Grandstream Networks, Inc.

GCC6000 Series

User Manual

GCC601X(W) series are defined as mid-range all-in-one convergence devices. Integrates VPN Router, NGFW, Switch or Wi-Fi AP, and IP PBX, covering the collaborative office capabilities of data communication and UC audio and video service. Featuring GbE RJ-45 and SFP ports, it enables high-speed multi-WAN port connectivity for enterprises. This series is convenient and fast to deploy and manage through the local simple Web UI, GDMS, mobile APP, or console. Support unified management and centralized control of Grandstream terminal devices including APs, Switches, and UC endpoints. It is also a security firewall that provides excellent performance and defenses against the most advanced network attacks while achieving unified management and consistent security in complex hybrid environments. Ideal for small and medium enterprises, campuses, government, hotels, remote offices/SOHO, etc.

The GCC601x(W) combines the following modules:

- Home
- Networking
- Firewall
- Network Nodes
- PBX
- UC Endpoints

PRODUCT OVERVIEW

Technical Specifications

The following tables resume all the technical specifications including the hardware and the software specifications.

GCC6010 Technical Specifications

Network Ports	2 x 2.5 Gigabit SFP ports and 5 x Gigabit Ethernet ports *All ports are WAN/LAN configurable, max 3 x WAN
Auxiliary Ports	1xMicro-SD, 1xUSB 3.0, 1xReset
Memory	2GB RAM, 32GB eMMC Flash
External Storage	N/A
Router	2.5Gbps
IPsec VPN Throughput	1Gbps
NAT Sessions	160K
IDS/IPS	900Mbps
PBX	12 users and 4 concurrent calls by default. Upgrades available for purchase (See more for PBX capacity upgrade options).
Mounting	Desktop/Wall-mounting
Material	Metal
LEDs	7 x single LEDs and 1 x RGB LED for device tracking and status indication

Connection Type	DHCP, Static IP, PPPoE, PPTP, L2TP
Network Protocols	IPv4, IPv6, IEEE802.1Q,IEEE 802.1p, IEEE802.1x, IEEE802.3, IEEE 802.3u, IEEE 802.3x,IEEE802.3ab
QoS	VLAN, TOS Support multiple traffic classes, filter by port, IP address, DSCP, and policing App QoS: Application/protocol monitoring and traffic statistics VoIP Prioritization
Firewall	DDNS, Port Forwarding, DMZ, UPnP, DoS & Spoofing defense, traffic rules, NAT, ALG DPI, Anti-Virus, IPS/IDS, SSL deep inspection Content Control: DNS Filtering, Web url/class/content filtering, Application identification and control
VPN	• IPsec VPN Client-to-Site / Site-to-Site • IPSec Encryption: 3DES, AES • IPSec Authentication: MD5, SHA-1, SHA2-256 • IPSec Key Exchange: Main/Aggressive Mode, Pre-shared Key, DH Groups 1/2/5/14 • IPSec Protocols: ESP • IPSec NAT Traversal • PPTP VPN Server / Client • PPTP Encrpytion: MPPE 40-bit, 128-bit • PPTP/L2TP Authentication: MS-CHAPv1/2 • L2TP Client-to-Site • OpenVPN® Server / Client • OpenVPN® Encryption: AES, DES • OpenVPN® Authentication: MD5, SHA-1, SHA2-256, SHA2-384, SHA2-512 • OpenVPN® Certificate: RSA • WireGuard®
Network Management	GDMS, Local Web GUI, CLI (Console, Telnet) and SNMP (v1/ v2c/v3)
Max AP/Clients	Up to 150 GWN APs; Up to 500 Clients
Power and Green Energy Efficiency	Universal power adaptor included: Input 100-240VAC 50-60Hz Output: 48VDC 1A (48W); 4 x PoE out ports IEEE802.3af/at Max. PoE Wattage : 36W
Environmental	Operation: 0°C to 45°C Storage: -30°C to 60°C Humidity: 5% to 95% Non-condensing
Physical	**Unit Dimension:** 191x 101 x 29mm **Unit Weight:** 520g **Entire Package Dimension:** 300 x 130 x 53 mm **Entire Package Weight:** 835g
Package Content	GCC6010/GCC6011, Universal Power Supply, Rack mount kit (Only GCC6011), Quick Installation Guide
Compliance	FCC, CE, RCM, IC

GCC6010W Technical Specifications

Wi-Fi Standards	IEEE 802.11 a/b/g/n/ac/ax
Antennas	3 individual internal antennas (2 x dual band + 1 x Single band 5G) 2.4GHz: maximum gain 4.5dBi 5 GHz: maximum gain 5dBi
Wi-Fi Data Rates	**5G:** IEEE 802.11ax: 7.3 Mbps to 3603 Mbps IEEE 802.11ac: 6.5 Mbps to 2600 Mbps IEEE 802.11n: 6.5 Mbps to 450 Mbps IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps **2.4G:** IEEE 802.11ax: 7.3 Mbps to 573.5 Mbps IEEE 802.11n: 6.5 Mbps to 300 Mbps IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps *Actual throughput may vary depending on many factors including environmental conditions, distance between devices, radio interference in the operating environment and mix of devices in the network
Frequency Bands	2.4GHz radio: 2400 – 2483.5 MHz (2412-2472MHz are channel central frequency range; 2400-2483.5MHz is Frequency band) 5GHz radio: 5150 - 5895 MHz *Not all frequency bands can be used in all regions
Channel Bandwidth	2.4G: 20 and 40 MHz 5G: 20, 40, 80, 160 MHz
Wi-Fi and System Security	WPA/WPA2-PSK, WPA/WPA2 Enterprise (TKIP/AES); WPA3, anti-hacking secure boot and critical data/control lockdown via digital signatures, unique security certificate and random default password per device
MU-MIMO	2x2 2G/3x3 5G
Maximum TX Power	5G: 25.5dBm 2.4G: 24dBm *Maximum power varies by country, frequency band and MCS rate
Receiver Sensitivity	2.4G 802.11b: -97dBm@1Mbps, -89dBm@11Mbps; 802.11g: -93dBm @6Mbps, -75dBm@54Mbps; 802.11n 20MHz: -73dBm @MCS7; 802.11n 40MHz: -70dBm @MCS7; 802.11ax 20MHz: -64dBm @ MCS11; 802.11ax 40MHz: -63dBm @MCS11 5G 802.11a: -93dBm @6Mbps, -75dBm @54Mbps; 802.11n: 20MHz: -73dBm @MCS7; 802.11n 40MHz: -70dBm @MCS7 802.11ac 20MHz: -70dBm@MCS8; 802.11ac: HT40:- 66dBm @MCS9; 802.11ac 80MHz: -62dBm @MCS9; 802.11ax 20MHz: -64dBm @ MCS11; 802.11ax 40MHz: -61dBm @MCS11;802.11ax 80MHz: -58dBm @MCS11
Network Ports	5 x Gigabit Ethernet ports
	*All ports are WAN/LAN configurable, max 3 x WAN
Auxiliary Ports	1xMicro-SD, 1xUSB 3.0, 1xReset
Memory	2GB RAM, 32GB eMMC Flash

External Storage	N/A
Router	3Gbps
IPsec VPN Throughput	1Gbps
NAT Sessions	160K
IDS/IPS	900Mbps
PBX	12 users and 4 concurrent calls by default Upgrades available for purchase (See more for PBX capacity upgrade options)
Mounting	Desktop
Material	Plastic Mini-Tower
LEDs	9 x LEDs for device tracking and status indication
Connection Type	DHCP, Static IP, PPPoE, PPTP, L2TP
Network Protocols	IPv4, IPv6, IEEE802.1Q,IEEE 802.1p, IEEE802.1x, IEEE802.3, IEEE 802.3u, IEEE 802.3x,IEEE802.3ab
QoS	VLAN, TOS Support multiple traffic classes, filter by port, IP address, DSCP, and policing App QoS: Application/protocol monitoring and traffic statistics VoIP Prioritization
Firewall	DDNS, Port Forwarding, DMZ, UPnP, DoS & Spoofing defense, traffic rules, NAT, ALG DPI, Anti-Virus, IPS/IDS, SSL deep inspection Content Control: DNS Filtering, Web url/class/content filtering, Application identification and control
VPN	IPsec VPN Client-to-Site / Site-to-Site • IPSec Encryption: 3DES, AES • IPSec Authentication: MD5, SHA-1, SHA2-256 • IPSec Key Exchange: Main/Aggressive Mode, Pre-shared Key, DH Groups 1/2/5/14 • IPSec Protocols: ESP • IPSec NAT Traversal • PPTP VPN Server / Client • PPTP Encrpytion: MPPE 40-bit, 128-bit • PPTP/L2TP Authentication: MS-CHAPv1/2 • L2TP Client-to-Site • OpenVPN® Server / Client • OpenVPN® Encryption: AES, DES • OpenVPN® Authentication: MD5, SHA-1, SHA2-256, SHA2-384, SHA2-512 • OpenVPN® Certificate: RSA • WireGuard®
Network Management	GDMS, Local Web GUI, CLI (Console, Telnet) and SNMP (v1/v2c/v3)
Max AP/Clients	Up to 150 GWN APs; Up to 500 Clients
Power and Green Energy Efficiency	Universal power adaptor included: Input 100-240VAC 50-60Hz Output: 48VDC 1A (48W) PoE: N/A

Environmental	Operation: 0°C to 45°C Storage: -30°C to 60°C Humidity: 5% to 95% Non-condensing
Physical	**Unit Dimension:** 95 x 95 x 193 mm **Unit Weight:** 565g **Entire Package Dimension:** 186 x 127 x 105 mm **Entire Package Weight:** 920g
Package Content	GCC6010W, Universal Power Supply, Quick Installation Guide
Compliance	FCC, CE, RCM, IC

GCC6011 Technical Specifications

Network Ports	2 x 2.5 Gigabit SFP port and 10 x Gigabit Ethernet ports *Fixed 3 x WAN
Auxiliary Ports	1xMicro-SD, 1xUSB 3.0, 1xReset
Memory	2GB RAM, 32GB eMMC Flash
External Storage	Optional, up to 1T M.2 SSD
Router	2.5Gbps
IPsec VPN Throughput	1Gbps
NAT Sessions	160K
IDS/IPS	900Mbps
PBX	12 users and 4 concurrent calls by default Upgrades available for purchase (See more for PBX capacity upgrade options)
Mounting	Desktop/Wall/Rack-mounting
Material	Metal
LEDs	12 x single LEDs and 1 x RGB LED for device tracking and status indication
Connection Type	DHCP, Static IP, PPPoE, PPTP, L2TP
Network Protocols	IPv4, IPv6, IEEE802.1Q,IEEE 802.1p, IEEE802.1x, IEEE802.3, IEEE 802.3u, IEEE 802.3x,IEEE802.3ab
QoS	VLAN, TOS Support multiple traffic classes, filter by port, IP address, DSCP, and policing App QoS: Application/protocol monitoring and traffic statistics VoIP Prioritization
Firewall	DDNS, Port Forwarding, DMZ, UPnP, DoS & Spoofing defense, traffic rules, NAT, ALG DPI, Anti-Virus, IPS/IDS, SSL deep inspection Content Control: DNS Filtering, Web url/class/content filtering, Application identification and control

VPN	• IPsec VPN Client-to-Site / Site-to-Site • IPSec Encryption: 3DES, AES • IPSec Authentication: MD5, SHA-1, SHA2-256 • IPSec Key Exchange: Main/Aggressive Mode, Pre-shared Key, DH Groups 1/2/5/14 • IPSec Protocols: ESP • IPSec NAT Traversal • PPTP VPN Server / Client • PPTP Encrpytion: MPPE 40-bit, 128-bit • PPTP/L2TP Authentication: MS-CHAPv1/2 • L2TP Client-to-Site • OpenVPN® Server / Client • OpenVPN® Encryption: AES, DES • OpenVPN® Authentication: MD5, SHA-1, SHA2-256, SHA2-384, SHA2-512 • OpenVPN® Certificate: RSA • WireGuard®
Network Management	GDMS, Local Web GUI, CLI (Console, Telnet) and SNMP (v1/ v2c/v3)
Max AP/Clients	Up to 150 GWN APs; Up to 500 Clients
Power and Green Energy Efficiency	Universal power adaptor included: Input 100-240VAC 50-60Hz Output: 48VDC 1A (48W) 4 x PoE out ports IEEE802.3af/at Max. PoE Wattage : 36W
Environmental	Operation: 0°C to 45°C Storage: -30°C to 60°C Humidity: 5% to 95% Non-condensing
Physical	**Unit Dimension:** 280 x 180 x 44 mm **Unit Weight:** 1200g **Entire Package Dimension:** 366 x 211 x 53 mm **Entire Package Weight:** 1600g
Package Content	GCC6010/GCC6011, Universal Power Supply, Rack mount kit (Only GCC6011), Quick Installation Guide
Compliance	FCC, CE, RCM, IC

INSTALLATION

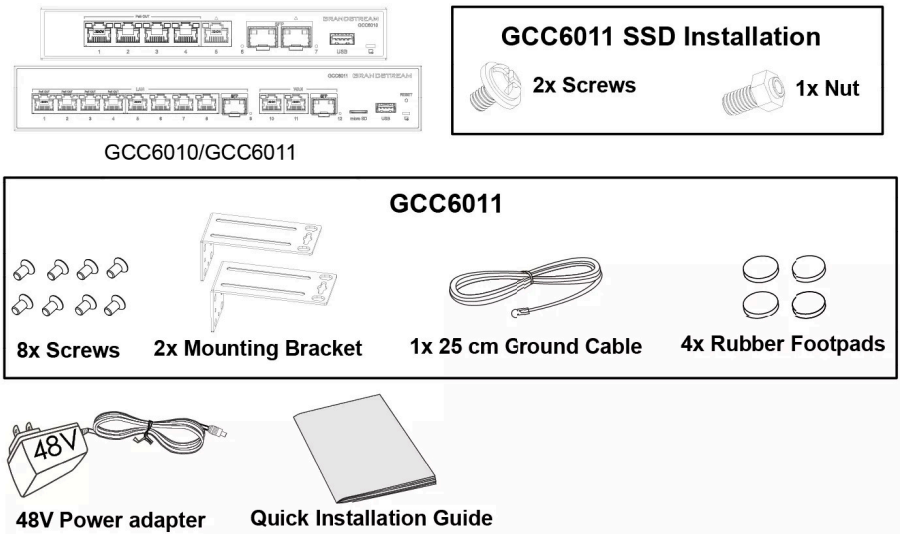
Before deploying and configuring the GCC601X(W) device, the device needs to be properly powered up and connected to the network. This section describes detailed information on the installation, connection, and warranty policy of the GCC601X(W) device.

Package Content

GCC601X(W)	1
Power Adaptor	1
Ethernet Cable	With GCC6010W only.
Rack Mount Kit	with GCC6011 only.

