Quick Installation Guide

WHG505 V1.20

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FCC Caution

This equipment has been tested and proven 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 in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

➤ Reorient or relocate the receiving antenna.

➤ Increase the separation between the equipment and receiver.

➤ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

➤ Consult the dealer or an experienced radio/TV technician for help.

Preface

This Quick Installation Guide provides instructions and reference material for getting started with the 4ipnet WHG505 Secure WLAN Controller. This guide will also show how to connect 4ipnet WHG505 to other network equipments.

Package Contents

1. 4ipnet WHG505 x 1
2. CD-ROM (User's Manual and QIG) x 1
3. Quick Installation Guide (QIG) x 1
4. RS-232 DB9 to RJ45 Console Cable x 1
5. Crossover Ethernet Cable x 1
6. Straight-through Ethernet Cable x 1
7. Power Cord x 1
8. Rack Mounting Bracket (with Screws) x 1

⚠ *It is highly recommended to use all the supplies in the package instead of substituting any components by other suppliers to guarantee best performance.*

System Overview

Front Panel
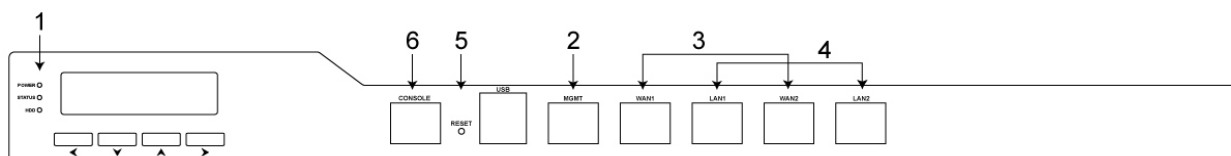
1. **LED Indicators:** There are three kinds of LED, **Power**, **Status** and **Hard-disk**, to indicate different status of the system.
2. **Mgmt:** For management use only, it always will open WMI (Web Management Interface) homepage. If connect to this port with PC directly, please use *crossover* Ethernet cable.
3. **WAN1/ WAN2:** Two WAN ports (10/100/1000 Base-T RJ-45) are connected to the external network, such as the ADSL Router from your ISP (Internet Service Provider).
4. **LAN1/ LAN2:** Client machines connect to WHG505 via LAN ports (10/100/1000 Base-T RJ-45).
5. **Reset:**
   - Press and hold the Reset button for about 5 seconds and status of LED on front panel will start to blink before restarting the system.
   - Press and hold the Reset button for more than 10 seconds and status of LED on the front panel will start to speed up blinking before resetting the system to default configuration.
6. **Console:** The system can be configured via a serial console port. The administrator can use a terminal emulation program such as Microsoft's Hyper Terminal to login to the configuration console interface to change admin password or monitor system status, etc.
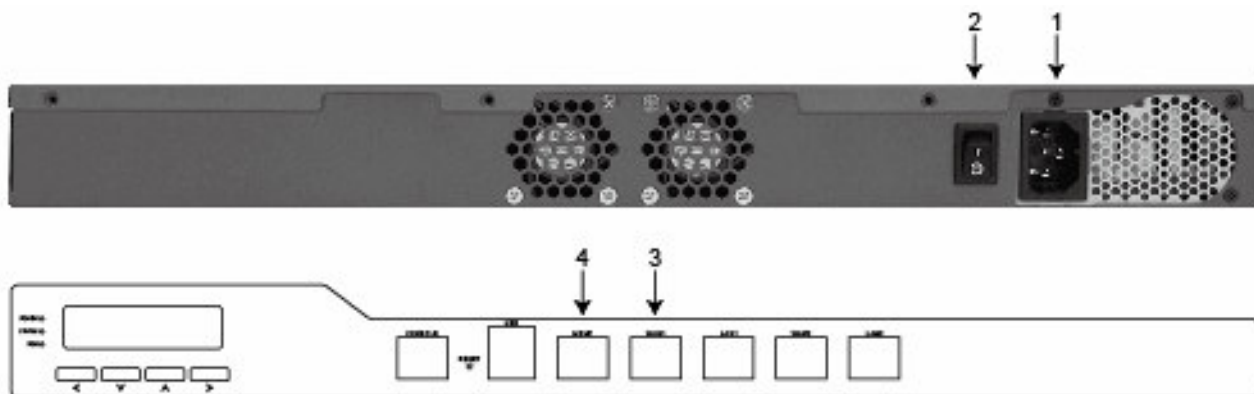
Rear Panel
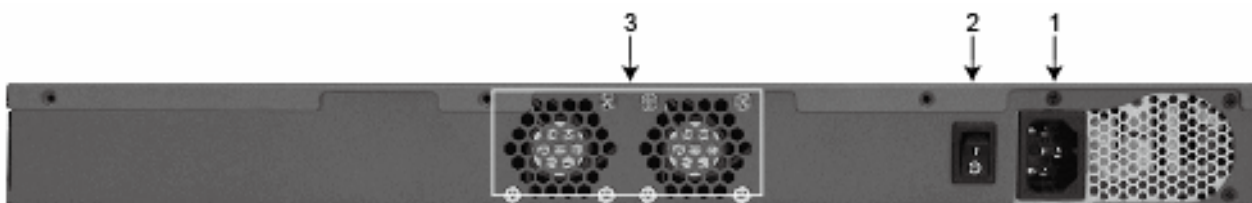
1. **Power Supply Socket:** Connecting the power cord to the built-in open-frame power supply (Input: 100~240 VAC, 50/60 Hz).
2. **Power Switch:** Power-On (|) & Power-Off (O).
3. **Device Cooling Fan:** Don't block the cooling fans. Leave enough open space for ventilation.

