LevelOne

WHG-1000

300Mbps Wireless PoE Hotspot Gateway

Quick Installation Guide

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

Preface

The **WHG-1000** is the most economical yet feature-rich **Wireless Hotspot Gateway**, targeting mini-size stores who want to provide small, single-point wireless Internet access service. WHG-1000 is a perfect choice for beginners to run hotspot businesses. It does not cost a fortune to buy a pile of equipment, nor does it take the skills of an expert to glue multiple applications out of multiple freeware. Feature-packed for hotspot operation, WHG-1000 comes with **built-in 802.11n/b/g access point, web server and web pages for clients to login, easy logo-loading for branding a hotspot store, simple user/visitor account management tool, payment plans, PayPal credit card gateway, traffic logs, IP sharing** and etc.

This Quick Installation Guide provides instructions and reference material s for getting started with WHG-1000.

Panel Function Description

Front Panel

1. **Power SOCKET (12V DC)** : Attach the power socket here.

2. **Reset** : Press the Reset button once to restart the system, The LED except Power indicator will be off before restarting.

3. **LAN(POE)** : Clients devices connect to WHG-1000 via LAN ports

4. **WAN1/WAN2** : Two WAN ports are available on the system.

5. **Console** : The serial RS-232 DB9 cable attaches here.

6. **Scan Button** :

➔ Press and hold the Reset button for **3** seconds until the **STATUS LED FLASH** and release to Scan New AP's Channel.

➔ Press and hold the Reset button for more than **10** seconds until the **SYSTEM LED FLASH** and release to reset the system to default configurations.

7. **USB** : (option)

Rear Panel

WHG-1000 supports 1 RF interface with 2 SMA connectors for Antenna connection.

LED Panel
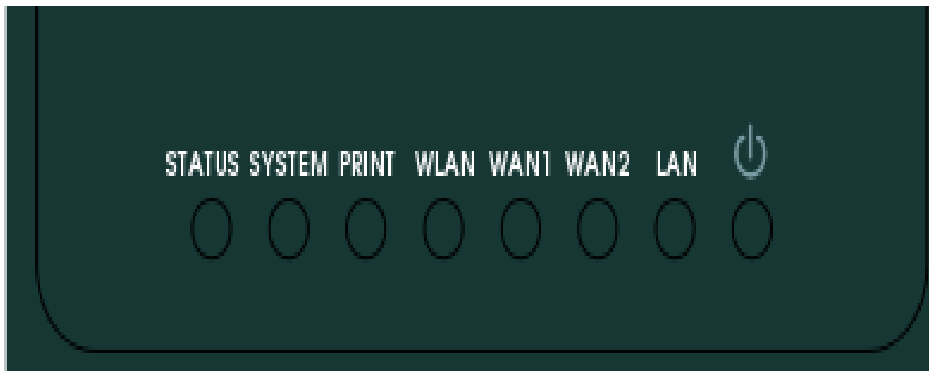
1. ⏻ : LED ON indicates power on, OFF indicates power off.

2. **WAN1/WAN2/LAN** : LED ON indicates connection, OFF indicates disconnection, FLASH indicates packets transmitting.

3. **WLAN** : LED ON indicates Wireless ready.

4. **PRINT** : LED ON indicates DSA-1000 ready.

5. **SYSTEM** : LED ON/FLASH indicates Flash busy, OFF indicates Flash Idle

6. **STATUS** : LED ON indicates System up, OFF indicates down, FLASH indicates Scan button activated.

2. Hardware Installation

Please follow the steps mentioned below to install the hardware of WHG-1000

1. Place the WHG-1000 at a best location.

The best location for WHG-1000 is usually at the center of your wireless network.

2. Connect WHG-1000 to your outbound network device.

Connect one end of the Ethernet cable to the WAN1/WAN2 port of WHG-1000 on the front panel. On your environment, connect the other end of the cable to the external Internet . The WAN1/WAN2 LED indicator should be ON to indicate a proper connection.

3. Connect WHG-1000 to your network device.

Connect one end of the Ethernet cable to LAN port of WHG-1000 on the front panel. Connect the other end of cable to a PC for configuring the system. The LAN LED indicator should be ON to indicate a proper connection.