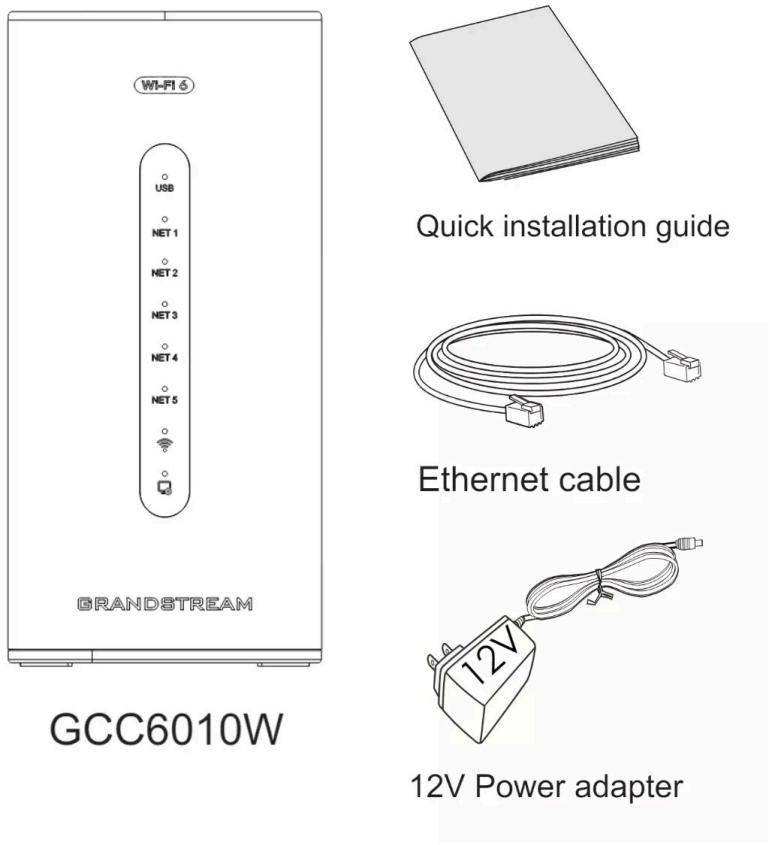
Simplified Quick Installation Guide	1
SSD Installation	2x screws & 1x nut (GCC6011 only).
Ground Cable	with GCC6011 only.
Rubber footpads	with GCC6010/GCC6011 only.

GCC6010/GCC6011 Package Content



GCC6010/GCC6011 Package Content

GCC6010W Package Content



GCC6010W Package Content

Note:

Check the package before installation. If you find anything missing, contact your system administrator.

Connect Your GCC601X(W) Device

Safety Compliances

The GCC601X(W) complies with FCC/CE and various safety standards. The GCC601X(W) power adapter is compliant with the UL standard. Use the universal power adapter provided with the GCC601X(W) package only. The manufacturer's warranty does not cover damages to the device caused by unsupported power adapters.

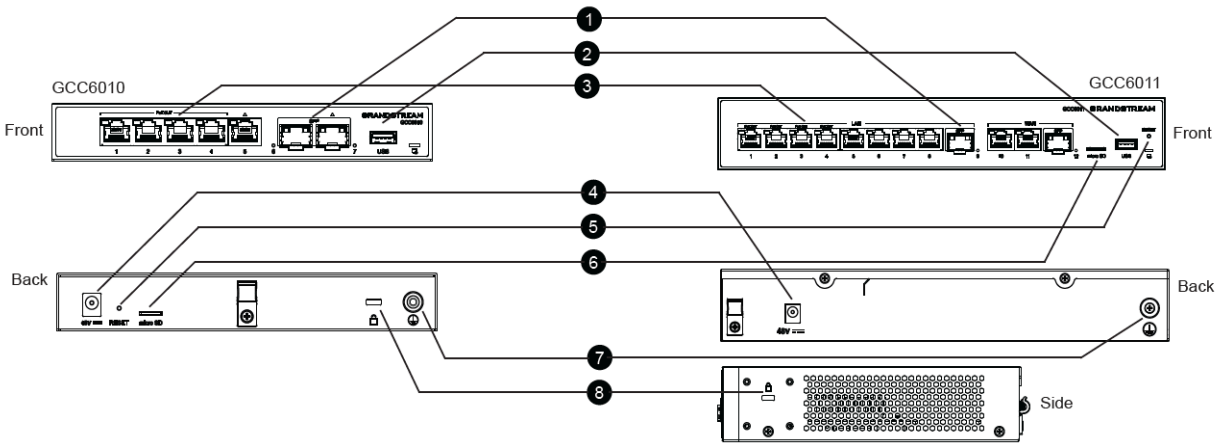
Warranty

If the GCC601X(W) device was purchased from a reseller, please contact the company where the device was purchased for replacement, repair, or refund. If the device was purchased directly from Grandstream, contact our Technical Support Team for an RMA (Return Materials Authorization) number before the product is returned. Grandstream reserves the right to remedy the warranty policy without prior notification.

Warning

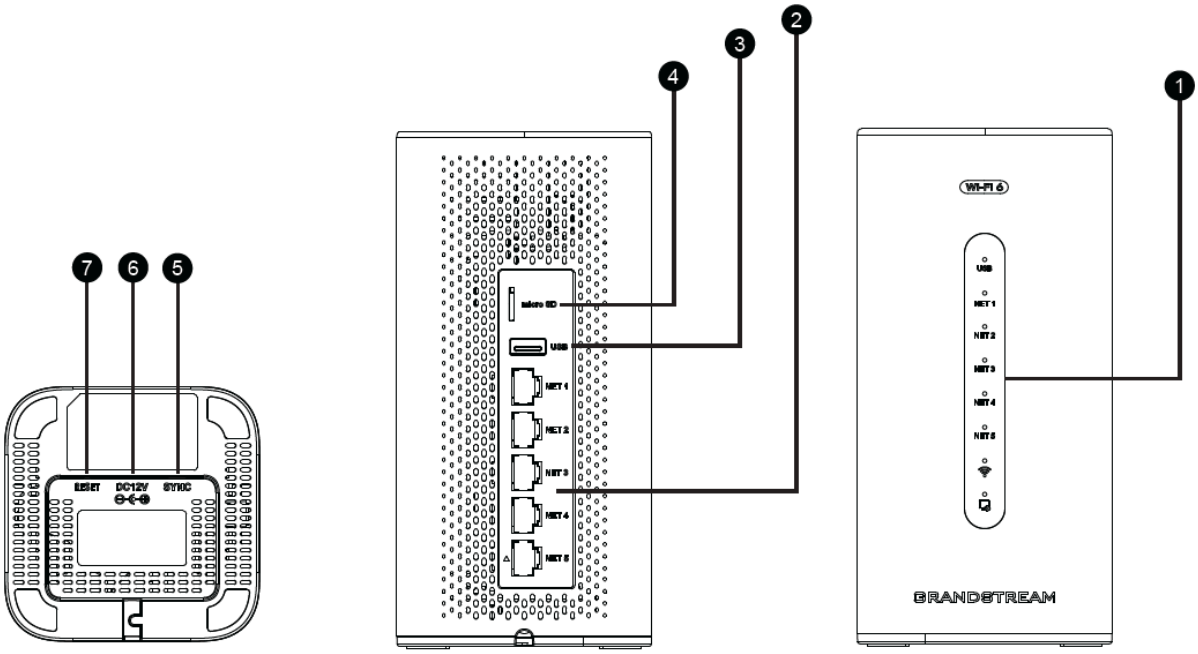
Use the power adapter provided with the GCC601X(W) device. Do not use a different power adapter as this may damage the device. This type of damage is not covered under warranty.

Connecting GCC601X



1	2.5G SFP Port
2	USB 3.0
3	Ethernet Port
4	DC48V
5	RESET
6	Micro SD
7	Ground Terminal
8	Kensington Lock

Connecting GCC6010W

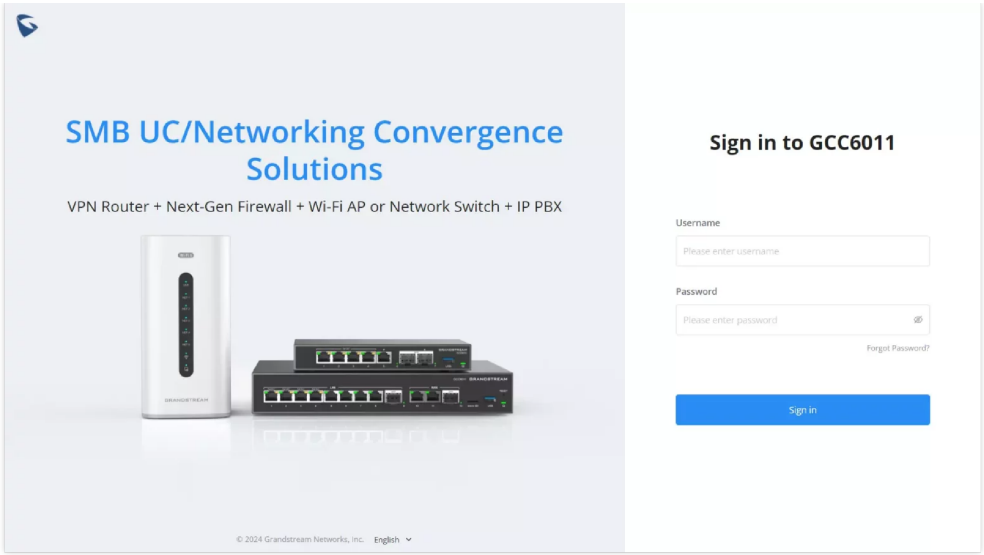


1	LED Indicators
2	NET Ports
3	USB 3.0 Port
4	Micro SD
5	Sync APs Button
6	DC12V
7	RESET Button

1. GCC6010/GCC6011 can be powered on using the right PSU 48VDC 1A (48W) and GCC6010W can be powered by a 12VDC 1.5A power adapter.
2. Connect the WAN port to an optical fiber broadband modem, or ADSL broadband modem.
3. Connect a PC, or laptop to one of the LAN ports for GCC6010 and GCC6011, or connect to SSID (Wi-Fi) only for GCC6010W.

Notes:

- The default password information is printed on the MAC label at the bottom of the unit. The default username is "**admin**".
- Ports with this symbol △ on GCC6010 are configured to be used as a WAN port by default at the factory.
- The default gateway is 192.168.80.1 (gcc.grandstream.com).



GCC601x(W) login page

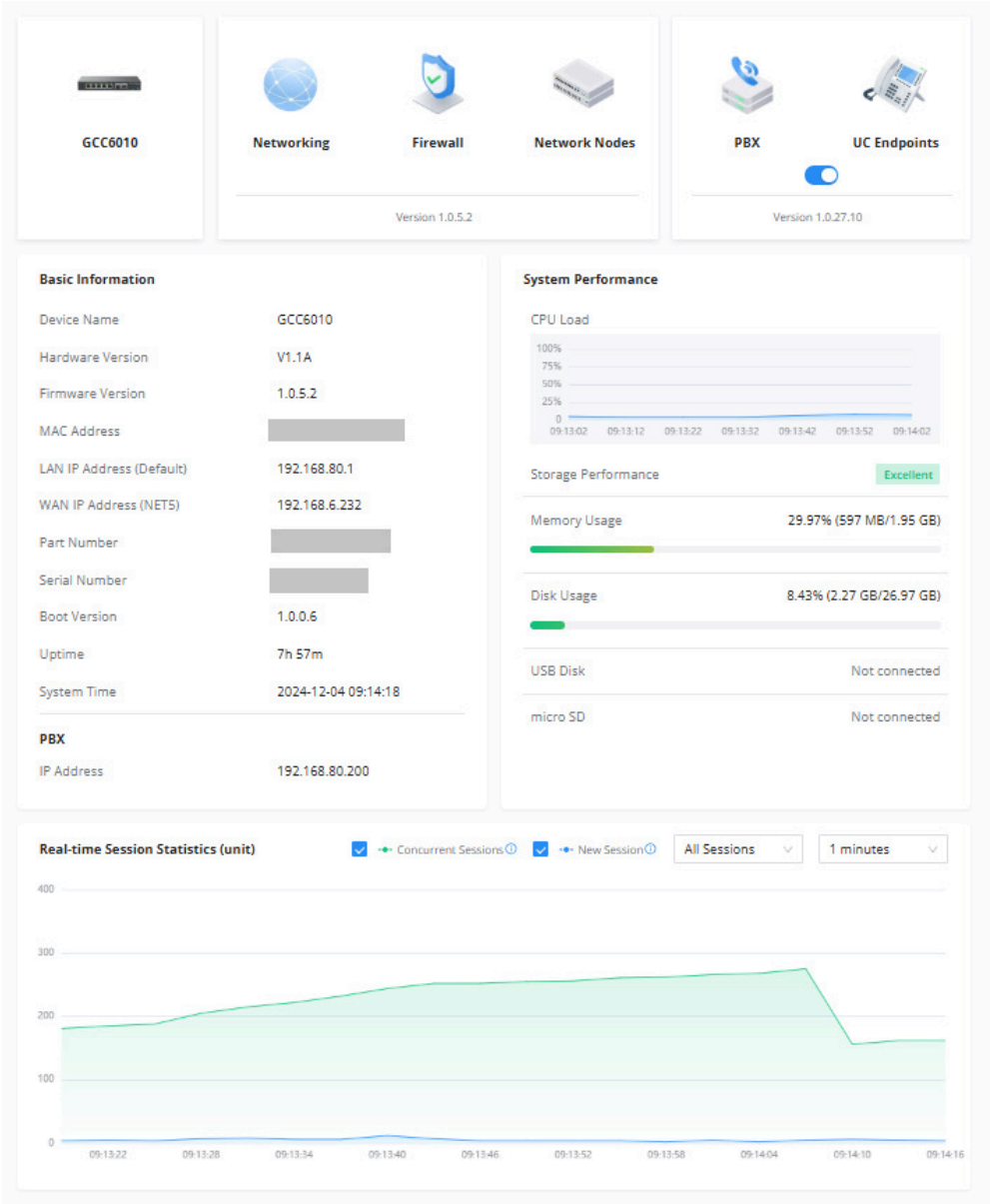
HOME

Overview

In this section, the user can view general information about the GCC60XX device. The information displayed includes basic information like the device name, hardware version, firmware version, MAC address, IP address, part number, serial number, boot version, uptime, and system time.

It also shows the firmware version of each module and whether a new firmware update for a module is detected.

