GWN76xx Firmware Release Notes

IMPORTANT UPGRADING NOTE

1. [9/26/2022] 1.0.23.14 for GWN7624 and GWN7625 has been released to fix the same SSH security bug in 9/19/2022 releases. Affected models are highly suggested to upgrade to the latest firmware.
2. [9/19/2022] 1.0.23.6 for GWN7600/7600LR/7610/7660/7660LR/7664/7664LR and 1.0.23.13 for GWN7630/7630LR/7605/7605LR/7615 has been released. An SSH security bug has been fixed since this version. Affected models are highly suggested to upgrade to the latest firmware.
3. [7/15/2021] [GWN7610 / GWN7600 / GWN7600LR] Please upgrade to 1.0.19.29 for security fix against Wi-Fi FragAttacks.
4. [6/4/2021] [GWN7630 / GWN7630LR / GWN7605 / GWN7605LR / GWN7615] Please upgrade to 1.0.19.29 for security fix against Wi-Fi FragAttacks.
5. [3/14/2020] [All APs 1.0.15.x] Due to the security enhancement, unless **Legacy TLS Compatibility** (only available on 1.0.15.4 or higher version) is enabled, master AP on 1.0.15.4 or higher firmware will not compatible with slave AP on firmware lower than 1.0.15.4. Master AP on firmware lower than 1.0.15.4 will also not be compatible with slave AP on firmware 1.0.15.4 or higher. Cloud and GWN Manager will still support both firmwares.
6. [3/14/2020] [All APs 1.0.15.x] Do not use 1.0.15.x AP firmware with GWN7000 1.0.9.x or lower version.
7. [12/14/2018] [All APs 1.0.8.17] In order to enable your AP's capability of connecting GWN Cloud EU server, AP needs to be upgraded to 1.0.8.17 or above.

8. [6/15/2018] [GWN7600&7600LR 1.0.6.41] Starting from 1.0.6.x, GWN7600 and GWN7600LR will share same firmware file name gwn7600fw.bin. As a result, when GWN7600LR upgrades from pre-1.0.6.x to latest firmware, it will still retrieve firmware with name gwn7600lrfw.bin, and when GWN7600LR upgrades from 1.0.6.x or post-1.0.6.x to other firmware, it will retrieve firmware with name gwn7600fw.bin. So, when your GWN7600LR upgrades from pre-1.0.6.x firmware, you will need to manually modify the target firmware name to gwn7600lrfw.bin.
9. [1/26/2017] [All APs 1.0.5.15] For firmware 1.0.5.15 (GWN7610) and 1.0.5.13 (GWN7600& GWN7600LR), this is only for GWN7610/GWN7600/GWN7600LR master deployment. All users with GWN7000 as master are NOT encouraged to upgrade until 1.0.5.x matching firmware is available for GWN7000, due to the compatibility of new features.
10. [8/11/2017] [All APs 1.0.4.22] Please upgrade to 1.0.4.12 or higher version to get the patch for WPA2 4-way handshake vulnerability.
11. [8/11/2017] [GWN7610 1.0.3.21] Before starting to upgrade to latest firmware, please make sure your GWN7610's firmware version is 1.0.2.108 or higher. Also, please make sure your GWN7000 master (if any)'s firmware version is 1.0.2.71 or higher.

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FIRMWARE FILE DOWNLOAD

Individual firmware files are available for downloading at URL below:

https://www.grandstream.com/support/firmware

[2/13/2023] FIRMWARE VERSION 1.0.23.24

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7602 / GWN7615 / GWN7605 / GWN7605LR / GWN7630 / GWN7630LR / GWN7624 / GWN7625 / GWN7660 / GWN7660LR / GWN7664 / GWN7664LR

DATE

2/13/2023

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 2c1a5e6a052649260e13e7033947a5d5
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 86b8af88a245ce95c15eb1a8b2ae9299
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: 990728fafcaf5ec2dd5806cd75a4bbc1
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: d1c26a20db1f103c764033b301c87f26
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: a42145514a250b4841f57ecc18a8e841
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 8e8e37db2d386b9f6e458ff25f87a666
- GWN7624 Firmware file name: gwn7624fw.bin

  MD5 checksum: e06469bfc63369190c9a09db5a24a251
- GWN7625 Firmware file name: gwn7625fw.bin

  MD5 checksum: ab88bd3bc852cfe173d7e1c1aa666aa0
- GWN7660/GWN7660LR Firmware file name: gwn7660fw.bin

  MD5 checksum: 5e6315faf3740918cb70f9762c39954d

- GWN7664/GWN7664LR Firmware file name: gwn7664fw.bin

  MD5 checksum: 8409fb972afb962cf26d08d5fd956ddd

CHANGES/ENHANCEMENT

- Fixed an issue that GWN7664 generated panic core and randomly rebooted.
- Fixed an issue of AP free memory calculation.
- Internal bug fixes.

[12/22/2022] FIRMWARE VERSION 1.0.23.22

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7602 / GWN7615 / GWN7605 / GWN7605LR / GWN7630 / GWN7630LR / GWN7624 / GWN7625 / GWN7660 / GWN7660LR / GWN7664 / GWN7664LR

DATE

12/22/2022

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 8d969a4d3046534675a9ca916634dcc8
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 01af5e281154d01000cf851b0ad7403c
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: d84ef032d2c6e0bbd3d15ffda8414144
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: efe8412bde75fbc290e43c46f3b4e1f1
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: c2913796e463286419e4a80771da3b6c
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 57d8ef3a3ac7b53d0df887c2af2b3c95
- GWN7624 Firmware file name: gwn7624fw.bin

  MD5 checksum: fc9d1f324498abf7924aa987a6e5ddc1
- GWN7625 Firmware file name: gwn7625fw.bin

  MD5 checksum: c06508ecaa876aa428b1e961700921dd
- GWN7660/GWN7660LR Firmware file name: gwn7660fw.bin

  MD5 checksum: 83210a96e5a1ce5c6639f52adf758ba5

- GWN7664/GWN7664LR Firmware file name: gwn7664fw.bin

  MD5 checksum: 440886641bf5231169e8fe4913d2e76d

CHANGES/ENHANCEMENT

- Add support of new GWN Cloud
- Internal bug fixes.

[9/26/2022] FIRMWARE VERSION 1.0.23.14

PRODUCT NAME

GWN7615 / GWN7605 / GWN7605LR / GWN7630 / GWN7630LR / GWN7624 / GWN7625

DATE

9/26/2022

FIRMWARE FILE INFORMATION

- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: a6bbd0aedfcbc7ac3272521cda2a7347

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: e45dd4e887099ea6a7a0263964b42ef0

- GWN7605/7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: dce2b83c0da22c7aab54e1ab0fea5204

- GWN7624 Firmware file name: gwn7624fw.bin

  MD5 checksum: 5d696b3ee9867dc72f36577490c716b8

- GWN7625 Firmware file name: gwn7625fw.bin

  MD5 checksum: 76e893ace3ed840baa90df82d19e9c2a

CHANGES/ENHANCEMENT

- Fixed the same SSH security issue for GWN7624/7625.
- Fixed an issue that GWN7624/25 will randomly reboot with band steering enabled.
- Fixed an issue that GWN7630/7630LR may reboot with more than 70 clients connected to a single unit.
- Fixed and issue that certain legacy devices may have issue to connect to GWN7624/7625's 802.11R enabled SSID
- Internal bug fixes.

[9/19/2022] FIRMWARE VERSION 1.0.23.13/1.0.23.6

PRODUCT NAME

GWN7615 / GWN7605 / GWN7605LR / GWN7630 / GWN7630LR – 1.0.23.13

GWN7600 / GWN7600LR / GWN7610 / GWN7660 / GWN7660LR / GWN7664 / GWN7664LR – 1.0.23.6

DATE

9/19/2022

FIRMWARE FILE INFORMATION

- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: d5c0e05e27e880e1d2c8b3a647140ad6
- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: b6255baf421a2360a3445e6849d72dc0
- GWN7660/GWN7660LR Firmware file name: gwn7660fw.bin

  MD5 checksum: eeaae4bdaedbe246037f2e0974fc3b56
- GWN7664/GWN7664LR Firmware file name: gwn7664fw.bin

  MD5 checksum: b11cbe2146f32a869240fec7a9667966
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: af9be1c8f881c45065d454bbcad2b215
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 4d92e33621b7db54437fe4ca4d664b9d
- GWN7605/7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: de1ae9df87be23c4b3566016153b01c6

CHANGES/ENHANCEMENT

- Fixed an SSH security bug.

[8/29/2022] FIRMWARE VERSION 1.0.23.9

PRODUCT NAME

GWN7605 / GWN7605LR / GWN7615 / GWN7625 / GWN7630 / GWN7630LR

DATE

8/29/2022

FIRMWARE FILE INFORMATION

- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: f25a9231ea140111e155ce5376029c36

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 18539908be59518788591a8e729867ff

- GWN7605/7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: e2097ee462c630e505b14ae38e18c191

- GWN7625 Firmware file name: gwn7625fw.bin

  MD5 checksum: 811619722d8a1c4d31b83604ace33ae4

CHANGES/ENHANCEMENT

- Added support of BSSID info (GWN Cloud only)
- Fixed an issue that some legacy client can't connect to 802.11w optional SSID
- Fixed multiple CVE vulnerabilities
- Internal bug fixes
- Update latest DFS table as of firmware version 1.0.23.9 and 1.0.23.3.

AP	CE	RCM	FCC	IC	ANATEL(Brazil)
GWN7610	-	-	-	-	-
GWN7600	-	-	-	-	Yes
GWN7600LR	Yes	-	-	-	-
GWN7630	Yes	Yes	Yes	Yes	Yes

GWN7630LR	Yes	Yes	Yes	Yes	-
GWN7602	Yes	Yes	Yes	Yes	Yes
GWN7605	Yes	Yes	Yes	Yes	-
GWN7605LR	Yes	Yes	Yes	Yes	-
GWN7615	Yes	Yes	Yes	Yes	-
GWN7660	Yes	Yes	Yes	Yes	-
GWN7660LR	Yes	Yes	Yes	Yes	
GWN7664	Yes	Yes	Yes	Yes	-
GWN7664LR	Yes	Yes	Yes	Coming soon	
GWN7625	Yes	Yes	Yes	Yes	

[8/11/2022] FIRMWARE VERSION 1.0.23.3

PRODUCT NAME

GWN7600 / GWN7600LR / GWN7610 / GWN7660 / GWN7660LR / GWN7664 / GWN7664LR

DATE

8/11/2022

FIRMWARE FILE INFORMATION

- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 2f53f4baf63088779f4293d2d7fc7df2

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 28c5a5e3d82dcf9820bf3b984a111166

- GWN7660/GWN7660LR Firmware file name: gwn7660fw.bin

  MD5 checksum: 0065b959a65deb9975acc19e06eb914f

- GWN7664/GWN7664LR Firmware file name: gwn7664fw.bin

  MD5 checksum: f73e8a60ab82306e91393bd4b7fe80bd

CHANGES/ENHANCEMENT

- Enhancements/Features/Changes/Fixes includes 1.0.23.7 release's CHANGES/ENHANCEMENT

- Added support of Link aggregation for GWN7664/GWN7664LR

[7/18/2022] FIRMWARE VERSION 1.0.23.7

PRODUCT NAME

GWN7605 / GWN7605LR / GWN7615 / GWN7625 / GWN7630 / GWN7630LR

DATE

7/18/2022

FIRMWARE FILE INFORMATION

- GWN7615 Firmware file name: gwn7615fw.bin – 1.0.23.7

  MD5 checksum: c21d8e86b3dabdea3ff14169db227101

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin – 1.0.23.7

  MD5 checksum: 7938b58f283b61e2c7d92e9cbdd75ad4

- GWN7605/7605LR Firmware file name: gwn7605fw.bin – 1.0.23.7

  MD5 checksum: a7089fe06f01ffa26a589bb34511775c

- GWN7625 Firmware file name: gwn7625fw.bin – 1.0.23.7

  MD5 checksum: b5799f8a3ba76d6f096be7ecde7a7f4e

CHANGES/ENHANCEMENT

- Added support of Import/Export the client access lists in CSV format
- Added support of 802.11h
- Added support of time synchronization via cloud-based servers[1]
- Added support of **PPSK**
- Added support of **Radius failover**
- Added support of PassPoint R3
- Added support of **15 languages**

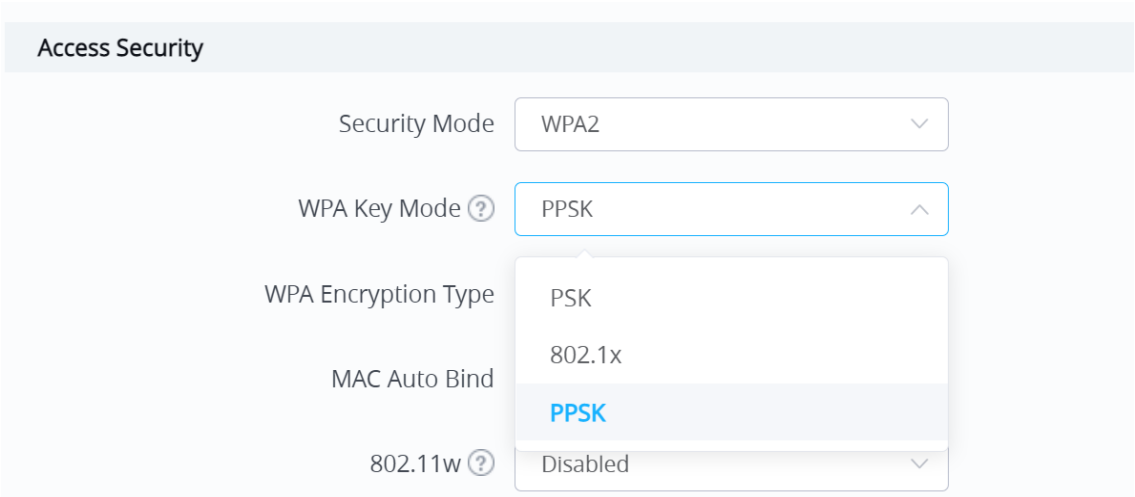
1. *Configuration only available on GWN Cloud when AP is adopted by cloud.*

- Added support of **Management VLAN**
- Enhanced Clients page – Added Disconnect Client button
- Enhanced Access Points and Clients page – Added filter by Location field
- Enhanced LED control – Configuration for each AP LEDs separately; Changed device locating behavior: blinking will not stop until close on controller
- Enhanced Captive Portal – Added RADIUS timeout; Added byte limit (Only locale master); Added logout API; Added whitelist; Added Active Directory Authentication
- Enhanced Indoor/Outdoor – Added lock and configure for each AP separately
- Enhanced WiFi5 Compatibility Mode – Configuration for each band separately
- Enhanced Check/Download New Firmware at Boot – Added random time option
- Enhanced Cloud management stability optimization – Monitor TCP link status
- Enhanced One key debug feature
- Platform performance optimization

NEW FEATURE OVERVIEW

- **PPSK**

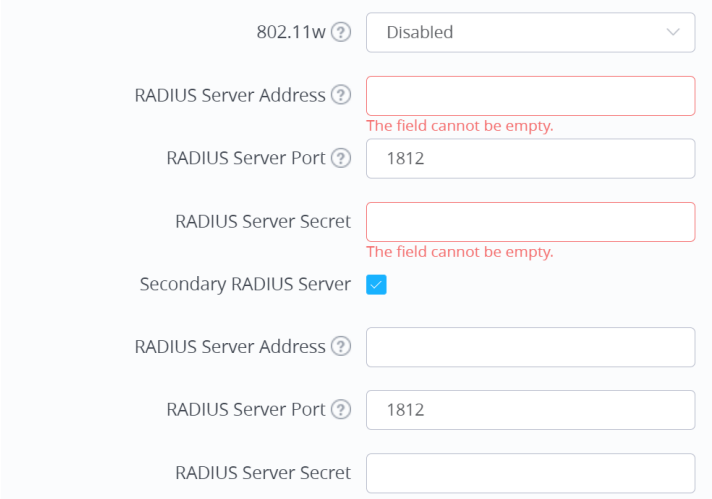
  This feature will allow admin to configure Private Pre-Shared Key as an alternative to 802.1X authentication.



PPSK management is avalible at Access Control → PPSK

- **Radius failover**

  This feature will allow admin to configure a secondary RADIUS server for failover purposes.

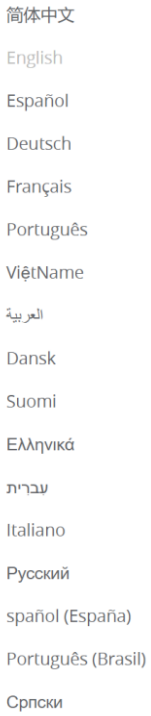


- **15 languages**

  Besides of English and Chinese, now GWN UI support 15 more languages, which makes total of 17 languages support.

  Language list:

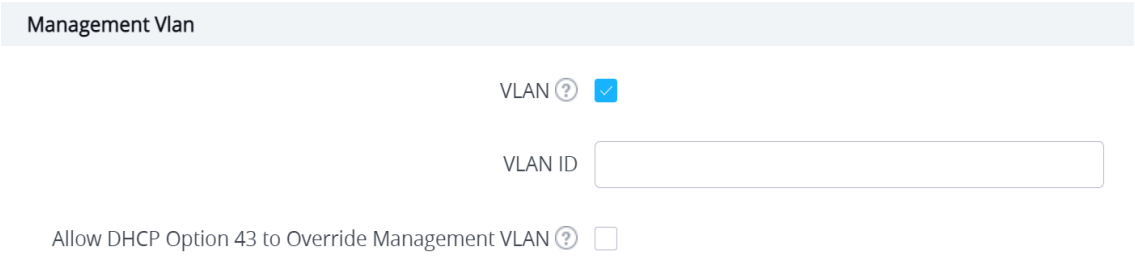
  1. Arabic
  2. Chinese
  3. Danish
  4. English
  5. Finnish
  6. French
  7. German
  8. Greek
  9. Hebrew
  10. Italian
  11. Portuguese (EU)
  12. Portuguese (LATAM)
  13. Russian
  14. Serbian
  15. Spanish (EU)
  16. Spanish (LATAM)
  17. Vietnamese



- **Management VLAN**

  This feature allows GWN AP to be discovered/managed on VLAN network.

  Configuration is available at System → Settings → Basic



[GWN7625]FIRMWARE VERSION 1.0.21.5

PRODUCT NAME

GWN7625

DATE

6/9/2022

FIRMWARE FILE INFORMATION

- GWN7625 Firmware file name: gwn7625fw.bin

  MD5 checksum: ac0df7d3d1307da7721068bb3070f4d8

CHANGES/ENHANCEMENT

- This is the first release of GWN7625.

[GWN7602]FIRMWARE VERSION 1.0.19.36

PRODUCT NAME

GWN7602

DATE

5/25/2022

FIRMWARE FILE INFORMATION

- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: b6003a8e10a157dd6dca8d173b105bcb

CHANGES/ENHANCEMENT

- Enabled band 3 and band 4 channels for Israel
- Added support of SMS authentication

FIRMWARE VERSION 1.0.21.16

PRODUCT NAME

GWN7660 / GWN7664

DATE

2/24/2022

FIRMWARE FILE INFORMATION

- GWN7660 Firmware file name: gwn7660fw.bin

  MD5 checksum: 040e78c4cc84cd4001ec9fd5a740fa7f

- GWN7664 Firmware file name: gwn7664fw.bin

  MD5 checksum: 2b220767ed88abcd6218240747c134ae

CHANGES/ENHANCEMENT

- Fixed a radio issue that US module of GWN7660&7664 may not be able to select DFS channel.
- Internal bug fixes

FIRMWARE VERSION 1.0.21.15

PRODUCT NAME

GWN7630 / GWN7630LR

DATE

1/19/2022

FIRMWARE FILE INFORMATION

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin – 1.0.21.15

  MD5 checksum: 89f9df9ca91e25ed3ba8f21d2b81bae8

CHANGES/ENHANCEMENT

- Added support of **Hotspot 2.0 R3** [Beta] for GWN7630/GWN7630LR

FIRMWARE VERSION 1.0.21.14/15

PRODUCT NAME

GWN7605 / GWN7605LR / GWN7615 / GWN7630 / GWN7630LR / GWN7660 / GWN7664

DATE

1/7/2022

FIRMWARE FILE INFORMATION

- GWN7615 Firmware file name: gwn7615fw.bin – 1.0.21.14

  MD5 checksum: 84811f268ad70fe8cb40b18e5c23a54e

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin – 1.0.21.14

  MD5 checksum: d89d9cc7653dcb8cda568c6eff01e944

- GWN7660 Firmware file name: gwn7660fw.bin – 1.0.21.14

  MD5 checksum: f83ccfe41843464d429f596cec7c0f87

- GWN7605/7605LR Firmware file name: gwn7605fw.bin – 1.0.21.15

  MD5 checksum: 09928b531736123b1efdd4b56fd99be5

- GWN7664 Firmware file name: gwn7664fw.bin – 1.0.21.15

  MD5 checksum: ed78b0a7b8a5f54d83adcbd6d58b48ce

CHANGES/ENHANCEMENT

- Added support of **Hotspot 2.0 R3** [Beta] for GWN7660
- Added support of **Bonjour Gateway**
- Internal bug fixes

NEW FEATURE OVERVIEW

- **Bonjour Gateway**

  This feature will allow Bonjour protocol to be broadcast into configured VLAN.

Configuration is available at:

Network→SSID→Edit →Wi-Fi→Advanced→Enable Bonjour Gateway

FIRMWARE VERSION 1.0.21.7

PRODUCT NAME

GWN7600 / GWN7600LR / GWN7610 / GWN7660

DATE

11/5/2021

FIRMWARE FILE INFORMATION

- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 9e4f2b4b2acf9f96d650af91e38a0963

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: d9e7eda4f64270a5e1800b1f7ff71757

- GWN7660 Firmware file name: gwn7660fw.bin

  MD5 checksum: 435d918cc98c429ac3a2036c67169ec7

CHANGES/ENHANCEMENT

- Sync new features of 1.0.21.6 from other models
- Enable FCC **DFS channels** for gwn7660
- Internal bug fixes

NEW FEATURE OVERVIEW

- **DFS channels**

Now SSID max number is separately counter in each band (2.4GHz or 5Ghz). The maximum allowed SSID for each band now is as below:

1.0.21.7	CE	RCM	FCC	IC	ANATEL(Brazil)
GWN7610	-	-	-	-	-
GWN7600	-	-	-	-	Yes
GWN7600LR	Yes	-	-	-	-

1.0.21.7	CE	RCM	FCC	IC	ANATEL(Brazil)
GWN7630	Yes	Yes	Yes	Yes	Yes
GWN7630LR	Yes	Yes	Yes	Yes	-
GWN7602	Yes	Yes	Yes	Yes	Yes
GWN7605	Yes	Yes	Yes	Yes	-
GWN7605LR	Yes	Yes	Yes	Yes	-
GWN7615	Yes	Yes	Yes	Yes	-
GWN7660	Yes	Coming soon	Yes	Coming soon	-

FIRMWARE VERSION 1.0.21.6

PRODUCT NAME

GWN7630 / GWN7630LR / GWN7605 / GWN7605LR / GWN7615

DATE

10/27/2021

FIRMWARE FILE INFORMATION

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: dbb89a9e9398d7a475c28c8b0f377665
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: d33aa163653518b0f6e4e8c845d3595e
- GWN7615 Firmware file name: gwn7615fw.bin
- MD5 checksum: 6deab7cb22653691db67342e438cd0c2

CHANGES/ENHANCEMENT

- **Upgraded the max number of supported SSIDs**
- Added **Option to turn off U-APSD function**
- Added feature of reporting **Probe request RSSI information** (Requires GWN.Cloud)
- Added **IPv6 support for internal GWN services**
- Added feature to **Transfer AP to GWN manager**
- Added feature to allow **Each AP to disable/Enable 2.4GHz or 5GHz independently**
- Added feature of **TR-069**
- Added feature of **Google Authentication**
- Added feature to **Delete inbound and outbound rules in batches**
- Added feature to **Save network abnormal log to Flash**
- Added feature of **Web lock for failed login**

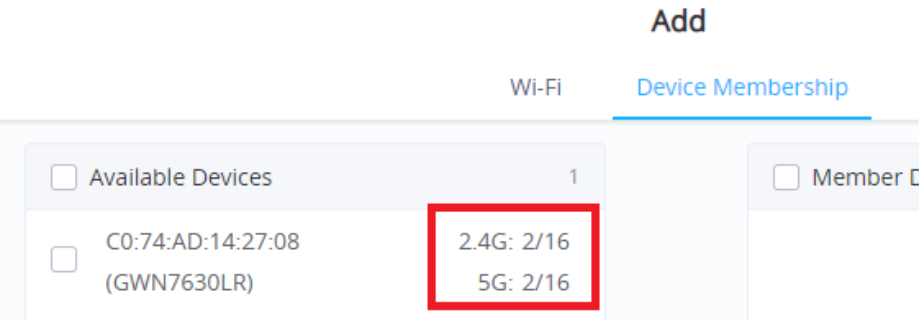
NEW FEATURE OVERVIEW

- **Upgraded the max number of supported SSIDs**

  Now SSID max number is separately counter in each band (2.4GHz or 5Ghz). The maximum allowed SSID for each band now is as below:

Model	MAX SSID on each band without Mesh/with Mesh
GWN7600/7600LR	16/14
GWN7602	4/4
GWN7605/7605LR	8/6
GWN7610	16/14
GWN7615	16/14
GWN7630/7630LR	16/14
GWN7660/7660LR	16/14
GWN7664	16/14

  Interfaces are also updated according to the new limit.



- **Option to turn off U-APSD function**

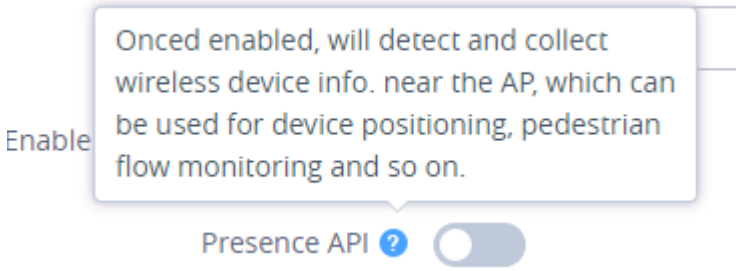
  U-APSD (Unscheduled Automatic Power Save Delivery) now can be turned of by option from Network→SSID→Edit →Wi-Fi→Advanced→Enable U-APSD

- **Probe request RSSI information**

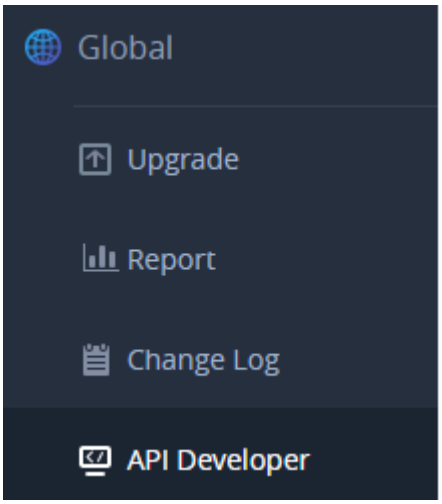
  This information is mainly used for client geo analytics, so that further service can be provided based on client location.

