

Grandstream Networks, Inc.

GWN7610 WiFi Access Point Standalone Guide







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INTRODUCTION

The GWN7610 is a high-performance 802.11ac wireless access point for small to medium sized businesses, multiple floor offices, commercial locations and branch offices.

This wireless access point can be paired with any third party routers. With support for advanced QoS, lowlatency real-time applications, 250+ client devices per AP and dual Gigabit network ports with PoE/PoE+, the GWN7610 is an ideal wireless access point for large and small wireless network deployments.

The GWN7610 Wireless Access Point provides the ability to act either as Master Access Point or Slave Access Point.

This guide describes GWN7610 in standalone mode where it can be used in network environments requiring WiFi access with a single access point.

The figure below shows a sample setup of GWN7610 in standalone mode:



Figure 1: Standalone Architecture Example





USING DEFAULT SSID

The GWN7610 can be used as standalone access point out of box, or after factory reset with WiFi enabled by default.

Customers can simply power on the GWN7610 and connect it to the network to start using WiFi access.

GWN7610 will broadcast a default SSID based on its MAC address **GWN[MAC's last 6 digits]** and a random password.

Note that GWN7610's default SSID and password information are printed on the MAC tag of the unit as shown on the below figure.



Figure 2: MAC Tag Label

To connect, WiFi clients need to scan WiFi networks, select SSID broadcasted from GWN7610 and enter password as printed in the label tag on the back of GWN7610.





USING CUSTOM SSID

This section describes needed steps to manage and customize SSID and WiFi settings, first by discovering the unit IP address, accessing its web interface and editing its configuration depending on environment needs.

Discover GWN7610

Once the GWN7610 is powered up and connected to the network correctly, users can discover the GWN7610 using one of the following methods:

Method 1: Discover GWN7610 using its MAC address

- 1. Locate the MAC address on the MAC tag of the unit, which is on the underside of the device, or on the package.
- 2. From a computer connected to same network as the GWN7610, type in the following address <u>https://gwn_[MAC_address].local/</u> using the GWN7610's MAC address on your browser.

For example, if a GWN7610 has the MAC address **00:0B:82:8B:4D:D8**, this unit can be accessed by typing <u>https://gwn_000b828b4dd8.local/</u> on the browser.



Figure 3: Discover the GWN7610 using its MAC Address





Method 2: Discover GWN7610 using GWN Discovery Tool

- 1. Download and install **GWN Discovery Tool** from the following link: <u>http://www.grandstream.com/support/tools</u>
- 2. Open the "GWN Discovery Tool", click on **Select** to define the network interface, then click on **Scan**.
- 3. The tool will discover all GWN7610 Access Points connected on the network showing their MAC, IP addresses and firmware version.
- 4. Click on **Manage Device** to be redirected directly to the GWN7610's configuration interface, or type in manually the displayed IP address on your browser.

GWNDiscoveryTool			×
Help			
Discovered Devices		Total count: 1	
gwn7610 - Master	Version: 1.0.1.27	Manager Davies	
MAC: 00:0b:82:8b:4d:d8	IPv4: 192.168.5.156	Manage Device	
	select	Scan Clear	

Figure 4: GWN Discovery Tool

Access the GWN7610 WebGUI

In order to access into the GWN7610 webGUI, please follow those steps:

- 1. Make sure to use a computer connected to the same local Network as the GWN7610.
- 2. Ensure the device is properly powered up.
- 3. Open a Web browser on the computer and type in the URL using the MAC address as show previously or the IP address using the following format: *https://IP_Address*





4. Enter the administrator's login and password to access the Web Configuration Menu. The default administrator's username and password are "admin" and "admin".

GRANDSTREAM		English 🗸
	GWN7610	
	admin	
	Sign In	
	Set unit as master	
	All Rights Reserved Grandstream Networks, Inc. 2016	

Figure 5: Login Page

Note:

At factory reset, "**Set unit as Master**" will be checked by default, click on "**Sign In**" after typing the admin's username and password as shown above.

WiFi Configuration

After accessing the GWN7610 web GUI navigate to "**Network Group -> Network Group**", the page will show default group ("**group0**") and default SSID for the GWN7610 as shown below:

	🕀 Add				
Overview	Network Group Name 🌲	Enabled	SSID 🜲	Enable Wi-Fi	Actions
Access Points	group0	~	GWN8B4E24	~	e ū
Network Group 🛛 🔫					
Network Group					
Additional SSID					
Clients					
System Settings 🛛 🔻					









The following window will be shown:

	Add		\times
Basic	Network Group Name 💿	group1	
Wi-Fi	Enabled	2	
VVI-11	VLAN	2	
Device Membership	VLAN ID	2	

Figure 7: Add New Network Group

Network group configuration is available when editing or adding a new network group. The configuration is arranged in 3 tabs including **Basic**, **WiFi** and **Device Membership**.

• **Basic**: This tab allows to define a name to identify the network group, enable or disable VLAN, and specify VLAN ID for the group.

Network Group Name	Defines a name for the network group.		
Enabled	Enables/disables a network group. Group0 is by default enabled.		
VLAN	Enables/disables VLAN setting.		
VLAN ID	Set VLAN ID when VLAN option is enabled.		

