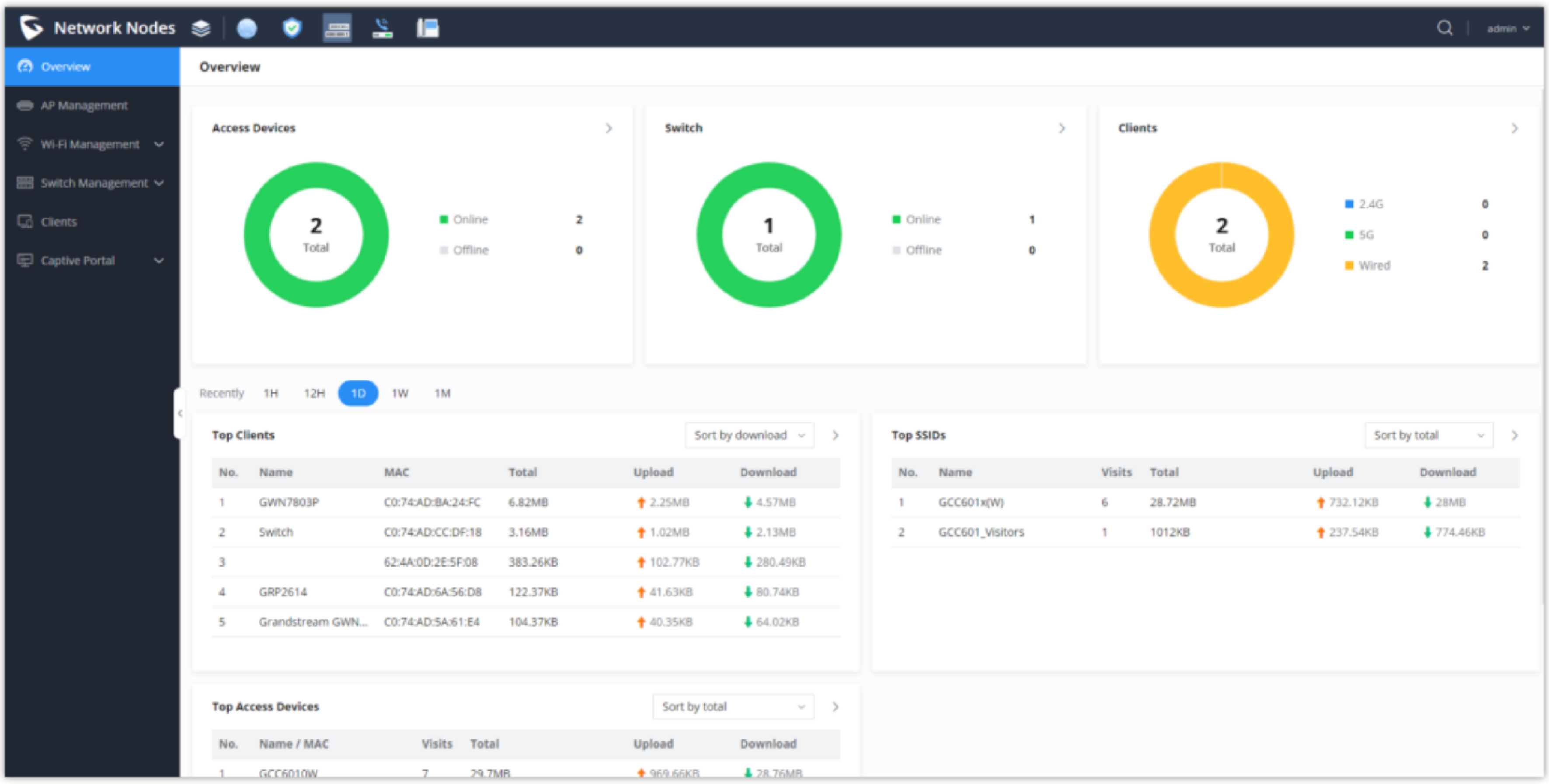
GCC6xxx Network Nodes - User Manual

In this guide, we will present the configuration parameters of the GCC601x(W) Network nodes module.

OVERVIEW

In the context of network management, network nodes refer to individual devices or components such as switches and access points that form the interconnected infrastructure being monitored. These nodes provide data points for analysis, helping the monitoring platform to assess the health, performance, and security of the overall network.

After successful login to the GCC601X(W)'s Network Nodes Web Interface, the overview web page will provide an overall view of the GCC601X(W)'s information presented in a Dashboard style for easy monitoring. Please refer to the figure and table below:



Top Clients

No.	Name	MAC	Total	Upload	Download
1	GWN7803P	C0:74:AD:BA:24:FC	6.82MB	2.25MB	4.57MB
2	Switch	C0:74:AD:CC:DF:18	3.16MB	1.02MB	2.13MB
3		62:4A:0D:2E:5F:08	383.26KB	102.77KB	280.49KB
4	GRP2614	C0:74:AD:6A:56:D8	122.37KB	41.63KB	80.74KB
5	Grandstream GWN...	C0:74:AD:5A:61:E4	104.37KB	40.35KB	64.02KB

Top SSIDs

No.	Name	Visits	Total	Upload	Download
1	GCC601x(W)	6	28.72MB	732.12KB	28MB
2	GCC601_Visitors	1	1012KB	237.54KB	774.46KB

Top Access Devices

No.	Name / MAC	Visits	Total	Upload	Download
1	GCC6010W	7	29.7MB	969.66KB	28.76MB

Overview

Access Devices	Shows the total number of Access Devices online and offline.
Switch	Displays the list of switches paired with the GCC601x, and shows a status of both online and offline devices.
Clients	Shows the total number of clients connected either wirelessly (2.4G and 5G) and also wired connections.
Top Clients	Shows the Top Clients list, users may assort the list of clients by their upload or download. Users may click on to go to Clients page for more options. You have the possibility to sort the connected clients by : ● **Upload:** Displays the total download rate used by the device ● **Download:** Displays the total upload rate used by the device Users can also specify the time span of the data being displayed, either 1 hour, 12 hours, 1 day, 1 week, or 1 month
Top SSIDs	Shows the Top SSIDs list, users may assort the list by number of clients connected to each SSID or data usage combining upload and download. Users may click on to go to SSID page for more options. You have the possibility to sort the connected clients by : Total connected devices, or by the number of visits
Top Access Devices	Shows the Top Access Devices list, assort the list by the number of clients connected to each access device or data usage combining upload and download. Click on the arrow to go to the access

	point page for basic and advanced configuration options.

Overview page

AP MANAGEMENT

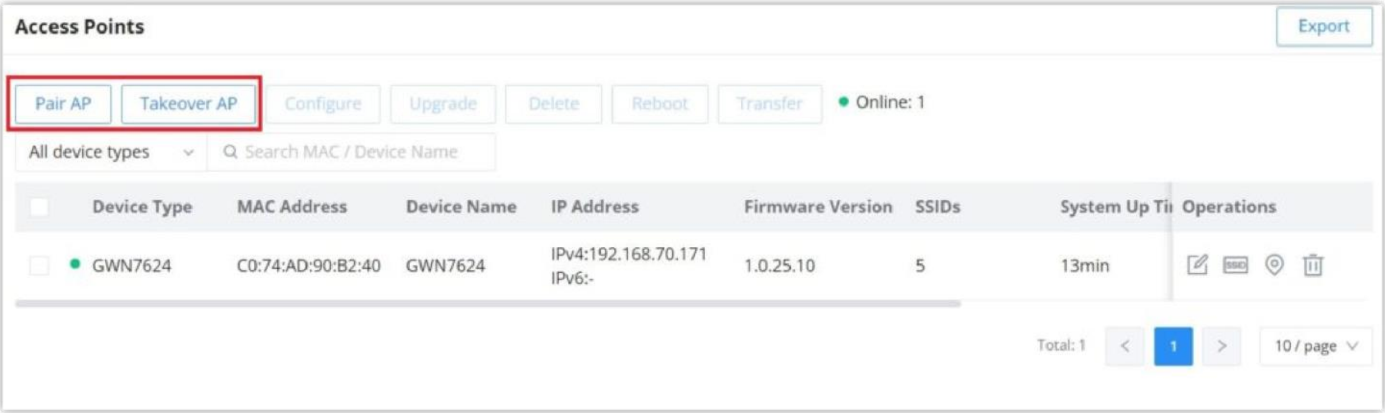
The user can add the access point which can be controlled using the embedded controller within the GCC601X(W) device. The user can either pair or takeover an access point to be able to configure it. The configuration performed on the GCC601X(W) AP embedded controller will be pushed to the access points; thus, offering a centralized management of the GWN access points.

Add a new Access Point

Note

- GCC601xW wireless models will have an embedded default AP with the name of the device itself, as opposed to the wired models (GCC601x) who will not have any embedded AP.
- The GWN76XX AP firmware version 1.0.25.30 and above supports official online updates and management by the GCC device.

To add a GWN access point to the GCC601X(W), please navigate to **Web UI → AP Management**



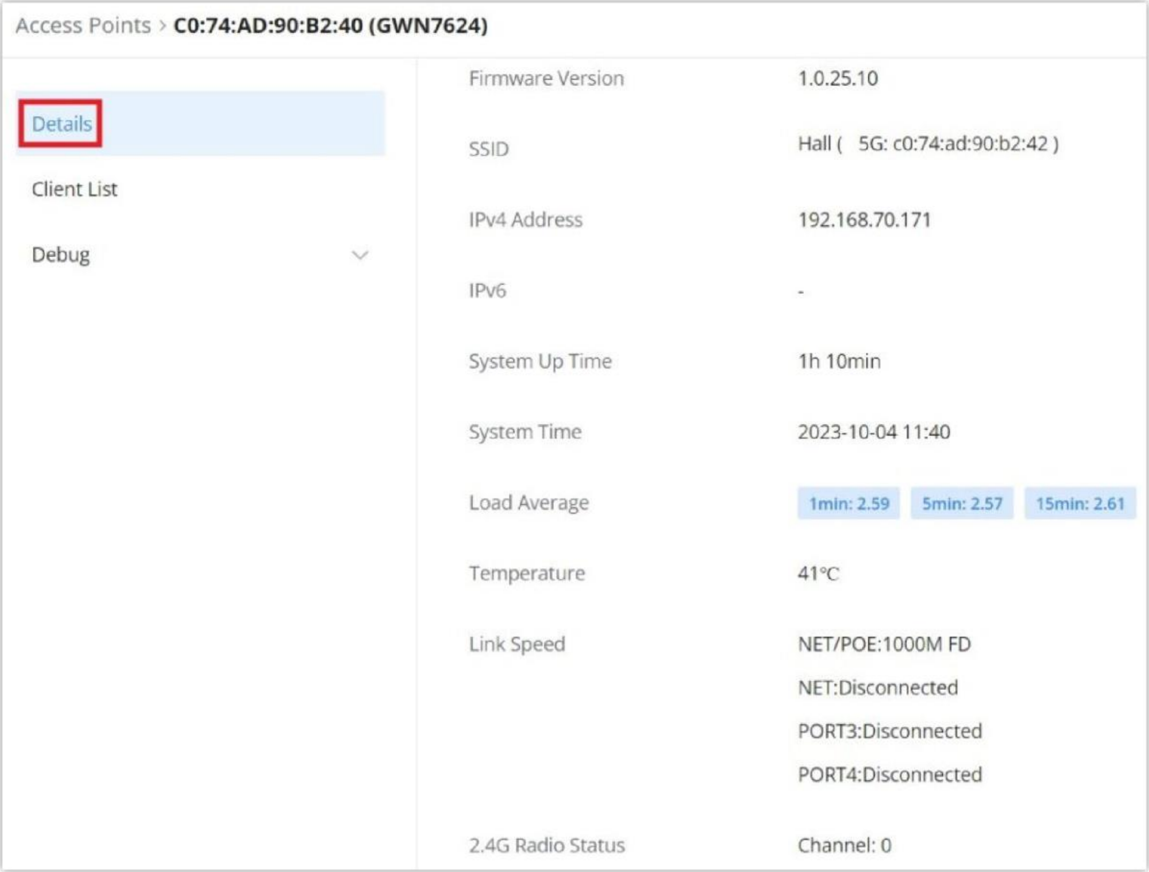
	Device Type	MAC Address	Device Name	IP Address	Firmware Version	SSIDs	System Up Ti	Operations
□	● GWN7624	C0:74:AD:90:B2:40	GWN7624	IPv4:192.168.70.171 IPv6:-	1.0.25.10	5	13min	

Access Points List

Pair AP: Use this button when pairing an AP that has not been set as a master.
Takeover AP: Use this button to take over an access point that has formerly been set as a slave to a different master device. To pair the devices successfully, the network administrator must enter the password of the master device.

Click on a paired GWN AP to view Details, Client list, and debug tools. Please refer to the figures below:

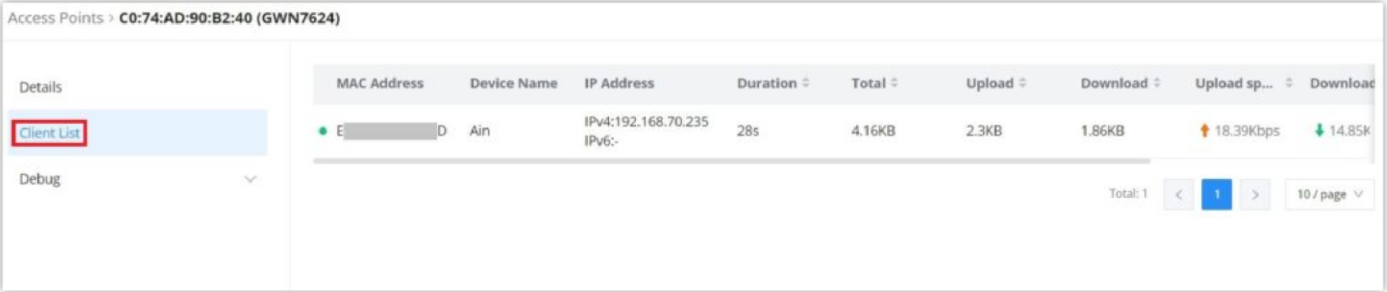
The **Details** section contains details about the paired AP like firmware version, SSID, IP address, Temperature, etc.



Firmware Version	1.0.25.10
SSID	Hall (5G: c0:74:ad:90:b2:42)
IPv4 Address	192.168.70.171
IPv6	-
System Up Time	1h 10min
System Time	2023-10-04 11:40
Load Average	1min: 2.59 5min: 2.57 15min: 2.61
Temperature	41℃
Link Speed	NET/POE:1000M FD NET:Disconnected PORT3:Disconnected PORT4:Disconnected
2.4G Radio Status	Channel: 0

Paired APs – Details

The **Client List** section lists all the connected clients through this AP with much info like MAC Address, Device name, IP Address, bandwidth, etc.



MAC Address	Device Name	IP Address	Duration	Total	Upload	Download	Upload sp...	Download
E[redacted]D	Ain	IPv4:192.168.70.235 IPv6:-	28s	4.16KB	2.3KB	1.86KB	18.39Kbps	14.85K

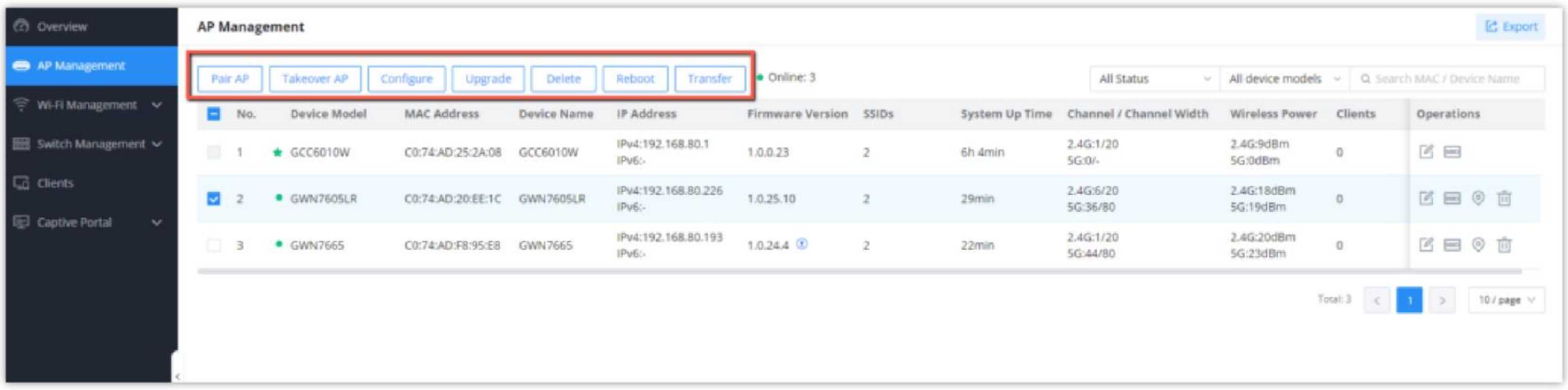
Total: 1 ‹ 1 › 10 / page

Paired APs – Client list

After the access point has been added, the user can select it and perform one of the following actions:

- **Configure the AP**
- **Upgrade the AP**
- **Delete the AP**
- **Reboot the AP**
- **Transfer the AP**
- **Assign SSIDs to AP**
- **Locate AP**

The configuration page allows the administrator to Upgrade, Reboot, Add to SSIDs, Configure, Transfer network group, Transfer AP, Discover AP, Failover.



