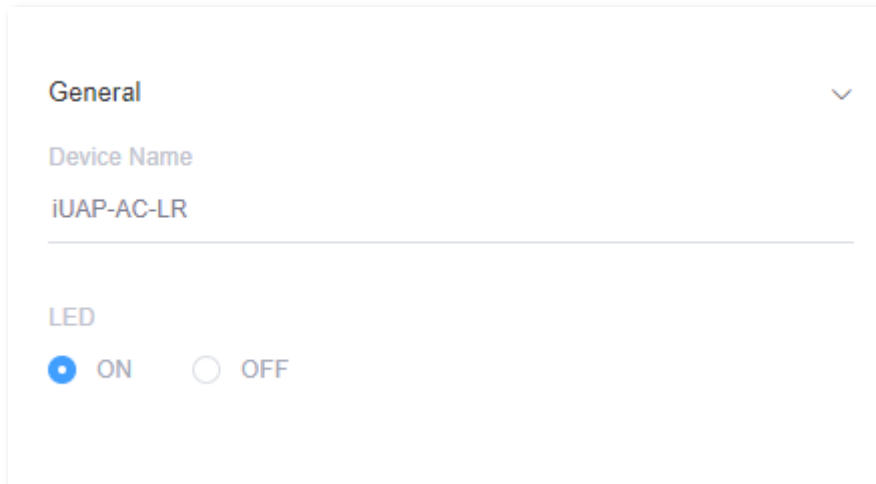
Parameter description

Parameter	Description
name	It specifies the name of the client.
IP	It specifies the IP address of the client.
Network/SSID	It specifies the wireless network or Ethernet port the client connects to.
Signal	It specifies the signal strength of the client.
Speed	It specifies the maximum speed at which the client negotiates with the wireless network or Ethernet port.

8.4 Settings

8.4.1 General

This module is used to modify AP name, and enable or disable its LED indicator.



General

Device Name

iUAP-AC-LR

LED

ON OFF

Parameter description

Parameter	Description
Device Name	It specifies the name of the AP. By default, the AP model is displayed. You can modify it to distinguish APs.
LED	Choose to enable or disable the LED indicator. If the LED indicator is enabled, you can judge the operating status of the AP by the indicator. By default, the LED indicator is enabled (ON).

8.4.2 Statistics

This module is used to modify channel parameters and transmit power of the AP.



If an AP is a single-band AP, only the statistics of that band is displayed.

STATISTICS ▼

2.4GSTATISTICS

Channel Bandwidth Channel

20MHz Auto

Transmit Power

Auto

5GSTATISTICS

Channel Bandwidth Channel

40MHz Auto

Transmit Power

Auto

Parameter description

Parameter	Description
Channel Bandwidth	<p>It specifies the frequency range of the wireless channel AP utilizes in the radio band. The higher the channel bandwidth is, the higher the transmit and receive rates are, but the penetration performance is reduced, and data can be transmitted and received at a short distance.</p> <ul style="list-style-type: none"> - 20MHz: The AP utilizes a channel bandwidth of 20 MHz. - 40MHz: The AP utilizes a channel bandwidth of 40 MHz. - Auto: The AP switches the channel bandwidth between 20 MHz or 40 MHz based on its surroundings. This option is supported only for the 2.4 GHz network. - 80MHz: The AP utilizes a channel bandwidth of 80 MHz. This option is supported only for the 5 GHz network.

Parameter	Description
Channel	<p>It specifies the channel AP utilizes to transmit and receive the wireless data in the radio band. Its options are determined by your country/region and radio band. By default, Auto is selected.</p> <p>Auto: The AP automatically detects the channel utilization of each channel and chooses a proper channel accordingly.</p> <p>If disconnection or slow internet connection occurs from time to time, try changing to another channel.</p> <p>You can use such software tools as WiFi analyzer to check channels which are less occupied and have little interference.</p>
Transmit Power	<p>It specifies the transmit power of the radio band of the AP. By default, Auto is selected.</p> <p>The higher the transmit power, the wider the wireless coverage will be. However, a proper reduction of the transmit power can help improve the performance and enhance the security of the wireless network.</p> <ul style="list-style-type: none"> - Auto: The AP automatically adjusts its transmit power to the maximum value. - Custom: Set a transmit power manually.

8.4.3 WLANs

This module is used to modify the WLAN group to which the AP belongs, enable or disable the wireless network, enable or disable VLAN, modify VLAN ID, SSID and WiFi password.

WLANS		
WLAN 2.4G		
WLAN Group		
default		
name	Overrides	ACTIONS
ssid1		
ssid2	Disabled	
ssid3	Disabled	
ssid4	Disabled	
WLAN 5G		
WLAN Group		
default		
name	Overrides	ACTIONS

Parameter description

Parameter	Description
WLAN Group	It specifies the WLAN group to which the AP belongs. The WLAN group should be configured in advance in Settings > Wireless Networks .
name	It specifies the name of the enabled wireless network.
Overrides	It specifies the overrides information the administrator made on the wireless network.
Actions	Click to manually enable or disable the wireless network and VLAN, modify VLAN ID, the wireless network name and password.

Click to expand the following page.