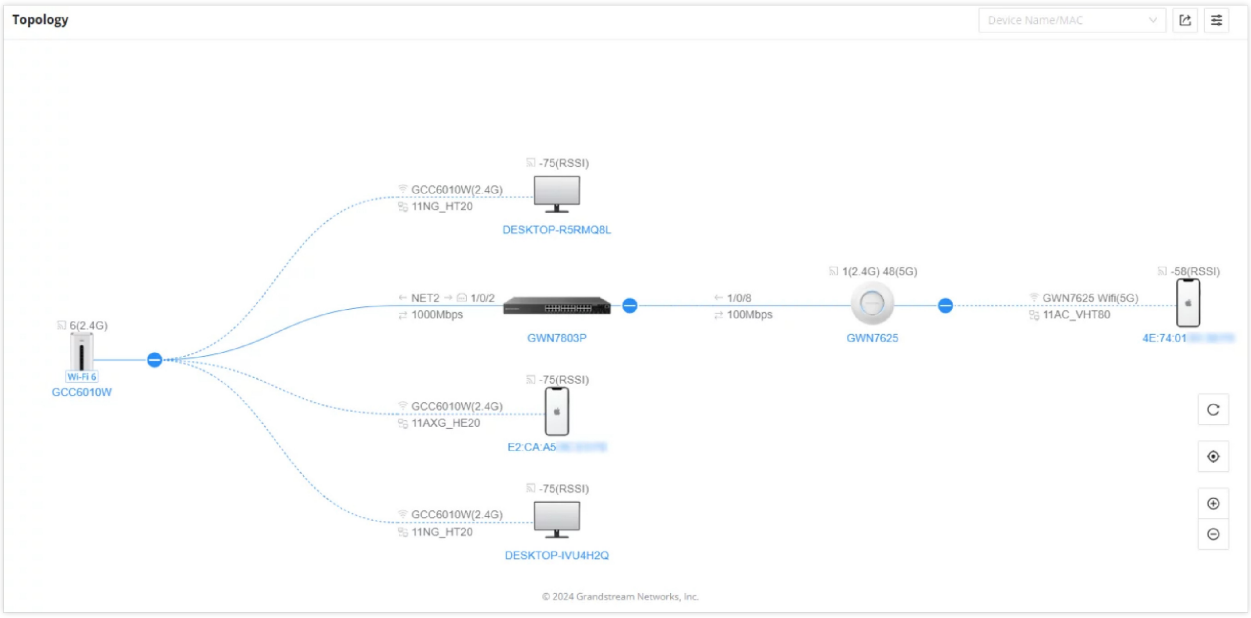
In addition to that, it shows the general system performance of the device by displaying the CPU load rate, the storage performance rating, and the percentage of the memory utilized.



GCC601X Overview Page

Topology

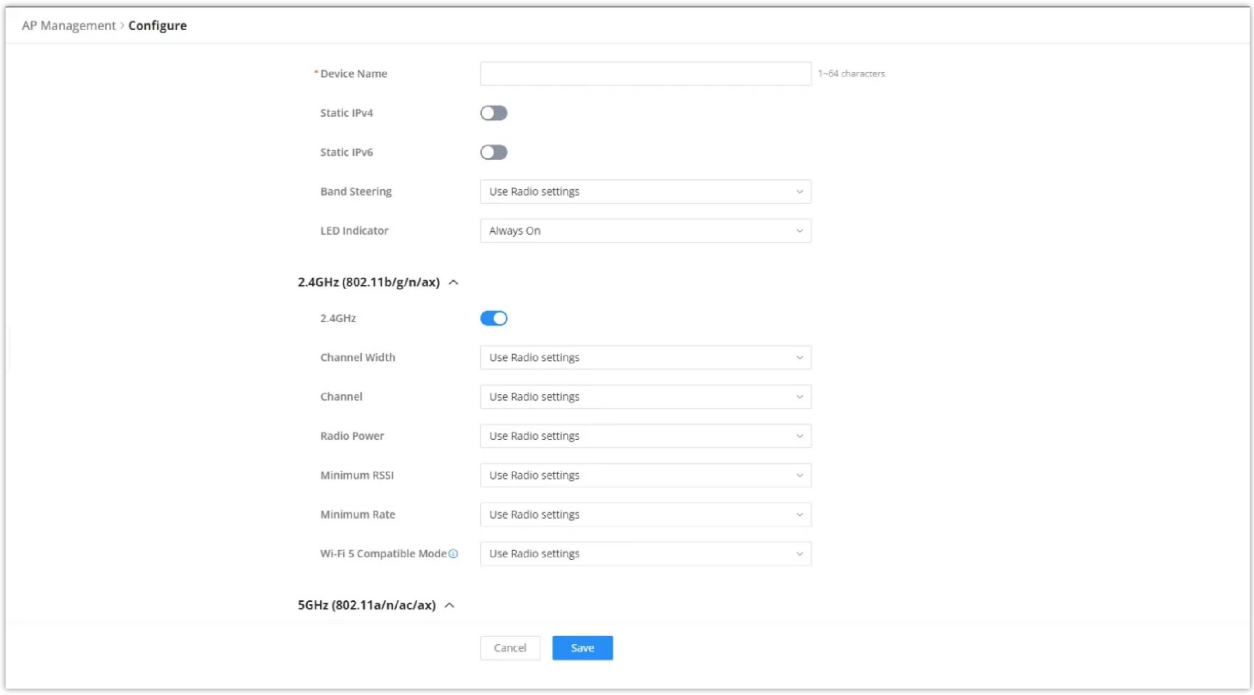
In this section, the administrator can view the topology of the Grandstream networking device connected to the GCC device.



Topology

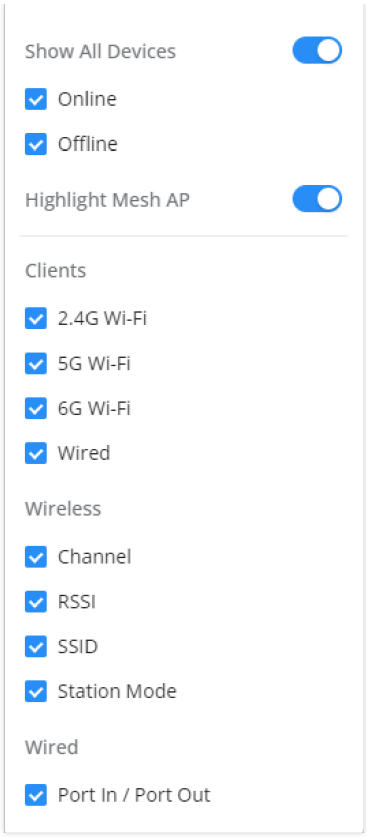
When clicking on the highlighted icon below, the user can view the device details and settings

Icon View



AP Settings

To filter the types of devices that are shown on the topology click on



Topology Filter

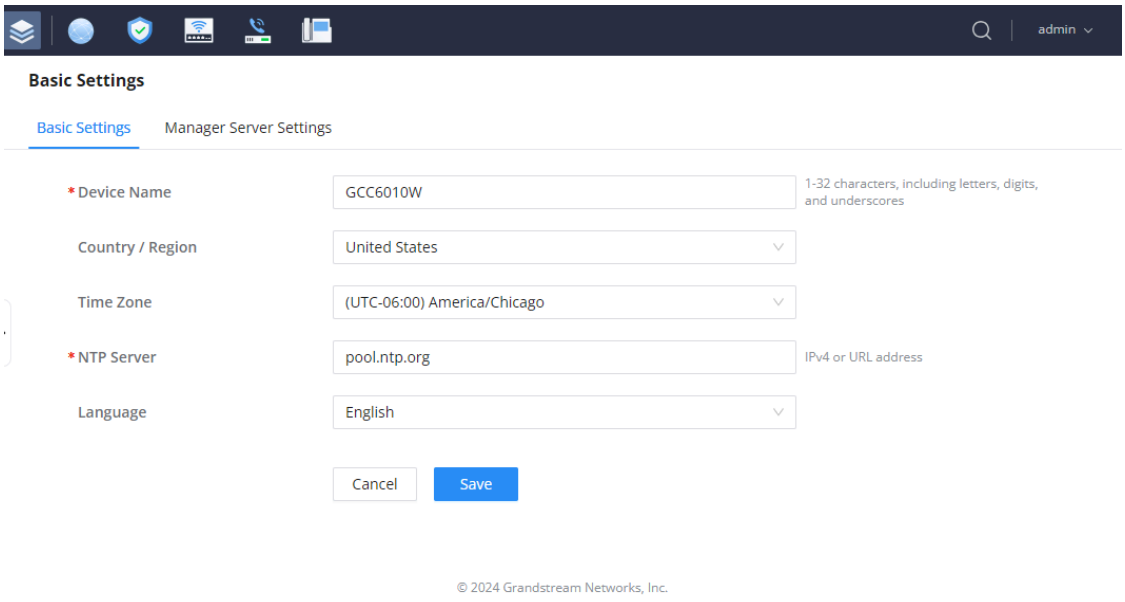
System Settings

In this section, the user can configure settings related to the general operations of the device.

Basic Settings

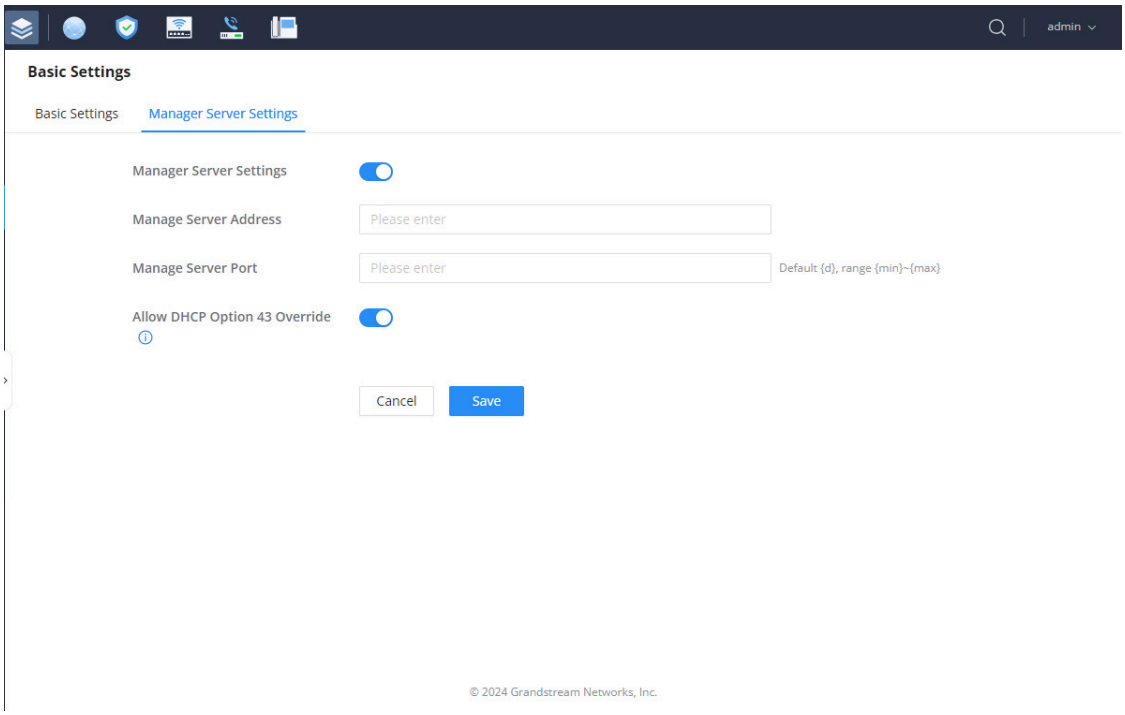
Basic Settings

In this configuration tab, the user can define certain information about the GCC device. This includes device name, country/region, time zone, NTP server, and language.



Basic Settings

Manager Server Settings



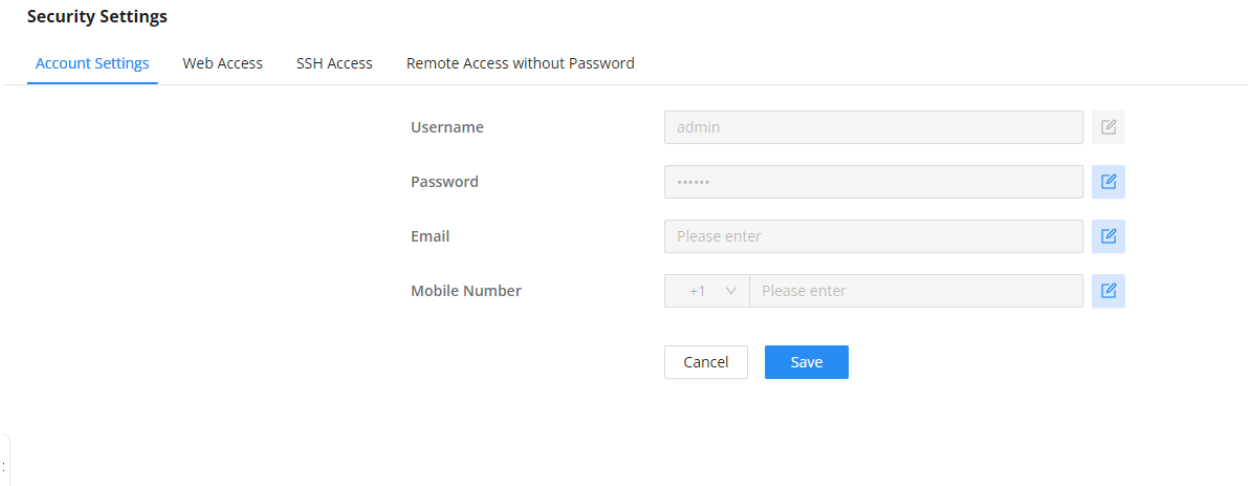
Manager Server Settings

Security Settings

In this section, the user will be able to configure different security-related settings. These settings are mainly related to securing user access to the device either locally or remotely.

Account Settings

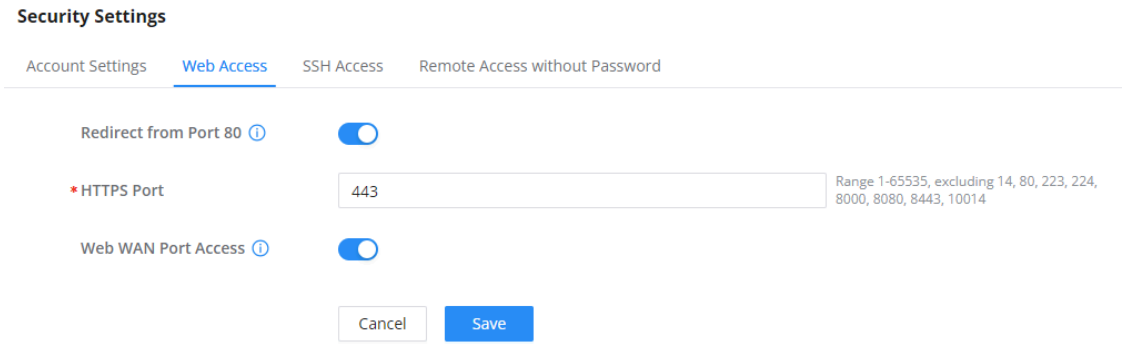
This tab allows the user to configure his/her username, password, email, and mobile phone number.



Account Settings

Web Access

On this page, the administrator can configure to allow or prevent web access through the WAN port. The administrator can also configure the HTTPS port number used for web access.

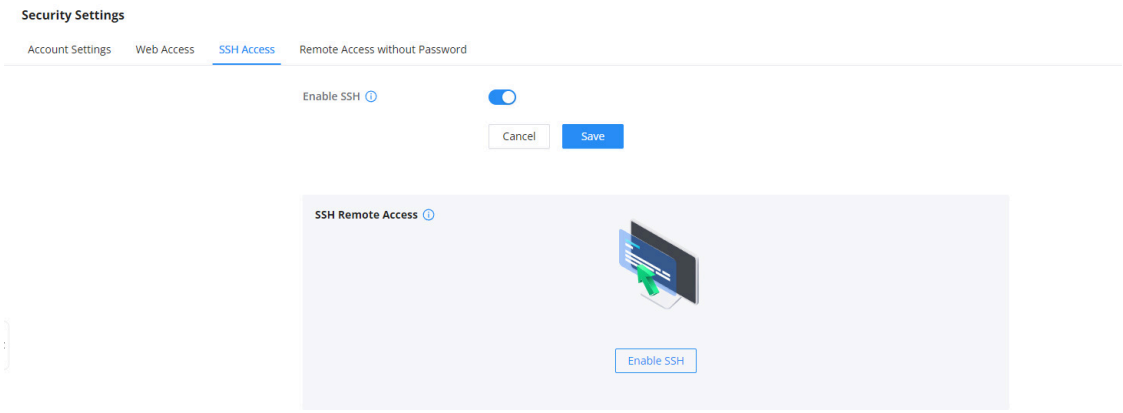


Web Access

Parameter	Description
Redirect from Port 80	Enabling this option allows redirecting HTTP access from port 80 to the HTTPS port configured. If the redirection is disbabled, the user should enter the HTTPS port configured in the address bar to access the web UI of the GCC.
HTTPS Port	Enter the HTTPS port. The default port is 443.
Web WAN Access Port	Enable or disable accessing the GCC web UI from the WAN side. This option is disabled by default.

