

Grandstream Networks, Inc.

Grandstream Device Management System (GDMS)

User Guide





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DOCUMENT PURPOSE

This document introduces the GDMS platform and how to use it to manage various Grandstream products. Currently, GDMS supports GXV3370, WP820, GRP series, and the DP series.

To learn more information about GDMS platform, please visit link <u>www.grandstream.com</u> to get more information.

The following topics will be covered in this guide:

- Product Overview
- Getting Started
- <u>Device Management</u>
- Account Management
- <u>Device Configuration</u>
- Site Management
- Task Management
- Device Diagnostics
- Alert Management
- Channel Management
- User Management





CHANGELOG

Version 1.0.0.53 (Pending)

- New independent region: EU region (for GDRP rules)
- Support GRP26XX, DP7XX, GXP21XX, GXV3380/3370/3350, HT80X, HT81X, GVC3210
- Support automate testing configuration template for each device. (admin platform)
- Add Sub-level organization feature.
- User's dashboard support statistic by sites.
- User's dashboard add devices distribution Map.
- Add operation log for difference users, and record the operation logs for each device.
- Support schedule recycle task.
- ACS server support load-balance.
- Admin Center with some basic functions.
- API Interfaces.

Version 1.0.0.42

• This is the initial version.





WELCOME

Thank you for using Grandstream Device Management System!

GDMS is a cloud-based solution that provides the ability to easily manage Grandstream products before, during, and after deployment. GDMS separates subsystems independently based on different product lines: VoIP phone systems, PBX systems, network systems, and gateway systems.





PRODUCT OVERVIEW

Feature Highlights

- Intuitive deployment and management: GDMS's easy-to-navigate web portal and batch operation support allow users to easily deploy and manage Grandstream devices located on several sites.
- All-in-one solution: GDMS offers a complete package that offers convenient management of devices and SIP server accounts on multiple sites, real-time monitoring and alerts, task scheduling and tracking, and device diagnostics.
- Supports presetting offline devices.
- One-click debugging: Easily collect system logs, network captures, and traceroutes with a click of a button.
- Channel customer support: Allows automatic association of Grandstream ERP devices, allowing for the establishment of channel relationships and quick device allocation.
- Powerful API integration features: GDMS is compatible with ERP/CRM/OA platforms to improve workflow efficiency (Pending).

GDMS Technical Specifications

Table 1: GDMS Technical Specifications

Device Management Account Management Device Configuration Firmware Upgrade Device Monitoring Intelligent Alarm Statistical Analysis Channel Management Task Management





Security and Authentication	 HTTPS protocol and two-way certificate verification to ensure data security between devices and GDMS.
	 The key information of devices is encrypted and stored so that the key information cannot be obtained from the data storage.
	The account password is encrypted and stored with sha256 algorithm to ensure the security of the account.
	Serial number authentication of devices to ensure private rights of devices.
	The privileges of the sub-users can be managed on the GDMS platform.
Enterprise Features	 No limitations on the number of devices and SIP accounts that can be managed.
	 Configuration of all supported device parameters is supported, including but not limited to account settings, phone settings, network settings, system settings, maintenance, applications, profiles, and handsets.
	Management of sites, group templates, and model templates.
Supported Device	GXP series (Supported GXP21XX only, pending for other GXP models)
Models	GXV series
	GRP series
	DP series
	WP series
	GVC series (Supported GVC3210 only, pending for other GVC models)
	 GWN series (pending to merge the existing GWN.Cloud system into GDMS platform)
	UCM series (pending)
	HT series
	GXW series (pending)





GETTING STARTED

GDMS Overview

Main Functions Overview

Import devices and management

Users need to import the devices into the GDMS platform first in order to view the status and configuration of the devices and monitor the devices on the GDMS platform.

Channel vendors could acquire devices directly through ERP, and the channel vendors need to submit relevant certificates to Grandstream customer support.

Import SIP accounts and allocate to devices

Users could import a batch of SIP accounts with Excel files, and allocate the batch of SIP accounts to devices. Users could complete all accounts configuration for all devices through importing a batch of SIP accounts to a batch of devices.

Configure devices

- <u>Configure devices by model:</u> Once the device is associated with the GDMS platform, the device will be allocated with the configuration parameters according to the device model and located site.
- <u>Configure devices by group:</u> Manage the devices by certain rules and groups, and the GDMS supports to push configuration files to all devices under a group.
- Configure a single device: Modify a specific device configuration in the Device list directly.
- Configure devices by configuration file: Users could upload the configuration file of the device into the GDMS platform directly.

Firmware upgrade

GDMS platform supports to upgrade a batch of devices' firmware by device model, site, firmware version range and other conditions. It also supports to upgrade the devices' firmware by a batch of MAC addresses of the devices.

Schedule tasks

Users could schedule certain tasks for a certain period of time. For example, users could schedule firmware upgrade task and execute the task in the early morning, so that the task will not affect the device owners.





Alarm message and diagnostic

In case of malfunction or dangerous operation of the devices, the administrator will be alerted. The GDMS platform supports to allow the administrators to diagnose faults of some devices in order to locate and resolve problems quickly.

Prerequisites

- TR-069 feature needs to be enabled on the endpoints.
- Working Internet connection to access GDMS platform.
- Endpoint devices are in the supported device list of GDMS platform.

GDMS Account Registration

If using GDMS for the first time, an administrator will need to register for a GDMS account using the following steps:

1. Open the GDMS platform URL on the browser:

https://www.gdms.cloud



Figure 1: Welcome to GDMS





2. Click on **Sign Up** option to enter the registration page, and then fill in the following information:



Figure 2: Register GDMS Account

Table 2: Register GDMS Account

Region	This option shows the user will be connected to which server. The data of the different servers are completely independent. The default setting is "United States".
Customer Type	Select the customer type of the user. Available options are Provider, Reseller, System Integrator, and Enterprise User.
Email	Enter the email address that will be associated with the account. Account activation and password reset emails will be sent to this address.
Display Name	Enter the user's name
Username	Enter the login name of the GDMS platform
Password	Enter the password that will be used to log into GDMS
Confirm Password	Re-enter the password that will be used to log into GDMS
Company	Enter the user's company name
Country	Enter the located country of the user's company





Time Zone	Set up the current time zone
Verification Code	Enter the captcha displayed on the right of this field.

