

User Guide



Access Controller

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Preface

Thank you for purchasing this IP-COM product! Reading this User Guide will be helpful for you to configure, manage and maintain this product.

Conventions

If not specifically indicated, “AC”, “this device” or “this product” mentioned in this User Guide stands for this access controller.

In this User Guide, we assume that all settings on this device are kept in default factory settings.

Typographical conventions in this User Guide:

Item	Presentation	Example
Button	Bold	“Click the Save button” can be simplified as “Click Save ”.
Menu	Bold	“The menu Status” can be simplified as Status .
Continuous Menus	>	Click Status > Device Status

Symbols in this User Guide:

Item	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.

Overview of this User Guide

Chapters	Contents
Product Overview	Introduction to this AC's physical appearance, package and features
Device Installation	Introduction to this AC's installation steps
Web Login	Introduction to this AC's web page, web login and web logout
Function Descriptions	Introduction to this AC's advanced functions
Appendix	Introduction to this AC's troubleshooting, default settings and safety & emission statement

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Chapter I



Product Overview

[Overview](#)

[Features](#)

[Package Contents](#)

[Hardware Features](#)

Overview

With its functions, like automatic AP discovery, AP status check, centralized configurations for APs, centralized upgrading for APs, AP warning, etc., the IP-COM Access Controller CW500 can manage IP-COM W300AP centrally. It is a high-capacity, easy to be installed and maintained, secured wireless controller intended for small-to-medium-sized enterprises, higher education institutions, and hotels.

Features

- Support automatic AP discovery and AP connection without any configuration on the AP, i.e. support centralized management for all connected APs.
- Support port QVLAN, which can manage APs among multiple VLANs.
- Support AP DHCP server for IP address provisioning.
- Support centralized configuration of wireless settings, including wireless network name (SSID), encryption type, belonging VLAN, etc.
- Support Managed AP list display and AP real-time monitoring.
- Support AP LED switch on its web page, economical and environmental-friendly.
- Support adjustable AP TX power, which can adjust the AP's TX power in accordance with different environmental conditions.
- Support manual AP reboot and regular, automatic AP reboot.
- Support batch configuring, rebooting, upgrading and resetting APs.
- Support wireless clients information display of managed APs.
- Support email, desktop AP warning so that the network administrator can know the AP's real-time controlled state.
- Support system logging for recording AP connection status and warning information.
- Support web management.

Package Contents

Unpack the package and verify that the following items are included:

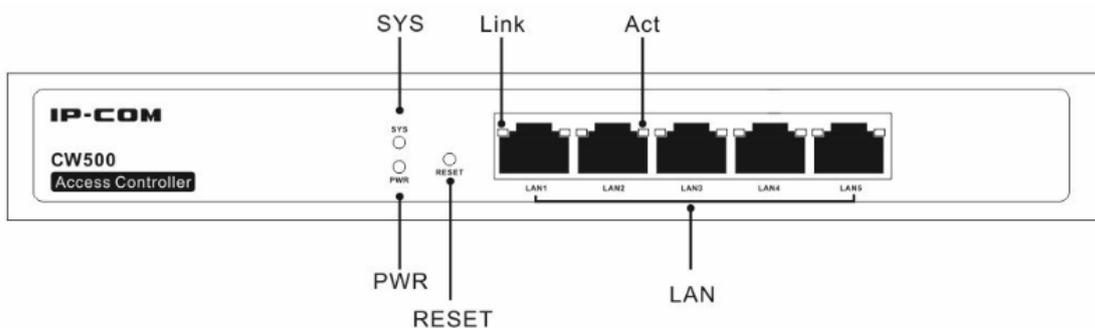
Item	Number	Description
Access Controller CW500	1	/
Power Cord	1	Used for delivering power to the AC
Anti-slip Footpad	4	Used for desktop installation
Install Guide	1	Used for instructing users to use the AC

If any item is missing, incorrect or damaged, please contact your reseller for immediate replacement.

Hardware Features

1 Front Panel

The front panel contains the following parts: LEDs, LAN port and RESET button.



LEDs

One PWR LED, one SYS LED and Link/Act LEDs (Each LAN port has its corresponding Link/Act LED.). The function of each LED is described in the following table:

LED	Color	Status	Description
PWR	Green	Solid	Proper connection to power supply
		Off	Improper connection to power supply or malfunction occurs

SYS	Green	Solid	The system is starting.
		Blinking	The system is functioning normally.
Link	Orange	Solid	A valid link has been established on the corresponding port.
		Off	No link is established on the corresponding port or malfunction occurs.
Act	Green	Blinking	Data transmission is occurring on the corresponding port.
		Off	Data transmission is not occurring on the corresponding port.

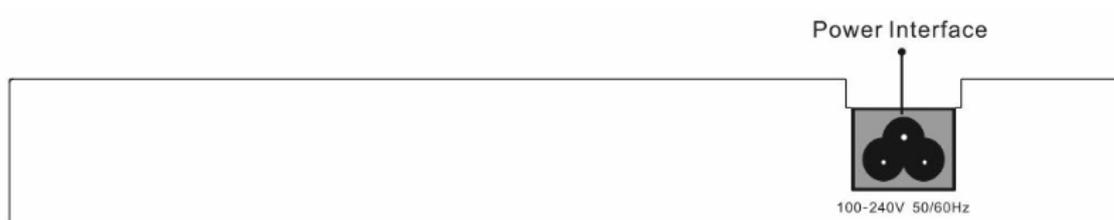
LAN port

Five 10/100/1000Mbps auto-negotiation RJ45 ports. Each RJ45 port has its corresponding Link/Act LED.

RESET button

When the AC is functioning properly, press it with a needle for 6 seconds and then release; about 45 seconds later, this device will be restored to factory default settings.

2 Back Panel



Power Interface

Used for connecting to the included power for power supply.

3 Label



1⇒Default login IP address for logging in to this AC's web page.

2⇒Default login username and password for web access.

3⇒This AC's power specification

4⇒S/N: If there goes something wrong with your device and you need to send it to our technical staff for repair, you will need this sequence number.

Chapter II

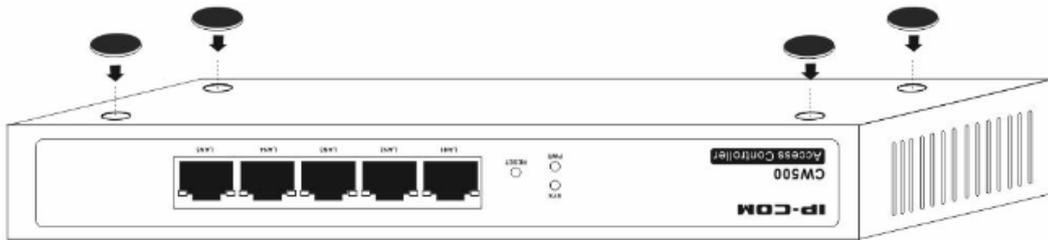


Device Installation

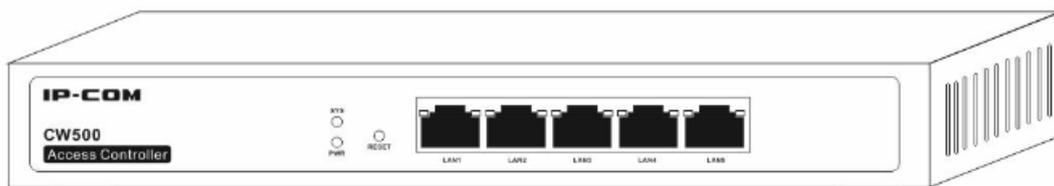
[Installation Steps](#)

Installation Steps

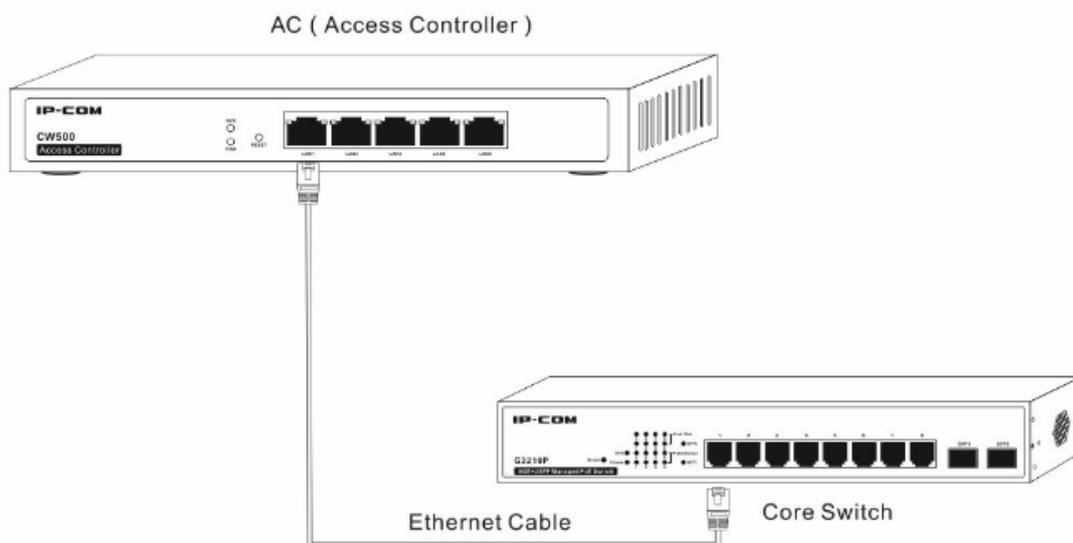
Step 1: Attach four footpads to the corresponding circular grooves on the bottom of the access controller.