4. There are two ways to supply power over to WHG-1000

➔ Connect the DC power adapter to the WHG-1000 power socket on the front panel.

Please only use the power adapter supplied with the WHG-1000 package. Using a different power adapter may damage this system

➔ WHG-1000 is capable of transmitting DC current via its LAN(PoE) port. Connect an IEEE 802.3af-compliant PSE device, e.g. A PoE Switch, to the LAN(PoE) port of WHG-1000 with the Ethernet cable.

Now, the hardware installation is completed.

To double verify the wired connection between WHG-1000 and your switch/router/hub, please check the LED status indication of these network devices.
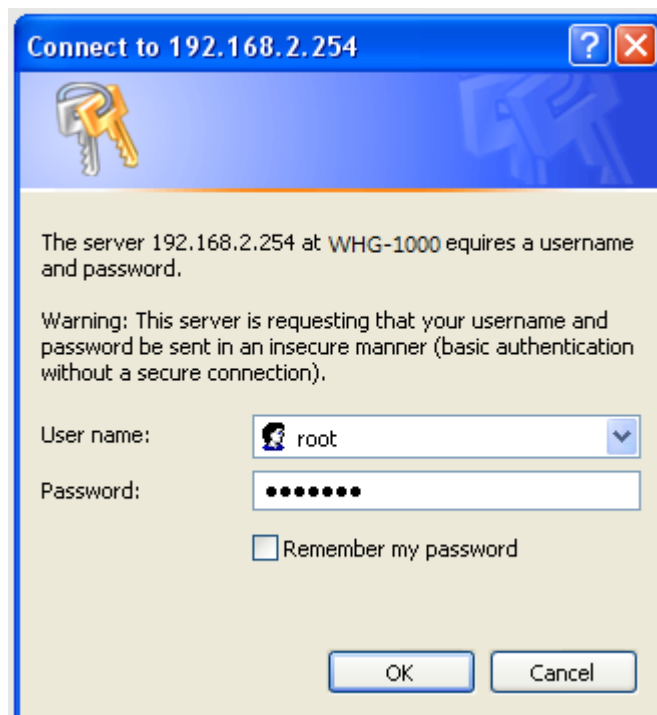
3. Getting Started

Step :

1. Once the hardware installation is done, set DHCP in TCP/IP of the administrator's PC to get an IP address automatically. Connect the PC to the LAN(PoE) port of WHG-1000. An IP address will be assigned to the PC automatically via the WHG-1000.

2. Launch a web browser to access the web GUI of WHG-1000 by entering "http://192.168.2.254" in the address field.
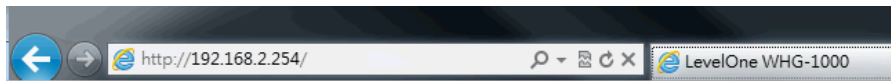
3. The following Administrator Login Page will appear. Enter "root" in the Username field, and "default" in the Password field.

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4. After a successful login, the "Home Page" will appear on the screen.

4. Quick Configuration

WHG-1000 provides wireless and wired network service with authentication required for clients in Service Domain. Clients in the each Service Domain are isolated with each other. WHG-1000 supports 8 Service Domains, Domain-0 to Domain-7. Administrator can select authentication type on each Service Domain. If *Authentication Required* is enabled, the clients are required to get authenticated successfully before access the Internet.

Configuration Steps :

Step 1 : Change Root's Password

➔ Click **System -> Management**, the Management Setup page will appear.

➔ Enter a *New Root Password* for the Root account ad retype in the *Check Root Password* field. (**4-30** alphanumeric and specific characters; **not** support **Space**)

➔ Click Save button.

Root Password
New Root Password :
Check Root Password :

For security concern, it is strongly recommended to change the Root password.

Step 2 : Choose System's Time Zone

➔ Click **System -> Time Server**, the Time Server Setup page will appear.

➔ Select the appropriate NTP Server, Time Zone from drop-down list.

➔ Click *Save* button.