3. Once registration is complete, an account activation email will be sent to the configured email address. Follow the instructions in the email to activate the account and complete registration.

Supported Devices and Requirements

The current GDMS platform version supports the following device models.

Table 3: Supported Devices

Supported Device Models	
Audio Device	GXP21XX
	DP75X/720
	GRP2614, GRP2615
	WP820
Video Device	GXV3370, GXV3380
	GVC3210
ATA Device	HT80X, HT81X

Connect with GDMS

The devices must be upgraded to the firmware versions that are compatible with the GDMS platform. Otherwise, the devices will not be able to connect to GDMS. When the devices connect to the Internet, and the user has added this device to the GDMS account, the device will connect to GDMS automatically.





DASHBOARD

Device Statistics

The Dashboard page provides an overview of the following information:

- Total accounts
- Total devices
- Total sites
- Accounts status
- Devices status
- Device Distribution
- Sites statistics
- Model statistics

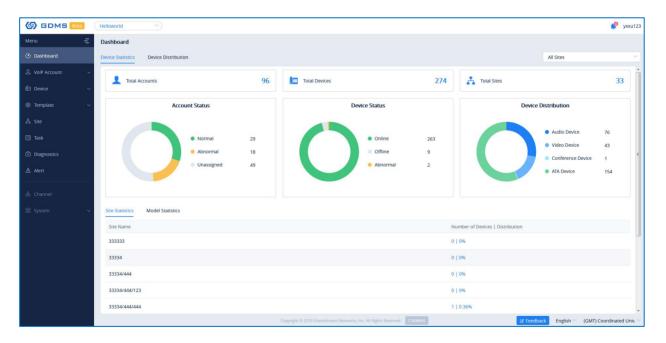


Figure 3: Dashboard





Table 4: Dashboard Labels

Module	Description
Total Accounts	Displays the total number of SIP accounts configured on GDMS.
Total Devices	Displays the total number of devices configured on GDMS.
Total Sites	Displays the total number of sites configured on GDMS.
Account Status	Displays the total number of accounts currently registered, unregistered, and unallocated. Normal: All devices which use this account are registered successfully. Abnormal: The account is unregistered on a device. Unallocated: This account is not allocated to any device.
Devices Status	 Displays the total number of devices currently online and offline. Online: Device and GDMS platform network connection is normal. Offline: Device and GDMS platform lose network connection.
Device Distribution	Displays the total number of devices in each category: audio, video, and conferencing. • Audio devices: GRP series, DP series, GXP series, and WP series • Video devices: GXV series • Conference devices: GVC series and IPVT10
Sites Statistics	Displays the total number of devices assigned to each site and the allocation of devices per site.
Model Statistics	Displays the total number of each device model, the percentage of total devices that each model makes up, and the distribution of different firmware per model.







Figure 4: Model Statistics

Device Distribution

This menu will show the distribution map of the devices which have been associated by the enterprise.

- The dark blue area on the map shows that area has more associated devices, and the light blue area shows the area has fewer devices.
- Users could leave the cursor on the area to check the amount of the devices in that area.
- If the certain city has the devices, it will be marked with green dot ____, and users could leave the cursor on the city to check the amount of the devices in that city.



Figure 5: Device Distribution





DEVICE MANAGEMENT

Overview

The Device page shows all the associated devices. Users can view the information and status of the devices, the allocated account information, etc. GDMS platform supports to allow users to configure parameters, upgrade firmware, reboot/factory reset devices, view devices details, device diagnostics, and other operations.

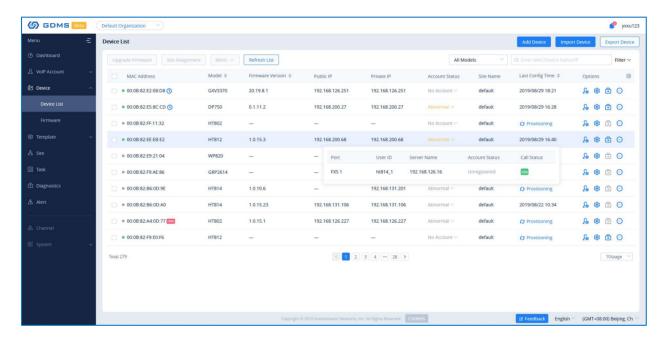


Figure 6: Device Management

Table 5: Device Management

Status	Descriptions
Status Indicator	The device is offline. The current account status is the last reported status before the device is offline.The device is online.
Account Status	Normal: The allocated accounts from GDMS platform to the devices are registered successfully, and all accounts can be used normally. Abnormal: Some of the device's allocated accounts are unregistered. This may be due





	to the following reasons:
	The account is not activated
	The account registration credentials are incorrect
	The account was modified on the device
	No Account: GDMS platform does not allocate any account to the device.
Last Config Time	Synchronizing : If the account and device parameters were modified, the changes will immediately be pushed to the device. This status will be shown while this is happening.
	Date/Time: The date and time of the last successful provisioning.
Call Status	Idle: The SIP account is in idle state.
	Busy: The SIP account is in a call.
HS Status	The SIP account is configured on the handset.
	The SIP account is not configured on the handset.

Table 6: Operation Instructions

Operation	Description
Sorting	Click on the sorting buttons to sort the list by various columns in ascending/descending order.
Custom Display Option	Click on the button on the top right corner of the list to select the columns to show and/or hide.
Search	In addition to being able to search for devices with the search bar near the top-right corner of the page, users can further refine search results by clicking on the Filter button by specifying account status, device status, site, and firmware version.