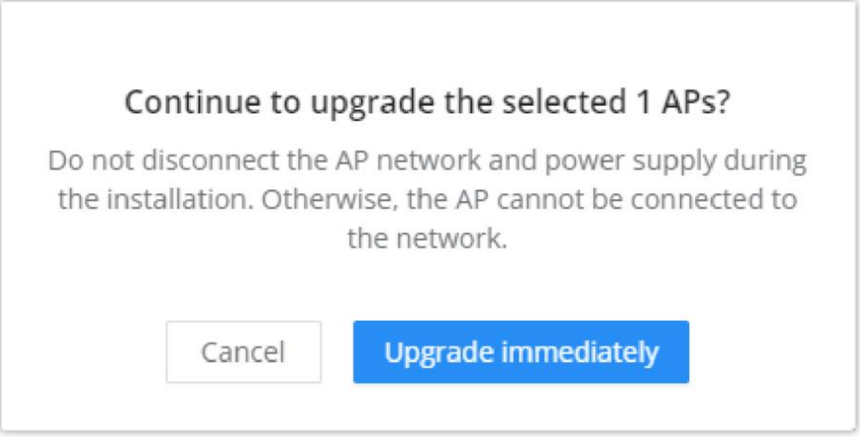
☐	No.	Device Model	MAC Address	Device Name	IP Address	Firmware Version	SSIDs	System Up Time	Channel / Channel Width	Wireless Power	Clients	Operations
☐	1	GCC6010W	C0:74:AD:25:2A:08	GCC6010W	IPv4:192.168.80.1 IPv6:-	1.0.0.23	2	6h 4min	2.4G:1/20 5G:0/-	2.4G:9dBm 5G:0dBm	0	
☑	2	GWN7605LR	C0:74:AD:20:EE:1C	GWN7605LR	IPv4:192.168.80.226 IPv6:-	1.0.25.10	2	29min	2.4G:6/20 5G:36/80	2.4G:18dBm 5G:19dBm	0	
☐	3	GWN7665	C0:74:AD:F8:95:E8	GWN7665	IPv4:192.168.80.193 IPv6:-	1.0.24.4	2	22min	2.4G:1/20 5G:44/80	2.4G:20dBm 5G:23dBm	0	

Total: 3 ‹ 1 › 10 / page

GCC601x(W) Configuration Page

Upgrade the AP

Select slave AP(s) to upgrade and press Upgrade button.

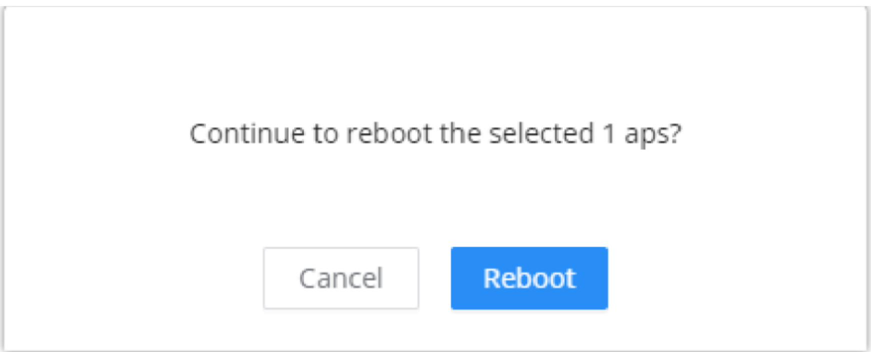


Continue to upgrade the selected 1 APs?

Do not disconnect the AP network and power supply during the installation. Otherwise, the AP cannot be connected to the network.

Reboot slave AP

To reboot a slave AP, select it then click on Reboot button. the below confirmation message will be displayed:

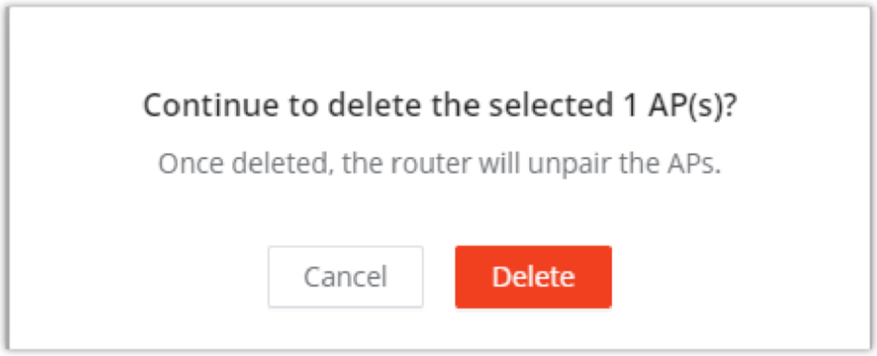


Continue to reboot the selected 1 aps?

Reboot Access Point

Delete Access Points

To delete an access point, select it, then click on delete button, the following confirmation message will be displayed:



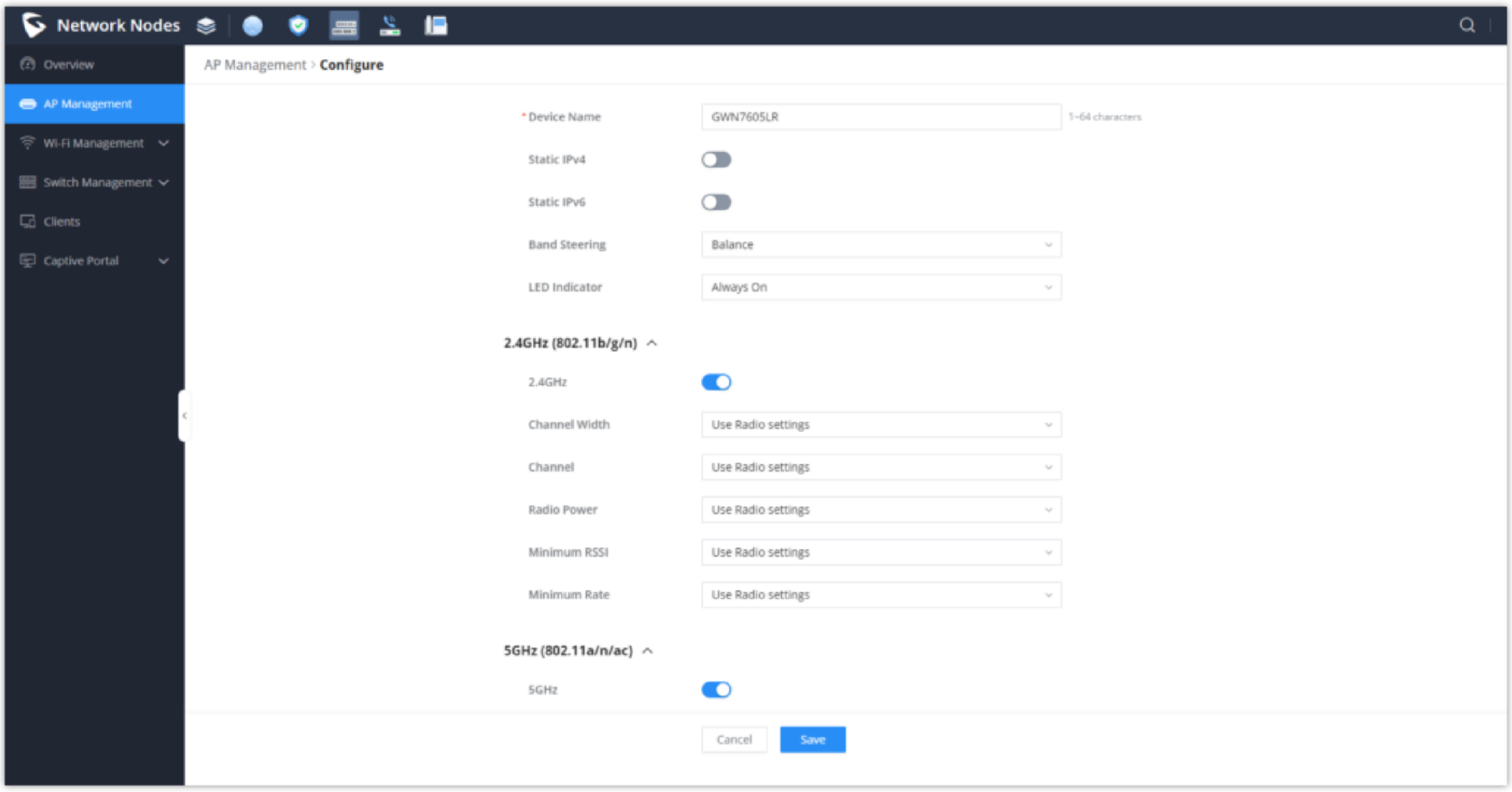
Continue to delete the selected 1 AP(s)?

Once deleted, the router will unpair the APs.

Delete Access Point

Configure Access Points

To configure an access point, select and click on Configure button. A new config page will popup:



* Device Name: GWN7605LR (1~64 characters)

Static IPv4

Static IPv6

Band Steering: Balance

LED Indicator: Always On

2.4GHz (802.11b/g/n)

2.4GHz

Channel Width: Use Radio settings

Channel: Use Radio settings

Radio Power: Use Radio settings

Minimum RSSI: Use Radio settings

Minimum Rate: Use Radio settings

5GHz (802.11a/n/ac)

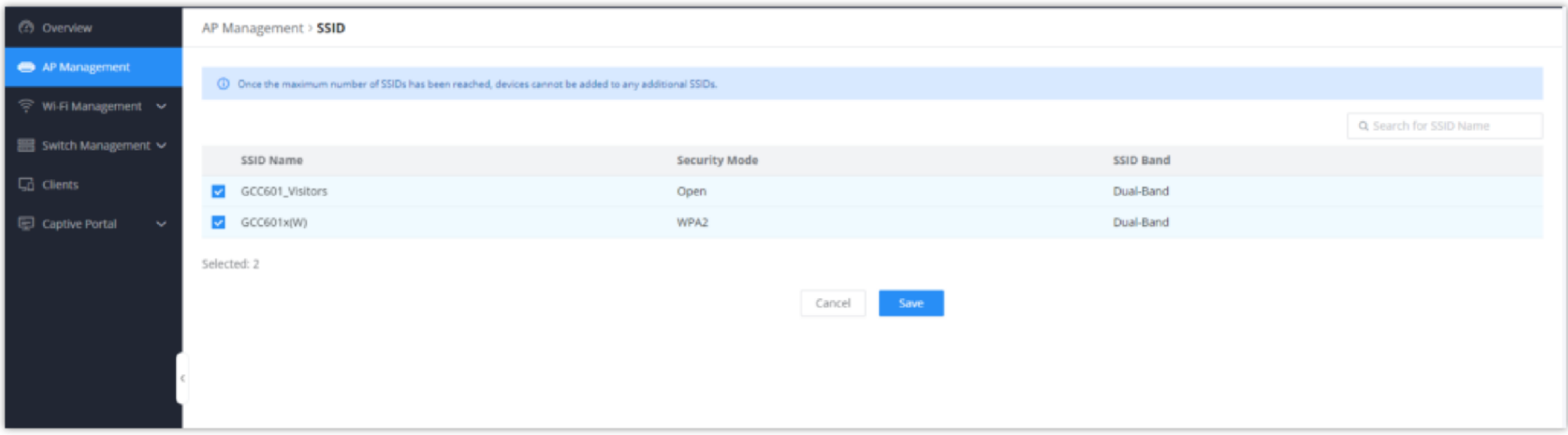
5GHz

Device Name	Set GWN76xx's name to identify it along with its MAC address.
Static IPv4	Check this option to configure the device with a static IP configuration; it must be in the same subnet with the default Network Group; Once enabled, these fields will show up: IPv4 Address/IPv4 Subnet Mask/IPv4 Gateway/Preferred IPv4 DNS/Alternate IPv4 DNS.
Static IPv6	Check this option to configure the device with a static IP configuration; it must be in the same subnet with the default Network Group; Once enabled, these fields will show up: IPv6 Address/IPv6 Prefix Length/IPv6 Gateway/Preferred IPv6 DNS/Alternate IPv6 DNS.
Band Steering	Band Steering will help redirect clients to a radio band 2.4G or 5G, depending on what is supported by the device, to increase efficiency and benefit from the maximum throughput. Four options are allowed by GDMS:

	Disable Band steering: This will disable the band steering feature and the access point will accept the band chosen by the client. 2G in Priority: 2G Band will be prioritized over 5G Band. 5G in Priority: 5G Band will be prioritized over 2G Band Balance: Band Steering will balance between the clients connected to 2G and 5G. Use Radio Settings: GWN will use the value configured under Radio page.
LED indicator	Configure the LED: Four options are available: Use System Settings, Always on, Always off, or Schedule.
2.4G/5G (802.11b/g/n/ax)	
Disable 2.4GHz/5GHz	This feature allows the user to disable/enable its 2.4GHz/5GHz band on the AP.
Channel Width	Choose the Channel Width, note that wide channels will give better speed/throughput, and narrow channel will have less interference. 20Mhz is suggested in a very high-density environment. Default is "Use Radio Settings", the AP then will use the value configured under the Radio page.
Channel	Select Use Radio Settings, or a specified channel, default is Auto. Note that the proposed channels depend on Country Settings under System Settings → Maintenance. Default is "Use Radio Settings", the AP then will use the value configured under Radio page.
Radio Power	Set the Radio Power depending on the desired cell size to be broadcasted, five options are available: **"Low", "Medium", "High", "Custom" and "Use Radio Settings"**. The default is **"Use Radio Settings**", the AP then will use the value configured under the Radio page
Enable Minimum RSSI	Configure whether to enable/disable Minimum RSSI function. This option can be either Disabled or Enabled and set manually or set to Use Radio Settings.
Minimum Rate	Specify whether to limit the minimum access rate for clients. This function may guarantee the connection quality between clients and APs. This option can be either Disabled or Enabled and set manually or set to Use Radio Settings.

Assign SSIDs to AP

By clicking the icon SSID it will display the configuration page responsible for assigning created SSIDs to the selected AP



Once the maximum number of SSIDs has been reached, devices cannot be added to any additional SSIDs.

	SSID Name	Security Mode	SSID Band
☑	GCC601_Visitors	Open	Dual-Band
☑	GCC601x(W)	WPA2	Dual-Band

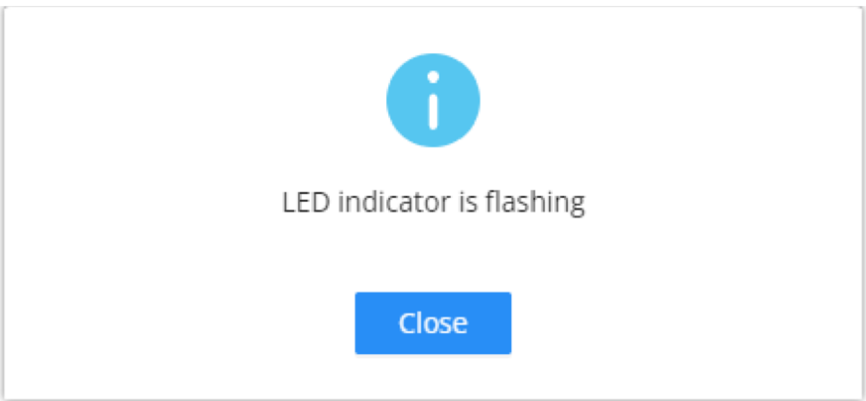
Selected: 2

Note

Once the maximum number of SSIDs has been reached, devices cannot be added to any additional SSIDs.

Locate AP

By Clicking the icon , you allow the GCC610x(W) to send an LED notification to the connected AP to locate it



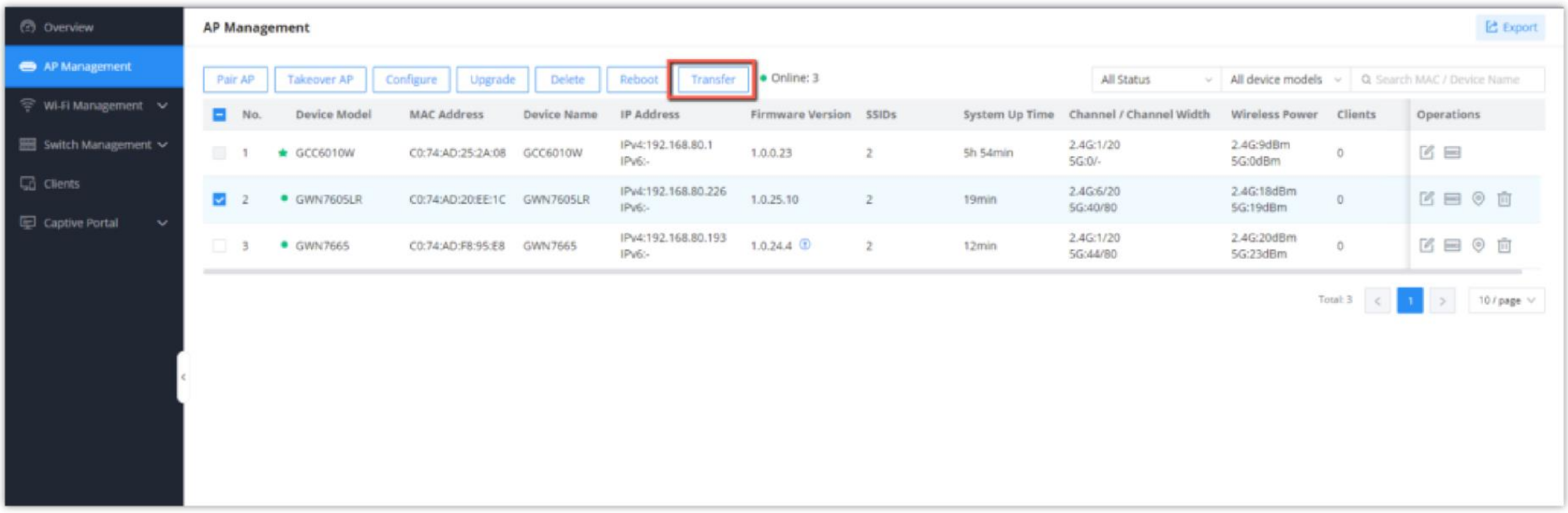
LED indicator is flashing

Close

Transfer APs to GDMS

GWN routers also enable users to transfer their paired GWN APs to GDMS.