WLANS ▼

WLAN 2.4G-Overrides

Enabled on this AP

Use VLAN

VLAN ID

100

SSID


ssid1

Security Key

..... 👁

Cancel
RESET TO DEFAULTS
Save

Parameter description

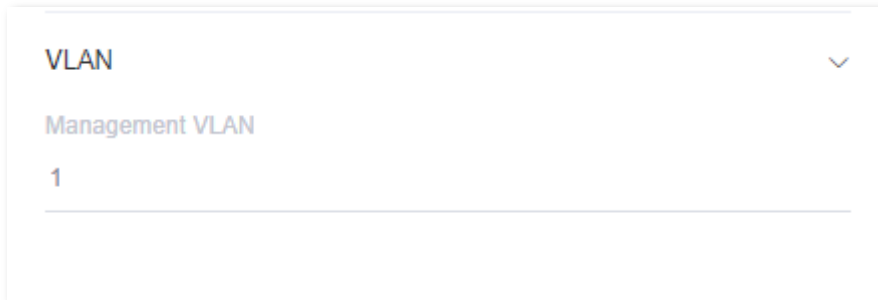
Parameter	Description
Enable on this AP	Click it to enable or disable the wireless network.
Use VLAN	Click it to enable or disable VLAN.
VLAN ID	<p>It specifies the VLAN ID if you enabled VLAN.</p> <p> Tip</p> <p>After you enable VLAN, the wireless network serves as an access port whose PVID is the same with the VLAN ID.</p>
SSID	It is used to modify the wireless network name.
Security Key	<p>It is used to modify the wireless network password.</p> <p>This parameter is available only when the security mode of the wireless network is set to WPA-PSK or WPA2-PSK.</p>

Reset to Defaults

Click **Reset to Defaults** to clear the manual modifications the administrator made on the wireless network. The configurations of the wireless network resynchronize with those of the WLAN group to which it belongs.

8.4.4 VLAN

This module is used to modify the management VLAN.



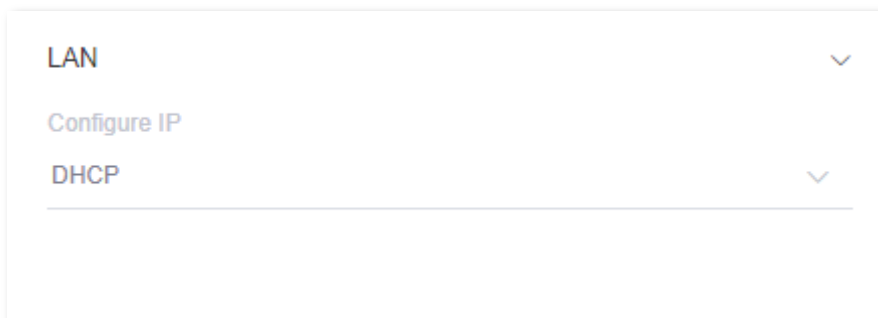
The screenshot shows a configuration window with a dropdown menu labeled 'VLAN'. The dropdown is expanded, showing the text 'Management VLAN' and the value '1' below it. There is a downward arrow icon to the right of the 'VLAN' label.

Parameter description

Parameter	Description
Management VLAN	It specifies the management VLAN ID of the AP. This parameter is available only when VLAN is enabled. The default value is 1 . If you modified the management VLAN, the Software Controller can manage the AP only after reconnecting to the new management VLAN.

8.4.5 LAN

This module is used to modify the LAN configurations.



The screenshot shows a configuration window with a dropdown menu labeled 'LAN'. The dropdown is expanded, showing the text 'Configure IP' and 'DHCP' below it. There is a downward arrow icon to the right of the 'LAN' label.

LAN ▼

Configure IP

Static IP ▼

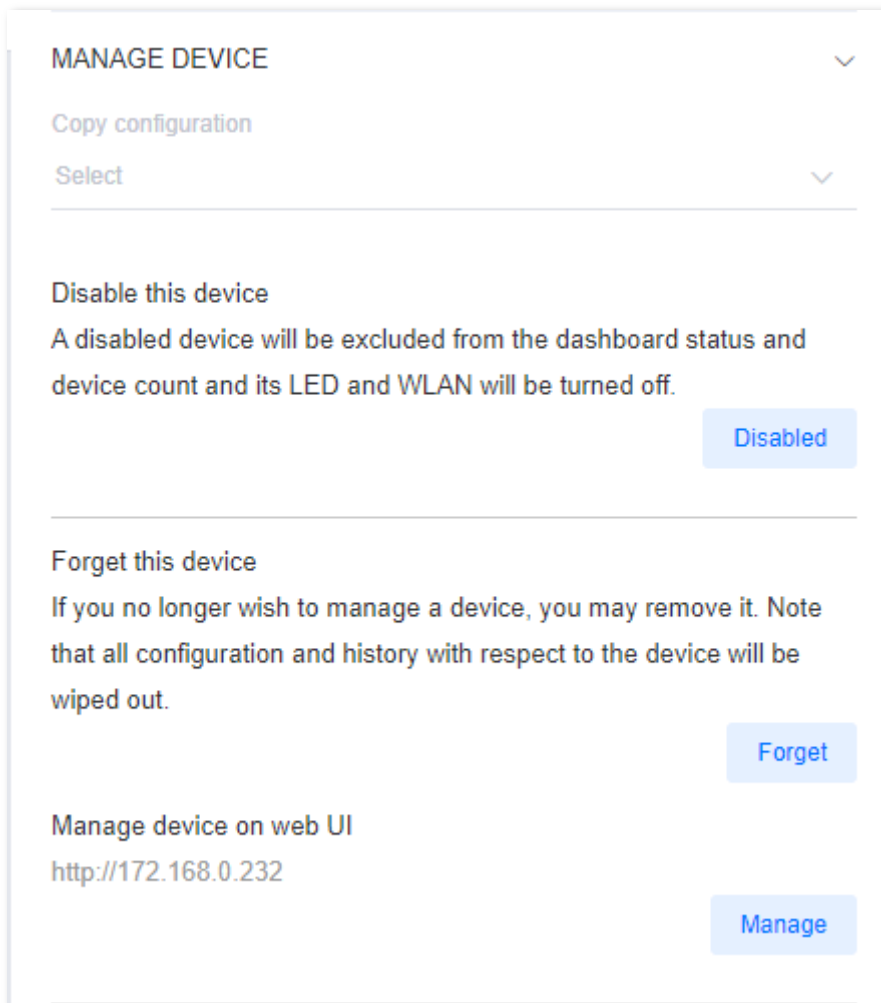
IP Address	Preferred DNS
0.0.0.0	0.0.0.0
Subnet Mask	Alternate DNS
255.255.255.0	0.0.0.0
Gateway	DNS Suffix
0.0.0.0	

