



ALL-WAP02860AC



WLAN 802.11AC/N Dual Band Access Point

DEFAULT VALUES

IP: 192.168.1.1

User name: admin

Password: admin

Table of Contents

Chapter 1 Product Overview	4	Chapter 7 Wireless.....	32
Key Features/Introduction	5	Wireless Network.....	33
System Requirements / Package Contents	6	Wireless Security	35
Applications.....	7	Wireless MAC Filtering	41
Technical Specifications.....	8	Wireless Advanced	42
Physical Interface.....	9	WPS (Wi-Fi Protected Setup).....	43
Chapter 2 Before You Begin	10	WDS Link Settings.....	44
Considerations for Wireless Installation.....	11	Chapter 8 Management.....	45
Computer Settings.....	12	Administration	46
Hardware Installation	15	Management VLAN Settings	47
Mounting the ALL-WAP02860AC	16	Wireless Traffic Shaping	48
Chapter 3 Configuring Your Access Point	18	SNMP Settings	49
Default Settings	19	Backup/Restore	51
Chapter 4 Building a Wireless Network	20	Auto Reboot Settings.....	52
Access Point Mode.....	21	Firmware Upgrade	53
WDS AP Mode.....	22	Time Settings.....	54
WDS Bridge Mode.....	23	System Log/Tools	55
Chapter 5 Overview	24	Ping Test Parameters/Traceroute Parameters.....	56
Overview	25	SpeedTestParameters/LEDControl	57
Connections	26	Device Display/Reset.....	58
Chapter 6 Network.....	27	General Public License	59
Operation Mode/Basic.....	28	CE Declaration	105
IP Settings/SpanningTree Settings.....	29	Safety Warnings	106

Chapter 1

Product Overview

Introduction

Key Features

- High transmit power, enabling long range connectivity
- Supports IEEE802.11ac/b/g/n wireless standards with up to 450 Mbps data rate on 2.4GHz and 1300Mbps data rate on 5GHz
- Six internal 5dBi Omni-Directional MIMO antennas
- Can be monitored after deployment with ALLNET AEZ Controller software for Windows (Free online download)
- Can be used with included power adapter or via PoE with 802.3at - capable Switches or Injectors
- Dual Band/Three Stream
- Band Steering shifts dual band clients to 5 GHz for better throughput performance
- Secured Guest Network

Introduction

The ALL-WAP02860AC is a high-powered, long-range, Dual-band concurrent Wireless 802.11ac/b/g/n Access Point with three major functional modes. It is designed to operate in numerous environments; from large homes, small and medium-sized businesses, multiple-floor offices, hotels, and other venues, to larger enterprise deployments. Its high-powered, long-range characteristics make it a cost-

effective alternative to ordinary Access Points that don't have the range and reach to connect to a growing number of wireless users who wish to connect to a large home or business network.

Maximum data rates are based on IEEE 802.11 standards. Actual throughput and range may vary depending on many factors including environmental conditions, distance between devices, radio interference in the operating environment, and mix of devices in the network. Features and specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners.

The ALL-WAP02860AC supports the 2.4 GHz frequency band under the 802.11b/g/n mode while at the same time providing a 5 GHz band for communicating or transferring files in a less congested network frequency band.

The ALL-WAP02860AC also delivers up to 15x faster wireless speeds compared to legacy 802.11a/b/g wireless devices. Even though the ALL-WAP02860AC has been designed and engineered for heavy traffic and demanding business environments, in larger housing environments as it can efficiently extend the wireless range of an existing home router. This makes it especially ideal in architecturally-challenging structures, providing whole home connectivity.

To protect sensitive data during wireless transmissions, the ALL-WAP02860AC offers different encryption settings for wireless transmissions, including industry standard WPA and WPA2 encryption. The ALL-WAP02860AC also includes MAC address filtering to allow network administrators to offer network access only to known computers and other devices based on their MAC addresses.

System Requirements

The following are the Minimum System Requirements in order to configure the device:

- Computer with an Ethernet interface or wireless network capability
- Windows OS (XP, Vista, 7, 8), Mac OS, or Linux-based operating systems
- Web-Browsing Application (i.e. : Internet Explorer, Firefox, Chrome, Safari, or another similar browser application)

Package Contents

The ALL-WAP02860AC package contains the following items (all items must be in package to issue a refund):

- ALL-WAP02860AC Access Point
- Power Adapter
- RJ-45 Ethernet Cable
- Quick Installation Guide
- Ceiling and Wall Mount Screw kit

Applications

Wireless LAN (WLAN) products are easy to install and highly efficient. The following list describes some of the many applications made possible through the power and flexibility of WLANs:

- **Difficult-to-Wire Environments:** There are many situations where wires cannot be installed, deployed easily, or cannot be hidden from view. Older buildings, sites with multiple buildings, and/or areas that make the installation of a Ethernet-based LAN impossible, impractical or expensive are sites where WLAN can be a network solution.
- **Temporary Workgroups:** Create temporary workgroups/networks in more open areas within a building; auditoriums, amphitheaters classrooms, ballrooms, arenas, exhibition centers, or temporary offices where one wants either a permanent or temporary Wireless LAN established.
- **The Ability to Access Real-Time Information:** Doctors/Nurses, Point-of-Sale Employees, and/or Warehouse Workers can access real-time information while dealing with patients, serving customers, and/or processing information.
- **Frequently Changing Environments:** Set up networks in environments that change frequently (i.e.: Show Rooms, Exhibits, etc.).
- **Small Office and Home Office (SOHO) Networks:** SOHO users require a cost-effective, easy, and quick installation of a small network.
- **Wireless Extensions to Existing Ethernet-based Networks:**
Devices like the ALL-WAP02860AC enable network administrators, installers, and end-users to extend the range and reach of an existing Ethernet-based network.

- **Training/Educational Facilities:** Training sites at corporations or students at universities use wireless connectivity to exchange information between peers and easily access information for learning purposes.

Technical Specifications

Standard:

IEEE802.11b/g/n on 2.4 GHz
IEEE 802.11ac/a/n on 5 GHz
IEEE802.3at

Antenna

Six Internal 5 dBi Omni-Directional Antennas

Physical Interface

1 x 10/100/1000 Gigabit Ethernet Port
1 x Reset Button
1 x Power Connector

LED Indicator

Power
WPS
WLAN (Wireless Connection)
LAN

Power Requirements

External Power Adapter
DC IN, 12V/2A

Operation Modes

Access Point
WDS AP
WDS Bridge

Security

WEP (64/128bit)
WPA/WPA2 (TKIP/AES)
Hidden ESSID
MAC address filtering, up to 50 fields
L2 Isolation
802.1X Authenticator (MD5/TLS/TTLS/PEAP)
Guest Network

QoS (Quality of Service)

WMM (Wireless Multimedia)

Physical/Environment Conditions

Operating:
Temperature: 32°F to 104°F (0°C to 40°C)
Humidity (Non-condensing): 90% or less

Storage:

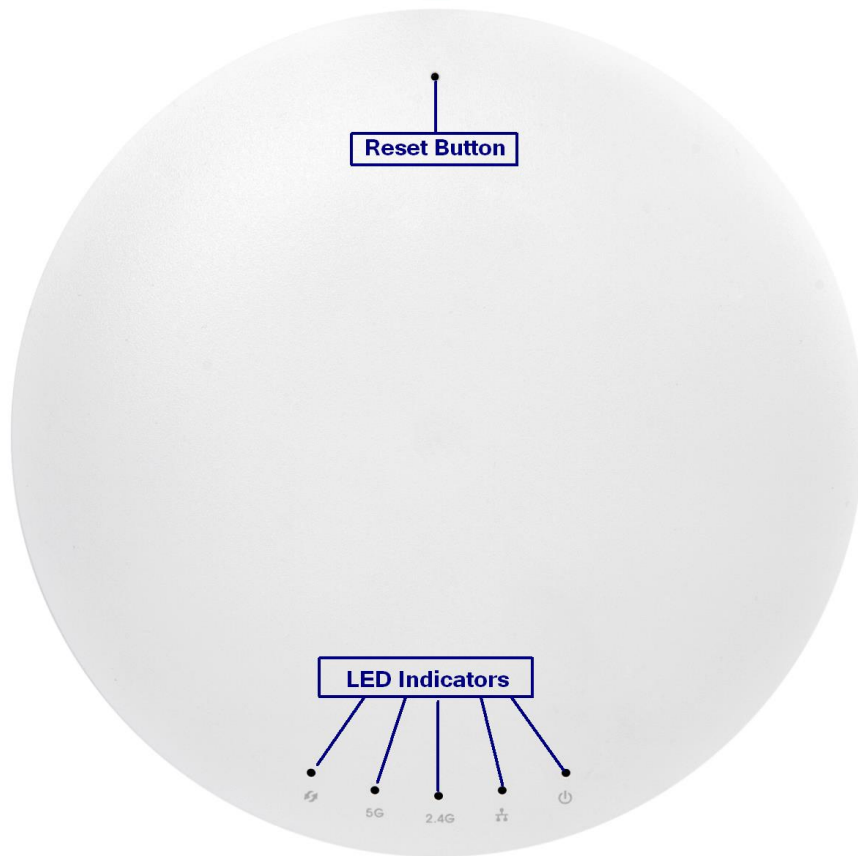
Temperature: -4°F to 140°F (-20°C to 60 °C)
Humidity (Non-condensing): 90% or less

