

## **GWN7610 Firmware Release Notes**

### **IMPORTANT UPGRADING NOTE**

1. Please upgrade to 1.0.4.22 to get the patch for WPA2 4-way handshake vulnerability.
2. Before starting to upgrade, please make sure your GWN7610's firmware version is 1.0.2.108 or higher.
3. Before starting to upgrade, please make sure your GWN7000 (the master device)'s firmware version is 1.0.2.71 or higher.

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## FIRMWARE VERSION 1.0.4.22

### PRODUCT NAME

GWN7610

### DATE

11/14/2017

### FIRMWARE FILE INFORMATION

- Firmware file name: gwn7610fw.bin
- MD5: af0269f5025d69db7acb6a5db3750cda

### BUG FIX

- Fixed the WPA2 4-way handshake vulnerability\*
- Fixed the WPA2 802.11r vulnerability\*

\*Note: Please refer to our white paper of “WPA Security Vulnerability” here:

<http://www.grandstream.com/sites/default/files/Resources/WPA%20Security%20Vulnerability.pdf>

## FIRMWARE VERSION 1.0.4.20

### PRODUCT NAME

GWN7610

### DATE

8/11/2017

### IMPORTANT UPGRADING NOTE

- Before starting to upgrade, please make sure your GWN7610's firmware version is 1.0.2.108\* or higher.
- Before starting to upgrade, please make sure your GWN7000 (the master device)'s firmware version is 1.0.2.71\* or higher.

*\*GWN7610 firmware 1.0.2.108 package is available for downloading at*  
[http://firmware.grandstream.com/Release\\_GWN7610\\_1.0.2.108.zip](http://firmware.grandstream.com/Release_GWN7610_1.0.2.108.zip)

*\*GWN7000 firmware 1.0.2.75 package is available for downloading at*  
[http://firmware.grandstream.com/Release\\_GWN7000\\_1.0.2.75.zip](http://firmware.grandstream.com/Release_GWN7000_1.0.2.75.zip)

### ENHANCEMENT

- Added support for **Timed Client Disconnect and Enhanced Client Blocking**
- Added support for **Client Bridge**
- Added support for **Syslog Server**
- Added support for **Configurable web UI access port**
- Added support for **E-mail notifications**

## BUG FIX

- Internal bug fixes.
- Banned Band steering feature does not affect wireless Black/White/Banned client list feature anymore.

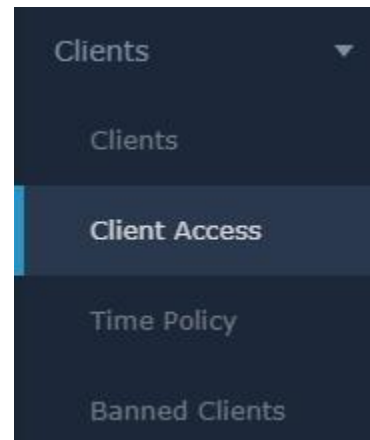
## KNOWN ISSUE

- After blocking wireless client, blocked client will be displayed as wired in the clients list instead of showing in the Blocked client list. The client can still be unblocked from Global Blacklist under Client Access.

## NEW FEATURE OVERVIEW





- **Timed Client Disconnect and Enhanced Client Blocking**

The Client Connection Permissions Management enhanced client blocking provides a more manageable method for Wi-Fi client whitelist and blacklist configuration. It allows any combination of globally-maintained connection access control lists to be applied to network groups as desired for blacklisting and whitelisting WIFI clients. The timed client disconnect feature allows the system administrator to set a fixed time for which clients should be allowed to connect to the access point, after which the client will no longer be allowed to connect for a user configurable cooldown period.






1) New Client bar (See picture on the right)

2) Client Access

+ Add		Name	MAC Addresses	Actions
		Global Blacklist		 
		Access List 1	(4) 00:00:00:12:34:56, 00:00:00:12:34:57, 00:00:00:12:34:58, 00:00:00:12:34:59	 

3) Time Policy

+ Add		Name	Enabled	Connection Time	Reconnect Type	Reconnect Time	Actions
		TEST_POLICY		3h	Reset Daily	23:00	 

4) Banned Client This list is moved from original Client page to a separate page now.