Parameter description

Parameter	Description
Configure IP	<p>It specifies the IP address obtaining mode of the AP.</p> <ul style="list-style-type: none"> – DHCP: the default mode. Under this mode, the AP automatically obtains its IP address, subnet mask, gateway address, and DNS server address from the DHCP server in the network. This mode is applicable to the scenarios where a large number of APs are deployed. – Static IP: Under this mode, the IP address, subnet mask, gateway address, and DNS server address of the AP are specified manually. This mode is applicable to the scenarios where only one or several APs are deployed.
IP Address	It specifies the IP address of the AP, and is also the management IP address of the AP. LAN users can visit this IP address to log in to the web UI of the AP.
Subnet Mask	It specifies the subnet mask of the AP, which is used to define the IP address range of the network segment.
Gateway	<p>It specifies the IP address of the default gateway.</p> <p>If you want to connect the AP to the internet, set this parameter to the IP address of the LAN port of the router connecting to the internet.</p>
Preferred DNS	<p>It specifies the preferred DNS server address.</p> <p>If the router connecting to the internet has the DNS proxy function, you can enter the IP address of its LAN port. Otherwise, enter the correct IP address of the DNS server.</p>
Alternate DNS	<p>It specifies the alternate DNS server address. This parameter is optional.</p> <p>If you have two DNS server IP addresses, you can enter the other one here.</p>
DNS Suffix	It specifies the Fully Qualified Domain Name (FQDN) without the hostname.


8.4.6 Manage Device

This module is used to copy the configurations of another device, disable and forget the AP, or access the web UI of the AP.



Parameter description

Parameter	Description
Copy configuration	It is used to copy the configurations of another device. Click the drop-down menu to select the device whose configurations you want to apply to this AP.
Disable this device	Click Disabled to disable the AP. After the AP is disabled, its status will be displayed as CONNECTED (DISABLED) . Under such circumstances, the AP cannot be managed by the Software Controller and its LED indicator and WiFi are both disabled. If you want to manage the disabled AP, click Enabled .

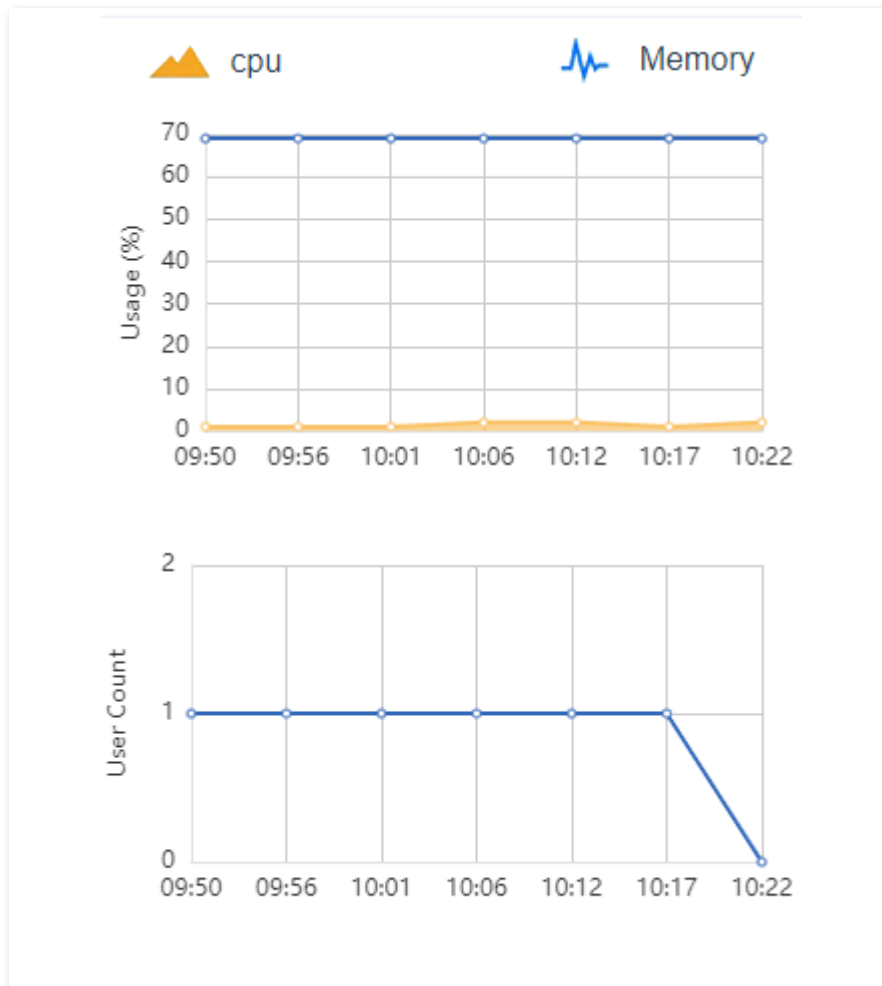
Parameter	Description
	Click Forget to remove the AP from the current site.
Forget this device	 Note <ul style="list-style-type: none"> - After you forgot the AP, all configurations and history of this AP will be cleared. - After you forgot the AP, its configurations delivered before the forget action will remain unless you perform other actions on it.
Manage device on web UI	<p>It specifies the IP address of the web UI of the AP.</p> <p>If the management computer is deployed locally (in the LAN where the AP is deployed), click Manage to redirect to the web UI of the AP.</p>

8.5 Stats

This page is used to check the CPU usage, memory usage, and client statistics during the last 24 hours.