On the **AP Management → Access Points** page, select the AP or APs then click on the “**Transfer**” button as shown below:



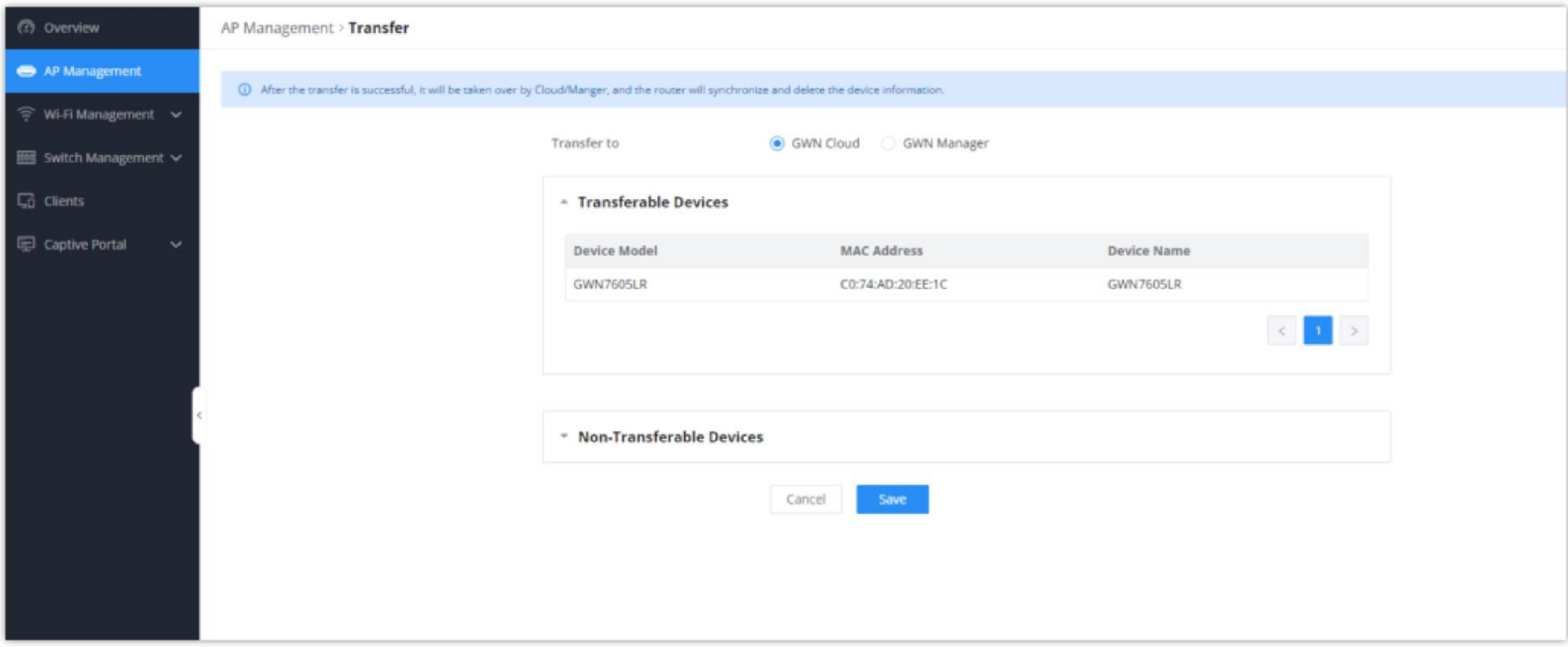
AP Management

Online: 3

No.	Device Model	MAC Address	Device Name	IP Address	Firmware Version	SSIDs	System Up Time	Channel / Channel Width	Wireless Power	Clients
□ 1	GCC6010W	C0:74:AD:25:2A:08	GCC6010W	IPv4:192.168.80.1 IPv6:-	1.0.0.23	2	5h 54min	2.4G:1/20 5G:0/-	2.4G:9dBm 5G:0dBm	0
☑ 2	GWN7605LR	C0:74:AD:20:EE:1C	GWN7605LR	IPv4:192.168.80.226 IPv6:-	1.0.25.10	2	19min	2.4G:6/20 5G:40/80	2.4G:18dBm 5G:19dBm	0
□ 3	GWN7665	C0:74:AD:F8:95:E8	GWN7665	IPv4:192.168.80.193 IPv6:-	1.0.24.4	2	12min	2.4G:1/20 5G:44/80	2.4G:20dBm 5G:23dBm	0

Total: 3 · 10 / page

On the next page, select either GDMS (Cloud or Local) then click the “**Save**” button. the user will be forwarded automatically to either GDMS (Cloud or Local) to log in.



AP Management > Transfer

After the transfer is successful, it will be taken over by Cloud/Manger, and the router will synchronize and delete the device information.

Transfer to ● GWN Cloud ○ GWN Manager

Transferable Devices

Device Model	MAC Address	Device Name
GWN7605LR	C0:74:AD:20:EE:1C	GWN7605LR

Non-Transferable Devices

Transfer AP to GDMS

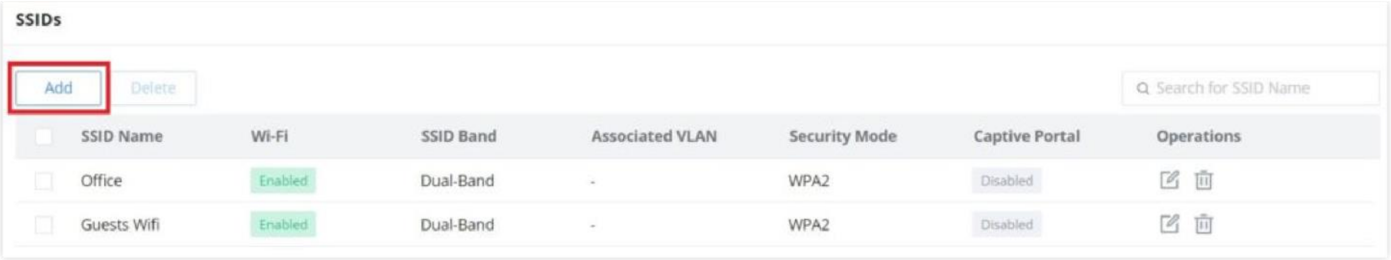
Note:

After successful transfer, it will be taken over by Cloud/Manger, and the GCC601x(W) will delete the device information synchronously.

WIFI MANAGEMENT

SSIDs

On this page, the user can configure SSID settings. The Wi-Fi SSID will be broadcast by the paired access points. This offers centralized control over the SSIDs created which makes managing many GWN access points easier and more convenient.



SSIDs

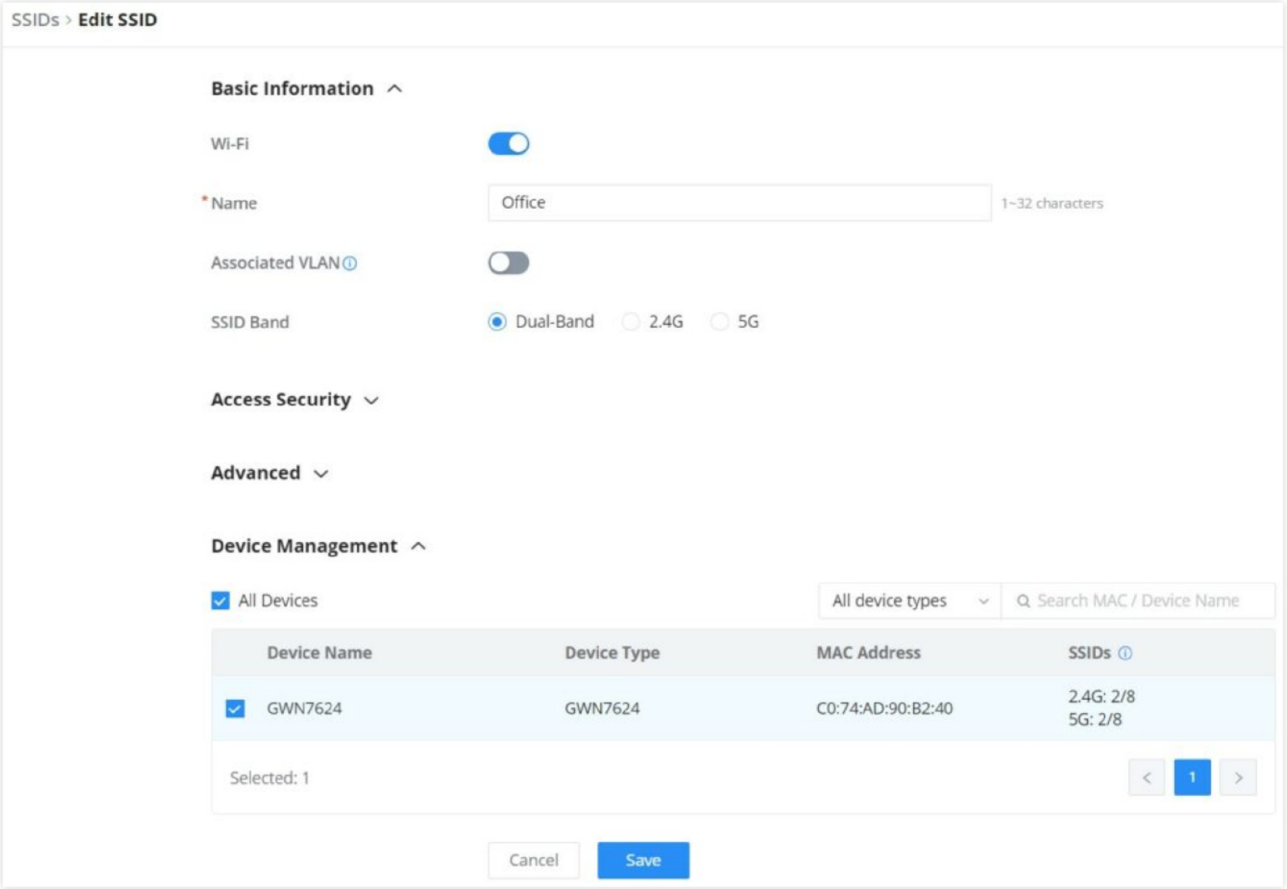
Add Delete

Search for SSID Name

	SSID Name	Wi-Fi	SSID Band	Associated VLAN	Security Mode	Captive Portal	Operations
□	Office	Enabled	Dual-Band	-	WPA2	Disabled	
□	Guests Wifi	Enabled	Dual-Band	-	WPA2	Disabled	

SSID page

To add an SSID, the user should click on the “**Add**” button, then the following page will appear:



SSIDs > Edit SSID

Basic Information

Wi-Fi: ON

*Name: Office (1~32 characters)

Associated VLAN: OFF

SSID Band: ● Dual-Band ○ 2.4G ○ 5G

Access Security

Advanced

Device Management

☑ All Devices

All device types

Search MAC / Device Name

	Device Name	Device Type	MAC Address	SSIDs
☑	GWN7624	GWN7624	C0:74:AD:90:B2:40	2.4G: 2/8 5G: 2/8

Selected: 1

Cancel Save

Add SSID

Basic Information	
Wi-Fi	Toggle on/off the Wi-Fi SSID.
Name	Enter the name of the SSID.
Associated VLAN	Toggle "**ON**" to enable VLAN, then specify the VLAN from the list or click on "**Add VLAN**" to add one.
SSID Band	Choose the Wi-Fi SSID band. - **Dual-Band:** Both bands will be enabled. - **2.4G:** Only 2.4G band is enabled. - **5G:** Only 5G band is enabled.
Access Security	
Security Mode	Choose the security mode for the Wi-Fi SSID. - **Open** - **WPA/WPA2** - **WPA2** - **WPA2/WPA3** - **WPA3** - **WPA3-192**
WPA Key Mode	Depending on the security mode chosen, the WPA Key mode will be different, the following options are available for each corresponding security mode. - **Open :** It will not have any WPA Key Mode - **WPA/WPA2:** It will have PSK and 802.1x WPA key modes

	• **WPA2:** It will have PSK, 802.1x, PPSK without Radius, and PPSK with RADIUS • **WPA2/WPA3:** It will have SAE-PSK, and 802.1x • **WPA3:** SAE, and 802.1x are supported • **WPA3-192:** 802.1x is supported
WPA Encryption Type	Choose the encryption type: • **AES** • **AES/TKIP**
WPA Shared Key	Enter the shared key phrase. This key phrase will be required to enter when connecting to the Wi-Fi SSID.
Enable Captive Portal	Toggle Captive Portal on/off. • **Captive Portal Policy:** Choose the created captive portal policy.
Blocklist Filtering	Choose a blocklist for the Wi-Fi SSID, Please refer to the [blocklist] configuration
Client Isolation	• **Closed:** Allow access between wireless clients. • **Radio:** All wireless clients will be isolated from each other. • **Internet:** Access to any private IP address will be blocked. • **Gateway MAC:** Private IP addresses except for the configured gateway will be blocked.
Advanced	
SSID Hidden	After enabled, wireless devices will not be able to scan this Wi-Fi, and can only connect by manually adding network.
DTIM Period	Configure the delivery traffic indication message (DTIM) period in beacons. Clients will check the device for buffered data at every configured DTIM Period. You may set a high value for power saving consideration. Please input an integer between 1 to 10.
Wireless Client Limit	Configure the limit for wireless client, valid from 1 to 256. If every Radio has an independent SSID, each SSID will have the same limit. Therefore, setting a limit of 256 will limit each SSID to 256 clients independently.
Client Inactivity Timeout (sec)	Router/AP will remove the client's entry if the client generates no traffic at all for the specified time period. The client inactivity timeout is set to 300 seconds by default.
Multicast Broadcast Suppression	• **Disabled:** all of the broadcast and multicast packages will be forwarded to the wireless interface. • **Enabled:** all of the broadcast and multicast packages will be discarded except DHCP/ARP/IGMP/ND. • **Enabled with ARP Proxy**: enable the optimization with ARP Proxy enabled in the meantime.
Convert IP Multicast to Unicast	• **Disabled:** No IP multicast packets will be converted to unicast packets. • **Passive:** The device will not actively send IGMP queries, and the IGMP snooping entries may be aged after 300s and cannot be forwarded as multicast data. • **Active:** The device will actively send IGMP queries and keep IGMP snooping entries updated.
Schedule	Enable then select from the drop-down list or create a time schedule when this SSID can be used.
802.11r	Enables fast roaming for mobile devices within a Wi-Fi network, reducing connection dropout during transitions between access points by enabling pre-authentication and key caching.
802.11k	Enables devices to optimize their Wi-Fi connections by providing information about nearby access points, assisting in seamless roaming and network efficiency improvements.

802.11v	Enhances network management by enabling capabilities such as radio resource measurement and assisted roaming, improving overall network performance and client experience within a Wi-Fi environment.
ARP Proxy	Once enabled, devices will avoid transferring the ARP messages to stations, while initiatively answer the ARP requests in the LAN.
U-APSD	Configures whether to enable U-APSD (Unscheduled Automatic Power Save Delivery).
Bandwidth Limit	Toggle ON/OFF Bandwidth limit ***Note:*** *If Hardware acceleration is enabled, Bandwidth Limit does not take effect. Please go to Network Settings/Network Acceleration to disable*
Maximum Upload Bandwidth	Limit the upload bandwidth used by this SSID. The range is 1~1024, if it is empty, there is no limit. The values can be set as Kbps or Mbps.
Maximum Download Bandwidth	Limit the download bandwidth used by this SSID. The range is 1~1024, if it is empty, there is no limit The values can be set as Kbps or Mbps.
Bandwidth Schedule	Toggle ON/OFF Bandwidth Schedule; if it's ON, then select a schedule from the drop-down list or click on "**Create Schedule**".
Device Management	
In this section, the user is able to add and remove the GWN access points that can broadcast the Wi-Fi SSID. There is also the option to search the device by MAC address or name.	

Add SSID

Note

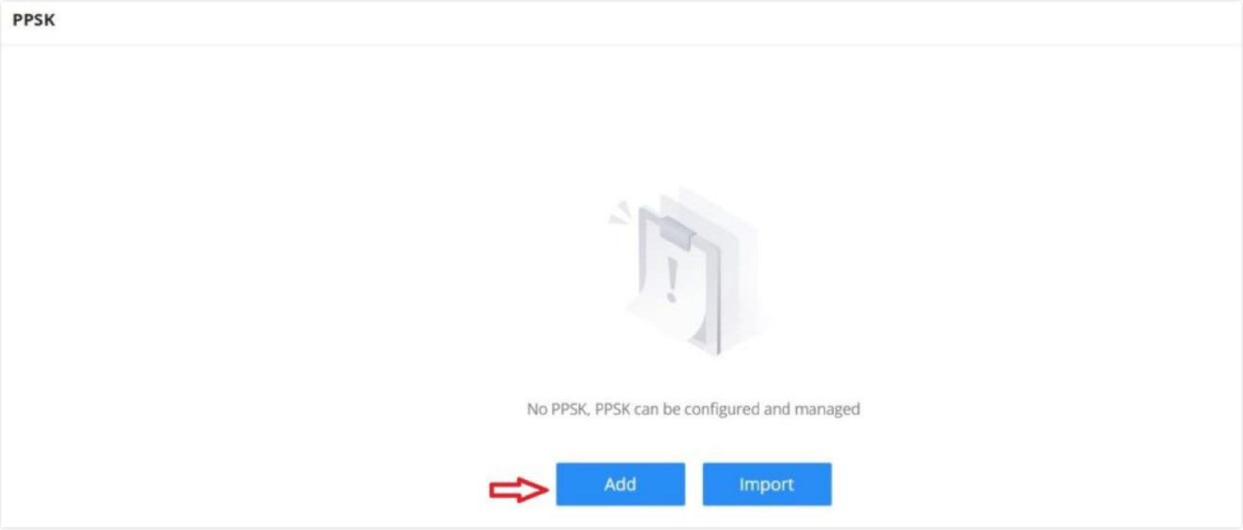
Only GCC6010W and GCC6015W will have a default SSID of the embedded AP

Private Pre-Shared Key (PPSK)

PPSK (Private Pre-Shared Key) is a way of creating Wi-Fi passwords per group of clients instead of using one single password for all clients. When configuring PPSK, the user can specify the Wi-Fi password, maximum number of access clients, and maximum upload and download bandwidth.