Physical Interface

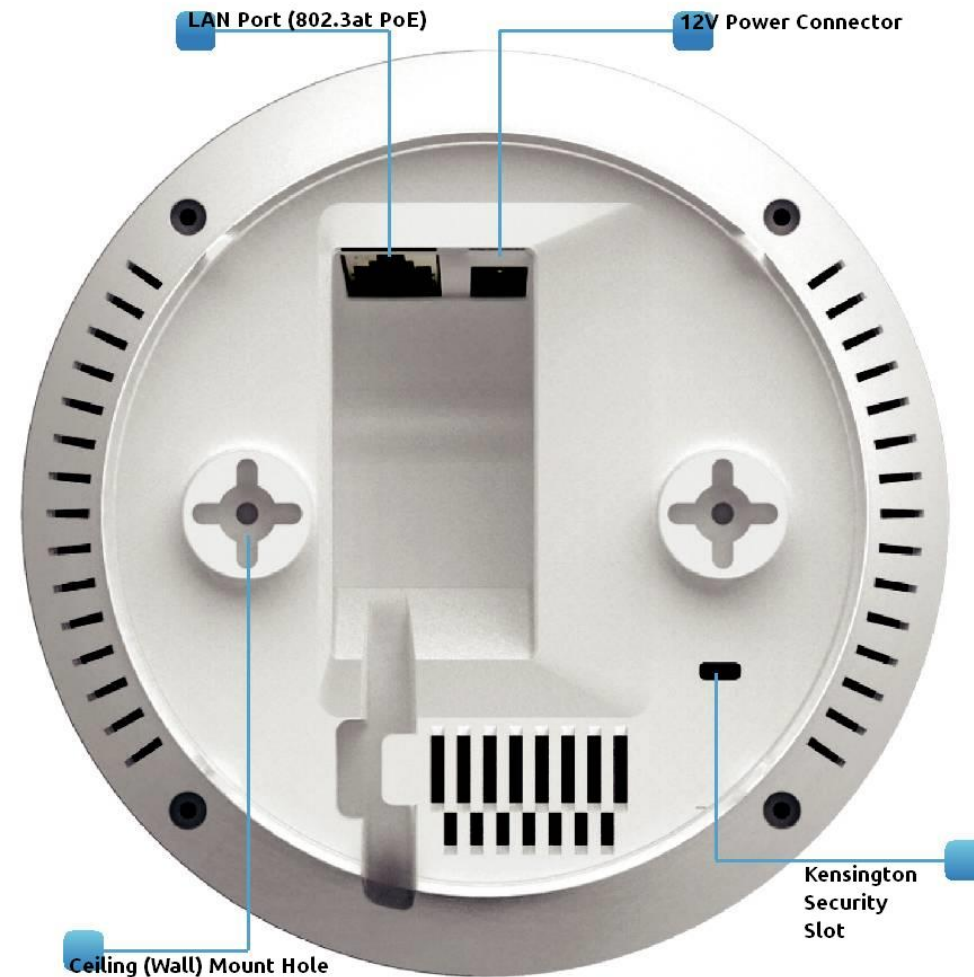
Dimensions and Weights

Diameter: 6.36"

Height: 2.17"



- 1 **Reset Button:** Press and hold for **over** 15 seconds to reset to factory default settings.
- 2 **LED Indicators:** LED lights for WPS, WLAN 5G, WLAN 2.4G, Ethernet port, and Power
- 3 **LAN Port (802.3at PoE):** Ethernet port for RJ-45 cable.



- 4 **Power Connector: 12V DC IN** for Power.
- 5 **Ceiling (Wall) Mount Hole:** Using the provided hardware, the ALL-WAP02860AC can be attached to a ceiling or wall.
- 6 **Kensington Security Slot:** To protect your ALL-WAP02860AC, use the Kensington Security Slot to attach a cable lock.

Chapter 2

Before You Begin

Before You Begin

This section will guide you through the installation process. Placement of the ALLNET ALL-WAP02860AC is essential to maximize the Access Point's performance. Avoid placing the ALL-WAP02860AC in an enclosed space such as a closet, cabinet, or stairwell.

Considerations for Wireless Installation

The operating distance of all wireless devices can often not be pre-determined due to a number of unknown obstacles in the environment in which the device is deployed. Obstacles such as the number, thickness, and location of walls, ceilings, or other objects that the

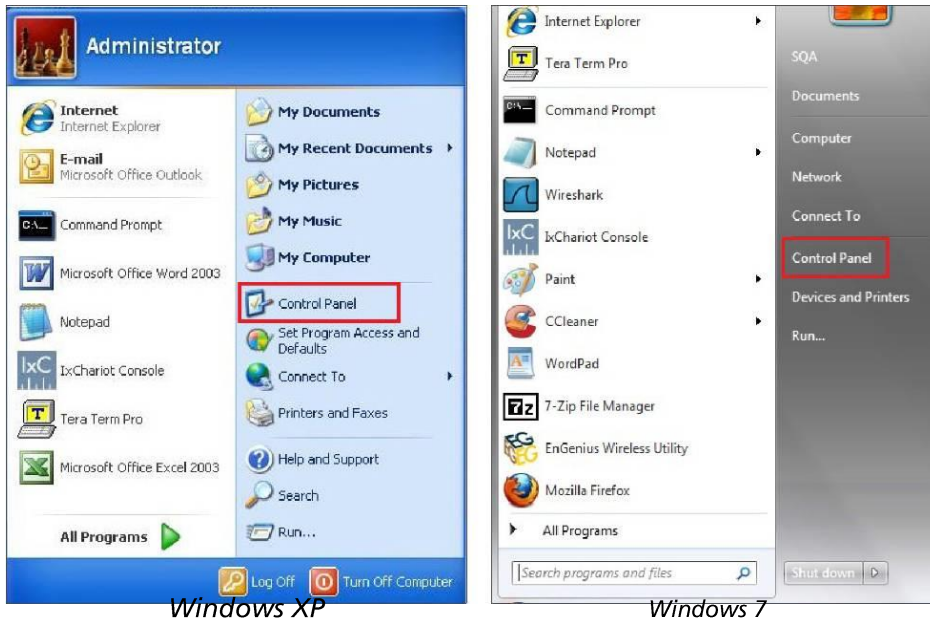
ALL-WAP02860AC's wireless signals must pass through can weaken the signal. Here are some key guidelines for allowing the ALL-WAP02860AC to have an optimal wireless range during setup.

- Keep the number of walls and/or ceilings between the ALL-WAP02860AC and other network devices to a minimum. Each wall and/or ceiling can reduce the signal strength, resulting in a lower overall signal strength.
- Building materials make a difference. A solid metal door and/or aluminum studs may have a significant negative effect on the signal strength of the ALL-WAP02860AC. Locate your wireless devices carefully so the signal can pass through drywall and/or open doorways. Materials such as glass, steel, metal, concrete, water (example: fish tanks), mirrors, file cabinets, and/or brick can also diminish wireless signal strength.
- Interference from your other electrical devices and/or appliances that generate RF noise can also diminish the ALL-WAP02860AC's signal strength. The most common types of devices are microwaves or cordless phones.

Computer Settings

Windows XP/Windows 7

In order to use the ALL-WAP02860AC, you must first configure the TCP/IPv4 connection of your Windows OS computer system. **1.** Click the **Start** button and open the **Control Panel**.



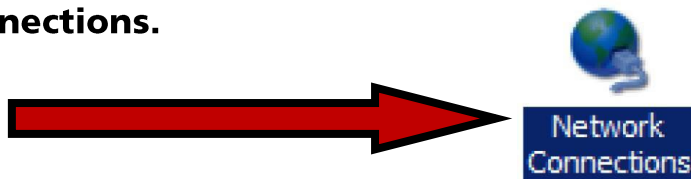
2b. In **Windows 7**, click **View Network Status and Tasks** in the **Network and Internet** section, then select **Change Adapter Settings**.



3. Right click on **Local Area Connection** and select **Properties**.

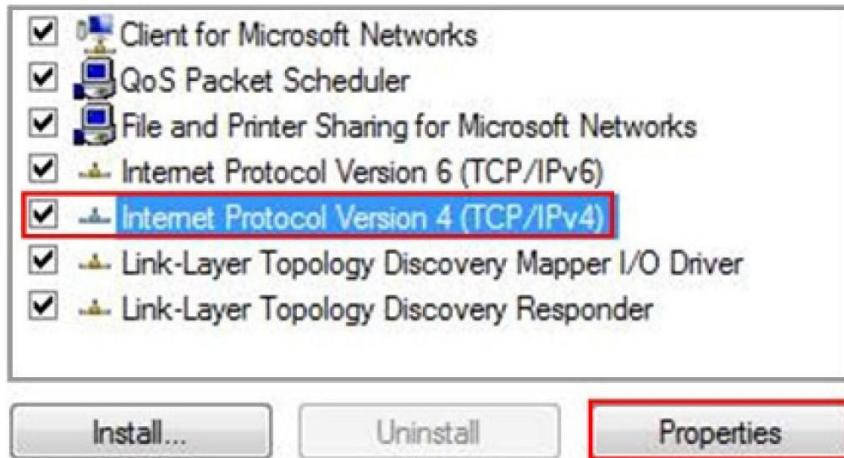


2a. In **Windows XP**, click on **Network Connections**.



4. Select **Internet Protocol Version 4 (TCP/IPv4)** and then select **Properties**.

5.



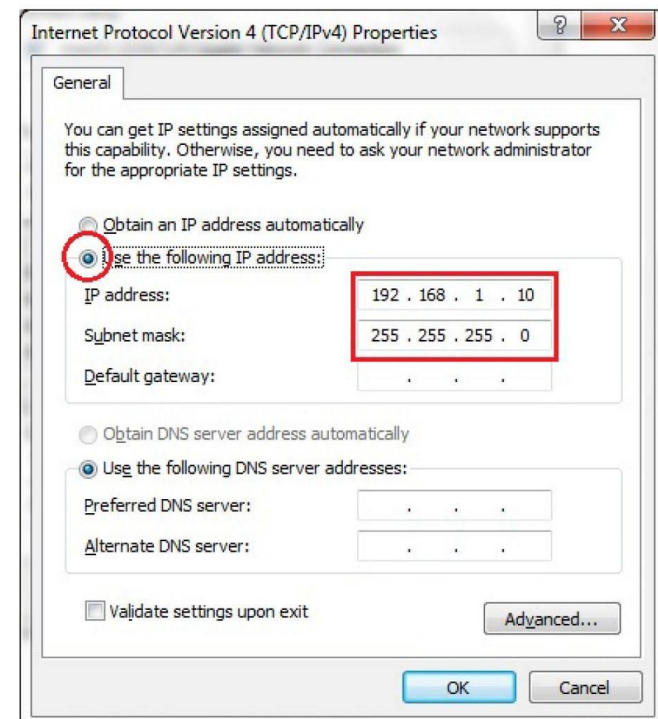
Select **Use the following IP address** and enter an IP address that is different from the ALL-WAP02860AC and Subnet mask, then click **OK**.

Note: Ensure that the IP address and Subnet mask are on the same subnet as the device.

For example: ALL-WAP02860AC IP address:
192.168.1.1

PC IP address: 192.168.1.2 – 192.168.1.255

PC Subnet mask: 255.255.255.0



Apple Mac OS X

1. Go to **System Preferences** (it can be opened in the Applications folder or by electing it in the Apple Menu).
2. Select **Network** in the **Internet & Network** section.