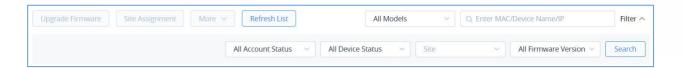


Figure 7: Search Devices

Add Device

To add a new device to GDMS, click on the **Add Device** button. The following window will appear:

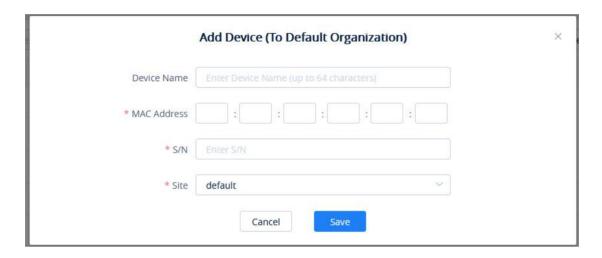


Figure 8: Add Device

Table 7: Add Device

Device Name	(Optional) This option is used to set the name of the device so that the users could identify this device. The maximum number of the input characters is up to 64.
MAC	(Required) This option is used to enter the MAC address of the device. (Locate the MAC address on the MAC tag of the unit, which is on the underside of the device, or on the package)
Serial Number	(Required) This option is used to enter the serial number of the device. (Locate the Serial Number on the MAC tag of the unit, which is on the underside of the device, or on the package)
Select Site	(Required) This option is used to set which site this device belongs to. The default setting is "Default" site.

Notes:





- Users could click on "Save" button to save the configuration.
- Each device can only be associated with only one GDMS account.
- Users can use the search bar on the Device page to find added devices via device name, MAC address, and sites.

Batch Import Devices

Users can import multiple devices by uploading a file. Click on the **Import Devices** button on the **Device** page to get started. The following window will appear:



Figure 9: Import Device

1. Click on the button to download the template. Users must follow the instructions to enter the required information.





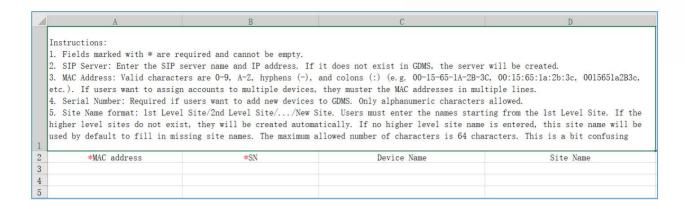


Figure 10: Import Device Template

2. The template will have the following fields:

Table 8: Import Device Template

MAC Address	Users need to fill in the MAC address of the device in this field (Required). For instance, 000B82E21234, and it supports to fill ":" and "-" characters in this field.
SN	Users need to fill in the serial number of the device in this field (Required).
Device Name	This option is used to set the name of the device so that the users could identify this device (Optional). The maximum number of the input characters is up to 64.
Site Name	Enter the site to assign this device to (Required). If the site is under more than one level, all site levels must be included in the site name (e.g. first_level/second_level//new_site). If the site level does not exist, it will be automatically created. Maximum character limit is 64.

- 3. Users can drag the file to the pop-up window, or they can click the upload button to select a file from their PC to import.
- 4. Once the file is imported into GDMS, the result window will appear. If any data failed to import successfully, users can export the problematic data, re-edit, and attempt to import them into GDMS again.

Notes:

• If an existing device on GDMS is imported, the device's existing information will be replaced with the newly imported information.





If a device's MAC address and serial number are invalid, the import will fail.

Configure SIP Account (Non-DP Devices)

Users can configure SIP accounts for each device from the **Device** page.

- 1. In the devices list, click on the icon corresponding to the account to access the Account configuration page.
- 2. After clicking the button, users will see the Account configuration page as the figure shows below:

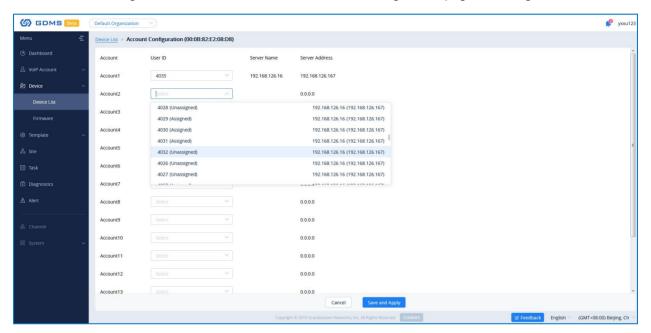


Figure 11: Configure SIP Account

- On this Account Configuration page, users can select the SIP accounts created in the SIP Account page to assign to the device.
- 4. Users could also select to replace the existing SIP account for a specific account or delete the existing accounts.
- 5. Click on the **Save and Apply** button. The accounts will then be assigned to the device.

Notes:

- If a device is offline during the account assignment, GDMS will sync any changes to it the next time it goes online.
- Settings configured via other means (e.g. endpoint device web portals, Zero Config provisioning,





etc.) will not be synced to GDMS.

Configure SIP Account/Line (DP Devices)

Users could configure SIP accounts and lines for DP devices. GDMS platform supports to allow users to view the existing SIP accounts for current devices, and edit/delete the accounts.

- 1. In the devices list, click on the icon corresponding to the account to access the Account configuration page.
- 2. After clicking the button, users will see the figure as shown below:

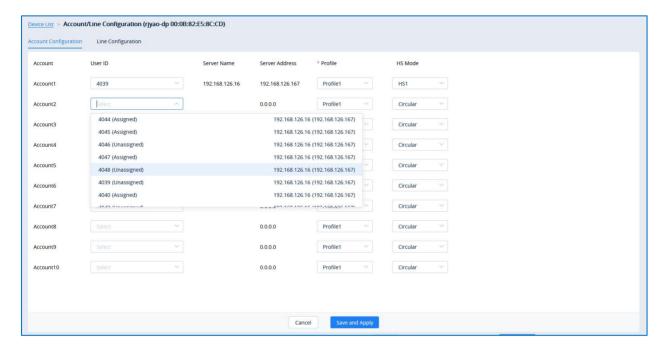


Figure 12: Configure SIP Account for DP Devices

Table 9: Configure SIP Account for DP Devices

User ID	Allocated: This SIP account has already been allocated to other devices; Unallocated: This SIP account has not been allocated to any device.
Profile	Different SIP servers cannot be set to the same profile.
HS Mode	If this field is not filled, the default setting is "Circular" mode.