  To turn on this feature, configuration option is available at GWN.Cloud:

  Network→System→Settings→General→Presence API



  The API information is available from GWN Cloud



  Detail for this API is under API Reference→Client→7. Obtain the signal strength of the clients around the AP

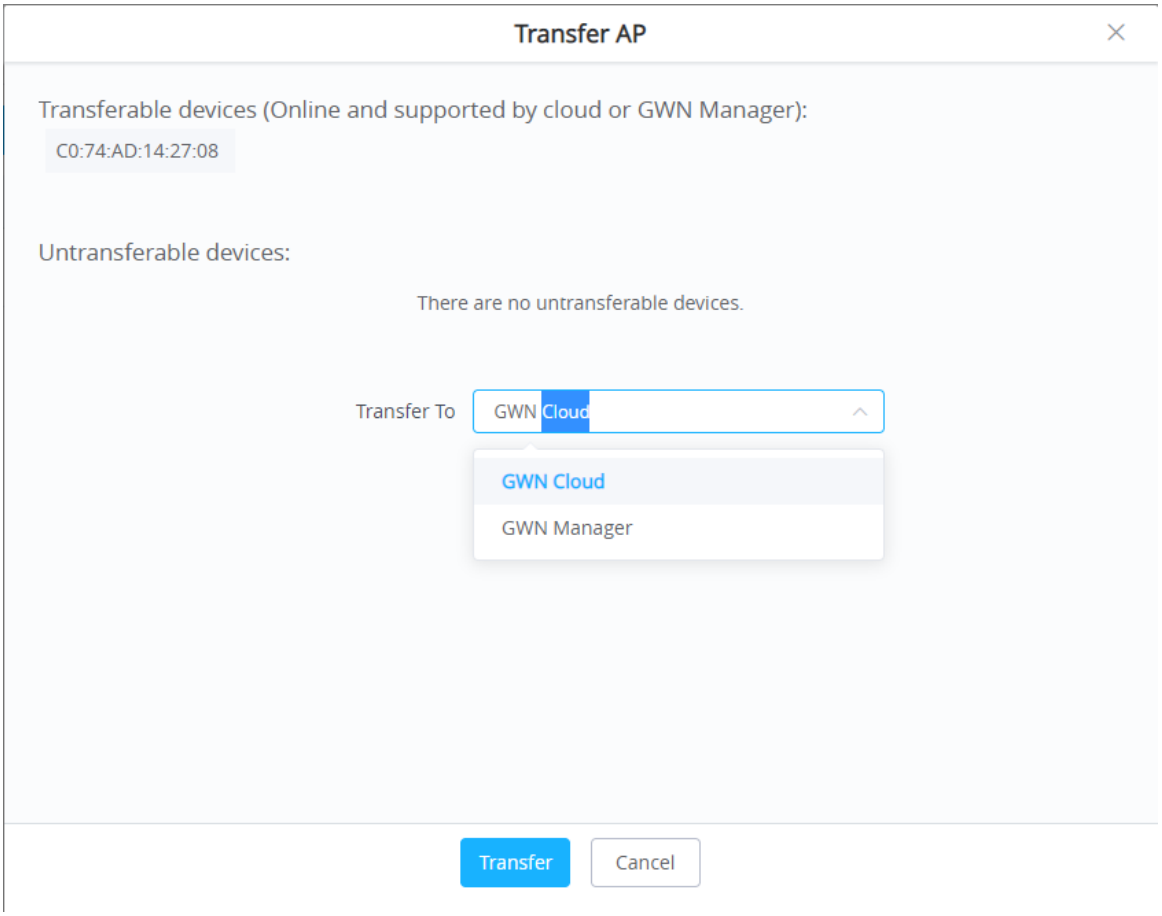
- **IPv6 support for internal GWN services**

  Now GWN AP will not only pass IPv6 packets, AP will be able to take IPv6 address for internal services. If dynamic IPv6 assignment is not available in your network, you can configure static IPv6 address on AP management interface. Configuration is available at

  Access Point→Configuration→Edit →Fixed IPv6

- **Transfer AP to GWN manager**

  GWN manager option is available in Transfer AP feature now.



- **Each AP to disable/Enable 2.4GHz or 5GHz independently**

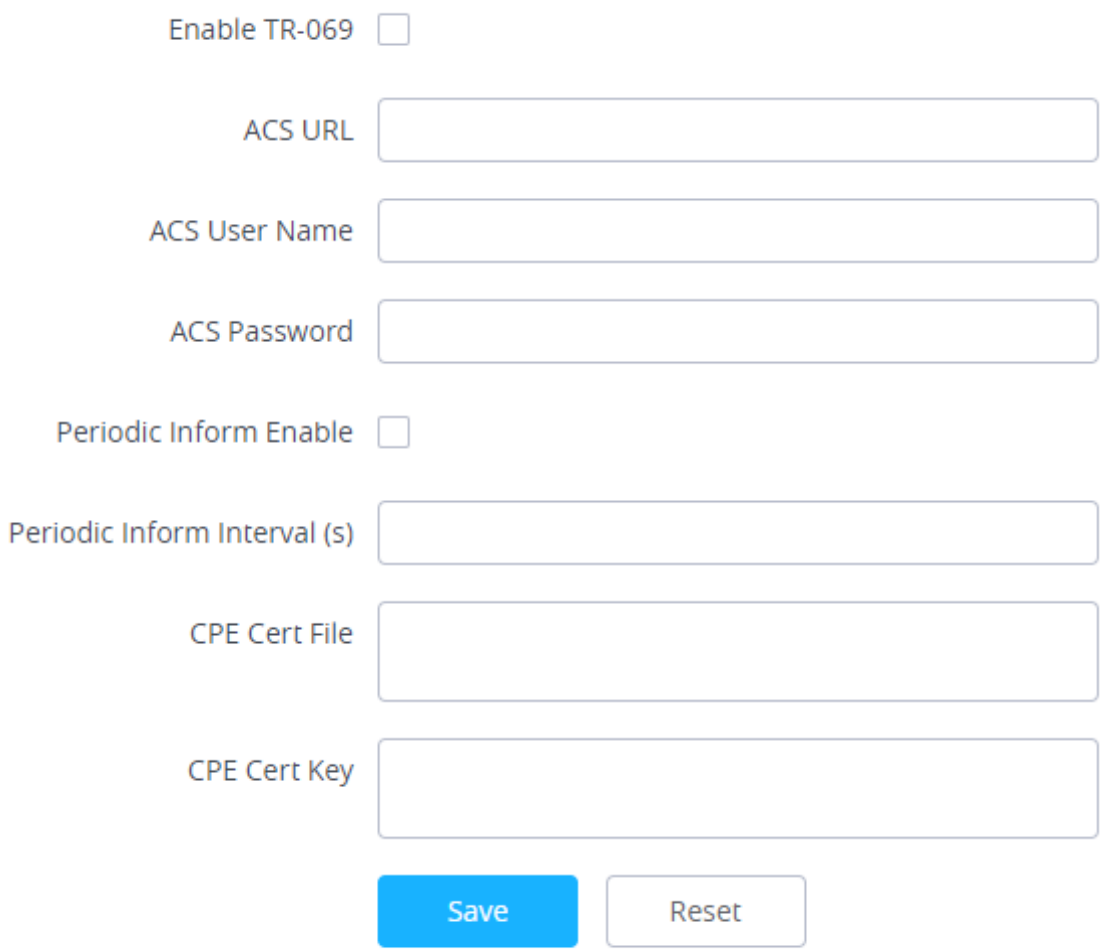
  Each AP now can independently disable/enable its 2.4GHz band or 5GHz band.

  Configuration option is available at Access Point→Configuration→Edit →2.4G/5G

- **TR-069**

Configuration options are available at Service→TR069.

TR-069 feature is mutual exclusive to some GWN.Cloud and Master features. For detail please refer to GWN User Manual.



- **Google Authentication**

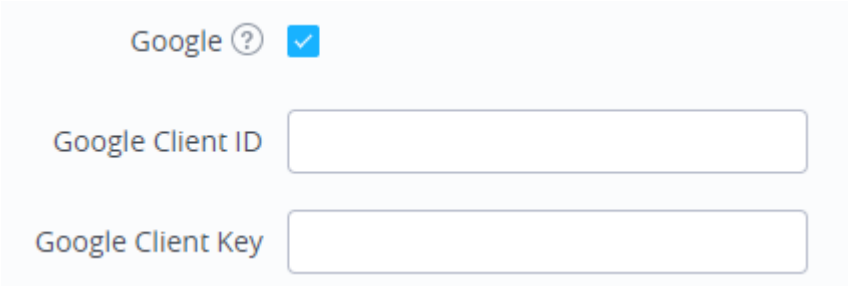
Google Authentication now is added to Captive Portal. Related configuration options are available at Captive Portal→Policy List→Add/Edit→Basic

Select Authentication Type to Social Login Authentication, and then you can select Google.

Next, you will need to configure on Google cloud platform,

Go to https://console.developers.google.com/apis/credentials, and setup your App.

Retrieve you Client ID and Client Key and copy them onto your GWN.

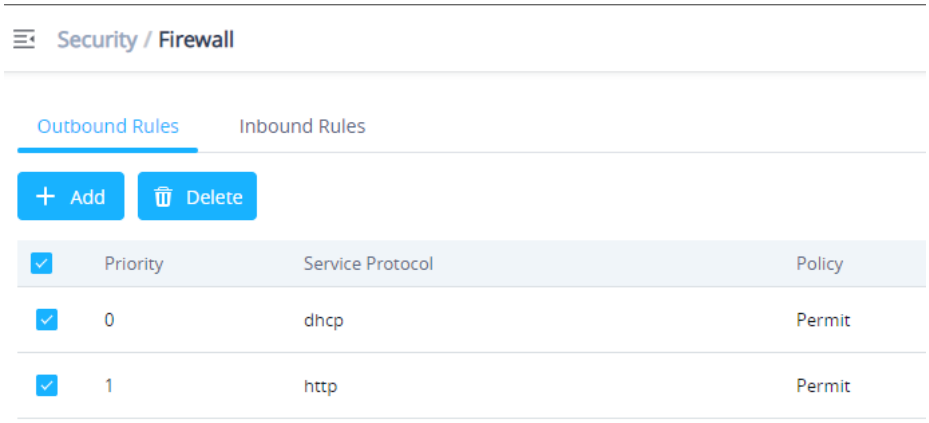


Meanwhile configurate your Oauth redirect URI：

'https://cwp.gwn.cloud:8443/GsUserAuth.cgi?GsUserAuthMethod=4'.

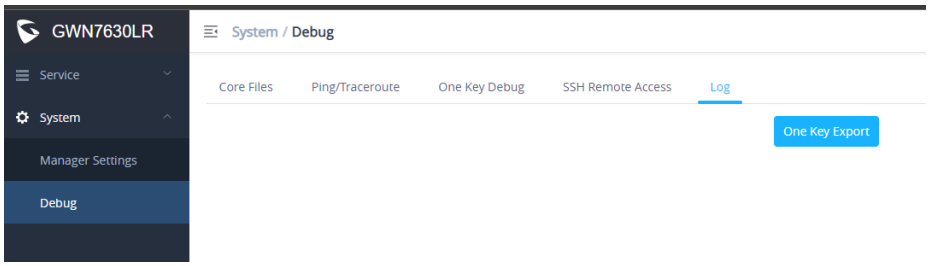
- **Delete inbound and outbound rules in batches**

Now you can delete inbound/outbound rules in batches by checking the box in front of the rules.



- **Save network abnormal log to Flash**

When slave APs lost upper link network to its Master, Master will have no way to get log from Slaves. This scenario is especially common during a Mesh network troubleshooting. Now, with this feature, network can login slave AP's webUI to retrieve the log from interface below:



- **Web lock for failed login**

  Now, GWN AP's webUI access will be locked for 15 mins after 5 login failures.

FIRMWARE VERSION 1.0.19.32

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

7/15/2021

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 3523fcfccbf1d0ad3a06cb4389340fdb
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: b576f7bd25f3728574c885acdb2bd8a4
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 9e37d1d485ba06bc990cc93540a18123
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: a3fcb6dcfbfb086ec89c2c9d59bee6df
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: ebaa7f81a22e33829e1db4d23ee9e9df
- GWN7615 Firmware file name: gwn7615fw.bin
- MD5 checksum: 14883d6401e978630d250ad32f7af563

CHANGES/ENHANCEMENT

- Fixed the security issue from Wi-Fi FragAttacks (GWN7610 / GWN7600 / GWN7600LR).
- Fixed a NAT issue causing some client with fixed IP unable to access external network.
- Fixed a MESH link issue caused by ipv6 environment.

FIRMWARE VERSION 1.0.19.29

PRODUCT NAME

GWN7630 / GWN7630LR / GWN7605 / GWN7605LR / GWN7615

DATE

6/4/2021

FIRMWARE FILE INFORMATION

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: a741ea98e0248271a61cdc331a77cc0d

- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: c9c8d6b79c38b917351192b8f6061957

- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: b86e8467e3a88470456f0f7b151be7a0

CHANGES/ENHANCEMENT

- Fixed the security issue from Wi-Fi FragAttacks (GWN7630 / GWN7630LR / GWN7605 / GWN7605LR / GWN7615).

FIRMWARE VERSION 1.0.19.25

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

3/29/2021

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 033447bf5c51f20099bbf1e3b35dfde8
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 2e5200b8b62891f456fbef68e5613eef
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 8b3528dfb29a671f6fa588cf12df3798
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: 013e13b41757790c3f4ec84decb67fde
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: 1db0b79c378d3071e9d8846fdf0bff82
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: f2f2477224dca9a29d14ad07c17cdf3a

CHANGES/ENHANCEMENT

- Fixed an issue of GWN7602 LAN port incorrect status display.
- Fixed an issue that GWN7630 broadcast an unknown SSID when client bridge is setup.
- Fixed an issue that causes AP to go offline when channel width is changed.

- Fixed an issue of Email SMTP settings not working.
- Fixed an issue of GWN7605lr's 5G radio interface incorrect when Country/Region select Europe and Scene select outdoor.
- Fixed an issue that causes WP810 disconnection when roaming between GWN APs.
- Internal bug fixes.

FIRMWARE VERSION 1.0.19.22/23

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

2/3/2021

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin - 1.0.19.23

  MD5 checksum: ecb2557fd35d59515c7751a3cadd9f9d
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin - 1.0.19.23

  MD5 checksum: 3a53f81c433bec5a9d158e26b47ee25f
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin - 1.0.19.22

  MD5 checksum: 841cdd8ce3ce1bd997d725926239b9de
- GWN7602 Firmware file name: gwn7602fw.bin - 1.0.19.22

  MD5 checksum: 638ac9849fafad42cce401576466a508
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin - 1.0.19.22

  MD5 checksum: 990963089c1eb2c81f0dda9618d1691d
- GWN7615 Firmware file name: gwn7615fw.bin - 1.0.19.22

  MD5 checksum: 8d27194e45c15d78dae61865363a08d5

CHANGES/ENHANCEMENT

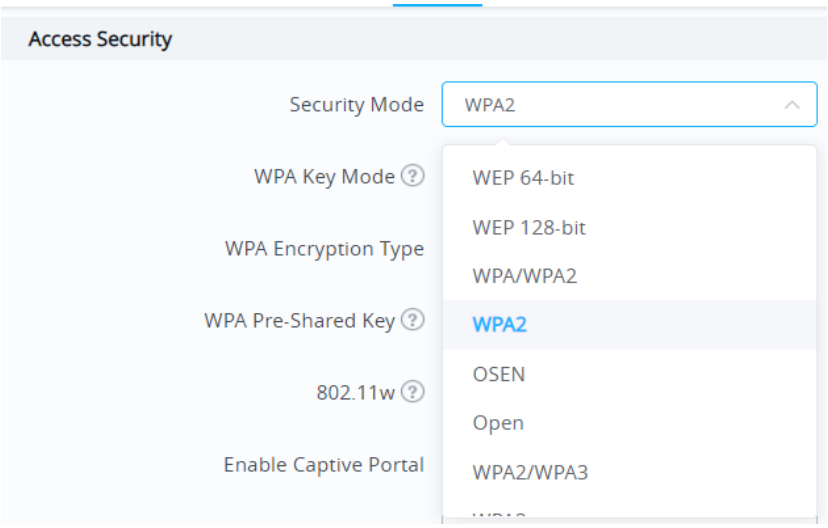
- Added support of **WPA3** (gwn7600/7600lr/7610/7602 does NOT support)
- Added support of **Secondary RADIUS Server**
- Added support of **Rogue AP Alert**

- Added support of **NET port VLAN settings** (gwn7600/7600lr/7610 does NOT support)

NEW FEATURE OVERVIEW

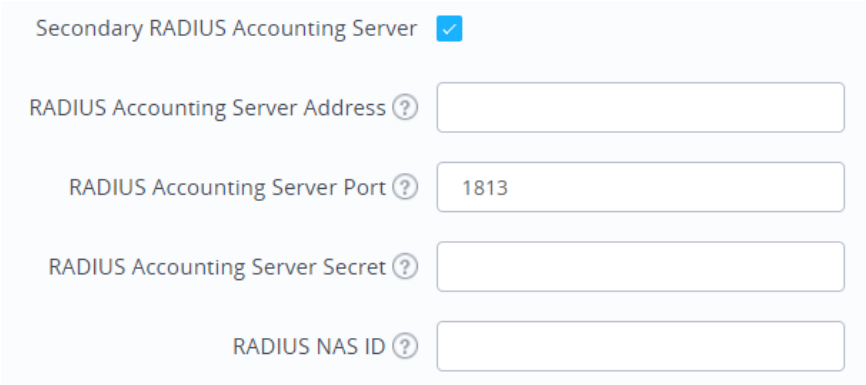
- **WPA3**

  Configuration is available at SSID→Edit→Wi-Fi→Access Security→Security Mode.



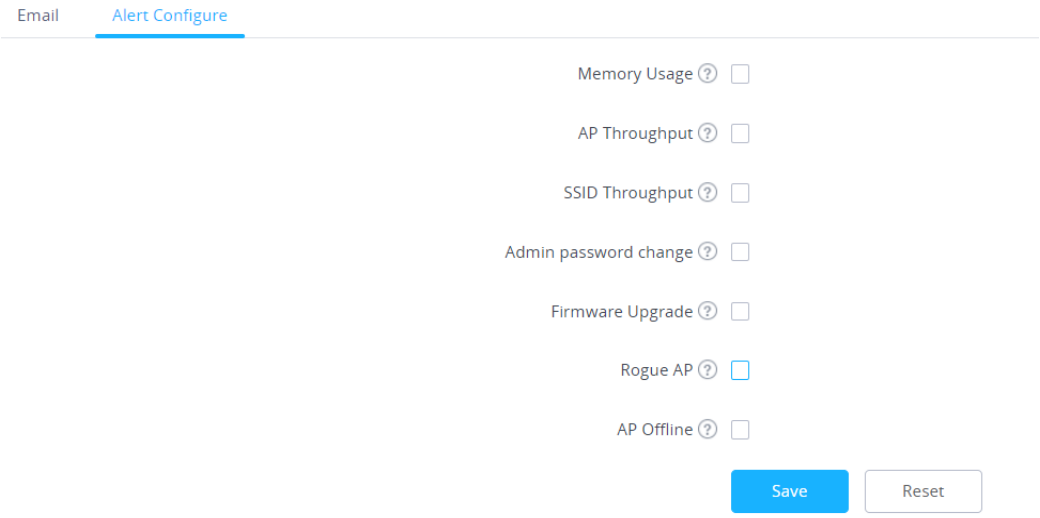
- **Secondary RADIUS Server**

  Configuration is available at SSID→Edit→Wi-Fi→Access Security. Once you choose 802.1x mode, secondary radius server can be configured additional to the primary.



- **Rogue AP Alert**

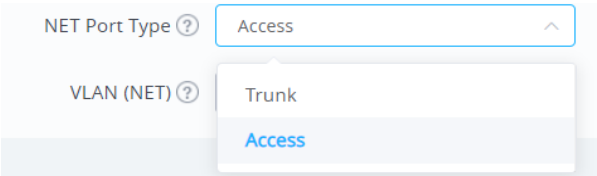
  Configuration is available at System→Alert→Alert configuration→Rogue AP.



- **NET port VLAN settings**

  Configuration is available at Access Points→Configuration→Edit→NET port Type.

  You can configure Trunk port or Access port. When chose Access, you also need to specify its VLAN ID.



FIRMWARE VERSION 1.0.19.15

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

1/20/2021

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 8a8265aab6d3bd03b0f76a0e6a73691e
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: a69514b2d275ace4d67c041d0e1a0cb4
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 073577079373c78e9e8f535ffb2d95a3
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: 4a8edca192626f8c13455676912536a0
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: 5b51ddfd8b8f43aa75625298dc1cc187
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: 5170b60090e052f517c9355d995096d5

CHANGES/ENHANCEMENT

- Fixed a RRM bug that failed to adjust power and channel due to adjacent AP detection failure
- Fixed a NAT mode issue causing client cannot get IP address
- Fixed an issue that illegal IP assigned to AP causes AP to go offline

FIRMWARE VERSION 1.0.19.14

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

12/23/2020

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: f1f997996b45afc86a258949152506aa
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 6b2cad61637d70af024501febbfcd615
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: d8c46486e455a952f22cf709627b7a53
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: dcdf2c2a4a458a27f4fd8e21ff47edc9
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: a88ee8d9358f44e2ed480f07f13d83ad
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: c1d4e91a9133d932d761a4c680c0f176

CHANGES/ENHANCEMENT

- Fixed a system crash for GWN7630
- Fixed an always offline issue of Mesh RE-AP
- Fixed a bug causes packet random drops on SSID with VLAN tag

- Fixed an AP database issue cause no top statics displays on controller
- Fixed an issue that snmpd could not be stopped, which leads to AP unable to reboot
- Fixed an issue that AP may response on DHCP client discover

FIRMWARE VERSION 1.0.19.9

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

11/23/2020

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 91ff30b55a7bce19b907a062bc5961e5
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: f8c3c17cd66d2bad98cf7f0160b34b5d
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 7677853facb5b3e289f327778223646d
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: ae82645da8244ac4bc2c145340154720
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: ee5d903f4ab6675e2ff7e049c6b8569b
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: c3b579fa79b130ae63bc31ac1469a75a

CHANGES/ENHANCEMENT

- Fixed a system crash
- Fixed TCP connection closes randomly when SSID Mode is set to NAT mode

FIRMWARE VERSION 1.0.19.5

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

10/26/2020

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: a262250fc097ef0b813fb763cfa1e1da
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 8291180c86dbcefc98ce632f19cd55d5
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 23966c749f4c8620ed91886a81cc8aaf
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: b16e2e12cc31af8cc00be07bf402723f
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: 28d6bc126effbb57e751589484d19b76
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: fe9e32ed72a645c2330b4f63818848ae

CHANGES/ENHANCEMENT

- Fixed a memory leak in syslog.

FIRMWARE VERSION 1.0.19.4

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 / GWN7605 / GWN7605LR / GWN7615

DATE

10/14/2020

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: c65e623737970a8d7c424f1ce3952e6f
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 77720de92704ba7a0f4055c4edc80997
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: a5791f5336690abcdebea8f909c0bcd6
- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: ccda6948a0ae687ce8394440fa9f6c38
- GWN7605/GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: 3471df0289af7b0d61d44560e715faba
- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: 81414c1a8b3893def9da843e6f1e7132

CHANGES/ENHANCEMENT

- Added support of **Multicast/Broadcast Suppression**
- Extended support of **RRM** to GWN Cloud and remaining AP models
- Added support of **Active IGMP** for feature Convert IP multicast to unicast enhancement

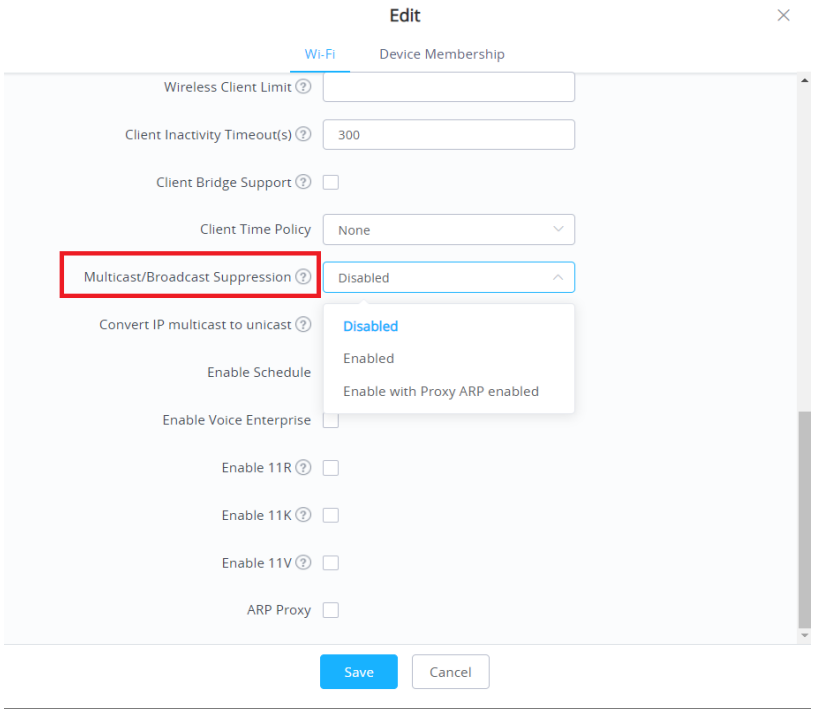
- Added support of **Rogue AP Detection**
- Added support of **802.11w**
- Added support of **Auto TX Power**
- Added **Captive Portal Enhancement**
- Added support of **SNMP**
- Added support of **Allow DHCP Option 43 to override GWN Manager Address**
- Added enhancement as **AP local master Email/Notification optimization**
- Added enhancement as **AP local master WebUI optimization**
- Added support of more DFS Channels
- **FCC and IC DFS** for 7605/7605LR/7615

  ANATEL(Brazil) DFS for 7600/7630/7602
- Added support of **NAT** (GWN7610 not supported)
- Added support of **Firewall**
- Added support of **Hotspot 2.0** Beta (GWN7610 & GWN7602 not supported)

NEW FEATURE OVERVIEW

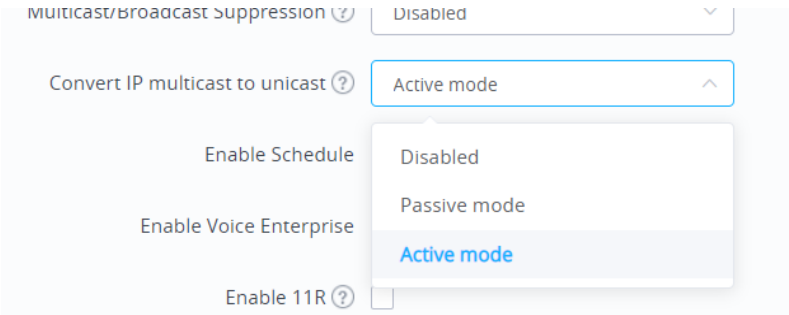
- **Multicast/Broadcast Suppression**

  Broadcast or Multicast packet consumes a lot of air bandwidth. By enable Multicast/Broadcast Suppression, all the broadcast and multicast packages will be discarded except DHCP/ARP/IGMP/ND. Enable with ARP Proxy is also available. Configuration is available at SSIDs→Wi-Fi→Advanced as below:



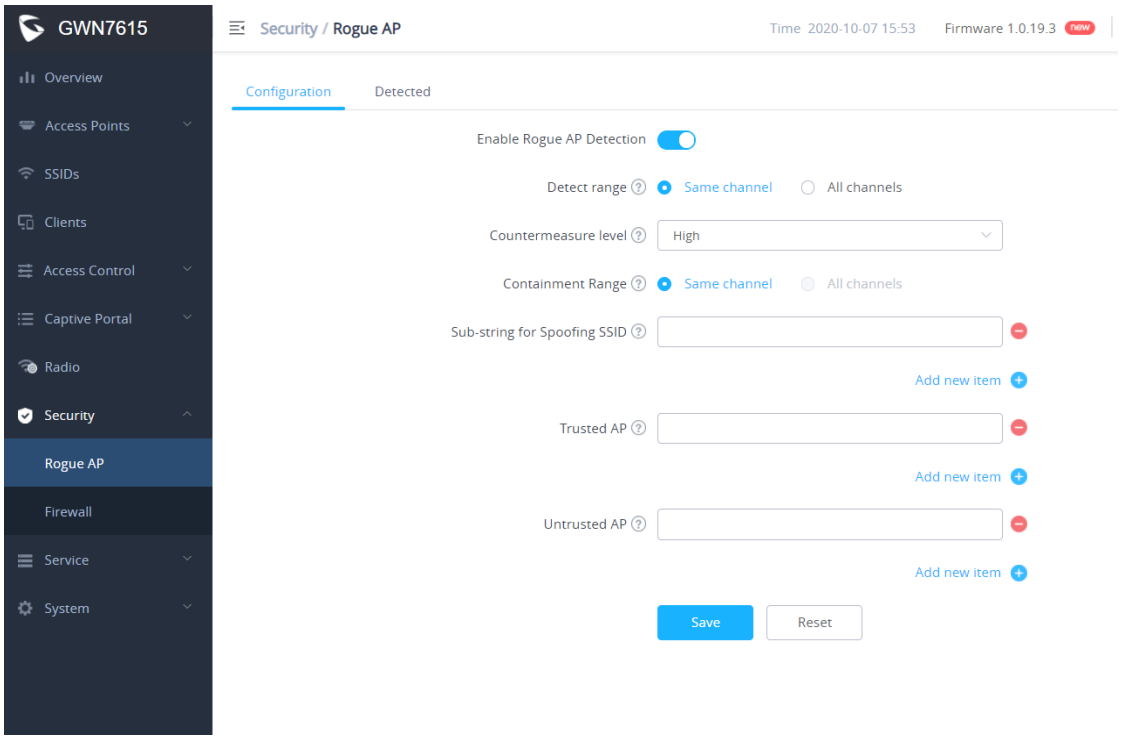
- **Active IGMP**

  This option will optimize the multicast to unicast feature in the case that there is no multicast router in LAN. By enable it, AP will initiatively broadcast IGMP queries to keep updating of the IGMP snooping items. Configuration is available at SSIDs→Wi-Fi→Advanced.