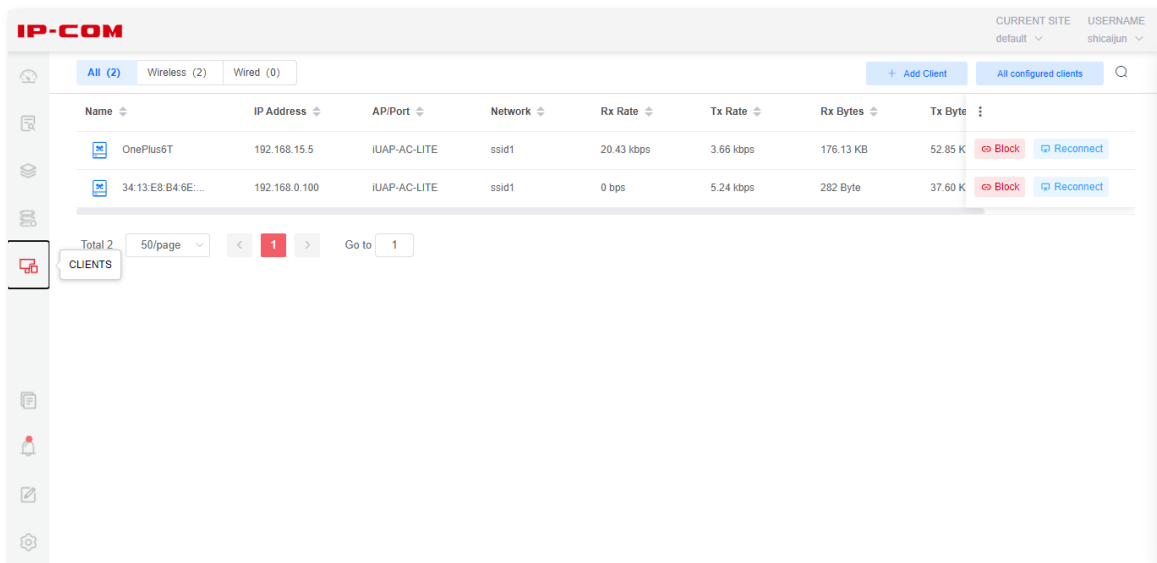
The stats function is valid only when the Software Controller is running properly. In other words, the statistics during the period when the Software Controller is closed will not be counted.



9 Clients

This page is used to check the details of all the clients in the network.

To enter the page, choose **Clients**. See the following figure.



Filter Target Client Type


- **All**: displays all the clients.
- **Wireless**: displays all the wireless clients.
- **Wired**: displays all the wired clients. These clients are not supported for now.

Search




Enter keywords to easily search for and filter out target contents.

Sort Clients

Click  on a column header to sort the clients in an ascending or descending order.

Customize Columns

Click  in the farthest right of the column header to customize columns.

The following figure displays columns customizable for wireless clients.

Select multiple clients
 All columns


- Name
- Hostname
- IP Address
- MAC Address
- VLAN
- AP/Port
- Network
- Channel
- Signal
- Rx Negotiation Rate
- Tx Negotiation Rate
- Rx Rate
- Tx Rate
- Rx Bytes
- Tx Bytes
- Uptime

Wireless clients customizable column description

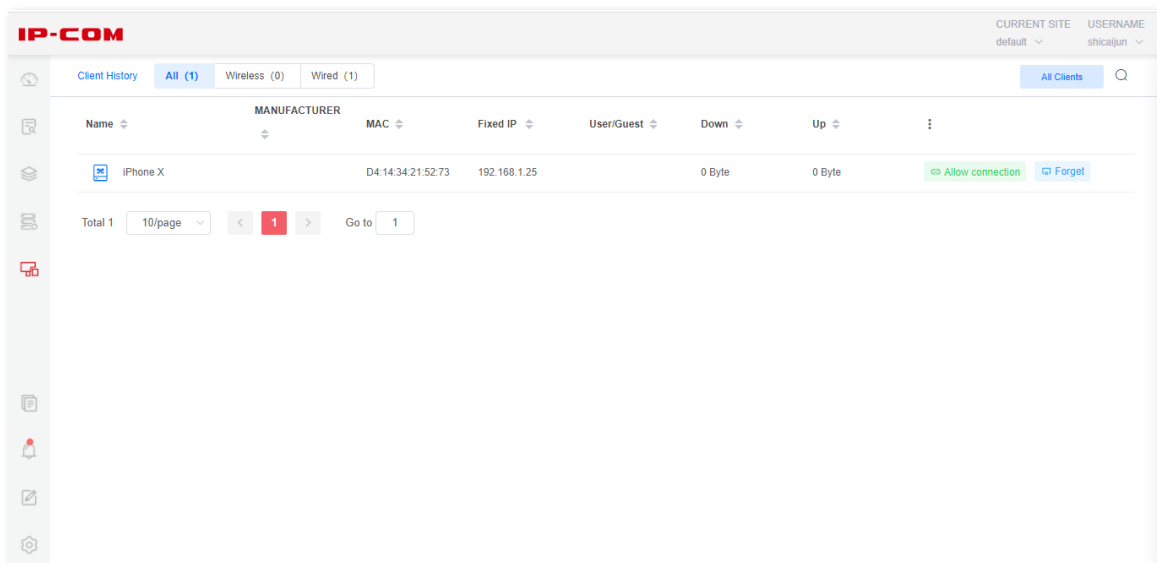
Parameter	Description
Name	It specifies the name of the client.
Hostname	It specifies the hostname of the client.
IP Address	It specifies the IP address of the client.
MAC Address	It specifies the physical address of the client.
VLAN	It specifies the VLAN ID of the network to which the client connects. If 0 is displayed, the network to which the client connects does not enable VLAN.
AP/Port	It specifies the name of the uplink device.
Network	<ul style="list-style-type: none"> – Wireless client: displays the name of the wireless network to which the client connects. – Wired client: displays the port to which the client connects.
Channel	It specifies the wireless channel the client utilizes.
Signal	It specifies the signal strength of the client received by the AP.
Rx Negotiation Rate	It specifies the maximum receiving rate at which the client negotiates with the AP.
Tx Negotiation Rate	It specifies the maximum transmitting rate at which the client negotiates with the AP.
Rx Rate	It specifies the real time receiving rate of the client.
Tx Rate	It specifies the real time transmitting rate of the client.

Parameter	Description
Rx Bytes	It specifies the total bytes received by the client.
Tx Bytes	It specifies the total bytes transmitted by the client.
Uptime	It specifies the duration the client has been connected.