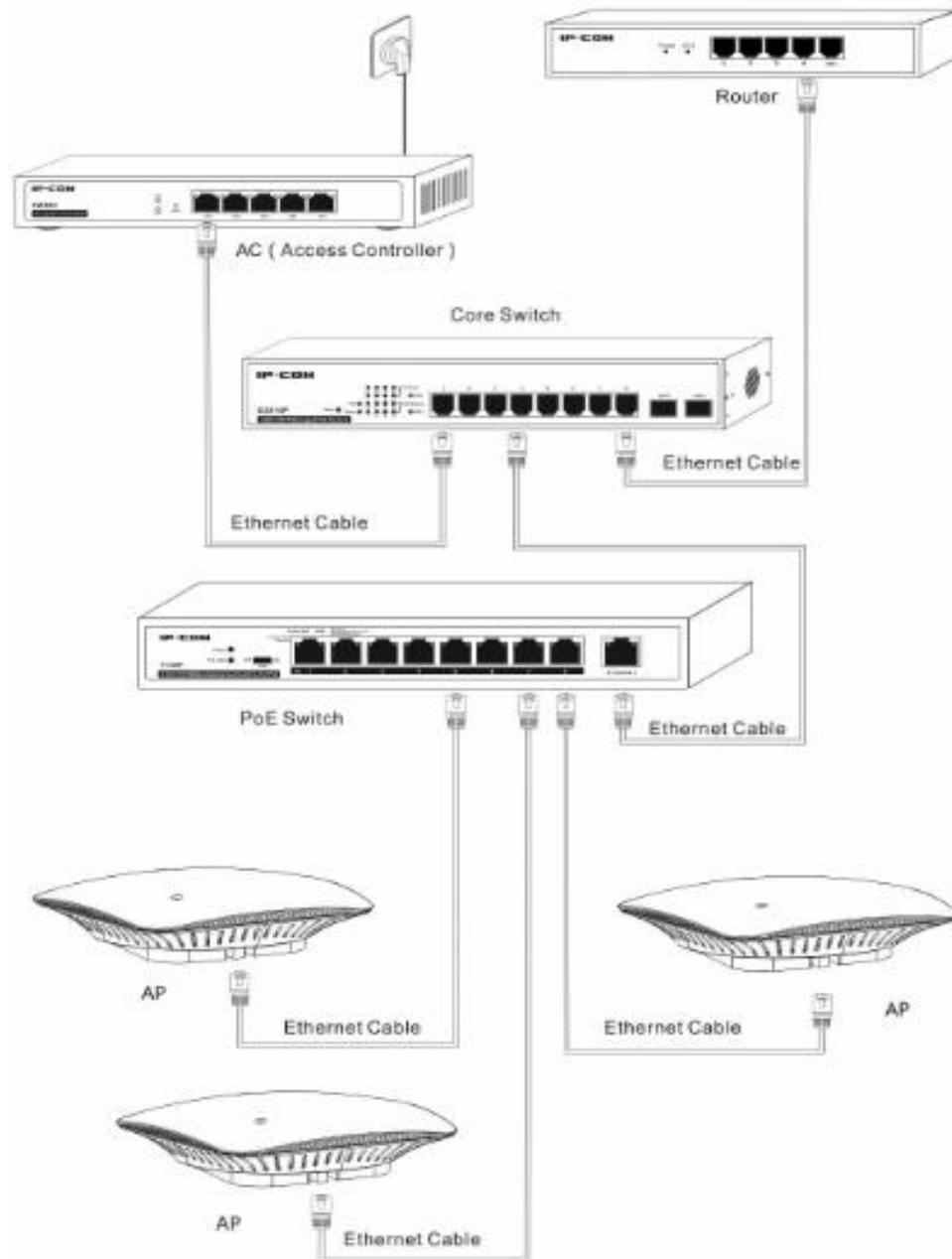
Step 2: Place the AC face up on the desktop.



Step 3: Connect the LAN port of the AC to the remote Ethernet device, such as a switch, router, AP, etc.



Step 4: After checking your network topology, connect the included power cord to the AC for power supply.



Step 5: After powering on the AC, it will initialize automatically. Check LEDs and verify that the following phenomena will occur one by one:

- At the very beginning, all LEDs become lighted for a few seconds for self-checking.
- Then the PWR LED keeps on, the SYS LED starts blinking, and other LEDs are off.
- After being powered on, the PWR LED is on, the SYS LED is blinking, the corresponding connected Link LED(s) will be lighted and corresponding Act LED (s) will be blinking or off.



Web Login

[Web Login](#)

[Web Logout](#)

[Layout of Web Page](#)

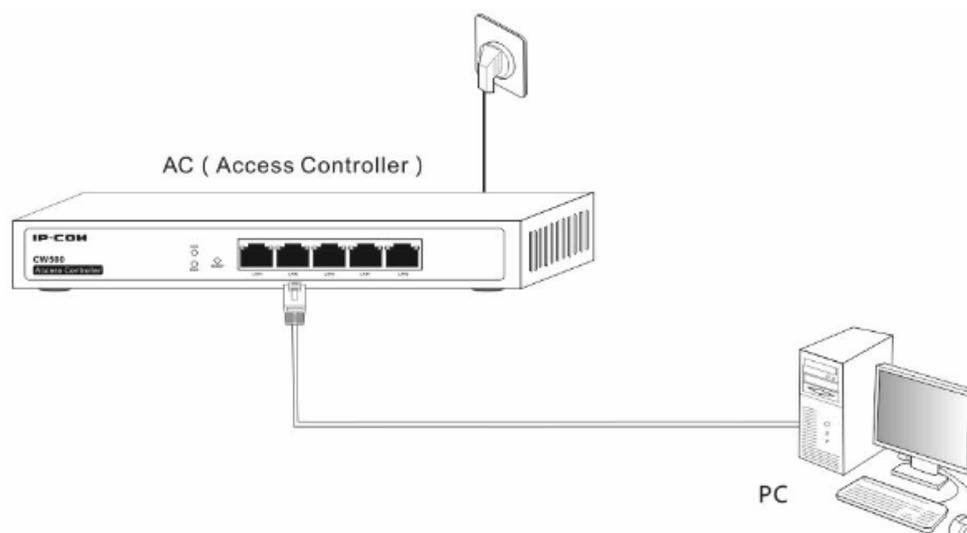
[Commonly Used Elements on Web Page](#)

Web Login

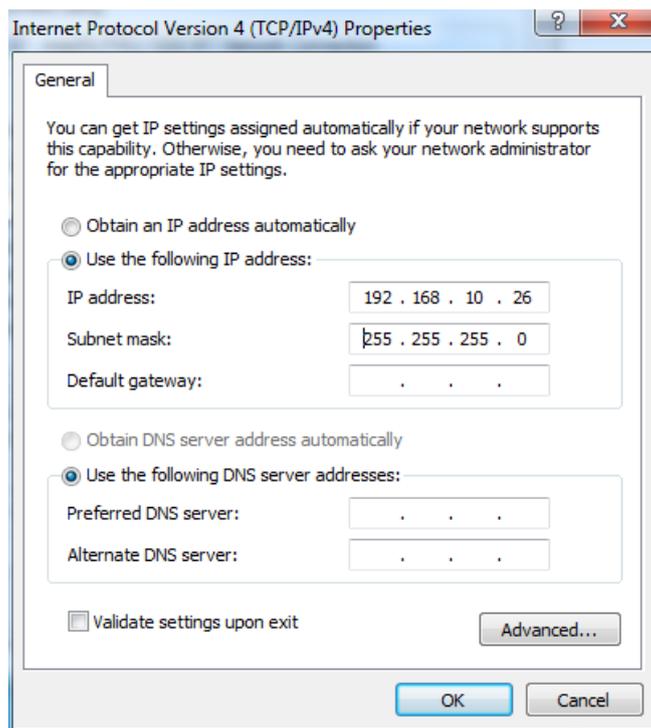
The first time you use this AC or when you reset your device to factory default settings, you can access its web page with the following default login information:

Login Information	Default setting
User Name	admin
Password	admin
IP Address	192.168.10.1

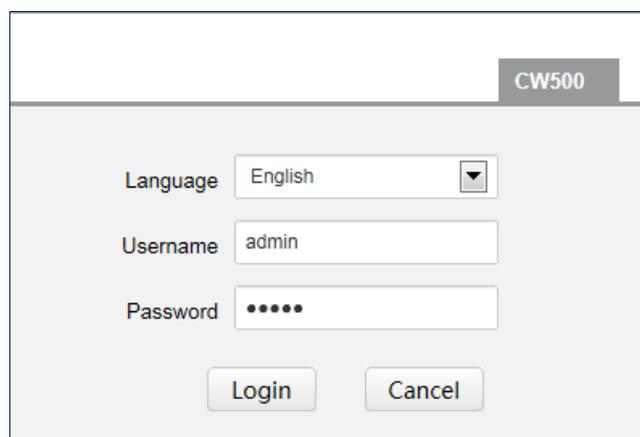
- 1 Connect your PC to one of the LAN ports of the AC directly or to the switch which has been connected to the AC.



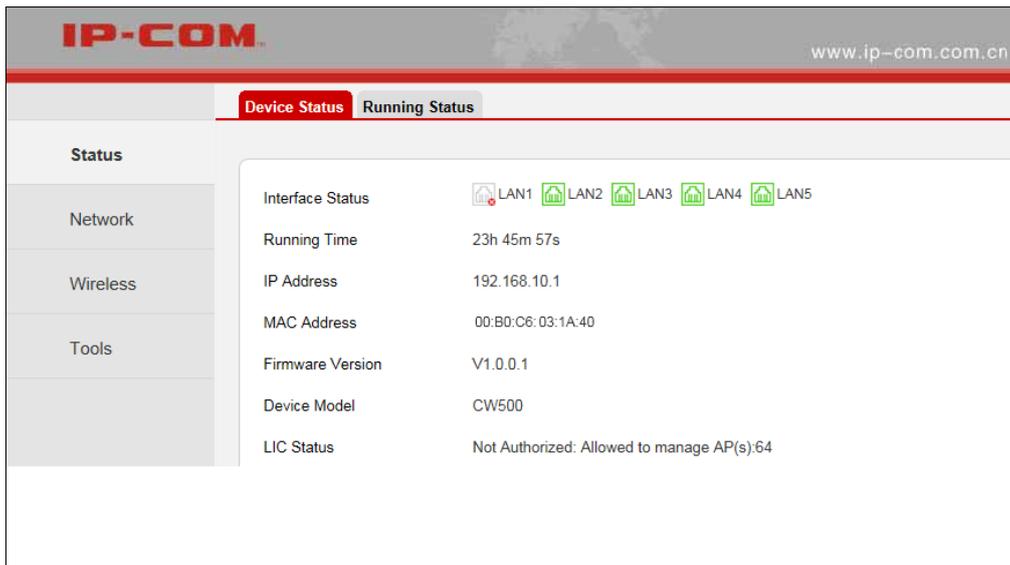
- 2 Set your PC to an IP address within the following range: 192.168.10.X (2~254), and with the subnet mask of 255.255.255.0.



- 3 Launch a web browser, input **192.168.10.1** in the address bar and press **Enter**.
- 4 Type in the default username and password (admin for both) and then click **Login**.