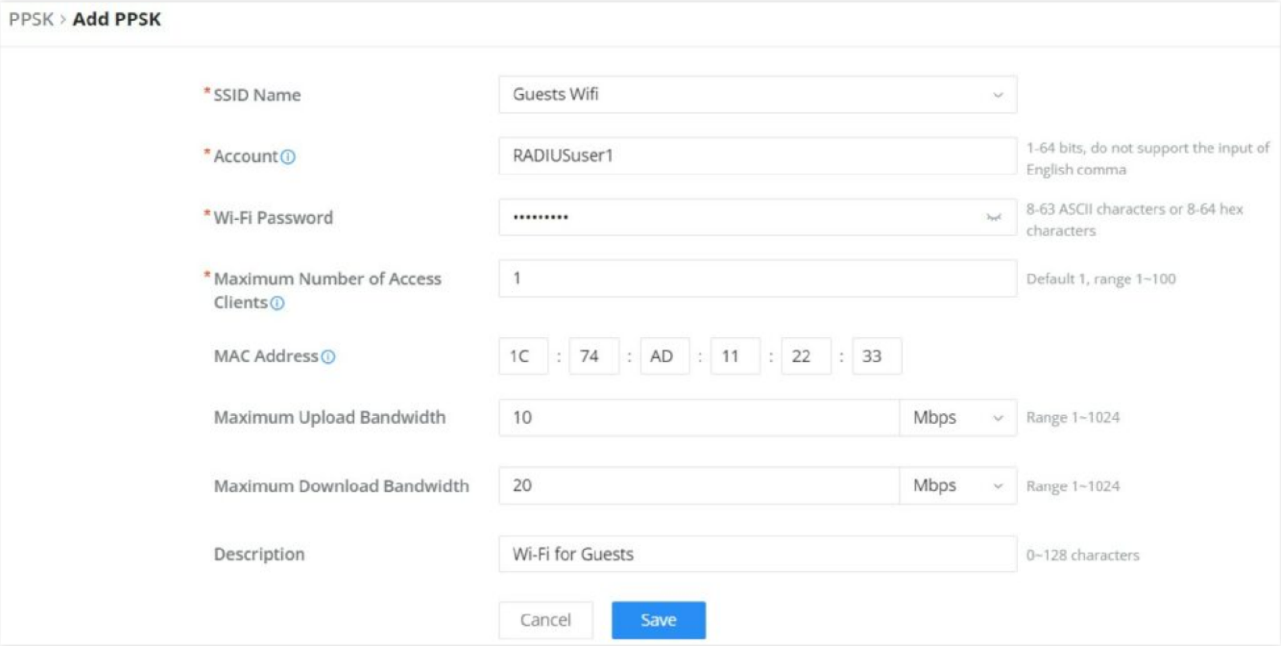
To start using PPSK, please follow the steps below:

1. First, create an SSID with WPA key mode set to either PPSK without RADIUS or PPSK with RADIUS.
2. Navigate to **Web UI → AP Management → PPSK** page, then click on the "**Add**" button then fill in the fields as shown below:



No PPSK, PPSK can be configured and managed

PPSK page



PPSK › **Add PPSK**

*SSID Name	Guests Wifi	
*Account	RADIUSuser1	1-64 bits, do not support the input of English comma
*Wi-Fi Password	••••••••••	8-63 ASCII characters or 8-64 hex characters
*Maximum Number of Access Clients	1	Default 1, range 1~100
MAC Address	1C : 74 : AD : 11 : 22 : 33	
Maximum Upload Bandwidth	10 Mbps	Range 1~1024
Maximum Download Bandwidth	20 Mbps	Range 1~1024
Description	Wi-Fi for Guests	0~128 characters

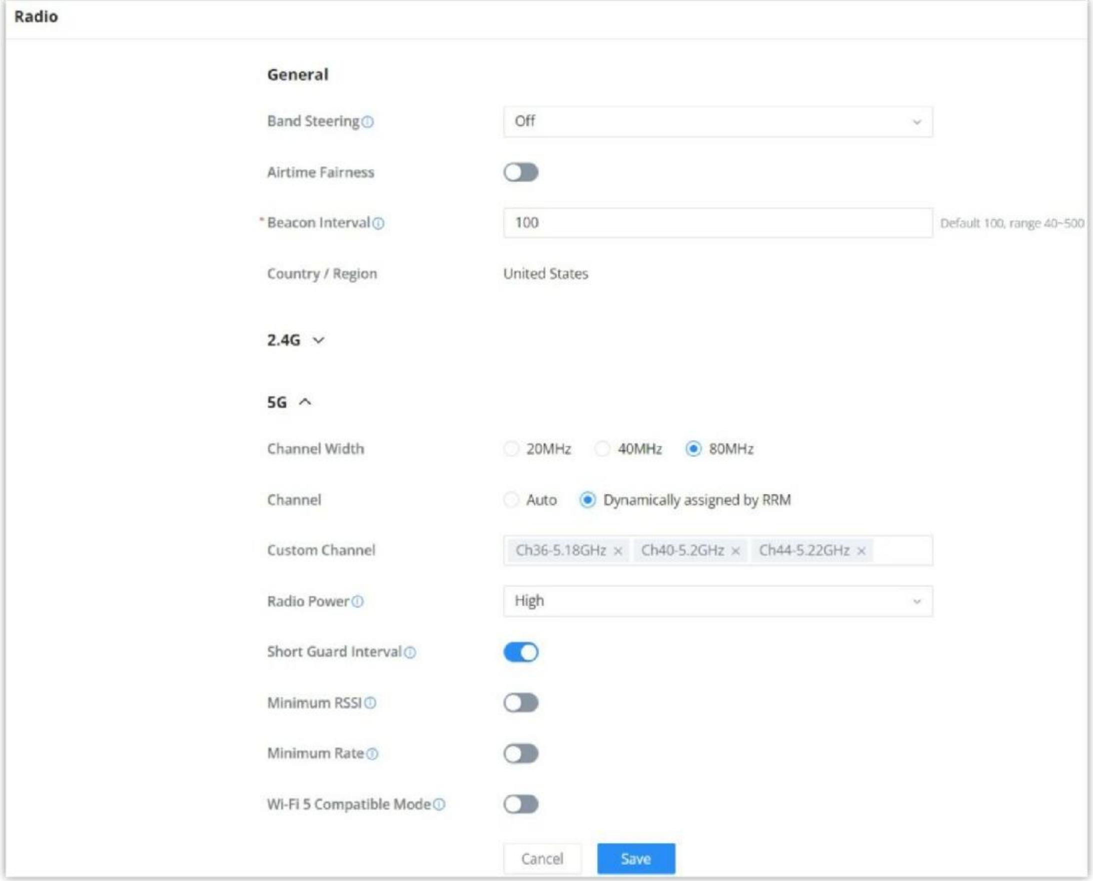
Add PPSK

SSID Name	Select from the drop-down list the SSID that has been previously configured with WPA Key mode set to PPSK without RADIUS or PPSK with RADIUS.
Account	If the WPA key mode in the selected SSID is "PPSK with RADIUS", the account is the user account of the RADIUS server.
Wi-Fi Password	Specify a Wi-Fi password
Maximum Number of Access Clients	Confgures the maximum number of devices allowed to be online for the same PPSK account.
MAC Address	Enter a MAC Address ***Note:*** *this field is only available if the Maximum Number of Access Clients is set to 1.*
Maximum Upload Bandwidth	Specify the maximum upload bandwidth in Mbps or Kbps.
Maximum Download Bandwidth	Specify the maximum downlolad bandwidth in Mbps or Kbps.
Description	Specify a description for the PPSK

Add PPSK

Radio

Under **WIFI Managements → Radio,** the user will be able to set the general wireless settings for all the Wi-Fi SSIDs created by the router. These settings will take effect on the level of the access points which are paired with the router.



Radio

General

Band Steering: Off

Airtime Fairness: ○ off

* Beacon Interval: 100 (Default 100, range 40~500)

Country / Region: United States

2.4G

5G

Channel Width: ○ 20MHz ○ 40MHz ● 80MHz

Channel: ○ Auto ● Dynamically assigned by RRM

Custom Channel: Ch36-5.18GHz × Ch40-5.2GHz × Ch44-5.22GHz ×

Radio Power: High

Short Guard Interval: ● on

Minimum RSSI: ○ off

Minimum Rate: ○ off

Wi-Fi 5 Compatible Mode: ○ off

Radio

General	
Band Steering	Band steering functions are divided into four items: 1) 2.4G in priority, lead the dual client to the 2.4G band; 2) 5G in priority, the dual client will be led to the 5G band with more abundant spectrum resources as far as possible; 3) Balance,access to the balance between these 2 bands according to the spectrum utilization rate of 2.4G and 5G. In order to better use this function, proposed to enable voice enterprise via SSIDs → Advanced → Enable Voice Enterprise.
Airtime Fairness	Enabling Airtime Fairness will make the transmission between the access point and the clients more efficient. This is achieved by offering equal airtime to all the devices connected to the access point.
Beacon Interval	Configures the beacon period, which decides the frequency the 802.11 beacon management frames router transmits. Please input an integer, from 40 to 500.1. When router enables several SSIDs with different interval values, the max value will take effect;2. When router enables less than 3 SSIDs, the interval value will be effective are the values from 40 to 500;3. When router enables more than 2 but less than 9 SSIDs, the interval value will be effective are the values from 100 to 500;4. When router enables more than 8 SSIDs, the interval value will be effective are the values from 200 to 500.Note: mesh feature will take up a share when it is enabled.
Country / Region	This option shows the country/region which has been selected. To edit the region, please navigate to **System Settings** → **Basic Settings.**
2.4G & 5G	
Channel Width	Select the channel width. ● **2.4G**: 20Mhz, 20&40Mhz, 40Mhz ● **5G**: 20Mhz, 40Mhz, 80Mhz
Channel	Pick how the access points will be able to choose a specific channel. ● **Auto:** ● **Dynamically assigned by RRM:**
Custom Channel	Select a custom channel(s) from the drop-down list, there are two categories: ● General Channel ● DFS Chanenl

Radio Power	Please select the radio power according to the actual situation, too high radio power will increase the disturbance between devices. ● **Low** ● **Medium** ● **High** ● **Custom** ● **Dynamically Assigned by RRM** ● **Auto**
Short Guard Interval	This can improve the wireless connection rate if enabled under non multipath environment.
Allow Legacy Devices (802.11b) (2.4Ghz Only)	When the signal strength is lower than the minimum RSSI, the client will be disconnected (unless it's an Apple device).
Minimum RSSI	When the signal strength is lower than the minimum RSSI, the client will be disconnected (unless it's an Apple device).
Minimum Rate	Specify whether to limit the minimum access rate for clients. This function may guarantee the connection quality.
Wi-Fi 5 Compatible Mode	Some old devices do not support Wi-Fi6 well, and may not be able to scan the signal or connect poorly. After enabled, it will switch to Wi-Fi5 mode to solve the compatibility problem. At the same time, it will turn off Wi-Fi6 related functions.

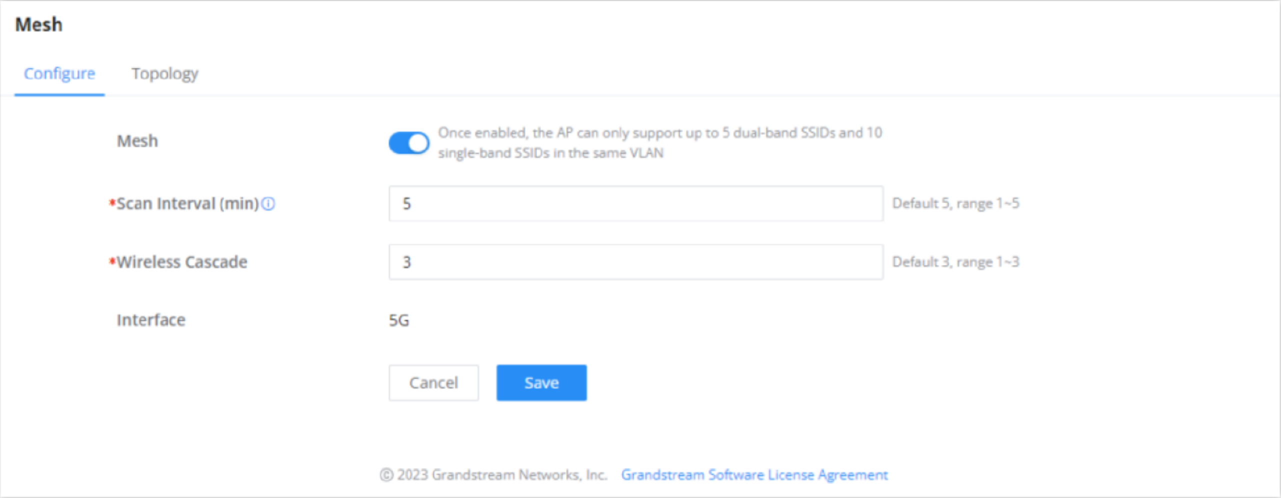
Radio

Mesh

Through the controller embedded in the GCC601X(W) devices, the user can configure a Wi-Fi Mesh using the GWN access points. The configuration is centralized and the user can view the topology of the Mesh.

- **Configuration:**

To configure GWN access points in a Mesh network successfully, the user must pair the access points first with the GWN router, then configure the same SSID on the access points. Once that's done, the user should navigate to **AP Management** → **Mesh** → **Configure**, then enable Mesh and configure the related information as shown in the figure below.



Mesh

Mesh: Once enabled, the AP can only support up to 5 dual-band SSIDs and 10 single-band SSIDs in the same VLAN

*Scan Interval (min): 5 — Default 5, range 1~5

*Wireless Cascade: 3 — Default 3, range 1~3

Interface: 5G

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Mesh Configuration

For more information about the parameters that need to be configured, please refer to the table below.

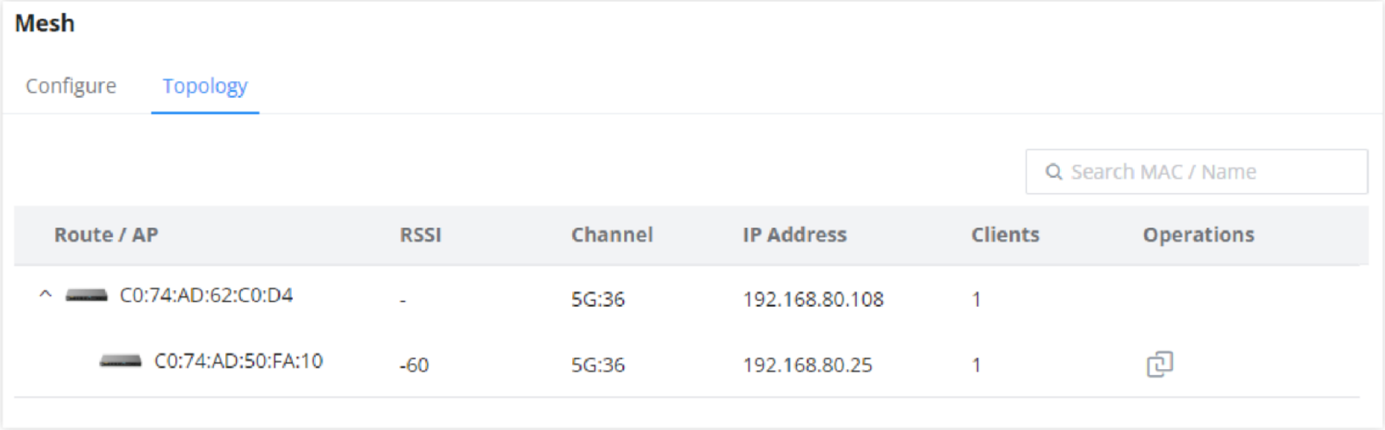
Mesh	Enable Mesh. Once enabled, the AP can only support up to 5 dual-band SSIDs and 10 single-band SSIDs in the same VLAN.
Scan Interval (min)	Configures the interval for the APs to scan the mesh. The valid range is 1-5. The default value is 5.
Wireless Cascade	Define the wireless cascade number. The valid range is 1-3. The default value is 3.

Interface	Displays which interface is going to be used for mesh.

Mesh Configuration

- **Topology:**

On this page, the user will be able to see the topology of the GWN access points when they are configured in a Mesh network. The page will display information related to the APs like the MAC address, RSSI, Channel, IP Address, and Clients. It will show as well the cascades in the Mesh.



Mesh

Route / AP	RSSI	Channel	IP Address	Clients	Operations
C0:74:AD:62:C0:D4	-	5G:36	192.168.80.108	1	
C0:74:AD:50:FA:10	-60	5G:36	192.168.80.25	1	

Mesh Topology

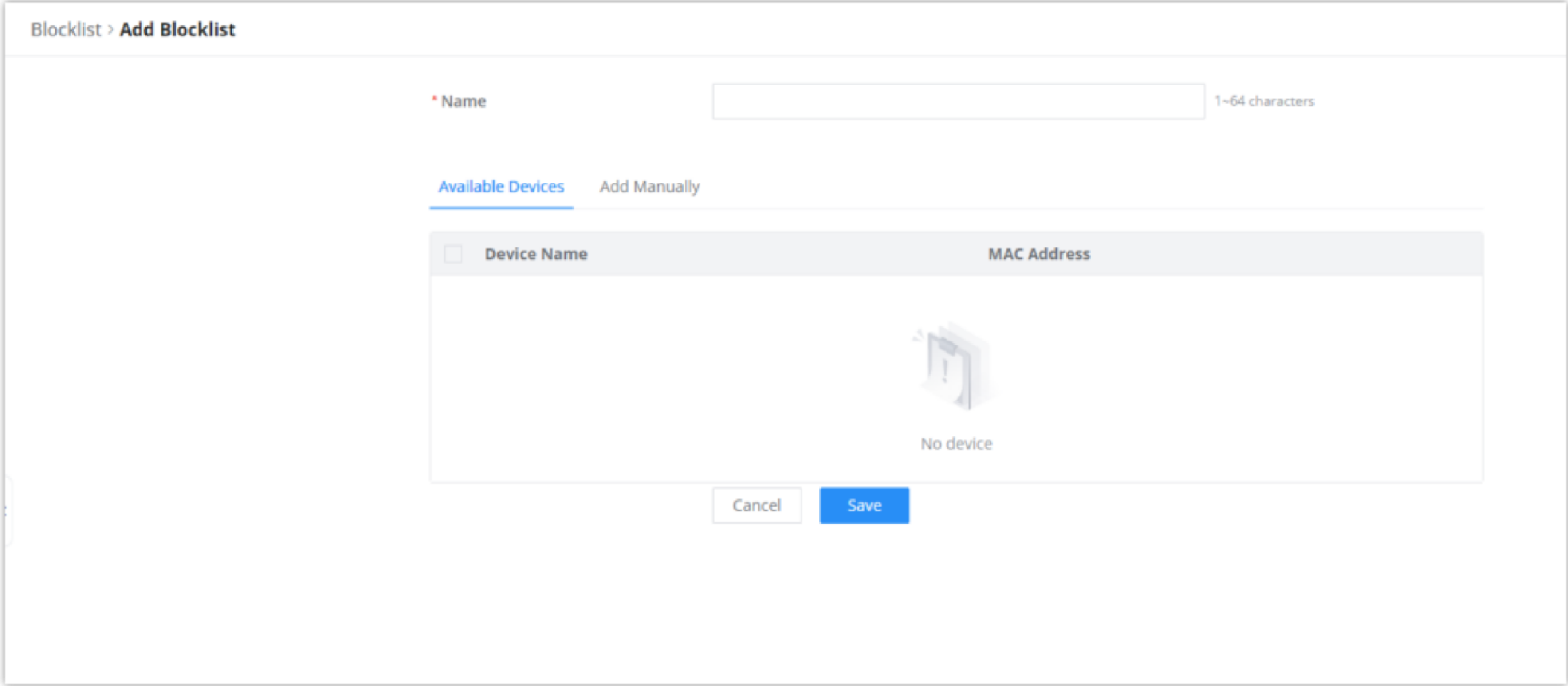
Blocklist

The Blocklist is a feature in GCC601X(W) that enables the user to block wireless clients from the available ones or manually add the MAC Address.