SSH Access

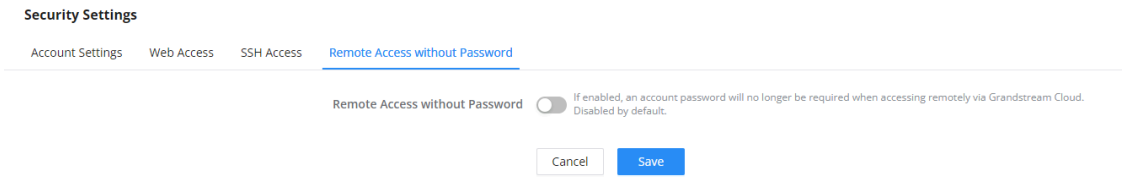
In this section, the user can enable SSH remote access to the device, this includes SSH remote access as well.



SSH Access

Remote Access without Password

Enabling passwordless remote access allows you to access the device through the GDMS management platform without having to provide a username and password for authentication.

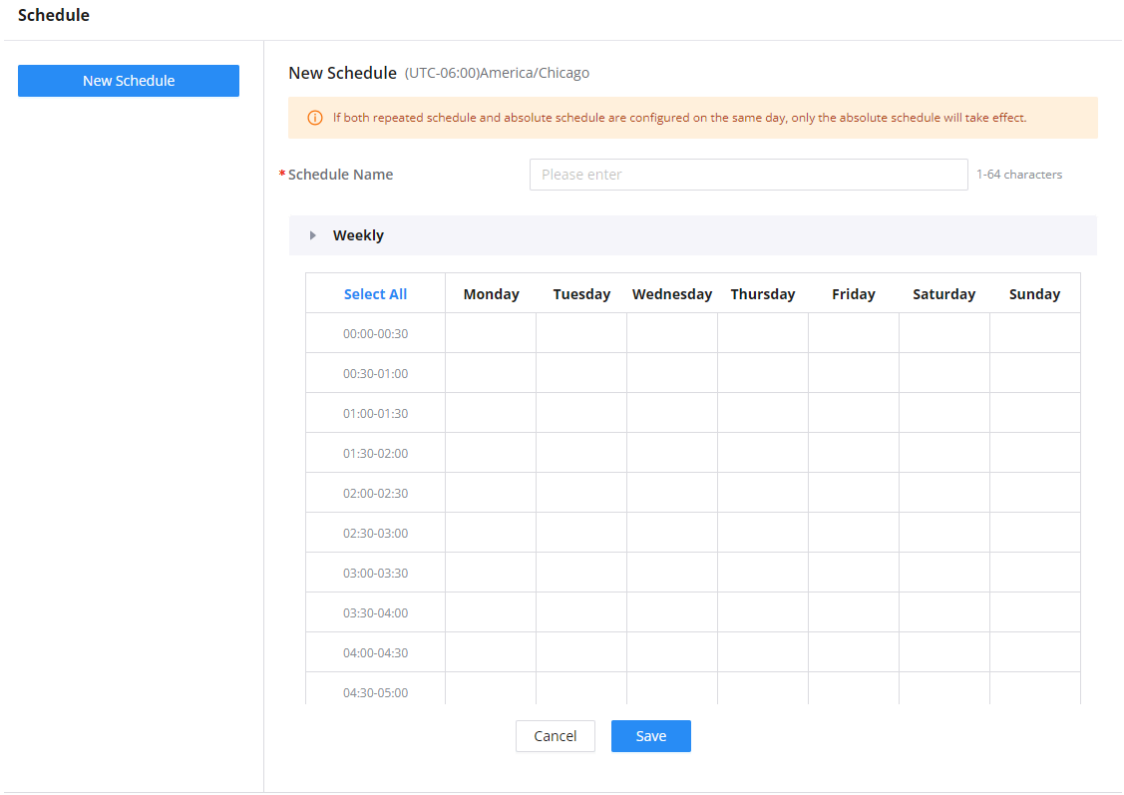


Remote Access without Password

Schedule

This feature allows the creation of schedules that can be applied as rules to various components of the GCC device. This includes the Wi-Fi-embedded controller.

When the user creates a new schedule, this schedule can be used for, e.g., to determine when a Wi-Fi SSID is broadcasted and when it is not.



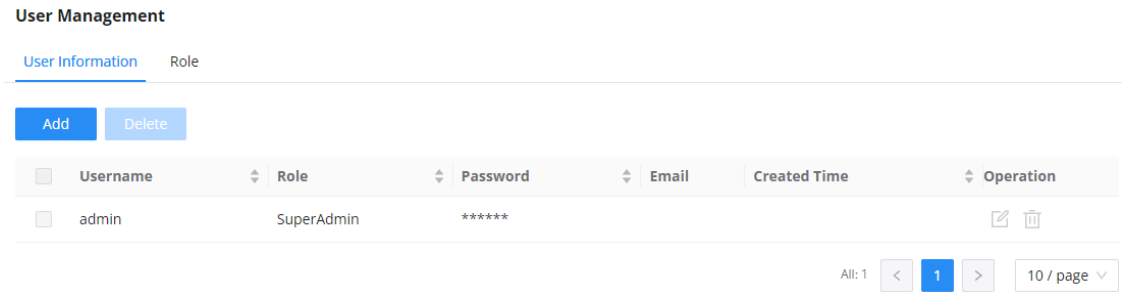
Schedule

User Management

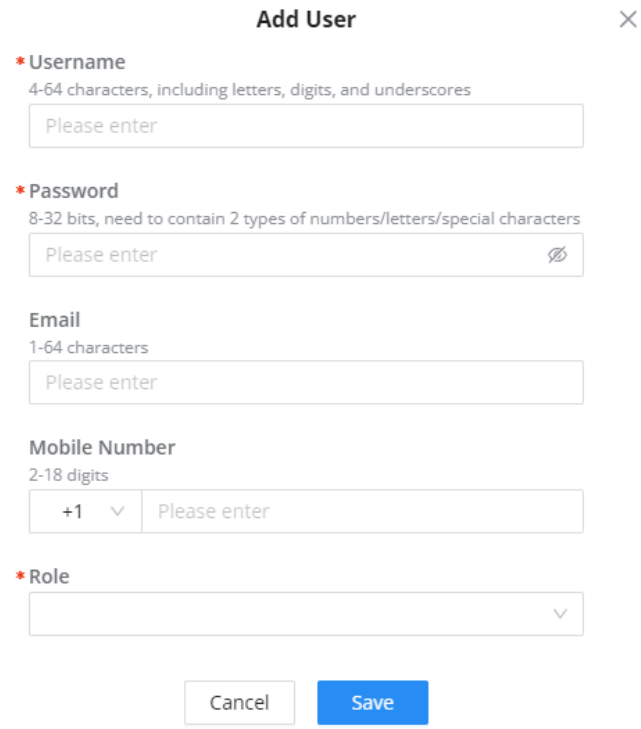
User Management allows the user to create users with various roles and privileges.

User Information

In this section, the user can create new users by clicking on the Add button.



User Information



Add User

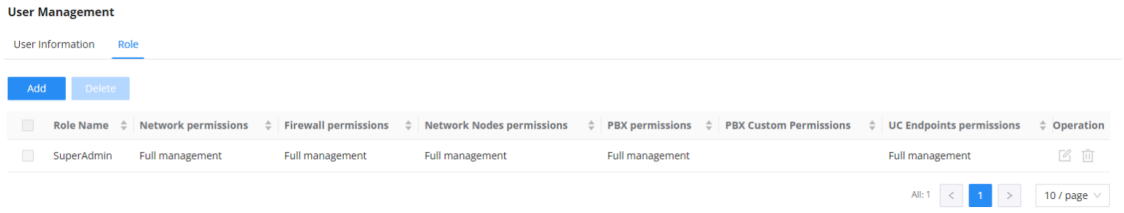
Username	Enter the username. The username can consist of 4-64 characters, including letters, digits, and underscores.
Password	Enter the password. The password can consist of 8-32 characters, need to contain 2 types of numbers/letters/special characters
Email	Enter the email of the user. The email entered should be limited between 1-64 characters
Mobile Number	Enter the mobile number of the user. The phone number is limited between 2-18 digits
Role	Select the role of this user. The role must be created first, before it's assigned to the user under

Role

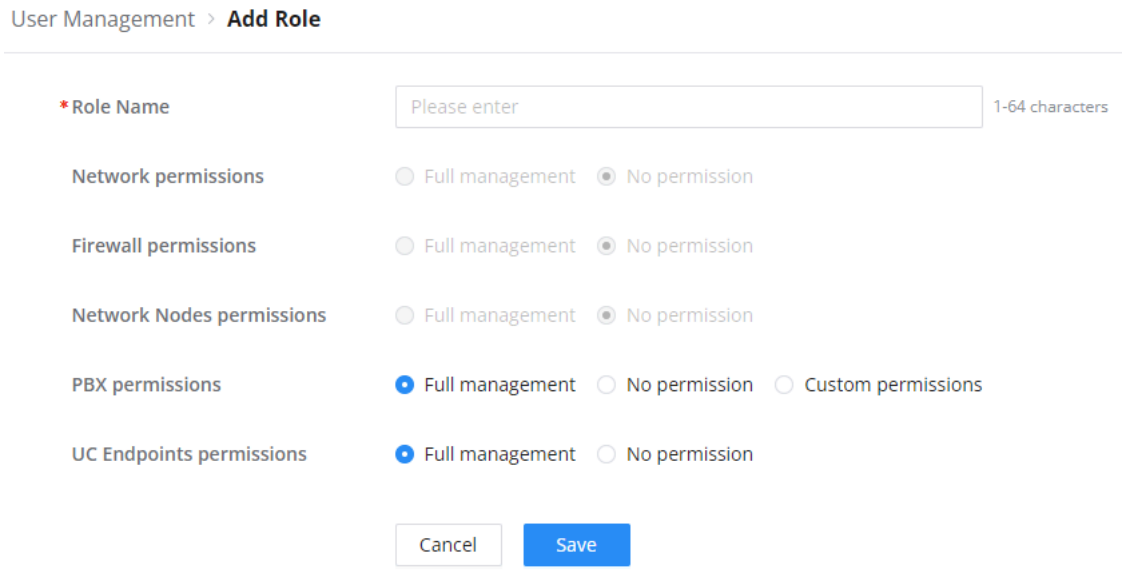
In this section, the user can create roles that can be assigned to different users. By default, the SuperAdmin role is pre-created and assigned to the default administrator account of the device. To create more roles, click on Add button.

Note

Please note that the SuperAdmin role cannot be assigned to other users. It's an exclusive role for the default user of the device.



Role



Add role

Email Settings

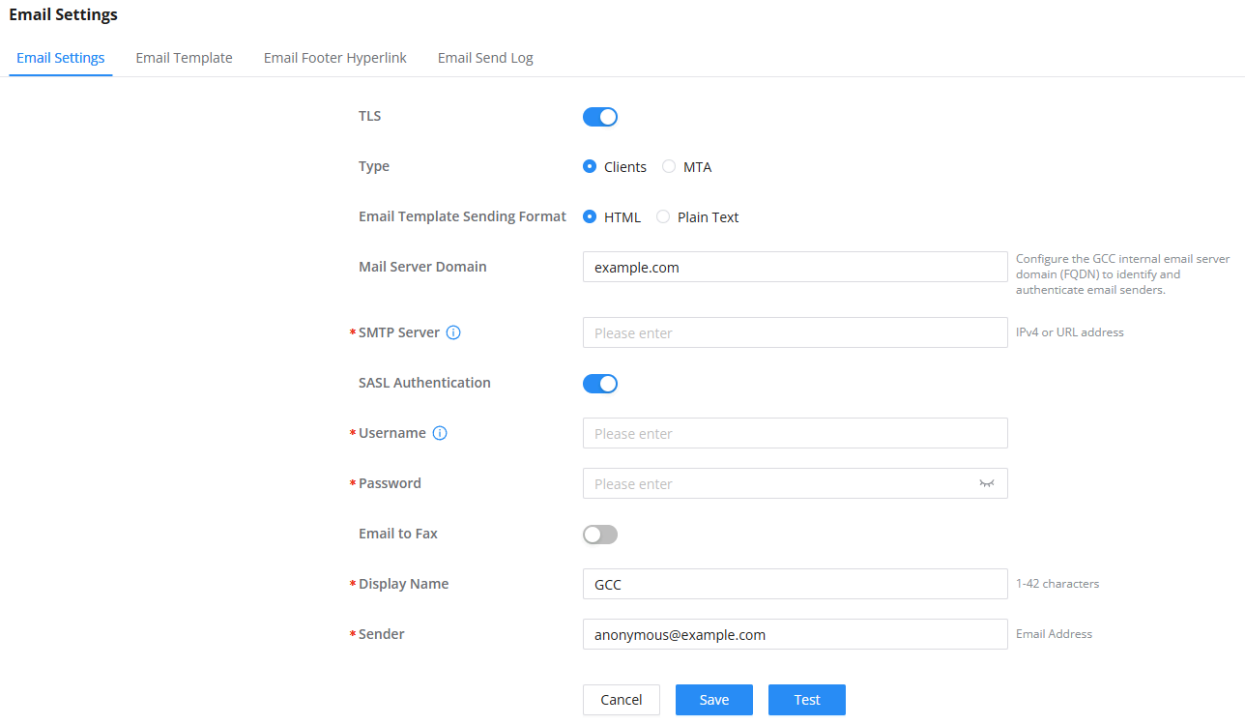
Setting the email client on the GCC60XX device allows the device to send emails directly to users and administrators. For example, when an extension is created on the PBX module and the email is entered in the extension's user information, the user will receive an email stating the information that he/she can use to log into his/her extension.

The email feature is used to send emails for the following types of information:

- **Extension information**
- **Remote registration of an extension**
- **Wave welcome message**
- **Missed calls notifications**
- **Scheduled multimedia meetings**
- **Scheduled meeting reports**
- **Alert events**
- **Emergency calls**
- **Password reset emails**

Email Settings

Configuring email settings on the GCC device allows the sending of notification emails. This deployment of a third-party SMTP server to transfer the emails to the configured email addresses.