- 5 Then you can go to this device's web page to view corresponding configuration information or configure relevant settings. For specific advanced settings, refer to [Function Description](#).



Web Logout

Directly closing your web browser exits this AC's web page. Configurations won't be saved automatically while web manager logs out. Thus it is advisable to save your configurations manually before logout.

Note:

The webpage won't log out automatically if you just close the web browser tab.

Layout of Web Page

The Web page can be divided into two parts: navigation bar and configuration section.



Sequence Number	Name	Description
1	Navigation Bar	The navigation bar presents web administration functions to you in the form of navigation tree. This section allows you to select function menus here.
2	Configuration Section	This section allows you to configure and view settings here.

 **Note:**

- Only web administration features that the switch supports will be displayed on navigation bars. Specifically, please refer to the actual software of your switch.
- If features or parameters on the web page display grey, they are not configurable.

Commonly Used Elements on Web Page

Port Graphical Status Overview:

Commonly Used Elements	Description
	Indicates no link is established on the corresponding port.
	Indicates a link has been established on the corresponding port.

Commonly Used Buttons:

Commonly Used Elements	Description
Save	Used for saving your current configurations.
Cancel	Used for canceling your current configurations.

Chapter IV



Function Description

[Status](#)

[Network](#)

[Wireless](#)

[Tools](#)

Status

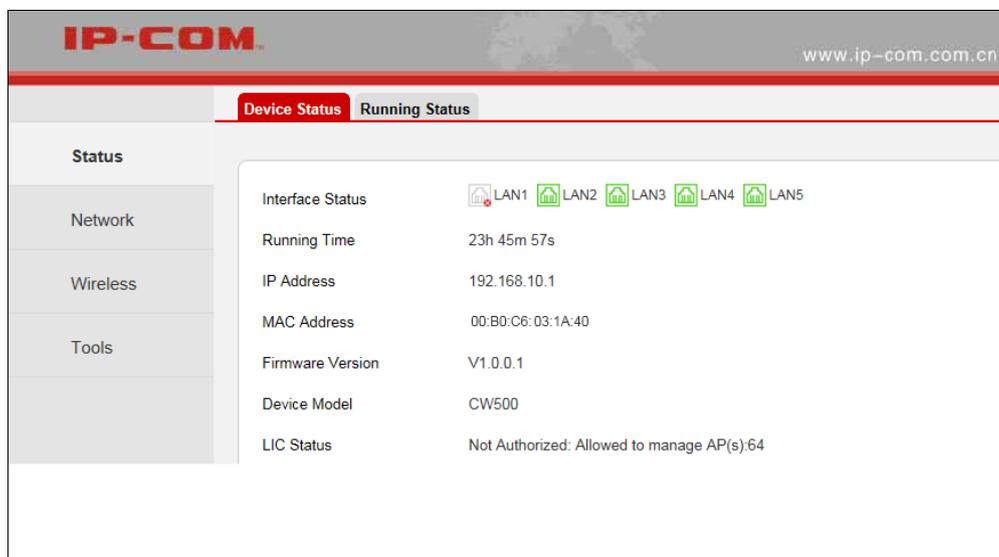
This section gives you an overview of this AC's device status and running status. The following two parts are included:

[Device Status](#): Display this AC's basic information.

[Running Status](#): Display this AC's CPU/memory usage, managed APs and connected clients.

1 Device Status

Click **Status > Device Status** to enter page below:



The screenshot shows the IP-COM web interface. The top navigation bar includes the IP-COM logo and the URL www.ip-com.com.cn. Below the navigation bar, there are two tabs: 'Device Status' (selected) and 'Running Status'. The main content area is divided into a sidebar and a main panel. The sidebar has a 'Status' section with sub-items: Network, Wireless, and Tools. The main panel displays the following information:

Interface Status	LAN1 LAN2 LAN3 LAN4 LAN5
Running Time	23h 45m 57s
IP Address	192.168.10.1
MAC Address	00:B0:06:03:1A:40
Firmware Version	V1.0.0.1
Device Model	CW500
LIC Status	Not Authorized: Allowed to manage AP(s):64

2 Running Status

Click **Status > Running Status** to enter page below:



The screenshot shows the IP-COM web interface. The top navigation bar includes the IP-COM logo and the URL www.ip-com.com.cn. Below the navigation bar, there are two tabs: 'Device Status' and 'Running Status' (selected). The main content area is divided into a sidebar and a main panel. The sidebar has a 'Status' section with sub-items: Network, Wireless, and Tools. The main panel displays the following information:

CPU Usage	1%
Memory Usage	33%
Managed Aps	1
Connected clients	0

Parameters on this page are described below:

Parameter	Description
CPU Usage	The AC's current CPU utilization
Memory Usage	The AC's current memory utilization
Managed APs	The total number of connected APs
Connected Clients	The total number of connected clients

Network

This section helps you to better manage and configure your network. The following two parts are included:

[Interface Settings](#): Configure IP address information for ports of this AC and AP DHCP server address pool.

[VLAN Config](#): Configure belonging QVLANS for all ports of this AC.

1 Interface Settings

Click **Network > Interface Settings** to enter page below:

The screenshot shows the IP-COM web interface. The top navigation bar includes the IP-COM logo and the URL www.ip-com.com.cn. A sidebar on the left contains menu items: Status, Network (highlighted), Wireless, and Tools. The main content area has two tabs: 'Interface Settings' (active) and 'VLAN Config'. Under 'Interface Management', there are input fields for IP Address (192.168.10.1), Subnet Mask (255.255.255.0), Gateway (192.168.10.254), Primary DNS Server (192.168.10.254), and Alternative DNS Server (empty). Below this is the 'AP DHCP Server' section with input fields for Start IP (192.168.10.2) and End IP (192.168.10.99). At the bottom right, there are 'Save' and 'Cancel' buttons.

📌 Interface Management

This function allows your AC to connect to the Internet, which can synchronize with the NTP server, send AP alarm information, and avoid (or solve) IP conflicts in your LAN. Parameters are described below:

Parameter	Description
IP Address	The AC's management IP address for logging in to its web page. The default IP is 192.168.10.1.

Subnet Mask	The default is 255.255.255.0.
Gateway	The default is 192.168.10.254.
Primary DNS Server	The primary DNS server address of this AC. It is a required field and the default is 192.168.10.254.
Alternative DNS Server	The alternative DNS server address of this AC. It is an optional field and it is left blank by default.

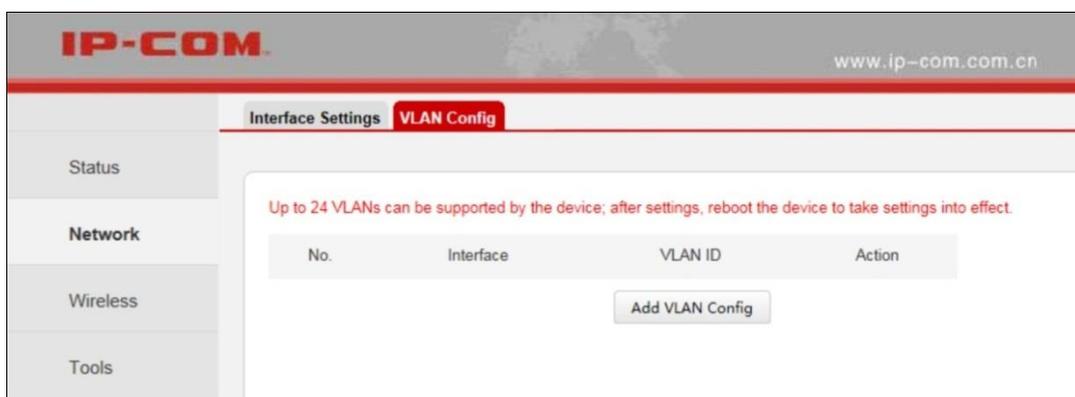
AP DHCP Server

AP DHCP server automatically assigns IP addresses to connected APs. Parameters are described below:

Parameter	Description
Start IP	Start IP address of the AP DHCP address pool. The default is 192.168.10.2.
End IP	<p>End IP address of the AP DHCP address pool. The default is 192.168.10.99.</p> <p>! Note:</p> <ul style="list-style-type: none"> The start IP address, end IP address and IP address of the AC should be in the same network segment. By default, DHCP lease time is two weeks and this value is not configurable.

2 VLAN Config

You can add LAN ports of the AC into one VLAN or multiple VLANs to manage APs among multiple VLANs. Up to 24 VLANs can be configured on this device. Click **Network > VLAN Config** to enter page below:



Add VLAN:

- ① Click **Add VLAN Config**.
- ② Type in the VLAN ID (A port can belong to multiple VLANs, such as “3-10” or “3, 5”. However, only one such action is allowed on each port.).
- ③ Select interface (s) for its belonging VLAN.

- ④ Click **Save** and then the following web page will appear.



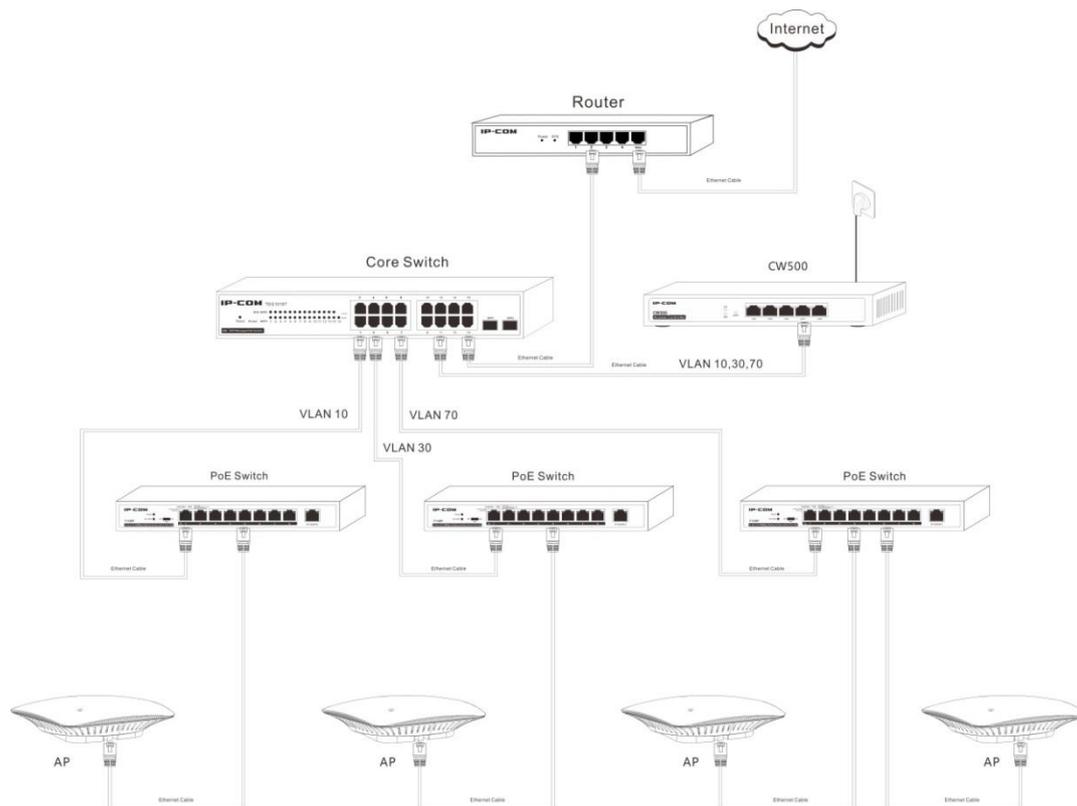
If you want to modify your configured 802.1Q VLAN, click  behind the corresponding rule to delete it first, and then add VLAN configurations again.