Note: "Enabled", "VLAN" and "VLAN ID" options are available for created network groups only.

• **WiFi**: This tab contains all WiFi settings to be used by the group, including definition of SSID, security mode, MAC filtering...

Table 2: Network Group Settings – WiFi

Enable WiFi	Check to enable WiFi for the network group.		
SSID	Set or modify the SSID name.		
SSID Hidden	Select to hide SSID. If checked, SSID will not be visible when scanning for WiFi, to connect a device to hidden SSID, users need to specify SSID name and authentication password manually.		





	Set the security mode for encryption, 5 options are available:		
	• WEP 64-bit: Using a static WEP key. The characters can only be 0-9 or A-F with a length of 10, or printable ASCII characters with a length of 5.		
	• WEP 128-bit: Using a static WEP key. The characters can only be 0-9 or A-F with a length of 26, or printable ASCII characters with a length of 13.		
Security Mode	 WPA/WPA2: Using "PSK" or "802.1x" as WPA Key Mode, with "AES" or "AES/TKIP" Encryption Type. 		
	 WPA2: Using "PSK" or "802.1x" as WPA Key Mode, with "AES" or "AES/TKIP" Encryption Type. Recommended configuration for authentication. 		
	• Open: No password is required. Users will be connected without authentication. Not recommended for security reasons.		
Use MAC Filtering	Choose Blacklist/Whitelist to specify MAC addresses to be excluded/included from connecting to the WiFi zone. Default is Disabled.		
Client Isolation	Choose if client isolation will be enabled in order to forbid wireless clients connected to the zone's WiFi from seeing each other.		
Gateway MAC Address	Type in the Gateway's MAC address if available.		
RSSI Enabled	Check to enable RSSI function.		
Minimum RSSI (dBm)	Enter the minimum RSSI value in dBm. If the signal value is smaller than the configured minimum value, the client will be disconnected. The input range is from "-94" to "-1".		

The following figures shows SSID configuration on the new group.





Add			
Basic	Enable Wi-Fi	8	
	SSID ?	ABCProduction	
Wi-Fi	SSID Hidden		
Device Membership	Security Mode	WPA2	•
	WPA Key Mode	PSK	T
	WPA Encryption Type	AES	Ŧ
	WPA Pre-Shared Key 🕐	•••••	\odot
	Use MAC Filtering	Disabled	T
	Client Isolation		
	Gateway MAC Address 💿		
	Enable RSSI 🕐		
	Minimum RSSI (dBm) 🕐		
Save Cancel			

Figure 8: WiFi Settings

• **Device Membership**: This tab lists available devices on the network, it is used to add members to the group if more than one AP is available to manage the slaves AP from the Maser AP. In the standalone mode, only the master AP will present on the "Member Devices" as shown below.

Click on \rightarrow to add GWN7610 to the network group, or click on \leftarrow to remove it.

		Add		\times
Basic	Available Devices	*	Member Devices 00:0B:82:8B:4E:24	•
Wi-Fi				
Device Membership		→ +		
		-		-

Figure 9: Device Membership





Click on Save and Apply to apply the new configuration. The network group page will show

as follow:

	+ Add				
Overview	Network Group Name 🖨	Enabled	SSID 🗢	Enable Wi-Fi	Actions
Access Points	group0	~	ABCLab	~	d Ŵ
Network Group 🔹	group1	~	ABCProduction	~	<u>r</u>
Clients					
System Settings 🔻					

Figure 10: Network Group Config

At this stage, WiFi clients can connect using created SSID upon successful authentication.

Additional SSID

Additional SSID allows users to create multiple SSIDs under the same group. If configured, different SSIDs will be available for devices within GWN7610 access point range under the same network group.

1. To create an additional SSID go to Network Group->Additional SSID.





	Add	\times
Enable Additional SSID	×	
SSID ⑦	ABCGuest	
Network Group Membership	group0 •	
SSID Hidden		
Security Mode	WPA/WPA2 •	
WPA Key Mode	PSK •	
WPA Encryption Type	AES	
WPA Pre-Shared Key 🕜	••••••	
Use MAC Filtering	Disabled •	
Client Isolation		
Gateway MAC Address 🕐		
Enable RSSI 🕜		
Minimum RSSI (dBm) 🕐		
Save	Cancel	

Figure 11: Additional SSID

2. Select one of the available network groups from **Network Group Membership** dropdown menu. This will create an additional SSID with the same Device Membership configured when creating the main network group.

	Actions Actions
ABCGuest 🗸 group0 🗙 WPA/WPA2 Disat	abled 🗙 🗙 🗹 🗑

Figure 12: Additional SSID Created

3. Click on $\stackrel{\textcircled{1}}{=}$ to delete the additional SSID, or $\stackrel{\textcircled{1}}{=}$ to edit it.

Note: The GWN7610 supports up to 16 SSIDs. Users can create SSIDs under different groups or on the same group within this limit.

At this stage, WiFi clients will be able to find different SSIDs as previously defined and connected to selected one upon successful authentication.