3. Highlight **Ethernet**.

4. In **Configure IPv4**, select **Manually**.

5. Enter an IP address that is different from the ALL-WAP02860AC and Subnet mask, then click **OK**.

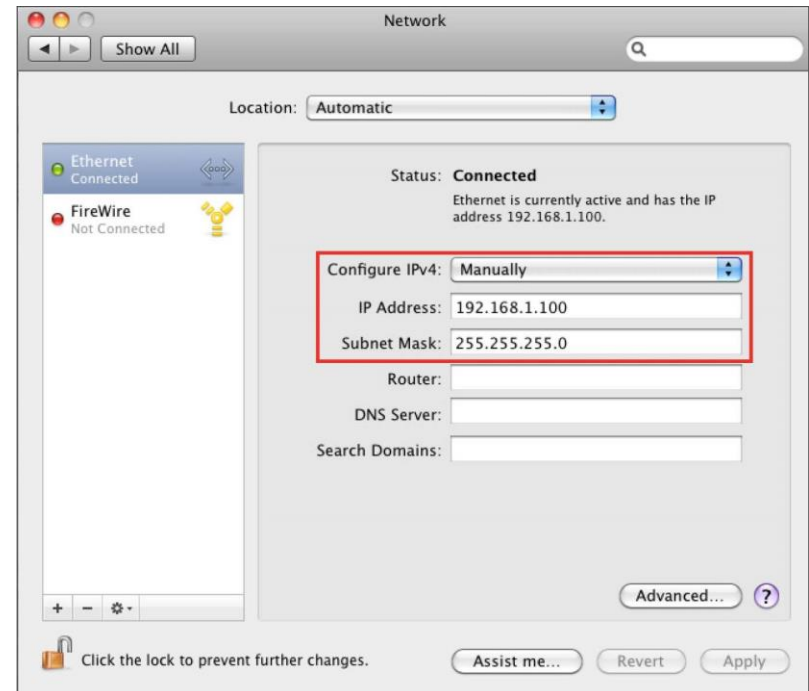
Note: Ensure that the IP address and Subnet mask are on the same subnet as the device.

For example: ALL-WAP02860AC IP address:
192.168.1.1

PC IP address: 192.168.1.2 – 192.168.1.255

PC Subnet mask: 255.255.255.0

6. Click **Apply** when finished.



Hardware Installation

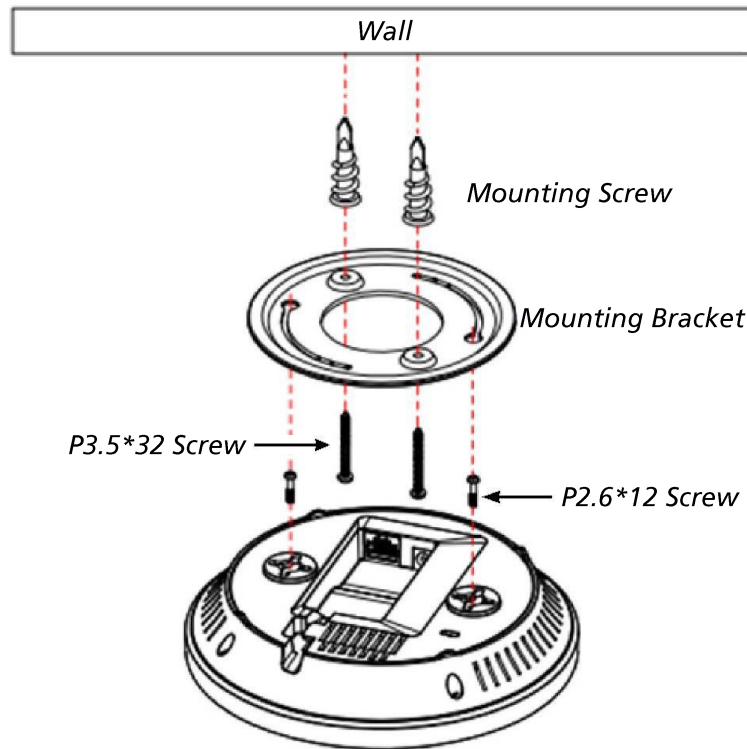
1. Ensure that the computer in use has an Ethernet Controller port (RJ-45 Ethernet Port).
For more Information, verify with your computer's user manual.
2. Connect one end of the Category 5e Ethernet cable into the RJ-45 port of the ALL-WAP02860AC and the other end to the RJ-45 port of the computer. Ensure that the cable is securely connected to both the ALL-WAP02860AC and the computer.
3. Connect the Power Adapter DC connector to the DC-IN port of the ALL-WAP02860AC and the Power Adapter to an available electrical outlet.
Once both connections are secure, verify the following:
 - a) Ensure that the POWER light is on (it will be orange).
 - b) Ensure that the 2.4 GHz/5 GHz WLAN light is on (it will be blue for 2.4G, and green for 5G).
 - c) Ensure that the LAN (Computer/ ALL-WAP02860AC Connection) light is on (it will be blue).
 - d) Once all three lights are on, proceed to set up the Access Point using the computer.

Mounting the ALL-WAP02860AC

Using the provided hardware, the ALL-WAP02860AC can be attached to a ceiling or wall.

To attach the ALL-WAP02860AC to a ceiling or wall using the mounting bracket:

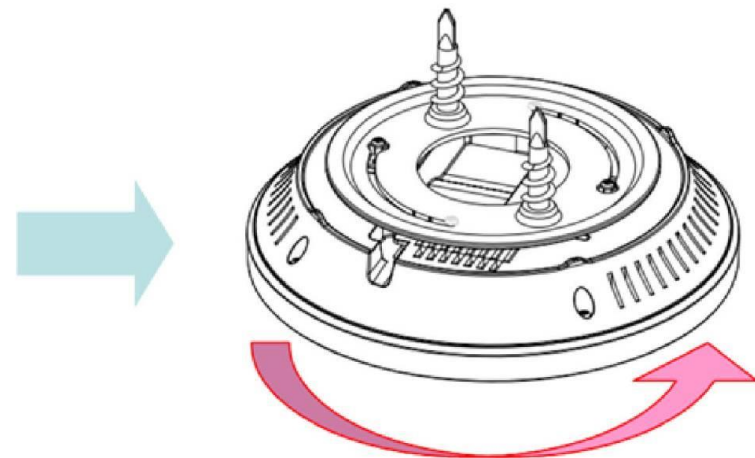
1. Attach the mounting bracket to the wall or ceiling using the provided wall/ceiling mounting hardware kit.
2. Insert the provided short screws into the bottom cover of the ALL-WAP02860AC.



Leave enough of the screws exposed to ensure that the unit can be attached to the mounting bracket.

If extra space is required, use the provided spacers and long screws from the T-Rail mounting hardware kit to increase the space between the unit and the mounting bracket.

3. Mount the ALL-WAP02860AC on the mounting bracket by rotating the unit clockwise about 90 degrees to secure it in place.



Lock the ALL-WAP02860AC by revolving

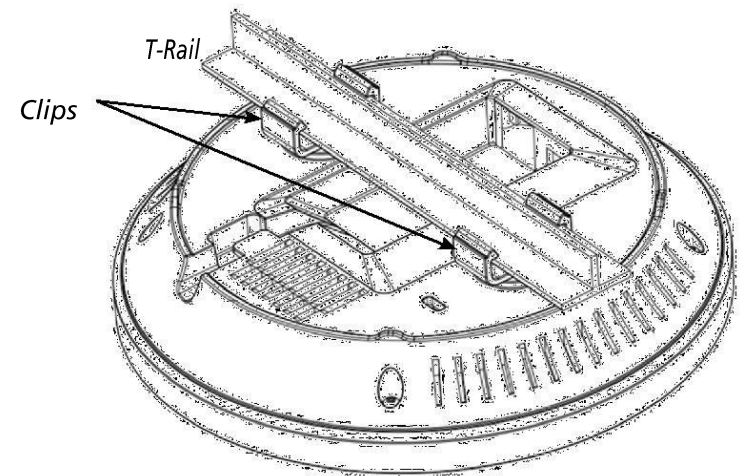
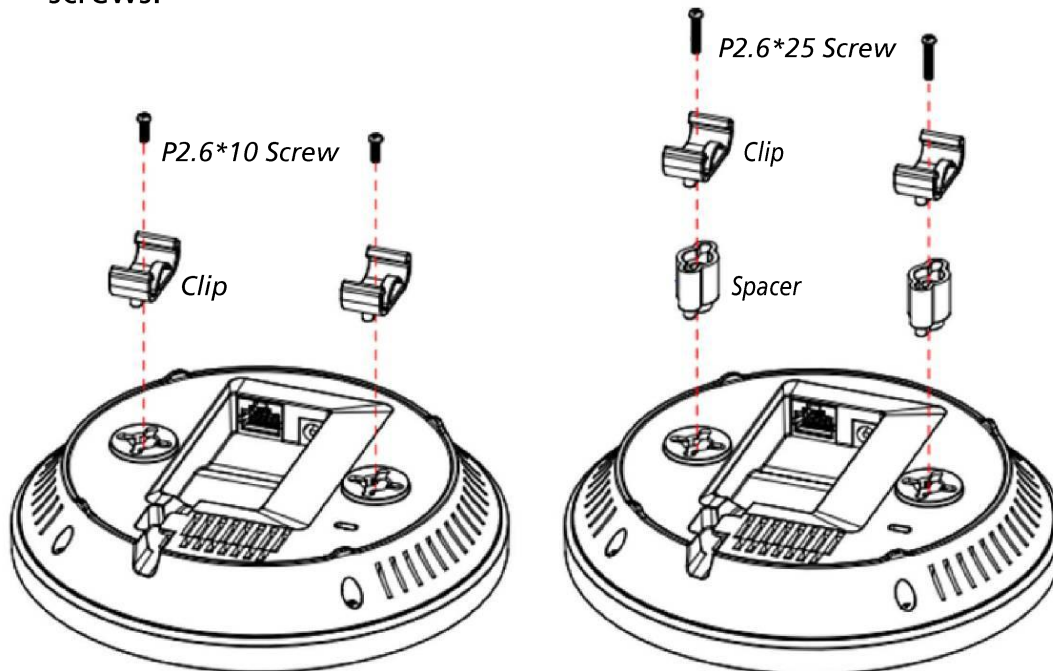
Attaching the ALL-WAP02860AC to a ceiling using the provided T-Rail connectors:

1. Attach the T-Rail connectors to the bottom cover of the ALL-WAP02860AC using the provided short screws.

Note: Two sizes of T-Rail connectors are included in the mounting hardware kit: 15/16in (2.38cm) and 9/16in (1.43cm). If extra space is required to accommodate drop ceiling tiles, use the provided spacers and long screws.

2. Line up the connected T-Rail connectors with an appropriately sized rail and press the unit onto the rail until it snaps into place.

Note: To protect your ALL-WAP02860AC, use the Kensington Security Slot to attach a cable lock (cable lock is not included).



Chapter 3

Configuring Your Access Point

Configuring Your Access Point

This section will show you how to configure the device using the web-based configuration interface.