To create a new Blocklist, Navigate under: "**Web UI → Access Control → Blocklist**".

- **Add devices from the list:**

Enter the name of the blocklist, then add the devices from the list.



Blocklist › **Add Blocklist**

* Name 1~64 characters

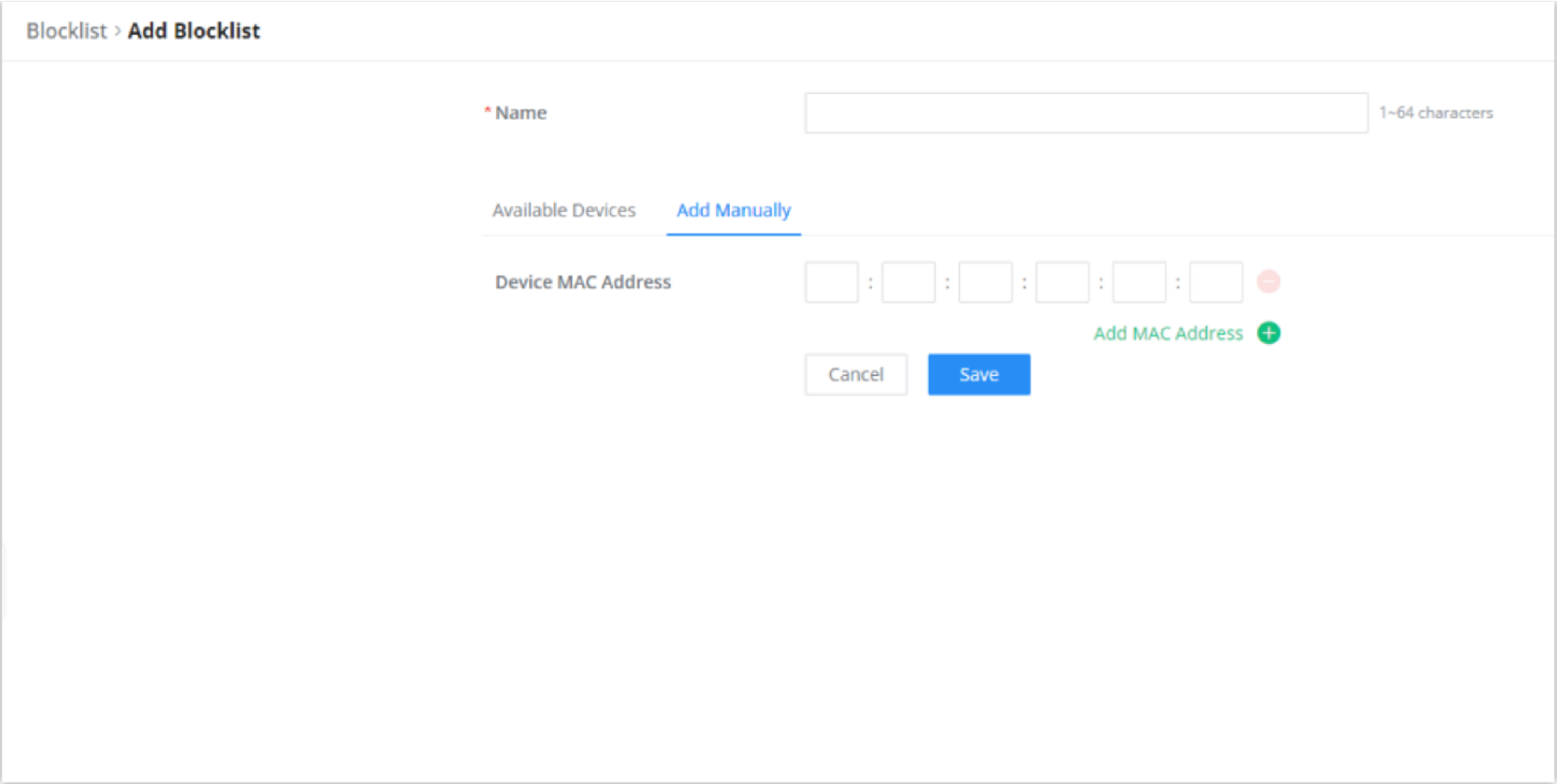
Device Name	MAC Address

No device

Blocklist Page

- **Add Devices Manually:**

Enter the name of the blocklist, then add the devices' MAC addresses.



Blocklist > **Add Blocklist**

* Name — 1~64 characters

Available Devices | Add Manually

Device MAC Address : : : : :

Add MAC Address

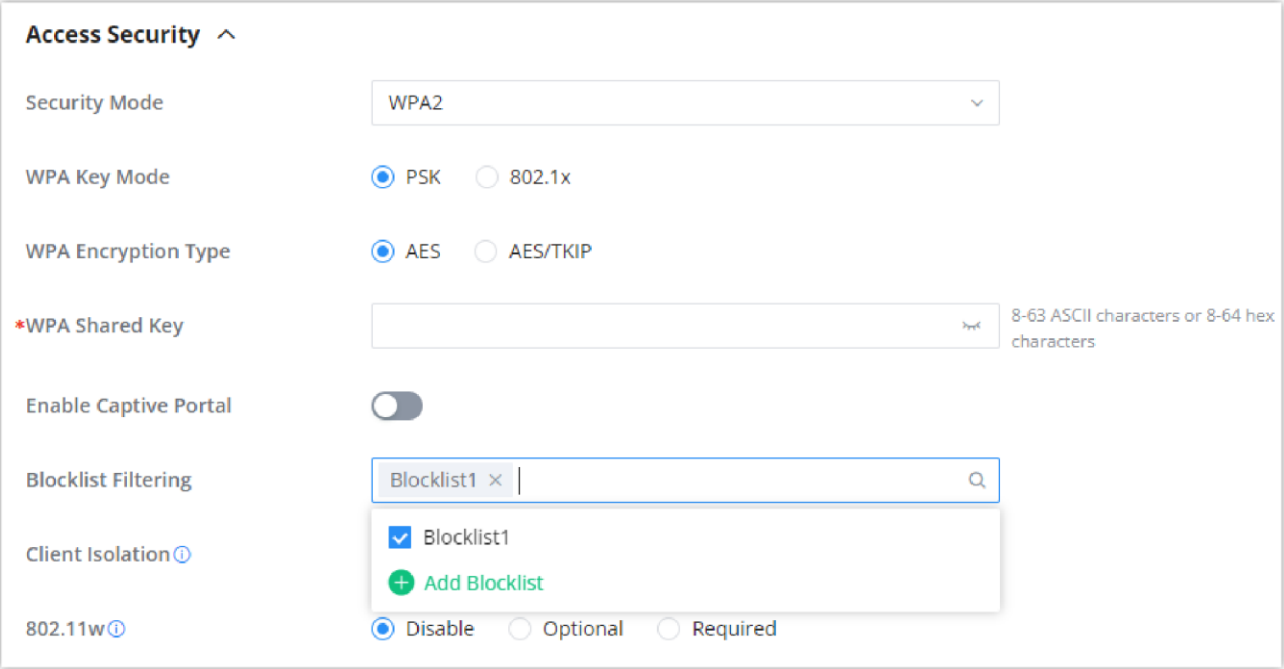
Cancel | Save

Add Blocklist

After the blocklist is created, to take effect the user needs to apply it on the desired SSID.

Navigate to " **Web UI → WIFI Management → SSIDs**", either click on the "**Add**" button to create a new SSID or click on the **"Edit"** icon to edit a previously created SSID, scroll down to "**Access Security**" section then look for "**Blocklist Filtering**" option and finally select from the list the previously created blocklists, the user can select one or more, or click on "**Create Blocklist**" at the bottom of the list to create new one.

Please refer to the figure below:



Access Security

Security Mode: WPA2

WPA Key Mode: ● PSK ○ 802.1x

WPA Encryption Type: ● AES ○ AES/TKIP

*WPA Shared Key — 8-63 ASCII characters or 8-64 hex characters

Enable Captive Portal

Blocklist Filtering: Blocklist1 ×

☑ Blocklist1

Add Blocklist

Client Isolation

802.11w: ● Disable ○ Optional ○ Required

SSID Configuration

SWITCH MANAGEMENT

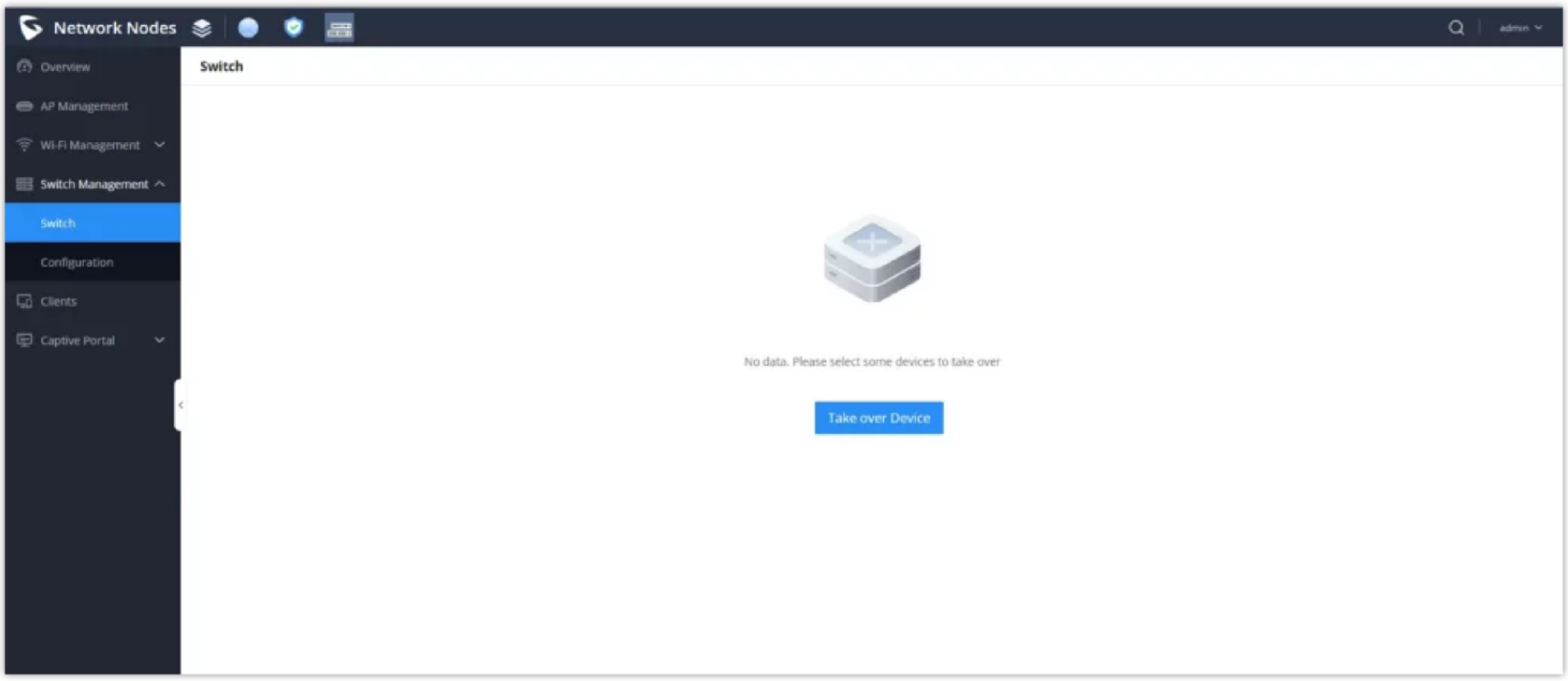
Switch management involves overseeing and controlling network switches through the GCC601x. This includes configuring, monitoring, and optimizing switches for efficient resource allocation and network troubleshooting. GCC601X(W) simplifies switch management, allowing organizations to adapt their network infrastructure dynamically without significant physical hardware changes, enhancing agility, and enabling on-demand service delivery.

The following GWN78xx switches can be managed by the GCC device:

- GWN7801/02/03 on firmware 1.0.5.34 or above.
- GWN7811/12/13/30/31 on firmware 1.0.7.50 or above.

Switch

The user can take over GWN switches to the GCC601x network nodes, the way this works is by having devices nearby discovered using an ARP scan protocol, by entering the switch's initial login Password to take over the configuration of those switches.



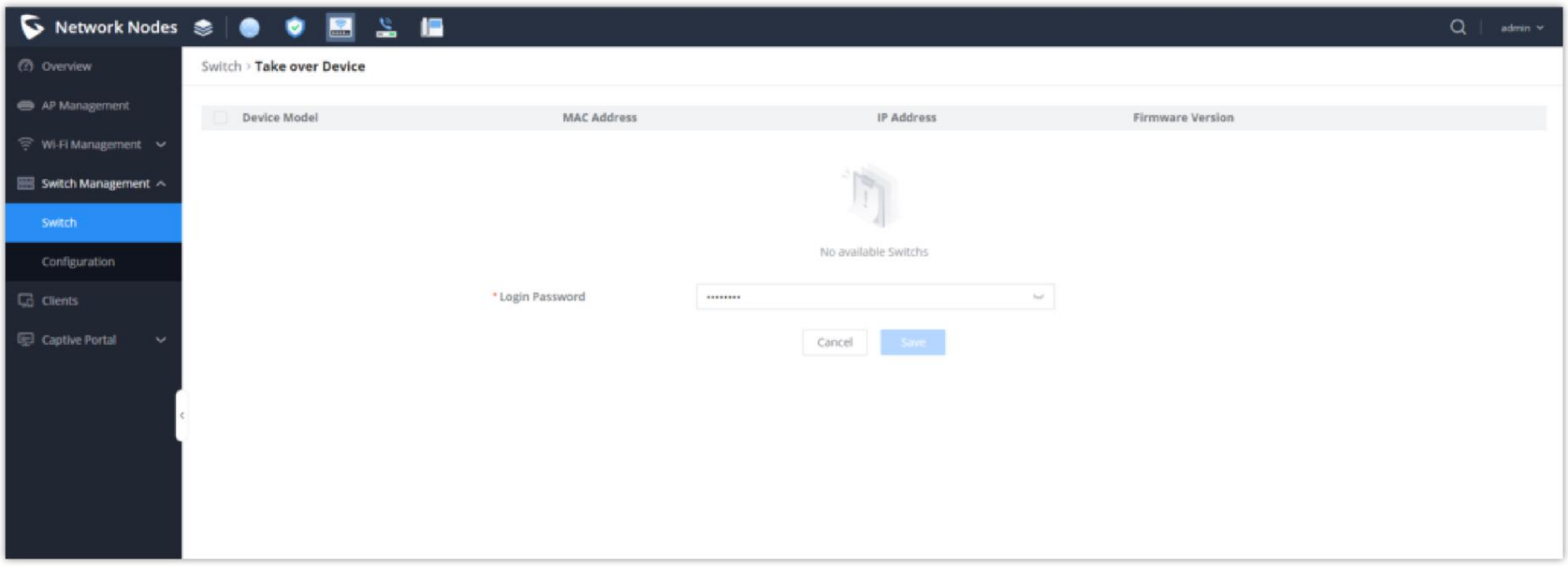
No data. Please select some devices to take over

Taking over a switch

Take over Device

Among the discovered GWN78xx switches, you can choose the device that you want to take over, or configure, to do that:

1. Go to **Switch Management** → **Switch**.
2. Click the icon Take over Device to display the Takeover device settings.
3. From the list of displayed GWN78xx switches, choose the GWN78xx you want to take over.
4. Enter its initial Login Password. (The one found on a sticker on the unit itself)
5. Click save to access the settings parameters of the GWN switch.



Device Model	MAC Address	IP Address	Firmware Version

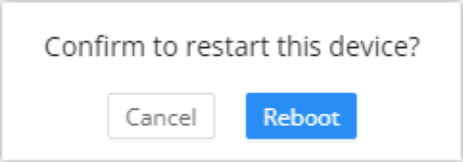
No available Switchs

* Login Password: ••••••••

Taking over a switch

Reboot the device

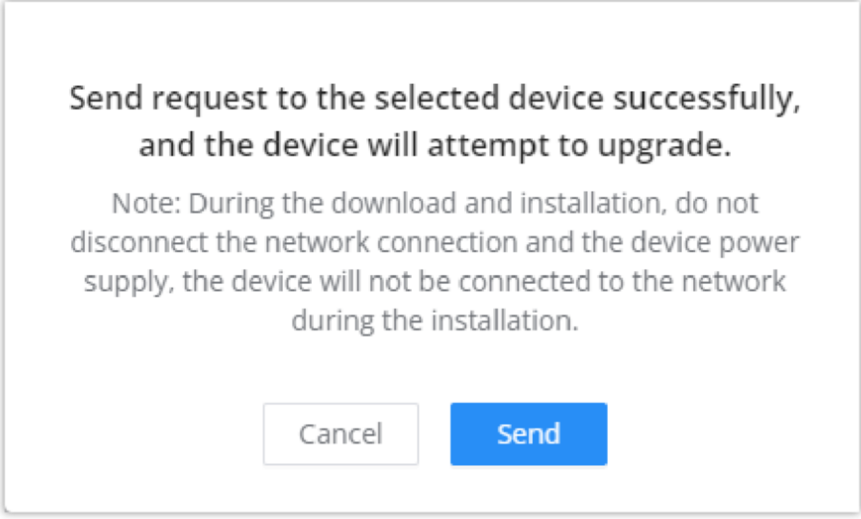
To reboot the GWN78xx, select the GWN switch, then click on the icon ⏻



Confirm to restart this device?

Upgarde the device

To Upgrade the GWN switch, select the device then click Upgrade



Send request to the selected device successfully, and the device will attempt to upgrade.