Setup Time Use NTP
Default NTP Server : time.stdtime.gov.tw (optional)
Time Zone : (GMT) Dublin, Edinburgh, Lisbon, London
Daylight Saving Time : Disable

Before Hotspot service active, make sure the Local Time is correctly.

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Step 3 : Select Connection Type for WAN1 Port and Set DNS Server

➔ Click **System -> WAN**, the WAN Setup page will appear.

➔ Select the appropriate Connection Type for WAN1 port, there are four types of WAN1 connections to be selected from: **Static IP**, **Dynamic IP**, **PPPoE Client** and **PPTP Client**.

➔ Enter the IP Address of a DNS Server provided by your ISP(Internet Service Provider). Contact the ISP if the DNS IP Address is unknown.

➔ Click **Save** button.

Step 4 : Configure Wireless General Settings

➔ Click **Wireless -> General Setup**, the Wireless General Setup page will appear.

➔ Select desired wireless **Band**, **Channel**.

➔ Click **Save** button

Step 5 : Set Virtual AP and Select Authentication Type for Service Domain

➔ Click **Service Domain**, the Service Domain Setup page will appear.

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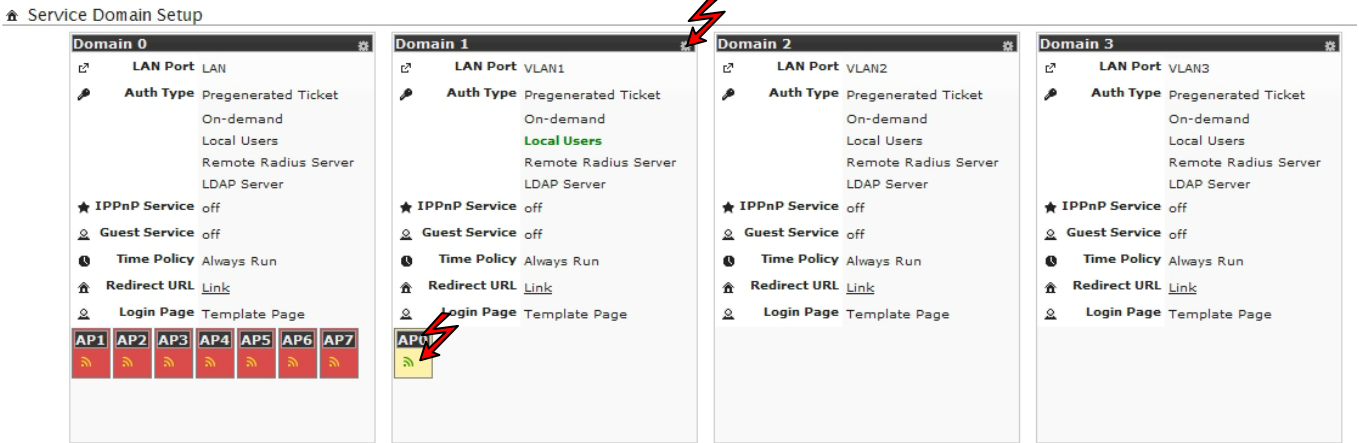
➔ Move **AP0 Icon** to Domain 1 window and click, the VAP0 Setup page will appear.
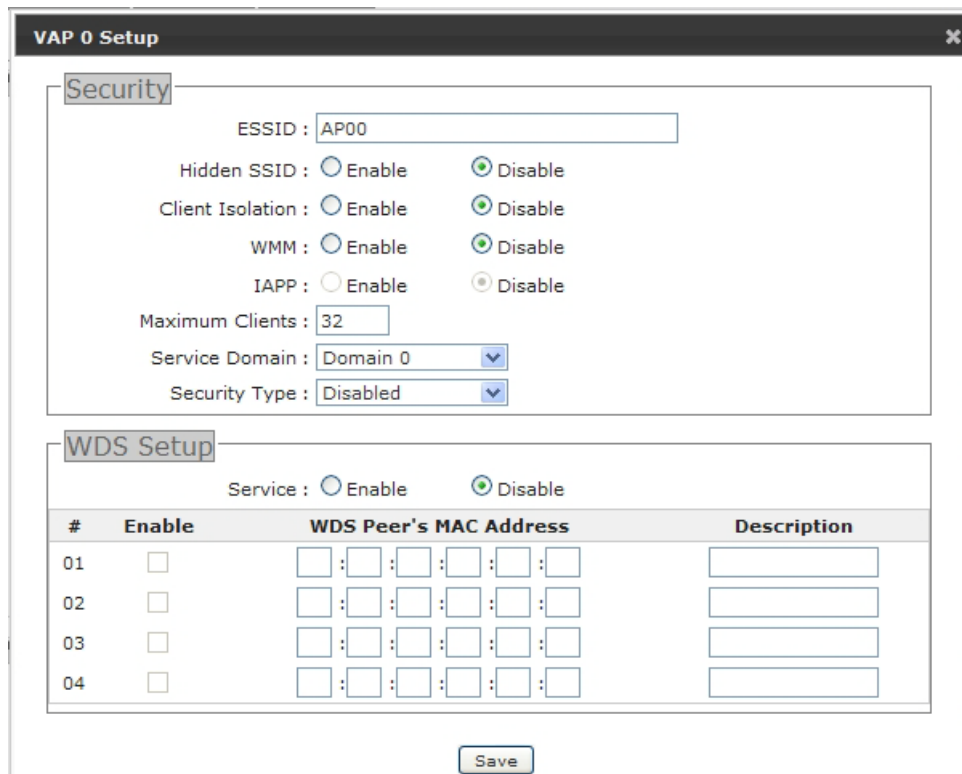
➔ Select desired wireless **ESSID** and related settings.