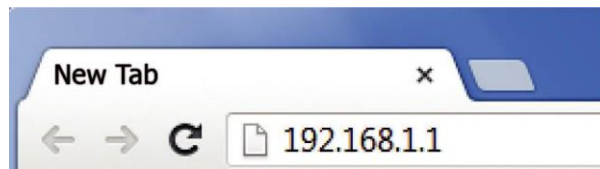
Default Settings

Please use your Ethernet port or wireless network adapter to connect the Access Point.

IP Address	192.168.1.1
Username/Password	admin/admin

Web Configuration

1. Open a web browser (Internet Explorer/Firefox/Safari) and enter the IP Address **http://192.168.1.1**.

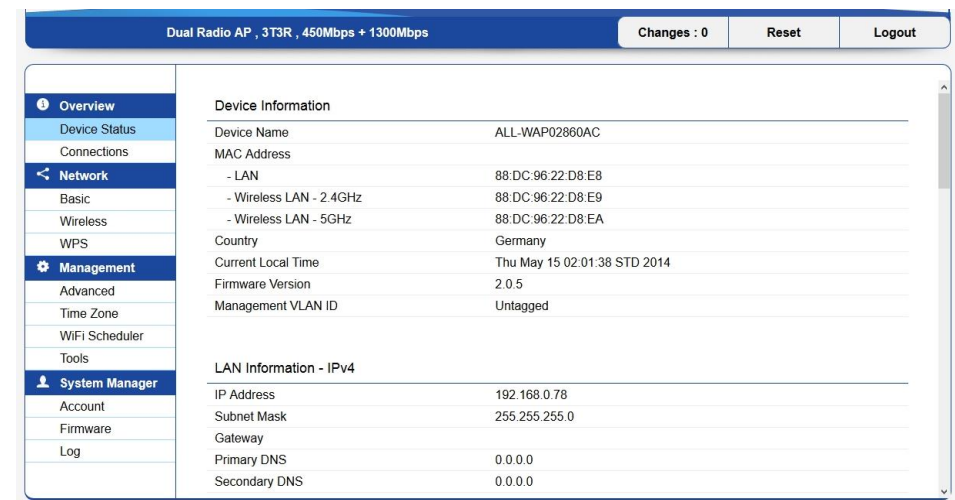


Note: If you have changed the default LAN IP Address of the Access Point, ensure you enter the correct IP Address.

2. The default username and password are: **admin**. Once you have entered the correct username and password, click the **Login** button to open the web-based configuration page.



3. If successful, you will be logged in and see the ALL-WAP02860AC User Menu.



Chapter 4

Building a Wireless Network

The ALL-WAP02860AC has the ability to operate in various modes. This chapter describes the operating modes of the ALL-WAP02860AC.

Access Point Mode

In Access Point Mode, the ALL-WAP02860AC behaves like a central connection for stations or clients that support IEEE 802.11a/b/g/n networks. The stations and clients must be configured to use the same SSID (Service Set Identifier) and security password to associate with the ALL-WAP02860AC. The ALL-WAP02860AC supports up to eight (8) SSIDs per band (16 total) at the same time for secure access.

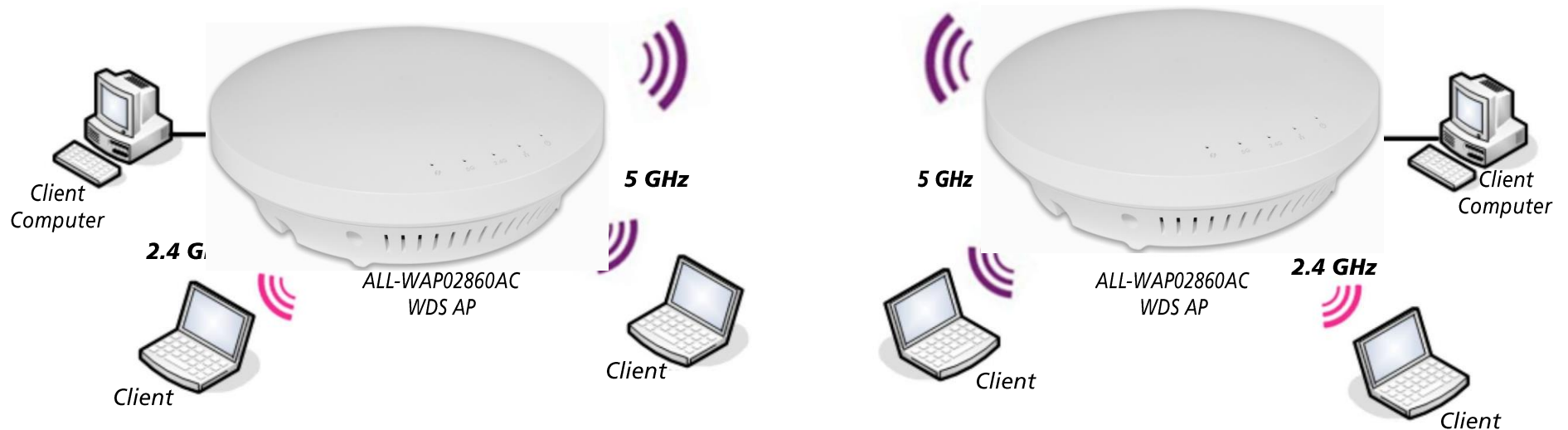


WDS AP Mode

The ALL-WAP02860AC also supports WDS AP mode. This operating mode allows wireless connections to the ALL-WAP02860AC using

WDS technology. In this mode, configure the MAC addresses in both Access Points to enlarge the wireless area by enabling

WDS Link settings. WDS supports up to four (4) AP MAC addresses.

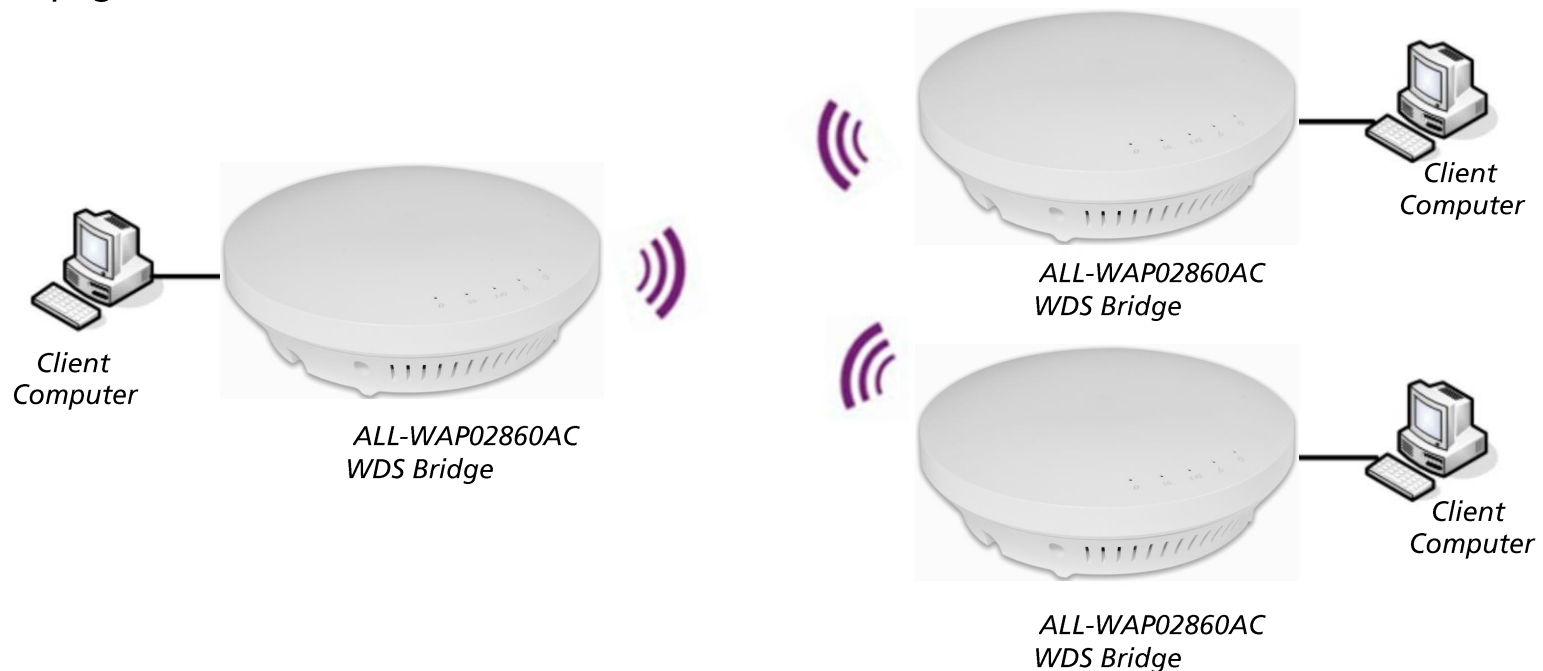


WDS Bridge Mode

In WDS Bridge Mode, the ALL-WAP02860AC can wirelessly connect different LANs by configuring the MAC address and security settings of each ALL-WAP02860AC device. Use this mode when two wired LANs located a small distance apart want to communicate with each other. The best solution is to use the ALL-WAP02860AC to wirelessly connect two wired LANs, as shown in the following figure.

WDS Bridge Mode can establish up to four (4) WDS links, creating a star-like network.

Note: WDS Bridge Mode does **not** act as an Access Point because Access Points linked by WDS use the same frequency channel. More Access Points connected together may lower throughput. This configuration can also be susceptible to generate endless network loops in your network, so it is recommended to enable the Spanning Tree function to prevent this from happening. You can find information about the Spanning Tree Function on page 31.



Chapter 5

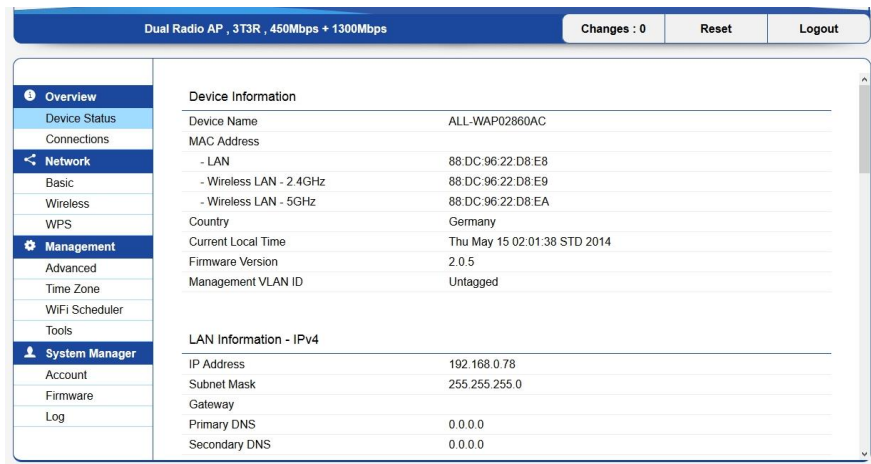
Overview

Overview

The **Overview** section contains the following options:

- Device Status
- Connections

The following sections describe these options:



Device Status

Clicking the **Device Status** link under the **Overview** menu shows the status information about the current operating mode.

