

GWN7600/GWN7600LR Firmware Release Note

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FIRMWARE VERSION 1.0.4.12

PRODUCT NAME

GWN7600, GWN7600LR

DATE

10/31/2017

FIRMWARE FILE INFORMATION

- GWN7600 Firmware file name: gwn7600fw.bin
MD5: fcb81acfb5c429373ad03dc74e85c42e
- GWN7600LR Firmware file name: gwn7600lrfw.bin
MD5: 37f1a3660ab4f4b955512b8e76743841

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

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

*Note: "Out of the box" Grandstream Access Points are not affected by this issue. APs with old firmware are only affected after changing into client-bridge mode. Please refer to our white paper of "WPA Security Vulnerability" here:

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

- Fixed the issue that "Band Steering" option requires a system reboot to take effect.

- Fixed the issue that "Gateway MAC address" options and requires a system reboot to take effect.
- Fixed the issue that when Facebook and WeChat authentication are enabled at the same time, client cannot redirect to landing page after Facebook auth success.
- Fixed the issue that after many times of enabling and disabling Captive Portal, there is chances that WIFI clients can access to Internet without authentication challenge.

KNOWN ISSUE

- Configuring Radius server address with domain name instead of IP will cause the WIFI under configuration become open without authentication.
- "Hostname" on client page and the "Top AP" \ "Top SSID" \ "Top Clients" on overview page may show empty occasionally.
- After clicking on the reset button in maintenance page, it may prompt "Reset failed!".

NEW FEATURE OVERVIEW

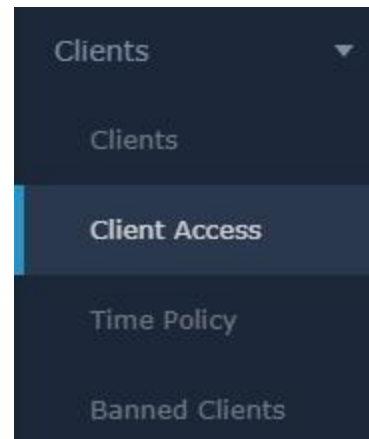
- **Timed Client Disconnect and Enhanced Client Blocking**





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



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

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:

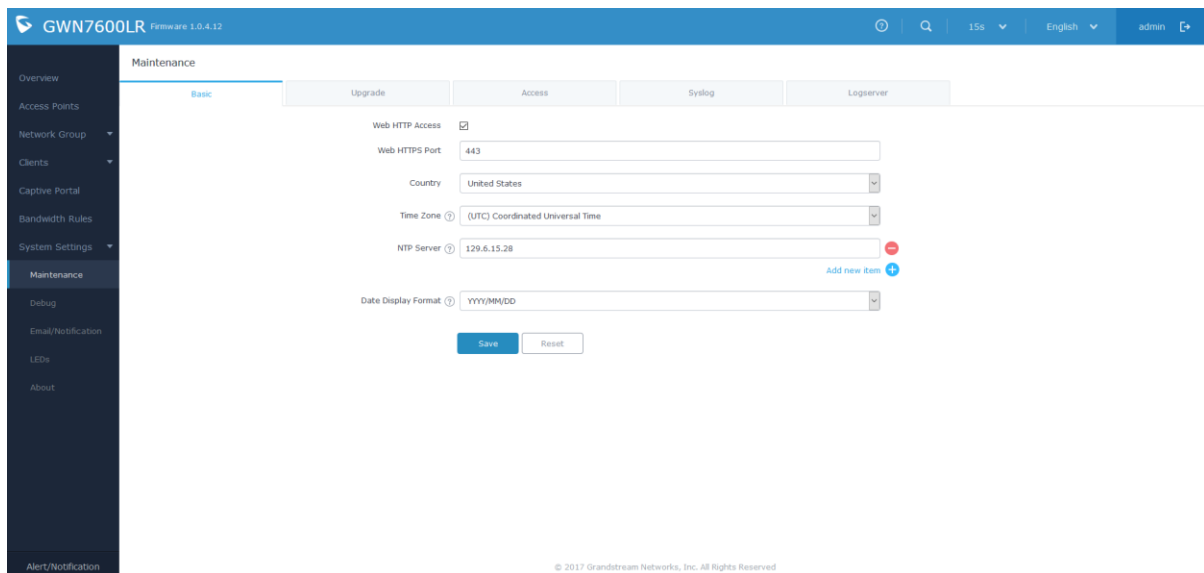
Please be noted that once an AP is turned into Client Bridge mode, it cannot be controlled by a Master anymore, and a factory reset is required to turn it back into normal AP mode.