➔ Click **Tool Icon** on **Domain 0** window, the Service Domain0 Setup page will appear. For each Service Domain(by default, authentication type is **none**), authentication type can be selected in **Pregenerated Ticket**, **On-Demand**, **Local Radius**, **Remote Radius Server** and **LDAP Server**, and select one authentication type for Default Auth Type. Below depicts an example for **Local Radius**.

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➔ Select **Local Radius** for Domain0's Authentication Type.

➔ Enter the **Redirect URL** that users should be initially directed to when successfully authenticated to the network.

➔ Configure related settings for the selected Auth Type.

➔ Click **Save** button.

Step 6 : Add Local Radius Accounts

➔ Click **Service Domain -> Authentication -> Local Radius Accounts**, the Local Radius Accounts Management page will appear.

➔ A new account can be added into the Local Radius Database. To add a account here, enter the Username(e.g. **test1**), Password(e.g. **11111**), MAC Address(optional, to specify the valid MAC address of this account) and Description.

➔ More accounts can be added by clicking the Save button.

➔
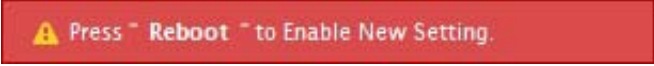
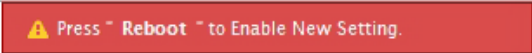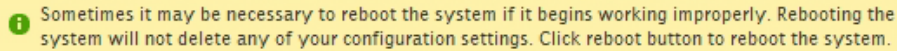**Step 7 : Restart WHG-1000**

➔ Click **Reboot**, the Reboot page will appear

➔ Click *Reboot* button to start the restarting process.

Plese don't interrupt the system during the restarting process.

➔ When the "Home Page" appears, it means the restart process is now completed.

5. User Login

To verify whether the configuration of the new Local Radius accounts created via the Quick Configuration has been completed successfully :

Step :

1. Connect a client device (e.g. Notebook) with wireless interface to scan the configured ESSID of WHG-1000 (e.g. **AP00**) and get associated with this ESSID.

2. The client device will obtain an IP address automatically via DHCP from WHG-1000. Open a web browser on a client device, access any URL, and then the Domain1 **User Login Page** will appear.

3. Enter the *Username* and *Password* of a Local Radius account previously generated via **Quick Configuration** (e.g. "**test1**" as the *Username* and "**11111**" as the *Password*); then Click **Login** button.

Congratulation !

The Timer page will appear after a client has successfully logged into WHG-1000 and has been authenticated by the system. Now, you are connected the network and Internet!