- **Rogue AP Detection**

New security feature to detect rogue AP in the service area.



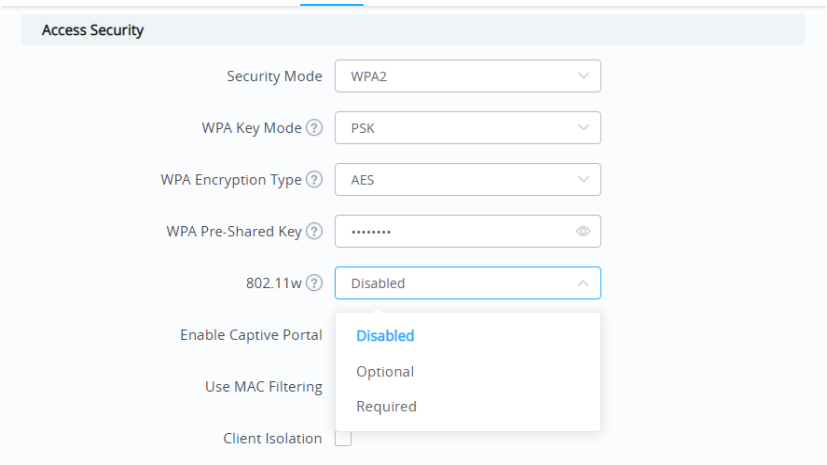
- **802.11w**

Configuration is available under SSIDs→Wi-Fi→Access Security.

2 modes are available for 802.11w: Optional and Required.

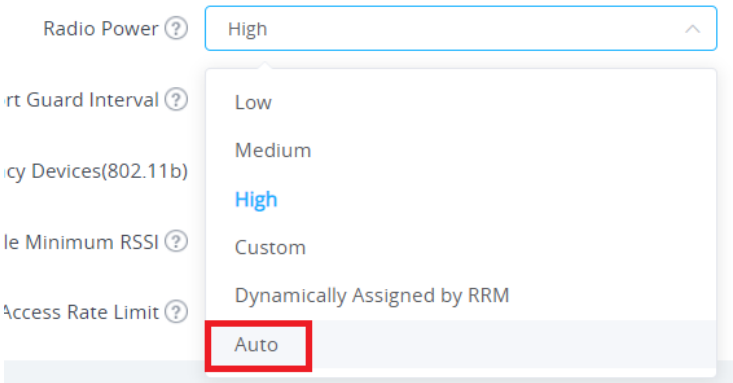
Optional: Either 802.11w supported or unsupported clients can have the network access authority.

Required: only the client supported 802.11w have the network access authority.



- **Auto TX Power**

  Configuration is available under Radio→2.4G/5G→Radio Power



- **Captive Portal Enhancement**

  1) Enable HTTPS Function Optimization

     Original "Enable HTTPS" is divided into two options

     a. Enable HTTPS Redirection: If enabled, both HTTP and HTTPS requests sent from stations will be redirected by using HTTPS protocol. And station may receive an invalid certification error while doing HTTPS browsing before authentication. If disabled, only the http request will be redirected.

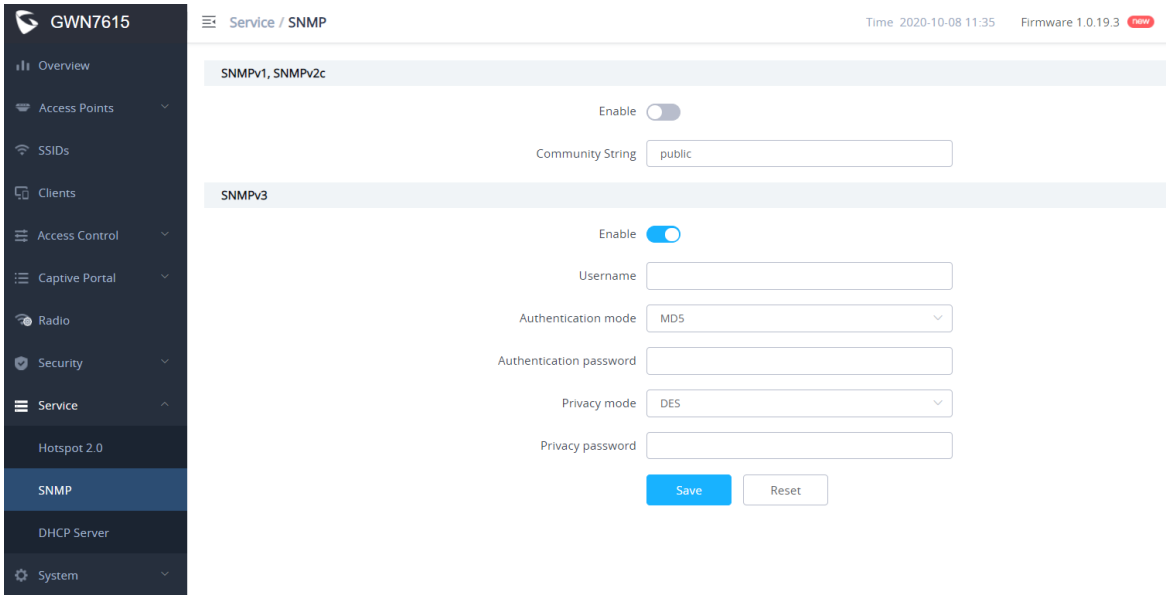
     b. Enable Secure Portal: If enabled, unauthorized guests will be redirected to the splash page by using HTTPS protocol. If not, the HTTP protocol will be used.

  2) New option - Idle Timeout: Specify the idle timeout value for guest network connection. Once timed out, guest should re-authenticate for further network use. Please note that this option is not applicable to voucher guests.

  3) Portal Page loading optimization: resolved some loading issue

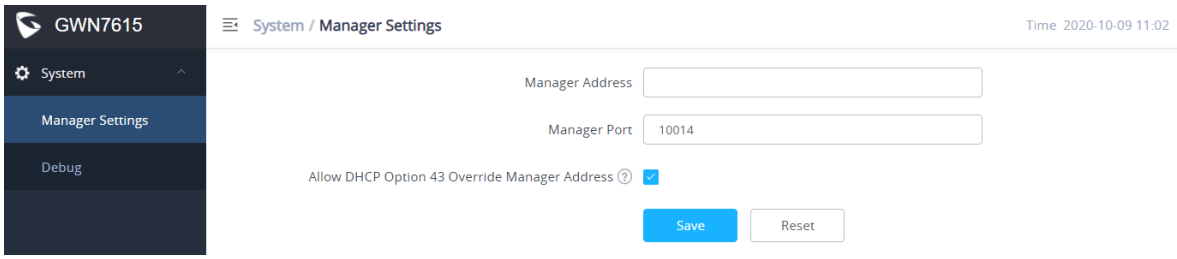
- **SNMP**

  Configuration is available under Service→SNMP



- **Allow DHCP Option 43 to override GWN Manager Address**

  This configuration is available when admin login in Slave mode. It is enabled by default.



- **AP local master Email/Notification optimization**

  Now Master AP centralize all events from slaves and send Email/Notification events, instead of having each slave send independently.

- **AP local master WebUI optimization**

  Now local master WebUI matches GWN Cloud and GWN Manager WebUI.

- **FCC and IC DFS** for 7605/7605LR/7615

ANATEL(Brazil) DFS for 7600/7630/7602

Below it the current DFS table for GWN APs as of 1.0.19.4

1.0.19.4	CE	RCM	FCC	IC	ANATEL(Brazil)
GWN7610	-	-	-	-	-
GWN7600	-	-	-	-	Yes
GWN7600LR	Yes	-	-	-	-
GWN7630	Yes	Yes	Yes	Yes	Yes
GWN7630LR	Yes	Yes	Yes	Yes	-
GWN7602	Yes	Yes	Yes	Yes	Yes
GWN7605	Yes	Yes	Yes	Yes	-
GWN7605LR	Yes	Yes	Yes	Yes	-
GWN7615	Yes	Yes	Yes	Yes	-

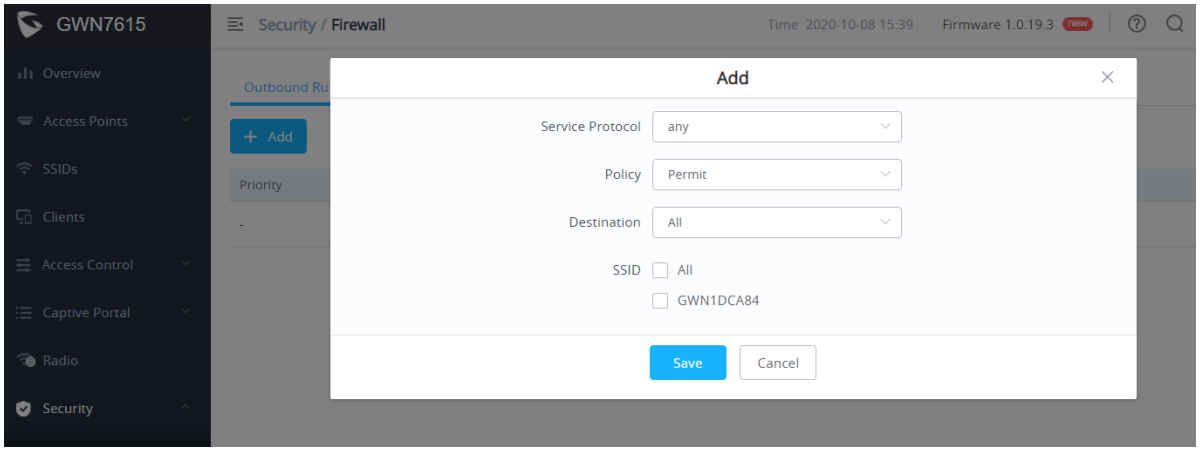
- **NAT** (GWN7610 not supported)

  NAT feature is added to GWN AP. Along with DHCP server and firewall feature, GWN AP now can perform as a lightweight home router.

  Configuration is available at Service→DHCP Server→NAT Pool

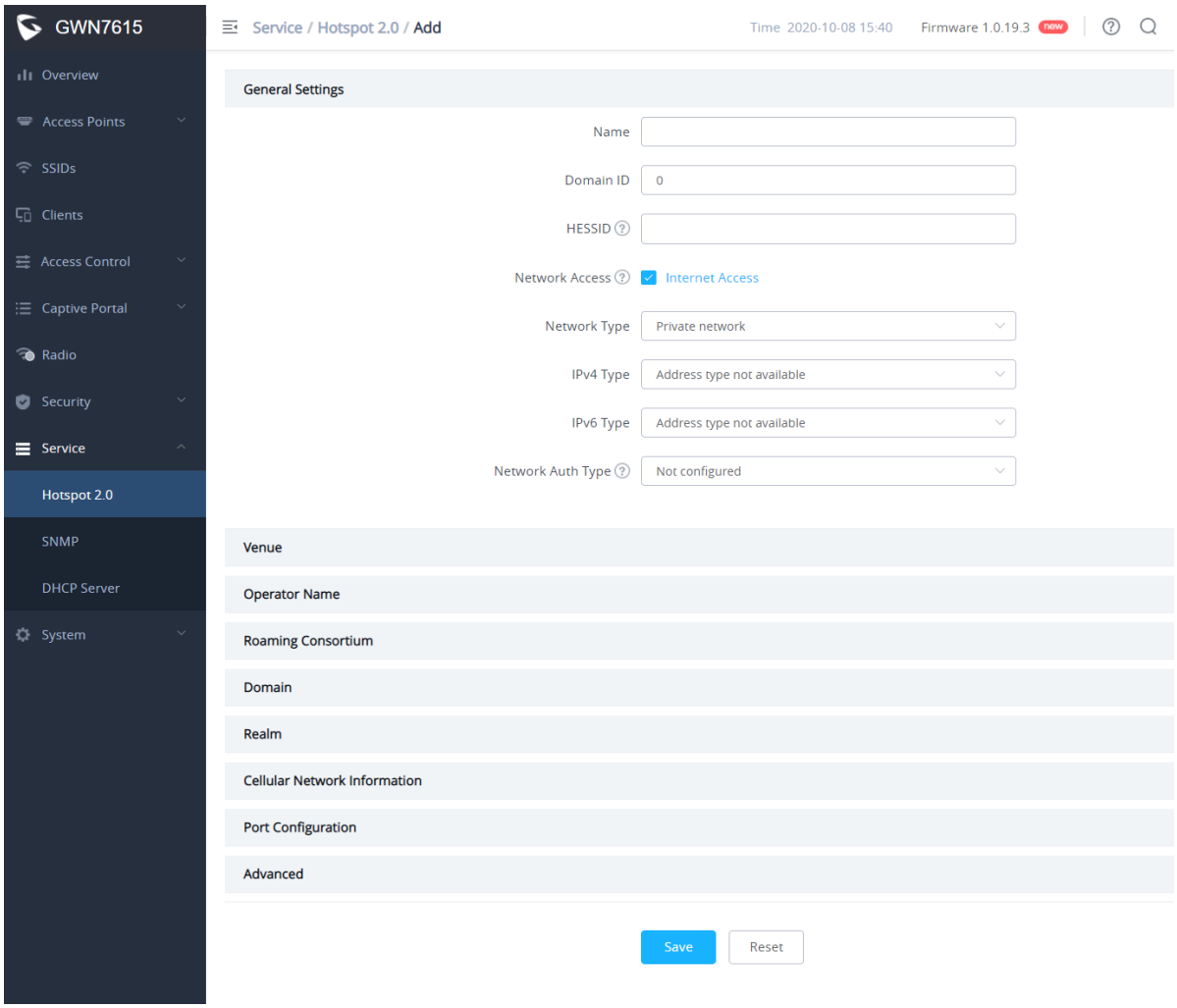
- **Firewall**

  Configuration is available at Security→Firewall→Outbound/Inbound Rules



- **Hotspot 2.0** [Beta] (GWN7610 & GWN7602 not supported)

Configuration is available at Service→Hotspot 2.0



FIRMWARE VERSION 1.0.15.18

PRODUCT NAME

GWN7605LR / GWN7615 – 1.0.15.18

DATE

6/18/2020

FIRMWARE FILE INFORMATION

- GWN7605LR Firmware file name: gwn7605fw.bin

  MD5 checksum: f2950a672756cf906076965a3bffe3ba

- GWN7615 Firmware file name: gwn7615fw.bin

  MD5 checksum: e57ff82ddac585f005ff327de9fd58f3

CHANGES/ENHANCEMENT

- Added GWN7605LR and GWN7615 two models into GWN AP family

Please refer to below table for the up to date DFS support matrix.

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 – 1.0.15.20 GWN7605 / GWN7605LR / GWN7615 – 1.0.15.18				
6/18/2020	CE	RCM	FCC	IC
GWN7610	-	-	-	-
GWN7600	-	-	-	-
GWN7600LR	Yes	-	-	-
GWN7630	Yes	Yes	Yes	Yes
GWN7630LR	Yes	Yes	Yes	Yes
GWN7602	Yes	Yes	Yes	Yes
GWN7605	Yes	Yes	-	-
GWN7605LR	Yes	Yes	-	-
GWN7615	Yes	Yes	-	-

FIRMWARE VERSION 1.0.15.18 & 1.0.15.20

PRODUCT NAME

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 – 1.0.15.20

GWN7605 – 1.0.15.18

DATE

5/21/2020

FIRMWARE FILE INFORMATION

- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: d490a7c670e15c67698b64949196fe77

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: d1b97769ef66cde9793a2ec8e763a513

- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 54e00a2d6610c690e51822f2f4c29ebd

- GWN7605 Firmware file name: gwn7602fw.bin

  MD5 checksum: 2b142615d2598570c65eaec0427a8d5d

- GWN7605 Firmware file name: gwn7605fw.bin

  MD5 checksum: f2950a672756cf906076965a3bffe3ba

CHANGES/ENHANCEMENT

- Added support of more DFS channels
- Fixed internal bugs

Please refer to below table for the up to date DFS support matrix.

GWN7610 / GWN7600 / GWN7600LR / GWN7630 / GWN7630LR / GWN7602 – 1.0.15.20 GWN7605 – 1.0.15.18				
5/21/2020	CE	RCM	FCC	IC
GWN7610	-	-	-	-
GWN7600	-	-	-	-
GWN7600LR	Yes	-	-	-
GWN7630	Yes	Yes	Yes	Yes
GWN7630LR	Yes	Yes	Yes	Yes
GWN7602	Yes	Yes	Yes	Yes
GWN7605	Yes	Yes	-	-

FIRMWARE VERSION 1.0.15.15

PRODUCT NAME

GWN7602

DATE

4/24/2020

IMPORTANT UPGRADING NOTE

- Due to the security enhancement, unless Legacy TLS Compatibility (only available on 1.0.15.4 or higher version) is enabled, master AP on 1.0.15.4 or higher firmware will not compatible with slave AP on firmware lower than 1.0.15.4. Master AP on firmware lower than 1.0.15.4 will also not be compatible with slave AP on firmware 1.0.15.4 or higher. Cloud and GWN Manager will still support both firmwares.
- Do not use 1.0.15.x AP firmware with GWN7000 1.0.9.4 or lower version. Only GWN7000 1.0.9.5 or higher supports TLS 1.2.

FIRMWARE FILE INFORMATION

- GWN7602 Firmware file name: gwn7602fw.bin

  MD5 checksum: 8546ca24b002c1e429557d7a920a1a3f

PRODUCT LIMITATION

GWN7602 Feature Difference with other GWN APs:

- GWN7602 captive portal does not support https.
- GWN7602 can't be master and can only be slave.
- GWN7602 mesh feature only support Re (Repeater) roll and cannot cascading downward.
- GWN7602 support switching and VLAN on LAN ports.
- GWN7602 only support 4 SSID.

- Right now, other GWN AP's local master has not supported 7602 management yet.
- GWN7602 does not support advance GWN AP features: band steering/client steering/RRM/wireless bridge/airtime fairness/minimum rate.

CHANGES/ENHANCEMENT

- Added LED pattern of yellow to indicate Mesh disconnection
- Added support of FCC DFS for gwn7602
- Added support of CE DFS for gwn7602
- Added support of RCM DFS for gwn7602
- Added support of IC DFS for gwn7602
- Fixed Social Facebook Auth issue
- Fixed TLS Security Issue
- Improved Wi-Fi stability

FIRMWARE VERSION 1.0.15.4 & 1.0.15.6

PRODUCT NAME

GWN7300/GWN7630LR - 1.0.15.6

GWN7610/GWN7600/GWN7600LR – 1.0.15.4

DATE

3/16/2020

IMPORTANT UPGRADING NOTE

- Due to the security enhancement, unless Legacy TLS Compatibility (only available on 1.0.15.4 or higher version) is enabled, master AP on 1.0.15.4 or higher firmware will not compatible with slave AP on firmware lower than 1.0.15.4. Master AP on firmware lower than 1.0.15.4 will also not be compatible with slave AP on firmware 1.0.15.4 or higher. Cloud and GWN Manager will still support both firmwares.
- Do not use 1.0.15.x AP firmware with GWN7000 1.0.9.x or lower version.

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 907ec3840d2f85e35ef6498a0f1e19c6
- GWN7600/GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: a735272124f62b34ab90a286200a705e
- GWN7630/GWN7630LR Firmware file name: gwn7630fw.bin

  MD5 checksum: 8d5cea02bea2ea5e6aff299d3995ba02

CHANGES/ENHANCEMENT

- Added **Support for GWN Manager**
- Added support for **FCC DFS channels** on gwn7630/gwn7630lr

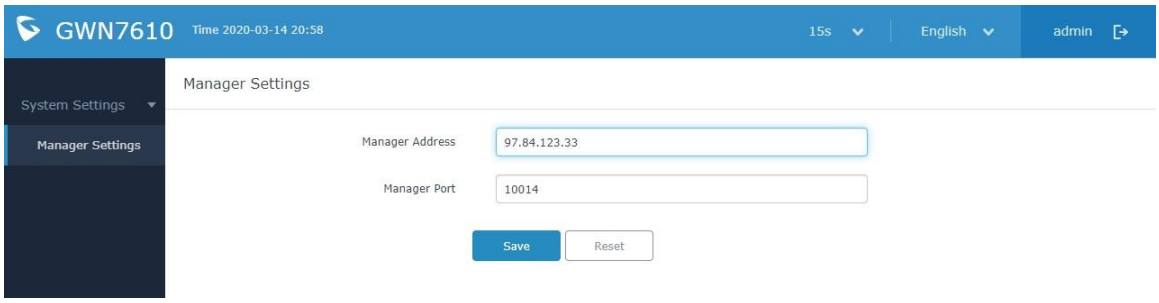
- Added LED pattern of yellow to indicate Mesh disconnection
- **Security enhancement: Upgraded TLS to version 1.2**
- Internal bug fixes

NEW FEATURE OVERVIEW

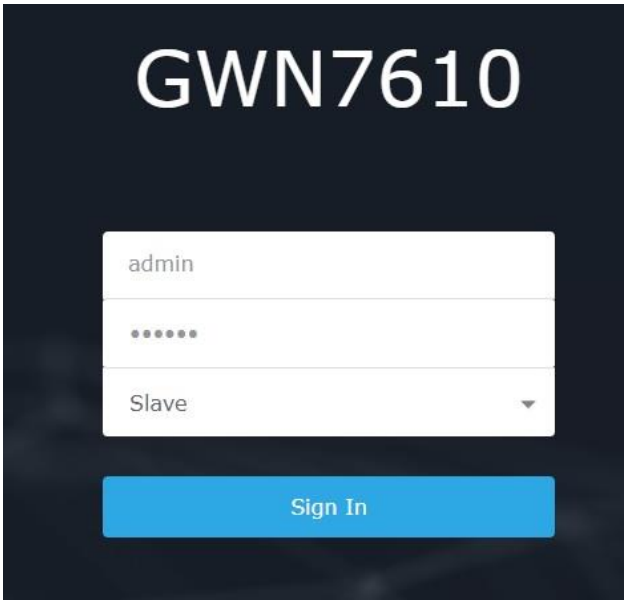
- **Support for GWN Manager**

  1) Now APs can be discovered by GWN Manager.

  2) With the support for GWN Manager being added, a layer 3 discovery feature has been added too.



When device boot in factory default, by login in Slave mode, you can add the IP address of your GWN



Manager. After save and apply, it may take few minutes for GWN Manager to be able to adopt the AP.

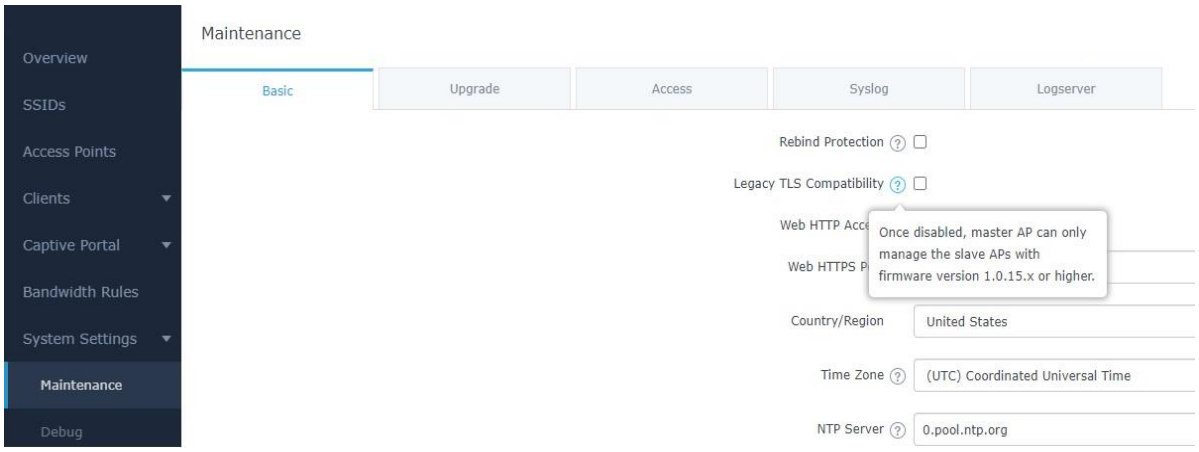
- **FCC DFS channels**

  Below is the DFS channel support table for GWN APs.

3/16/2020	CE	FCC
GWN7610	No	No
GWN7600	No	No
GWN7600LR	Yes	No
GWN7630	Yes	Yes
GWN7630LR	Yes	Yes
GWN7602	Yes	No

- **Security enhancement: Upgraded TLS to version 1.2**

  Due to the security enhancement, unless **Legacy TLS Compatibility** (only available on 1.0.15.4 or higher version) is enabled, master AP on 1.0.15.4 or higher firmware will not compatible with slave AP on firmware lower than 1.0.15.4. Master AP on firmware lower than 1.0.15.4 will also not be compatible with slave AP on firmware 1.0.15.4 or higher. Cloud and GWN Manager will still support both firmwares.



FIRMWARE VERSION 1.0.11.8

PRODUCT NAME

GWN7630

DATE

11/14/2019

FIRMWARE FILE INFORMATION

- GWN7630 Firmware file name: gwn7630fw.bin

  MD5 checksum: b62ebfd577024eb6cfb05ce54be7b9e8

CHANGES/ENHANCEMENT

- Added support of DFS channel in EU for GWN7630. Now both GWN7600LR and GWN7630 support DFS channel in EU.
- Internal fix for possible re-association of expired Vouchers.

FIRMWARE VERSION 1.0.11.2

PRODUCT NAME

GWN7610; GWN7600; GWN7600LR; GWN7630

DATE

10/16/2019

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: bc53beca73855b62103797b252aaa2d7

- GWN7600/7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 50bcfa41627545b098ef1cbca0af1ac4

- GWN7630 Firmware file name: gwn7630fw.bin

  MD5 checksum: b62ebfd577024eb6cfb05ce54be7b9e8

CHANGES/ENHANCEMENT

- Internal fix for network capture uploading issue from Access Point to Cloud.
- Internal fix for possible re-association of expired Vouchers.
- Added feature of **Site Survey** at GWN Cloud only
- Added feature of **Minimum Rate Control**
- Added feature of **SSH Remote Access**
- Added feature of **External Portal Support Socifi Platform**
- Added feature of **Client inactivity timeout**
- Added feature of **Upgrade Regularly at Cloud**
- Added feature of **Client Steering** [Beta]: Sticky Client Steering and Load Balancing Steering
- Enhanced feature of **Voucher: display of remaining bytes**
- Enhanced feature of **Takeover: Supports batch operations**

- Enhanced feature of **Dynamic VLAN**
- Changed **LED pattern**
  - When AP is not managed, AP will show solid purple instead of flashing purple
- Changed **Local Master External Portal configuration**
  - Combine all supported platforms into one configuration
- Changed **default setting of Mesh to OFF**
- Removed **Wechat from Wi-Fi portal authentication**
  - Tencent shut down the service.

NEW FEATURE OVERVIEW

- **Site Survey**

  This feature will allow Network Administrator to scan the Wi-Fi environment. The scan result will provide useful information for Admin to plan and adjust the Wi-Fi deployment or settings, in order to optimize the Wi-Fi performance of the site.

  Site survey is only available on GWN cloud. It's located at **NETWORK→Insight→Site Survey**.

- **Minimum Rate Control**

  The settings of this feature are located at **NETWORK→SSIDs→Configuration→Edit→Wi-Fi Settings→ Enable Minimum Rate**. By enable this, it will help to eliminated the legacy connection which slow the total performance of the Wi-Fi network.

- **Client Steering** [Beta]

  This feature will help Wi-Fi client to roam to other APs within same Network. Roaming threshold can be configured under **NETWORK→Access Points→Configuration→Edit→Client Steering** by parameters of **RSSI Threshold** and **Client Access Threshold**. Both parameters will show up only when **Client Steering** is enabled.

- **SSH Remote Access**

  This feature enables SSH access from GWN cloud to your AP device, and this is mainly for extra troubleshooting method. To enable this, you can find configuration at **NETWORK→Access Points→Status →Click on the AP→Debug**.

- **External Portal Support Socifi Platform**

  This is supported by **Universal Platform** configuration under **NETWORK→Captive Portal→Policy List→ Add→Splash Page: External→Platform: Universal Platform**.

- **Client inactivity timeout**

  This feature will remove the Client record from current Client list, in order to generate accurate report. Default was 300 seconds, and now it's configurable at **NETWORK→SSIDs→Configuration→Edit→Wi-Fi Settings→Client Inactivity Timeout**.