 **Note:**

- Once modified, you need to reboot (click **Tools > Device Maintenance**) the AC to activate your modifications.
- When VLAN settings are configured on the LAN port, i.e. PVID=1, this LAN port will be the Trunk port which can receive data from all VLANs.

Application Scenario:

Network topology: CW500 manages APs (take W300AP for example) among different VLANs.



Network Topology Description: Create 3 VLANs on the core switch:

- VLAN10: Interface 1, port link type is Access;
- VLAN30: Interface 3, port link type is Access;
- VLAN70: Interface 7, port link type is Access;

Configuration Description:

1. Core Switch:
 - Interface 11: Trunk port, PVID=1, all VLANs are allowed;
 - Interface 15: Trunk port, PVID=1, all VLANs are allowed;
2. CW500: Add interface 4 to VLAN 10, VLAN 30 and VLAN 70.

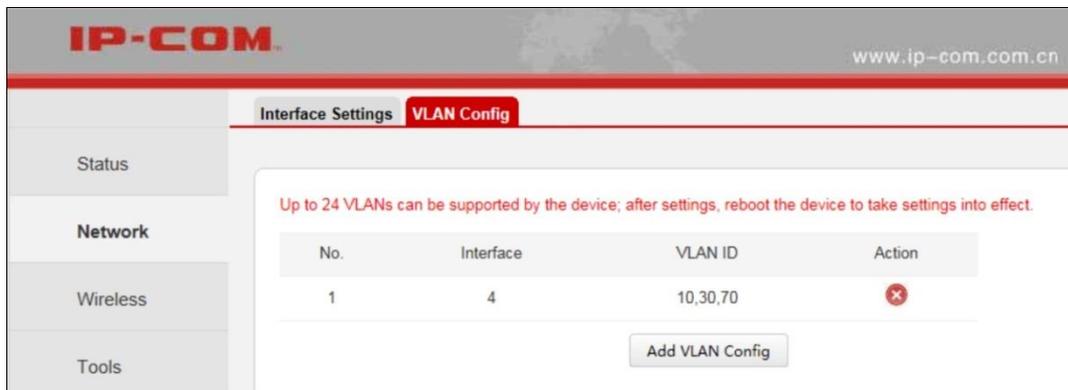
Configuration consideration:

To ensure that all clients connected to the managed APs can access the Internet, single arm-routing must be supported and configured on your remote router.

Configuration steps for CW500:

- 1 Log in to its web page and click **Network > VLAN Config**.
- 2 Click **Add VLAN Config**.
- 3 Type in the VLAN ID "10, 30, 70".

- 4 Select **Interface 4**.
- 5 Click **Save**.



Then click **Tools > Device Maintenance** to reboot this device to activate your settings.

Wireless

This section will be helpful in managing your wireless network efficiently and letting you have an overview of your wireless clients' basic information. The following 4 parts are included:

[SSID](#): Add SSIDs for managed APs and configure their encryption, QVLAN properties.

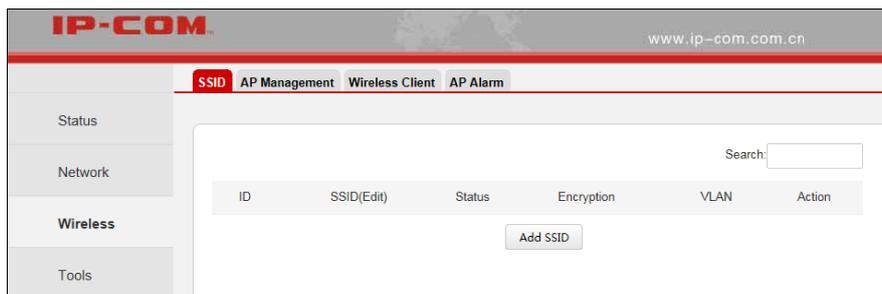
[AP Management](#): View managed APs' information to manage APs centrally.

[Wireless Client](#): Display connected wireless clients' basic information.

[AP Alarm](#): Configure AP alarm settings to get an overview of APs' real-time controlled status.

1 SSID

Up to 10 SSIDs of managed APs can be supported on this AC. Click **Wireless > SSID** to enter page below:



Click **Add SSID**:

Parameters on this page are described below:

Parameter	Description
Enable	Check it to enable the corresponding wireless network.
SSID	Wireless network name. 1~32 characters can be allowed.
Encryption Type	<p>Three encryption types are available:</p> <ul style="list-style-type: none"> • None: Not encrypted. Any client can connect to it. For your network's security, it is not suggested to select this option. • WPA-AES • WPA2-AES <p>WPA2 (Wi-Fi Protected Access version 2)-PSK is more secure than WPA, but WPA enjoys better compatibility.</p>
Key	WiFi password for your wireless network. 8~63 characters are allowed. If you want to connect to your wireless network, you need to enter the WiFi password correctly.

Hide SSID	If it is checked, the corresponding SSID won't be broadcast. Thus, the SSID won't be displayed in the network list. If you want to connect to this SSID, you need to enter the SSID manually.
Enable	Check it to enable the VLAN function on the corresponding SSID.
VLAN ID	Configure the belonging VLAN for your wireless network.

2 AP Management

This page allows you to manage connected APs. Click **Wireless > AP Management** to enter page below:



Parameters on this page are described below:

Parameter	Description
ID	Sequence number of the AP
Description (edit)	Installation position description of the AP. When the AP is connected, click it to edit the AP.
MAC	MAC address of the AP
IP	IP address of the AP
SSID	AP's SSID. Up to 4 SSIDs can be configured on one AP.
Channel	AP's working channel
Status	<p>AP's working status: online and offline</p> <ul style="list-style-type: none"> Online: The AP has been connected to the AC successfully and the AC can manage the AP. Offline: The AP has not been connected to the AC. The AC can't configure the AP. In this status, settings on the AP are saved and you can still connect to it wirelessly if you do not

	<p>reset your AP.</p> <p>Up to 64 APs' recordings can be saved on this AC. Once it exceeds 64, APs' offline recordings will be deleted at random one by one.</p>
Firmware Version	AP's firmware version

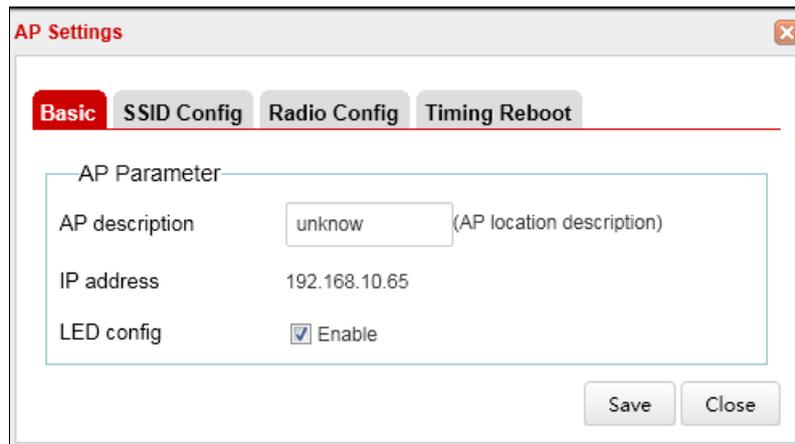
Description for buttons on this page:

Button	Description
Modify in batch	Used for configuring the selected, online managed AP.
Reboot	Used for rebooting the selected, online managed AP.
Upgrade	<p>Used for upgrading the selected, online managed AP. Before upgrading the AP, you need to upload the software to the AC first (Click Tools > AP Firmware Upload).</p> <p> Note:</p> <p>Do not disconnect power supply of the AP while upgrading. If power interruption occurs, please re-upgrade the AP; If you are unable to manage the AP after power interruption, please contact our maintenance staff.</p>
Restore to factory default	Used for restoring the selected, online managed AP to factory default settings.
Delete	Used for deleting the selected managed AP.

Click the corresponding AP's description information to configure the AP's basic parameters, including 4 parts: Basic, SSID Config, Radio Config, and Timing Reboot.

📌 Basic

You can type in the AP location description on this page so that you can find out where the problematic AP is when network malfunction occurs. Also, you can turn on/off LEDs of APs here.