3. To configure the lines for each HS mode, click on the Line Configuration tab.

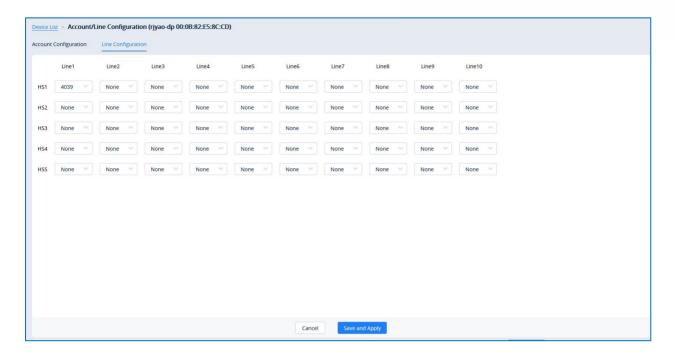


Figure 13: Line Configuration

Note:

Set up a line account for each handset and select the SIP accounts from the configured accounts in the device.

- 4. Select the desired SIP accounts to use for each line and handset.
- 5. Click on the button **Save and Apply** to allocate the SIP accounts or lines to the devices.

Notes:

- If a device is offline during the account assignment, GDMS will sync any changes to it the next time it goes online.
- Settings configured via other means (e.g. endpoint device web portals, Zero Config provisioning, etc.) will not be synced to GDMS.
- For device-specific configuration rules, please refer to the DP device user guide.





Device Parameters Configuration

Users can modify the configuration parameters for a single device.

1. In the device list, click on the button to go to the **Device Parameters Configuration** page, as shown in the figure below:

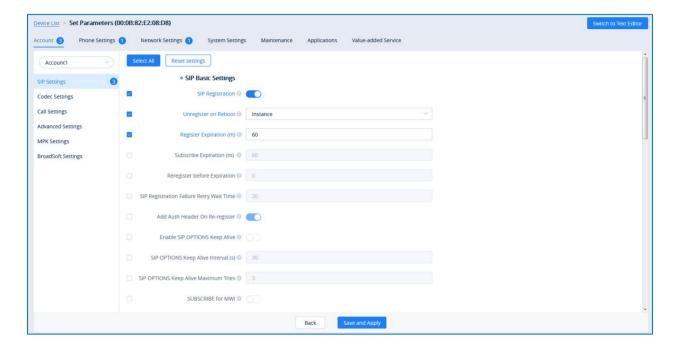


Figure 14: Device Parameter Configuration

- a. Clicking on the **Select All** button will select every option on the current page. Clicking on it again will deselect all the options.
- b. Clicking on the **Reset Settings** button will restore all settings on the current page to default values.
 - 2. Modify the desired settings on the page or click on the **Switch to GUI Editor** to configure device settings via text editing (i.e. p-values).





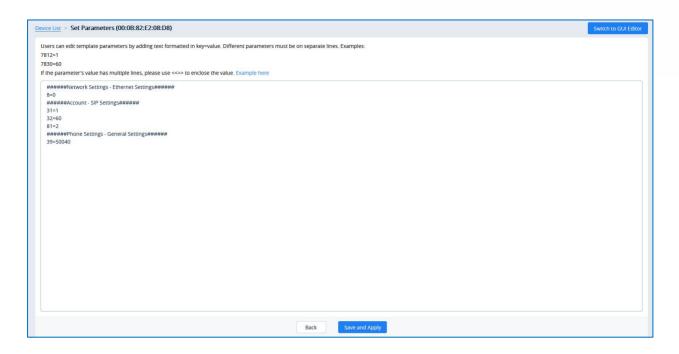


Figure 15: Edit Configuration File

- The format requirement is: key=value. Key can be either a P-value or an alias.
- b. Users can enter the latest parameters and values of a device in the text editor even if the GDMS configuration page does not display the configuration options.
- 3. Click on the **Save and Apply** button to finalize changes. Only settings that are checked will be pushed to the device.

Notes:

- If the device is not connected to the GDMS platform currently, the device cannot be synchronized with the GDMS platform. When the device is connected to the GDMS platform, the allocated accounts will be synchronized on the device immediately.
- The SIP accounts which are configured manually on the device will not be synchronized to the GDMS platform.
- For the configuration rules, please refer to the User Guide of the devices.

View Device Details

Click on the



button to view a specific device's system information and account status.





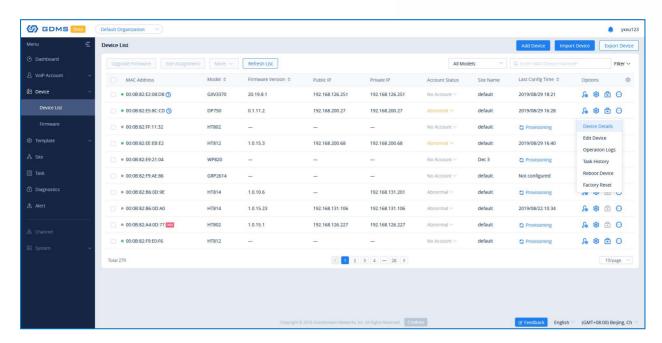


Figure 16: View Device Details

The device details include System information, Network information, Account status, and etc.

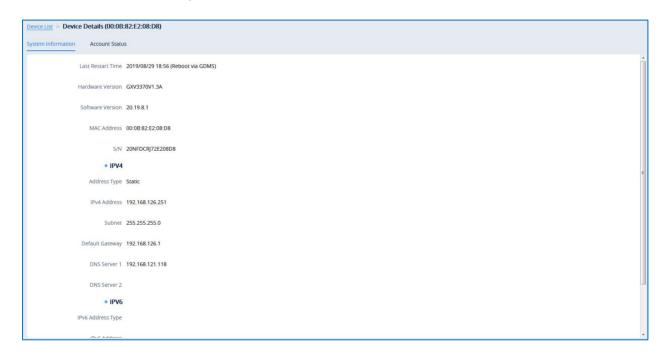


Figure 17: Device Details

Note:

The information in this page is obtained from the device in real-time. If the device is offline, the details page will be inaccessible.





Edit Device

Users could edit the Device name and which site the device belongs to.

1. In the device list, click on the button which is following the device, and select **Edit Device** to access to the device editing page.