- **Upgrade Regularly at Cloud**

  This feature allows APs to check latest firmware and upgrade by a preassigned schedule. Configuration is available at **NETWORK→System→Upgrade→Upgrade Time→Upgrade Regularly**. Schedule is configured at **NETWORK→System→Schedule**.

- **Enhanced feature of Dynamic VLAN**

  Now when using 802.1X authentication on your SSID with dynamic VLAN assignment. Admin does not need to create all VLAN SSIDs to match destination VLAN. On 1.0.11.1, AP will trunk its Ethernet with the VLAN assigned to Wi-Fi client through 802.1X.

FIRMWARE VERSION 1.0.9.13

PRODUCT NAME

GWN7610; GWN7600; GWN7600LR;

DATE

6/24/2019

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 1aefac86dc272944c05d2557c63dd190

- GWN7600/7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: f411e92c88a0ede5a48329963ac96682

CHANGES/ENHANCEMENT

- Added new OUI “C0:74:AD” support for GWN7610, GWN7600, and GWN7600LR. GWN7630LR already supported it on 1.0.9.12.

FIRMWARE VERSION 1.0.9.12

PRODUCT NAME

GWN7610; GWN7600; GWN7600LR; GWN7630

DATE

6/11/2019

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: a1c0e58525efa9513c0581dab3059496

- GWN7600/7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: 05fcb911ef517b1ab6e423e7abee5de8

- GWN7630 Firmware file name: gwn7630fw.bin

  MD5 checksum: 5cd325ecc1278d547e4643fe00e19330

CHANGES/ENHANCEMENT

- Added feature of **Slave AP Transfer**
- Added feature of **Client Negotiate Speed Display**
- Added feature of **One Key Debugging**
- Enhanced Captive Portal by feature of **HTTPS Portal Trusted Certificate with Auto Update**

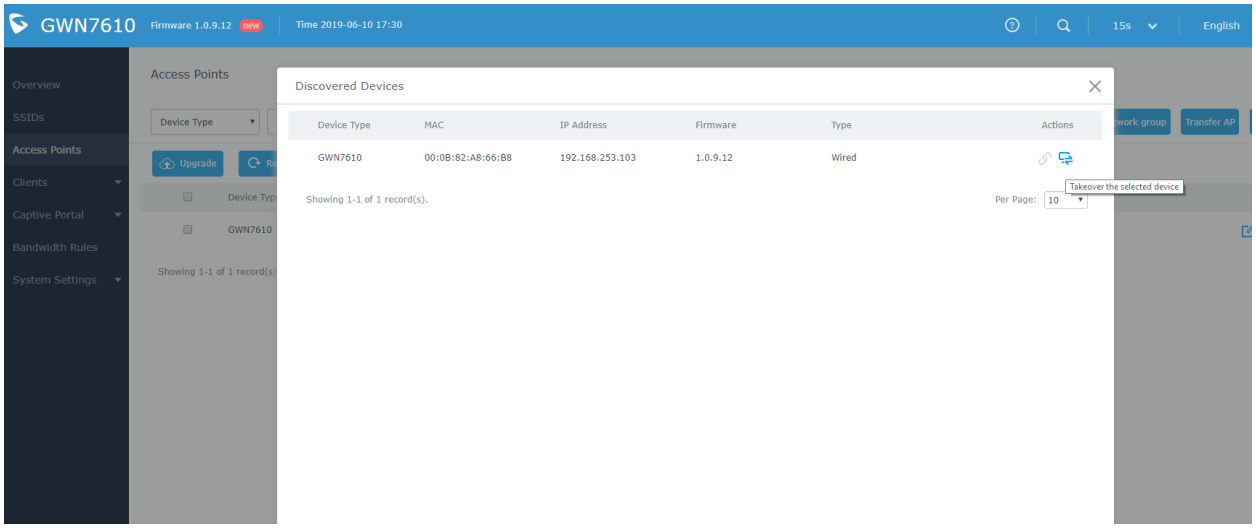
NEW FEATURE OVERVIEW

- **Slave AP Transfer**

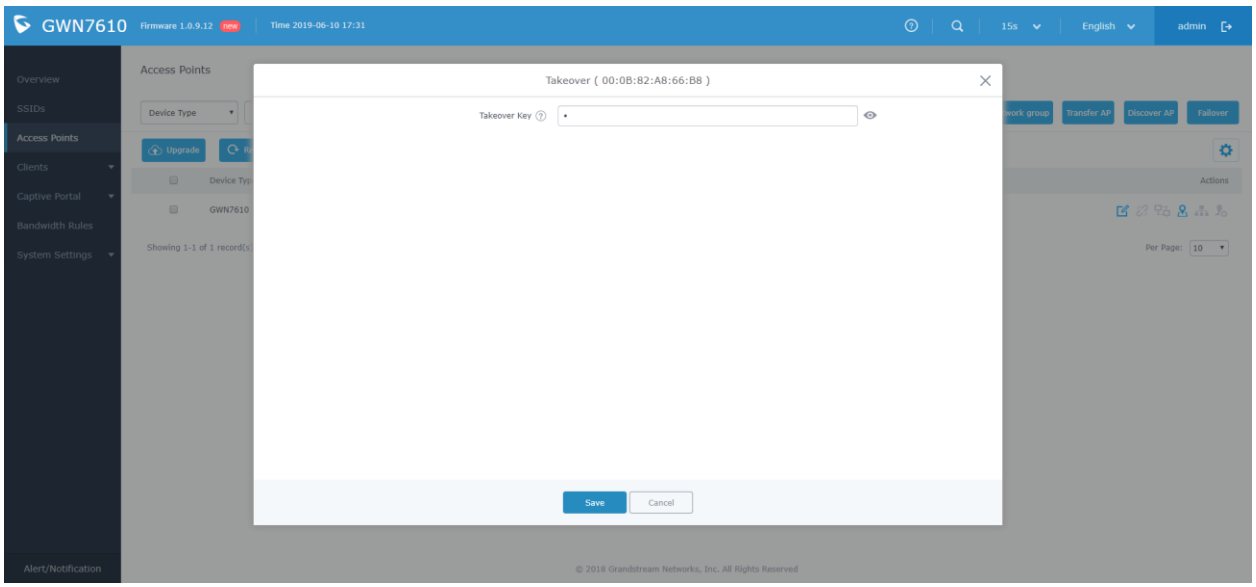
  This is an enhancement feature upon **Failover Master**

  . Now, when a master fails, even there is no failover master configured, Admin can still bring up a new Master and uses the old master key (admin password) to take over old slaves.

When admin add a new master into the master-failed network. New master will be able to discover the paired old slave as below.

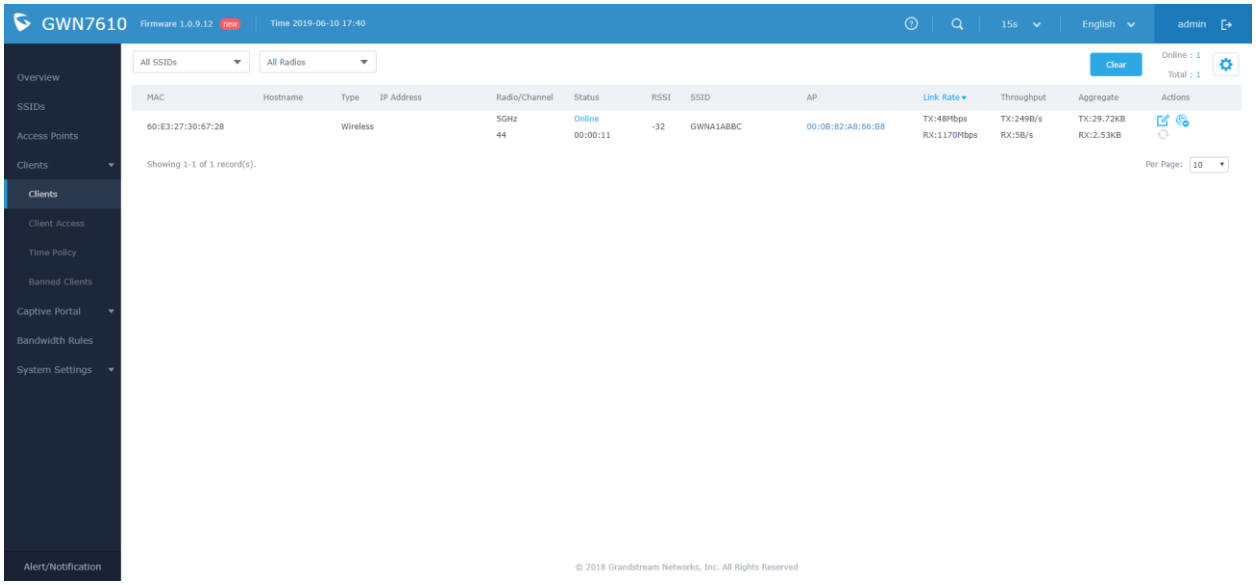


By Clicking on the “Takeover the selected device”, admin will be asked for the takeover key, which is the old master admin password.



Once takeover key is validated, slave AP will be transferred to the new master.

- **Client Negotiate Speed Display**

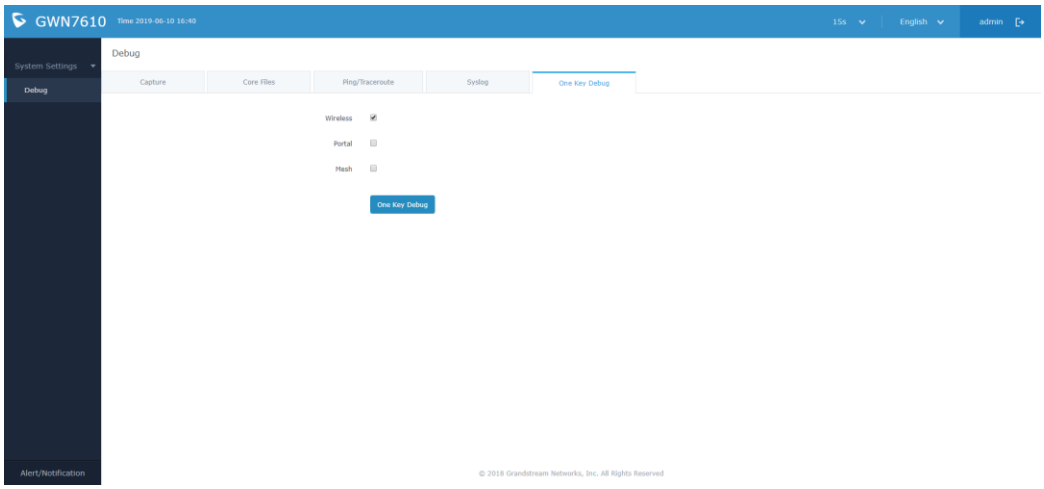


This is displayed as **Link Rate** under Clients page.

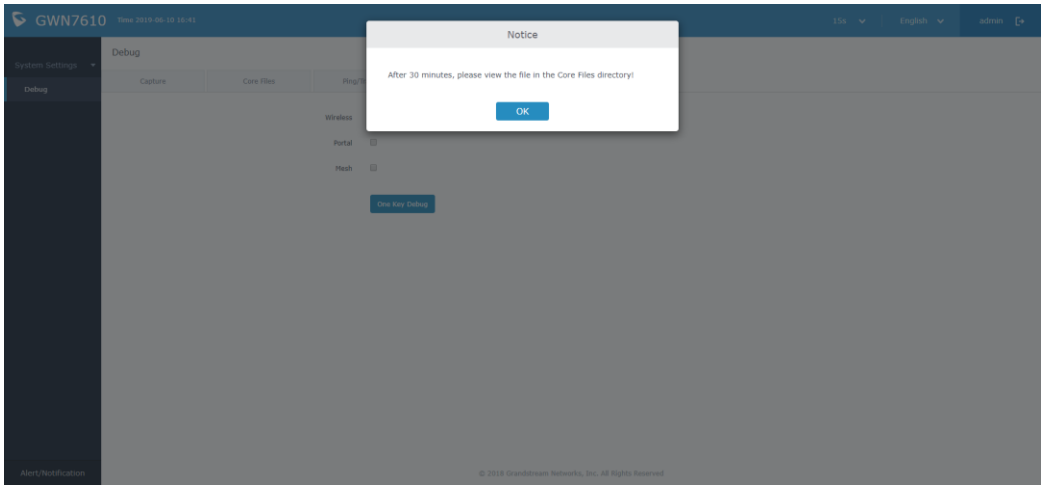
- **One Key Debugging**

For better local troubleshooting data collection, now slave APs all have their own web page login.

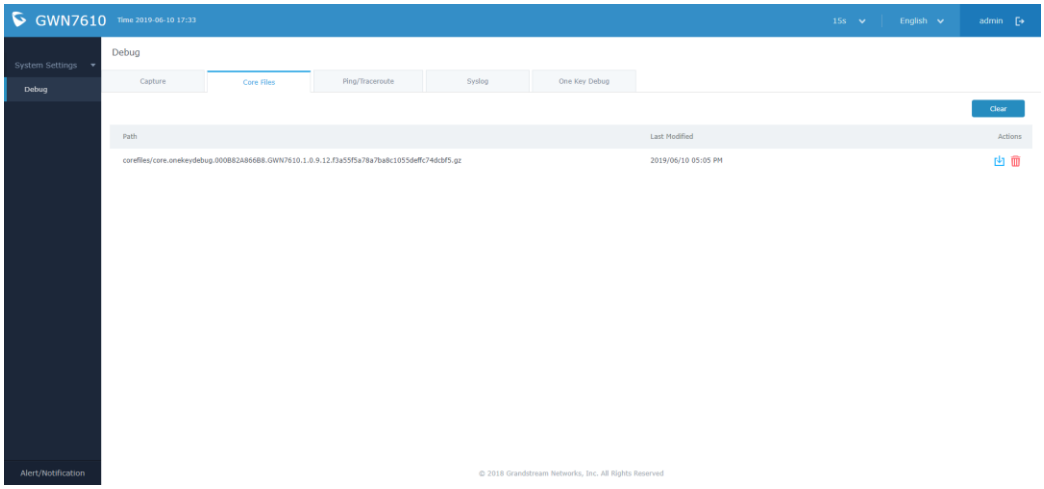
Once login, you will see Debug page as below



Besides original debugging methods. Now you have new method as One Key Debug.



Once activated, in 30 minutes, this AP will generate local debug core file.



- **HTTPS Portal Trusted Certificate with Auto Update**

  This feature will solve the untrusted certificate warning reported by web browser in your HTTPS enabled captive portal deployment.

FIRMWARE VERSION 1.0.8.18

PRODUCT NAME

GWN7610; GWN7600; GWN7600LR

DATE

1/10/2019

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: 0057d240a1dee02e126d80308f5395c4

- GWN7600/7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: f1166de7f2a1a51ca96f242c8da518f2

IMPORTANT UPGRADING NOTE

- In order to enable your AP's capability of connecting GWN Cloud EU server, AP needs to be upgraded to 1.0.8.17 or above. Otherwise, your AP will always be offline from your EU server portal.

CHANGES/ENHANCEMENT

- Added feature of **Advertisement**[1] for Captive Portal
- Added feature of **Custom Field**[1] for Captive Portal Splash Page
- Added feature of **ARP Proxy**
- Added feature of **Clear client data**[1]
- Enhanced Event log by **WiFi authentication event**[1]
- Enhanced Bandwidth Rules by adding option to **limit bandwidth Per-Client** and adding **Total Bandwidth Usage**[1] on Overview Bandwidth Chart
- Added **EU Server support**[1]

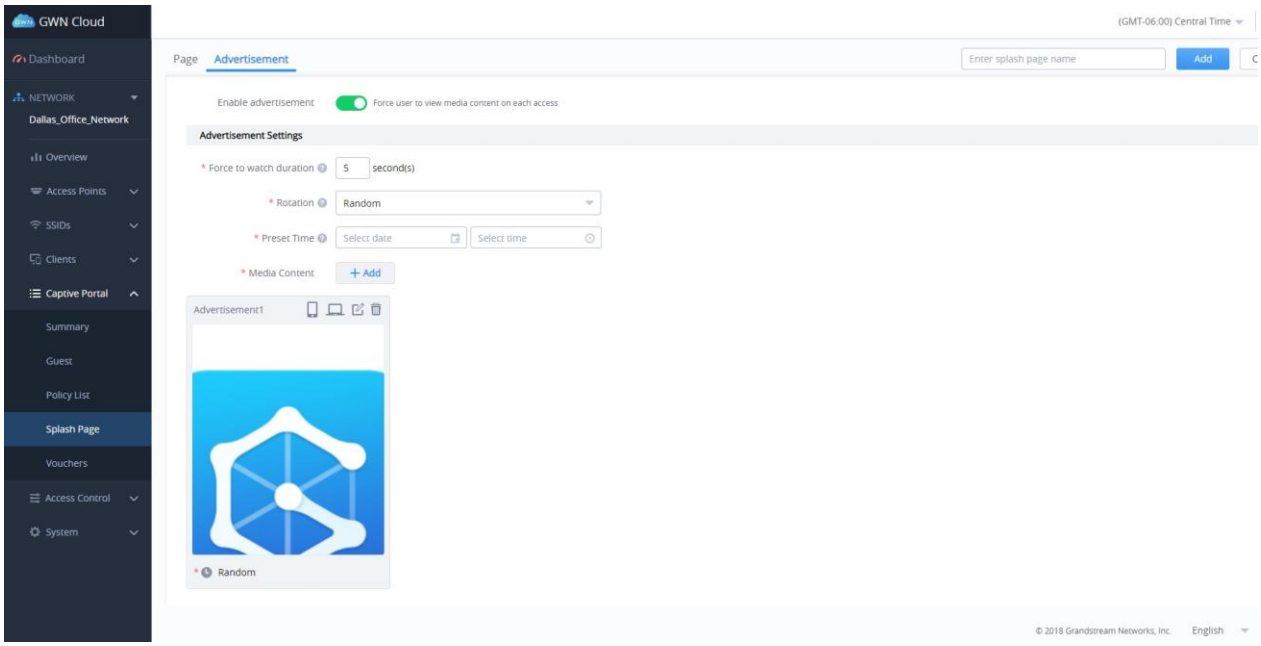
[1] *This feature is only available on GWN Cloud, and local master does not have it.*

NEW FEATURE OVERVIEW

- **Advertisement**

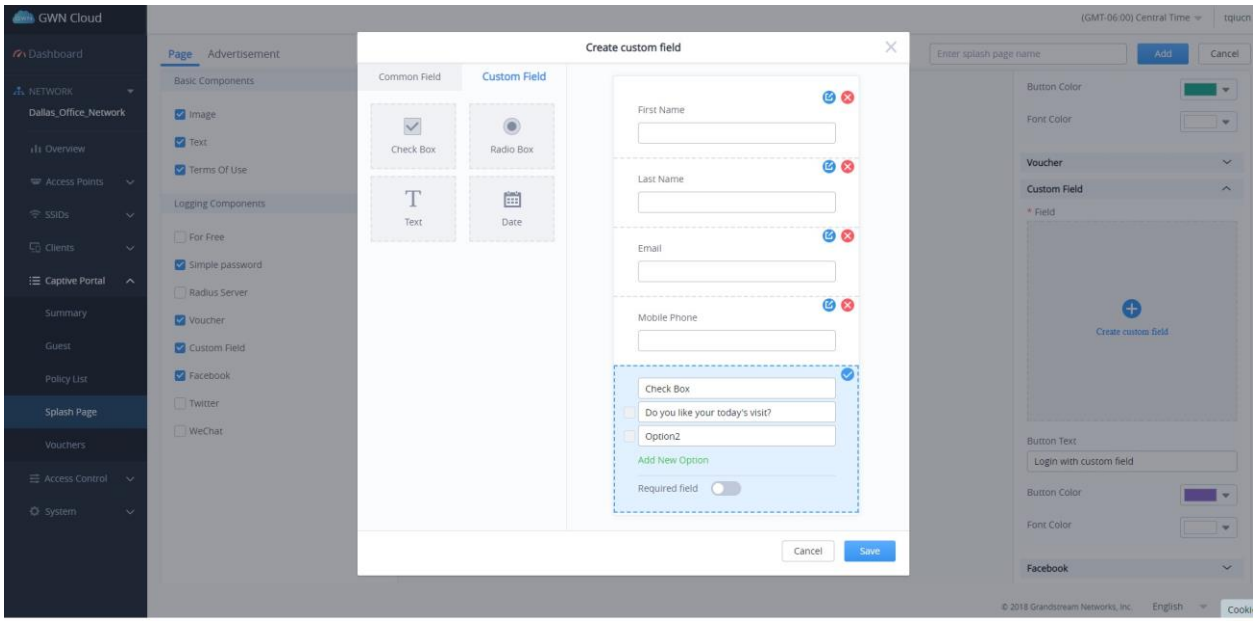
  Marketing feature to play advertisement upon captive portal login for WiFi users.

  Configurations are available at Cloud menu: **Captive Portal → Splash Page → Advertisement**



- **Custom Field**

  By adding customizable field to your captive portal splash page to collect user information.



- **ARP Proxy**

  This feature will enable GWN AP to answer the ARP requests from its LAN for its connected WiFi client. This is mainly to reduce the airtime consumed by ARP packets.

  To enable this feature, configuration is available at

  Cloud:

  NETWORK → SSIDs → Configuration → Wi-Fi Settings → ARP Proxy

  Local Master:

  SSIDs → Configuration → Wi-Fi → ARP Proxy

- **Clear client data**

  This feature will allow admin to clear collected data from Wi-Fi clients. This is mainly for certain data security regulation compliance.

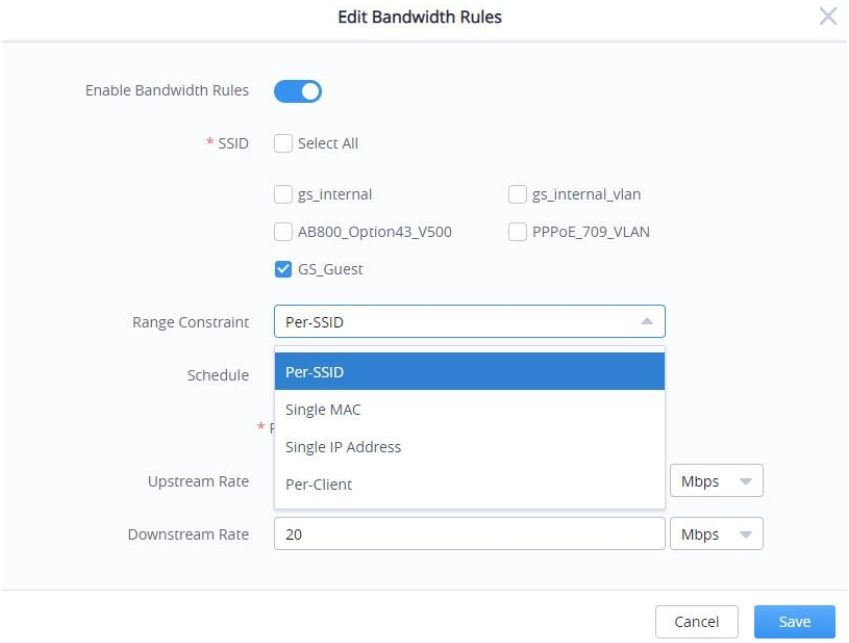
- **WiFi authentication event**

  This is an enhancement for WiFi troubleshooting.

2018-12-13 16:30:19	74:DA:EA:84:CD:28	gs_internal		WPA-PSK deauthentication (four-way handshake failure)
2018-12-13 16:30:19	74:DA:EA:84:CD:28	gs_internal	gs_internal	WPA-PSK authentication failure

- **limit bandwidth Per-Client**

  This is an enhancement for bandwidth control upon all the other available types.



- **EU Server support**

  User now will be able to choose US server or EU server to store their data at. This is mainly for GDPR regulation compliance.

FIRMWARE VERSION 1.0.8.9

PRODUCT NAME

GWN7610

GWN7600

GWN7600LR

DATE

11/21/2018

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: e35fdb2803278d2305cee46c1c436deb

- GWN7600/7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: f934883870b24d911b604fedfc7a5fed

CHANGES/ENHANCEMENT

- Added feature of **URL Logging**[1]
- Added feature of **Dynamic Transmit Power Control** as WP820 RF enhancement
- Enhanced Mesh by adding feature of **Switching RE & CAP according to network**
- Enhanced Core File Debugging by adding feature of **OopsTrack**
- Fixed the bug that manual configured Mesh topology may change after reboot
- Fixed a memory leak

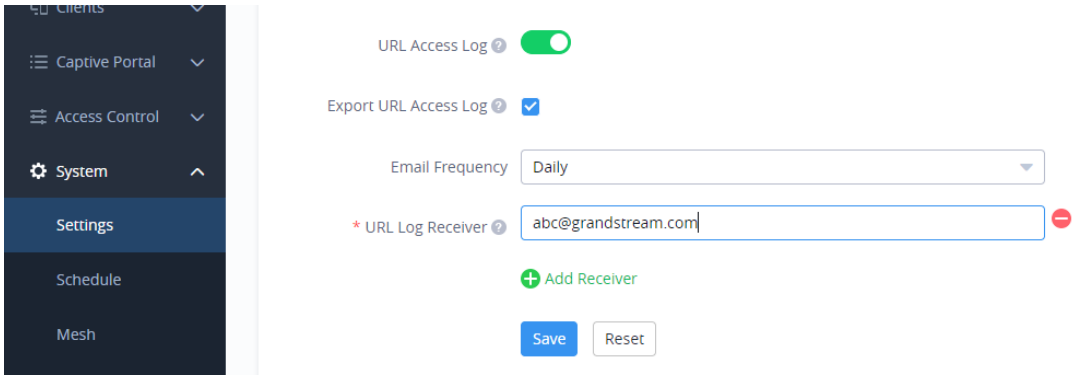
NEW FEATURE OVERVIEW

- **URL Logging**[1]

  GWN AP know can log user URL visiting history onto GWN server, and report to Admin on timely schedule.

  [1] URL Logging is only available at GWN Cloud, and local master configuration does not support this feature.

To enable configuration, option is available at Cloud menu: **System → Settings**



- **Dynamic Transmit Power Control**

  This feature will enhance the RF performance of WP8xx Grandstream WiFi handset. No configuration is needed.

- **Switching RE & CAP according to network**

  This is enhancement to GWN Mesh setup. Now mesh topology will be more precise on identifying the CAP or RE APs. System will not only detect the network cable connection for CAP election, but also check the IP address acquiring.

- **OopsTrack**

  This is enhancement on the core file debugging. It will collect and save kernel stack information for debugging when AP crashes.

FIRMWARE VERSION 1.0.7.13

PRODUCT NAME

GWN7610&GWN7600&7600LR

DATE

10/18/2018

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5 checksum: c13f4e003ff70e6b4e37627b0e7d2013

- GWN7600 Firmware file name: gwn7600fw.bin

  MD5 checksum: c425a264b8053aac9cef33644db23477

- GWN7600LR Firmware file name: gwn7600fw.bin

  MD5 checksum: c425a264b8053aac9cef33644db23477

IMPORTANT UPGRADING NOTE

Facebook and Twitter captive portal authentication backend changed. This change will lead to following result:

1. If Facebook authentication is configured on older GWN Cloud version. You will need to log in your Facebook account of https://developers.facebook.com/apps, and set the OAuth redirect URI to https://cwp.gwn.cloud:8443/GsUserAuth.cgi?GsUserAuthMethod=3
2. If Twitter authentication is configured on older GWN Cloud version. You will need to log in your Twitter account of https://apps.twitter.com/app, and set the callback URLs to http://cwp.gwn.cloud:8080/GsUserAuth.cgi?GsUserAuthMethod=5
3. Also, you will need to make sure your AP is upgraded to 1.0.7.x, since the older AP firmware will not work with new GWN Cloud for Facebook Login or Twitter Login only.

CHANGES/ENHANCEMENT

- Added feature of **RRM**[Beta 1]
- Added feature of **Mesh** for GWN7610[2]
- Added feature of **External Captive Portal Support**
- Added feature of **AP Scheduling Reboot**
- Added feature of **Change Log**[3]
- Added feature of WiFi **Statistic Report**[3]
- Added feature of **Configuration Quick Navigation**[3]
- Added feature of Captive Portal Guest **Summary**
- Changed **SSID limit**[3]
- Enhanced **Access Point Status**
- Enhanced **WiFi Service** by adding configurable options of **Beacon Interval**, **DTIM Period**, and **Convert IP multicast to unicast**.
- Enhanced **Client Information**
- Enhanced **Captive Portal features**
- Enhanced **GWN Cloud mobile app**

NEW FEATURE OVERVIEW

- **RRM**[Beta]

  Radio Resource Management (RRM), includes three major features below. This feature is only available

  Local Master: **Access Point** → **Edit** → **Configuration**

  - **Dynamic Channel Assignment**[4] Once enabled, AP will try to allocate and move to the best channel during operation, unlike Auto Channel Selection (ACS) which online scan and assign channel when WiFi interface goes up for one.