Hardware Installation

Please follow the following steps to install WHG505:

1. Connect the power cord to the power socket on the rear panel.

2. Turn on the power switch on the rear panel. The Power LED should be on to indicate a proper connection.

3. Connect an Ethernet cable to the WAN1 Port on the front panel. Connect the other end of the Ethernet cable to an xDSL/cable modem, or a switch/hub of an internal network. The LED of this port should be on to indicate a proper connection.

4. Connect a *crossover* Ethernet cable to the Mgmt Port on the front panel. Connect the other end of the Ethernet cable to an administrator PC for configuring the WHG505 system, an AP for extending wireless coverage, a switch for connecting more wired clients, or a client PC. The LED of Mgmt port should be on to indicate a proper connection.

> ⚠️ Usually a straight RJ-45 could be applied if WHG505 is connected to a hub/computer which supports automatic crossover. However, after the Access Point hardware is reset, WHG505 would not be able to connect to the Access Point while connecting with a straight cable unless the cable was pulled out and plugged in again. This scenario does NOT occur while using a crossover cable.

Getting Started

< System Concept >

4ipnet WHG505 is capable of managing user authentication, authorization and accounting. The user account information is stored in the local database or a specified external database server. Featured with user authentication and integrated with external payment gateway, WHG505 allows users to easily pay the fee and enjoy the Internet service using credit cards through Authorize.net or PayPal. With centralized AP management feature, the administrator does not need to worry about how to manage multiple wireless access point devices. Furthermore, WHG505 introduces the concept of Service Zones - multiple virtual networks, each with its own definable access control profiles. This is very useful for hotspot owners seeking to provide different customers or staff with different levels of network services. The following diagram is an example of WHG505 set to manage the Internet and network access services at a hotspot venue.
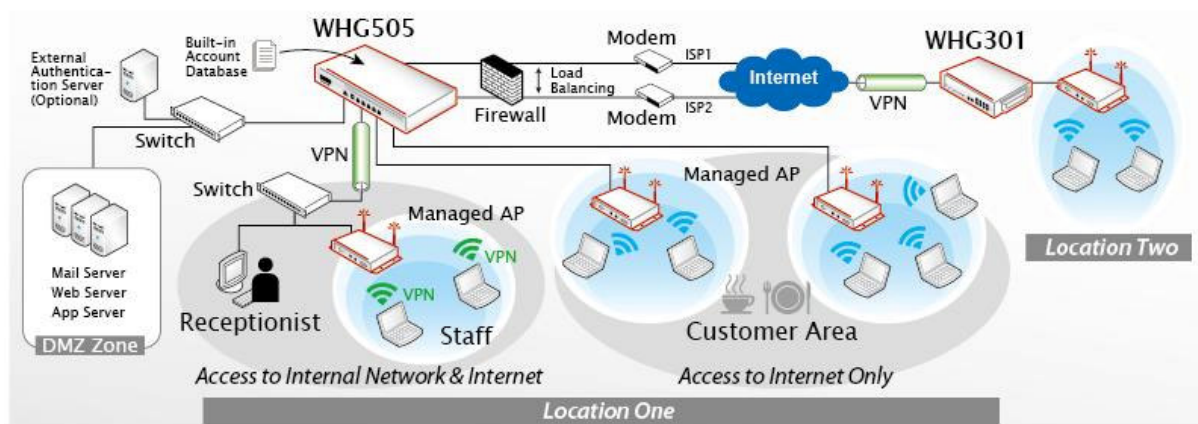

< Web Management Interface >

4ipnet WHG505 supports web-based configuration. Upon the completion of hardware installation, WHG505 can be configured via web browsers with JavaScript enabled such as Internet Explorer version 6.0 and above or Firefox.