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	

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

- Syslog Server**

Syslog Server is now available on GWN7600 and GWN700LR. Configuration page is as below:



The screenshot shows the 'Maintenance' configuration page for GWN7600LR Firmware 1.0.4.12. The 'Syslog' tab is selected, showing the following configuration options:

- Web HTTP Access:
- Web HTTPS Port: 443
- Country: United States
- Time Zone: (UTC) Coordinated Universal Time
- NTP Server: 129.6.15.28
- Date Display Format: YYYY/MM/DD

Buttons for 'Save' and 'Reset' are visible at the bottom of the configuration area.

- **Configurable web UI access port**

Under System →Maintenance, following configuration is available now:

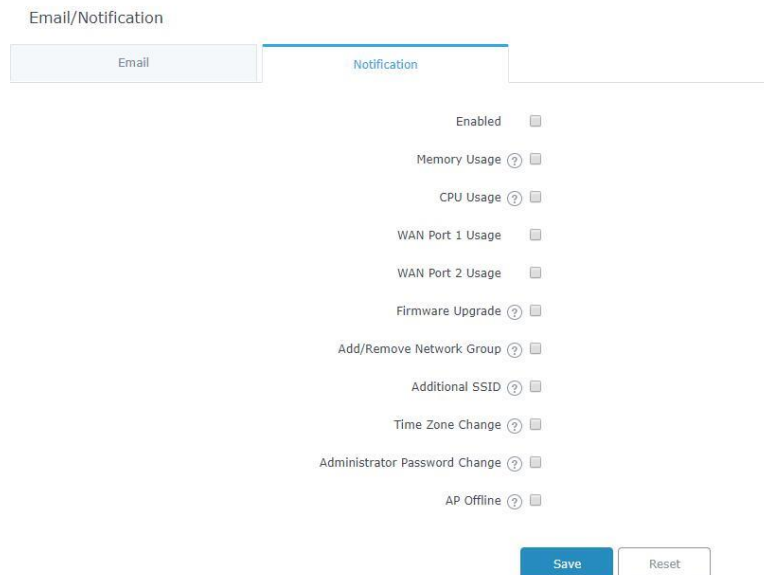
- 1) Web WAN Access;
- 2) Web HTTP Access;
- 3) Web HTTPS Port

- **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 1.0.3.25

PRODUCT NAME

GWN7600, GWN7600LR

DATE

9/20/2017

IMPORTANT UPGRADING NOTE

This is the initial official release of GWN7600LR

BUG FIX

- Fixed issue that GWN7600's 5G radio power won't take effect after select frequency to only 5G.
- Fixed issue that WiFi client cannot connect to the 802.11g AP WIFI when it uses the 802.11b protocol.
- Fixed issue that WeChat authentication for Captive portal sometimes behaves abnormal and it will be hard for WIFI client to authenticate when issue happens.
- Fixed issue that Captive Portal Policy changes require a reboot to take effect.
- Fixed issue that device cannot catch packet if a value is set in "File Size" option.
- Fixed issue that 2.4GHz mode need to be enabled for changing Channel Width and Active Spatial Streams.
- Fixed issue that WeChat authentication of Captive portal does not work, when adopting WIFI has WEP security mode.
- Fixed issue that If only 802.11r is enabled, Voice enterprise feature will not take effect.
- Fixed issue that iPhone does not work with current Minimum RSSI design.
- Internal bug fixes

KNOWN ISSUE

- "Band Steering" and "Gateway MAC address" options and requires a system reboot to take effect.

- Configuring Radius server address with domain name instead of IP will cause the WIFI under configuration become open without authentication.
- “Hostname” on client page and the “Top AP” \ “Top SSID” \ “Top Clients” on overview page may show empty occasionally.
- After clicking on the reset button in maintenance page, it may prompt "Reset failed!".
- When Facebook and WeChat authentication are enabled at the same time, client cannot redirect to landing page after Facebook auth success.
- After many times of enabling and disabling Captive Portal, there is chances that WIFI clients can access to Internet without authentication challenge.