Block Clients

Click  to block the client from connecting to the network in which the Software Controller is deployed.

You can check the blocked clients on the [All configured clients](#) page.



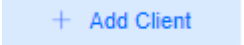

Reconnect Clients

Click  to cut off the client connection.

- If authentication is enabled, the reconnected client needs to re-authentication its status to gain internet access again.
- If authentication is not enabled, the reconnected client connects back automatically and regains internet access.

Add Client


If you deleted the configuration record of a blocked client by mistake and want to allow that client to connect to the network again, you can first add it to the network and [allow connection again](#). Refer to the following procedures to add the client:

1. On the **Clients** page, click .
2. In the **Add client** window, configure related parameters and click .

----End

You can check the client on the [All configured clients](#) page.

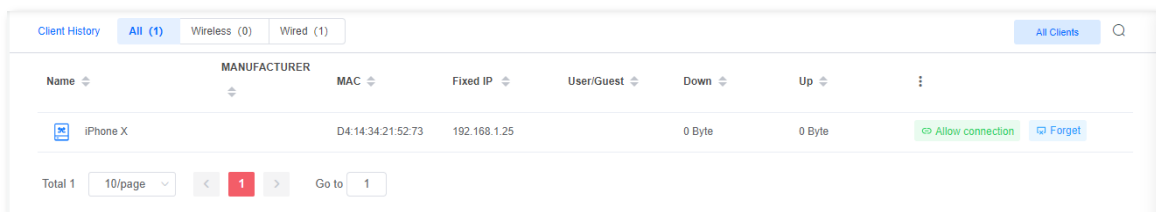
Parameter description

Parameter	Description
MAC Address	It specifies the physical address of the client.
Name	It specifies the name of the client.
User Group	This function is not supported for now.
Fixed IP	It is used to assign a fixed IP address to the client. You can check the box as required. This function is valid only when a gateway is deployed.
IP Address	If you checked the Fixed IP box, enter the IP address you want to assign to the client here.  Tip After you saved the configurations, the client will be assigned with this IP address the next time it sends an IP address request.


Check or Configure All Configured Clients

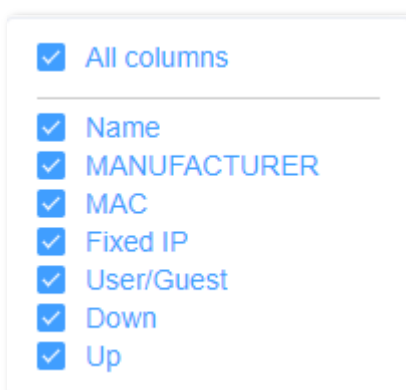
This page is used to check added, blocked and reconnected clients, and perform the [allow connection](#) and [forget](#) actions.

To enter the page, on the **Clients** page, click [All configured clients](#).



Name	MANUFACTURER	MAC	Fixed IP	User/Guest	Down	Up	
iPhone X		D4:14:34:21:52:73	192.168.1.25		0 Byte	0 Byte	Allow connection Forget

Click  in the farthest right of the column header to customize columns.



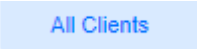
<input checked="" type="checkbox"/>	All columns
<input checked="" type="checkbox"/>	Name
<input checked="" type="checkbox"/>	MANUFACTURER
<input checked="" type="checkbox"/>	MAC
<input checked="" type="checkbox"/>	Fixed IP
<input checked="" type="checkbox"/>	User/Guest
<input checked="" type="checkbox"/>	Down
<input checked="" type="checkbox"/>	Up

All configured clients customizable column description

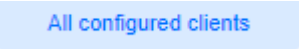

Parameter	Description
Name	It specifies the name of the client.

Parameter	Description
Manufacturer	It specifies the information of the client manufacturer.
MAC	It specifies the physical address of the client.
Fixed IP	It specifies the IP address of the client.
User/Guest	It specifies the identity status of the client.
Down	It specifies the total bytes received by the client.
Up	It specifies the total bytes transmitted by the client.

Check All Clients

On the [All configured clients](#) page, click  to return to the page on which all the clients are displayed.

Allow Connection

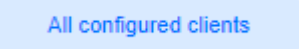

1. On the **Clients** page, click .
2. Click  on the row where the target client resides.

----End

The target client can connect to the network in which the Software Controller is deployed again.

Forget Clients

If you want to remove the client from the [All configured clients](#) page list, you can use this function. Refer to the following procedures:

1. On the **Clients** page, click .
2. Click  on the row where the target client resides.

----End



If you deleted a blocked client by mistake and want to allow that client to connect to the network again, you can first [add the client](#) and [allow connection again](#).

Client Details

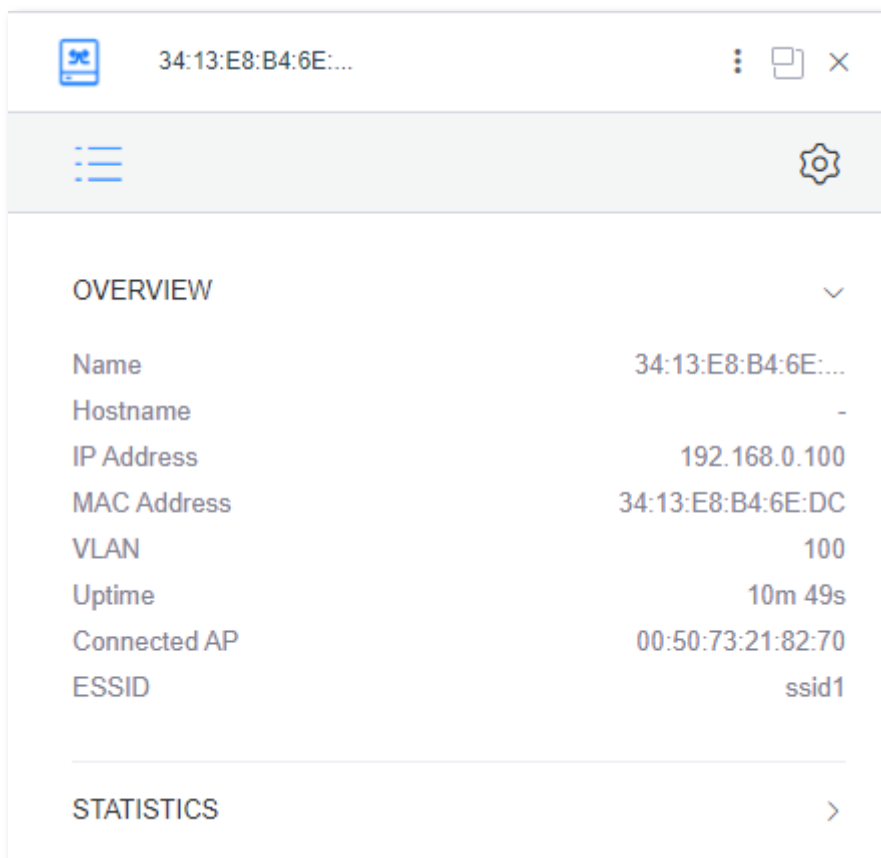
Click anywhere on the row where the target client resides to check the client details and set some configurations for the client.