- **Client Bridge**

The Client Bridge feature allows an access point to be configured as a client for bridging wired only clients wirelessly to the network. When an access point is configured in this way, it will share the wifi connection to the LAN ports transparently. This is not to be confused with a mesh setup. The client will not accept wireless clients in this mode.

Once a Network Group has an Client Bridge Support enabled, the AP adopted in this Network Group can be turned in to Bridge Client mode by click the Bridge button:

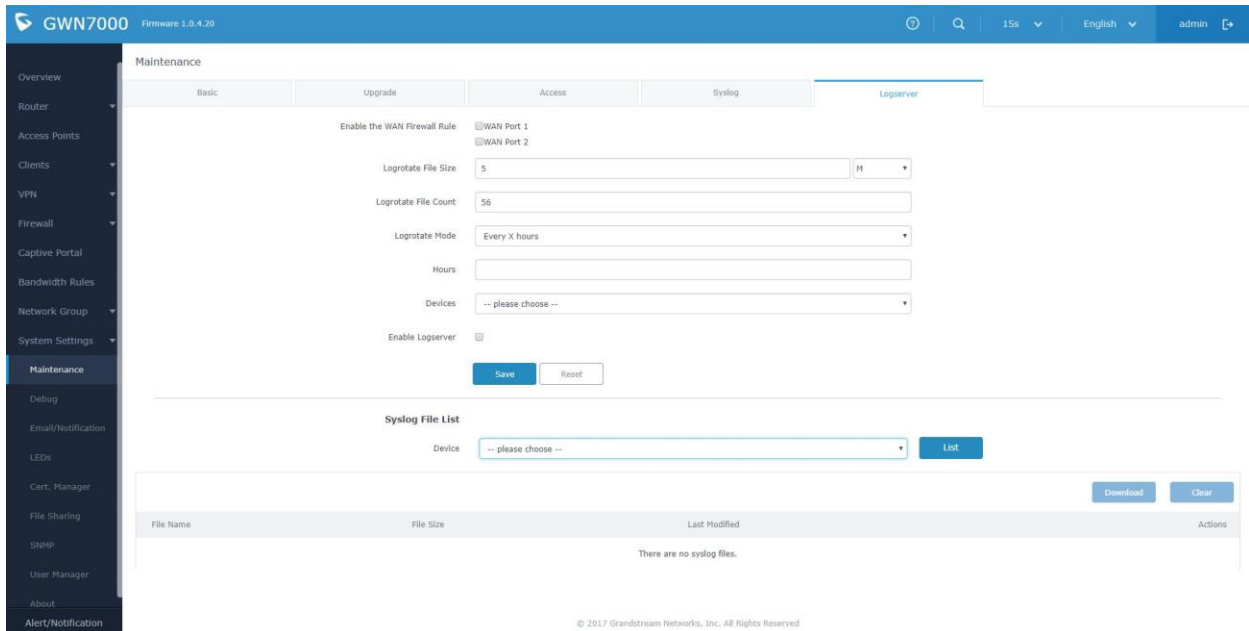
Please be noted that once an AP it turned into Client Bridge mode, it cannot be controlled by a Master anymore, and a factory reset is required to turn it back into normal AP mode.