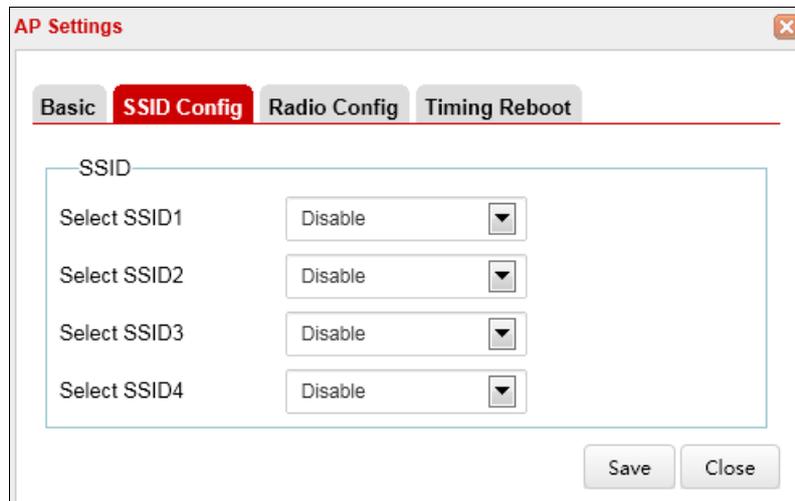
The screenshot shows the 'AP Settings' window with the 'Basic' tab selected. The window title is 'AP Settings' and it has a close button in the top right corner. Below the title bar are four tabs: 'Basic', 'SSID Config', 'Radio Config', and 'Timing Reboot'. The 'Basic' tab is active. Inside the window, there is a section titled 'AP Parameter' containing the following fields:

AP description	unknow	(AP location description)
IP address	192.168.10.65	
LED config	<input checked="" type="checkbox"/> Enable	

At the bottom right of the window, there are two buttons: 'Save' and 'Close'.

➤ SSID Config

This page allows you to configure SSIDs for your APs. Up to 4 SSIDs can be configured on one AP.



The screenshot shows the 'AP Settings' window with the 'SSID Config' tab selected. The window title is 'AP Settings' and it has a close button in the top right corner. Below the title bar are four tabs: 'Basic', 'SSID Config', 'Radio Config', and 'Timing Reboot'. The 'SSID Config' tab is active. Inside the window, there is a section titled 'SSID' containing four rows, each with a label and a dropdown menu:

Select SSID1	Disable	▼
Select SSID2	Disable	▼
Select SSID3	Disable	▼
Select SSID4	Disable	▼

At the bottom right of the window, there are two buttons: 'Save' and 'Close'.

➤ Radio Config

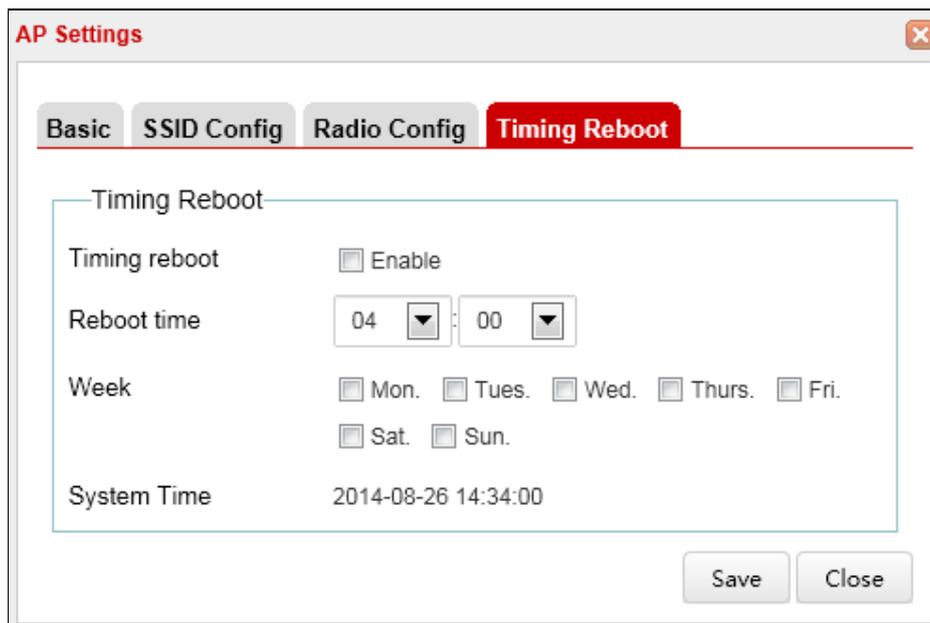
This page allows you to configure radio settings for your APs.

Parameters on this page are described below:

Parameter	Description
Radio band	Check it to disable 2.4G WiFi of the AP.
Bandwidth Control	Select the channel bandwidth, 20M or 20M/40M. <ul style="list-style-type: none"> 20M: When this option is selected, only 20MHz is available. 20M/40M: When this option is selected, 20MHz or 40MHz can be available.
Access Limit	Configure maximum connected wireless clients. When the number of connected wireless clients reaches the setting value, no more clients can be connected to the AP.
Power Config	Configure the AP's TX power and display its current power.
Channel	Configure the AP's channel.

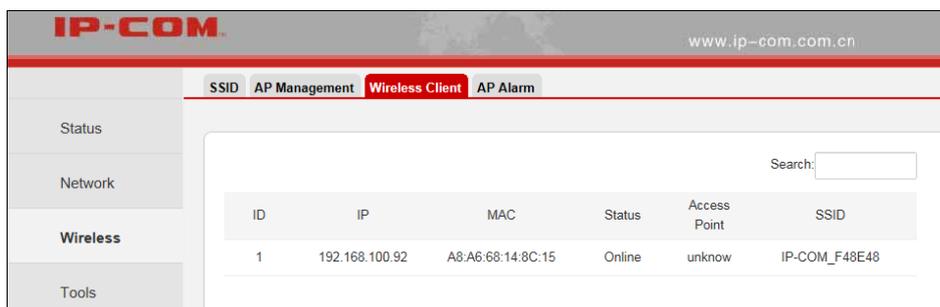
⚡ Timing Reboot

Configure whether to enable the timing reboot function for the AP and configure the reboot time. Once this function is enabled, the AP will be restarted by the AC regularly.



3 Wireless Client

This page displays connected wireless clients' information of connected APs. Click **Wireless > Wireless Client** to enter page below:



Parameters on this page are described below:

Parameter	Description
ID	Wireless client list
IP	Wireless clients' IP addresses. ⚠ Note: These IP addresses are not assigned by the AP DHCP server of the AC. The AP DHCP server of the AC only assigns IP addresses to connected APs.
MAC	Connected wireless clients' MAC addresses.
Status	Connected APs' working status.

Access Point	Location descriptions of connected APs.
SSID	Connected APs' SSIDs.

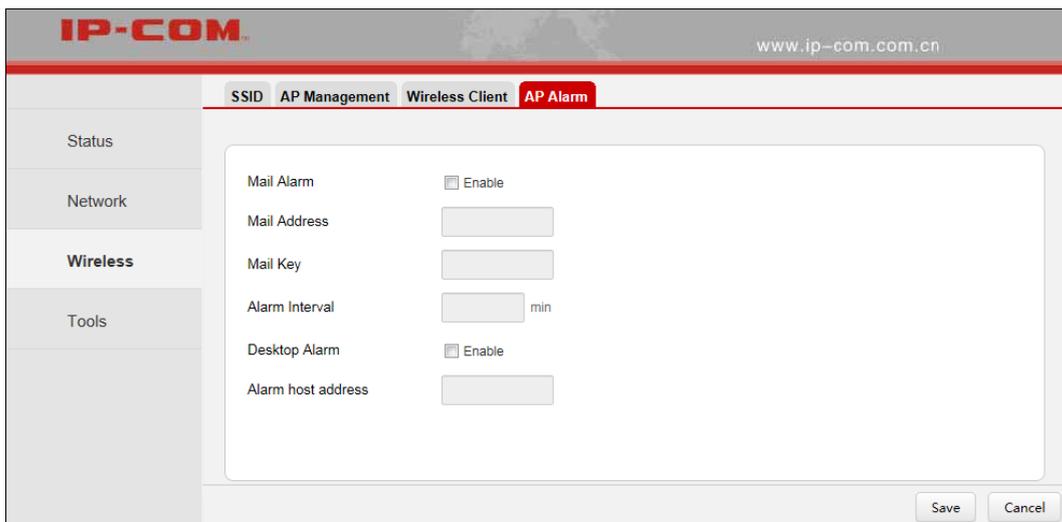
4 AP Alarm

Once this function is enabled, the AC can detect that when the AP's running status changes, the AC will automatically send warning information to the corresponding mail box or host. Thus, the network administrator can know the AP's real-time running status.

Click **Wireless > AP Alarm** to enter page below:

Note:

For the accuracy of AP alarm time, ensure that the AC has acquired the correct time (Click **Tools > Time Settings**).



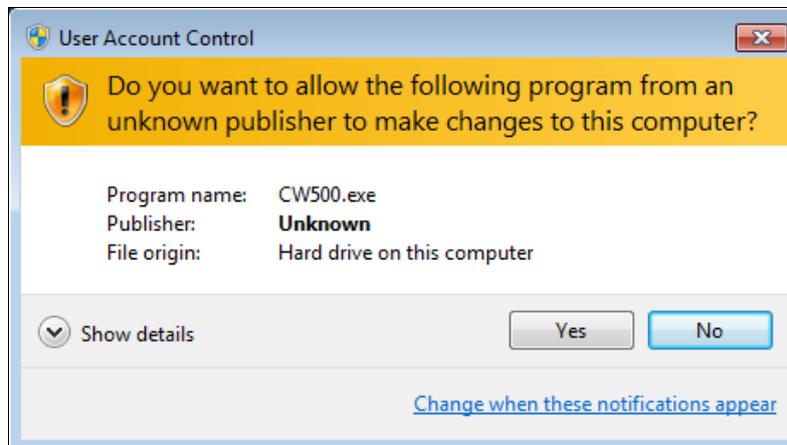
Parameters on this page are described below:

Parameter	Description
Mail Alarm	Check it to enable the Mail Alarm function. When this function is enabled, the AC will send warning logs to the network administrator by mails.
Mail Address	The mail address for receiving AP warning information. You need to configure proper IP information on the AC so that the route is reachable between the AC and the mail box.
Mail Key	The mail password for the mail box which receives AP alarm.

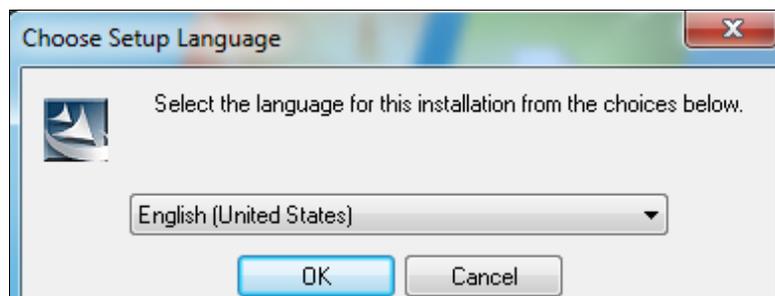
Alarm Interval	Alarm interval for sending alarm mails.
Desktop Alarm	<p>Check it to enable the Desktop Alarm function.</p> <p>When this function is enabled, the AC will send alarm information to the alarm host (system requirement: Windows XP/2000/Vista/7/8) directly.</p> <p> Tip:</p> <p>To implement this function, you need to access our website www.ip-com.com.cn to download and install the alarm client program. For specific configuration steps, see details below.</p>
Alarm Host Address	The alarm host's IP address. You need to configure proper IP information on the AC so that the route is reachable between the AC and the mail box.