[1] *Local Master only*
[2] *Mesh is already supported on GWN7600 and GWN7600LR in previous feature pack*
[3] *GWN Cloud only*
[4] ***Dynamic Channel Assignment** is not supported on GWN7610.*

- **Transmit Power Control** TPC algorithm runs every 10 minutes. AP acquires the RSSI information of the neighbor by wireless scanning and establishes the neighbor table. The algorithm requires that there must be at least 3 neighbor APs with larger than -70dbm in RSSI. Otherwise, power will not be adjusted.
- **Coverage Hole Detection** CHD enables AP to decide whether to increase the AP power by the current SNR and SNR threshold of the connected clients.

- **External Captive Portal Support**

  Linkyfi[1] and Purple[2] as external captive portal are supported now on GWN APs for both local master and GWN Cloud.

  Configurations now are available at **Captive Portal → Policy List → Add/Edit → Splash Page**

  Choose **External**, and then choose platform to configure.

- **AP Scheduling Reboot**

  You can schedule reboot for your APs. Configuration is available at:

  - Local Master: **System Settings → Maintenance → Basic → Reboot Schedule**
  - GWN Cloud: **NETWORK → System → Settings → Reboot Schedule**

  You will need to have a time schedule defined for this feature to adopt.

- **Change Log**

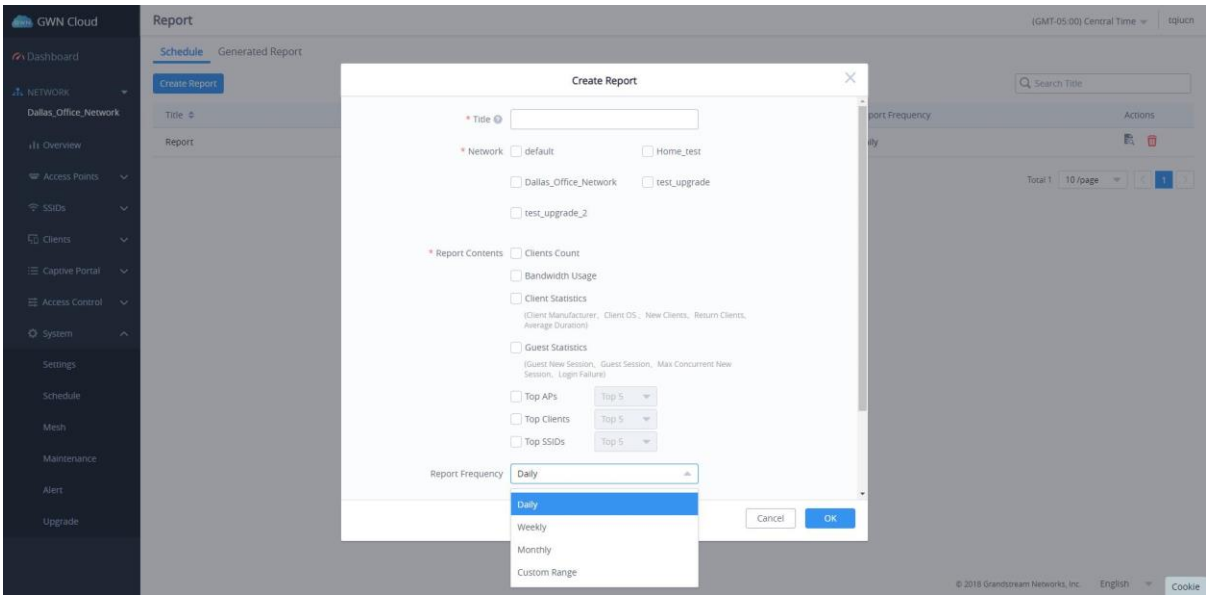
  Change log is now recorded on GWN Cloud. You can access the log from **[Your account]** on top right corner → **Change Log**.

Note: [1] Linkyfi https://www.avsystem.com/products/linkyfi/
[2] Purple https://purple.ai/

- **Statistic Report**

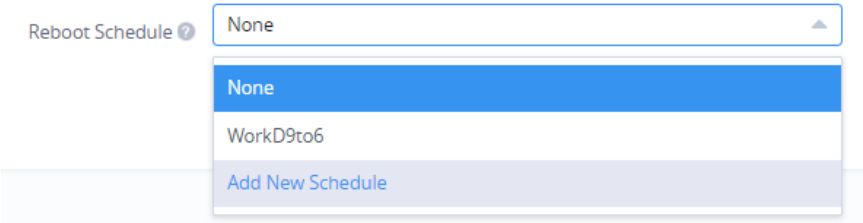
On GWN Cloud, you can configure server to send report to you periodically. Configuration is available at:

[Your account] on top right corner → **Report** → **Schedule** → **Create Report**



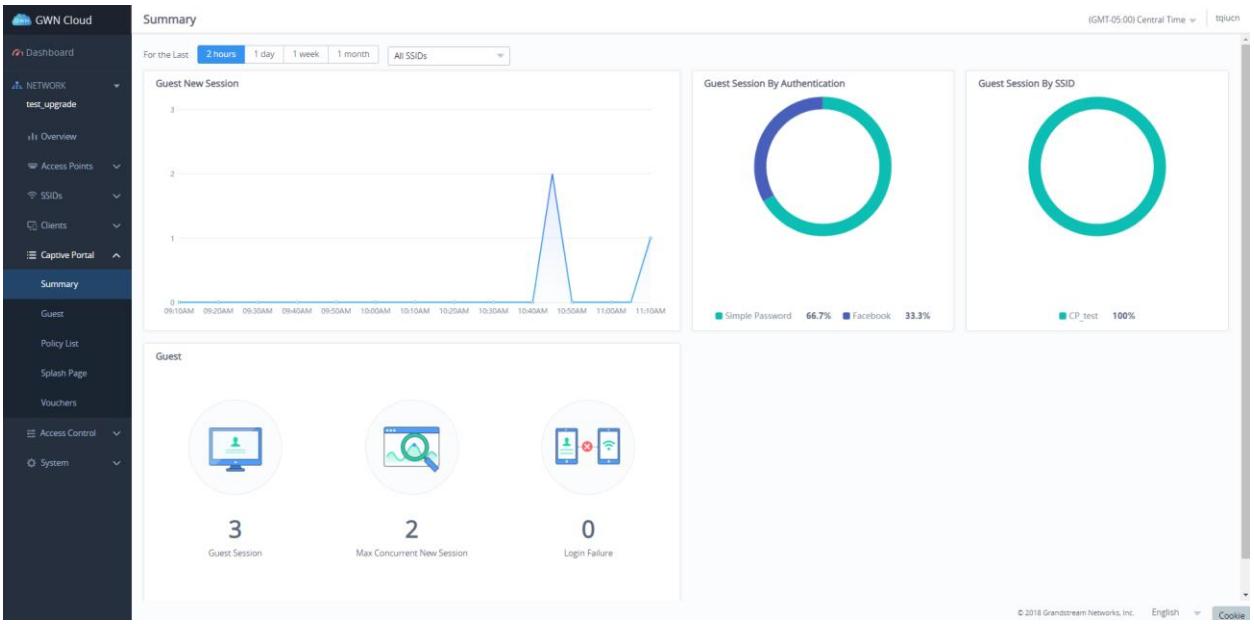
- **Configuration Quick Navigation**

Now on GWN Cloud support Configuration Quick Navigation. This feature will help to quick move to prerequisite settings during configuration. For example, when you configure a AP scheduling reboot, but you don't have a time schedule reconfigured. Then you will see an option as **Add New Schedule**.



- Captive Portal Guest **Summary**

  GWN Cloud now gives a summary of captive portal login Guest Summary as below:



- **SSID limit** changes

  In previous GWN Cloud version, every Network has limit of 16 SSID. In FP6 GWN Cloud version, limit in Network has been removed, but when any AP has reach to its limit of 16 SSID, it will be shown in grey in the new SSID's available devices, and cannot be added to new SSID anymore.

- **Access Point Status** Enhancement

  CPU and Memory information is added in Access Points **Status**.

  For Email Alert, feature is enhanced for AP offline event to report when AP goes back online.

- **WiFi Service** Enhancement

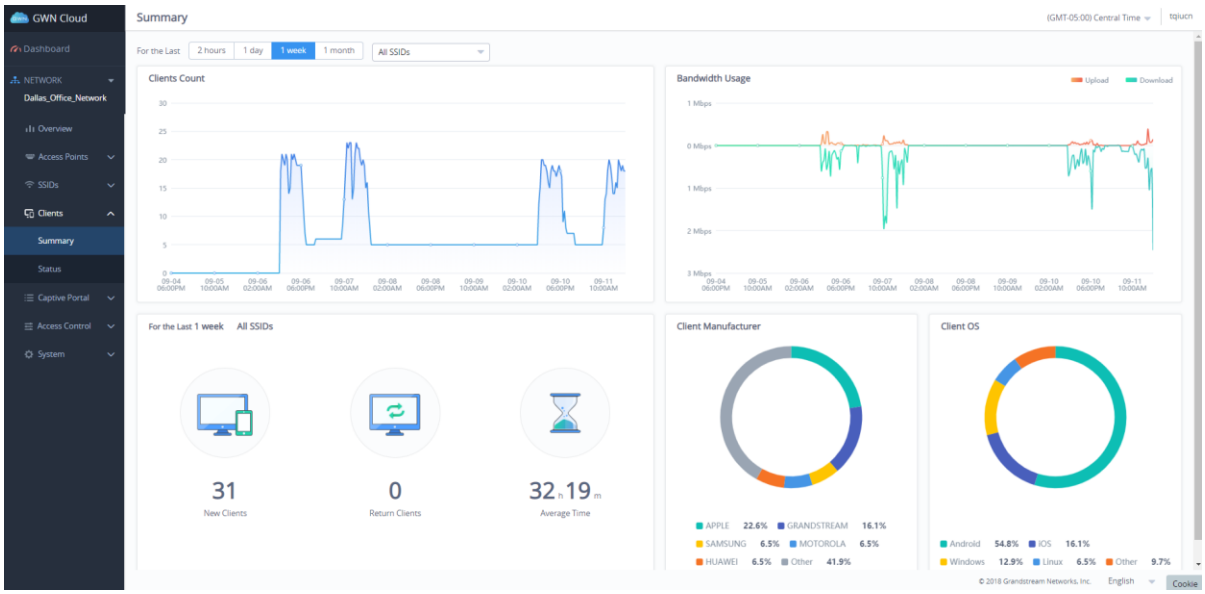
  Three configurable options, as **Beacon Interval**, **DTIM Period**, and **Convert IP multicast to unicast**, are available at

- Local Master: **SSID → Add/Edit → Beacon Interval / DTIM Period / Multicast to Unicast**
- GWN Cloud: **NETWORK → SSID → Add/Edit → Advanced → Beacon Interval / DTIM Period / Convert IP Multicast to Unicast**

- **Client Information** Enhancement

More WiFi client's information is collected on GWN AP. And statistic is shown in graphic on GWN Cloud and text only format on Local Master.

- Local Master: Information is available at **Clients → Clients**, and information can be checked to display at the top right gear icon.
- GWN Cloud:



And now, admin can name the clients not only on local master but also on GWN Cloud page **NETWORK → Clients → Status →** **→ Hostname**

- **Captive Portal features** Enhancement

- **Failsafe mode:** AP will grant access to STA if AP can't reach to external authentication server. This feature only available in radius authentication and voucher authentication.

- **Byte limit** and **Daily limit**: Captive portal now can limit user connection by measuring data amount and times of a day.
- **Twitter authentication** enhanced: Twitter splash page has been redesigned, and **Force To Follow** option added. By enabling **Force To Follow** option, admin can request login WiFi user to follow his Twitter account when getting authenticated.

- **GWN Cloud mobile app** enhancement
  - Dashboard, on GWN Cloud Mobile app, now allow admin to select different Network to display, while all Networks' information is combined to display.
  - Deleting AP, on GWN Cloud Mobile app, now allow admin to delete APs from Networks.

[GWN7610]FIRMWARE VERSION 1.0.6.43

PRODUCT NAME

GWN7610

DATE

6/15/2018

FIRMWARE FILE INFORMATION

- GWN7610 Firmware file name: gwn7610fw.bin

  MD5: ae52aea470e6bf0fdcca95b1537df8e9

ENHANCEMENT

- Added support for **GWN.Cloud**
- Added support Outdoor/Indoor **Scene** WiFi channel configuration
- Added feature for **Transfer AP** and **Transfer Network Group** to Cloud

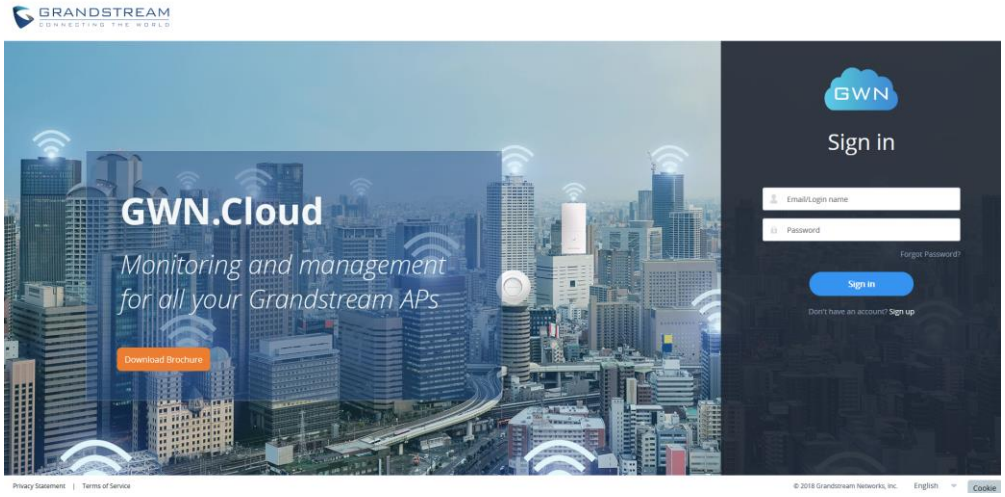
  Newly designed

- **Feature Schedulingg**
- Split **Network Group** into separate **SSID** and **DHCP server** configurations

NEW FEATURE OVERVIEW

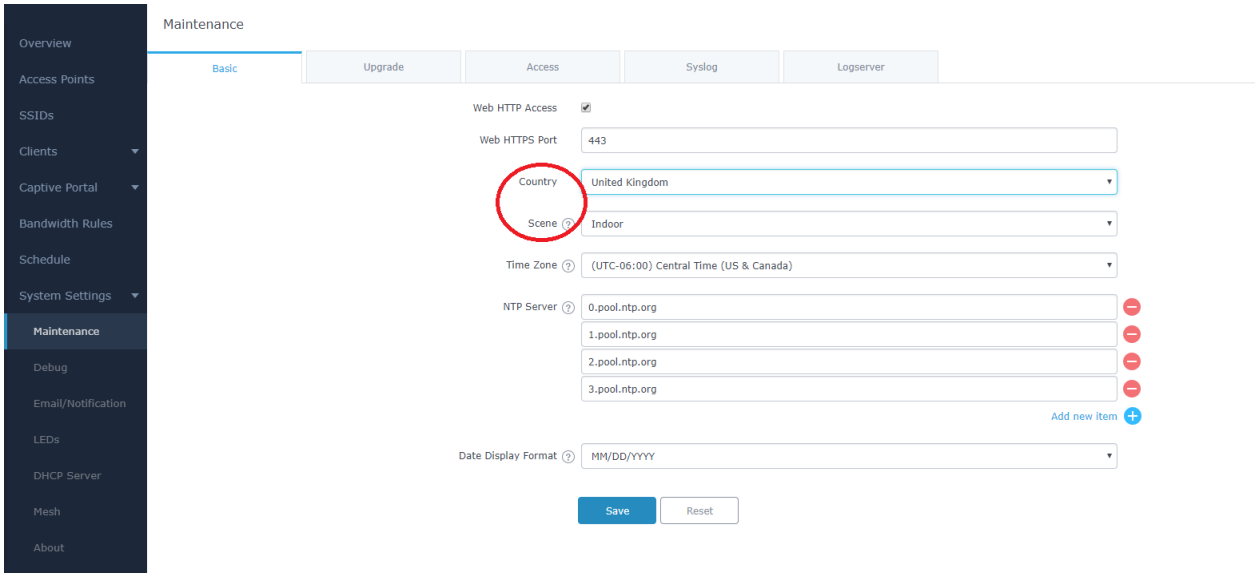
- **GWN.Cloud**

  Since FP5, GWN AP can be managed by your **GWN.Cloud** account. **GWN.Cloud** web interface now can be accessed at https://www.gwn.cloud. Please refer to **GWN Cloud User Guide** for how to add your GWN AP to **GWN.Cloud**.



- Outdoor/Indoor **Scene** configuration

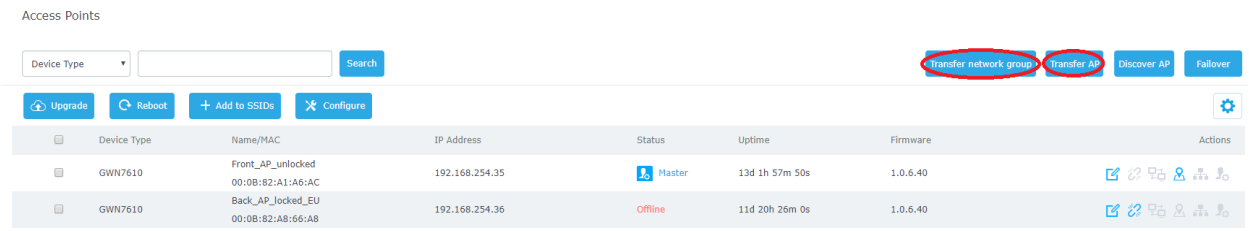
  This configuration is available on your Master web, when your country has different outdoor/indoor WIFI channel regulations.



- **Transfer AP** and **Transfer Network Group**

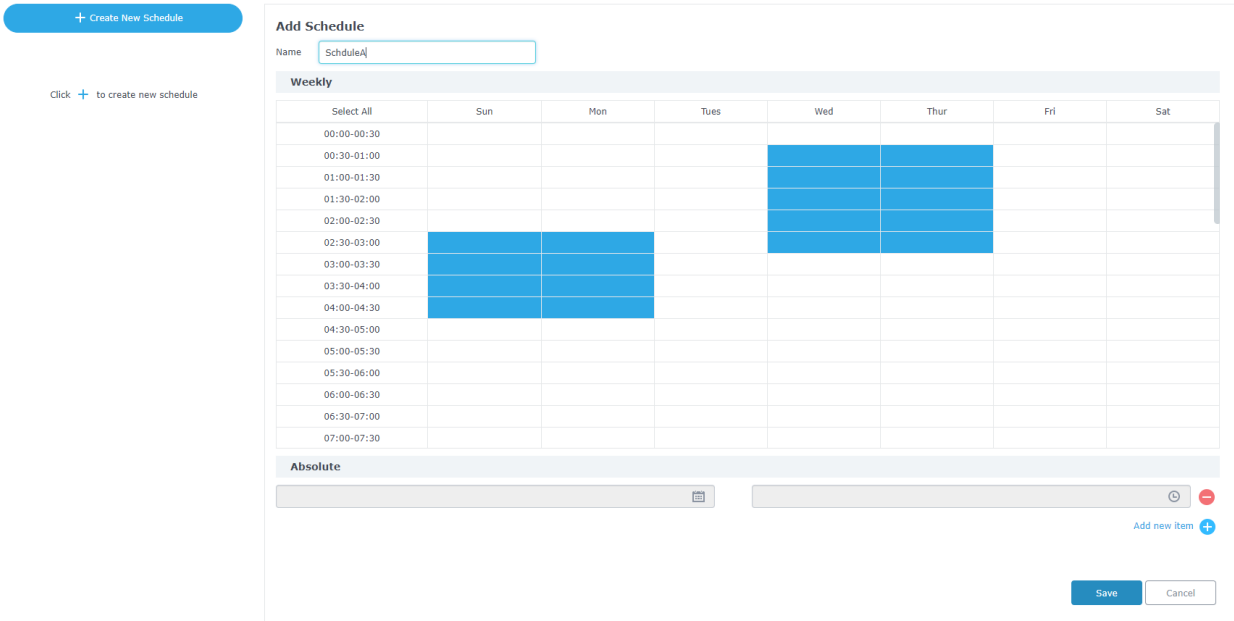
  Transfer AP feature will allow you to easily transfer your AP from local master to your GWN.Cloud account. When you already have network/WiFi configurations on your cloud account, use this feature will let you to choose cloud existing network/SSID to adopt your local AP. Note: local configurations will not be transferred.

  Transfer Network Group feature will allow you to transfer your local configurations to your cloud account.



- **Feature Scheduling**

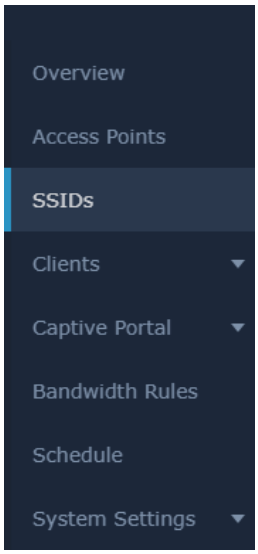
  We have newly designed feature scheduling. Please refer to user manually for configuration details.



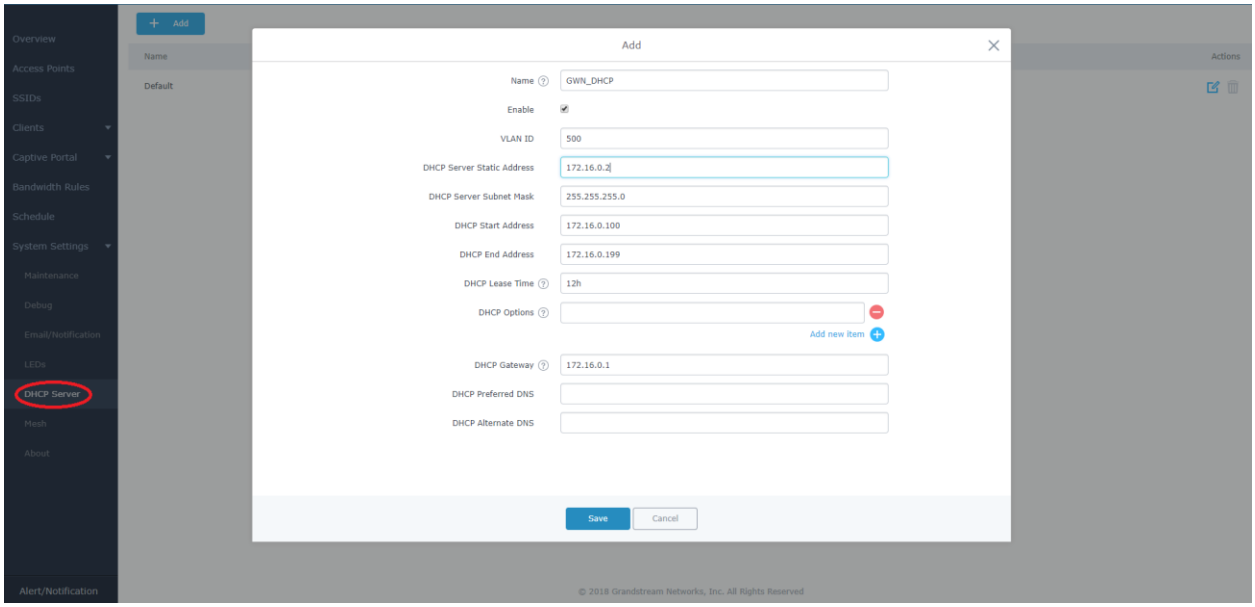
- **SSID** and **DHCP server** configurations

  Now the original **Network Group** configuration is split into **SSID** and **DHCP server** configurations.

  SSID is located at below menu bar.



  DHCP server configuration is moved to System settings.



[GWN7600&7600LR]FIRMWARE VERSION 1.0.6.41

PRODUCT NAME

GWN7600&7600LR

DATE

6/15/2018

FIRMWARE FILE INFORMATION

- GWN7600&7600LR Firmware file name: gwn7600fw.bin

  MD5: 8659930c6fe9601f551d87df9ae381ed

- GWN7600LR Firmware file name: gwn7600lrfw.bin

  MD5: 61784977a1a698e3d85f376200124010

ENHANCEMENT

- Added support for **GWN.Cloud**
- Added support Outdoor/Indoor **Scene** WiFi channel configuration
- Added feature for **Transfer AP** and **Transfer Network Group** to Cloud

  Newly designed

- **Feature Schedulingg**
- Split **Network Group** into separate **SSID** and **DHCP server** configurations

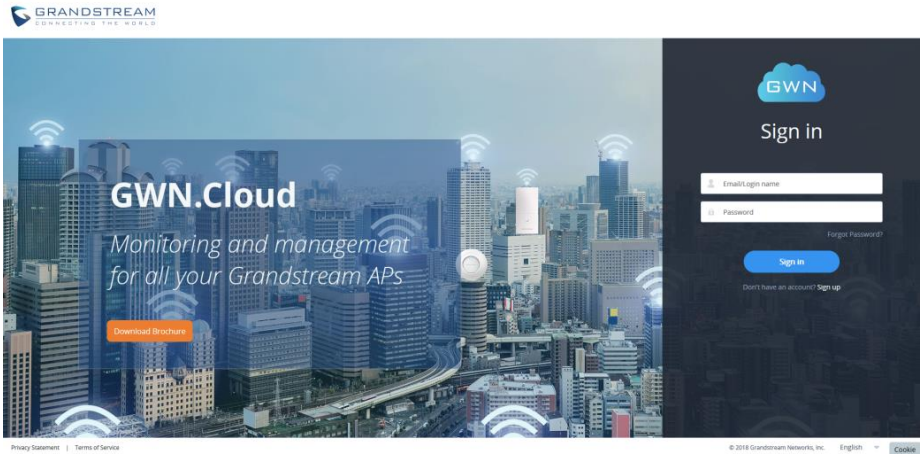
IMPORTANT UPGRADING NOTE

1. Starting from 1.0.6.x, GWN7600 and GWN7600LR will share same firmware file name gwn7600fw.bin. As a result, when GWN7600LR upgrades from pre-1.0.6.x to latest firmware, it will still retrieve firmware with name gwn7600lrfw.bin, and when GWN7600LR upgrades from 1.0.6.x or post-1.0.6.x to other firmware, it will retrieve firmware with name gwn7600fw.bin. So, when your GWN7600LR upgrades from pre-1.0.6.x firmware, you will need to manually modify the target firmware name to gwn7600lrfw.bin.

NEW FEATURE OVERVIEW

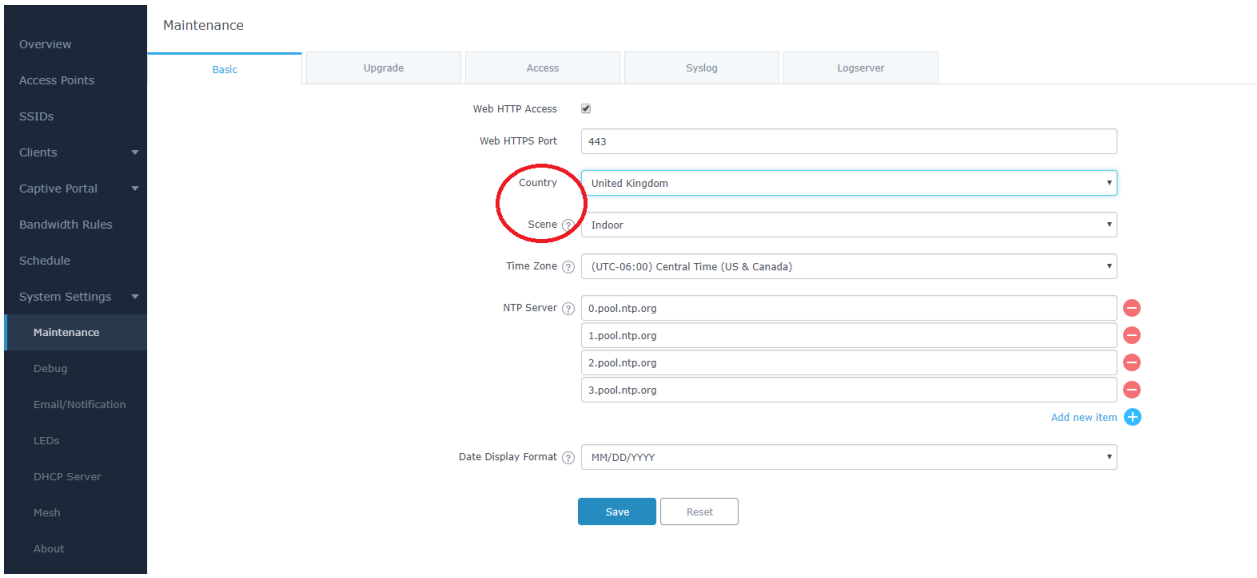
- **GWN.Cloud**

  Since FP5, GWN AP can be managed by your **GWN.Cloud** account. **GWN.Cloud** web interface now can be accessed at https://www.gwn.cloud. Please refer to **GWN Cloud User Guide** for how to add your GWN AP to **GWN.Cloud**.