FIRMWARE VERSION 1.0.3.19

PRODUCT NAME

GWN7600

DATE

7/14/2017

ENHANCEMENT

- Added support for Captive Portal
- Added support for 802.11k/r/v (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 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 WIFI schedule
- Added support for LED control
- Added support for Enabling/Disabling DHCP option 66 for firmware upgrade

BUG FIX

- Internal bug fixes

KNOWN ISSUE

- "Band Steering" and "Gateway MAC address" options and requires a system reboot to take effect.
- Configuring Radius server address with domain name instead of IP will cause the WIFI under configuration become open without authentication.
- "Hostname" on client page and the "Top AP" \ "Top SSID" \ "Top Clients" on overview page may show empty occasionally.
- GWN7600's 5G radio power won't take effect after select frequency to only 5G.
- Client cannot connect to the 802.11g AP WIFI when it uses the 802.11b protocol.
- After clicking on the reset button in maintenance page, it may prompt "Reset failed!".
- WeChat authentication for Captive portal sometimes behaves abnormal and it will be hard for WIFI client to authenticate when issue happens.
- When Facebook and WeChat authentication are enabled at the same time, client cannot redirect to landing page after Facebook auth success.
- After many times of enabling and disabling Captive Portal, there is chances that WIFI clients can access to Internet without authentication challenge.
- Device cannot catch packet if a value is set in "File Size" option.
- Captive Portal Policy changes require a reboot to take effect.
- 2.4GHz mode need to be enabled for changing Channel Width and Active Spatial Streams.
- WeChat authentication of Captive portal does not work, when adopting WIFI has WEP security mode.
- If only 802.11r is enabled, Voice enterprise feature will not take effect.
- iPhone does not work with current Minimum RSSI design.

NEW FEATURE OVERVIEW

- Captive Portal

You can configure different portal policies with names and adopt one policy while configuring your Network groups. Captive portal now also supports authentication by Radius and WeChat/Facebook.

Add ✕

Name

The field should not be empty

Expiration(s)

The field should not be empty

Authentication Type ▼

Third Authentication

WeChat Authentication

Facebook Authentication

Portal Page Customization ▼

/third_auth.html

Landing Page ▼

Redirect to the original URL

Enable HTTPS

Pre Authentication Rule(s) ?

-- please choose - ▼

-

Add new item +

Post Authentication Rule(s) ?

-- please choose - ▼

-

Add new item +

Save

Cancel

- 802.11k/r/v (Enable Voice Enterprise)

Configuration available at Network Group->Add/Edit->WIFI-> **Enable Voice Enterprise / Enable 11R / Enable 11K / Enable 11V**

Enable Voice Enterprise

Enable 11R ?

Enable 11K ?

Enable 11V ?

- **Failover Master**

Failover Master is supported on GWN7600LR 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 go 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	Locate the device
GWN7610	00:0B:82:8B:4E:1C	192.168.1.21	Online	1d 16h 6m 15s	1.0.3.15	Locate the device

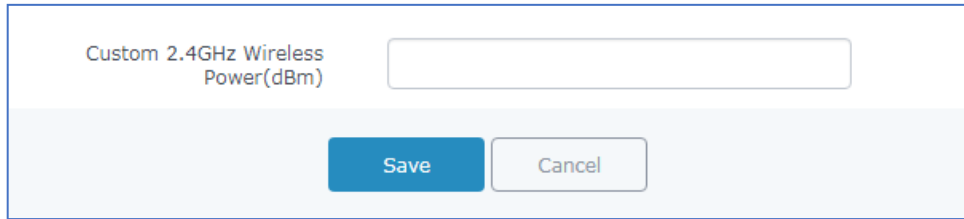
- **Select Band per SSID**

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

SSID Band	Dual-Band
SSID Hidden	<input type="checkbox"/>

- Exact Radio Power Configuration in dBm

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



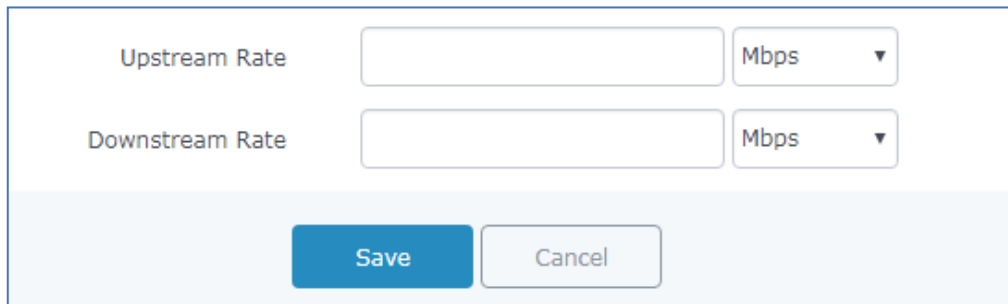
Custom 2.4GHz Wireless Power(dBm)