Configuration steps for installing the alarm client (Take Windows 7 as an example):

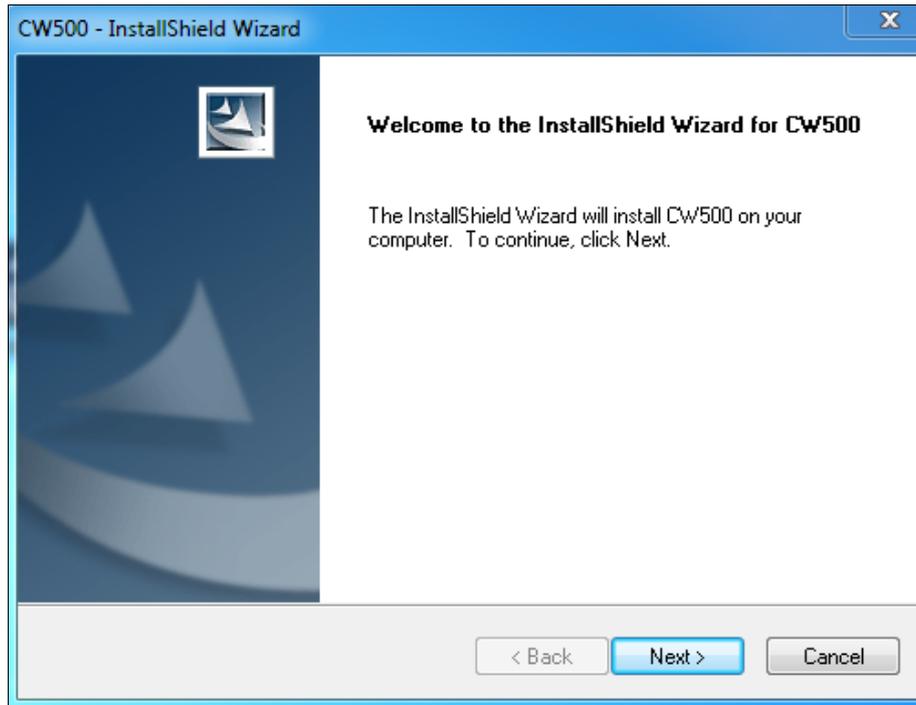
- 1 Log in to www.ip-com.com.cn to download the program to your local PC.
- 2 Double click the program  to install it.
- 3 Click **Yes** on the pop-out window.



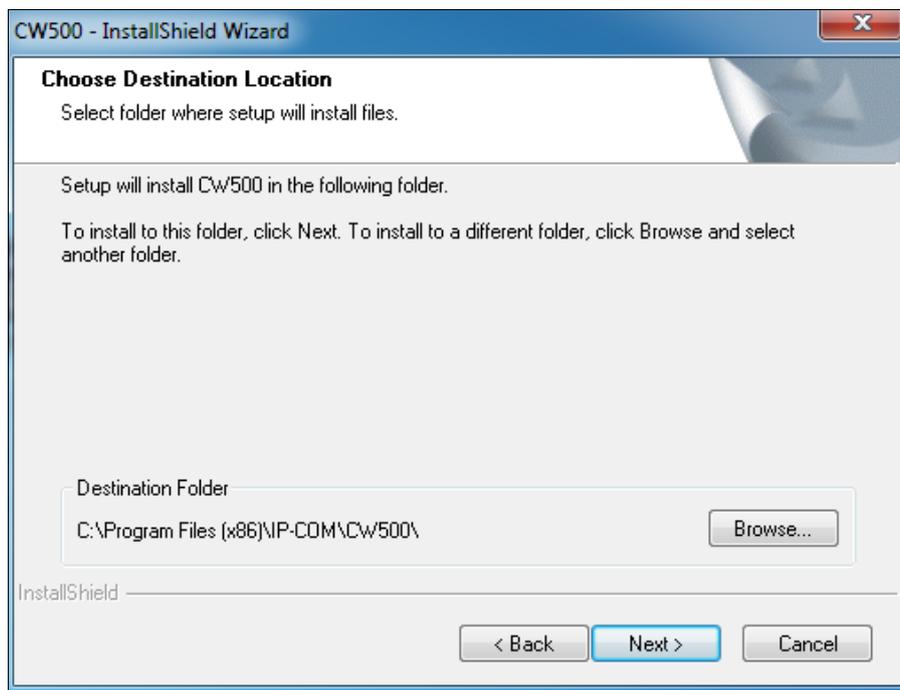
- 4 Select the language and click **OK**.



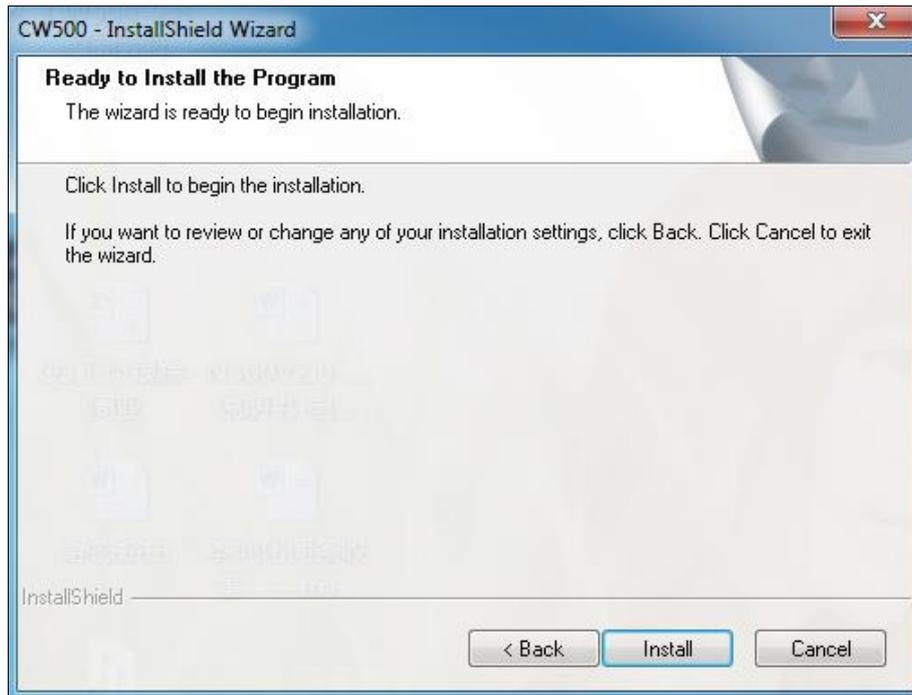
- 5 Click **Next**.



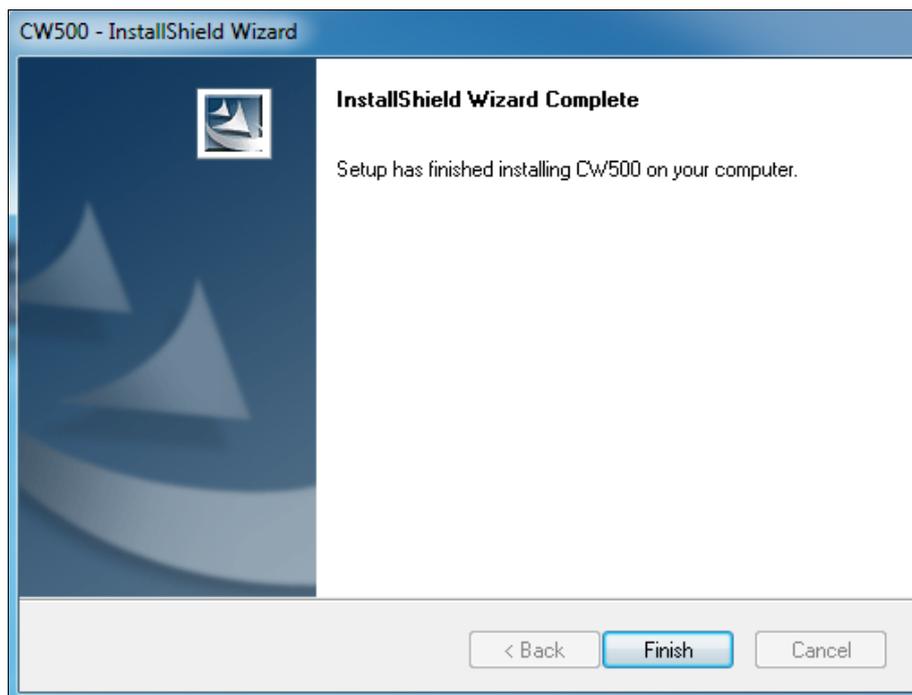
- 6 Select the installation position (The default is C:\Program Files\IP-COM\CW500.) and click **Next**.



- 7 Click **Install**.



- 8 Click **Finish**.



Then a shortcut  will appear on your desktop and double click it to run the alarm client.

Tools

This section helps you to manage this AC in a safe and effective manner, and get to know the real-time running status. Here are the following 6 parts:

[Time Settings](#): View and set the system time of the AC.

[Device Maintenance](#): Update the AC software.

[Configuration Management](#): Backup, restore the AC configuration, and restore the device to factory default settings.