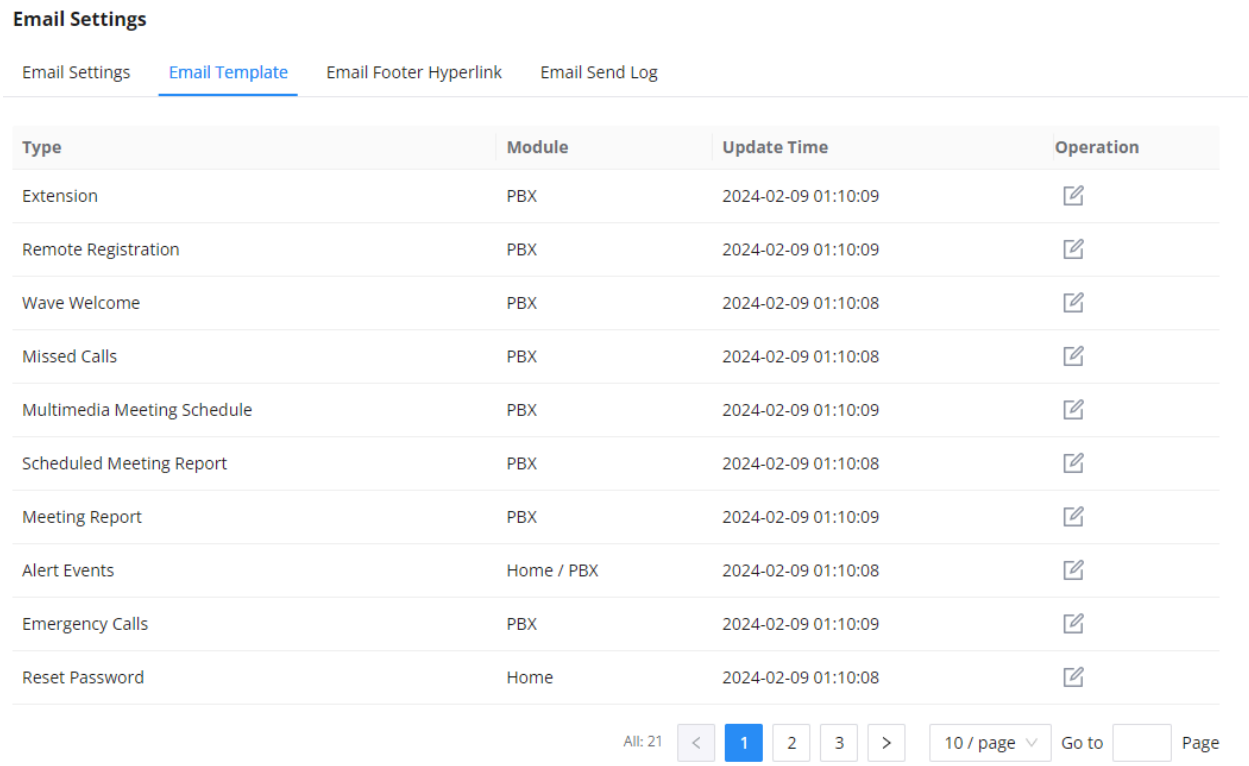
Email Settings

TLS	Enable or disable TLS during transferring/submitting your Email to another SMTP server. The default setting is “Yes”.
Type	Select Email Type: ● **MTA**: Mail Transfer Agent. The Email will be sent from the configured domain. When MTA is selected, there is no need to set up SMTP server for it and no user login is required. However, the Emails sent from MTA might be considered as spam by the target SMTP server. ● **Clients:** Submit Emails to the SMTP server. A SMTP server is required, and users need login with correct credentials.
Email Template Sending Format	● **HTML:** The emails will be sent in HTML format. ● **Plain Text:** The emails will be sent as plain text.
Mail Server Domain	Specify the domain name to be used in the Email when using type “MTA”.
SMTP Server	Enter the address of the SMTP server when using type "Client". The address can be either an IP address or a FQDN.
SASL Authentication	Enable Simple Authentication and Security Layer. When this option is disabled, the device will not try to use the username and password for mail client authentication. Most of the mail servers require authentication while some other private mail servers allow anonymous login, which requires disabling this option to send email as normal. For Microsoft Exchange Server, please disable this option. **Note:** This option is available when Type is "Clients".
Username	Enter the username created for the SMTP client. **Note:** This option is available when Type is "Clients".
Password	Enter the username created for the SMTP client. **Note:** This option is available when Type is "Clients".
Email To Fax	Monitors the inbox of the configured email address for the specified subject. If enabled, the IPPBX will get a copy of the attachment from the email and send it to the XXX extension by

	fax. The attachment must be in PDF/TIF/TIFF format. **Note**: This option is available when Type is "Clients".
Email-to-Fax Blocklist/Allowlist	The user can enable the Email-to-Fax Blacklist or Email-to-Fax Whitelist.
Email-to-Fax Subject Format	Select the email subject format to use for emails to fax. ● SendFaxMail To XXX ● XXX XXX refers to the extension that the fax will be sent to. This extension can only contain numbers. **Note**: This option is available when Type is "Clients" and "Email to Fax" is enabled.
Fax Sending Success/Failure Confirmation	Email address blacklist/whitelist for local extensions. **Note**: This option is available when Type is "Clients" and "Email to Fax" is enabled.
POP/POP3 Server Address/Port	Configure the POP/POP3 server address and port for the configured username Example: pop.gmail.com **Note**: This option is available when Type is "Clients" and "Email to Fax" is enabled.
Display Name	Specify the display name in the FROM header in the Email.
Sender	Specify the sender's Email address. For example: pbx@example.mycompany.com.

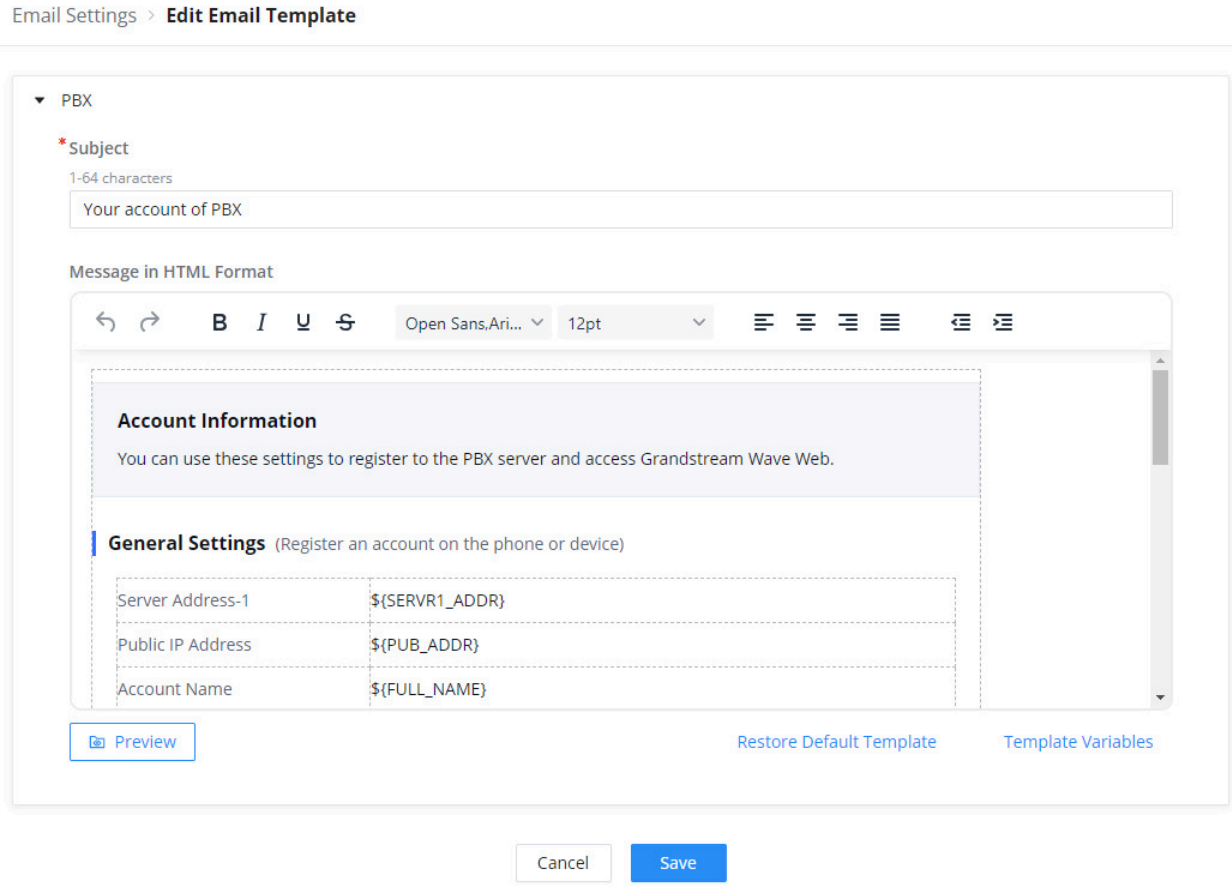
Email Template

The user can customize the layout of the emails sent by the device to the various users. The device already provides a pre-configured layout that can be modified.



Email Template

The user can click on the edit button to edit a specific template.



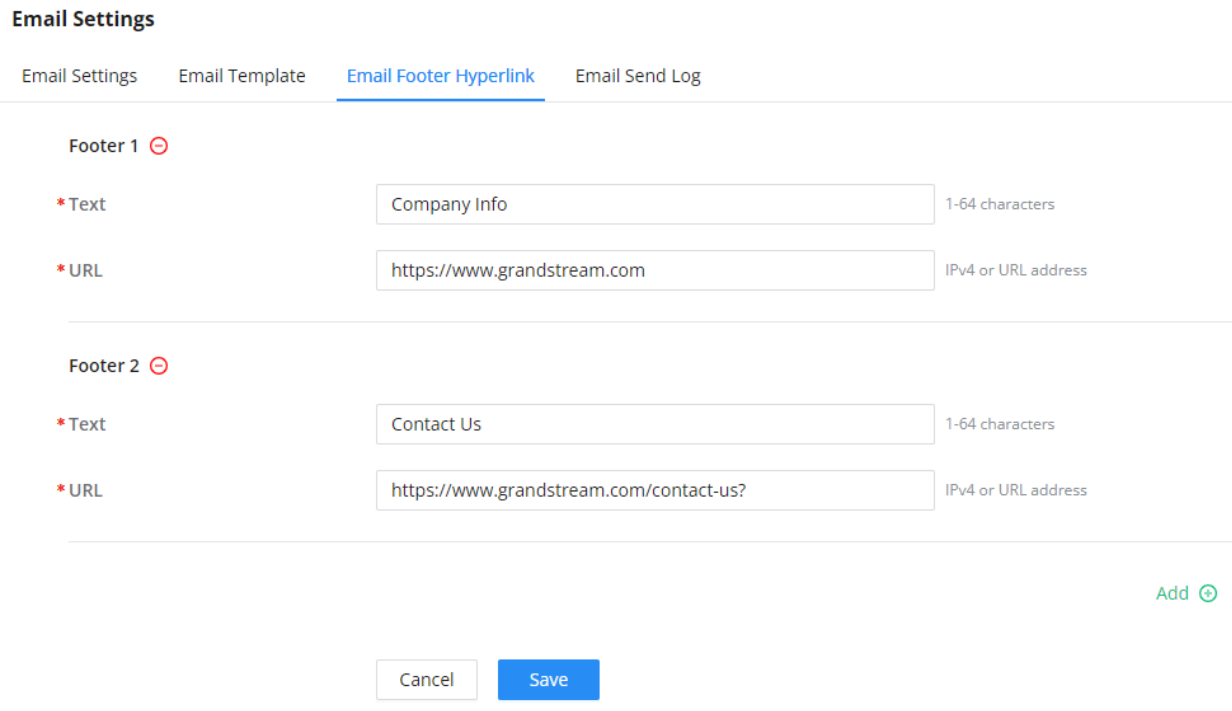
Edit Email Template

The user can use the text editor to change the layout, once that is done, the user can view the new layout by clicking on Preview.

Email Footer Hyperlink

The customize the links that are included in the footers, please navigate to **System Settings → Email Settings → Email Footer Hyperlink**

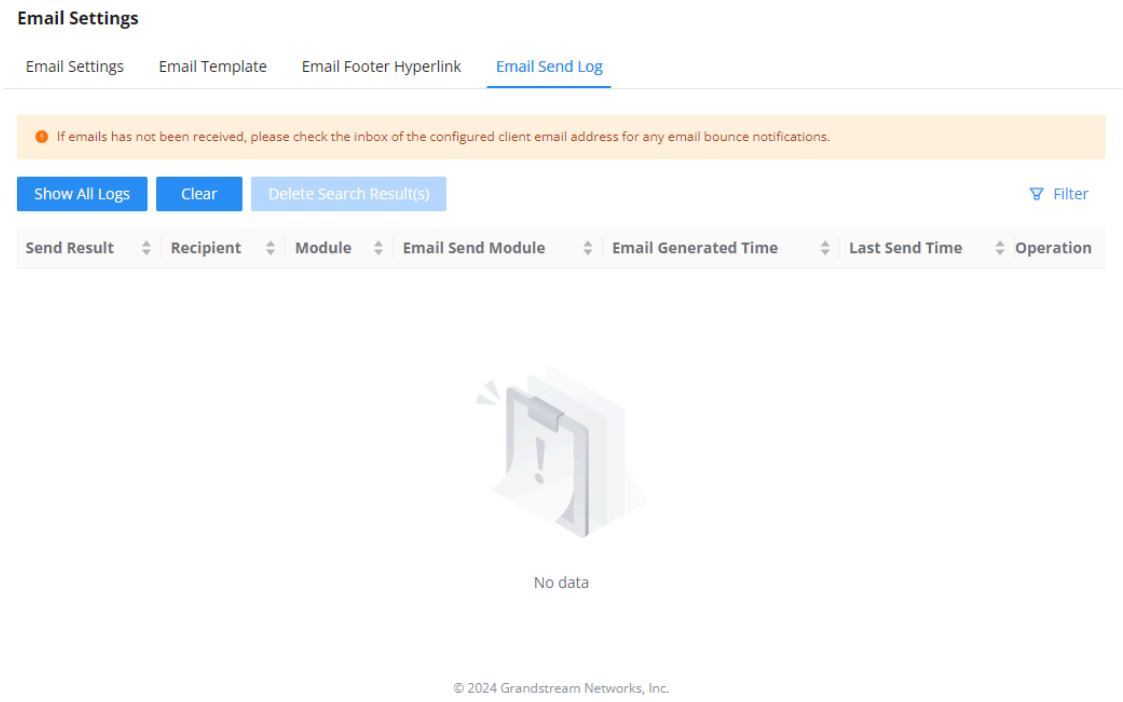
On the page, you can edit the text and the URL of each footer. You can add 3 additional footers if needed.



Email Footer Hyperlink

Email Send Log

Email send log is used to keep records of all the emails that have been sent from the GCC device.