- Outdoor/Indoor **Scene** configuration

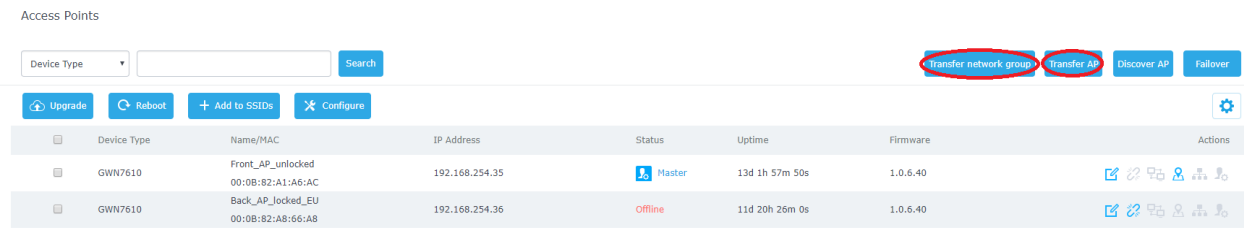
  This configuration is available on your Master web, when your country has different outdoor/indoor WIFI channel regulations.



- **Transfer AP** and **Transfer Network Group**

  Transfer AP feature will allow you to easily transfer your AP from local master to your GWN.Cloud account. When you already have network/WiFi configurations on your cloud account, use this feature will let you to choose cloud existing network/SSID to adopt your local AP. Note: local configurations will not be transferred.

  Transfer Network Group feature will allow you to transfer your local configurations to your cloud account.



- **Feature Scheduling**

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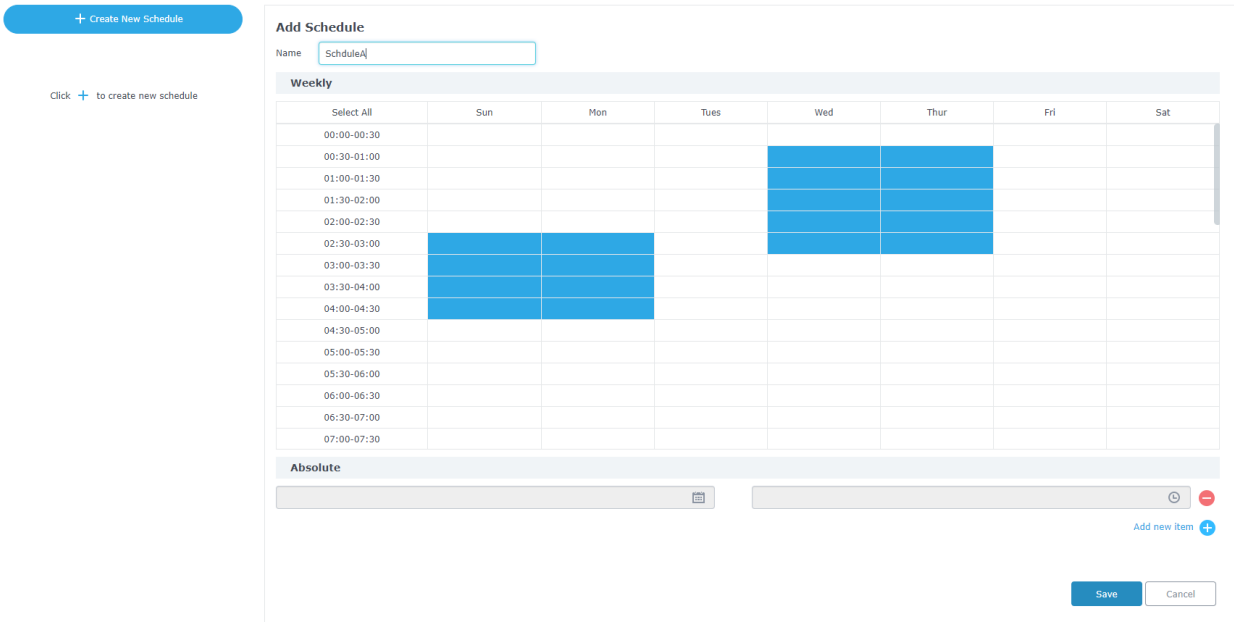

- **SSID** and **DHCP server** configurations

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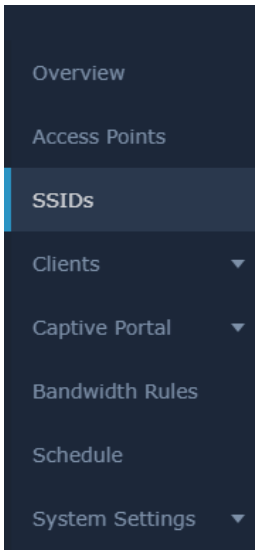
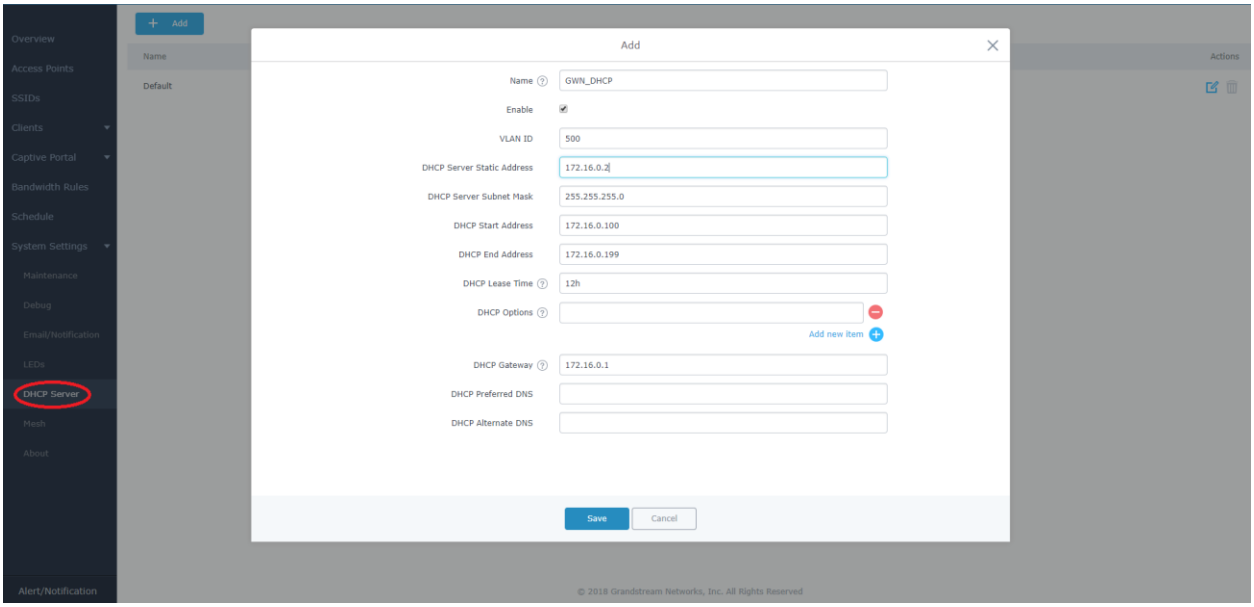
  SSID is located at below menu bar.



  DHCP server configuration is moved to System settings.



[GWN7610]FIRMWARE VERSION 1.0.5.15

PRODUCT NAME

GWN7610

DATE

1/26/2017

IMPORTANT UPGRADING NOTE

- For firmware 1.0.5.15, this is only for GWN7610/GWN7600/GWN7600LR master deployment. All users with GWN7000 as master are NOT encouraged to upgrade until 1.0.5.x matching firmware is available for GWN7000, due to the compatibility of new features.

ENHANCEMENT

- Added support for **New Firmware Reminder on Master Web**
- Added support for **Sequential Upgrade**

  Added support for

- **Feature Scheduling**
- Added support for **Master Direction**
- Added support for **Master Transfer**
- Added support for **Airtime Fairness**
- Added support for **Social login/Voucher**

BUG FIX

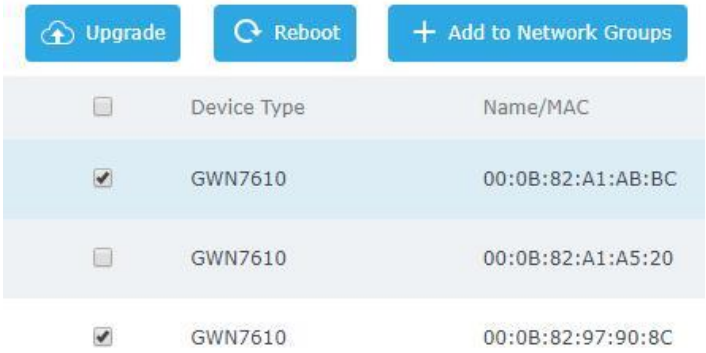
- Wifi client may fail to connect if SSID uses 2.4G only with WEP authentication.
- The Bandwidth Rules schedule configurations require a reboot to take effect.

NEW FEATURE OVERVIEW

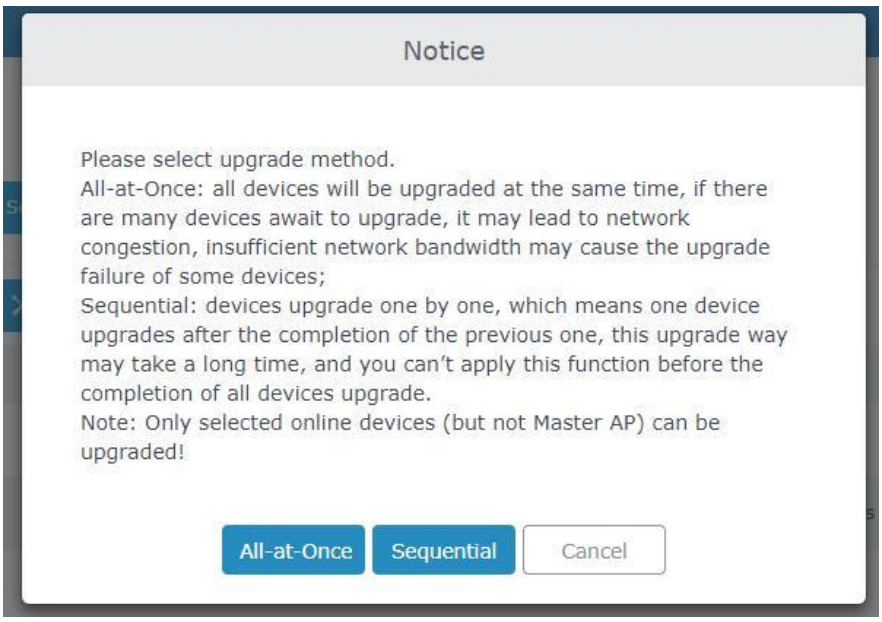
- **New Firmware Reminder on Master Web**

Once a different OFFICIAL firmware than current running firmware is detected on Grandstream Network website by master GWN7610, a “NEW” icon will appear to remind network administrator to upgrade. Clicking on the “NEW” icon will open the new firmware’s release note.

- **Sequential Upgrade**



Now if you choose multiple slave devices to upgrade their firmware, two options as “All-at-Once” and “Sequential” are available. “All-at-Once” will trigger the traditional way that all checked slaves will try to retrieve and change their firmware at the same time, while “Sequential” upgrade will let the slaves to

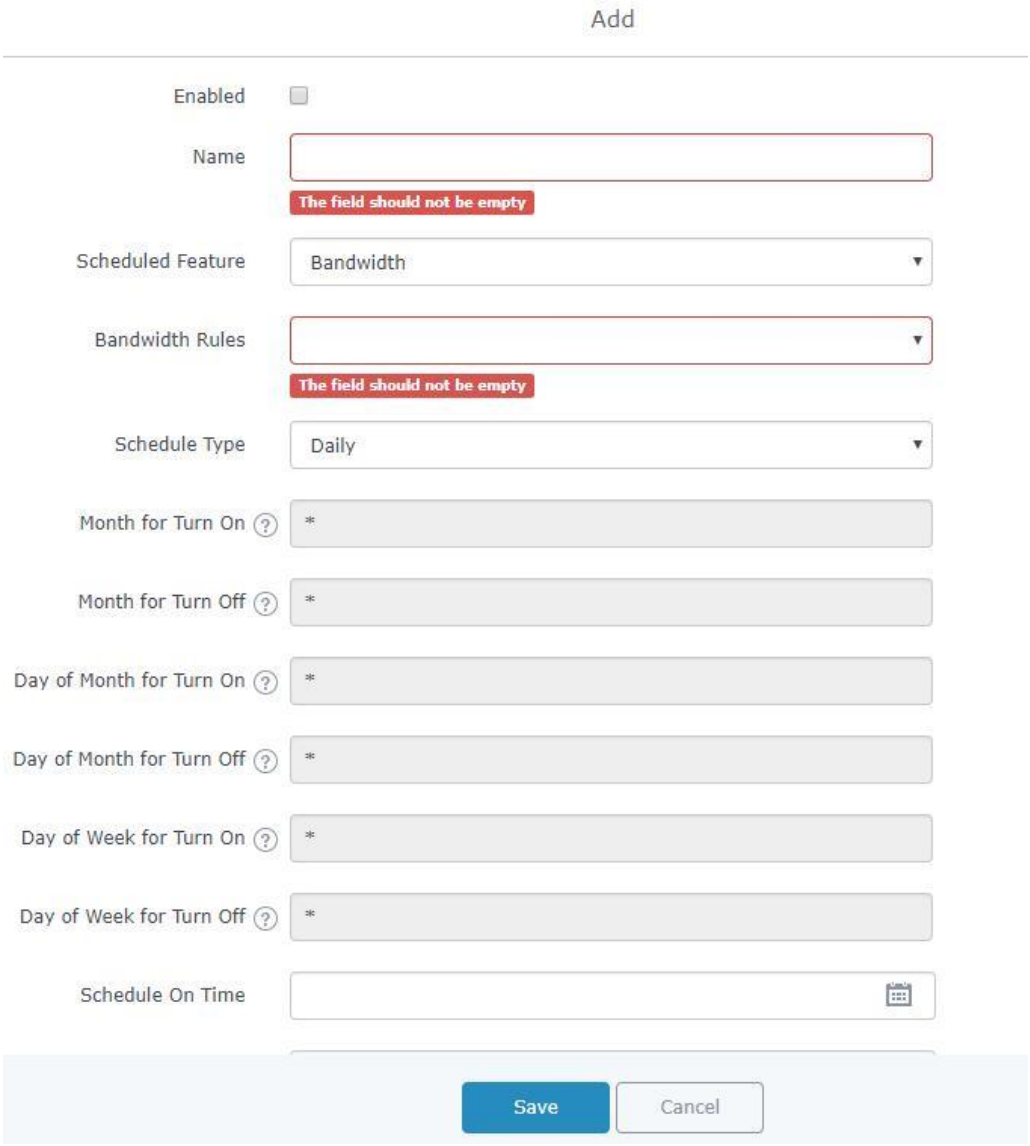


upgrade one by one in order to 1) avoid entire wifi service interruption by full system firmware upgrade; 2) reduce network stress caused by firmware downloading.

Once you choose sequential upgrade, the number with beside the green upgrading icon will tell you how many slaves have done its upgrading.

- **Feature Scheduling**

Scheduled bandwidth control or client access control is available now under System Settings→Schedule



Please be noted that you will need a Bandwidth rule (can be created in Bandwidth Rules) or a Client Access list (can be created under Client→Client Access), in order to create a schedule.

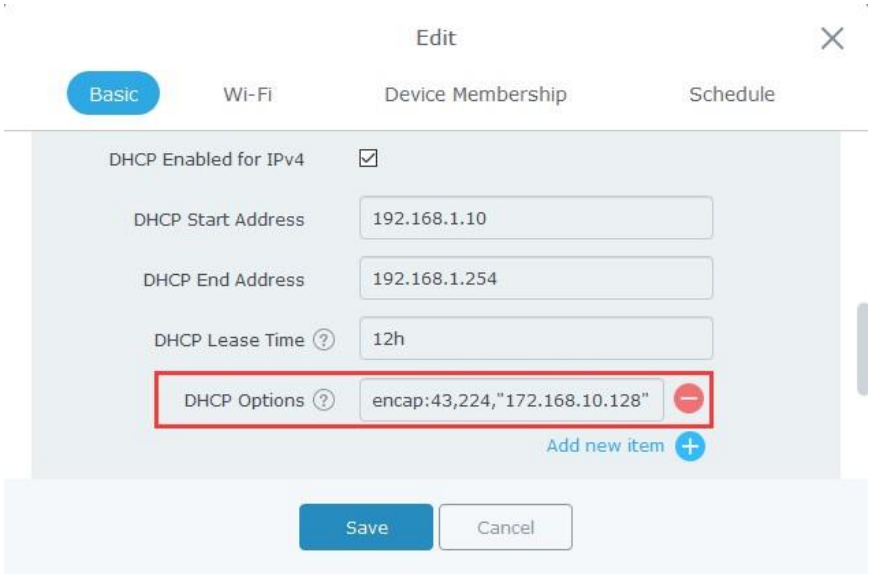
- **Master Direction**

When GWN7610 slave is not in the same broadcast domain with its master, this feature is available for all factory configured GWN7610 to find its master IP address offered by local DHCP option 43.

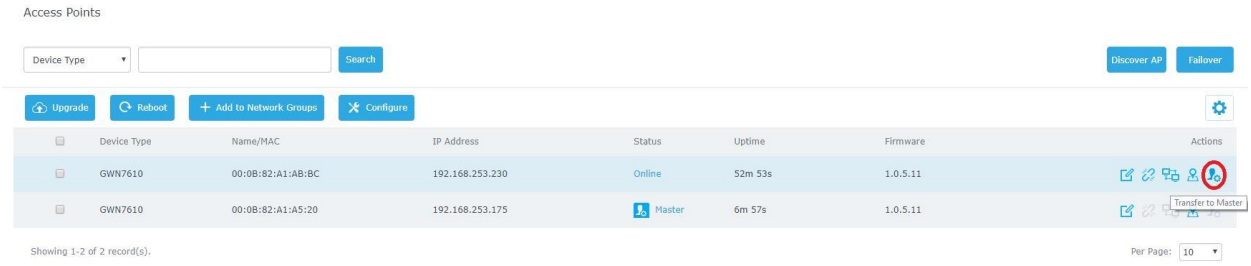
GWN7610 accepts option 224 encapsulated in option43, and the syntax is in TLV format. So, the for a simple example of DHCP 43 configuration would be:

224(Type)12(Length)10.157.0.234(Value) translated into Hex as e00c31302e3135372e302e323334

For DHCP server configuration on GWN7000, which translates the values automatically, is as follows:



- **Master Transfer**



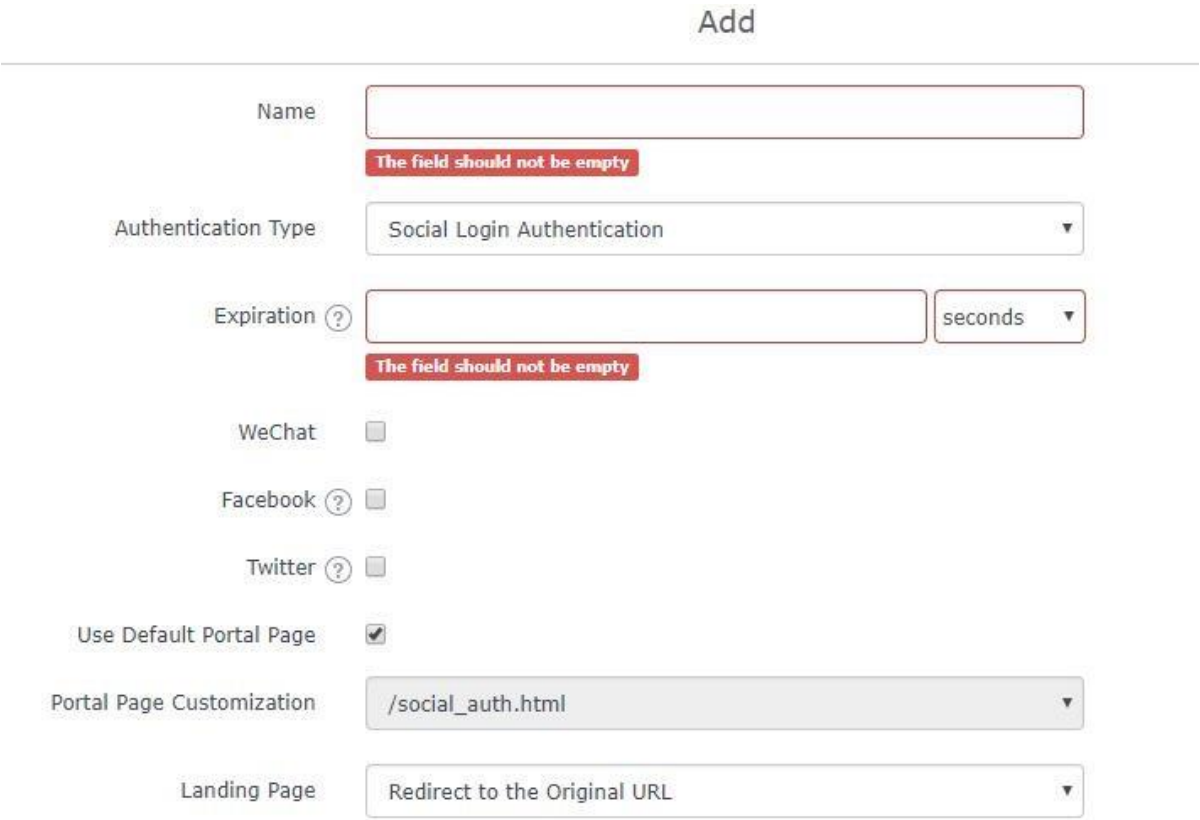
Now an easier way to transfer your master authority from one unit to another available unit is available on Access Point management page. By clicking the Transfer to Master button above in red circle, the designated slave unit will be upgraded to master and current master will be downgraded to slave accordingly.

- **Airtime Fairness**

  Turning Airtime Fairness ON or OFF options can be found under Access Point→Edit→Configuration→ Airtime Fairness.

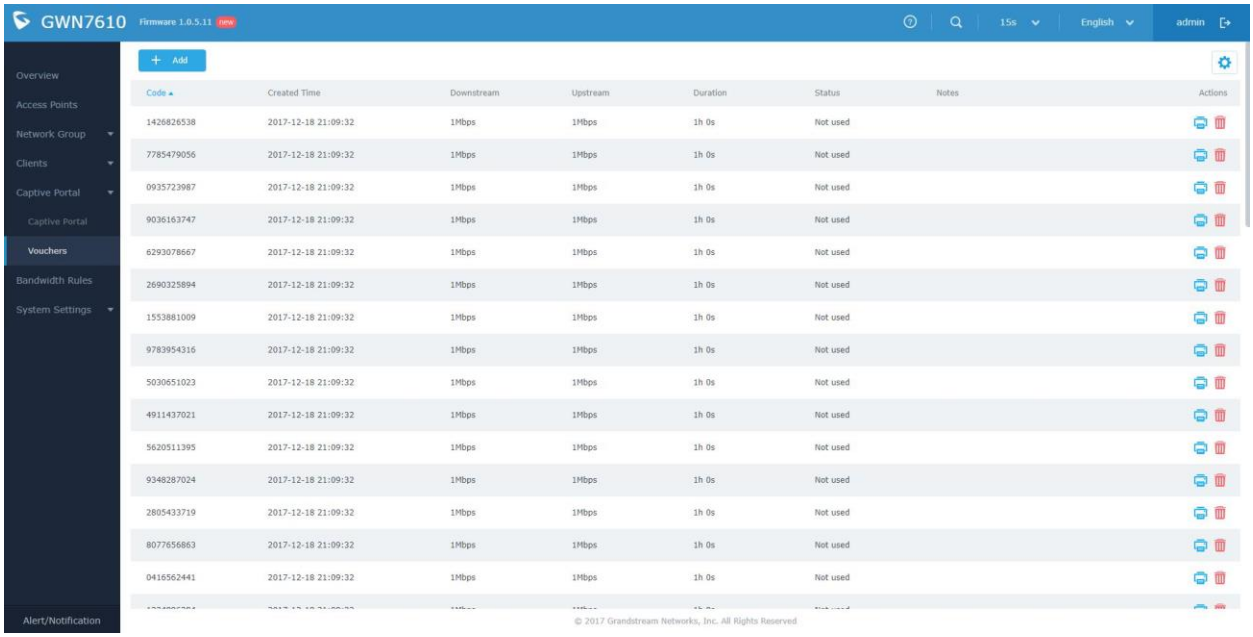
- **Social login/Voucher**

  As an enhancement of Captive Portal, social Login as Wechat/Facebook/Twitter have been added.



Also, Voucher is added as another Captive Portal authentication option.

Voucher management interface is available under Captive Portal→Vouchers



[GWN7600&7600LR]FIRMWARE VERSION 1.0.5.13

PRODUCT NAME

GWN7600/GWN7600LR

DATE

2/12/2018

FIRMWARE FILE INFORMATION

- GWN7600 Firmware file name: gwn7600fw.bin

  MD5: 0e02717ca35b7563df41091fdbd1612c

- GWN7600LR Firmware file name: gwn7600lrfw.bin

  MD5: 9acb5a9db5ce4f179ec7bb5c4be596cd

IMPORTANT UPGRADING NOTE

- For firmware 1.0.5.13, this is only for GWN7610/GWN7600/GWN7600LR master deployment. All users with GWN7000 as master are NOT encouraged to upgrade until 1.0.5.x matching firmware is available for GWN7000, due to the compatibility of new features.

ENHANCEMENT

- Added support for **New Firmware Reminder on Master Web**
- Added support for **Sequential Upgrade**

  Added support for

- **Feature Scheduling**
- Added support for **Master Direction**
- Added support for **Master Transfer**
- Added support for **Airtime Fairness**

- Added support for **Social login/Voucher**
- Added support for **Mesh Network**

BUG FIX

- There is low probability that auto pop-up portal page of the iOS couldn't be displayed normally.
- “Hostname” on client page and the “Top AP” \ “Top SSID” \ “Top Clients” on overview page may show empty occasionally.

KNOWN ISSUE

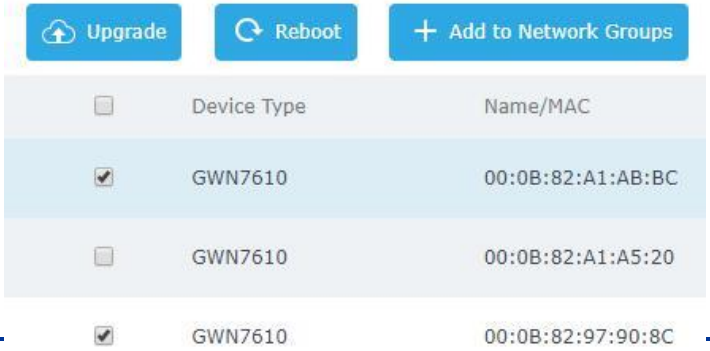
- Configuring Radius server address with domain name instead of IP will cause the WIFI under configuration become open without authentication. Note: issue will be addressed in next feature packet release.
- After clicking on the reset button in maintenance page, there is chance to prompt "Reset failed!" wrongly.

NEW FEATURE OVERVIEW

- **New Firmware Reminder on Master Web**

  Once a different OFFICIAL firmware than current running firmware is detected on Grandstream Network website by master GWN7610, a “NEW” icon will appear to remind network administrator to upgrade. Clicking on the “NEW” icon will open the new firmware’s release note.