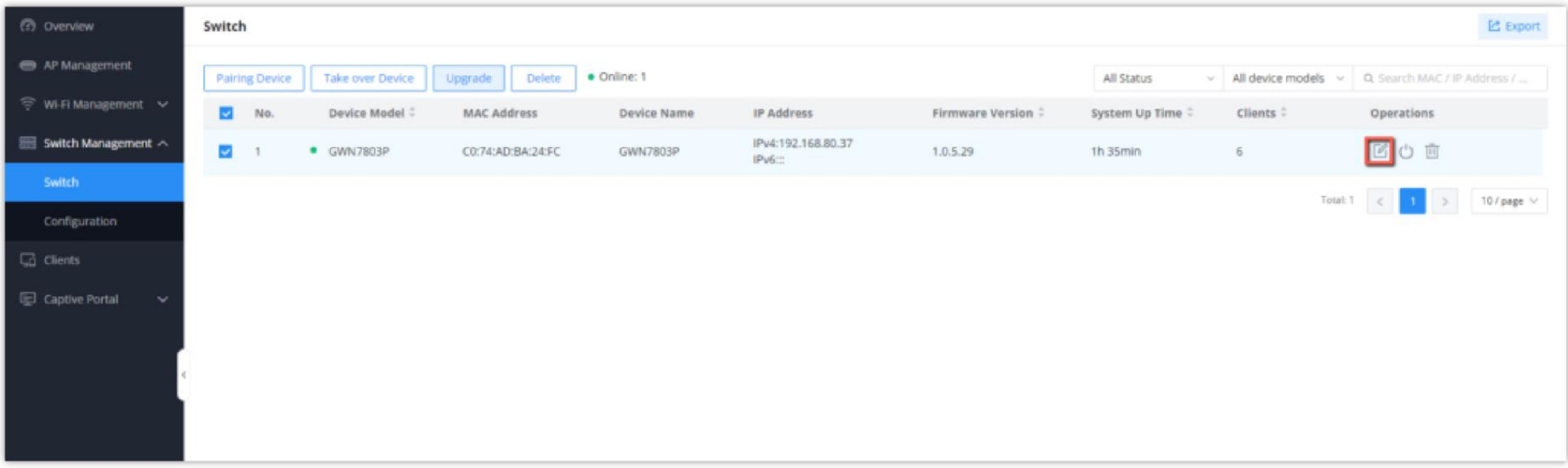
Note: During the download and installation, do not disconnect the network connection and the device power supply, the device will not be connected to the network during the installation.

Configuration

This section will contain the individual, and global Switch configuration as well as the Port Profile settings, each section will have its own configuration parameters.

Individual Switch Configuration

The individual switch configuration refers to the different settings and parameters that can be defined on each switch individually, to configure that, select the desired switch, then click the icon ✎



☑	No.	Device Model	MAC Address	Device Name	IP Address	Firmware Version	System Up Time	Clients	Operations
☑	1	● GWN7803P	C0:74:AD:BA:24:FC	GWN7803P	IPv4:192.168.80.37 IPv6:::	1.0.5.29	1h 35min	6	

The following parameters will appear :

Device Name	Configures the device display name
Device Remarks	Contains additional information about the device
Device Password	Sets the device SSH remote login password and the device web login password.
RADIUS Authentication	Selects the RADIUS server that will be used for the authentification
Add VLAN Interface	
VLAN	Selects the VLAN ID that will be used by the switch, Only one VLAN interface can be created per VLAN ID, so the used VLAN ID can no longer be selected.
IPv4 Address Type	Selects whether the switch will have its IP learnt statically or dynamically via DHCP
IPv4 Address / Prefix Length	Defnes the VLAN IPv4 address and its subnet mask
IPv6	Enables/disables IPv6
Link-Local Address	Configures whether IPv6 address is automatically assigned to interfaces within the

	VLAN, or manually configured
IPv6 Address/Prefix Length	Defines the VLAN IPv6 address and its subnet mask
Global Unicast Address	**Stateful DHCPv6**: Obtains IPv6 addresses and prefixes through the DHCPv6 server. **Stateless DHCPv6:** Provides prefixes, DNS, etc. according to router advertisements; DHCPv6 only provides other configuration information, it does not assign addresses, and needs to use the prefix of RA packets for address assignment. **Stateless automatic configuration:** Formed using the EUI-64 format, DHCPv6 only generates the first 64 bits of the address, with a fixed prefix length of 64. **SLAAC (Stateless Address Autoconfiguration):** allows devices to automatically configure their IPv6 addresses based on the network prefix received from the router advertisements, simplifying network setup and management within the VLAN without the need for manual address assignment or DHCP servers.

Global Switch Configuration

The Global switch configuration will contain parameters that will be applied on multiple GWN switches added

RADIUS Authentication	
Radius Authentication	Select a Radius server or click Add New RADIUS to create a new server
Add RADIUS Authentication	
Name	Defines the name of the RADIUS Server
Authentication Server	The "Authentication server" in RADIUS sets the server responsible for verifying user credentials during network access attempts.The authentication server(s) will be used in the displayed order (top to bottom), and RADIUS servers will be used after these authentication servers, you can define the server address , port number and secret key in the authentification server, you can define up to two authentification servers.
RADIUS Accounting Server	The RADIUS accounting server specifies the server responsible for logging and tracking user network usage data. you can define up to two RADIUS Accounting Servers
RADIUS NAS ID	Configure the RADIUS NAS ID with up to 48 characters. Supports alphanumeric characters, special characters "~! @ # ￥%&* () -+=_" and spaces
Attempt Limit	Sets the max number of packet sending attempts to the RADIUS server
RADIUS retry timeout (s)	Sets the max time to wait for RADIUS server response before resending RADIUS packets
Accounting Update Interval (sec)	Sets the frequency for sending accounting updates to the RADIUS server, measured in seconds. Enter a number from 30 to 604800. If the external splash page has also configured this, that other value will take priority.
Voice VLAN	
Voice VLAN	Toggle voice VLAN on/off.
Multicast	
IGMP Snooping VLAN	Select the IGMP Snooping VLAN.
MLD Snooping VLAN	Select the MLD Snooping VLAN.

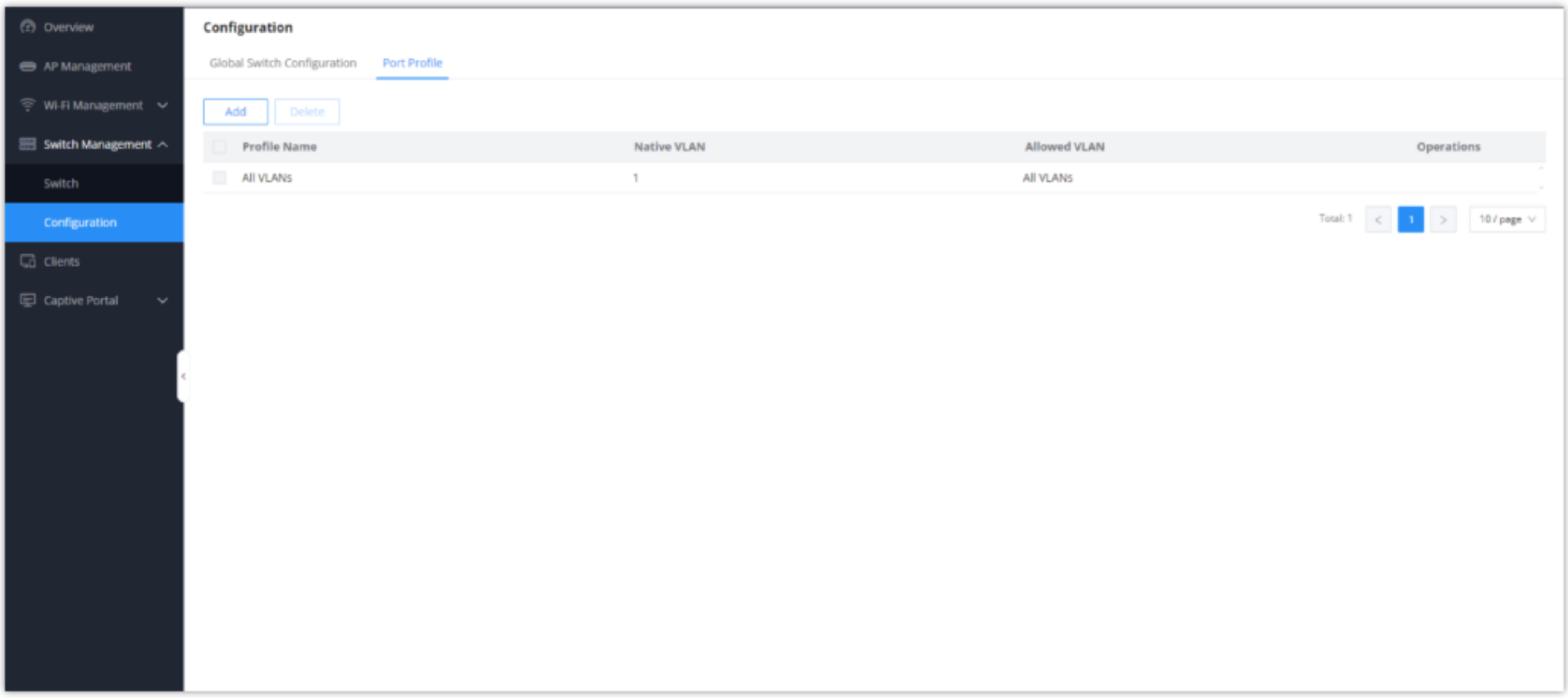
Unknown Multicast Packets	Configures how the switch (IGMP Snooping/MLD Snooping) handles packets from unknown groups, the available options are to either drop the packets or flood the network by the packets, it is recommended to set it to "Drop"
DHCP Snooping Settings	
DHCP Snooping	Toggle DHCP Snooping on/off, if enabled, select the VLAN on which the DHCP Snooping will be applied
802.1X	
VLAN	Configures whether to enable the guest VLAN function for the global port.
Other	
Jumbo Frame	Enter the size of the jumbo frame. **Range:** 1518-10000

Port Profile

The port profile is a configuration that can be used to apply many settings to a switch port at once, for quick batch setting changes.

By default you can find a non-editable Port Profile named “All VLANs”, this setting is the default setting and is applied on all connected ports on any added switch

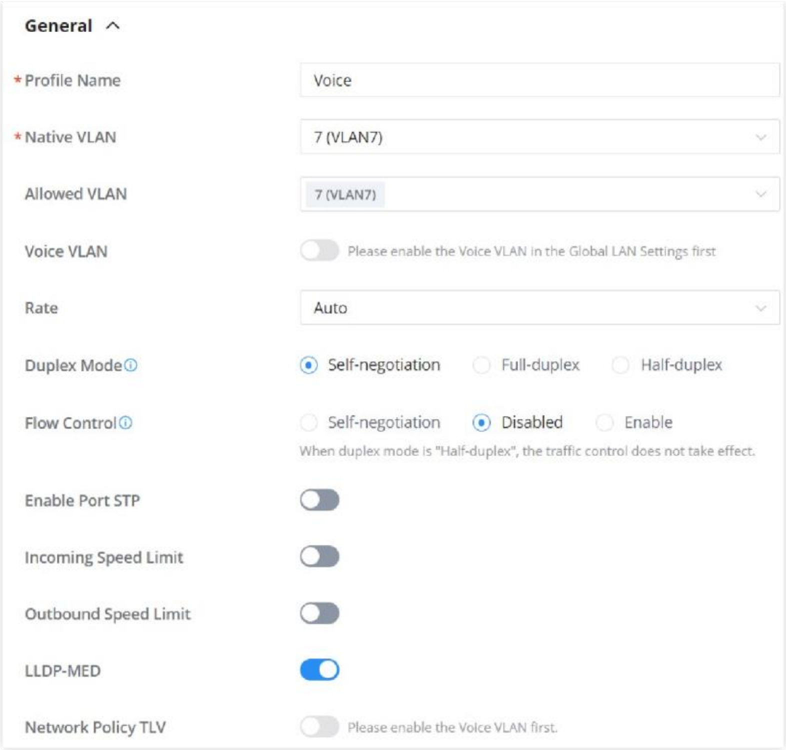
To create a new Custom Port profile, click on the icon Add



Profile Name	Native VLAN	Allowed VLAN	Operations
All VLANs	1	All VLANs	

Port Profile Configuration

To create a new Port Profile or edit an existing one, please navigate to **Web UI → Settings → Profiles page → Port Profile section.**



General

*Profile Name: Voice

*Native VLAN: 7 (VLAN7)

Allowed VLAN: 7 (VLAN7)

Voice VLAN: Please enable the Voice VLAN in the Global LAN Settings first

Rate: Auto

Duplex Mode: ● Self-negotiation ○ Full-duplex ○ Half-duplex

Flow Control: ○ Self-negotiation ● Disabled ○ Enable

When duplex mode is "Half-duplex", the traffic control does not take effect.

Enable Port STP

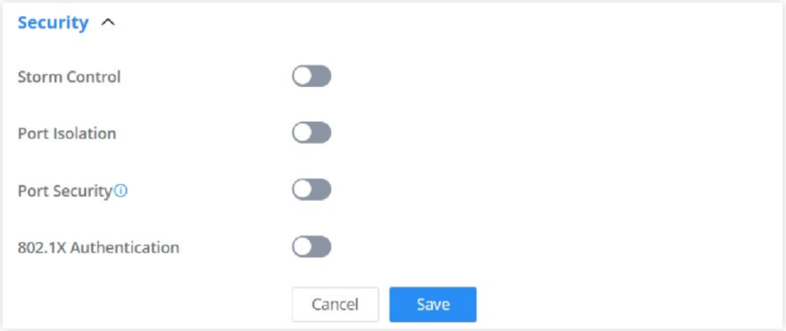
Incoming Speed Limit

Outbound Speed Limit

LLDP-MED

Network Policy TLV: Please enable the Voice VLAN first.

Add port profile – General



Security

Storm Control

Port Isolation

Port Security

802.1X Authentication

Cancel Save

Add port profile – Security

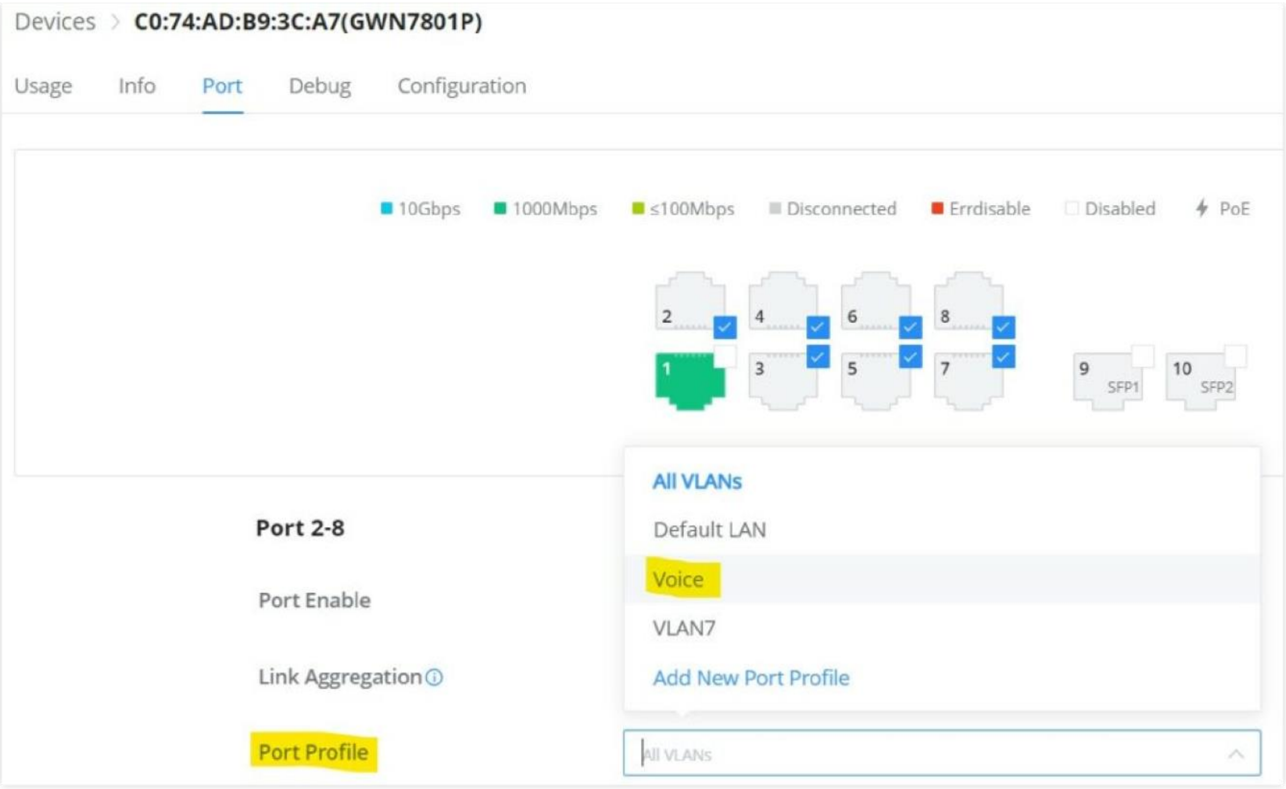
General	
Profile Name	Specify a name for the profile.
Native VLAN	Select from the drop-down list the native VLAN (Default LAN).
Allowed VLAN	Check the allowed VLANs from the drop-down list (one VLAN or more).
Voice VLAN	Toggle ON or OFF Voice VLAN. ***Note:*** *Please first enable the Voice VLAN in the Global LAN Settings.*
Speed	Specify the rate (port speed) from the drop-down list.
Duplex Mode	Select the duplex mode: ● **Auto-negotiation:** The duplex status of an interface is determined by auto-negotiation between the local port and the peer port. ● **Full-duplex:** Force full-duplex, and the interface allows sending and receiving data packets at the same time. ● **Half duplex:** Force half duplex, and the interface only send or receive packets at a time.
Flow Control	When enabled, if congestion occurs on the local device, the device sends a message to the peer device to notify it to stop sending packets temporarily. After receiving the message, the peer device stops sending packets to the local device. ***Note:*** *When duplex mode is "Half-duplex", the traffic control does not take effect.*
Ingress	Toggle ON or OFF the incoming speed limit.
CIR (Kbps)	Configures the Committed Information Rate, which is the average rate of the traffic to pass through.