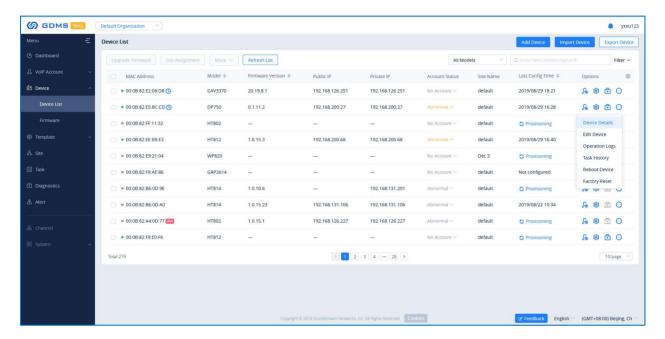


Figure 18: Edit Device Option

2. Users will see the device editing page as the figure shows below:

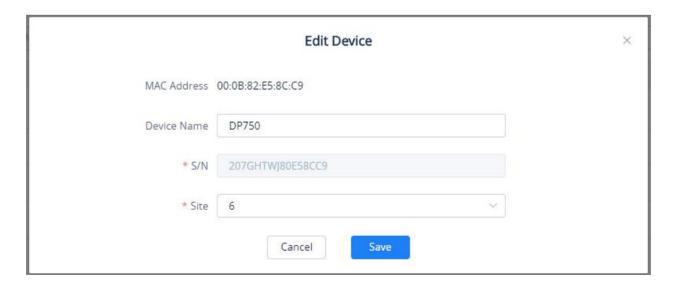


Figure 19: Edit Device





3. Click on **Save** button to apply the changes on the GDMS platform.

View Device Operation Logs

Users could view all operation logs for a specific device on the GDMS platform.

- 1. On the Device List, select the menu button following the specific device, and click on "Operation Log" button.
- 2. Access to the Operation Log menu of the device, the menu includes the operation logs of device SIP account configuration, updating configuration parameters, device rebooting, device upgrading/downgrading, device factory reset, device diagnostics, and etc.

Note:

Users could only view the device operation logs for the last 30 days.

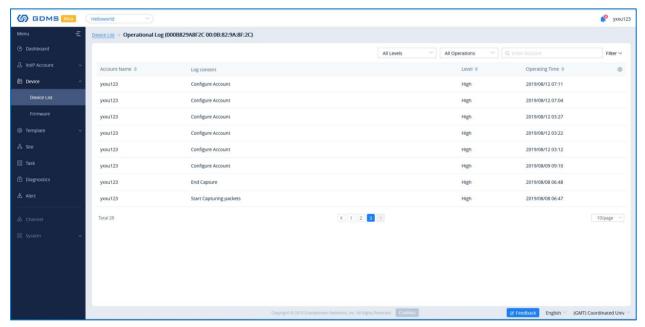


Figure 20: View Device Operation Logs

View Device Task History

Users could view all task histories for a specific device on the GDMS platform, including immediate tasks and timed tasks.

- 1. On the Device List, select the menu button following the specific device, and click on "Task History" button.
- 2. Access to the Task management page, and search for all tasks of the specific device.





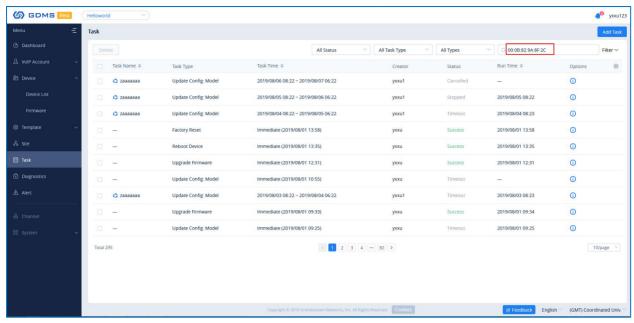


Figure 21: View Device Task History

Firmware Upgrade

Users could upgrade firmware for a batch of devices to a specific firmware version.

1. In the device list, check multiple devices, and then click on button **Upgrade Firmware** on the top of the Device page.

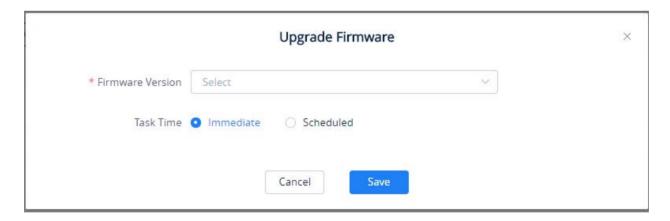


Figure 22: Upgrade Firmware

- 2. Users need to select the firmware version to upgrade to.
- 3. **Task Time**: Select when to start the firmware upgrade. Users can choose to upgrade immediately or to schedule the firmware upgrade for a specific time.
- 4. Click on the Save button to create the task. Users can check the status of the upgrade by





navigating to the Task Management page.

Notes:

- Users cannot batch upgrade different device models or models on different firmware
- If the desired firmware is not available, users will need to contact their GDMS administrator.

Site Assignment

Users could edit the site of a batch of devices on the GDMS platform. The default site is "default".

1. Select the desired devices and click on the **Site Assignment** button.



Figure 23: Site Assignment

- 2. Select the site to assign the selected devices to.
- 3. Click on **Save** button, and all selected devices will be transferred to the selected site.

Note:

Each device can only be allocated to one single site.

Reboot Device

Users could reboot one device or a batch of devices on the GDMS platform.

1. Select the desired devices and click on More → Reboot Device.





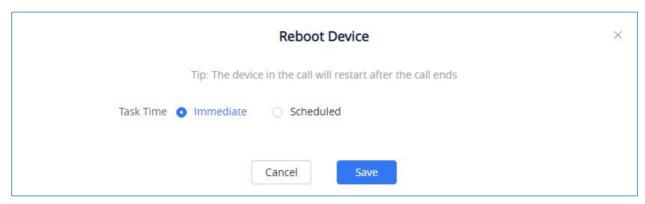


Figure 24: Reboot Device

- 2. **Task Time**: Select when to start the device reboot. Users can choose to reboot immediately or to schedule the reboot for a specific time.
- 3. Click on the **Save** button to create the task. Users can check the status of the reboot by navigating to the **Task Management** page.

Factory Reset

Users could factory reset one device or a batch of devices on the GDMS platform.