- The **Device Status** section shows general system information such as Device Name, MAC address, Current Time, Firmware Version, and Management VLAN ID

Note: VLAN ID is only applicable in Access Point or WDS AP mode.

- The **LAN Information** section under the **Connections** link shows the Local Area Network settings such as the LAN IP Address, Subnet mask, Gateway, DNS Address, DHCP Client, and STP status.

LAN Information - IPv4

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Gateway	192.168.1.1
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
DHCP Client	Disable
Spanning Tree Protocol (STP)	Disable

- The **Current 2.4 GHz/5 GHz Wireless Settings** section under the **Basic** link shows wireless information such as Operation Modes, Frequency, and Channel. Since the ALL-WAP02860AC supports multiple-SSIDs, information about each SSID and security settings are displayed.

Note: Profile Settings is only applicable in Access Point or WDS AP mode.

Connections

The ALL-WAP02860AC automatically logs (records) events of possible interest in its internal memory. To view the logged information, click the **Connections** link under the **Device Status** menu. If there is not enough internal memory to log all events, older events are deleted from the log. When powered down or rebooted, the log will be cleared.

Click **Refresh** to refresh the Connections List page.

Overview

Device Status

Connections

Network

Basic

Wireless

WPS

Management

Advanced

Time Zone

WiFi Scheduler

Tools

Connection List - 2.4GHz

SSID	MAC Address	TX	RX	RSSI	Block
WAP02860AC	88:DC:96:07:3A:4C	62Kb	365Kb	-27dBm	Kick

Connection List - 5GHz

SSID	MAC Address	TX	RX	RSSI	Block
------	-------------	----	----	------	-------

Refresh

Chapter 6

Network

Operation Modes

The ALL-WAP02860AC supports three operation modes:

Access Point, WDS AP, and WDS Bridge.

Device Settings

To access operation mode, click the **Wireless** section under Network in the sidebar. You will see wireless settings customizable options for both the 2.4 GHz and 5 GHz modes. Under Wireless settings, you will see:

Device Name: Enter a name for the device. The name you type will appear in SNMP management. This name is not the SSID and is not broadcast to other devices.

Region: Select a Region to conform to local regulations.

The screenshot displays the web management interface for the ALL-WAP02860AC. The top header bar is blue and contains the text "Dual Radio AP , 3T3R , 450Mbps + 1300Mbps" on the left, and "Changes : 0", "Reset", and "Logout" buttons on the right. A sidebar on the left lists navigation options: Overview, Device Status, Connections, Network (selected), Basic, Wireless, WPS, Management, Advanced, Time Zone, WiFi Scheduler, Tools, System Manager, Account, Firmware, and Log. The main content area is titled "Wireless Settings" and contains the following configuration fields:

2.4GHz		5GHz	
Device Name	ALL-WAP02860AC	Device Name	ALL-WAP02860AC
Country / Region	Germany	Country / Region	Germany
Band Steering	<input type="radio"/> Enable <input checked="" type="radio"/> Disable NOTE: In order for Band Steering function to work properly, both 2.4GHz and 5GHz SSID and Security Settings must be the same.		
Operation Mode	Access Point <input checked="" type="checkbox"/> Green	Operation Mode	Access Point <input checked="" type="checkbox"/> Green
Wireless Mode	802.11 B/G/N	Wireless Mode	802.11 AC/N
Channel HT Mode	20/40 MHz	Channel HT Mode	80 MHz(AC Only)
Extension Channel	Upper Channel	Extension Channel	Lower Channel
Channel	Auto	Channel	Auto
Transmit Power	Auto	Transmit Power	Auto
Data Rate	Auto	Data Rate	Auto
RTS / CTS Threshold (1 - 2346)	2346	RTS / CTS Threshold (1 - 2346)	2346
Client Limits	127 <input checked="" type="radio"/> Enable <input type="radio"/> Disable	Client Limits	127 <input checked="" type="radio"/> Enable <input type="radio"/> Disable

Operation Mode: Unfold the dropped list to select an operating mode.

Band Steering: Enable Band Steering to send 802.11n clients to the 5 GHz band, where 802.11b/g clients cannot go, and leaves the 802.11b/g clients in 2.4 GHz to operate at their slower rates. Band Steering works within the Access Point by directing 5 GHz-capable clients to that band.

*Note: In order for the Band Steering function to work properly, both the 2.4 GHz and the 5 GHz SSID and security settings must be under the same selection settings.

Basic

This page allows you to modify the device's IP settings.

Dual Radio AP , 3T3R , 450Mbps + 1300Mbps

Changes : 0ResetLogout

Overview

Device Status

Connections

Network

Basic

Wireless

WPS

Management

Advanced

Time Zone

WiFi Scheduler

Tools

System Manager

Account

Firmware

IPv4 Settings

IP Network Setting

☐ DHCP ☒ Static IP

IP Address

192.168.0.78

Subnet Mask

255.255.255.0

Gateway

0.0.0.0

Primary DNS

0.0.0.0

Secondary DNS

0.0.0.0

IPv6 Settings

☒ Link-local Address

IP Address

Subnet Prefix Length

Gateway

Primary DNS

Secondary DNS

IP Network Settings

Select whether the device IP address will use the static

IP address specified in the IP Address field or be obtained automatically when the device connects to a DHCP server.

IP Address: The IP Address of this device.

IP Subnet Mask: The IP Subnet mask of this device.

Gateway: The Default Gateway of this device. Leave it blank if you are unsure of this setting.

Primary/Secondary DNS: The primary/secondary DNS address for this device.

Click **Save** to confirm the changes.

Spanning Tree Settings

This page allows you to modify the Spanning Tree settings. Enabling Spanning Tree protocol will prevent network loops in your LAN network.

Spanning Tree Protocol (STP) Settings		
Status	Disable ▾	
Hello Time	2	seconds (1-10)
Max Age	20	seconds (6-40)
Forward Delay	4	seconds (4-30)
Priority	32768	(0-65535)

Save Save current setting(s)

Spanning Tree Status: Enables or disables the Spanning Tree function.

Hello Time: Specify Bridge Hello Time, in seconds. This value determines how often the device sends handshake packets to communicate information about the topology throughout the entire Bridged Local Area Network.

Max Age: Specify Bridge Max Age, in seconds. If another bridge in the spanning tree does not send a hello packet for a long period of time, it is assumed to be inactive.

Forward Delay: Specifies Bridge Forward Delay, in seconds. Forwarding Delay Time is the time spent in each of the Listening and Learning states before the Forwarding state is entered. This delay is provided so that when a new bridge

comes onto a busy network, it analyzes data traffic before participating.

Priority: Specify the Priority Number. A smaller number has greater priority.

Save: Click **Save** to confirm the changes.

Chapter 7

2.4GHz & 5GHz Wireless

Wireless Network

This page displays the current status of the Wireless settings of the ALL-WAP02860AC.

Access Point/WDS AP mode:

	2.4GHz	5GHz
Operation Mode	Access Point <input type="checkbox"/> Green	Access Point <input type="checkbox"/> Green
Wireless Mode	802.11 B/G/N	802.11 A/N
Channel HT Mode	20/40 MHz	40 MHz
Extension Channel	Upper Channel	Lower Channel
Channel	Auto	Auto
Transmit Power	Auto	Auto
Data Rate	Auto	Auto
RTS / CTS Threshold (1 - 2346)	2346	2346
Client Limits	127 <input type="checkbox"/> Enable	127 <input type="checkbox"/> Enable
Aggregation	32 Frames 50000 Bytes(Max)	32 Frames 50000 Bytes(Max)
AP Detection	<input type="button" value="Scan"/>	<input type="button" value="Scan"/>

Wireless Mode: Supports 802.11b/g/n mixed mode in 2.4GHz and 802.11ac/a/n mixed mode in 5GHz.

Channel HT Mode: The default channel bandwidth is 20/40MHz in 2.4GHz and 20/40/80MHz in 5GHz. The larger the channel, the better the transmission quality and speed.

Extension Channel: Select **Upper** or **Lower** channel. Your selection may affect the Auto Channel function.

Channel/Frequency: Select the channel and frequency appropriate for your country's regulation.

Auto: Check the option to enable the Auto-Channel feature.

RTS/CTS Threshold: Specifies the threshold package size for RTC/CTS. A small number causes RTS/CTS packets to be sent more often and consumes more bandwidth.

Client Limits: Limits the total number of clients.

Aggregation: Merges data packets into one packet. This option reduces the number of packets, but also increases packet sizes.

AP Detection: AP Detection can select the optimal channel to use by scanning nearby areas for Access Points.

Current Profile: You can configure up to eight different SSIDs (4 in WDS AP mode). If multiple client devices will be accessing the network, you can arrange the devices into SSID groups. Click **Edit** to configure the profile and check whether you wish to enable extra SSIDs.

Save: Click **Save** to confirm the changes.

2.4GHz/5 GHz SSID Profile

Under **Wireless Settings**, you can edit the SSID profile to fit your needs. Click **Edit** under the SSID you would like to make changes to.

SSID: Specifies the SSID for the current profile.

Suppressed SSID: Check this option to hide the SSID from clients. If checked, the SSID will not appear in the site survey.

Station Separation: Click the appropriate button to allow or prevent communication between client devices.

Wireless Security: See the Wireless Security section on

Isolation: Check the box to **Enable** or **Disable** the Isolation feature.

Save: Click **Save** to accept the changes.

Overview

Device Status

Connections

Network

Basic

Wireless

WPS

Management

Advanced

Time Zone

WiFi Scheduler

Tools

System Manager

Account

Firmware

Log

Wireless Settings - 2.4GHz

No.	Enable	SSID	Edit	Security	Hidden SSID	Client Isolation	VLAN Isolation	VLAN ID
1	<input checked="" type="checkbox"/>	WAP02860AC	Edit	WPA2/PSK AES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
2	<input type="checkbox"/>	WAP02860AC_2-2.4GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
3	<input type="checkbox"/>	WAP02860AC_3-2.4GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
4	<input type="checkbox"/>	WAP02860AC_4-2.4GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
5	<input type="checkbox"/>	WAP02860AC_5-2.4GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5
6	<input type="checkbox"/>	WAP02860AC_6-2.4GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
7	<input type="checkbox"/>	WAP02860AC_7-2.4GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7
8	<input type="checkbox"/>	WAP02860AC_8-2.4GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8

Wireless Settings - 5GHz

No.	Enable	SSID	Edit	Security	Hidden SSID	Client Isolation	VLAN Isolation	VLAN ID
1	<input checked="" type="checkbox"/>	WAP02860AC5g	Edit	WPA2/PSK AES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	51
2	<input type="checkbox"/>	WAP02860AC5g_2-5GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	52
3	<input type="checkbox"/>	WAP02860AC5g_3-5GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	53
4	<input type="checkbox"/>	WAP02860AC5g_4-5GHz	Edit	None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	54

Wireless Security

The Wireless Security section lets you configure the security modes for ALL-WAP02860AC:

WEP

WPA-PSK

WPA2-PSK

WPA-PSK Mixed

WPA-Enterprise

WPA2-Enterprise

WPA Mixed Enterprise.