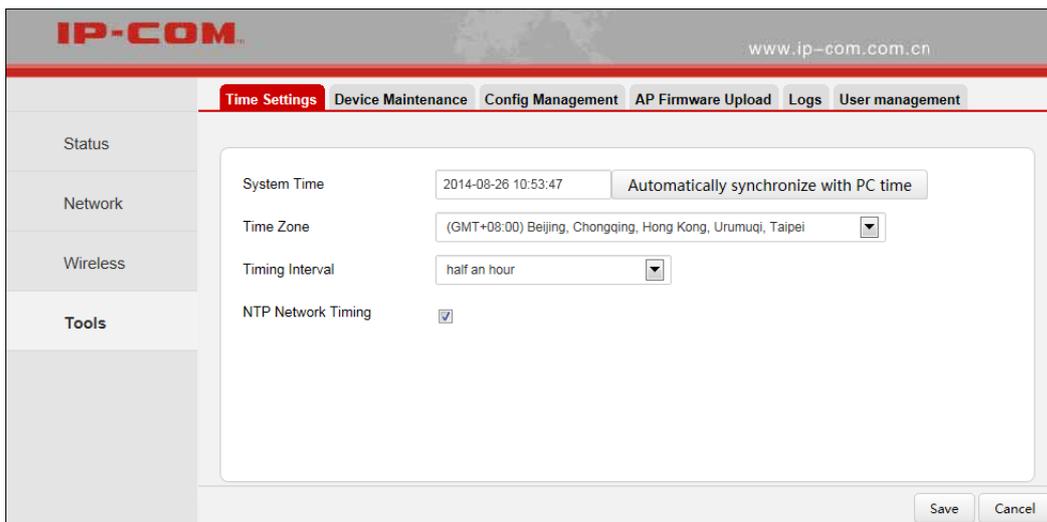
[AP Firmware Upload](#): Upload the AP software to the AC.

[Logs](#): View the AC system logs, and get to know the AP connection status as well as its warning info.

[User Management](#): Modify the login username and password of the AC Web management interface.

1 Time Settings

Here you can set the AC's system time, assuring the accuracy of logs and AP warning recording time. Click **Tools > Time Settings** to enter the page below.



The screenshot shows the IP-COM web management interface. At the top, there is a navigation bar with the IP-COM logo and the website address www.ip-com.com.cn. Below this, there is a menu with several options: Time Settings (highlighted in red), Device Maintenance, Config Management, AP Firmware Upload, Logs, and User management. On the left side, there is a sidebar menu with options: Status, Network, Wireless, and Tools. The main content area displays the Time Settings configuration page. It includes the following fields and options:

- System Time**: A text input field showing "2014-08-26 10:53:47" and a button labeled "Automatically synchronize with PC time".
- Time Zone**: A dropdown menu showing "(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumuqi, Taipei".
- Timing Interval**: A dropdown menu showing "half an hour".
- NTP Network Timing**: A checkbox that is checked.

At the bottom right of the configuration area, there are "Save" and "Cancel" buttons.

Two timing methods are available: NTP Network Timing (default) and Manual Setting.

👉 NTP Network Timing

As for this method, the AC will automatically synchronize its system time from the time server on the Internet.

Configuration steps:

- 1 Check **NTP Network Timing**.
- 2 Select the Timing interval from the drop-down list.

3 **Time Zone:** Select your local time zone.

4 Click **Save**.

The screenshot shows the IP-COM web interface. The top navigation bar includes the IP-COM logo and the URL www.ip-com.com.cn. Below the navigation bar, there are several tabs: Time Settings (selected), Device Maintenance, Config Management, AP Firmware Upload, Logs, and User management. On the left side, there is a sidebar with menu items: Status, Network, Wireless, and Tools. The main content area displays the Time Settings configuration page. It features a 'System Time' field showing '2014-08-26 10:53:47' and a button labeled 'Automatically synchronize with PC time'. Below this, a red rectangular box highlights the 'Time Zone' dropdown menu (set to '(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumuqi, Taipei'), the 'Timing Interval' dropdown menu (set to 'one hour'), and the 'NTP Network Timing' checkbox (checked). At the bottom right of the configuration area, there are 'Save' and 'Cancel' buttons.

! **Note:**

To use the NTP Network Timing, you need to verify that the AC is connected to the Internet.

The way for the AC to access the Internet: click **Network > Interface Settings** to configure its IP address, subnet mask, gateway and DNS server.

⤴ **Manual Timing**

Configuration steps:

- 1 Uncheck **NTP Network Timing**.
- 2 Type in the correct date and time or click **Automatically synchronize with PC time** (The precondition is that your PC acquires the correct time).
- 3 Click **Save**.

The screenshot shows the IP-COM web interface. The top navigation bar includes 'Time Settings', 'Device Maintenance', 'Config Management', 'AP Firmware Upload', 'Logs', and 'User management'. The left sidebar has 'Tools' selected. The main content area displays the following settings:

- System Time:** 2014-08-26 10:53:47. A checkbox labeled 'Automatically synchronize with PC time' is checked.
- Time Zone:** (GMT+08:00) Beijing, Chongqing, Hong Kong, Urumuqi, Taipei (dropdown menu).
- Timing Interval:** half an hour (dropdown menu).
- NTP Network Timing:** A checkbox that is currently unchecked.

Buttons for 'Save' and 'Cancel' are located at the bottom right of the settings area.



Tip:

When the AC is disconnected from power supply, time info will be lost.

When NTP Network Timing enabled, the AC will connect to the Internet to synchronize with the Internet time. In this case, the log and AP warning recording time will be correct.

2 Device Maintenance

Here you can upgrade the AC's software and reboot the AC. Click **Tools > Device Maintenance** to enter the page below.

The screenshot shows the IP-COM web interface with 'Device Maintenance' selected in the top navigation bar. The left sidebar has 'Tools' selected. The main content area displays the following options:

- Device Upgrade:** A file input field with a 'Browse...' button next to it.
- Upgrade:** A button to initiate the software upgrade process.
- Device Reboot:** A button to reboot the AC.

📌 Device Upgrade

In some special network environment, you may need to manage many APs, or something goes wrong with your AC, we recommend you go to www.ip-com.com.cn to find out the corresponding software to upgrade the AC.

 **Note:**

Do not disconnect power supply of the AP while upgrading. If power interruption occurs, please re-upgrade the AP; if you are unable to manage the AP after power interruption, please contact our maintenance staff.

Configuration steps:

- 1 Log in to the official website www.ip-com.com.cn to download the corresponding software to the local PC.
- 2 Log in to the AC's management web page and click **Tools > Device Maintenance**.
- 3 Click **Browse**, select the software you've downloaded just now and follow onscreen guidelines to upload the software.
- 4 Click **Upgrade**.
- 5 Wait for a few minutes until the upgrade completes.

Click **Status > Device Status** to check Firmware Version, to see whether the AC was successfully upgraded into the version you need.

⚡ Device Reboot

AC Reboot can release part of caches, so as to obtain higher performance for the AC. In some cases, it also helps to solve some problems, such as "dead lock", "login failure to the AC's management web page", etc.

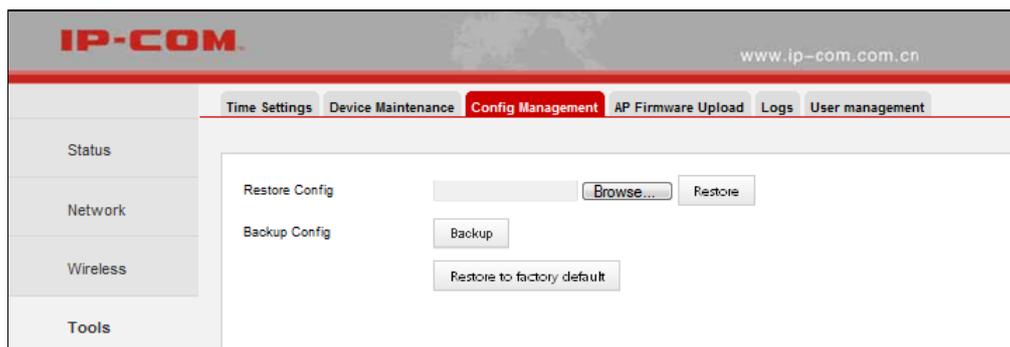
Two methods for rebooting the AC:

Method 1: Click **Tools > Device Maintenance** to enter the webpage. Click **Reboot**.

Method 2: Disconnect the AC from power supply and then reconnect the AC to power supply.

3 Config Management

You can backup and restore the AC configuration files here. Click **Tools > Config Management** to enter page below.



📌 Backup Config

If you have configured many settings on this device, which will make this device work in good status and suitable environment, it is suggested to backup settings for this device, which will be convenient for troubleshooting and saving time for next time configuration. Click **Backup** then follow onscreen instructions.

📌 Restore Config

If you happen to do some configurations, only to find that reduces the AC's performance, in this case, you can restore the device to its previous configurations. Click **Browse**, select and upload your former configuration file to the AC. Click **Backup**, and then follow onscreen instructions.

📌 Restore to Factory Default

If you need to log in to the AC's management webpage, but forget the login username or login IP; or you have some trouble in surfing the Internet but unable to find where the problem is, it is advisable to restore this device to factory default settings.

Here are two methods to restore the AC to factory default settings:

Method 1: Restore to factory default by pressing the **RESET** button for at least 6 seconds, and then wait for another 45 seconds.

Method 2: Restore to factory default by clicking **Restore to factory default** on the **Tools > Config Management** page.

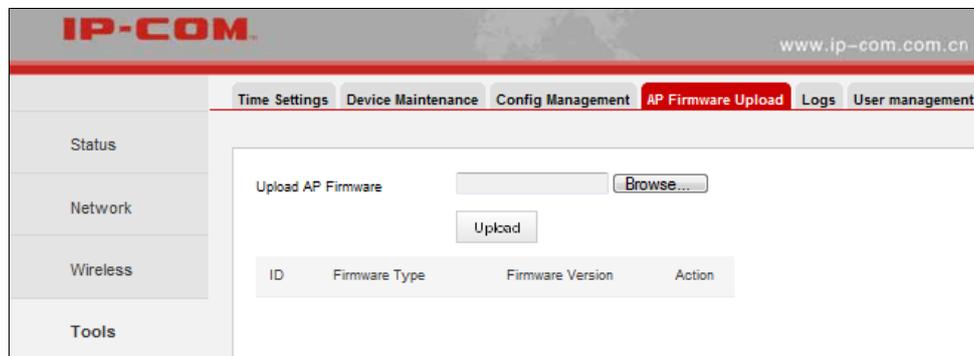


Tip:

After restoring this device to factory default, you need to use the default IP address (192.168.10.1) and login username and password (admin, admin) to relog in to the management webpage. For other default settings, see [Factory Default Settings](#).