1. Select the desired devices and click on More → Factory Reset.

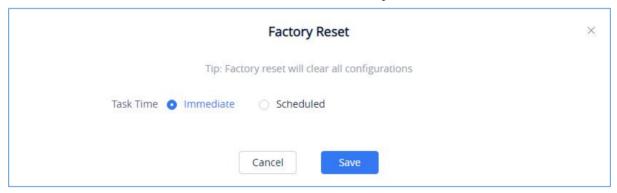


Figure 25: Factory Reset

- 2. **Task Time**: Select when to factory reset the device. Users can choose to factory reset the device immediately or to schedule the factory reset for a specific time.
- 3. Click on the **Save** button to create the task. Users can check the status of the reboot by navigating to the **Task Management** page.

Notes:

Factory resetting a device will erase all existing settings on it such as accounts, call history, contacts, etc. The device will sync with GDMS the next time it goes online after the factory reset.





Delete Device

Users could delete one device or a batch of devices on the GDMS platform.

1. Select the desired devices and click on More → Delete.

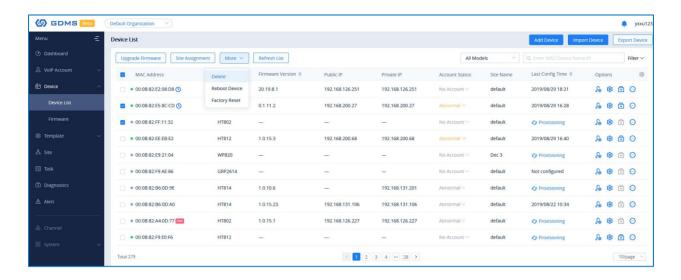


Figure 26: Delete Device

Click on **OK** button on the pop-up window to confirm deleting the devices, and the selected devices will be deleted immediately from the GDMS platform. The timing tasks involve the deleted devices will be canceled either.

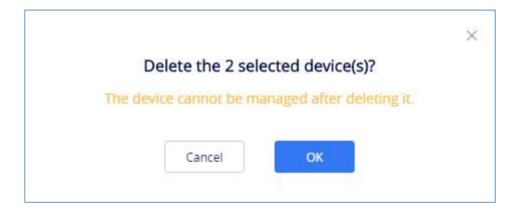


Figure 27: Delete Device Prompt

Export Device

To export the entire device list, click on the



button in the top-right corner of the device list





page. The exported list includes all device and account information.





FIRMWARE MANAGEMENT

Custom Firmware

Users could upload the firmware of the devices to upgrade the associated devices on the GDMS platform.

Note:

It is recommended to download the device's firmware from Grandstream Official website in order to avoid devices failure.

- 1. On the Custom Firmware page, click on the Upload Firmware button.
- 2. Either drag and drop the firmware file to the upload area or enter the firmware file path.

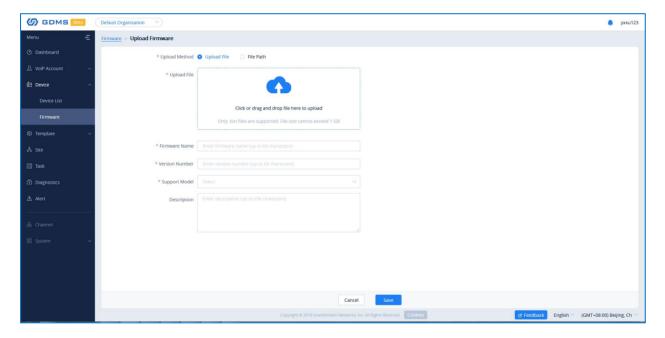


Figure 28: Custom Firmware

Table 10: Custom Firmware

Upgrade Path

- Upload File: Upload the firmware file directly. Users could drag the firmware file
 to the uploading area or click on the uploading area to select the uploading
 firmware.
- Enter File Path: File path of the firmware. Please make sure that this file path can be accessed by your devices.





Firmware Name	This is used to identify the firmware file name. The limit is 1 - 64 characters.
Version Number	Fill in the actual version number of the uploaded firmware.
Supported Model	Select the supported device models of the firmware.
Description	Description of the firmware. Maximum character limit is 256.

3. Once the firmware is uploaded successfully, it will appear in the custom firmware list. Devices will be able to select the firmware when upgrading via GDMS.

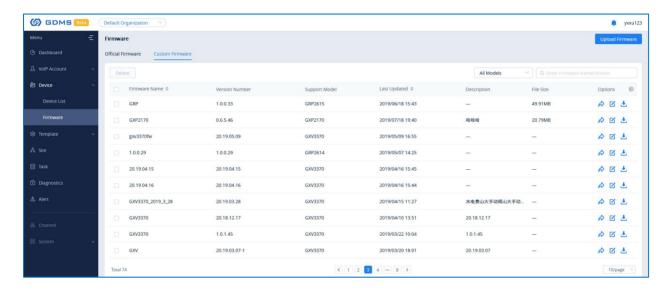


Figure 29: Finish Uploading Custom Firmware

Official Firmware

The official firmware page lists the latest official firmware for every supported device. This list is maintained and updated by Grandstream.





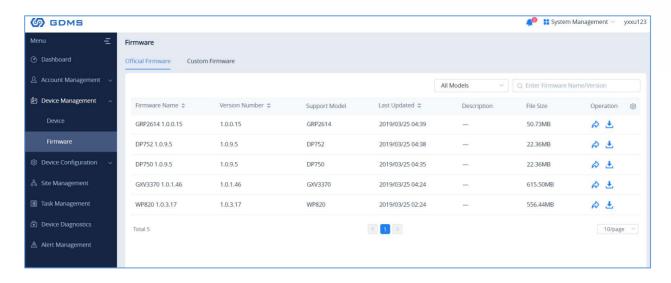


Figure 30: Official Firmware

Note:

Official firmware cannot be edited or deleted, and users can only download or push the firmware to upgrade the devices.

Firmware Update Notification Settings

Users can subscribe to firmware update email notifications to keep up-to-date with the latest firmware releases.

1. Click on the **New Version Notification Settings** button at the top of the **Firmware** page. The following window will appear:







Figure 31: Firmware Update Notification Settings

- 2. Users can select the device models they want firmware update notifications for.
- 3. Click on the **Save** button to finalize changes.