It is **strongly** recommended that you use WPA2-PSK. Click on the **Edit** button under Wireless Settings next to the SSID to change the security settings.

WEP Encryption:

Wireless Security - 2.4G	
Security Mode	WEP
Auth Type	Open System
Input Type	Hex
Key Length	40/64-bit (10 hex digits or 5 ASCII char)
Default Key	1
Key1	
Key2	
Key3	
Key4	

Auth Type: Select **Open System** or **Shared Key**.

Input Type: ASCII: Regular Text (Recommended)

HEX: Hexadecimal Numbers (For advanced users)

Key Length: Select the desired option and ensure the wireless clients use the same setting. Your choices are: 64, 128, and 152-bit password lengths.

Default Key: Select the key you wish to be default. Transmitted data is **ALWAYS** encrypted using the Default Key; the other Keys are for decryption only. You must enter a Key Value for the Default Key.

Encryption Key: Enter the Key Value or values you wish to use. The default is none.

WPA-PSK (WPA Pre-Shared Key) Encryption:

Wireless Security - 2.4G	
Security Mode	WPA-PSK
Encryption	Both(TKIP+AES)
Passphrase	
Group Key Update Interval	3600

Encryption: Select the WPA encryption type you would like to use. Please ensure that your wireless clients use the same settings.

Passphrase: Wireless clients must use the same Key to associate the device. If using ASCII format, the Key must be from 8 to 63 characters in length. If using HEXformat, the Key must be 64 HEX characters in length.

Group Key Update Interval: Specify how often, in seconds, the Group Key changes.

WPA2-PSK Encryption:

Wireless Security - 2.4G	
Security Mode	WPA2-PSK
Encryption	Both(TKIP+AES)
Passphrase	
Group Key Update Interval	3600

Encryption: Select the WPA encryption type you would like to use. Please ensure that your wireless clients use the same settings.

Passphrase: Wireless clients must use the same Key to associate the device. If using ASCII format, the Key must be from 8 to 63 characters in length. If using HEXformat, the Key must be 64 HEX characters in length.

Group Key Update Interval: Specify how often, in seconds, the Group Key changes.

WPA-PSK Mixed Encryption: Encryption:

Wireless Security - 2.4G	
Security Mode	WPA-PSK Mixed
Encryption	Both(TKIP+AES)
Passphrase	
Group Key Update Interval	3600

Encryption: Select the WPA encryption type you would like to use. Please ensure that your wireless clients use the same settings.

Passphrase: Wireless clients must use the same Key to associate the device. If using ASCII format, the Key must be from 8 to 63 characters in length. If using HEXformat, the Key must be 64 HEX characters in length.

Group Key Update Interval: Specify how often, in seconds, the group key changes.

WPA-Enterprise

Wireless Security - 2.4G	
Security Mode	WPA-Enterprise
Encryption	Both(TKIP+AES)
Group Key Update Interval	3600
Radius Server	
Radius Port	1812
Radius Secret	
Radius Accounting	Disable
Radius Accounting Server	
Radius Accounting Port	1813
Radius Accounting Secret	
Interim Accounting Interval	600

Encryption: Select the WPA encryption type you would like. Please ensure that your wireless clients use the same settings.

Group Key Update Interval: Specify how often, in seconds, the group key changes.

Radius Server: Enter the IP address of the Radius server.

Radius Port: Enter the port number used for connections to the Radius server.

Radius Secret: Enter the secret required to connect to the Radius server.

Radius Accounting: Enables or disables the accounting feature.

Radius Accounting Server: Enter the IP address of the

Radius accounting server.

Radius Accounting Port: Enter the port number used for connections to the Radius accounting server.

Radius Accounting Secret: Enter the secret required to connect to the Radius accounting server.

Interim Accounting Interval: Specify how often, in seconds, the accounting data sends.

Note: 802.11n does not allow WEP/WPA-PSK TKIP/WPA2-PSK TKIP security mode. The connection mode will automatically change from 802.11n to 802.11g.

WPA2Enterprise Encryption:

Wireless Security - 2.4G	
Security Mode	WPA2-Enterprise
Encryption	Both(TKIP+AES)
Group Key Update Interval	3600
Radius Server	
Radius Port	1812
Radius Secret	
Radius Accounting	Disable
Radius Accounting Server	
Radius Accounting Port	1813
Radius Accounting Secret	
Interim Accounting Interval	600

Encryption: Select the WPA encryption type you would like. Please ensure that your wireless clients use the same settings.

Group Key Update Interval: Specify how often, in seconds, the group key changes.

Radius Server: Enter the IP address of the Radius server.

Radius Port: Enter the port number used for connections to the Radius server.

Radius Secret: Enter the secret required to connect to the Radius server.

Radius Accounting: Enables or disables the Radius accounting feature.

Radius Accounting Server: Enter the IP address of the Radius accounting server.

Radius Accounting Port: Enter the port number used for connections to the Radius accounting server.

Radius Accounting Secret: Enter the secret required to connect to the Radius accounting server.

Interim Accounting Interval: Specify how often, in seconds, the accounting data sends.

Note: 802.11n does not allow WEP/WPA-PSK TKIP/WPA2-PSK TKIP security mode. The connection mode will automatically change from 802.11n to 802.11g.

WPA Mixed Enterprise Encryption:

Wireless Security - 2.4G

Security Mode	WPA Mixed-Enterprise ▾
Encryption	Both(TKIP+AES) ▾
Group Key Update Interval	3600
Radius Server	
Radius Port	1812
Radius Secret	
Radius Accounting	Disable ▾
Radius Accounting Server	
Radius Accounting Port	1813
Radius Accounting Secret	
Interim Accounting Interval	600

Encryption: Select the WPA encryption type you would like. Please ensure that your wireless clients use the same settings.

Group Key Update Interval: Specify how often, in seconds, the group key changes.

Radius Server: Enter the IP address of the Radius server.

Radius Port: Enter the port number used for connections to the Radius server.

Radius Secret: Enter the secret required to connect to the Radius server.

Radius Accounting: Enables or disables the Radius accounting feature.

Radius Accounting Server: Enter the IP address of the Radius accounting server.

Radius Accounting Port: Enter the port number used for connections to the Radius accounting server.

Radius Accounting Secret: Enter the secret required to connect to the Radius accounting server.

Interim Accounting Interval: Specify how often, in seconds, the accounting data sends.

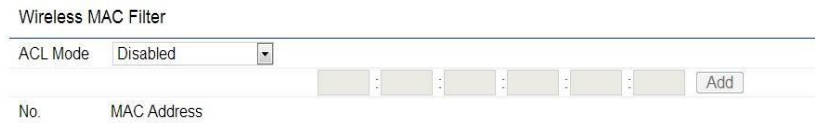
Note: 802.11n does not allow WEP/WPA-PSK TKIP/

WPA2-PSK TKIP security mode. The connection mode will automatically change from 802.11n to 802.11g.

Wireless MAC Filtering

Wireless MAC Filtering is used to allow or deny network access to wireless clients (computers, tablet PCs, NAS, smartphones, etc.) according to their MAC addresses. You can manually add a MAC address to restrict permission to access ALL-WAP02860AC. The default setting is: **Disable Wireless MAC Filter**.

Note: Only applicable in Access Point and WDS AP mode.



The image shows a web-based configuration interface for 'Wireless MAC Filter'. At the top, there is a title 'Wireless MAC Filter'. Below it, there is a section for 'ACL Mode' with a dropdown menu currently set to 'Disabled'. To the right of this, there are six small, empty input boxes for MAC address digits, followed by an 'Add' button. Below this section, there is a table with two columns: 'No.' and 'MAC Address'.

ACL (Access Control List) Mode: Determines whether network access is granted or denied to clients whose MAC addresses appear in the MAC address table on this page.

Choices given are: Disabled, Deny MAC in the list, or Allow

MAC in the list.

MAC Address: Enter the MAC address of the wireless client.

Add: Click **Add** to add the MAC address to the MAC Address table.

Delete: Deletes the selected entries.

Save: Click **Save** to apply the changes.

Wireless Advanced

This page allows you to configure wireless advanced settings. It is recommended that the default settings are used unless the user has experience with more advanced networking features.

2.4 GHz/5 GHz Wireless Advanced

	2.4GHz	5GHz
Operation Mode	Access Point <input type="checkbox"/> Green	Access Point <input type="checkbox"/> Green
Wireless Mode	802.11 B/G/N	802.11 A/N
Channel HT Mode	20/40 MHz	40 MHz
Extension Channel	Upper Channel	Lower Channel
Channel	Auto	Auto
Transmit Power	Auto	Auto
Data Rate	Auto	Auto
RTS / CTS Threshold (1 - 2346)	2346	2346
Client Limits	127 <input type="checkbox"/> Enable	127 <input type="checkbox"/> Enable
Aggregation	32 <input type="checkbox"/> Frames	32 <input type="checkbox"/> Frames
	50000 Bytes(Max)	50000 Bytes(Max)
AP Detection	<input type="button" value="Scan"/>	<input type="button" value="Scan"/>

Data Rate: Select a data rate from the drop-down list. The data rate affects throughput of data in the ALL-WAP02860AC. The lower the data rate, the lower the throughput, though transmission distance will be lowered as well.

Transmit Power: Set the power output of the wireless signal.

RTS/CTS Threshold: Specify the threshold package size for RTC/CTS. A smaller number causes RTS/CTS packets to be sent more often and in turn consumes more bandwidth.

Distance: Specify the distance between Access Points and clients. Longer distances may drop high-speed connections.

Aggregation: Merges data packets into one packet. This option reduces the number of packets, but increases packet sizes.

Save: Click **Save** to confirm the changes.

WPS (Wi-Fi Protected Setup)

The Wi-Fi Protected Setup (WPS) feature complies with the Wi-Fi Alliance WPS standard and makes it easier to quickly add client devices to an established, security-enabled Wi-Fi network.

WPS reduces the user steps required to configure a network and supports two methods that are familiar to most consumers to configure a network and enable security.