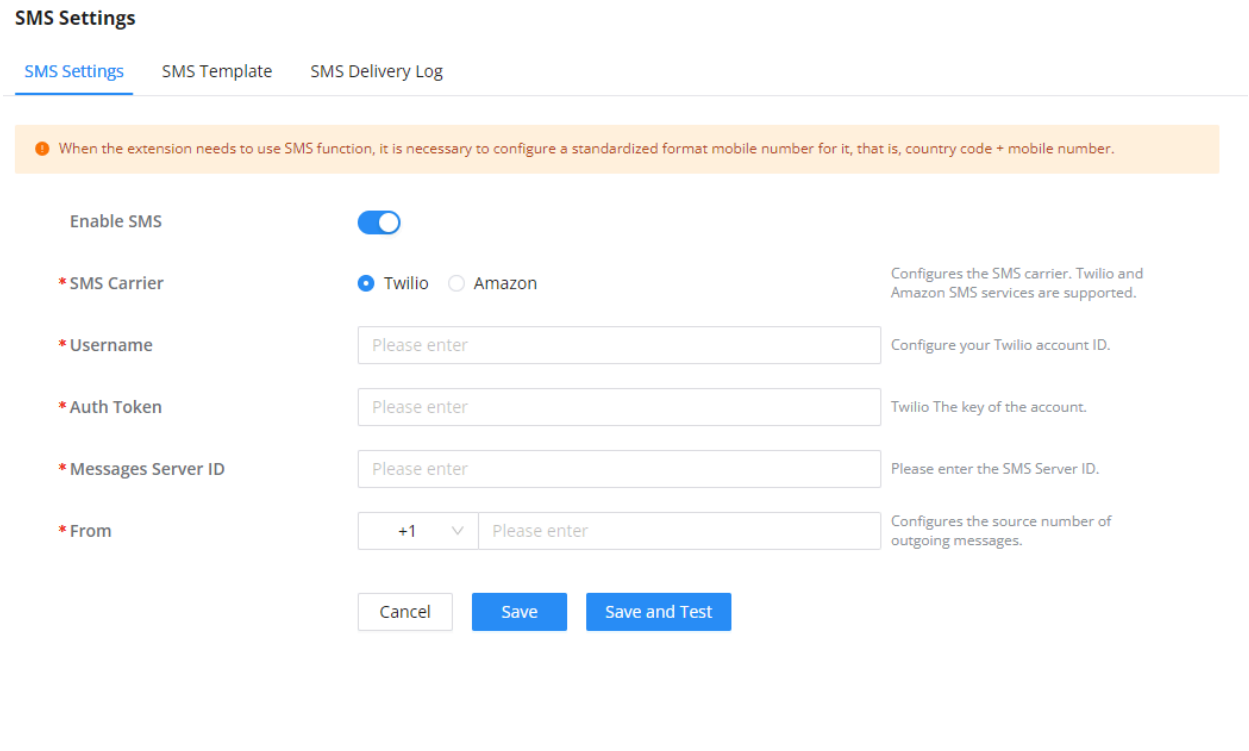
Email Send Log

SMS Settings

The SMS feature allows the user to send information over SMS to mobile numbers. Currently, the information which can be sent over SMS are the following:

- **Profile Code:**
- **Verification Code:**
- **Alarm Notification:**

SMS Settings



SMS Settings

Twilio:

Enable SMS	Toggle the slider to enable/disable SMS service.
SMS Carrier	Select Twilio as the SMS Carrier.
Username	Enter the username of the account of the carrier.
Auth Token	Enter the authentication token generated on the carrier's site.
Message Server ID	Enter the ID of the message server of the carrier.
From	Configure the source number of the outgoing messages.

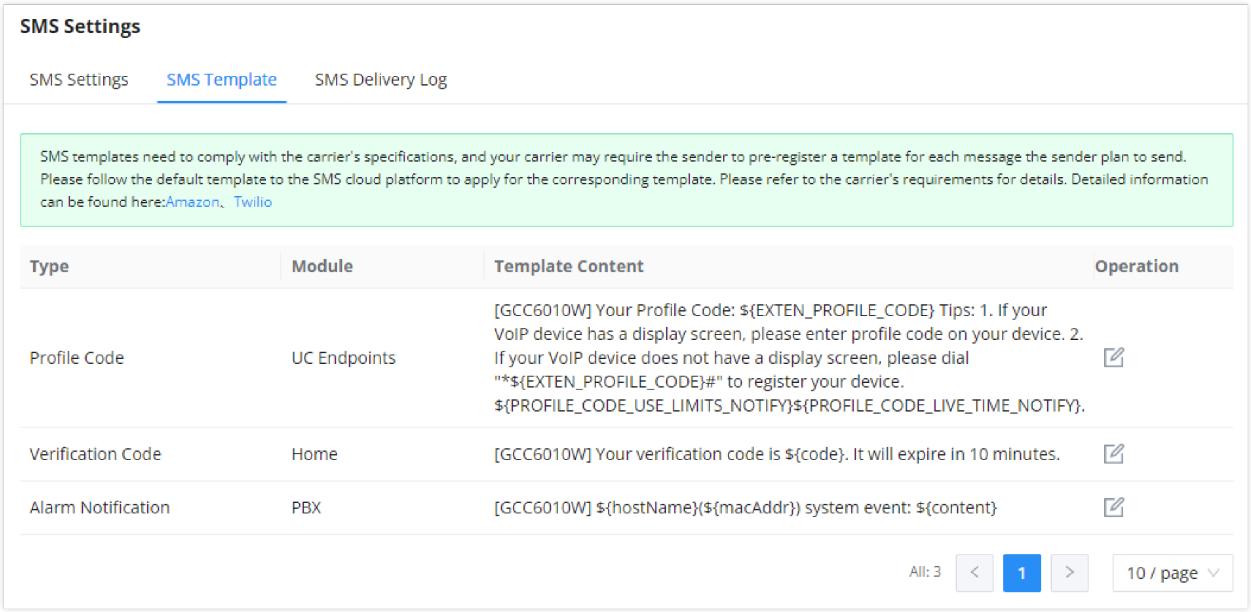
Amazon:

Enable SMS	Toggle the button to enable/disable SMS feature.
SMS Carrier	Choose Amazon as the SMS carrier.
Region	Choose your region. ● US East (N. Virginia) ● US East (Ohio) ● US West (N. California) ● US West (Oregon) ● EU (Ireland) ● EU (London) ● EU (Paris) ● EU (Frankfurt) ● EU (Stockholm) ● EU (Milan) ● Asia Pacific (Hong Kong) ● Asia Pacific (Mumbai)

	• Asia Pacific (Singapore) • Asia Pacific (Sydney) • Asia Pacific (Jakarta) • Asia Pacific (Tokyo) • Asia Pacific (Seoul) • Asia Pacific (Osaka) • South America (Sao Paulo) • China (Beijing) • China (Ningxia) • Canada (Central) • Middle East (Bahrain) • Middle East (UAE) • Africa (Cape Town) • AWS GovCloud (US-West) • AWS GovCloud (US-East) • US ISO East • US ISOB East (Ohio) • US ISO West
Username	Configure your Amazon account ID.
Password	Configure your Amazon account password.

SMS Template

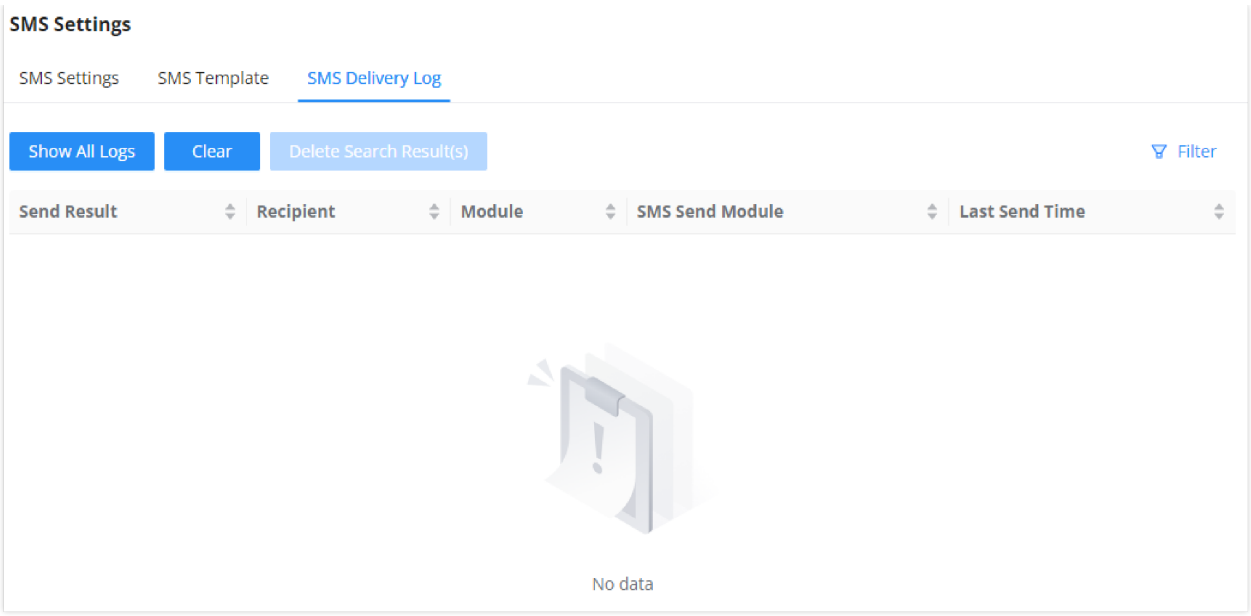
In the "SMS Template" tab, the user can view and edit templates of the SMS messages sent by the GCC device.



SMS Template

SMS Delivery Log

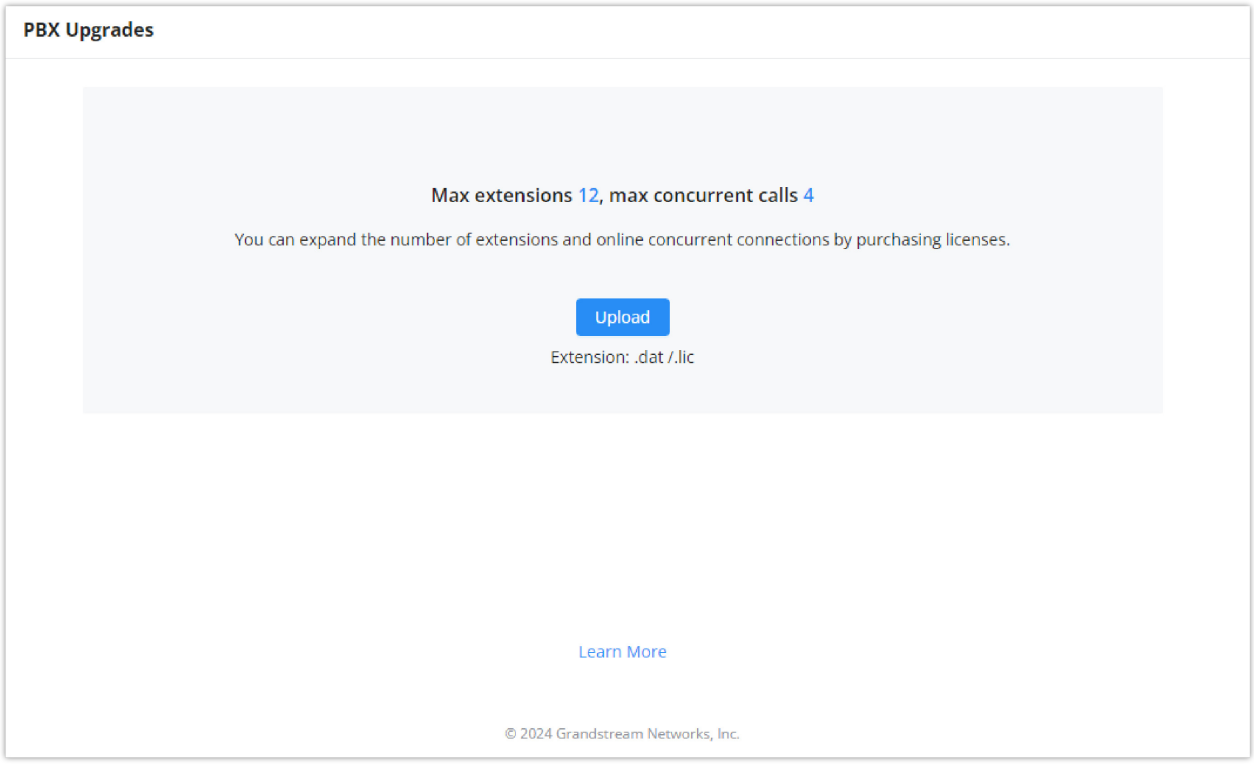
The "SMS Delivery Log" tab displays information about all the SMS messages that have originated from the GCC device.



SMS Delivery Log

PBX Upgrades

On this page, the user can manage the license for upgrading the PBX capabilities of the GCC. When the license file is acquired, the user can upload the license file in this section.



PBX Upgrades

> **Note**
>
> Please note that only the .dat and .lic files are supported.

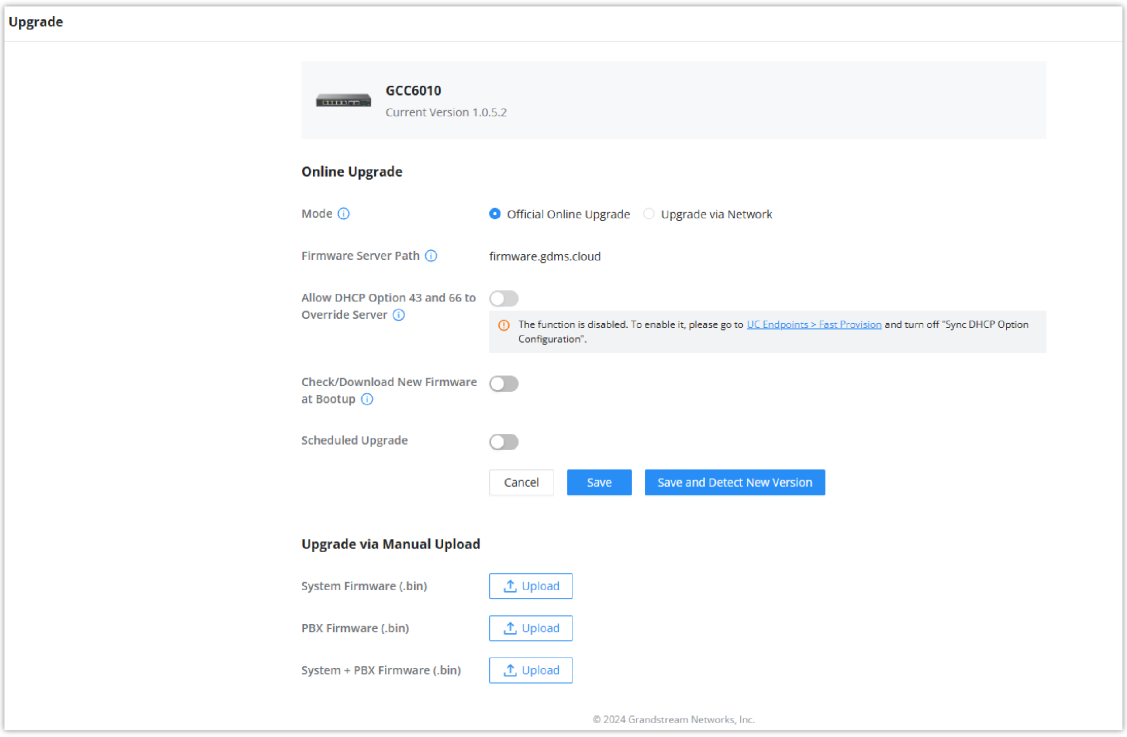
Maintenance

Upgrade

When a new firmware is released for the GCC device, the user can use the "Upgrade" page to update the firmware of the GCC device using different methods of updating the firmware.