Save Cancel

- Per-Client/Per-SSID Bandwidth Management

Configuration available at

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

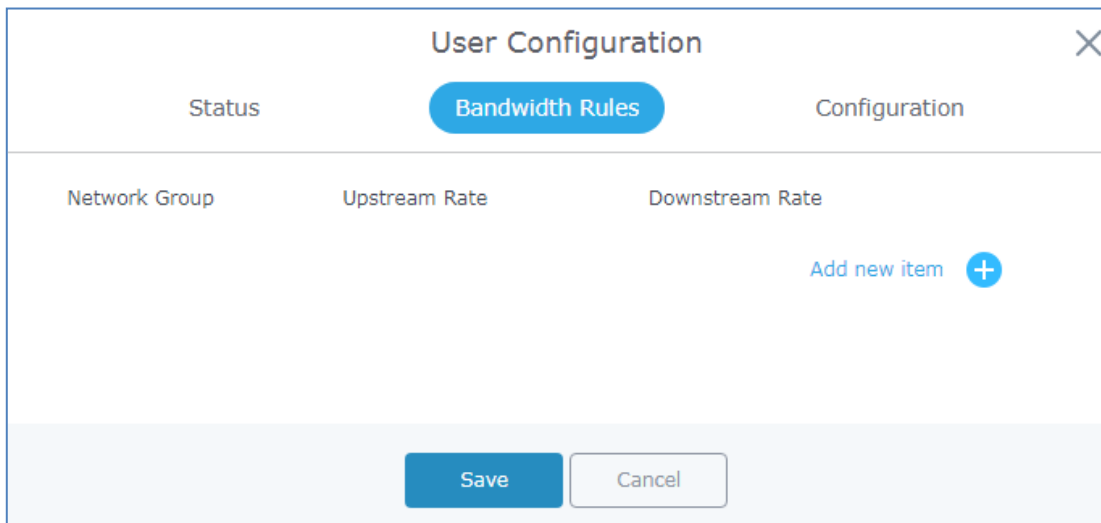


Upstream Rate Mbps ▾

Downstream Rate Mbps ▾

Save Cancel

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



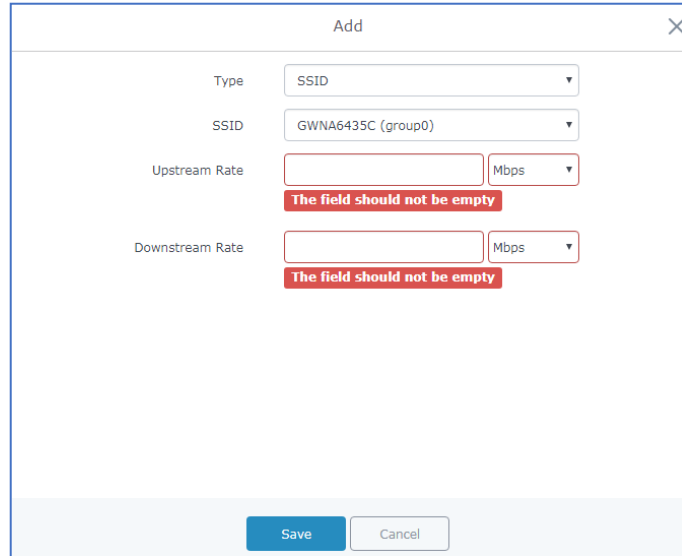
User Configuration [X]

Status **Bandwidth Rules** Configuration

Network Group	Upstream Rate	Downstream Rate
Add new item +		

Save Cancel

General configuration: **Bandwidth Rules** on left root menu bar.



The 'Add' dialog box contains the following fields:

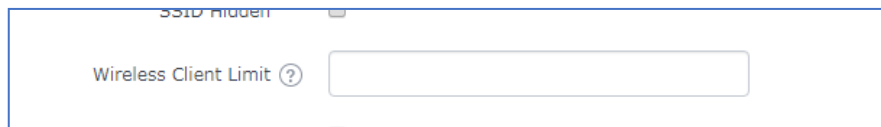
- Type: SSID (dropdown)
- SSID: GWNA6435C (group0) (dropdown)
- Upstream Rate: [Empty field] Mbps (dropdown)
- Downstream Rate: [Empty field] Mbps (dropdown)

Red error messages are displayed below the Upstream Rate and Downstream Rate fields: "The field should not be empty".