1. To access the web management interface, connect a PC to the **Mgmt Port**, and then launch a browser. **Make sure you have set DHCP in TCP/IP of your PC to get an IP address dynamically.**

2. Next, enter the gateway IP address of WHG505 at the address field. The default gateway IP address is *"http://192.168.255.254"* (**"https"** is used for a secured connection).

3. The administrator login page will appear. Enter *"admin"*, the default username, and *"admin"*, the default password, in the User Name and Password fields. Click **Enter** to log in.
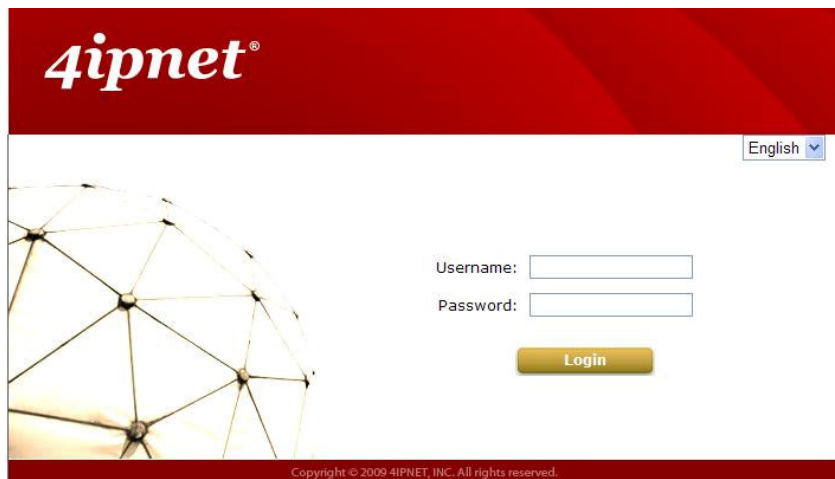
4. After a successful login, a "Welcome to System Administration" page will appear on the screen.

For the first time, if WHG505 is not using a **trusted SSL certificate**, there will be a **"Certificate Error"**, because the browser treats WHG505 as an illegal website. Please press **"Continue to this website"** to continue. The default user login page will then appear in the browser. *For more information, please see* **Additional Configuration, WHG505 User's Manual**.
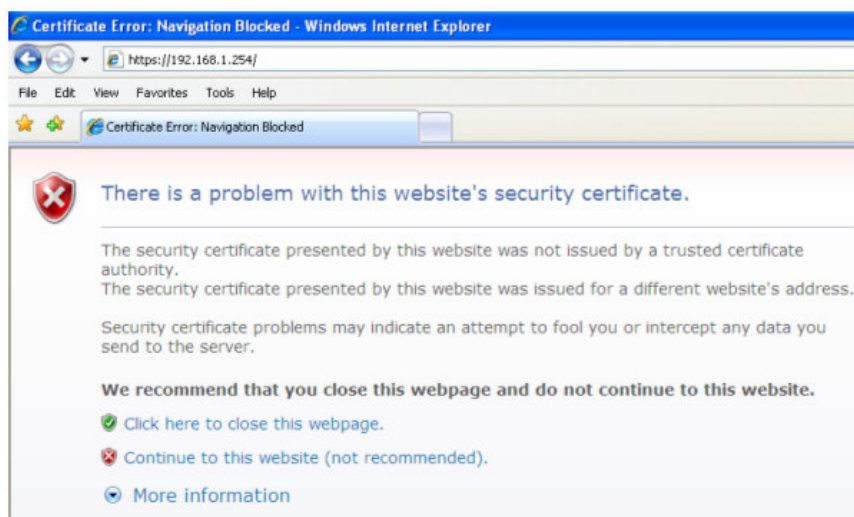
If you can't get the login screen, the reasons may be: (1) The PC is set incorrectly so that the PC can't obtain the IP address automatically from the LAN port; (2) The IP address and the default gateway are not under the same network segment. Please use default IP address such as 192.168.255.xx in your network and then try it again. For the configuration on PC, please refer to **WHG505 User's Manual, Appendix A - Network Configuration on PC & User Login.**

Common Settings

< Setup Wizard >

WHG505 provides a **Setup Wizard** for quick configuration. To quickly configure WHG505 by using the **Setup Wizard**, click on the **Setup Wizard** button to start the configuration process.

Step 1: General

- Enter a new password in the **New Password** field, and re-enter it again in the **Verify Password** field (a maximum of 20 characters and no spaces allowed in between).
- Select an appropriate time zone from the **Time Zone** drop-down list box to set up the system time.
- Click **Next** to continue.