Device Type	Name/MAC	IP Address	Status	Uptime	Firmware	Actions
GWN7610	00:08:82:97:90:8C	192.168.1.146	Online	1d 17h 51m 13s	1.0.4.19	<a href="#">Refresh</a> <a href="#">Refresh</a> <a href="#">Refresh</a> <a href="#">Bridge</a>

Showing 1-1 of 1 record(s). Per Page: 10

- **Syslog Server**

Syslog Server is now available on GWN7000. Configuration page is as below:



The screenshot shows the 'Logserver' configuration page in the GWN7000 web interface. The page has a sidebar on the left with 'Maintenance' selected. The main content area has tabs for 'Basic', 'Upgrade', 'Access', 'Syslog', and 'Logserver'. The 'Logserver' tab is active, displaying the following configuration options:

- Enable the WAN Firewall Rule:  WAN Port 1,  WAN Port 2
- Logrotate File Size: 5, Unit: M
- Logrotate File Count: 55
- Logrotate Mode: Every X hours
- Hours: (empty field)
- Devices: -- please choose --
- Enable Logserver:

Below these options are 'Save' and 'Reset' buttons. There is also a 'Syslog File List' section with a 'Device' dropdown (set to '-- please choose --') and a 'List' button. At the bottom, there is a table with columns for 'File Name', 'File Size', 'Last Modified', and 'Actions'. The table is empty, with the text 'There are no syslog files.' displayed below it. 'Download' and 'Clear' buttons are also present.

- **Configurable web UI access port**

Under System → Maintenance, following configuration is available now:

- 1) Web WAN Access;
- 2) Web HTTP Access;
- 3) Web HTTPS Port

- **E-mail notifications**

Email notification allows the administrator to select a predefined set of system events and to send notification upon the change of the set events.

Email notification configuration is under System → Email/Notification.

Selectable system events are listed as below:

Email/Notification

Email Notification

Enabled

Memory Usage  ?

CPU Usage  ?

WAN Port 1 Usage

WAN Port 2 Usage

Firmware Upgrade  ?

Add/Remove Network Group  ?

Additional SSID  ?

Time Zone Change  ?

Administrator Password Change  ?

AP Offline  ?

Save Reset



# FIRMWARE VERSION 1.0.3.21

## PRODUCT NAME

GWN7610

## DATE

8/11/2017

## IMPORTANT UPGRADING NOTE

- Before starting to upgrade, please make sure your GWN7610's firmware version is 1.0.2.108 or higher.
- Before starting to upgrade, please make sure your GWN7000 (the master device)'s firmware version is 1.0.2.71 or higher.

## ENHANCEMENT

## BUG FIX

- Fixed the issue that beacon frame has a random information element

## KNOWN ISSUE

- Banned Band steering feature still affect wireless Black/White/Banned client list feature. Please use Band steering or Black/White/Banned client list feature exclusively.

## FIRMWARE VERSION 1.0.3.19

### PRODUCT NAME

GWN7610

### DATE

6/20/2017

### IMPORTANT UPGRADING NOTE

- Before starting to upgrade, please make sure your GWN7610's firmware version is 1.0.2.108 or higher.
- Before starting to upgrade, please make sure your GWN7000 (the master device)'s firmware version is 1.0.2.71 or higher.

### ENHANCEMENT

- Added support for Captive Portal Enhancement
- Added support for 802.11k/r (Enable Voice Enterprise)
- Added support for Failover Master
- Added support for VLAN assignment via RADIUS
- Added support for Select Band per SSID
- Added support for Selectively Enable b/g/n
- Added support for Exact Radio Power Configuration in dBm
- Added support for AP Locating by Blinking LED
- Added support for Per-Client/Per-SSID Bandwidth Management
- Added support for Limit Client Count per SSID
- Added support for Enabling/Disabling DHCP option 66 for firmware upgrade