- **Sequential Upgrade**



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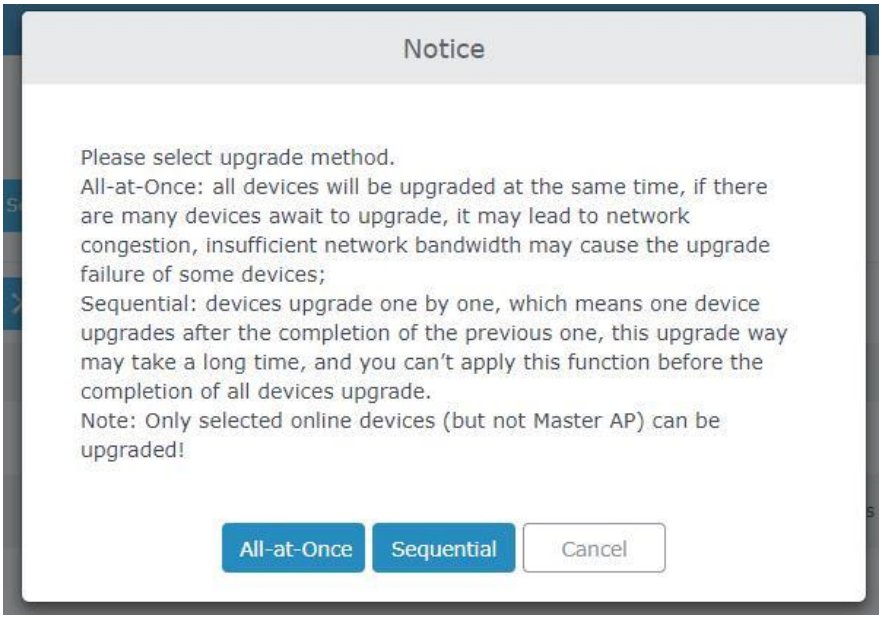
Once you choose sequential upgrade, the number with beside the green upgrading icon will tell you how many slaves have done its upgrading.



- **Airtime Fairness**

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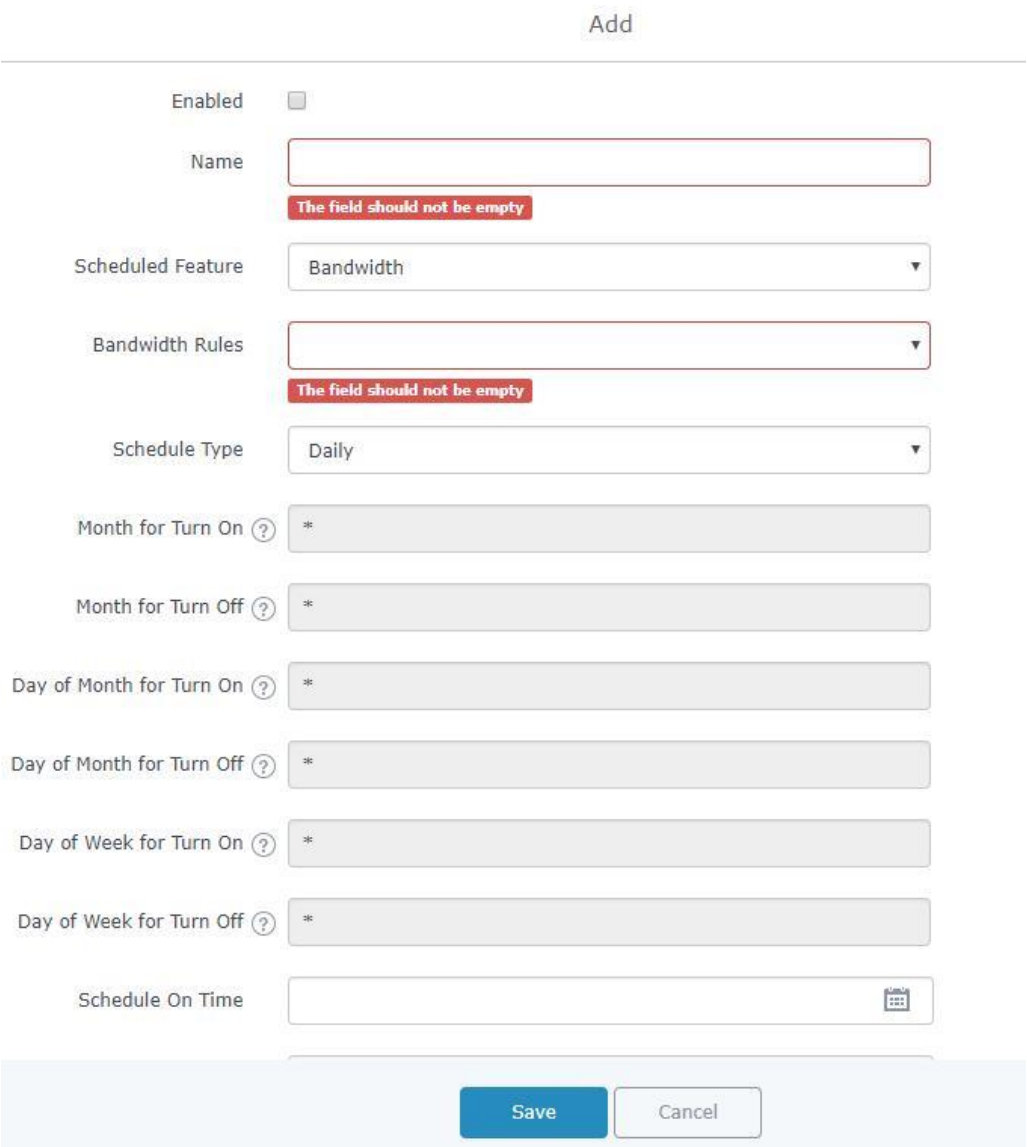

Please be noted that you will need a Bandwidth rule (can be created in Bandwidth Rules) or a Client Access list (can be created under Client→Client Access), in order to create a schedule.

- **Master Direction**

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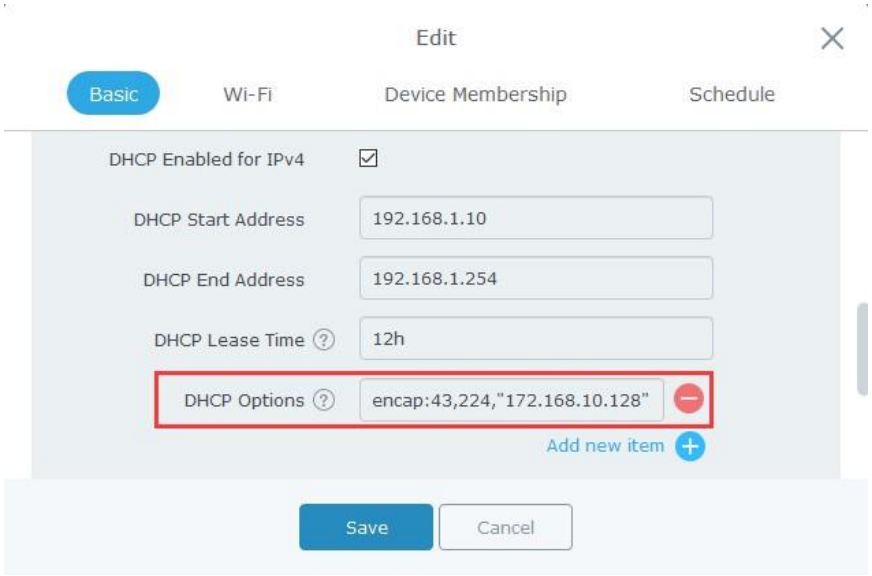
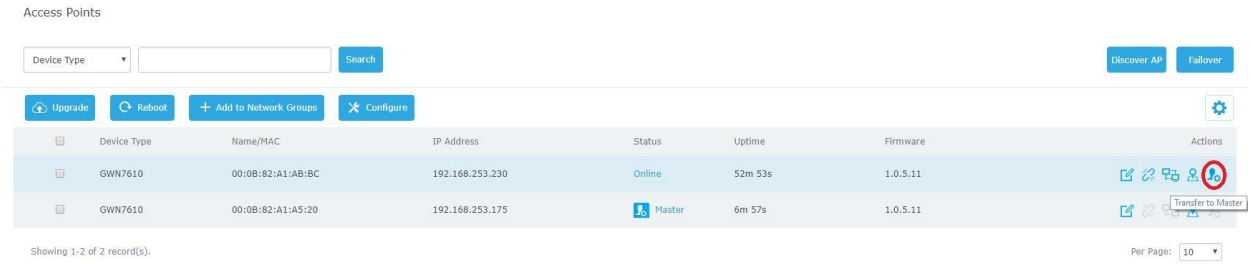


- **Master Transfer**



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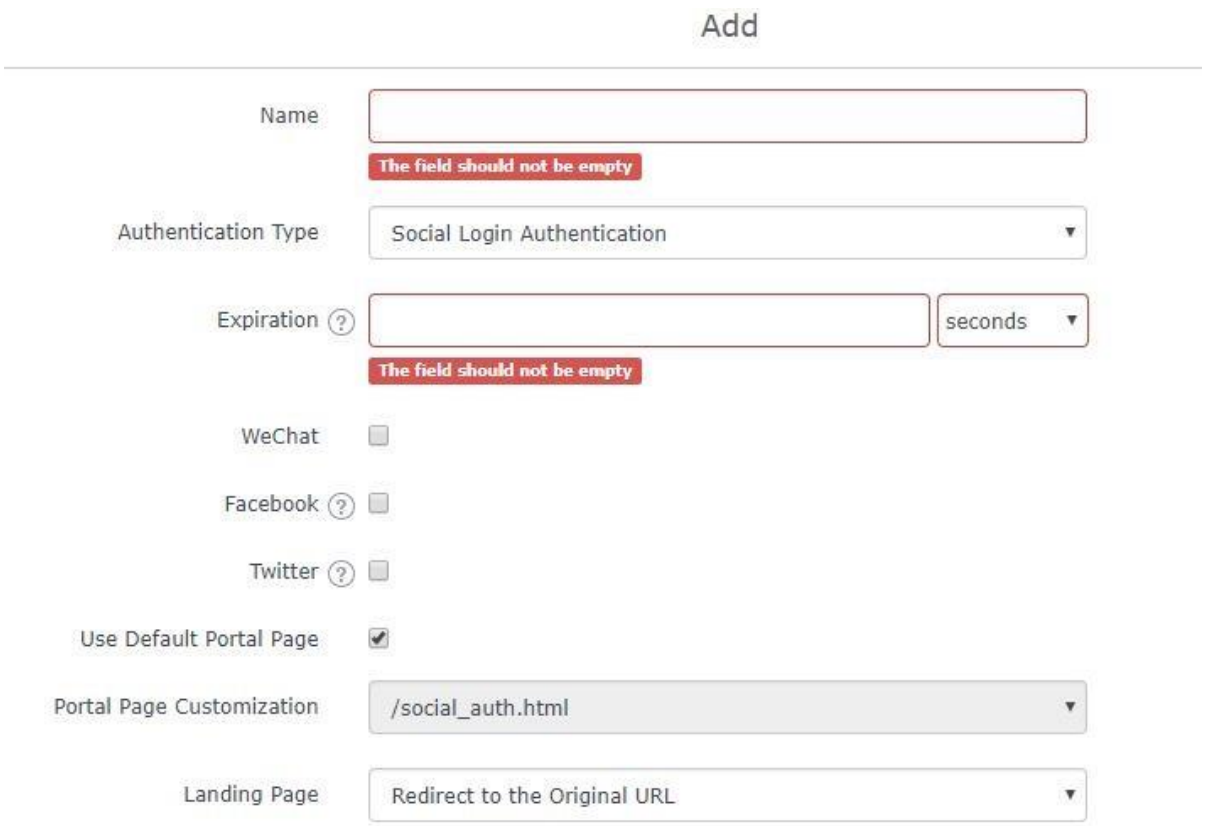
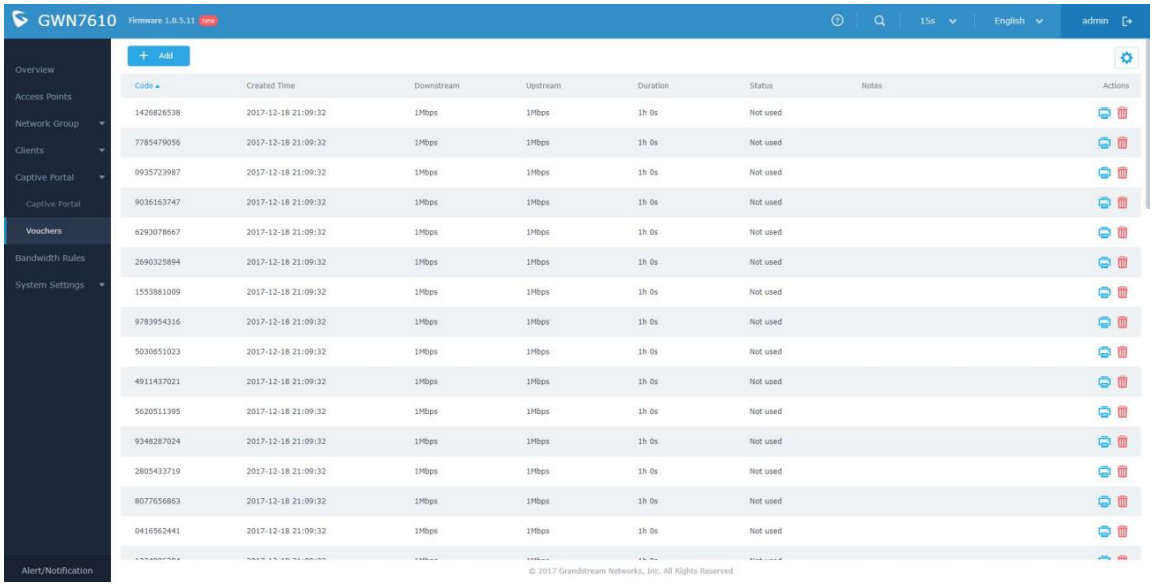
- **Social login/Voucher**

As an enhancement of Captive Portal, social Login as Wechat/Facebook/Twitter have been added.



Also, Voucher is added as another Captive Portal authentication option.

Voucher management interface is available under Captive Portal→Vouchers



- **Mesh Network**

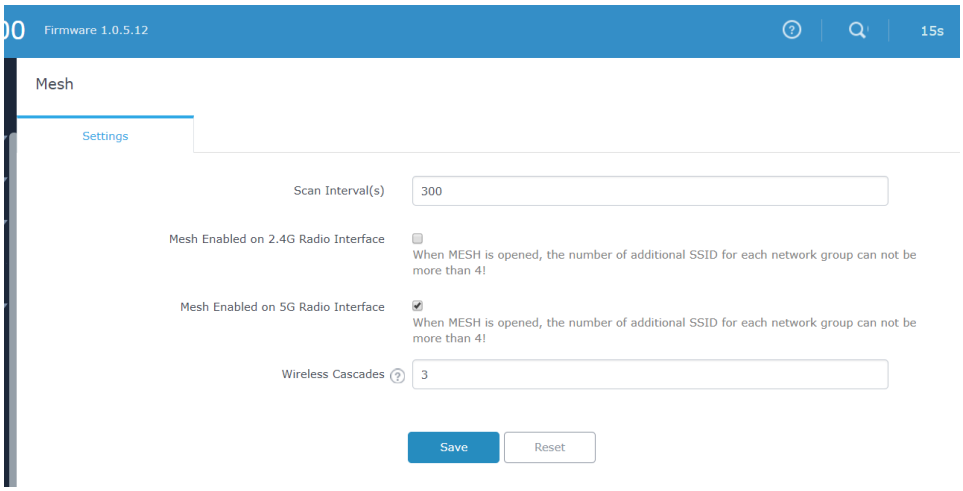
Mesh feature is now available for your GWN7600/7600LR wireless deployment!

With Mesh setup, APs can connect wirelessly to each other and cooperate with one another to efficiently route data from/to clients.

To use Mesh feature, here is some basic instructions:

1) Add all APs you want to use to form a mesh network in to a same network group.

2) Configure mesh under System Settings → Mesh



3) Disconnect network of those APs, except the root AP or APs for uplink internet access, and power those back on at the location you want to install.

4) Wait… The process of forming Mesh network may take several minutes. Once one AP has allocated itself into the Mesh network, its status will change from “online” to

5) At this moment, you can check the Mesh topology by clicking

6) Mesh topology is automatically calculated; however, you still can modify it manually by specifying each AP’s wireless uplink in AP edit page tag “Uplink”.

[GWN7610]FIRMWARE VERSION 1.0.4.22

PRODUCT NAME

GWN7610

DATE

11/14/2017

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

[GWN7610]FIRMWARE VERSION 1.0.4.20

PRODUCT NAME

GWN7610

DATE

10/31/2017

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

  **GWN7000 firmware 1.0.2.75 package is available for downloading at*

  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.

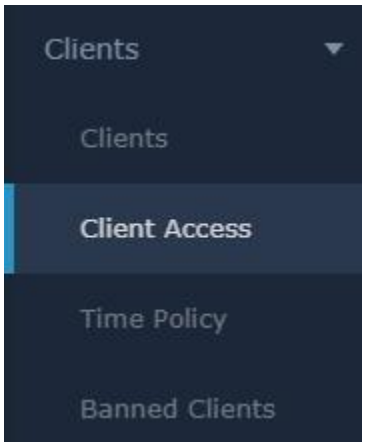
KNOWN ISSUE

- 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.

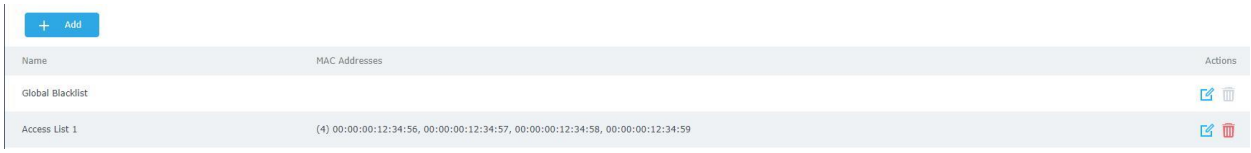
NEW FEATURE OVERVIEW

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

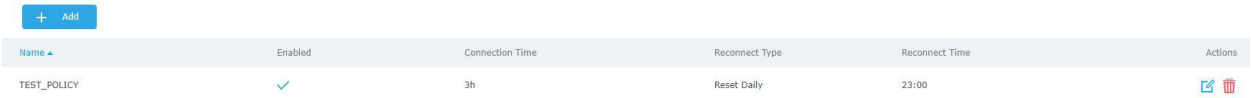
  The Client Connection Permissions Management enhanced client blocking provides a more manageable method for Wi-Fi client whitelist and blacklist configuration. It allows any combination of globally-maintained connection access control lists to be applied to network groups as desired for blacklisting 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



3) Time Policy



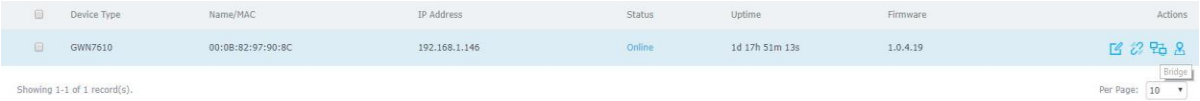
4) Banned Client This list is moved from original Client page to a separate page now.

- **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:

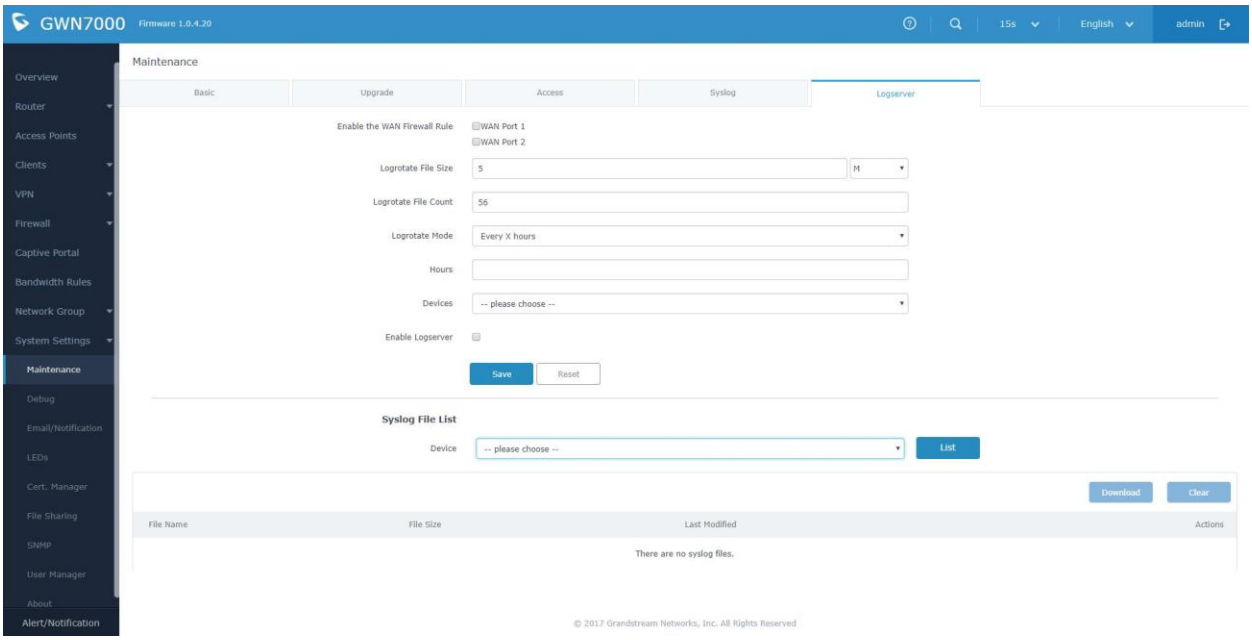
Please be noted that once an AP it turned into Client Bridge mode, it cannot be controlled by a Master



anymore, and a factory reset is required to turn it back into normal AP mode.

- **Syslog Server**

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



- **Configurable web UI access port**

Under System →Maintenance, following configuration is available now:

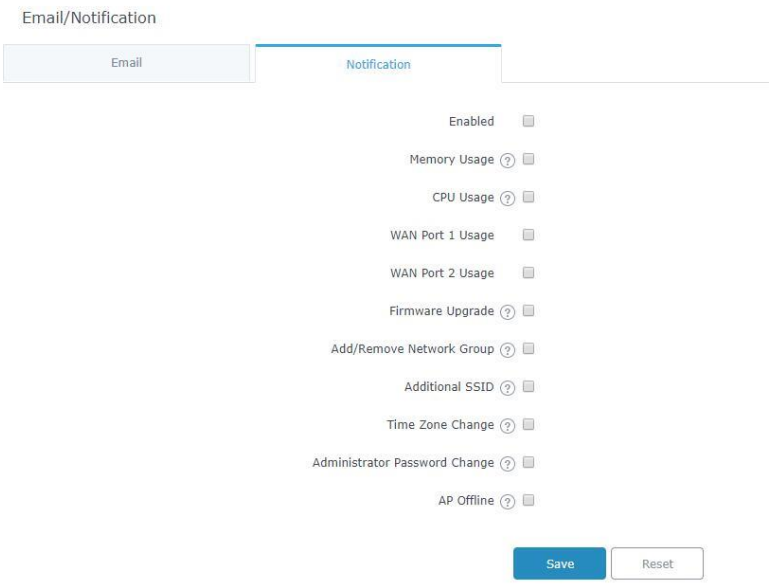
1) Web WAN Access; 2) Web HTTP Access; 3) Web HTTPS Port

- **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:



[GWN7600&7600LR]FIRMWARE VERSION 1.0.4.12

PRODUCT NAME

GWN7600, GWN7600LR

DATE

10/31/2017

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.

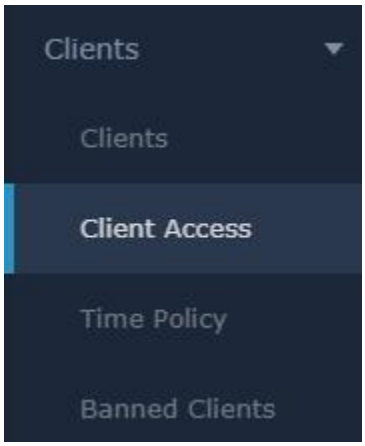
KNOWN ISSUE

- 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

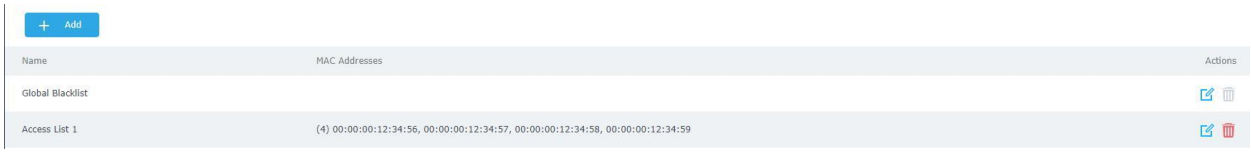
- **Timed Client Disconnect and Enhanced Client Blocking**

  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.

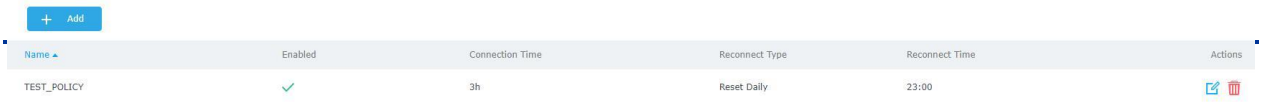


5) New Client bar (See picture on the right)

6) Client Access



7) Time Policy



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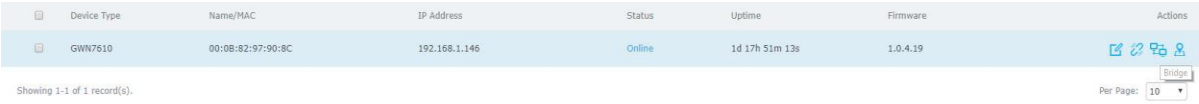
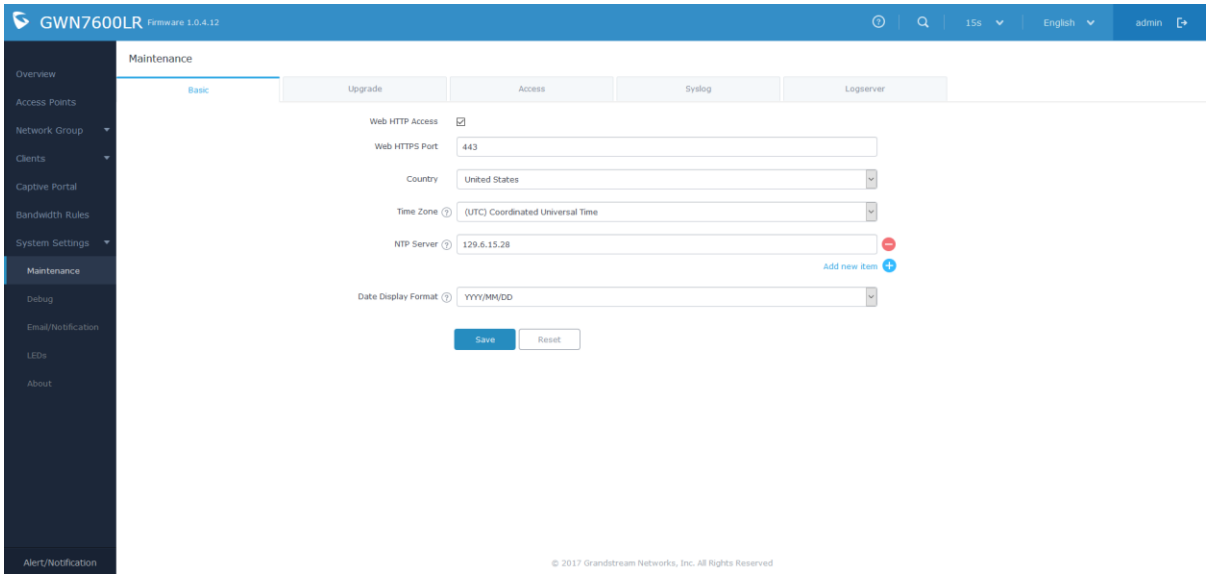


anymore, and a factory reset is required to turn it back into normal AP mode.

- **Syslog Server**

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



- **Configurable web UI access port**

  Under System →Maintenance, following configuration is available now:

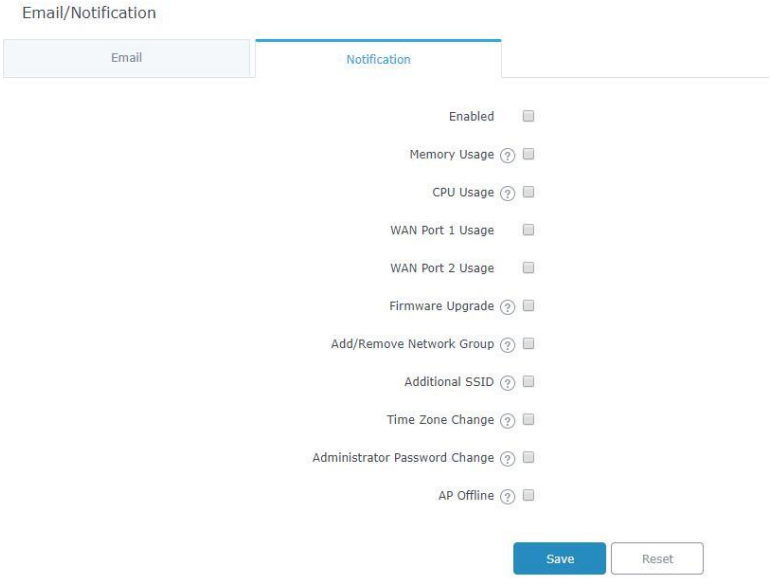
  2) Web WAN Access; 2) Web HTTP Access; 3) Web HTTPS Port

- **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:



[GWN7600&7600LR]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.