For wireless clients, refer to [Wireless Client Details](#).

10 Wireless Client Details


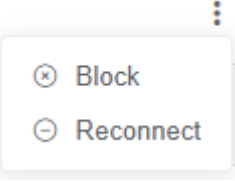




This page displays wireless client details, including the general information and settings.

To enter the page, choose **Clients > Wireless**, click a client, and the details page of the client pops up from the right side of the screen. See the following figure.



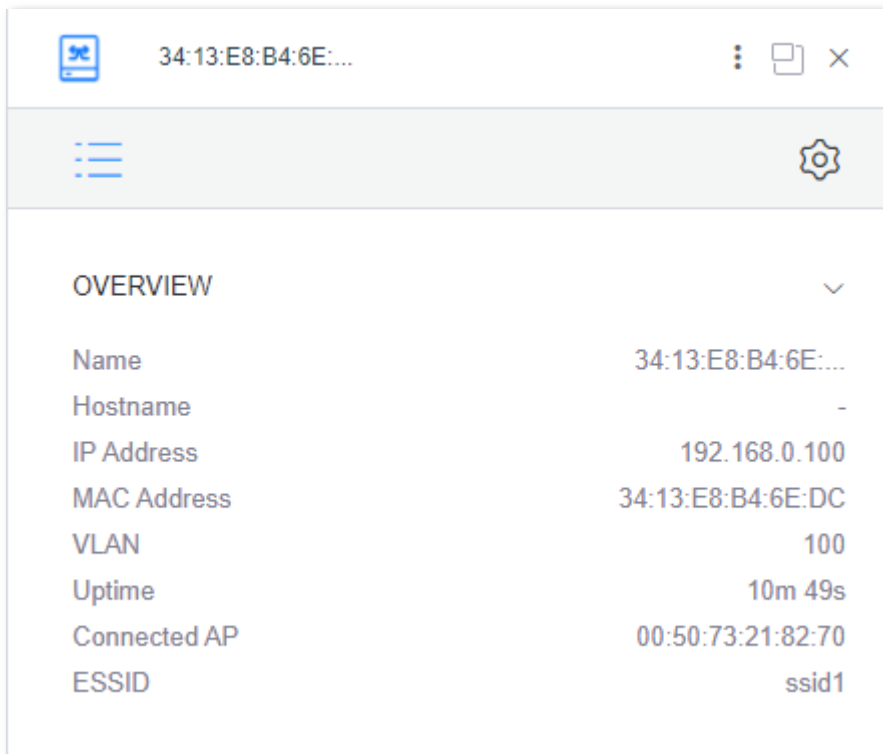
Window elements description

Element	Description
(Name)	It specifies the name of the client. If you never made any changes to this parameter, it is generally displayed as the hostname or MAC address of the client.

Element	Description
	Click it to block or reconnect the client.
(More actions) 	
(switch window status) 	<p>Click it to switch the status of the client details window. You can switch between the following two statuses:</p> <ul style="list-style-type: none"> - The window is locked on the right side of the screen. This window status is the default status. - The window hovers above the page. Under such status, you can drag the window to anywhere you want.
(close the window) 	Click it to close the client details window.
(Details) 	Click it to check the general information and RF statistics of the client.
(Settings) 	Click it to modify client configurations.

10.1.1 Details

Overview



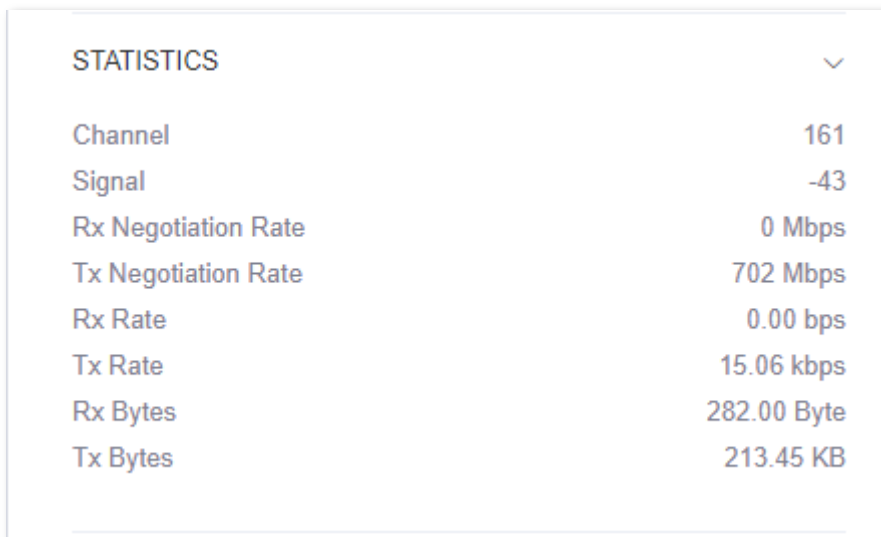
The screenshot shows a window titled "34:13:E8:B4:6E:..." with a close button (X) and a settings gear icon. The window content is as follows:

OVERVIEW	
Name	34:13:E8:B4:6E:...
Hostname	-
IP Address	192.168.0.100
MAC Address	34:13:E8:B4:6E:DC
VLAN	100
Uptime	10m 49s
Connected AP	00:50:73:21:82:70
ESSID	ssid1

Parameter description

Parameter	Description
Name	It specifies the name of the client.
Hostname	It specifies the hostname of the client.
IP Address	It specifies the IP address of the client.
MAC Address	It specifies the physical address of the client.
VLAN	It specifies the VLAN ID of the network to which the client connects. If 0 is displayed, the network to which the client connects does not enable VLAN.
Uptime	It specifies the duration the client has been connected.
Connected AP	It specifies the MAC address of the LAN port of the AP to which the client connects.
ESSID	It specifies the wireless network name (SSID) to which the client connects.

Statistics



STATISTICS	
Channel	161
Signal	-43
Rx Negotiation Rate	0 Mbps
Tx Negotiation Rate	702 Mbps
Rx Rate	0.00 bps
Tx Rate	15.06 kbps
Rx Bytes	282.00 Byte
Tx Bytes	213.45 KB

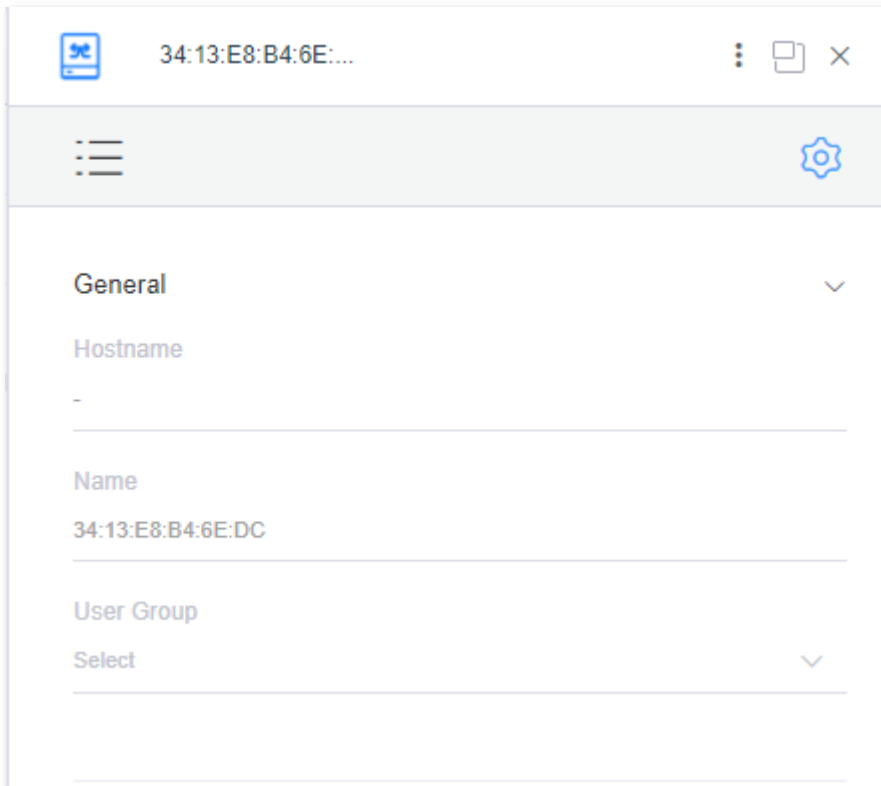
Parameter description

Parameter	Description
Channel	It specifies the wireless channel the client utilizes.
Signal	It specifies the signal strength of the client received by the AP.
Rx Negotiation Rate	It specifies the maximum receiving/transmitting rate at which the client negotiates with the AP.
Tx Negotiation Rate	
Rx Rate	It specifies the real time receiving/transmitting rate of the client.
Tx Rate	
Rx Bytes	It specifies the total bytes received/transmitted by the client.
Tx Bytes	

10.1.2 Settings

General

This module is used to modify such information as client hostname and name.




Parameter description

Parameter	Description
Hostname	It specifies the hostname of the client.
Name	It specifies the name of the client.
User Group	Select a user group to which the client belongs. This function is not supported for now.

Network

This module is used to assign a fixed IP address to the client.

Parameter description

Parameter	Description
Fixed IP	<p>It is used to assign a fixed IP address to the client. You can check the box as required.</p> <p>This function is valid only when a gateway is deployed.</p>
IP Address	<p>If you checked the Fixed IP box, enter the IP address you want to assign to the client here.</p> <p> Tip</p> <p>After you saved the configurations, the client will be assigned with this IP address the next time it sends an IP address request.</p>