### BUG FIX

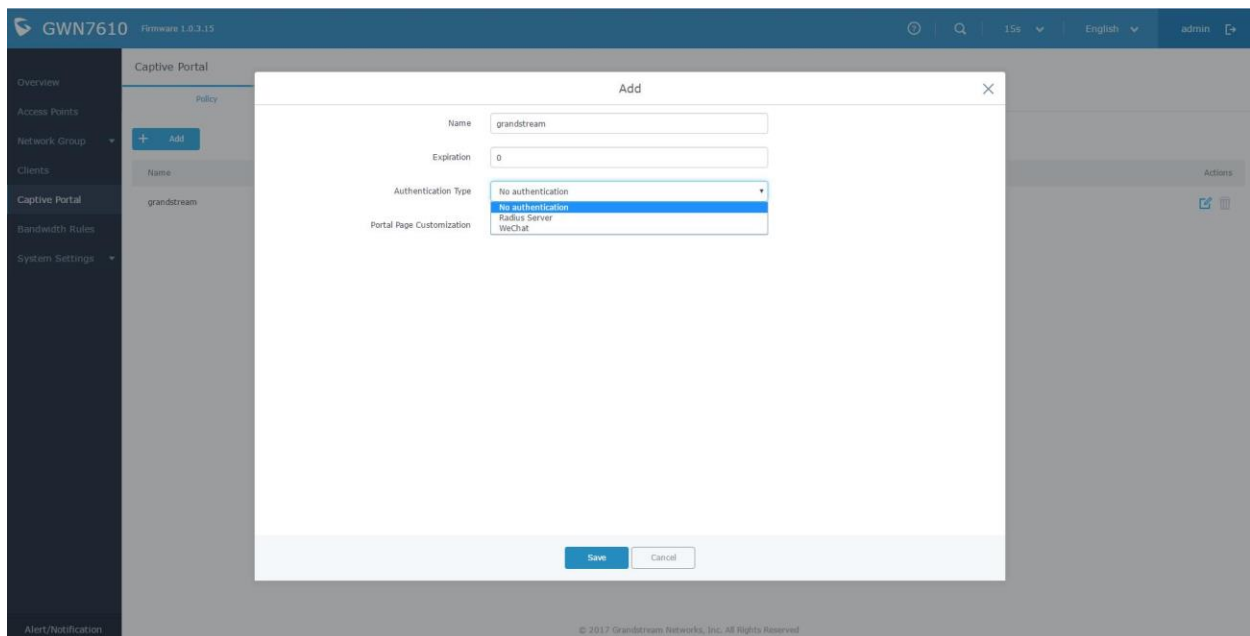
- Internal bug fixes

## KNOWN ISSUE

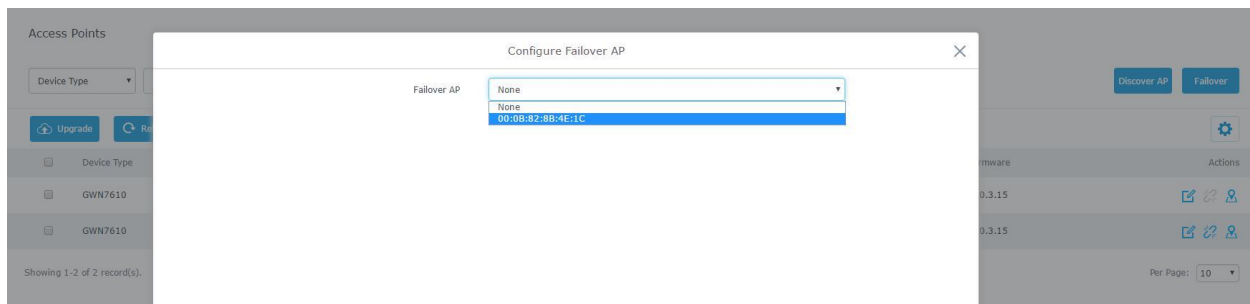
- Banned Band steering feature still affect wireless Black/White/Banned client list feature. Please use Band steering or Black/White/Banned client list feature exclusively.

## NEW FEATURE OVERVIEW

- Captive Portal Enhancement
  1. Now you can configure different portal policies with names and adopt one policy while configuring your Network groups.
  2. Now captive portal starts to support authentication by Radius and WeChat.



- Failover Master









Failover Master is supported on GWN7610 now. You can specify a slave AP as failover master. Whenever it detects the master is down, it will promote itself to be as failover master. After then, if master comes back,

failover master will automatically goes back to slave mode, or if the master doesn't come back to alive, Administrator can login to turn the failover master to true master and take over all controls.