Buttons: Save, Cancel

- Limit Client Count per SSID

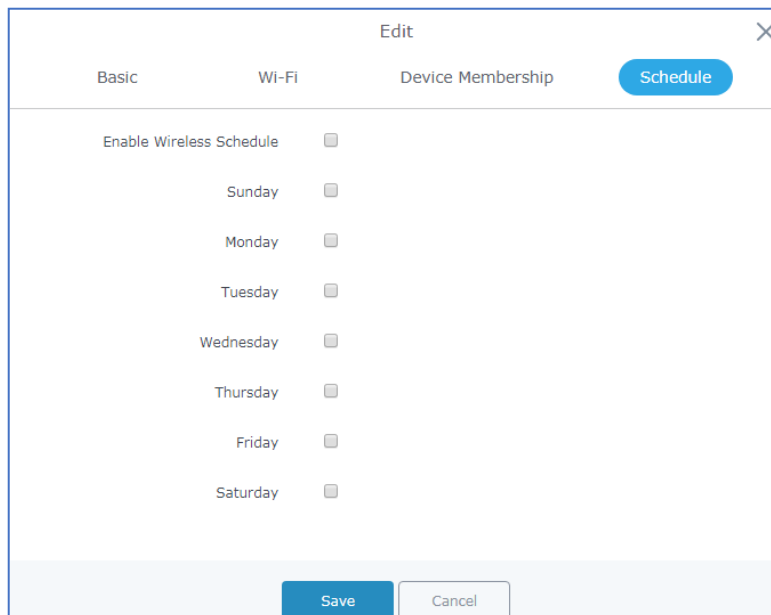
Configuration available at Network Group->Add/Edit->WIFI-> **Wireless Client Limit**.



The configuration shows a label "Wireless Client Limit" with a help icon (?) and an empty input field.

- WIFI schedule

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



The 'Edit' dialog box has tabs for Basic, Wi-Fi, Device Membership, and Schedule. The 'Schedule' tab is active.

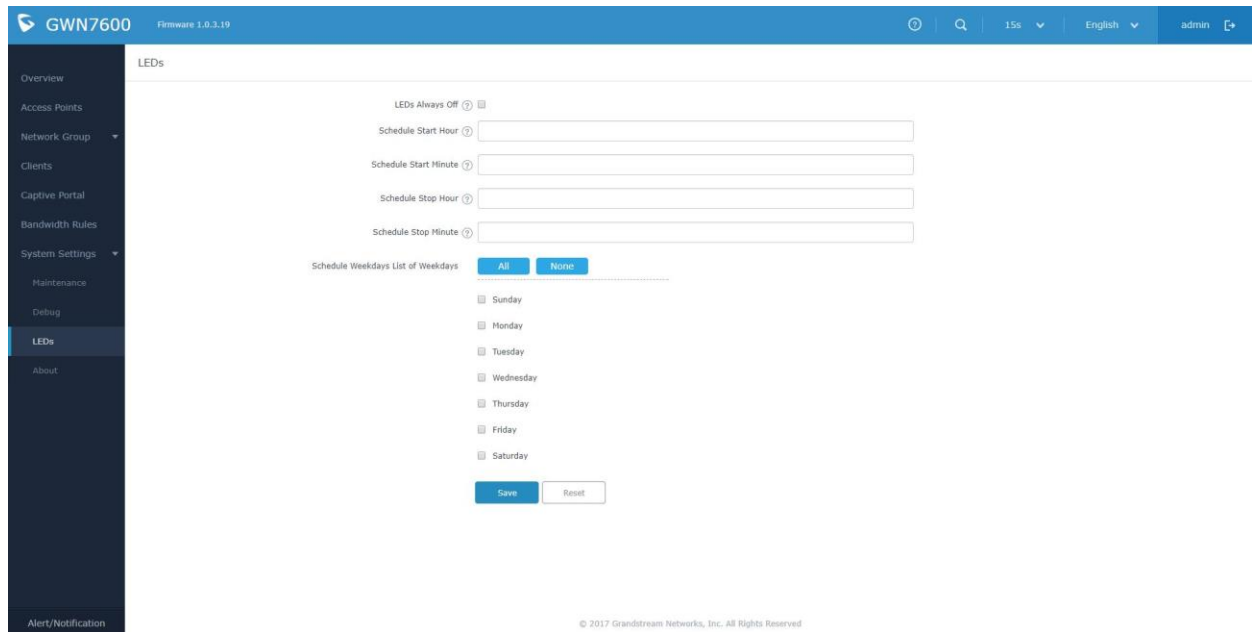
Configuration options under the 'Schedule' tab:

- Enable Wireless Schedule:
- Sunday:
- Monday:
- Tuesday:
- Wednesday:
- Thursday:
- Friday:
- Saturday:

Buttons: Save, Cancel

- LED control

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



- Enabling/Disabling DHCP option 66 for firmware upgrade

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

Allow DHCP options 66 and 43 override

FIRMWARE VERSION 1.0.1.36

PRODUCT NAME

GWN7600

DATE

3/15/2017

IMPORTANT UPGRADING NOTE

This is the initial official release of GWN7600