Egress	Toggle ON or OFF the outbound speed limit.
CIR (Kbps)	Configures the Committed Information Rate, which is the average rate of the traffic to pass through.
LLDP-MED	Toggle ON or OFF the LLDP-MED.
Network Policy TLV	Toggle ON or OFF the network policy TLV.
Security	
Storm Control	Toggle ON or OFF storm control.
Port Isolation	Toggle ON or OFF port isolation.
Port Security	Toggle ON or OFF port security. ***Note:*** *after enabled, start MAC address learning including the dynamic and static MAC addresses.*
Maximum number of MACs	Specify the maximum number of MAC addresses allowed. ***Note:*** *after the maximum number is reached, if a packet with a non-existing source MAC address is received, regardless of whether the destination MAC address exists or not, the switch will consider that there is an attack from an illegal user, and will protect the interface according to the port protection configuration.*
Sticky MAC	Toggle ON or OFF Sticky MAC. ***Note:*** *after enabled, the interface will convert the learned secure dynamic MAC address into Sticky MAC. If the maximum number of MAC addresses has been reached, the MAC addresses in the non-sticky MAC entries learned by the interface will be discarded, and whether to report a Trap alert is determined according to the port protection configuration.*
802.1X Authentication	Toggle ON or OFF 802.1x authentication.
User Authentication Mode	Select the user authentication mode from the drop-down list ● **Mac-based:** allows multiple users to authenticate without affecting each other; ● **Port-based:** allows multiple users to be authenticated. As long as one user passes the authentication, other users are exempt from authentication.
Method	Select the method from the drop-down list.
Guest VLAN	Toggle Guest VLAN ON or OFF. ***Note:*** *Enable the Guest VLAN in the Global LAN Settings first.*
Port Control	Select the port control from the drop-down list: ● Disabled ● Mandatory authentication ● Mandatory non-authentication ● Automatic
Re-authentication	Configures whether to enable re-authentication for the device connected to the port.

Add Port Profile

Once the Port profile is added the user can apply it on a GWN device/device group ports (ex: GWN switches).

Under the Devices page, select the relevant device, and under the **Port** tab, select the ports then apply the Port Profile on these ports. please refer to the figure below:



Devices > C0:74:AD:B9:3C:A7(GWN7801P)

Usage | Info | Port | Debug | Configuration

■ 10Gbps ■ 1000Mbps ■ ≤100Mbps ■ Disconnected ■ Errdisable □ Disabled ⚡ PoE

Port 2-8

Port Enable

Link Aggregation ⓘ

Port Profile: All VLANs

- All VLANs
- Default LAN
- Voice
- VLAN7
- Add New Port Profile

GWN Switch – Port

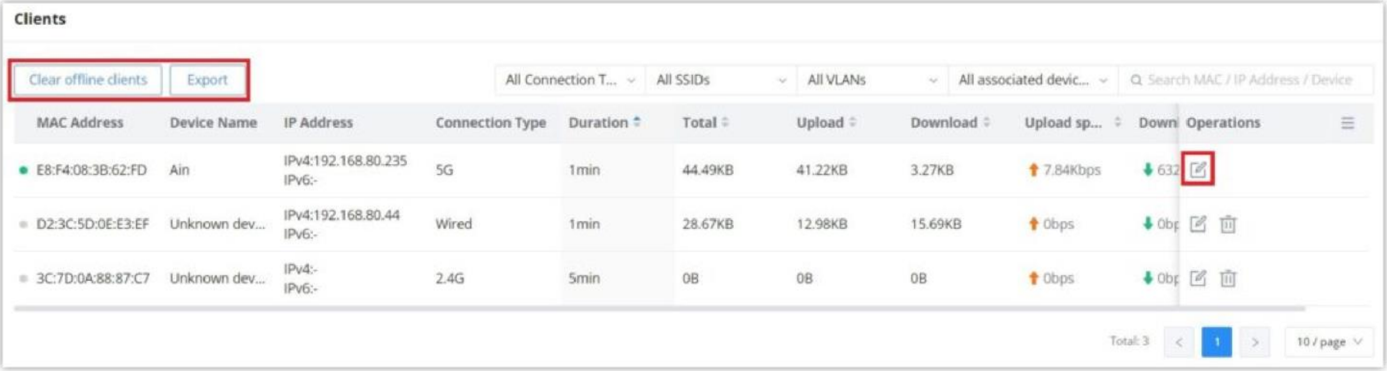
CLIENTS

The Clients page keeps a list of all the devices and users connected currently or previously to different LAN subnets with details such as the MAC Address, the IP Address, the duration time, the upload and download information, etc.

The clients' list can be accessed from GCC601x's **Web GUI** → **Clients** to perform different actions for wired and wireless clients.

- Click on "**Clear offline clients**" to remove clients that are not connected from the list.
- Click on the "**Export**" button to export the client list to a local device in an EXCEL format.

Please refer to the figure and table below:



Clients

Clear offline clients | Export | All Connection T... | All SSIDs | All VLANs | All associated devic... | Search MAC / IP Address / Device

MAC Address	Device Name	IP Address	Connection Type	Duration	Total	Upload	Download	Upload sp...	Down	Operations
● E8:F4:08:3B:62:FD	Ain	IPv4:192.168.80.235 IPv6:-	5G	1min	44.49KB	41.22KB	3.27KB	7.84Kbps	632	
● D2:3C:5D:0E:E3:EF	Unknown dev...	IPv4:192.168.80.44 IPv6:-	Wired	1min	28.67KB	12.98KB	15.69KB	0bps	0bp	
● 3C:7D:0A:88:87:C7	Unknown dev...	IPv4:- IPv6:-	2.4G	5min	0B	0B	0B	0bps	0bp	

Total: 3 < 1 > 10 / page

Clients Page

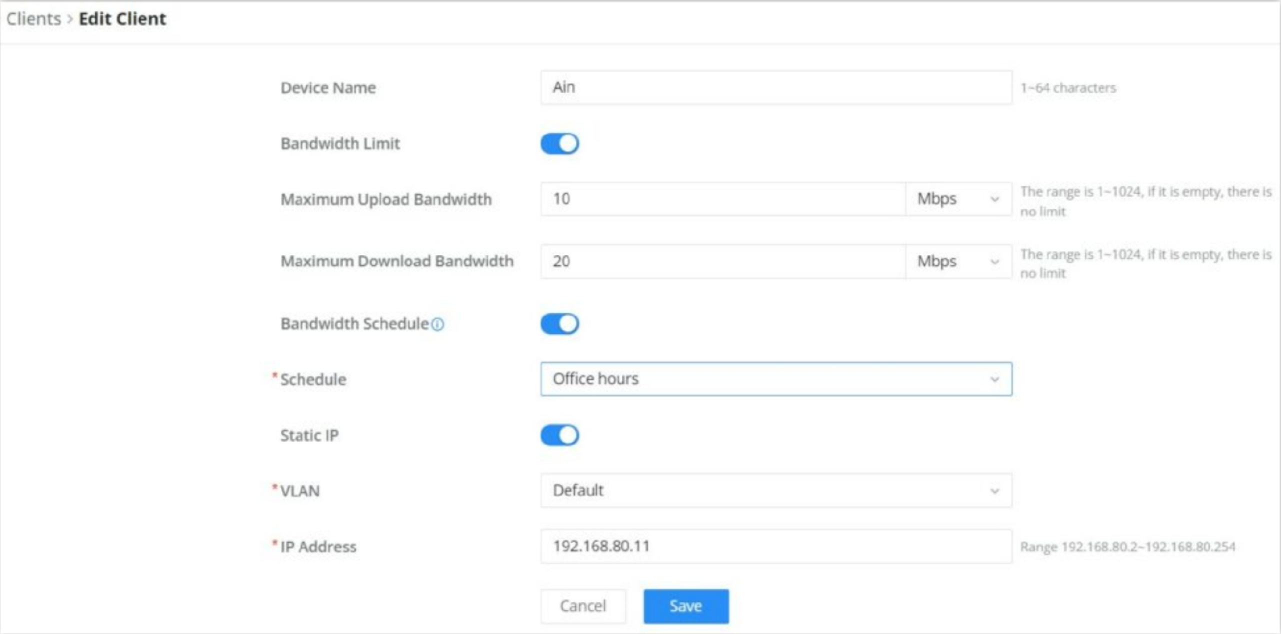
MAC Address	This section shows the MAC addresses of all the devices connected to the router.
Device Name	This section shows the names of all the devices connected to the router.
VLAN	Displays the VLAN the client connected to.
IP Address	This section shows the IP addresses of all the devices connected to the router.
Connection Type	This section shows the medium of connection that the device is using. There are two mediums which can be used to connect: ● **Wireless:** Using an access point with the router. ● **Wired:** Using an ethernet wired, either connected directly to one of the router's LAN ports, or through a switch.
Channel	If device is connected through an access point, the router will retrieve the information of which channel the device is connected to.

SSID Name	If device is connected through an access point, the router will retrieve the information of which SSID the device is connected to.
Associated Device	In case of an access point or an access point with the router, this section will show the MAC address of the device used
Duration	This indicates how long a device has been connected to the router.
RSSI	RSSI stands for *Received Signal Strength Indicator.* It indicates the wireless signal strength of the device connected to the AP paired with the router.
Station Mode	This field indicates the station mode of the access point.
Total	Total data exchanged between the device and the router.
Upload	Total uploaded data by the device.
Download	Total downloaded data by the device.
Current Rate	The real time WAN bandwidth used by the device.
Link Rate	This field indicates the total speed that the link can transfer.
Manufacturer	This field indicates the manufacturer of the device.
OS	This field indicates the operating system installed on the device.

Clients Page

- **Edit Device**

Under the operations column click on the "**Edit**" icon to set the name of the device, and assign a VLAN ID and static address to the device. It's also possible to limit bandwidth for this exact device and even assign a schedule to it from the list. Refer to the figure below:



Clients > **Edit Client**

Device Name: Ain (1~64 characters)

Bandwidth Limit: ●

Maximum Upload Bandwidth: 10 Mbps (The range is 1~1024, if it is empty, there is no limit)

Maximum Download Bandwidth: 20 Mbps (The range is 1~1024, if it is empty, there is no limit)

Bandwidth Schedule: ●

*Schedule: Office hours

Static IP: ●

*VLAN: Default

*IP Address: 192.168.80.11 (Range 192.168.80.2~192.168.80.254)

Edit Device

- **Delete Device**

To delete a device, go to the **Operations** column and click the button 🗑 then click "**Delete**". Please note that you can only delete the offline devices, the devices online cannot be deleted.

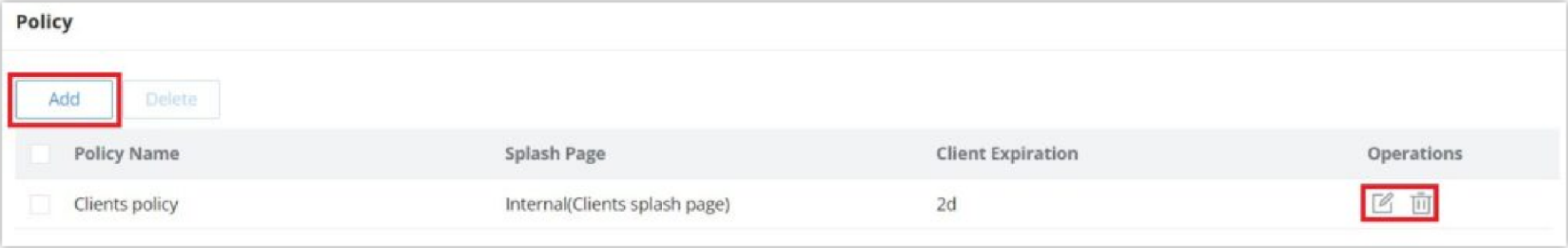
CAPTIVE PORTAL

The Captive Portal feature on GCC601x helps to define a Landing Page (Web page) that will be displayed on Wi-Fi clients' browsers when attempting to access the Internet. Once connected Wi-Fi clients will be forced to view and interact with that landing page before Internet access is granted.

The Captive Portal feature can be configured from the GCC601x Web page under "**Captive Portal**".

Policy

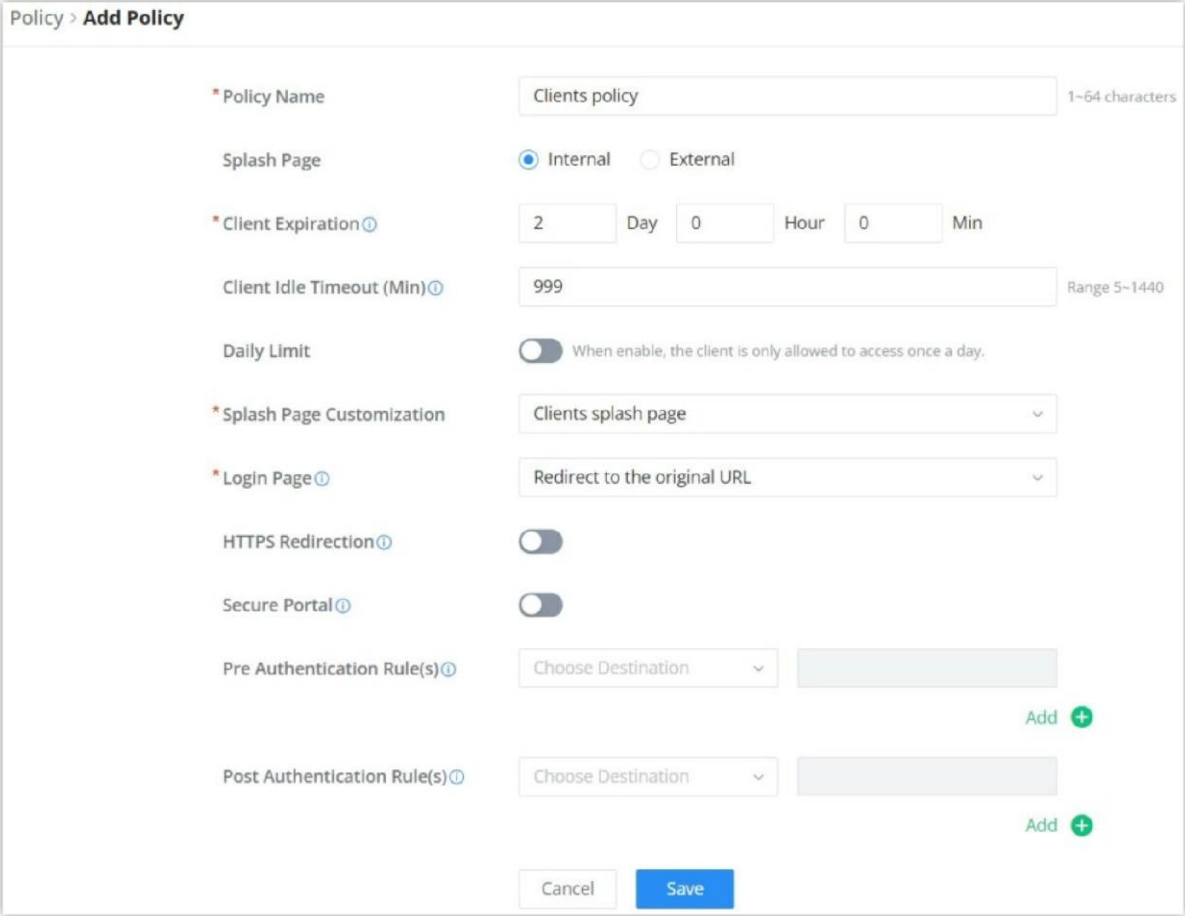
Users can customize a portal policy on this page. Click on the "**Add**" button to add a new policy or click on "Edit" to edit a previously added one.



Policy

	Policy Name	Splash Page	Client Expiration	Operations
□	Clients policy	Internal(Clients splash page)	2d	

Policy page



Policy > **Add Policy**

*Policy Name	Clients policy 1~64 characters
Splash Page	● Internal ○ External
*Client Expiration	2 Day 0 Hour 0 Min
Client Idle Timeout (Min)	999 Range 5~1440
Daily Limit	When enable, the client is only allowed to access once a day.
*Splash Page Customization	Clients splash page
*Login Page	Redirect to the original URL
HTTPS Redirection	
Secure Portal	
Pre Authentication Rule(s)	Choose Destination
Post Authentication Rule(s)	Choose Destination

Policy page

The policy configuration page allows for adding multiple captive portal policies which will be applied to SSIDs and contain options for different authentication types.

Policy Name	Enter a policy name.
Splash Page	● **Internal** ● **External**
Client Expiration	Specify the expiration time for client network connection. Once timed out, client should re-authenticate for further network use.
Client Idle Timeout (min)	Specify the idle timeout value for guest network connection. Once timed out, guest should re-authenticate for further network use.
Daily Limit	When enable, the client is only allowed to access once a day.

Splash Page Customization	Select the customized splash page.
Login Page	Set portal authentication through the page to automatically jump to the target page.
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.
Secure Portal	If enabled, HTTPS protocol will be used in the communication between STA and router. Otherwise, the HTTP protocol will be used.
Pre Authentication Rule (sec)	Set pre authentication rules, allowing clients access some URLs before authenticated successfully.
Post Authentication Rule (sec)	Set post authentications to restrict users from accessing the following addresses after authenticating successfully.

Policy page

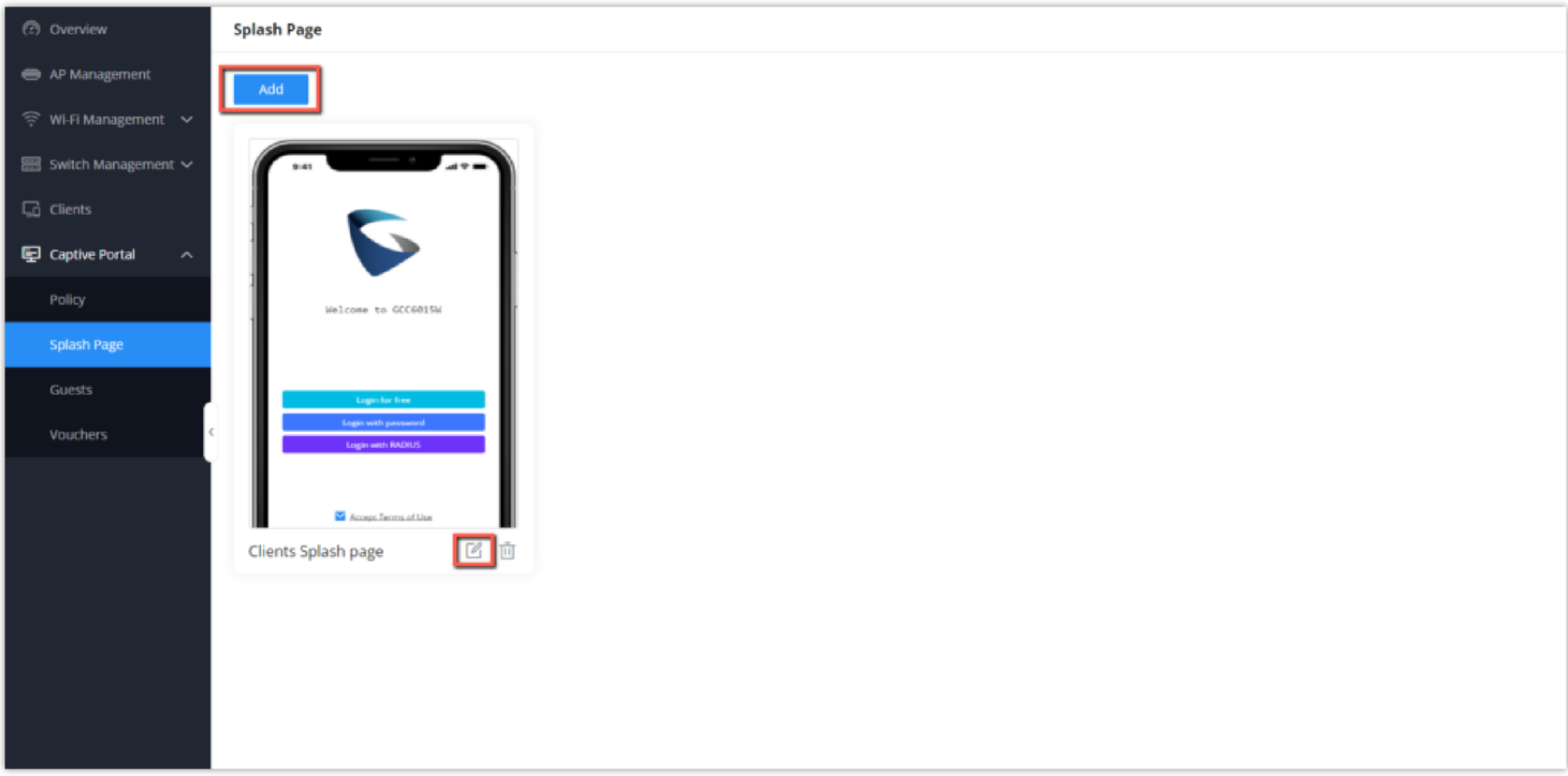
Splash Page

The splash page allows users with an easy-to-configure menu to generate a customized splash page that will be displayed to the users when trying to connect to the Wi-Fi.