Note: Only applicable in Access Point and WDS AP mode.

WPS (Wi-Fi Protected Setup)

WPS Settings - 2.4GHz	
Status	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Current Configuration	Configured Release Configuration
Self-Pin Code	36877362
SSID	WAP02860AC
Authentication Mode	WPA2/PSK AES
Encryption Key	letmein!
WPS via Push Button	Start
WPS via Pin	<input type="text"/> Start
Save Save current setting(s)	

WPS: Select to **Enable** or **Disable** the WPS feature.

WPS Current Status: Shows whether the WPS function is

Configured or **Unconfigured**. When it is configured, the

WPS has been used to authorize a connection between the device and wireless clients.

Self Pin Code: The PIN code of this device.

SSID: The SSID (wireless network name) used when connecting using WPS.

Authentication Mode: Shows the encryption method used by the WPS process.

Passphrase Key: This is the passphrase key that is randomly generated during the WPS process. It is required if wireless clients that do not support WPS attempt to connect to the wireless network.

WPS via Push Button: Click this button to initialize the WPS feature using the **Push Button** method.

WPS via PIN: Enter the PIN code of the wireless device and click this button to initialize WPS feature using the PIN method.

Save: Click **Save** to confirm the changes.

WDS Link Settings

Using WDS (Wireless Distribution System) will allow a network administrator or installer to connect to Access Points wirelessly. Doing so will extend the wired infrastructure to locations where cabling is not possible or inefficient to implement.

Note: Compatibility between different brands and models of Access Points is not guaranteed. It is recommended that the WDS network be created using the same models for maximum compatibility.

Also Note: All Access Points in the WDS network must use the same Channel and Security settings.

To create a WDS network, please enter the MAC addresses of the Access Points that you want included in the WDS. There can be a maximum of four Access Points.

Note: Only applicable in WDS AP and WDS Bridge modes.

2.4 GHz/5 GHz WDS Link Settings

WDS Link Settings - 2.4GHz

Security None ▾

AES Passphrase (8-63 ASCII characters or 64 hexadecimal digits)

ID	MAC Address	Mode
1		Disable ▾
2		Disable ▾
3		Disable ▾
4		Disable ▾

Security: Select None or AES from the drop-down list.

AES Passphrase: Enter the Key Values you wish to use. Other AP(s) must use the same key to establish WDS link.

MAC Address: Enter the Access Point's MAC address to which you want to extend the wireless area.

Mode: Select **Disable** or **Enable** from the drop-down list.

Save: Click **Save** to confirm the changes.

Chapter 8

Management

Administration

This page allows you to change the ALL-WAP02860AC username and password. By default, the username is **admin** and the password is **admin**. The password can contain from 0 to 12 alphanumeric characters and is **case sensitive**.

Username: **admin**

Password: **admin**

Account Setting

Account Settings	
Administrator Username	<input type="text" value="admin"/>
Current Password	<input type="password"/>
New Password	<input type="password"/>
Verify Password	<input type="password"/>

Apply

Apply saved settings to take effect

New Name: Enter a new username for logging in to the

New Name entry box.

Current Password: Enter the current password for logging in to the Current Password entry box.

New Password: Enter the new password for logging in to the New Password entry box.

Confirm Password: Re-enter the new password in the

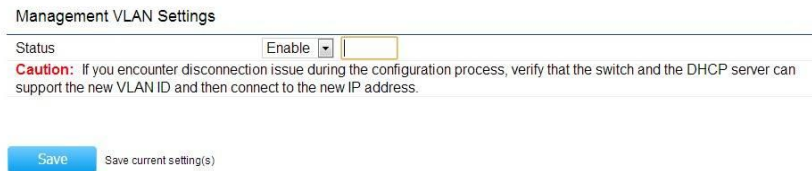
Confirm Password entry box for confirmation.

Apply: Click **Apply** to save the changes.

Note: it is highly recommended that you change you password to something more unique regularly for greater security.

Management VLAN Settings

This page allows you to assign a VLAN tag to the packets. A VLAN is a group of computers on a network whose software has been configured so that they behave as if they were on a separate Local Area Network (LAN). Computers on VLAN do not have to be physically located next to one another on the LAN.



Management VLAN Settings

Status Enable

Caution: If you encounter disconnection issue during the configuration process, verify that the switch and the DHCP server can support the new VLAN ID and then connect to the new IP address.

[Save](#) [Save current setting\(s\)](#)

To configure VLAN tags, you must first Isolate and enter a VID before enabling VLAN under Management VLAN ID.

Note: Only applicable in Access Point and WDS AP mode.

Profile Isolation: Restrict clients from communicating with different VIDs by checking the Isolation box for the

SSID you wish to select under the Wireless Settings function.

VLAN ID (VID): Specifies the VLAN tag for each profile.

Management VLAN ID: If your network includes VLANs, you can specify a VLAN ID for packets pass through the Access Point with a tag. Otherwise, select no VLAN tag.

Save: Click **Save** to confirm the changes.

Note:

1. If you reconfigure the Management VLAN ID, you may lose your connection to the ALL-WAP02860AC. Verify that the DHCP server supports the reconfigured VLAN ID, then reconnect to the ALL-WAP02860AC using the new IP address.

Wireless Traffic Shaping

Traffic Shaping regulates the flow of packets leaving an interface to deliver improved Quality of Service.

To edit

Wireless Traffic Shaping, click **Edit** for the SSID you would like to configure under Wireless Settings.

Wireless Traffic Shaping

Enable Traffic Shaping	Disable ▾	
Download Limit	100	Mbps (1-999)
Upload Limit	100	Mbps (1-999)

Save

Save current setting(s)

Enable Traffic Shaping: select this option from the drop-down box to enable Wireless Traffic Shaping.

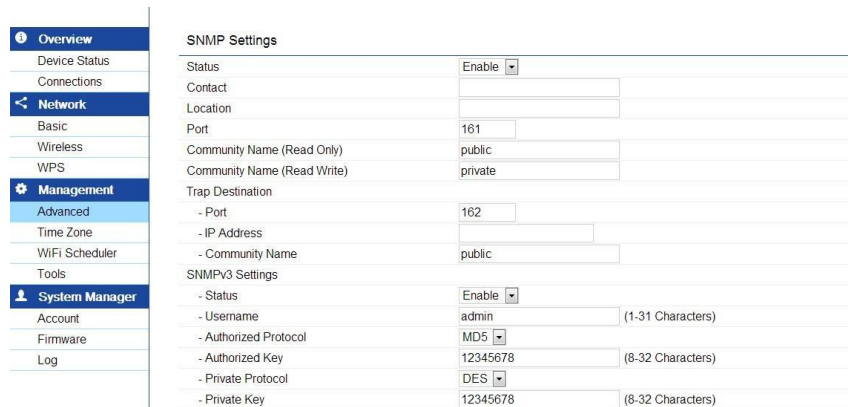
Download Limit: Specifies the wireless transmission speed used for downloading.

Upload Limit: Specifies the wireless transmission speed used for uploading.

Save: Click **Save** to confirm the changes.

SNMP Settings

This page allows you to assign the Contact Details, Location, Community Name, and Trap Settings for Simple Network Management Protocol (SNMP) management protocol used to monitor network attached devices. SNMP allows messages (called protocol data units) to be sent to various parts of the network. Upon receiving these messages, SNMP compatible devices (called agents) returns the data stored in their Management Information Bases. To configure SNMP Settings, click under the **Advanced** tab on the side bar under Management.



SNMP Settings	
Status	Enable
Contact	
Location	
Port	161
Community Name (Read Only)	public
Community Name (Read Write)	private
Trap Destination	
- Port	162
- IP Address	
- Community Name	public
SNMPv3 Settings	
- Status	Enable
- Username	admin (1-31 Characters)
- Authorized Protocol	MD5
- Authorized Key	12345678 (8-32 Characters)
- Private Protocol	DES
- Private Key	12345678 (8-32 Characters)

Status: Enables or Disables the SNMP feature.

Contact: Specifies the contact details of the device.

Location: Specifies the location of the device.

Port: Displays the port number.

Community Name (Read Only): Specifies the password for the SNMP community for read only access.

Community Name (Read/Write): Specifies the password for the SNMP community with read/write access.

Trap Destination Address: Specifies the port and IP address of the computer that will receive the SNMP traps.

Trap Destination Community Name: Specifies the password for the SNMP trap community.

SNMPv3 Status: Enables or Disables the SNMPv3 feature.

User Name: Specifies the username for the SNMPv3. feature

Auth Protocol: Select the Authentication Protocol type:

MDS or SHA.

Auth Key:
Specify the Authentication Key for authentication.

Priv Protocol: Select the Privacy Protocol type: **DES**.

Priv Key: Specifies the privacy key for privacy.

Engine ID: Specifies the Engine ID for SNMPv3.

Save: Click **Save** to apply the changes.

Backup/Restore

This page allows you to save the current device configurations. When you save the configurations, you can also reload the saved configurations into the device through the Restore Saved Settings from a file folder. If extreme problems occur, or if you have set the ALL-WAP02860AC incorrectly, you can use the Factory Default button in the Revert to Factory Default Settings section to restore all the configurations of the ALL-WAP02860AC to the original default settings. To Configure the Backup/ Restore Settings, click **Firmware** under the Systems Manager tab.

Factory Settings

Backup Settings: To restore settings that have been previously backed up, click **Export**, select the file, and click **Restore**.

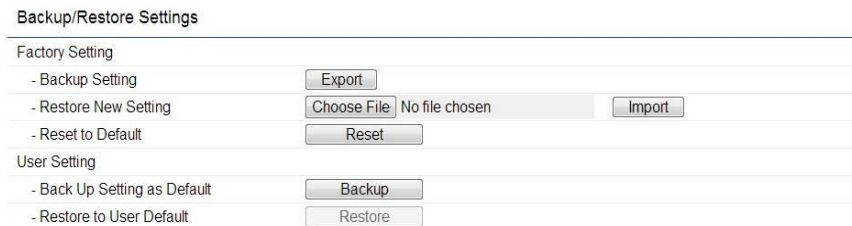
Restore New Setting: Choose the file you wish restore for settings and click **Import**.

Reset to Default: Click the **Reset** button to restore the ALL-WAP02860AC to its factory default settings.

User Settings

Back Up Setting as Default: Click **Backup** to backup the user settings you would like to the device's memory for the default settings.

Restore to User Default: Click **Restore** to restore user settings to the factory standard settings.



The screenshot shows a web interface titled "Backup/Restore Settings". It is divided into two main sections: "Factory Setting" and "User Setting".