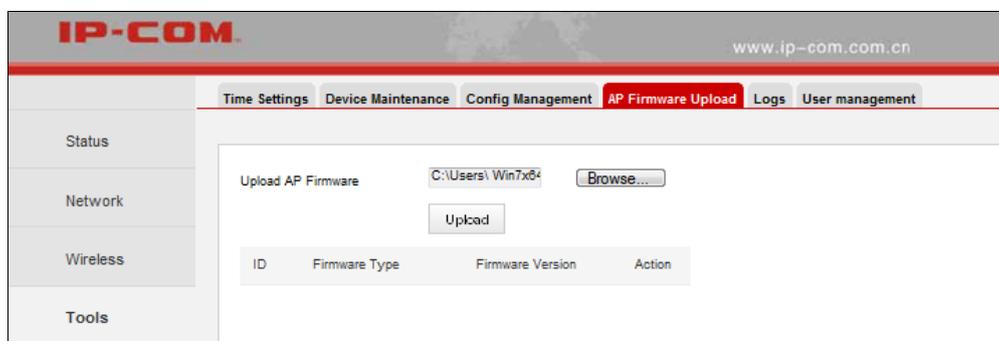
4 AP Firmware Upload

If you need to upgrade the AP connected to the AC, click **Tools > AP Firmware Upload** to enter page below:



AP firmware upload steps (Take W300AP as an example):

- 1 Log in to www.ip-com.com.cn to download the AP update software and save it to the local PC.
- 2 Log in to the AC management webpage and click **Tools > AP Firmware Upload**.
- 3 Click **Browse**, select and upload the AP update firmware you've saved just now
- 4 Click **Upload**.



- 5 Wait for a few minutes until the upgrade completes.

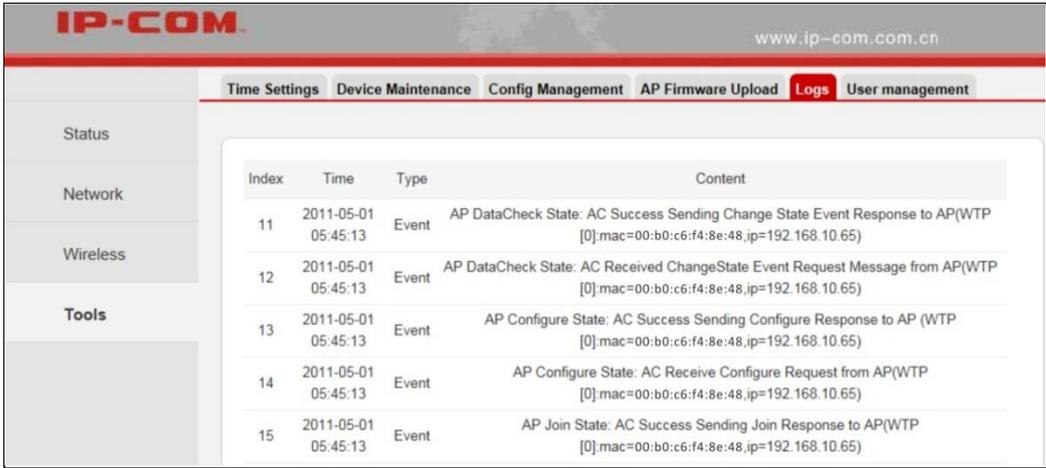


If you want to delete one of the lower versions of the Firmware, simply click the icon .

5 Logs

You can save the system logs that are collected on the wireless controller. You can also query the system logs for individual APs, clients, and SSIDs. If a problem or failure occurs, the system logs along with backed-up configuration settings could help determine the cause. Up to 300 entries can be recorded on this device. If the number of logs exceeds the value “300”, the most previous ones will be replaced by the latest ones. For example, when the 301st entry is recorded, the earliest entry (Index: 300) will be deleted, the entry with the index of 299 will be the earliest entry, and the newly-recorded 301st entry will be the latest entry (Index: 1).

Click **Tools > Logs** to enter page below:



Index	Time	Type	Content
11	2011-05-01 05:45:13	Event	AP DataCheck State: AC Success Sending Change State Event Response to AP(WTP [0].mac=00:b0:c6:f4:8e:48,ip=192.168.10.65)
12	2011-05-01 05:45:13	Event	AP DataCheck State: AC Received ChangeState Event Request Message from AP(WTP [0].mac=00:b0:c6:f4:8e:48,ip=192.168.10.65)
13	2011-05-01 05:45:13	Event	AP Configure State: AC Success Sending Configure Response to AP (WTP [0].mac=00:b0:c6:f4:8e:48,ip=192.168.10.65)
14	2011-05-01 05:45:13	Event	AP Configure State: AC Receive Configure Request from AP(WTP [0].mac=00:b0:c6:f4:8e:48,ip=192.168.10.65)
15	2011-05-01 05:45:13	Event	AP Join State: AC Success Sending Join Response to AP(WTP [0].mac=00:b0:c6:f4:8e:48,ip=192.168.10.65)

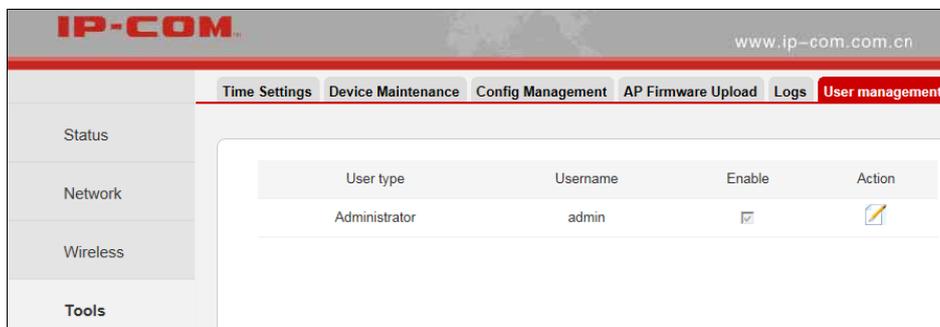
For the convenience of monitoring real-time network status and troubleshooting networking problems, you'd better verify that the AC acquires the correct time (Click **Tools > Time Settings**).

Note:

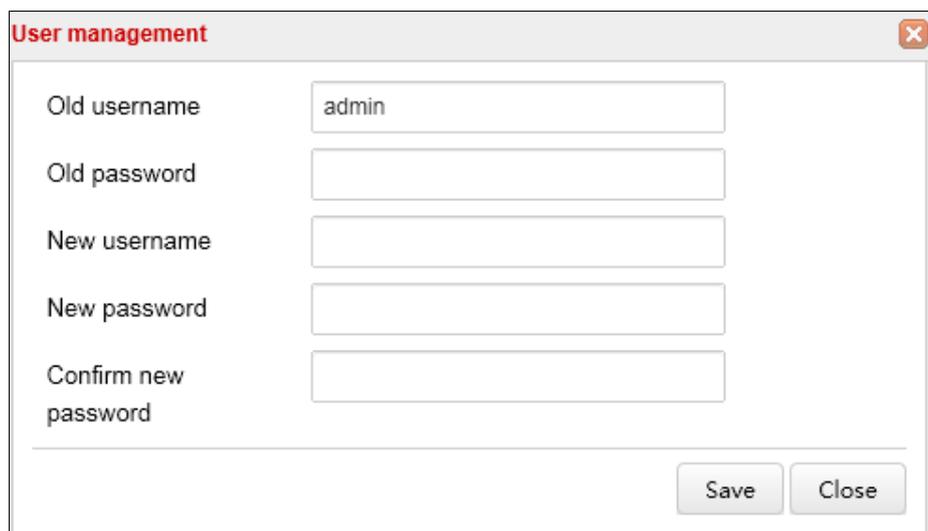
- Restarting the AC will lose recorded log information.
- Actions, like re-powering up the device after disconnecting its power supply, modifying its LAN IP address, backuping/restoring settings, restoring to factory default, upgrading this device, etc. will restart the device itself.

6 User Management

In order to prevent others from modifying settings on your AC, it is advisable to modify your login username and password. Click **Tools > User Management** to enter page below:



Click the icon  to enter page below to modify the username and password.



User management ✕

Old username

Old password

New username

New password

Confirm new password

After modifying your login username and password, it will automatically skip to the login page and you need to use the new username and password to re-access its web page.



Tip:

The default login timeout for this AC is 5 minutes (not configurable). When time is up, you need to type in the username and password to re-access its web page.



Appendix

[Troubleshooting](#)

[Factory Default Settings](#)

[Safety and Emission Statement](#)

Troubleshooting

Q: I enter the device's LAN IP address in the web browser but cannot access this device's web page. What should I do?

- a. Check the TCP/IP settings on your PC and verify that IP address is 192.168.10.X (2~254);
- b. Clear the browser cache or try another web browser;
- c. Restart your PC or close your PC's firewall.
- d. Ensure the management IP **192.168.10.1** is not used by other devices in the LAN.

Q: I've forgotten the login username and password. What should I do?

Try to access its web page with the default username and password. If you are still unable to log in, restore your device to factory default settings and then use the default login IP address and password to try again.

Q: How to restore your device to factory default settings when you can't access this AC's web page?

When the AC is functioning properly, press it with something like a needle for 6 seconds and then release; about 45 seconds later, this device will be restored to factory default settings.

 **Note:**

After restoring this device to factory default settings, all your current configurations will be lost and you need to re-configure your device.

Q: Wireless clients can't connect to the managed AP or it displays "Limited" or "No Internet Access", and my PC's IP address is shown as 169.254.X.X. What should I do?

The AP DHCP server on this AC only assigns IP addresses to its managed APs. Thus, if you want wireless clients (connected to these APs) to get Internet access by obtaining IP addresses automatically, you have to set up a DHCP server in the LAN to assign IP addresses to these wireless clients.

If your problem is not covered here, please feel free to go to www.ip-com.com.cn to find a solution. We will be more than happy to help you out as soon as possible.

Factory Default Settings

Parameter		Default Setting
Login Information	Login Method	HTTP (web page)
	Login IP	192.168.10.1
	Login Username/Password	admin/admin
	Web Logout	5 minutes (not configurable)
Interface Management	IP Address	192.168.10.1
	Subnet Mask	255.255.255.0
	Gateway	192.168.10.254
	Primary DNS Server	192.168.10.254
	Alternative DNS Server	/
AP DHCP Server	Status	Enabled (not configurable)
	Start IP	192.168.10.2
	End IP	192.168.10.99
	Lease Time	2 weeks (not configurable)
VLAN Config	/	
Wireless	SSID	/
	AP Management	Automatic AP discovery
	AP alarm	Disabled
Time Settings	NTP Network Time	Enabled
	Time Interval	Half an hour
	Time Zone	(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumuqi, Taipei

Safety and Emission Statement



CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

For Pluggable Equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.

WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.

The Product is designed for IT Power Distribution System.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.



FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.