- AP Locating by Blinking LED

Now, when you can't match your AP list on web with your real AP deployment in the field. This feature will help you to find your AP.

Device Type	Name/MAC	IP Address	Status	Uptime	Firmware	Actions
GWN7610	00:0B:82:97:90:8C	192.168.1.146	Master	1d 16h 3m 1s	1.0.3.15	  
GWN7610	00:0B:82:8B:4E:1C	192.168.1.21	Online	1d 16h 6m 15s	1.0.3.15	   <small>Locate the device</small>

- 802.11k/r (Enable Voice Enterprise)

Configuration available at Network Group->Add/Edit->WiFi-> **Enable Voice Enterprise**.

- Select Band per SSID

Configuration available at Network Group->Add/Edit->WiFi-> **SSID band**.

- Selectively Enable b/g/n

Configuration available at Access Point->Edit->Configuration-> **Mode (2.4G)**.

- Exact Radio Power Configuration in dBm

Configuration available at Access Point->Edit->Configuration-> **Custom 2.4GHz Wireless Power (dBm)**.

- Per-Client/Per-SSID Bandwidth Management

Configuration available at

Per-SSID: Network Group->Add/Edit->WiFi-> **Upstream Rate / Downstream Rate**.

Per-Client: Client->Edit->Bandwidth Rules-> Add new item.

- Limit Client Count per SSID

Configuration available at Network Group->Add/Edit->WiFi-> **Wireless Client Limit.**

- Enabling/Disabling DHCP option 66 for firmware upgrade

Configuration available at System Settings->Maintenance->Upgrade-> **Allow DHCP options 66 and 43 override.**

## FIRMWARE VERSION 1.0.2.108

### PRODUCT NAME

GWN7610

### DATE

4/19/2017

### IMPORTANT UPGRADING NOTE

- Controller protocol security enhancement is important for secured provision from Master to Slave. So once a master with 1.0.2.108 found a slave with 1.0.2.15, it will disable the slave's wifi and show the slave's firmware version in RED BOLD to remind user to upgrade the slave. (This is implemented on GWN7000 version 1.0.2.71 too)

### ENHANCEMENT

- Controller protocol security enhancement
- LED control
- Captive Portal
- Additional SSID
- WIFI schedule
- Client Isolation enhancement
- Syslog stored on unit and displayed on web is available now
- Few web enhancement.

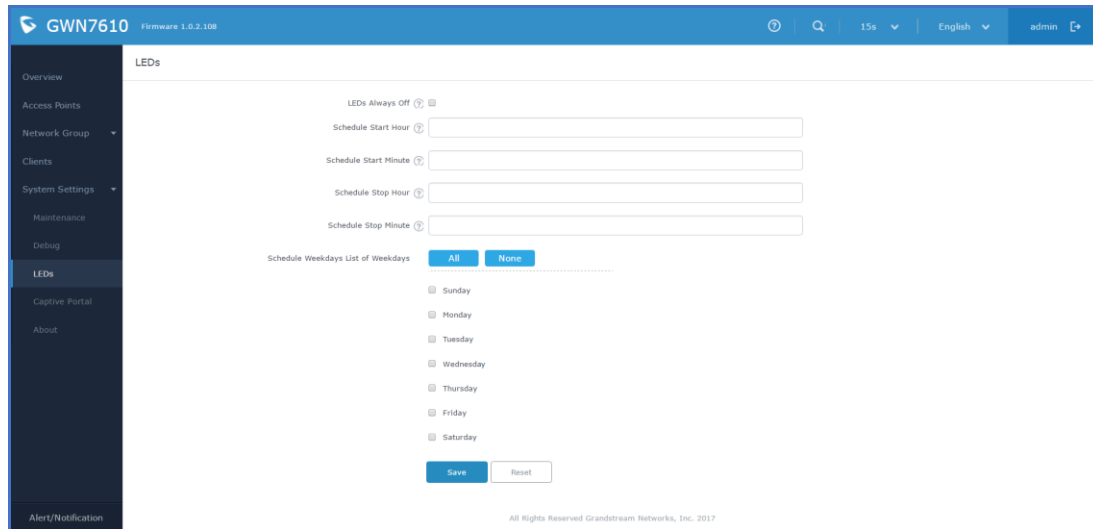
### KNOWN ISSUE

- Banned Band steering feature still affect wireless Black/White/Banned client list feature. Please use Band steering or Black/White/Banned client list feature exclusively.