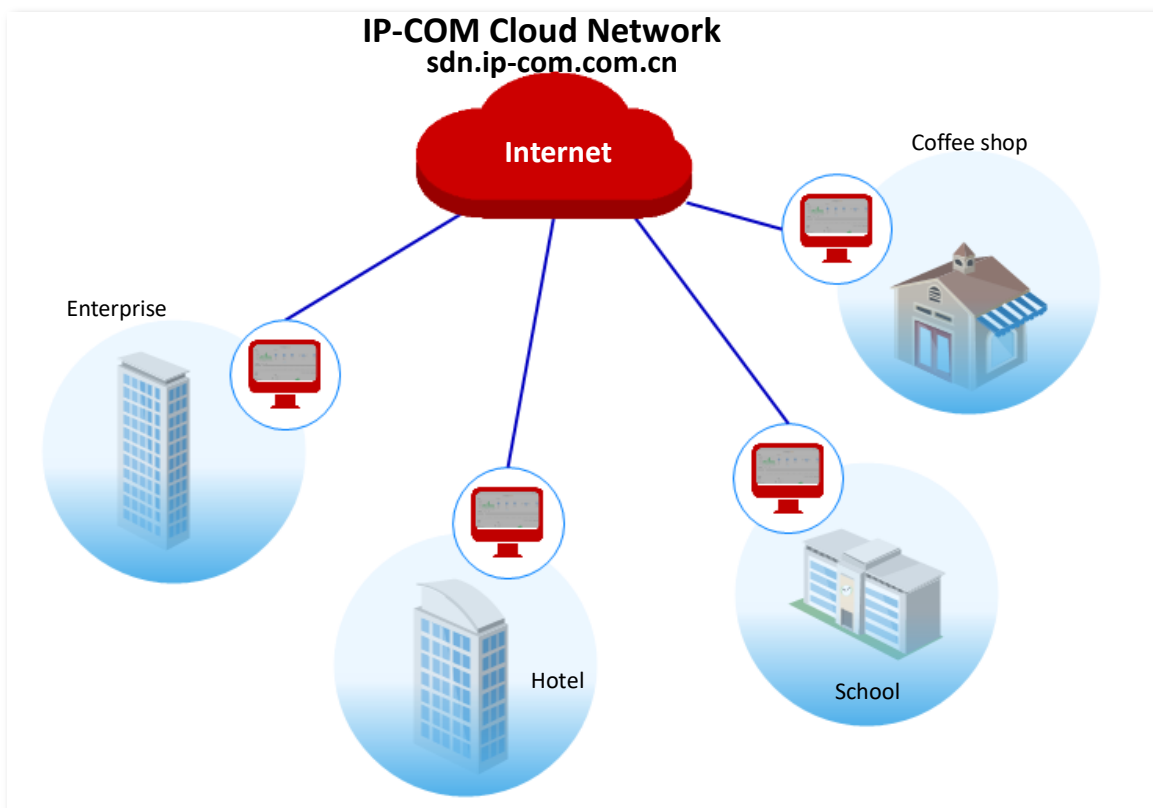
11 Application Scenarios

11.1 Overview

IP-COM Software Controller is a software program which can be used to configure, manage, and monitor iUAP-AC-M, iUAP-AC-LR, and iUAP-AC-LITE in your network without deploying an extra network management system.

11.2 Application Scenarios

The Software Controller can automatically detect all the devices in the LAN supporting Software Controller management, and mark their device information.



As shown above, the enterprise, hotel, school, and coffee shop can all deploy a Software Controller in their own network, and with this Software Controller, they can manage and

monitor their local networks without having to connect to the internet.

If necessary, you can also enable the remote access function on the local controller. In this way, O&M personnel in charge of multiple locations can remotely access the Software Controllers deployed in these locations, and manage and maintain the networks, improving O&M efficiency.

- **Local Management**

Deploy a Software Controller in a Layer-2 network.

- **Remote Management**

1. Choose **Settings > Remote Access**, toggle on **Remote Access**, enter the IP-COM Cloud Network account and password, and click **Save**.
2. Visit sdn.ip-com.com.cn and log in to IP-COM Cloud Network using your IP-COM Cloud Network account.

----End

After you successfully logged in to the IP-COM Cloud Network, you can remotely manage all the Software Controllers under this account.

Appendix

A.1 Factory default settings

The following table lists the default values of major parameters of the Software Controller.

Parameter		Default Value
IP-COM Cloud Network	Session Timeout	1 month (30 days)
User Interface	Language	English
Wireless Networks	Group Rekey Interval	0
Properties Panel		Hidden
		Disabled
Guest Control	Portal Preview Mode	Desktop Preview
Guest Access	Bind MAC	Disabled
Admins	Site Permissions granted to administrators	Allow device configuration, Allow device adoption and removal, Allow editing dashboards, Allow system stats access, Allow read only access to all sites
Backup	Maximum Number of Files	7
	Period	Last 24 hours
WiFi Metrics	Statistics	Top 10 Access Points
	Wireless Clients type	Existing, New , Disconnected
Devices	Display Form	A spread out form
	LED	ON
	Channel	Auto
AP Details	Transmit Power	Auto
	Management VLAN	1

Parameter		Default Value
	Configure IP	DHCP
Details Window	Status	Locked on the right side of the screen

A.2 Acronyms & Abbreviations

Acronyms & Abbreviations	Full Name
AC	Access Category
AC	Access Point Controller
ASCII	American Standard Code for Information Interchange
AES	Advanced Encryption Standard
AIFSN	Arbitration Inter Frame Spacing Number
AP	Access Point
APSD	Automatic Power Save Delivery
CSMA/CA	Carrier Sense Multiple Access with Collision Avoidance
CPU	Central Processing Unit
CTS	Clear to Send
DHCP	Dynamic Host Configuration Protocol
DTIM	Delivery Traffic Indication Map
DNS	Domain Name System
EDCA	Enhanced Distributed Channel Access
ESSID	Extended Service Set Identifier
FIFO	First-in First-out
FQDN	Fully Qualified Domain Name
GB	Gigabyte
GTK	Group Temporal Key
HTTPS	Hypertext Transfer Protocol Secure
LAN	Local Area Network
MAC	Media Access Control
MIB	Management Information Base
MU-MIMO	Multi-User Multiple-Input Multiple-Output
NMS	Network Management System
OS	Operating System
PoE	Power over Ethernet
PSK	Pre-shared Key
RAM	Random Access Memory
RF	Radio Frequency
RSSI	Received Signal Strength Indication

Acronyms & Abbreviations	Full Name
RTS	Request to Send
SNMP	Simple Network Management Protocol
SSID	Service Set Identifier
TCP/IP	Transmission Control Protocol/Internet Protocol
TKIP	Temporal Key Integrity Protocol
TXOP	Transmission Opportunity
UI	User Interface
URL	Uniform Resource Locator
VLAN	Virtual Local Area Network
WAN	Wide Area Network
WEP	Wired Equivalent Privacy
WLAN	Wireless Local Area Network
WMF	Wireless Multicast Forwarding
WMM	WiFi Multimedia
WPA	Wi-Fi Protected Access