[GWN7610]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.

-

[GWN7600&7600LR]FIRMWARE VERSION 1.0.3.19

PRODUCT NAME

GWN7600

DATE

7/14/2017

ENHANCEMENT

- Added support for **Captive Portal Enhancement**
- 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

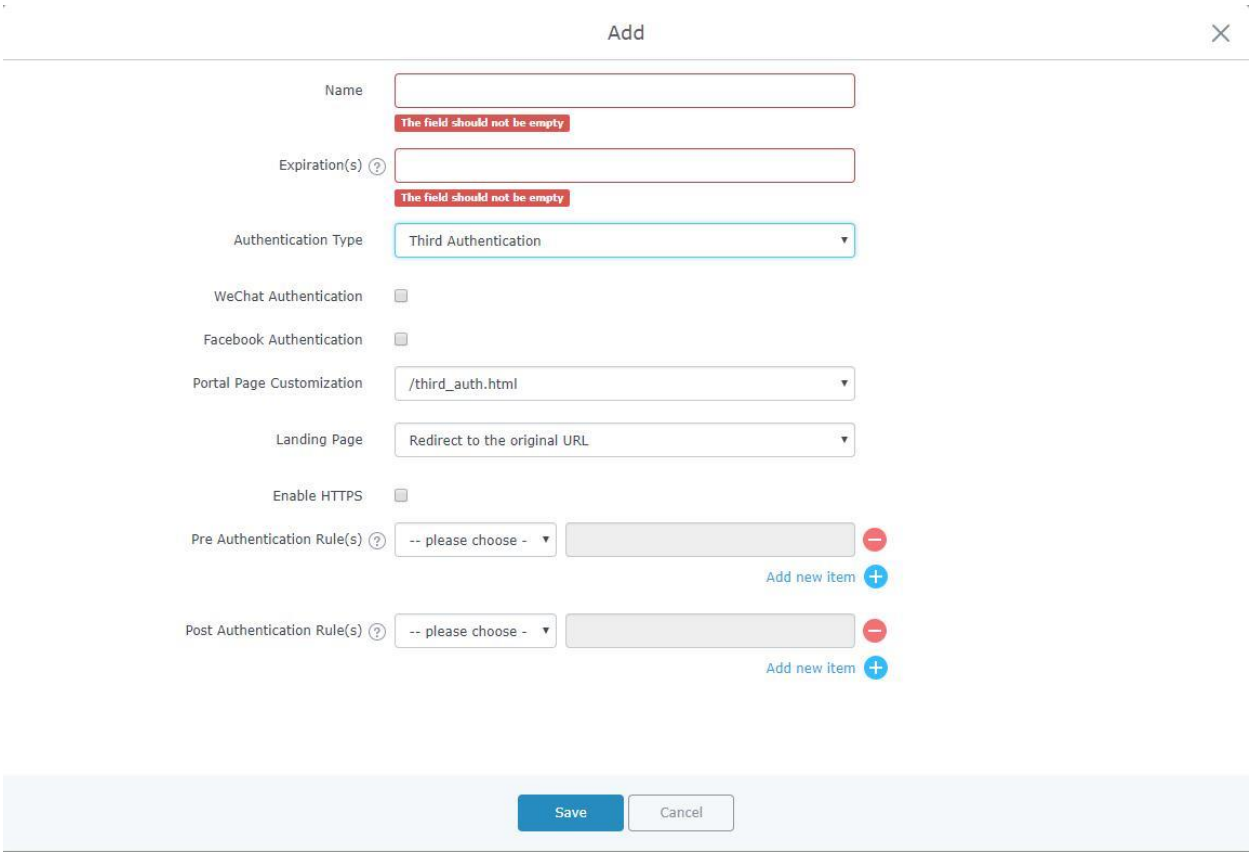
KNOWN ISSUE

- "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

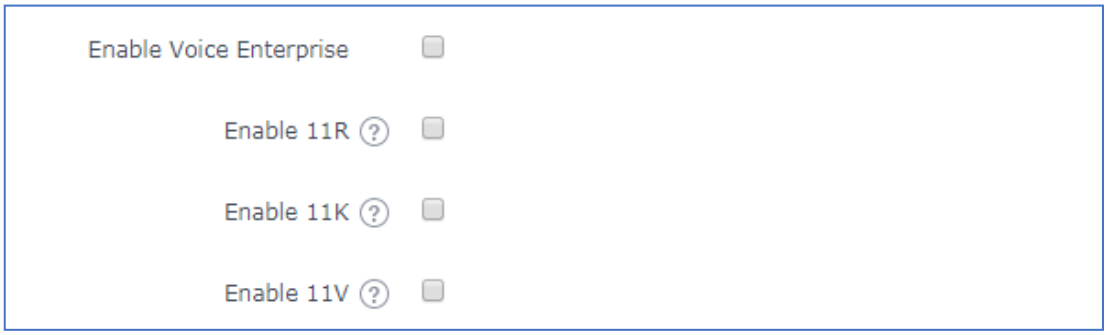
- Captive Portal

  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.



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

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

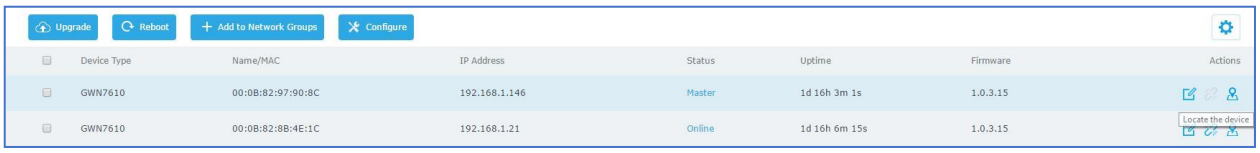


- Failover Master

  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.

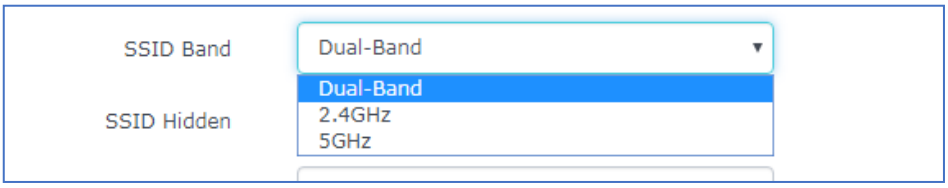
- AP Locating by Blinking LED

  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.



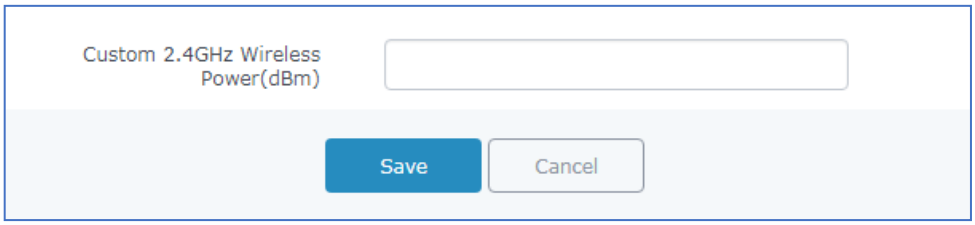
- Select Band per SSID

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



- Exact Radio Power Configuration in dBm

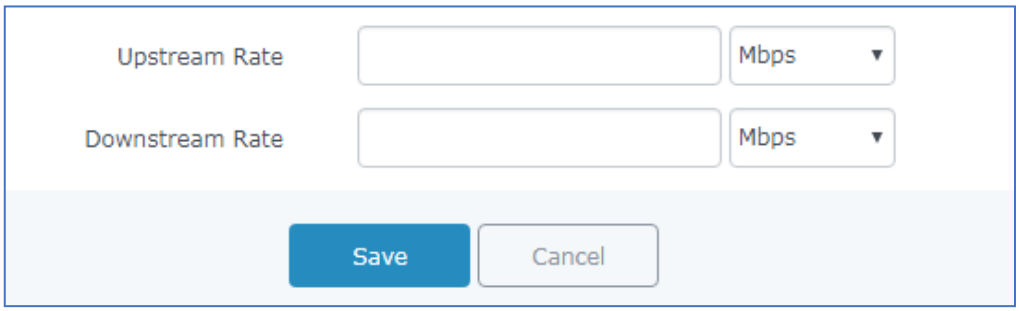
  Configuration available at Access Point->Edit->Configuration-> **Custom 2.4GHz Wireless Power** (dBm).



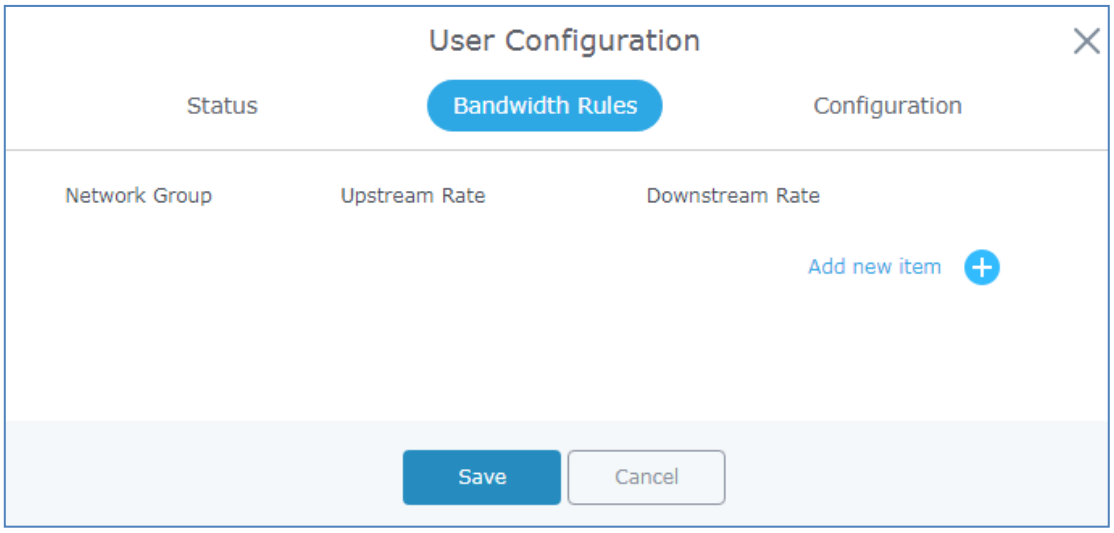
- Per-Client/Per-SSID Bandwidth Management

  Configuration available at

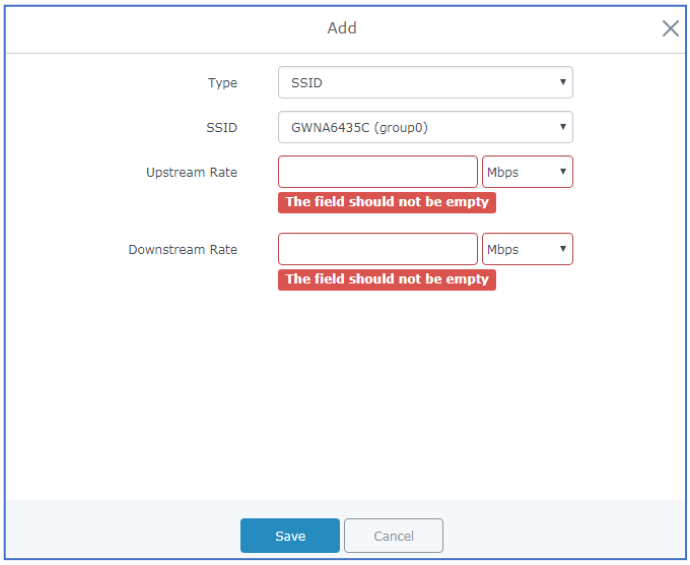
  Per-SSID: Network Group->Add/Edit->WIFI-> **Upstream Rate / Downstream Rate.**



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



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

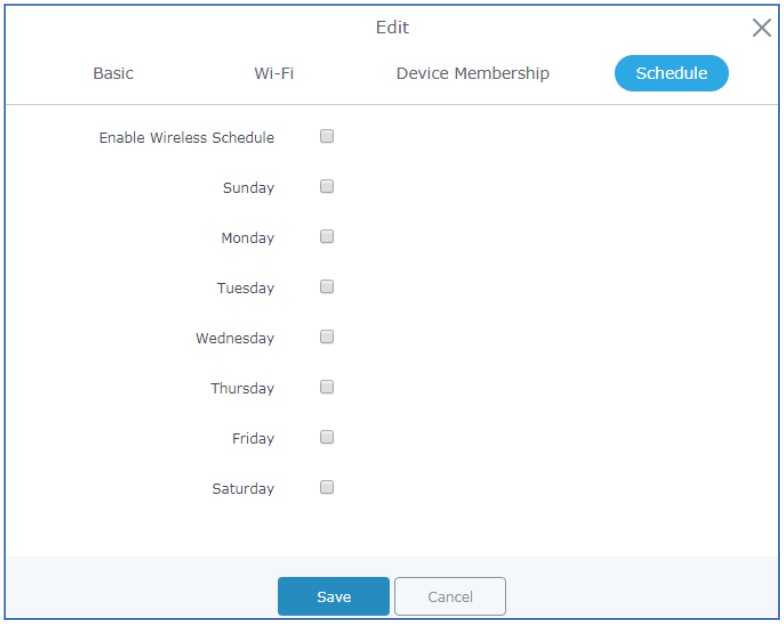


- Limit Client Count per SSID

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

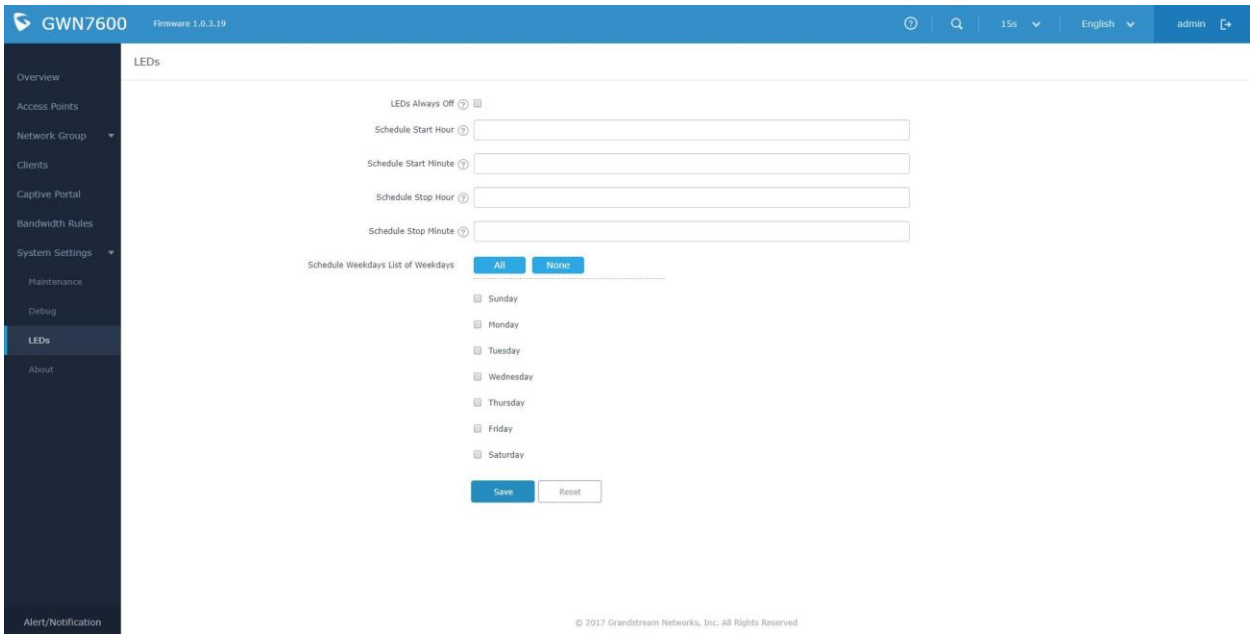
- WIFI schedule

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



- 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.**

[GWN7610]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/v (Enable Voice Enterprise)Added support for Failover Master
- Added support for VLAN assignment via RADIUS
- Added support for Select Band per SSIDAdded 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

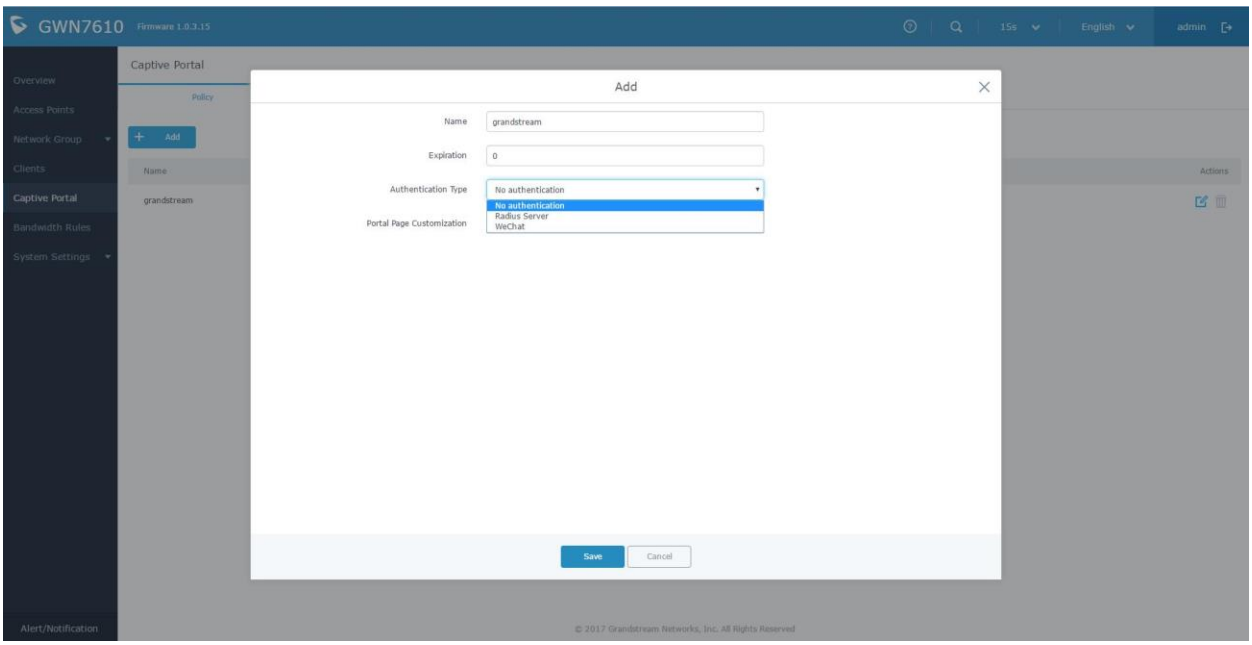
KNOWN ISSUE

- 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.



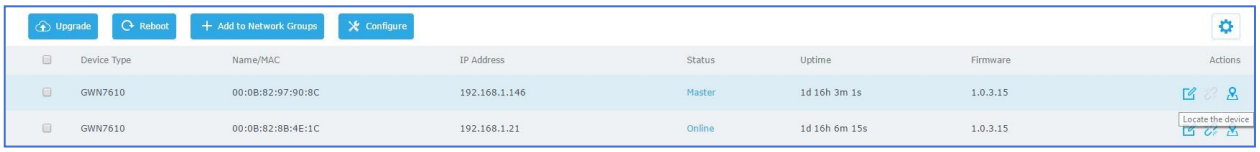
- Failover Master

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 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.



- 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.**

[GWN7610]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 salve. (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.

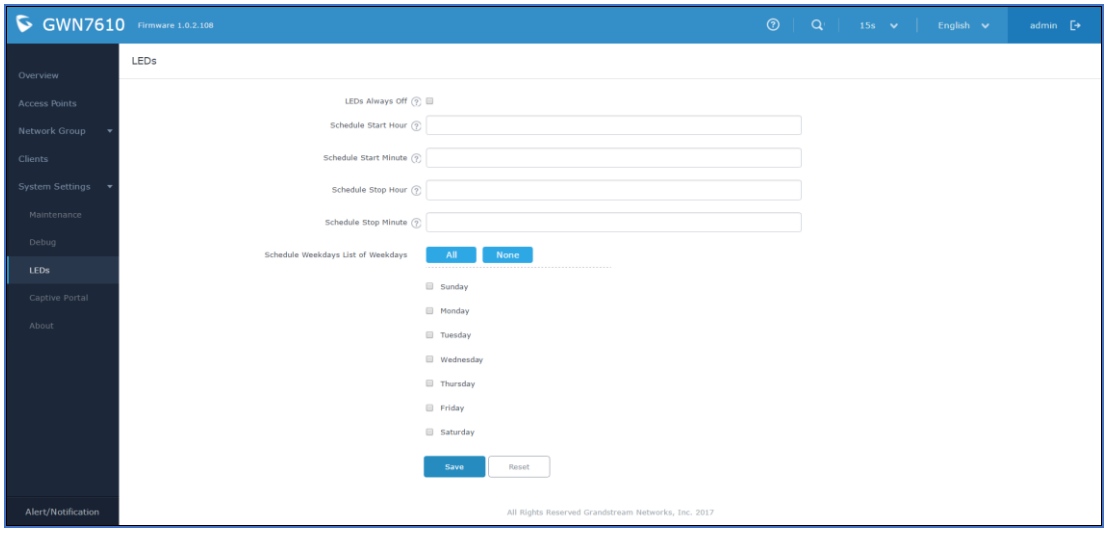
KNOWN ISSUE

- 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

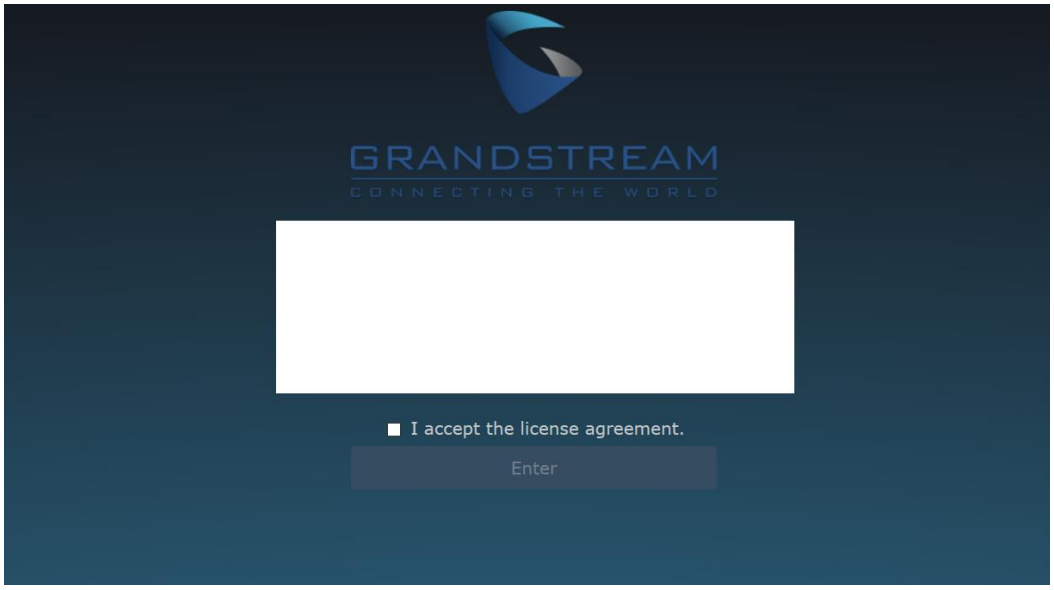
- LED control

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



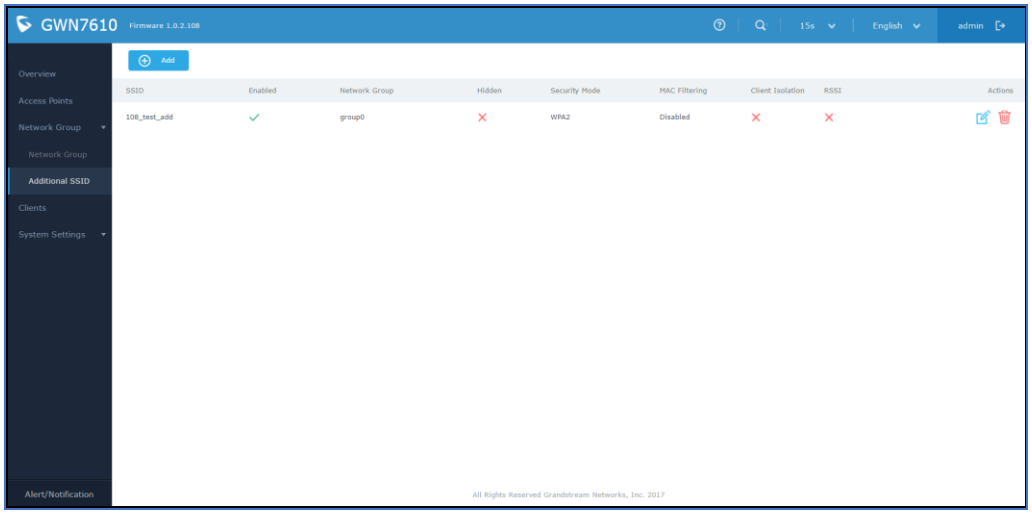
- Captive Portal

  Configurations are is 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.

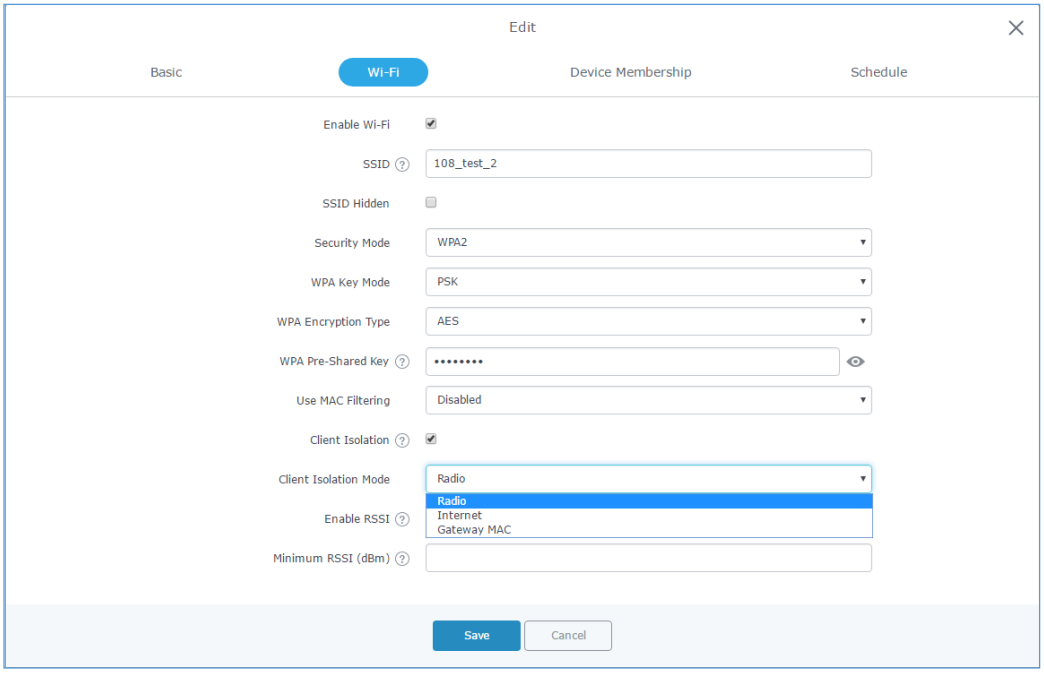


- WIFI schedule

  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.



[GWN7600&7600LR]FIRMWARE VERSION 1.0.1.36

PRODUCT NAME

GWN7600

DATE

3/15/2017

IMPORTANT UPGRADING NOTE

This is the initial official release of GWN7600

[GWN7610]FIRMWARE VERSION 1.0.2.15

PRODUCT NAME

GWN7610

DATE

1/31/2017

IMPORTANT UPGRADING NOTE

This is the initial official release of GWN7610