There are three methods of upgrading the firmware which are listed below.

- **Official Online Upgrade:** This method allows upgrading directly from the Grandstream firmware server. The administrator can click "Detect New Version" to check for any new firmware releases. When a new firmware version is available, the administrator can proceed with upgrading the device.
- **Allow DHCP Options 43 and 66 to Override Server:** If enabled, DHCP options 66 and 43 will override the upgrade and provisioning settings, if disabled, use the configured server path to request firmware information by default. **Note:** In the official online upgrade mode, "Detect New Version" uses the official default address, and this configuration does not take effect.
- **Check/Download New Firmware at Bootup:** When it is turned on, firmware detection will be performed every time the device is started. If a new firmware version is detected, it will automatically download and upgrade. This option is disabled by default to prevent the device from updating upon booting.
- **Scheduled Upgrade:** Specifies a specific schedule for the device to check for new firmware and install them.
- **Upgrade via Network**: Using this method, the user can choose a specific upgrade method and configure a server address that hosts the firmware files.
- **Upgrade via Manual Upload:** Using this method, the user can upload the firmware file directly on the web UI of the device.



GCC Upgrade

Important

- When uploading the firmware image to the device, please ensure that you are using the correct firmware image.
- Before upgrading the firmware of the device, please perform a full backup of the configuration of the device to avoid any configuration loss after the upgrade.

Parameter	Description
Online Upgrade	
Mode	• **Official Online Upgrade:** Use Grandstream servers to upgrade the device. • **Upgrade via Network:** Use a specific protocol and server to upgrade the device.

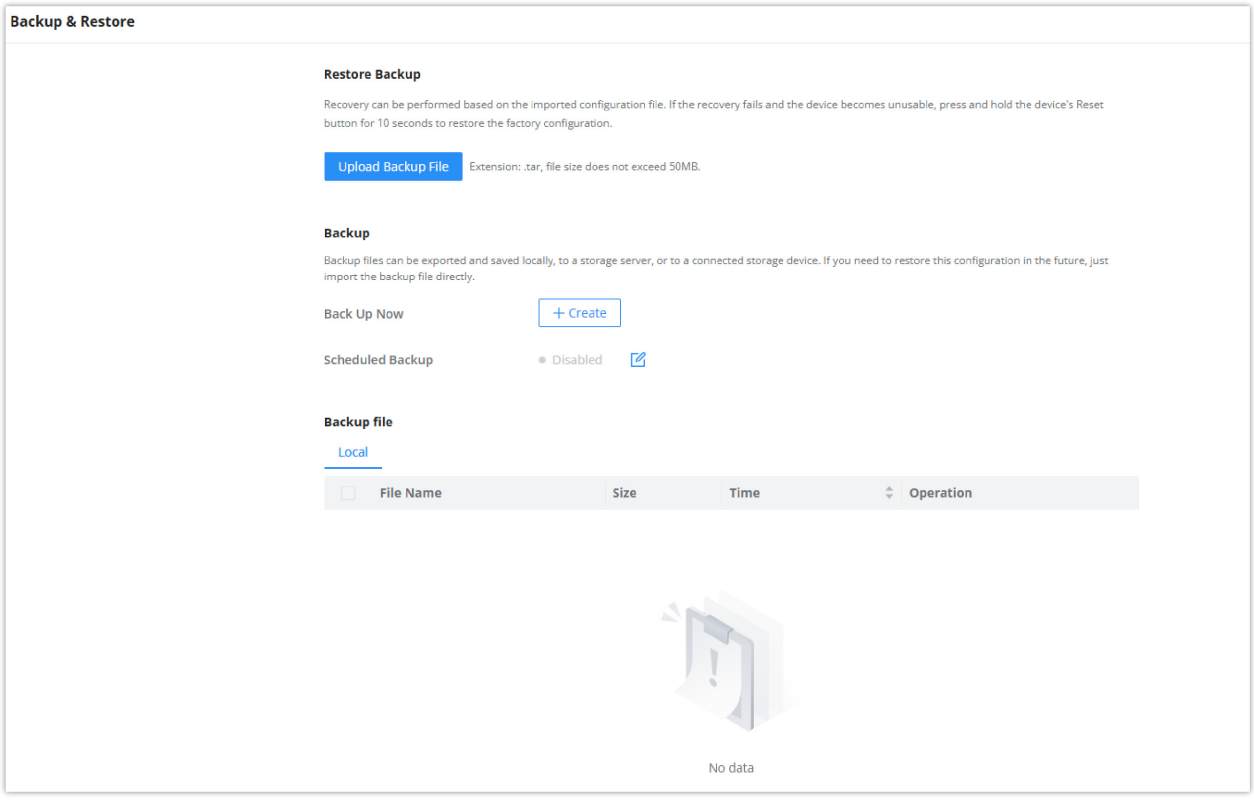
Allow DHCP Option 43 and 66 to Override Server	If enabled, DHCP options 66 and 43 will override the upgrade and provisioning settings. If disabled, use the configured server path to request firmware information by default. **Note:** In the official online upgrade mode, "Detect New Version" uses the official default address, and this configuration does not take effect.
Check/Download New Firmware at Bootup	When it is turned on, firmware detection will be performed every time the device is started. If a new firmware version is detected, it will automatically download and upgrade
Scheduled Upgrade	Enable this option and select the schedule for checking if there is a new firmware version. If a new version is detected, the device will perform the update according to the schedule.
Upgrade via Manual Upload	
System Firmware (.bin)	Upgrade the system's firmware by uploading the firmware image. Only .bin file extensions are allowed.
PBX Firmware (.bin)	Upgrade the PBX's firmware by uploading the firmware image. Only .bin file extensions are allowed.
Firmware (.bin)	Upgrade both the system and PBX firmwares by uploading one firmware file. Only .bin file extensions are allowed.

Backup & Restore

On the “Backup & Restore” page, the user can back up the data of the GCC device manually or using a scheduled backup.

The restore function allows the import of a backup file to restore the GCC.

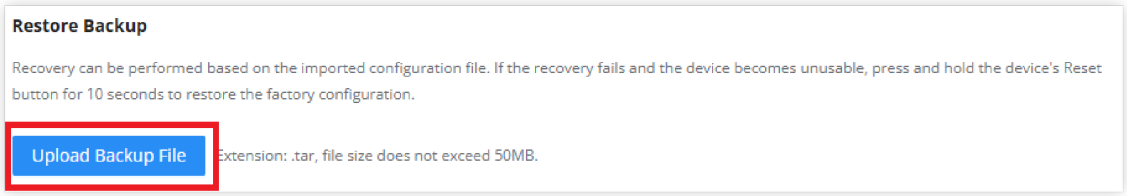
When backing up the data, the user can choose the data of the GCC modules to be backed up.



Backup & Restore

Restore Backup

Press the “Upload Backup File” button to import a previously saved backup file from your computer.



Note:

The backup file should have the extension “.tar” and should not exceed 50 MB.

If the recovery fails and the device becomes unusable, press and hold the device’s Reset button for 10 seconds to restore the factory configuration.

Backup

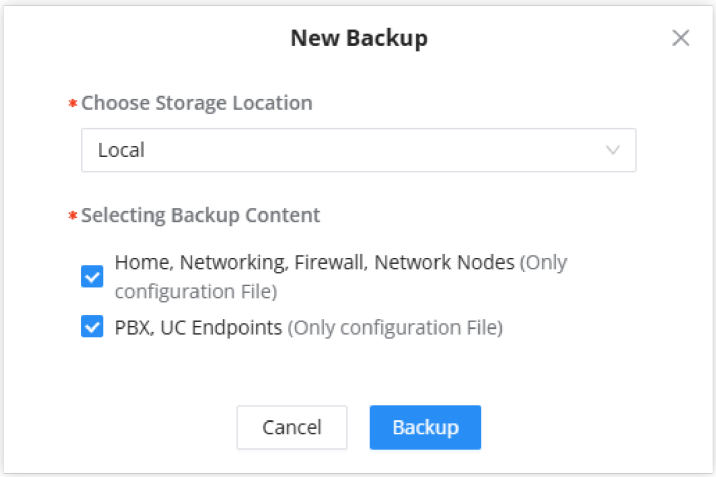
Backup files can be exported and saved locally, to a storage server, or to a connected storage device.

The administration can select the time to back up as follows

Back up Now: Press + Create button to initiate an immediate backup.

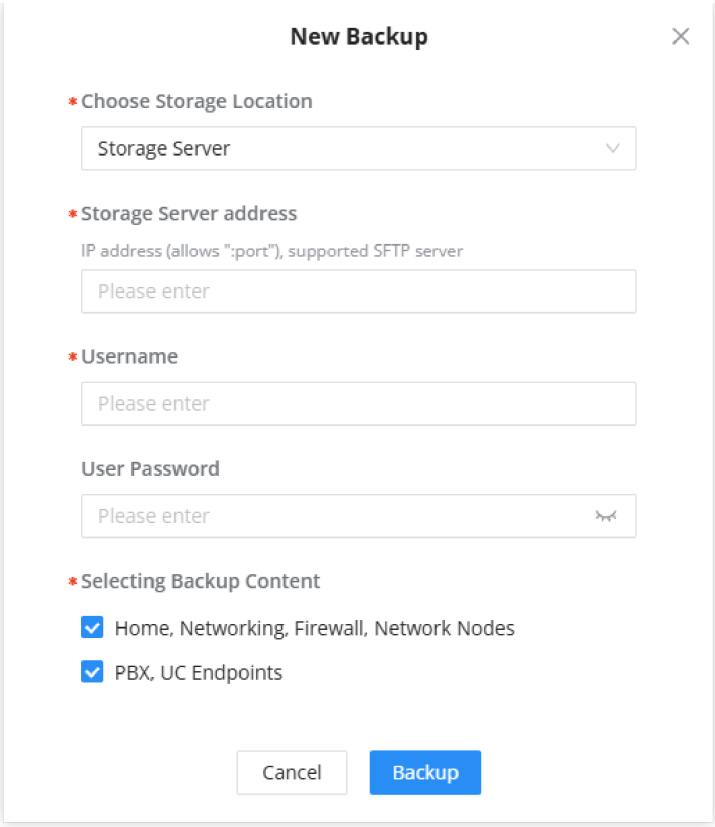
1. Choose Storage Location: Local or Storage Server.

- Storage Location: **Local**.



New Backup – Local

- Storage Location: **Storage Server**.



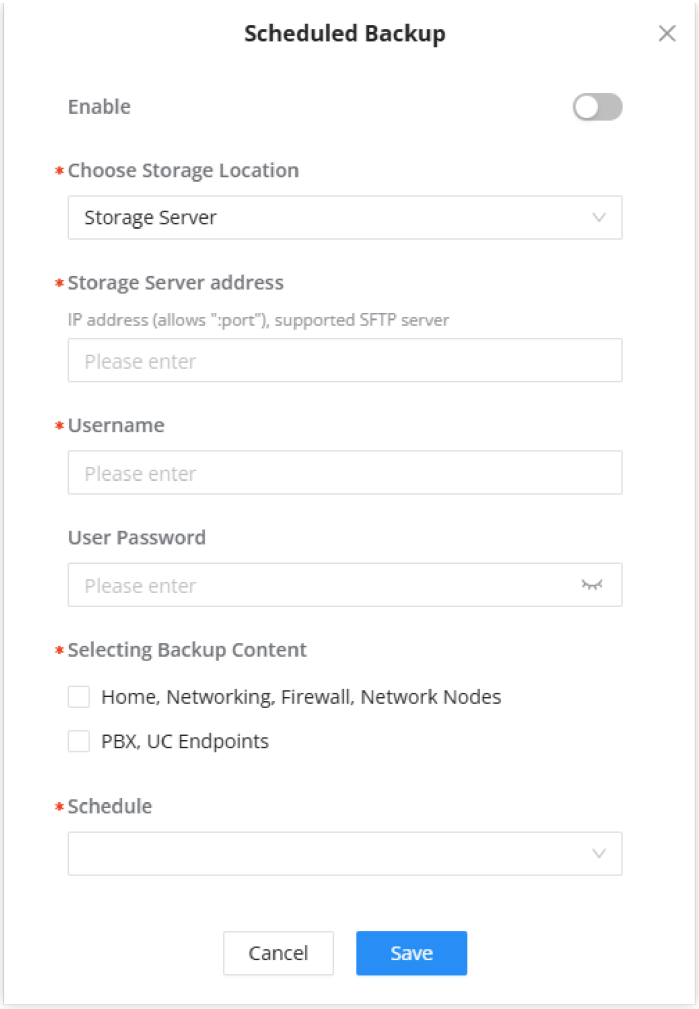
New Backup – Storage Server

Enter the Storage Server Address, Username, and Password.

> The storage server must be an SFTP server.

2. Select the backup Content. (Home, Networking, Firewall, Network Node and/or PBX, UC Endpoints).

Scheduled Backup: Press to create a new backup schedule.

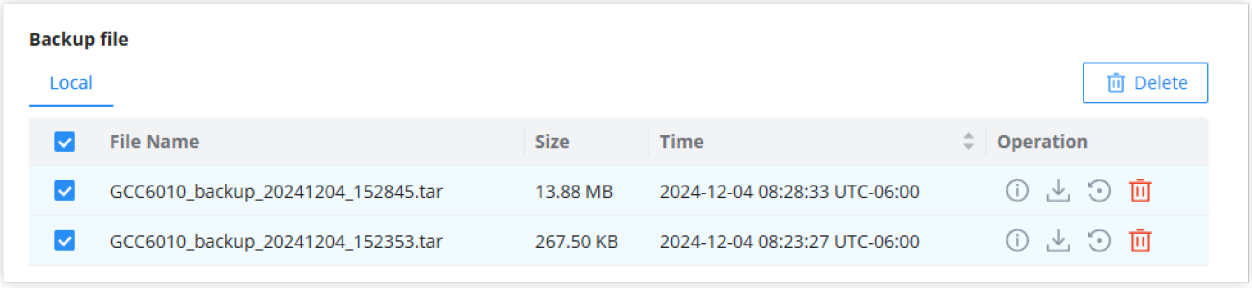


Scheduled Backup

1. Check “Enable” to enable the backup schedule.
2. Choose Storage Location: Storage Server (only)
3. Storage Server Address: Enter the IP address:port of the SFTP server.
4. Username: Enter the SFTP server username.
5. User Password: Enter the SFTP server password.
6. Select the backup content (Home, Networking, Firewall, Network Nodes and/or PBX, UC Endpoints).
7. Schedule: Select a schedule. If no schedule is defined, press the “New Schedule” button to create it.

> Only one scheduled backup can be configured.

Backup file: List the local backup files.



Administrators can operate them as follows:

: To check the details.

: To download the backup file to a local computer.