Factory Setting

- Backup Setting: Export
- Restore New Setting: Choose File (No file chosen) Import
- Reset to Default: Reset

User Setting

- Back Up Setting as Default: Backup
- Restore to User Default: Restore

Auto Reboot Settings

You can specify how often you would like to reboot the ALL-WAP02860AC. To configure the Auto Reboot settings, click the Wi-Fi Scheduler tab on the side bar under Management.

Auto Reboot Settings

Status	<div>Disable</div>
Timer	<div><div><input type="checkbox"/> Sunday</div><div><input type="checkbox"/> Monday</div><div><input type="checkbox"/> Tuesday</div><div><input type="checkbox"/> Wednesday</div><div><input type="checkbox"/> Thursday</div><div><input type="checkbox"/> Friday</div><div><input type="checkbox"/> Saturday</div></div>
	<div><div>0</div><div>:</div><div>0</div></div>

Auto Reboot Setting: Enables or disables the Auto Reboot function.

Frequency of Auto Reboot: Specifies the time and frequency in rebooting the ALL-WAP02860AC by Min, Hour, Day and/or Week.

Click **Save** to apply the changes.

Firmware Upgrade

This page allows you to upgrade the Firmware of the ALL-WAP02860AC.

Firmware Upgrade

Current Firmware Version: 2.0.7

Select the new firmware from your hard disk.

Choose File

No file chosen

Upload

To Perform the Firmware Upgrade:

1. Click the **Choose File** button and navigate the OS File System to the location of the Firmware upgrade file.
2. Select the upgrade file. The name of the file will appear in the Upgrade File field.
3. Click the **Upload** button to commence the Firmware upgrade.

Note: The device is unavailable during the upgrade process and must restart when the upgrade is completed. Any connections to or through the device will be lost.

Date and Time Settings

This page allows you to set the internal clock of the ALL-WAP02860AC. To access the Date and Time settings, click **Time Zone** under the Management tab on the side bar.

Date and Time Settings

☐ Manually Set Date and Time

Date: 2013 / 10 / 18

Time: 10 : 03 (24-Hour)

Synchronize with PC

☒ Automatically Get Date and Time

NTP Server: 209.81.9.7

Time Zone

Time Zone: UTC+00:00 Gambia, Liberia, Morocco

☐ Enable Daylight Saving

Start: January 1st Sun 12 am

Manually Set Date and Time: Manually specify the date and time.

Synchronize with PC: Click to Synchronize the ALL-WAP02860AC with the computer's internal clock.

Automatically Get Date and Time: Enter the IP address of an NTP server or use the default NTP server to have the internal clock set automatically.

Time Zone: Choose the time zone you would like to use from the drop-down list.

Enable Daylight Savings: Check the box to enable or disable daylight savings time for ther ALL-WAP02860AC. Next, enter the dates that correspond to the present year's daylight savings time.

Click **Apply** to save the changes.

would like to remote to.

Log Server IP Address: Enter the IP address of the log server.

Apply: Click **Apply** to save the changes.

System Log

This page allows you to setup the System Log and local log functions of the ALL-WAP02860AC. Click **Log** under the Systems Manager tab to open up the System Log page.

System Log

Status:

Log type:

Oct 18 10:12:01	cron.info crond[1817]: crond: USER root pid 1184 cmd schedu
Oct 18 10:10:01	cron.info crond[1817]: crond: USER root pid 1177 cmd schedu
Oct 18 10:08:01	cron.info crond[1817]: crond: USER root pid 1170 cmd schedu
Oct 18 10:06:01	cron.info crond[1817]: crond: USER root pid 1163 cmd schedu
Oct 18 10:04:01	cron.info crond[1817]: crond: USER root pid 1156 cmd schedu
Oct 18 10:02:01	cron.info crond[1817]: crond: USER root pid 1122 cmd schedu
Oct 18 10:00:01	cron.info crond[1817]: crond: USER root pid 1104 cmd schedu
Oct 18 09:57:40	syslog.info syslogd started: BusyBox v1.19.4

Remote Log:

Log Server IP Address:

Status: Enables or disables the System Log function.

Log Type: Select the Log Type mode you would like to use.

Remote Log: Enables or disables the Remote Log feature. If enabled, enter the IP address of the Log you

Tools

This page allows you to analyze the connection quality of the ALL-WAP02860AC and trace the routing table to a target in the network.

Overview

Device Status

Connections

Network

Basic

Wireless

WPS

Management

Advanced

Time Zone

WiFi Scheduler

Tools

System Manager

Account

Firmware

Log

Ping Test Parameters

Target IP / Domain Name:

Ping Packet Size: Bytes

Number of Pings:

Traceroute Test Parameters

Target IP / Domain Name:

Ping Test Parameters

Target IP/Domain Name: Enter the IP address you would like to search.

Ping Packet Size: Enter the packet size of each ping.

Number of Pings: Enter the number of times you wish to ping.

Start Ping: Click **Start Ping** to begin pinging target device (via IP).

Traceroute Parameters

Target IP/Domain Name: Enter an IP address or name you wish to trace.

Start: Click **Start** to begin the trace route operation.

Stop: Halts the traceroute test.

Ping Test Parameters

Target IP / Domain Name		
Ping Packet Size	64	Bytes
Number of Pings	4	

Start

Traceroute Test Parameters

Target IP / Domain Name	192.168.1.88
-------------------------	--------------

StartStop

tracert to 192.168.1.88 (192.168.1.88), 30 hops max, 38 byte packets
1 192.168.1.88 (192.168.1.88) 0.205 ms

Speed Test Parameters

Target IP/Domain Name: Enter an IP address or domain name you wish to run a Speed Test for.

Time Period/Check Interval: Enter the time in seconds that you would like the test to run for and in how many intervals.

Start: Starts the Speed Test.

Speed Test Parameters

Target IP / Domain Name		
Time Period	20	sec
Check Interval	5	sec
<div>Start</div>		
IPv4 Port	5001	
IPv6 Port	5002	

LED Control

This page allows you to control the LED control functions:

Power status, LAN interface, 2.4G/5G WLAN interface and WPS.

Click **Apply** to save the settings after selecting your choices from the drop-down boxes.

LED Control

Power	Enable	
LAN	Enable	
WLAN-2.4GHz	Enable	
WLAN-5GHz	Enable	
WPS	Enable	
<div>Apply</div>	Apply saved settings to take effect	

Device Discovery

Under Device Discovery, you can choose for the ALL-WAP02860AC to Automatically scan for local devices to connect to. Click **Scan** to begin the process.

Device Discovery

Device Name	Operation Mode	IP Address	System MAC Address	Firmware Version
<div>Scan</div>				

Reset / Reboot

Click on **Restore to Factory Default** to reset the device. Click on **Reboot the Device** to reboot the ALL-WAP02860AC.

EAP1750H Dual Radio AP , 3T3R , 450Mbps + 1300Mbps Changes : 0 Reset Logout

i Overview

Device Status

Connections

< Network

Basic

Wireless

WPS

⚙ Management

Advanced

Reboot the device

Caution: Pressing this button will cause the device to reboot.

Reboot the Device

Restore the device to default settings

Caution: All settings will be cleared and reset to either factory default or user default.

Restore to Factory Default

Restore to User Default

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License
along with this program; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this
when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author  
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

The hypothetical commands ``show w'` and ``show c'` should show the appropriate
parts of the General Public License. Of course, the commands you use may
be called something other than ``show w'` and ``show c'`; they could even be
mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the program, if
necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program
'Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into
proprietary programs. If your program is a subroutine library, you may
consider it more useful to permit linking proprietary applications with the
library. If this is what you want to do, use the GNU Lesser General
Public License instead of this License.

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better

strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the

library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it

does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is

linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License").

Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means

all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the

application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under

the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a

work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may

distribute the object code for the work under the terms of Section 6.

Any executables containing that work also fall under Section 6,

whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood

that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

- a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
- b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed

through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and

conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU

FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of

MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library 'Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990

Ty Coon, President of Vice

That's all there is to it!

This Program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; version 2 of the License.

This Program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this Program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA.

The full text of the GNU General Public License version 2 is included with the software distribution in the file LICENSE.GPLv2

NO WARRANTY

BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING
WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR
REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES,
INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING
OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED
TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY
YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER
PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE
POSSIBILITY OF SUCH DAMAGES.

For binaries that you receive from ALLNET GmbH Computersysteme on physical media or within the download of the offered firmware that are licensed under any version of the GNU General Public License (GPL) or the GNU LGPL, you can receive a complete machine-readable copy of the source code by sending a written request to:

ALLNET GmbH Computersysteme
Maistrasse 2
82110 Germering

Your request should include: (i) the name of the covered binary, (ii) the version number of the ALLNET product containing the covered binary, (iii) your name, (iv) your company name (if applicable) and (v) your return mailing and email address (if available).

We may charge you a nominal fee to cover the cost of the media and distribution.

Your request must be sent within three (3) years of the date you received the GPL or LGPL covered code.

For your convenience, some or all of the source code may also be found at:

<http://www.allnet.de/gpl.html>



CE-Declaration of Conformity

For the following equipment:

Germering, 1st of October, 2014

Wireless Dual Band Access Point PoE

ALL-WAP0286AC



The safety advice in the documentation accompanying the products shall be obeyed. The conformity to the above directive is indicated by the CE sign on the device.

The ALLNET ALL-WAP02860AC conforms to the Council EMC Directives of 1999/5/EC.

This equipment meets the following conformance standards:

EN 300 328 V1.8.1 (2012-06)
EN 301 893 V1.7.1 (2102-06)
EN 301 489-1 V1.9.2(2011-09)
EN 301 489-17 V2.2.1 (2012-09)
EN 55022:2010+AC:2011, Class B
EN 61000-3-2:2006+A1:2009+A2:2009, Class A
EN 61000-3-3:2013
EN 61000-4-2:2009
EN 61000-4-3:2006+A1:2008+A2:2010
EN 61000-4-4:2012
EN 61000-4-5:2006
EN 61000-4-6:2014
EN 61000-4-11:2004
EN 60950-1:2006+A11:2009+A1:2010+A12:2011
EN 50385:2002

This equipment is intended to be operated in all countries.

This declaration is made by
ALLNET Computersysteme GmbH
Maistraße 2
82110 Germering
Germany

Germering, 01.10.2014


Wolfgang Marcus Bauer
CEO

Safety Warnings

For your safety, be sure to read and follow all warning notices and instructions.

- Do not open the device. Opening or removing the device cover can expose you to dangerous high voltage points or other risks. Only qualified service personnel can service the device. Please contact your vendor for further information.
- Do not use your device during a thunderstorm. There may be a risk of electric shock brought about by lightning.
- Do not expose your device to dust or corrosive liquids.
- Do not use this product near water sources.
- Make sure to connect the cables to the correct ports.
- Do not obstruct the ventilation slots on the device.