## NEW FEATURE OVERVIEW

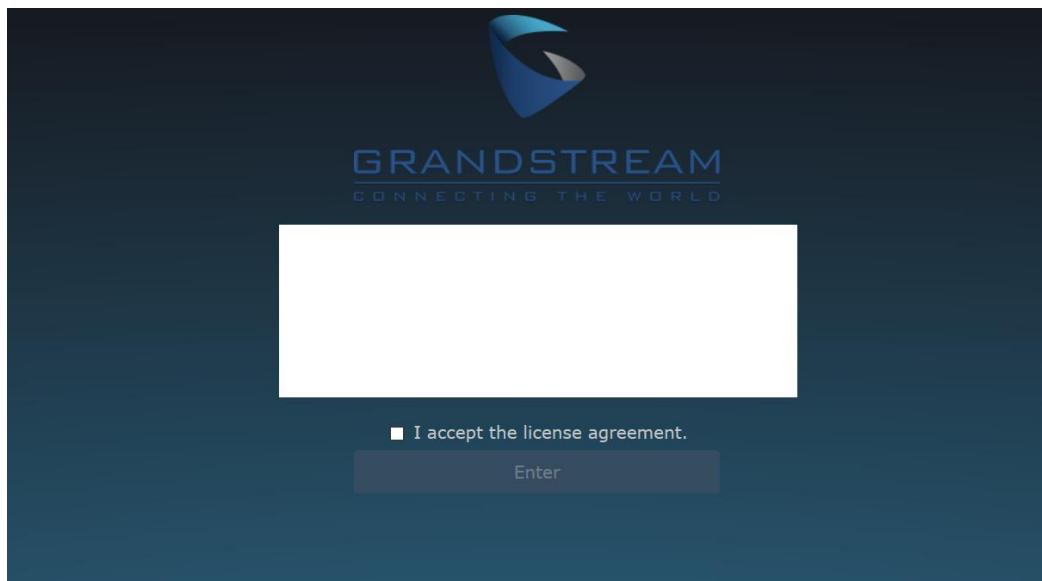
- LED control

User can define the LED on/off schedule in following page.



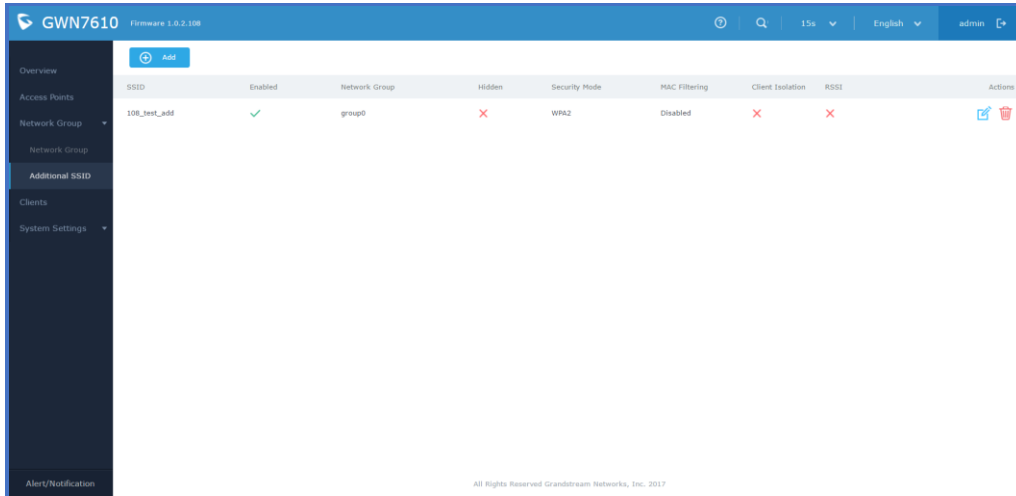
- Captive Portal

Configurations are available under System settings. Now user can customize the portal web page including their service terms by uploading splash.html and related web files in "Files" tag. (The blank window below is left for the service term to be customized)



- Additional SSID

Now user can add additional SSID to any network group by configuring the following page.