Push to Upgrade Firmware

Users could push the upgraded firmware to the devices directly, or the devices in a range of firmware versions.





1. Click on the button for the desired firmware. The following window will appear:

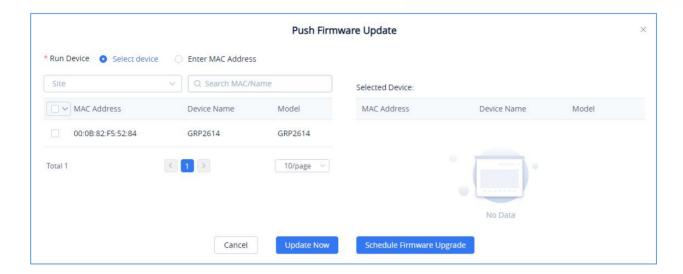


Figure 32: Push to Upgrade Firmware

- 2. Select the devices to push the firmware to. Users can search for specific devices by entering in a MAC address or name or filter devices by specific sites.
- 3. Click on **Update Now** to immediately push the firmware upgrade to devices or **Schedule Config Update.**
- 4. Click on the **Save** button to create the task. Users can check the status of the firmware upgrade in the **Task Management** page.

Edit Firmware

Users could edit the firmware name, firmware version, and other information on GDMS platform. Users could also re-upload the firmware into GDMS platform. Click on the button to access to the firmware editing page.

Note:

If the firmware file is changed, existing scheduled tasks involving that firmware will still use the original file, not the newly uploaded file.

Download Firmware

Users can download firmware on GDMS by clicking on the



button.





Note:

If a firmware on GDMS is using a configured file path, that path will be used when downloading it.

Delete Firmware

Users can delete firmware by selecting them in the firmware list and clicking on the **Delete** button in the top-left corner of the list.

Note:

If a firmware is deleted, scheduled tasks associated with it will continue as normal anyways. Once all associated scheduled tasks are completed, the firmware file will automatically be removed from GDMS.





ACCOUNT MANAGEMENT

Overview

On the **Account Management** page, users can manage SIP accounts across all configured SIP servers in GDMS, import a list of accounts for quick setup, and export a list of all accounts configured on GDMS.

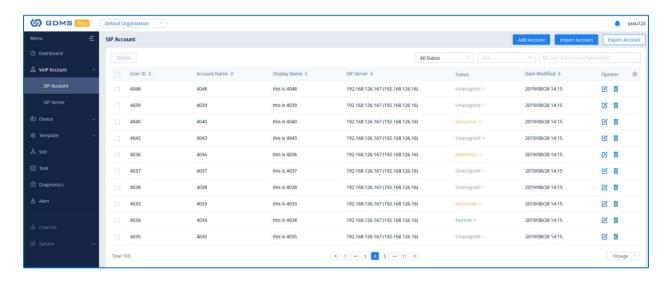


Figure 33: Account Management

Table 11: Account Status Description

Status	Description
Status	Normal: All devices using the account are registered, and the account is working normally.
	Abnormal: At least one device using this account is not registered. Possible reasons include:
	The device is unable to register successfully.
	 The account was modified through other means such as through the endpoint device web portal or provisioning.
	Unassigned: No devices are using this account.





Table 12: Operation Description

Operation	Descriptions
Sorting	Click on the buttons to sort the list in ascending/descending order based on a specific column.
Custom Display Option	Users could customize the displaying options on the list by clicking on option on the right side of the list to select the displayed/hided options.
Filter and Search	Filter accounts by status and search for specific accounts by entering in their user IDs, account names, or display names.

Add SIP Server

The SIP Server page shows all of the SIP servers added to GDMS.



Figure 34: Add SIP Server

Table 13: Add SIP Server

Server Name	Specifies an identity name for the SIP server. (Required)
SIP Server	This is a necessary option. Specifies the URL or IP address, and port of the SIP server. This should be provided by VoIP service provider (ITSP).
Outbound Proxy	Configures the IP address or the domain name of the primary outbound proxy,





	media gateway or session border controller. It's used by the phone for firewall or NAT penetration in different network environments. If a symmetric NAT is detected, STUN will not work and only an outbound proxy can provide a solution.
Secondary Outbound Proxy	Sets IP address or domain name of the secondary outbound proxy, media gateway or session border controller. The phone system will try to connect the Secondary outbound proxy only if the primary outbound proxy fails.
Voice Mail Access Number	Sets if the phone system allows users to access the voice messages by pressing the MESSAGE key on the phone. This ID is usually the VM portal access number. For example, in UCM6xxx IPPBX, *97 could be used.
DNS Mode	Defines which DNS service will be used to lookup IP address for SIP server's hostname. There are three modes: • A Record • SRV • NATPTR/SRV To locate the server by DNS SRV set this option to "SRV" or "NATPTR/SRV".
NAT Traversal	Specifies which NAT traversal mechanism will be enabled on the phone system. It can be selected from the dropdown list: • NAT NO • STUN • Keep-alive • UPnP • Auto • VPN If the outbound proxy is configured and used, it can be set to "NAT NO". If set to "STUN" and STUN server is configured, the phone system will periodically send STUN message to the STUN server to get the public IP address of its NAT environment and keep the NAT port open. STUN will not work if the NAT is a symmetric type. If set to "Keep-alive", the phone system will send the STUN packets to maintain the connection that is first established during registration of the phone. The "Keep-alive"





	packets will fool the NAT device into keeping the connection open and this allows the host server to send SIP requests directly to the registered phone.
	If it needs to use OpenVPN to connect host server, it needs to set it to "VPN".
	If the firewall and the SIP device behind the firewall are both able to use UPnP, it can be set to "UPnP". Both parties will negotiate to use which port to allow SIP through.
Proxy-Require	Adds the Proxy-Required header in the SIP message. It is used to indicate proxy-sensitive features that must be supported by the proxy. Do not configure this parameter unless this feature is supported on the SIP server.
Custom Field	Users could add the custom fields below. Some custom fields are only available for some certain device models:
	(1) Secondary SIP Server
	(2) Failover SIP Server
	(3) Prefer Primary SIP Server
	(4) Primary IP
	(5) Backup IP 1
	(6) Backup IP 2
	(7) DNS SRV Failover Mode
	(8) Use NAT IP
	(9) SIP Diff-Serv
	(10) RTP Diff-Serv
	(11) Tel URI
	For detailed filling rules, please refer to the User Guide of the devices.