On this menu, users can create multiple splash pages and assign each one of them to a separate captive portal policy to enforce the select authentication type.

The generation tool provides an intuitive "WYSIWYG" method to customize a captive portal with a very rich manipulation tool.

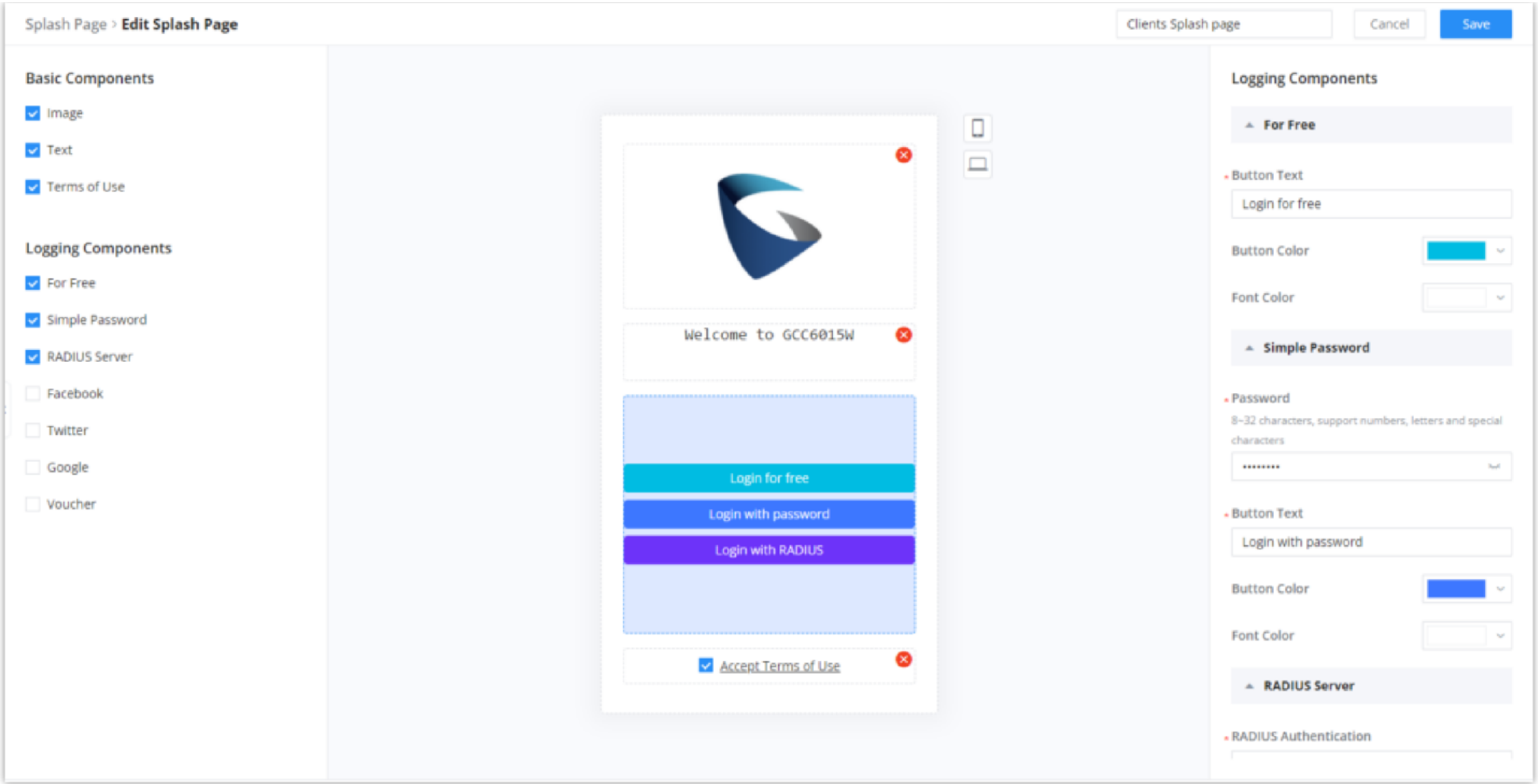
To add a splash page, click **Add**" button or click "**Edit**" icon to edit a previously added one.



Splash Page

Users can set the following:

- **Authentication type**: Add one or more ways from the supported authentication methods (Simple Password, Radius Server, For Free, Facebook, Twitter, Google, and Voucher).
- **Set up a picture (company logo**) to be displayed on the splash page.
- **Customize** the layout of the page and background colors.
- **Customize the Terms of Use text.**
- **Visualize a preview** for both mobile devices and laptops.



Splash Page › **Edit Splash Page**

Clients Splash page

Basic Components

- ☑ Image
- ☑ Text
- ☑ Terms of Use

Logging Components

- ☑ For Free
- ☑ Simple Password
- ☑ RADIUS Server
- □ Facebook
- □ Twitter
- □ Google
- □ Voucher

Welcome to GCC6015W

☑ Accept Terms of Use

Logging Components

For Free

- Button Text: Login for free
- Button Color
- Font Color

Simple Password

- Password: 8–32 characters, support numbers, letters and special characters
- ••••••••
- Button Text: Login with password
- Button Color
- Font Color

RADIUS Server

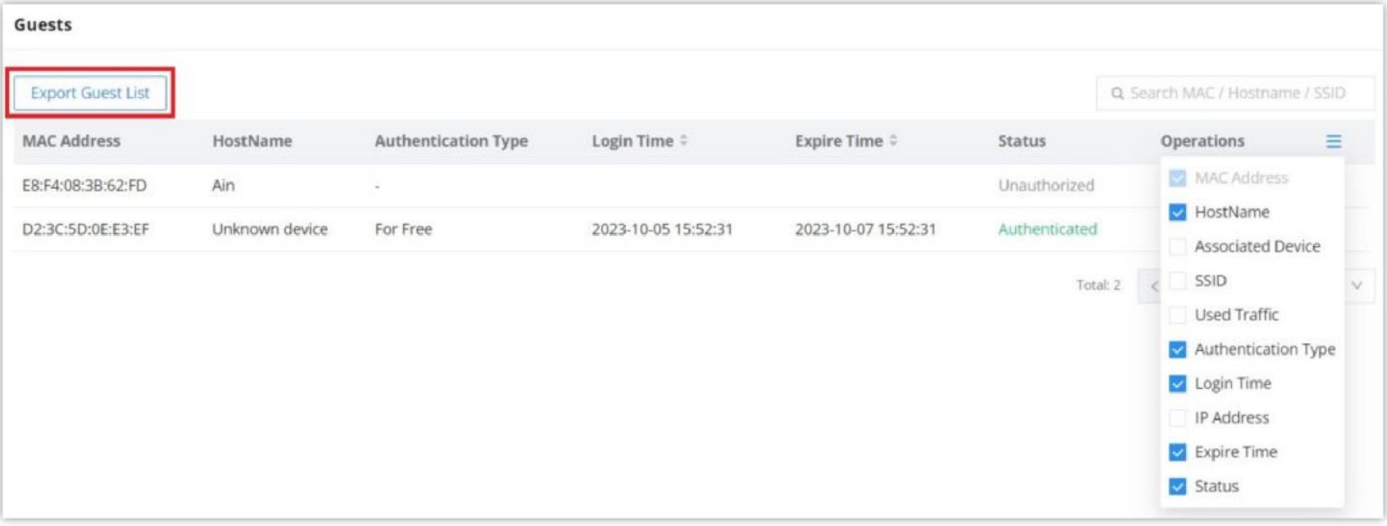
- RADIUS Authentication

Add/edit a Splash page

Guests

This page displays information about the clients connected via the Captive portal including the MAC address, Hostname, Authentication Type, etc.

To export the list of all guests, please click on the “Export Guest List” button, and then an EXCEL file will be downloaded.



Guests

MAC Address	HostName	Authentication Type	Login Time	Expire Time	Status	Operations
E8:F4:08:3B:62:FD	Ain	-			Unauthorized	
D2:3C:5D:0E:E3:EF	Unknown device	For Free	2023-10-05 15:52:31	2023-10-07 15:52:31	Authenticated	

Total: 2

- ☑ MAC Address
- ☑ HostName
- □ Associated Device
- □ SSID
- □ Used Traffic
- ☑ Authentication Type
- ☑ Login Time
- □ IP Address
- ☑ Expire Time
- ☑ Status

Guest Page

Vouchers

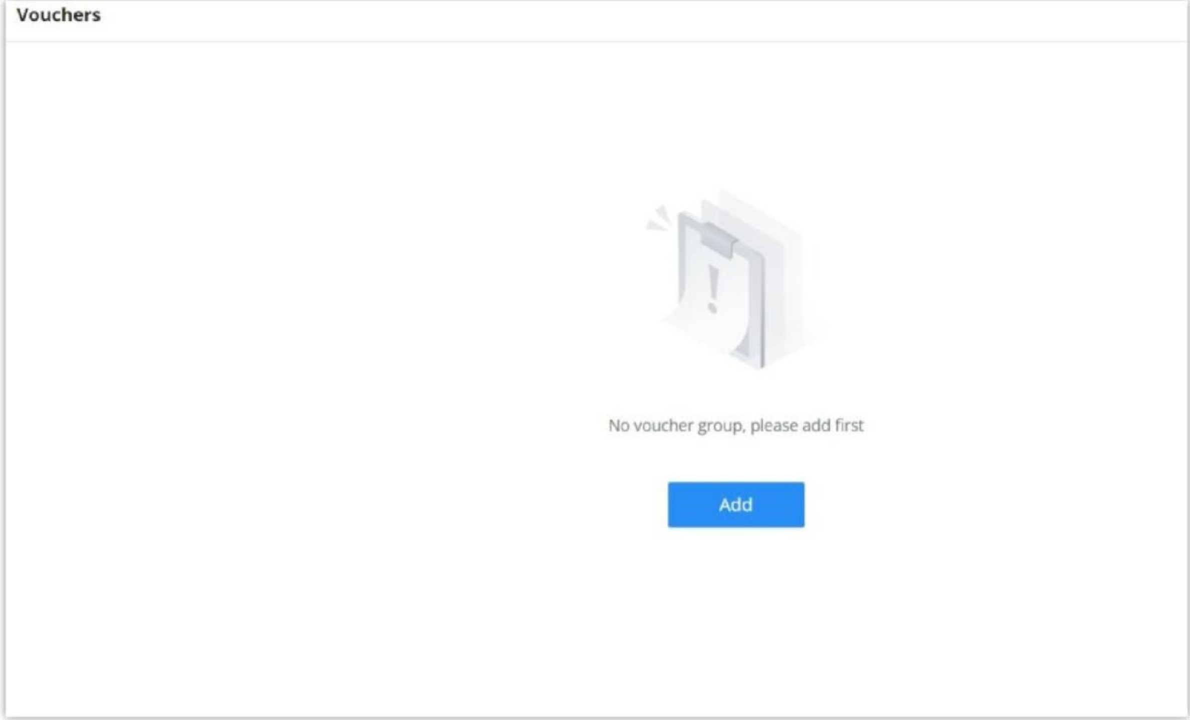
The Voucher feature will allow clients to have internet access for a limited duration using a code that is randomly generated from the platform controller.

As an example, a coffee shop could offer internet access to customers via Wi-Fi using voucher codes that can be delivered on each command. Once the voucher expires the client can no longer connect to the internet.

Note that multiple users can use a single voucher for connection with the expiration duration of the voucher that starts counting after the first successful connection from one of the users that are allowed.

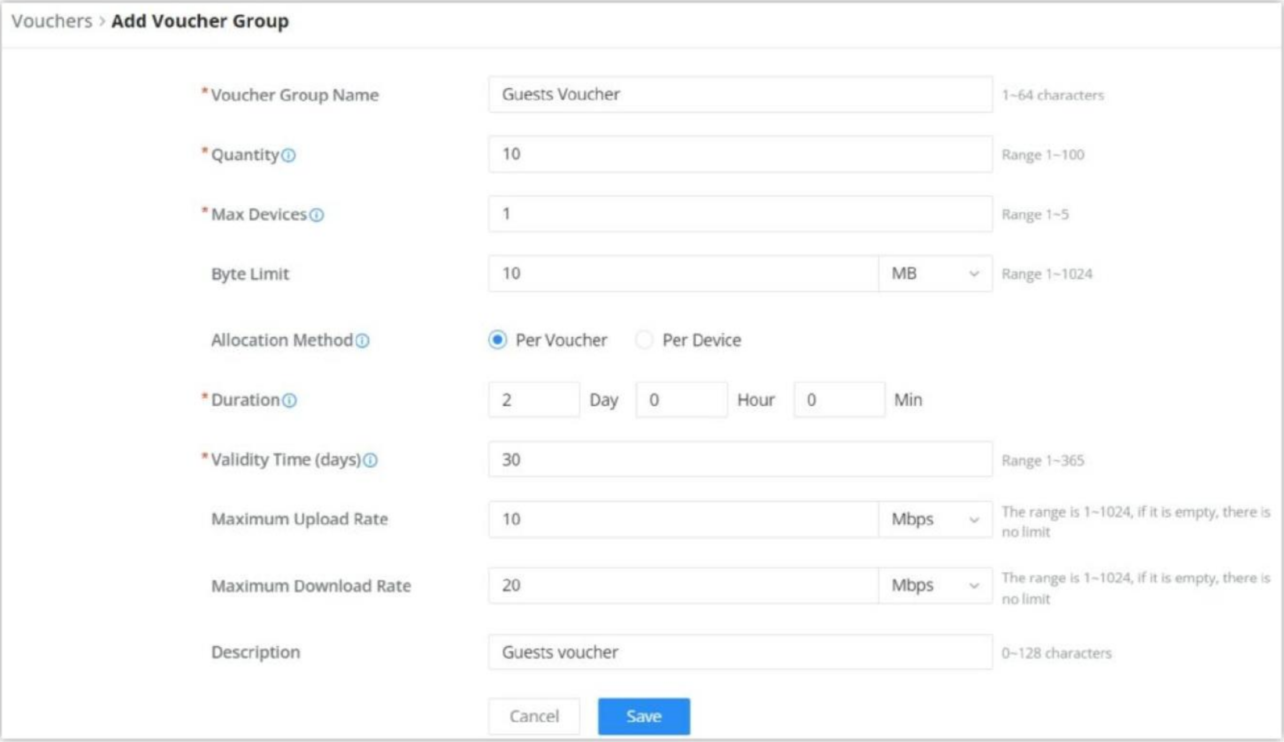
Another interesting feature is that the admin can set data bandwidth limitations on each created voucher depending on the current load on the network, users’ profile (VIP customers get more speed than regular ones, etc.…), and the internet connection available (fiber, DSL or cable, etc.…) to avoid connection congestion and slowness of the service.

Click on the “**Add**” button to create a voucher group.



Voucher page

Please refer to the figure below when filling up the fields.



Vouchers > **Add Voucher Group**

*Voucher Group Name	Guests Voucher	1~64 characters
*Quantity	10	Range 1~100
*Max Devices	1	Range 1~5
Byte Limit	10 MB	Range 1~1024
Allocation Method	● Per Voucher ○ Per Device	
*Duration	2 Day 0 Hour 0 Min	
*Validity Time (days)	30	Range 1~365
Maximum Upload Rate	10 Mbps	The range is 1~1024, if it is empty, there is no limit
Maximum Download Rate	20 Mbps	The range is 1~1024, if it is empty, there is no limit
Description	Guests voucher	0~128 characters

Add/Edit Voucher

Note:

Clients connected through captive portals including vouchers will be listed on the Guests page under **Captive Portal → Guests**.

Add Voucher Group

Voucher Group Name	Defines the Voucher Group Name
Quantity	Configures the quantity of vouchers to be created, Valid Range is 1-100 vouchers
Max Devices	Sets the maximum number of devices allowed for the created voucher (Based on MAC), the valid rage is 1-5
Byte Limit	Defines the maximum amount of data (in bytes) that a user can transfer before their access is restricted or expires, this can be defines in MB or GB, and the range is 1-1024
Traffic Allocation Method	Defines the Allocation method ● Per Voucher : The byte limit will be distributed to all devices within the voucher ● Per Device : The total usage for each device is the byte limit
Duration	Defines the time limit for which the voucher is valid and can be used for accessing the network.

Valid Time (Days)	Configures how many days the voucher will be available for. After the expiration , the voucher becomes invalid.
Maximum Upload Rate	Defines the maximum speed at which data can be uploaded by the user accessing the network using the voucher.
Maximum Download Rate	Defines the maximum speed at which data can be downloaded by the user accessing the network using the voucher.
Description	Gives a specific description to the voucher created