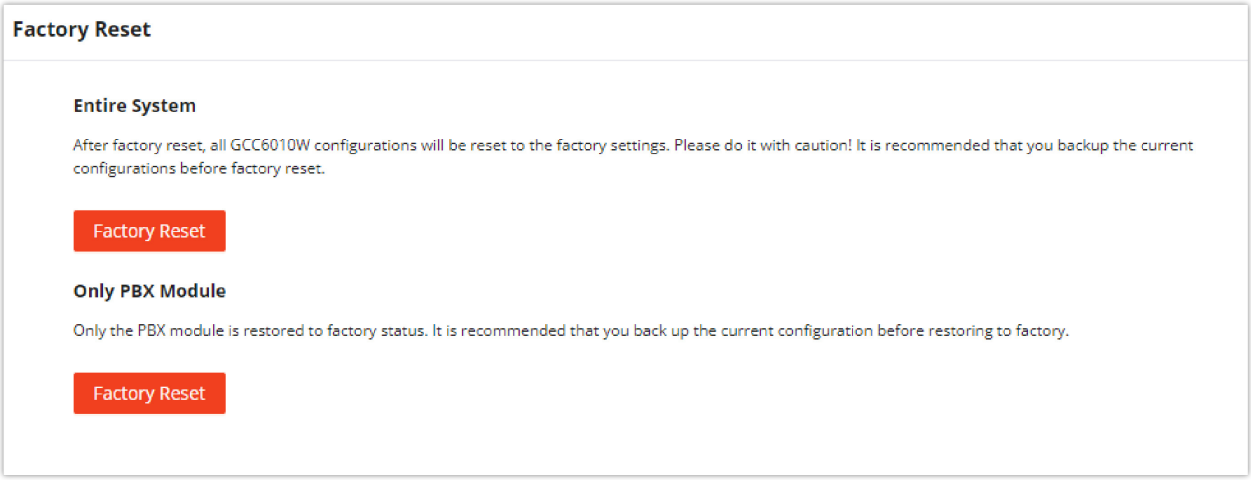
: To restore the local backup file.

: To delete the backup file.

Delete : Select multiple backup files and batch delete them.

Factory Reset

On this page, the user can perform a factory reset for the entire system. This will delete all the modules' data and configuration which are stored on the local storage of the device. If the user uses the "Factory Reset" button under **Only PBX Module**, only the data and configuration in the PBX module will be deleted. The other modules are not affected by this action.



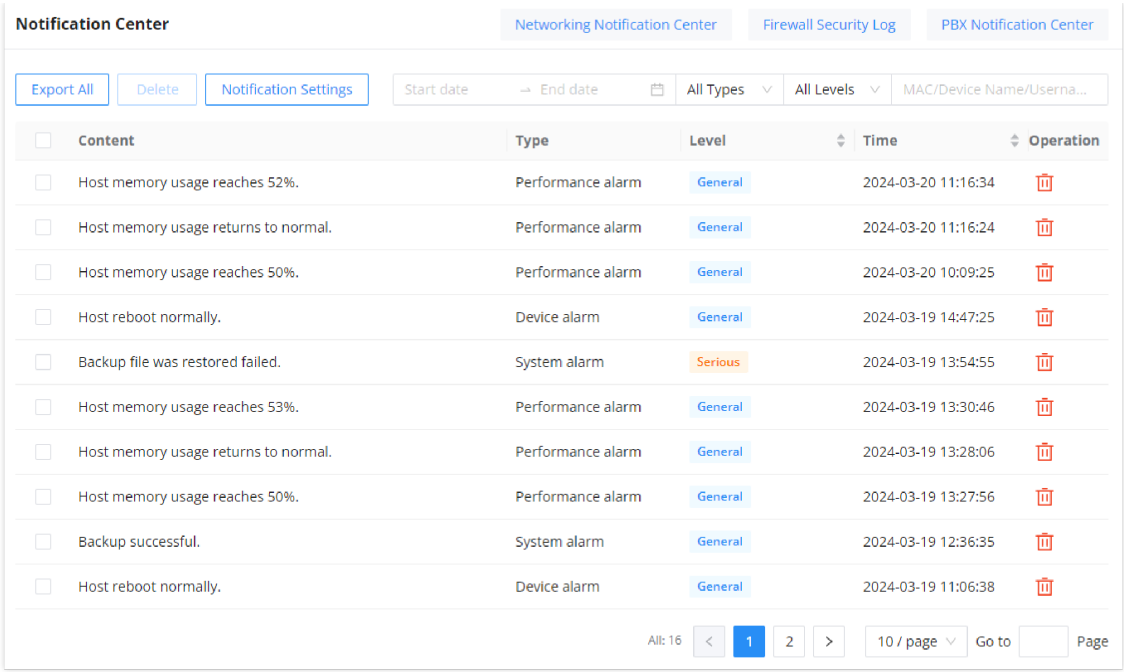
Factory Reset

> **Warning**
>
> Resetting the device to the factory settings will delete all the data and configuration which are stored on the device. Please proceed with caution as this data cannot be recovered after the factory reset.

> **Note**
>
> Please note that the attached storage such as a USB flash drive or M.2 SSD is not affected when factory-resetting the device.

Notification Center

The Notification Center allows the user to view and configure notifications of the events that occur on the GCC device. To access the notification center, please access the main page of the GCC web UI and then click on the **Notification Center** tab.



Notification Center

Notification Settings

To set the notifications of the GCC device, click on Notification Settings .

On this page, the user can enable notifications for certain events on the GCC. In addition to generating the notification on the web UI, the user can configure an email address to which email notifications are sent.

> **Note**
>
> To use the email notification feature, please ensure that the Email Settings on the GCC are configured successfully.

Notification Settings

Operation Log

The Operation Log page provides administrators with a comprehensive overview of all logged operations, offering detailed information about each activity. This feature ensures transparency and allows administrators to monitor, analyze, and manage system activities effectively.

> **Note:**
>
> Logs are saved for 180 days by default and are automatically cleared when the period expires or the disk space reaches the threshold.

From this page, the administrator can monitor system operations, including login actions and their outcomes (success or failure), date/time, IP address, username, and Page. Additionally, the administrator can add remarks for each action by editing the remark column using the provided button .

Operation Log

The administrator can utilize filters to quickly find the needed information.

The supported filters are:

- Date: Specify a Start date and End date to narrow down results.
- Operation Terminal: Choose from All Operation Terminals, Local, GDMS Networking, Manager, or CLI.
- Module: Filter by specific module such as All Modules, Home, Networking, Firewall, or Network Nodes.
- Username / IP Address: Enter the username or IP address for precise filtering.

> **Notes:**
>
> - The filters can be combined for better results.
> - Click on the top right corner to access the PBX Operation Log module.

To export the logs, press Export All button. The logs will be saved in a CSV file.

NETWORKING

The Networking module of GCC601X(W) includes network-related configuration mainly VPN, Multi-WAN, and traffic management. It also allows users to configure all the standard routing configurations such as VLAN, port forwarding, etc.

Click on the icon to access.

FIREWALL

The firewall module of GCC601X(W) is a Next-Generation Firewall (NGFW) that secures users' network environment by providing defense against the most advanced network attacks as it supports anti-virus and intrusion prevention (IDS/IPS) with frequent signature library updates and also supports SSL proxy to filter HTTPS URL.

Click on the icon to access.

NETWORK NODES

Network nodes refer to individual devices or components such as switches and access points that form the interconnected infrastructure of the network. These nodes provide data points for analysis, which helps centralize the monitoring and configuration of the device performance, security, and overall network features. The GCC601X(W) offers an embedded controller for both the wireless access points and the GWN-managed network switches to provide the user with a global overview of his network infrastructure.

Click on the icon to access.

PBX

The integrated IPPBX module in the all-in-one convergence device the GCC601X(W) provides a communication and collaboration solution for enterprises that do not require expanded telephony capabilities. It offers the same features that are provided by Grandstream IPPBX solution, the UCM6300, to ensure cost-effective and efficient collaboration among professionals.

Click on the icon to access.

UC ENDPOINTS

The UC endpoints configuration module contains all the settings and tools to manage and control the unified communication endpoints, including devices ranging from IP phones, Video phones, and Wi-Fi phones, to security facility access devices such as the IP cameras and the door systems. The GCC601X(W) with its VoIP devices and IPC devices management modules offers a centralized way to manage, provision, and control all your on-premise UC endpoint devices.

Click on the icon to access.

CHANGE LOG

This section documents significant changes from previous versions of user manuals for GCC601x. Only major new features or major document updates are listed here. Minor updates for corrections or editing are not documented here.

Firmware version 1.0.5.6 (PBX version 1.0.27.14)

Main:

- Added Operation Log to the Home module. [Operation Log]
- Added Scheduled Backup support. [Backup & Restore]

- Added support of MTA type for Email settings. [Email Settings]

Networking Module:

- Added support for the Balancing strategy in Policy Routes Settings. [Balancing Strategy]
- Added Support for VRRP protocol. [VRRP]
- Added option to preserve VPN configuration when the VPN is disabled. [VPN]
- Added Speed Test for the GCC from the GDMS Networking. [WAN]
- Set the maximum IPsec tunnels to be created at 64 tunnels. [IPSec]

Firewall Module:

- Added outbound rules. [Outbound Rules]
- Updated IDS/IPS: Removed WAN selector and enabled automatic detection of all WANs by default. [IDS/IPS]
- Added support for detecting SMTP(S) and POP3(S) protocols in Antivirus configuration and SSL basic settings. [Anti-Malware]
- Added import and export list to DNS Filtering. [DNS Filtering]
- Added import and export list to Web Filtering. [Web Filtering]
- Added import and export list to SSL Proxy Exemption List. [SSL Proxy]
- Added the option to enable the rule by schedule for DNS Filtering, URL Filtering, Keyword Filtering and Application Filtering. [DNS Filtering] [URL Filtering] [Keyword Filtering] [Application Filtering]
- Enhanced the function interface and added the application list. [Application Filtering]
- Added Geo-IP Filtering [Geo-IP Filtering]
- Added Domain Name – Wildcard option to SSL Exempted Address. [SSL Proxy]
- Added support for settings log levels for security log and advanced filtering items. [Security Log]
- Added support for SNI and Common Name (CN) in DNS filtering. [DNS Filtering]

Networking Nodes Module:

- Added support for 6G frequency bands. [Radio] [SSID] [MESH]
- Added support for Cloud delivery of PPSK configurations. [PPSK]

PBX Module:

- Added Account SIP Trunk [Account SIP Trunk]
- Added support for searching CallerID in a third-party MySQL database [Inbound Route: Third-party Database Search]
- Added support for integration with Don't Call Me database [Don't Call Me Blacklist Integration]
- Added support for ZRTP on the extensions level [Create New SIP Extension]
- Added support for ZRTP on the trunk level [VoIP Trunk Configuration]
- Added support for enabling multiple Wave session on the same platform [Create New SIP Extension]
- Added support for verifying ACS [TR-069]
- Added Task Management feature [Task Management]
- Added support for search function in LDAP server phonebooks [LDAP Phonebook]
- Added support for data encryption on the local storage and attached storage [Data/File Encryption]
- *Password Visibility Toggle* has been added to the Admin privilege [Super Administrator]
- Added Merge Same Call Recordings setting [PBX SETTINGS]
- Added support for adding suffix to Call Forward Enable/Disable feature [Feature Codes]
- Added icons next to feature codes to indicate whether or not they can be nested by other feature codes [Feature Codes]
- Added support for Time Condition Routing [TIME CONDITION ROUTING]
- Added support for Custom Time Groups [Custom Time Groups]

- Added support for custom announcement for Call Queue [Configure Call Queue]
- Added Reset Agent Call Counter to Call Queue [Configure Call Queue]
- Added number and percentage of transferred calls in the Call Queue Switchboard [Configure Call Queue]
- Added Call Memory in Call Queue [Configure Call Queue]
- Updated Wake-up Service by adding call failure notification [Wakeup Service]
- Room status can now be modified using the API [API CONFIGURATION]
- Odoo CRM integration has been added [Odoo CRM]
- Added custom repeating setting when scheduling meetings [Schedule Meeting]
- Added Extension Login Management module [Extension Login Management]
- Added Wave Administrator privilege [Create New SIP Extension][Custom Privilege]
- Added Download Chat Logs privilege [User Portal/Wave Privileges]
- Added Remote Logout Wave Privilege [User Portal/Wave Privileges]
- Added API support to retrieve recording filename [API CONFIGURATION]
- Added new API command to send message broadcasts to extensions/extension group. [API CONFIGURATION]
- Added new parameters for the Call Queue. [API CONFIGURATION]
- Added enable/disable setting for Paging/Intercom [Paging/Intercom]
- Added support for configuring custom agent pause reason with a custom prompt [Global Queue Settings]
- Added support for allowing multiple login session from the same platform for Wave [Create New SIP Extension]
- Added TLS key download in Ethernet Capture diagnosis tool [Ethernet Capture]
- Increased members notified for Emergency Calls from 10 to 30 [Emergency Calls]
- Added Wave Upgrade page where users can manually update the system's Wave Web. [Upgrade Wave]

UC Endpoints Module:

- Added Support for LDAP configuration to be pushed through Fast Provisioning. [LDAP Phonebook]

Firmware version 1.0.3.6 (PBX version 1.0.25.41)

- No major changes.

Firmware version 1.0.3.5 (PBX version 1.0.25.40)

Main:

- Added the option to format unmounted SSD through the overview page. [Overview]
- Added the graphs for the number of sessions established and the total number of concurrent sessions. [Overview]
- Added support for displaying the offline devices on the topology. [Topology]
- Added support for disabling/enabling the redirection from port 80 when access the web UI. [Web Access]
- Added support for upgrading all the modules using one firmware file. [Upgrade]
- Added support for factory reset the PBX data and configuration separately from the other modules. [Factory Reset]

Networking Module:

- Added the option to allow multiple WANs to share the same VLAN ID. [WAN]
- Added the requirement that when **IPv6 is enabled on the WAN**, the minimum **MTU** must be **1280**. [WAN]
- Added WAN port MAC address configuration. [WAN]
- Added the requirement that not all LAN ports can be disabled [Port Configuration]
- Added the assurance that disabling the WAN will not delete dependent configurations. [WAN]
- Added support for exporting .pem format certificates. [Certificates Import and Export]
- Added a black hole option for the outgoing interface. [Static Routes]

- Added PBX service [VoIP Settings]
- Added support for core files batch deletion [Core files]
- Added support for storage options under packet capture [Capture]
- Added alarm Notification Settings and Email Notification Settings for takeover/un-takeover, switch online and offline alarms [Alerts & Notifications]

Firewall Module:

- Updated the firewall package information link [Overview]
- Added ARP Protection – Static ARP List [Static ARP List]
- Added exception IP under content control [IP Exception – Content Control]
- Added search for application filtering rules [App Filtering Rules]

PBX Module:

- Added support for formatting USB flash drives from the web UI. [USB Disk/SD Card File Management]

Firmware version 1.0.1.34 (PBX version 1.0.25.21)

- No major changes.

Firmware version 1.0.1.32 (PBX version 1.0.25.17)

- This is the initial version for GCC6010W and GCC6011.

Firmware version 1.0.1.10 (PBX version 1.0.25.11)

- Disabled Check/Download New Firmware at Boot up by default. [Upgrade]

Firmware version 1.0.1.8 (PBX version 1.0.25.11)

- This is the initial version.

Certification Regulatory Information

- U.S. FCC Part 15 Regulatory Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

- Canada Regulatory Information

CAN ICES-003 (B)/NMB-003(B)

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

Le présent produit est conforme aux spécifications techniques applicables d'Innovation, Sciences et Développement économique Canada.