> ⚠ For security concern, it is strongly recommended to change the administrator's password

Step 2: WAN1 Interface

For setting up both wired WAN and wireless LAN functions:

- Select a proper type of Internet connection for WAN1 interface from the following three available connections: **Static**, **Dynamic**, or **PPPoE**. Your ISP or network administrator can advise on the connection type available to you. Below depicts an example for **Dynamic**.
- Click **Next** to continue.


Step 3: Local User Account (Optional)

New local accounts can be created and added into the database via this optional function. If local user accounts are not required, click **Skip** to go directly to **Step 4**. However, It is recommended to create at least one local user account in order to verify the system's readiness upon completion of this **Setup Wizard**.

- Enter the *Username* (e.g. **"testuser"**) and *Password* (e.g. **"testuser"**) to create a new local account.
- Click **Next** to continue.
- More local accounts can be added by clicking the **Back** button in **Step 4**.

Step 4: Confirm and Restart

- Click *Finish* to save current settings and restart the system.
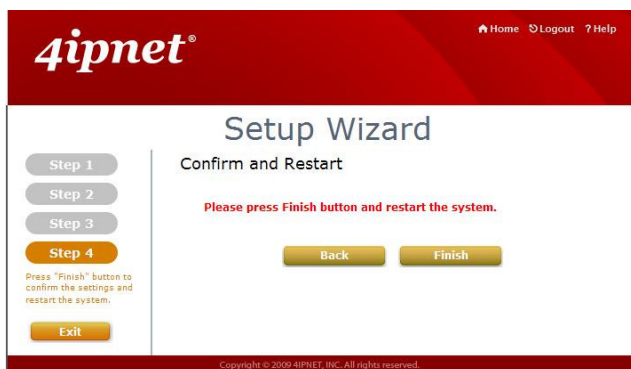
- A confirmation dialog box will then appear. Click *OK* to continue.

- A **Confirm and Restart** message will appear on the screen during the restarting process. Please do not interrupt the system until the Administrator Login Page appears.

▶▶ **Note:** The system is trying to locate a DNS server at this stage. Therefore, a longer startup time is required if the configured DNS cannot be found.

- When the following Administrator Login Page appears, it means the restart process is now completed.

< User Login >

To verify whether the configuration of the new local user account(s) created via the **Setup Wizard** has been completed successfully:

1. Connect a client device (e.g. laptop, PC) to any LAN Port of WHG505. The device will obtain an IP address automatically via DHCP.

2. Open a web browser on a client device, access any URL, and then the default **User Login Page** will appear.

3. Enter the *Username* and *Password* of a local user account previously generated via Setup Wizard (e.g. **"testuser@local"** as the *Username* and **"testuser"** as the *Password*); then Click **Login**.


⤻ Note:

1. WHG505 supports multiple authentication options including built-in local user database and external authentication database (e.g. RADIUS). The system will automatically identify which authentication option is used from the full username entered.

2. The format of a full (valid) username is **userid@postfix**, where **"userid"** is the user ID and **"postfix"** is the name of the selected authentication option.

3. **Exception:** The postfix can be omitted only when the default authentication option is used. For example, **"LOCAL"** is the default authentication option at this system; therefore, you may enter either **"testuser"** or **"testuser@local"** in the *Username* field.

Congratulation!

The Login Success Page will appear after a client has successfully logged into WHG505 and has been authenticated by the system.

The appearance of Login Success Page means that WHG505 has been installed and configured properly.
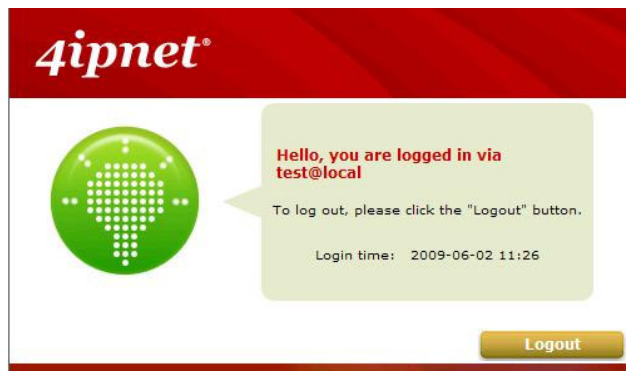
< Service Zone & AP Management >

4ipnet WHG505 has introduced an important new concept called **"Service Zone"**. For how to set up Service Zones, please refer to the User's Manual.

WHG505 can centrally manage up to 230 access points (APs). For how to set up the **"AP Management"** feature, please refer to the **"AP Management"** section of the User's Manual.

> *For further configuration and information, please refer to the User's Manual.*