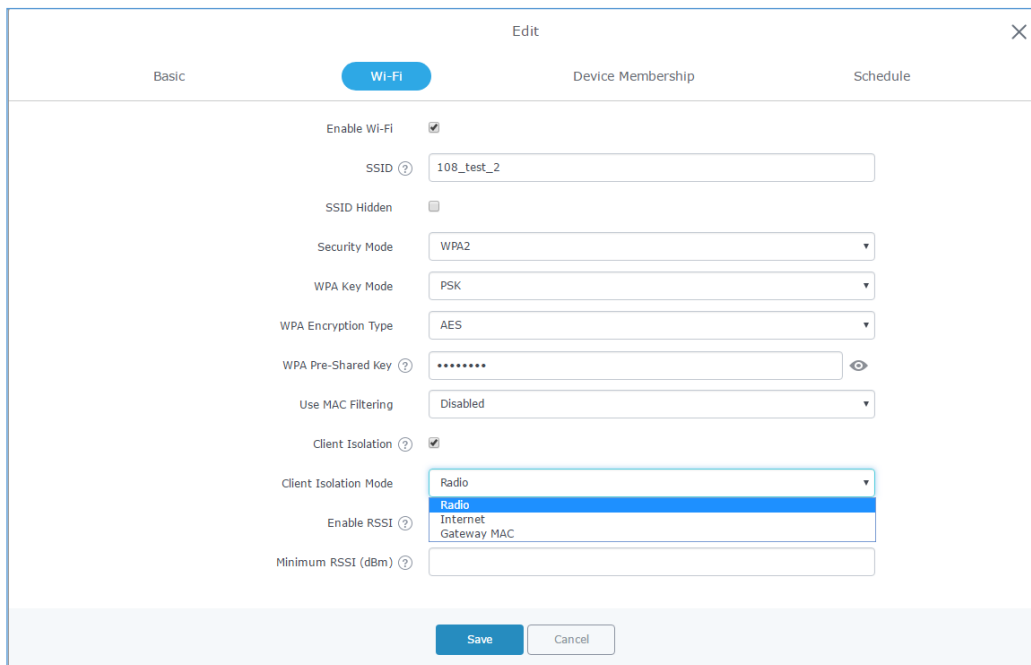
SSID	Enabled	Network Group	Hidden	Security Mode	MAC Filtering	Client Isolation	RSSI	Actions
108_test_add	<input checked="" type="checkbox"/>	group0	<input type="checkbox"/>	WPA2	Disabled	<input type="checkbox"/>	<input type="checkbox"/>	

- WIFI schedule

User can configure WIFI on/off schedule under Network Group->Edit->Schedule

- Client Isolation enhancement

Now, 3 client isolation modes (Radio/Internet/Gateway MAC) are available now. Please refer to user manual for the detailed features.



Edit ✕

Basic    Wi-Fi    Device Membership    Schedule

---

Enable Wi-Fi

SSID

SSID Hidden

Security Mode

WPA Key Mode

WPA Encryption Type

WPA Pre-Shared Key

Use MAC Filtering

Client Isolation

Client Isolation Mode 

- Radio
- Internet
- Gateway MAC

Enable RSSI

Minimum RSSI (dBm)

Save    Cancel



## **FIRMWARE VERSION 1.0.2.15**

### **PRODUCT NAME**

GWN7610

### **DATE**

1/31/2017

### **IMPORTANT UPGRADING NOTE**

This is the initial official release of GWN7610