Upon adding the SIP server, it will appear in the SIP Server list. Entries in the list can be edited or deleted.







Figure 35: Finish Adding SIP Server to GDMS

Add SIP Account

The SIP Account page shows all of the SIP accounts added to GDMS.

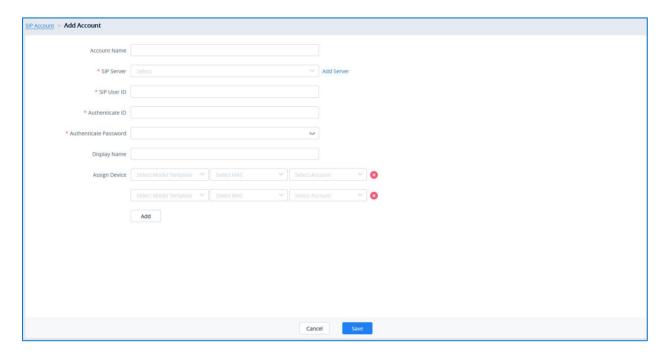


Figure 36: Add SIP Account

Table 14: Add SIP Account

Account Name	This is a necessary option. Specifies an identity name for the SIP account.
SIP Server	This is a necessary option. Users need to select the SIP server for the SIP
	account. If there is no available SIP server for the current SIP account, users could
	click on "Add Server" option to add a new SIP server for the SIP account.





SIP User ID	This is a necessary option. Configures user account information provided by your VoIP service provider (ITSP). It's usually in the form of digits similar to phone number or actually a phone number.
SIP Authentication ID	This is a necessary option. Configures the SIP service subscriber's Authenticate ID used for authentication. It can be identical to or different from the SIP User ID.
SIP Authentication Password	This is a necessary option. Configures the account password required for the phone to authenticate with the ITSP (SIP) server before the account can be registered. After saving, it will appear as hidden for security purpose.
Display Name	Configure the display name of the SIP account. This option will be used for Caller ID display. The configured content will be included in the From, Contact and P-Preferred-Identity headers of SIP INVITE message

Allocate to devices:

To associate devices currently in GDMS with the new SIP account, click on the **Add** button at the bottom of the screen and enter the following information:





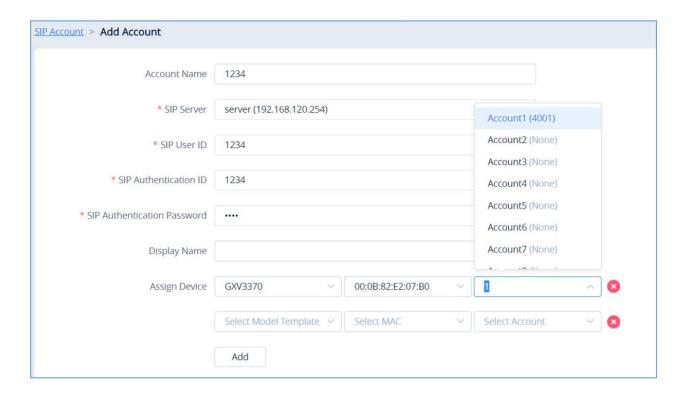


Figure 37: Allocate to Devices

Table 15: Allocate to Devices

Select Device Model	This is a necessary option. Users need to select the device model which the account will be allocated to.
Select Device MAC Address	This is a necessary option. Users need to select the device MAC address which the account will be allocated to.
Select Account Index	This is a necessary option. Users need to select the account index which the account will be allocated to (e.g. Account 1 – Account 16). If the account location has a configured account, the account number will be displayed.

Notes:

- Assigning accounts to DP devices and HT devices from this page are currently not supported.
 Please use the account importing feature or the **Device Management** page to manage SIP accounts on DP devices and HT devices.
- If a device is not on GDMS, users will be unable to allocate SIP accounts to it.





Batch Import SIP Account

GDMS platform supports to allow users to import a batch of SIP accounts and SIP servers to the system and allocates to the devices via Excel files.

1. On the **SIP Account** page, click on the **Import Account** button. The following window will appear:

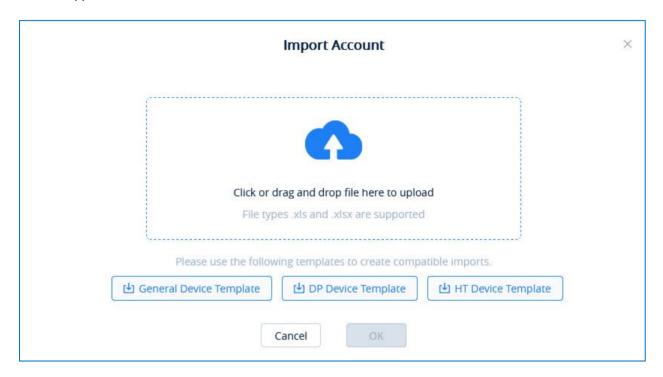


Figure 38: Import SIP Account

2. Click on either the Download **General Device Template** button, or Download **DP Device Template**, or Download **HT Device Template** button to get a template that will be used to import account and server information.

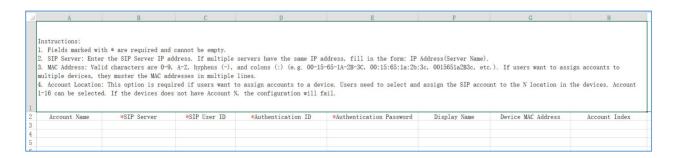


Figure 39: Import Account Template - General Device Template





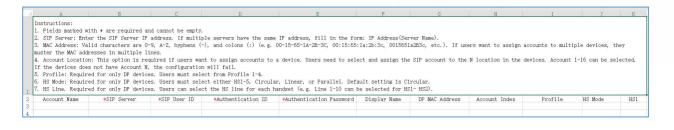


Figure 40: Import Account Template - DP Device Template

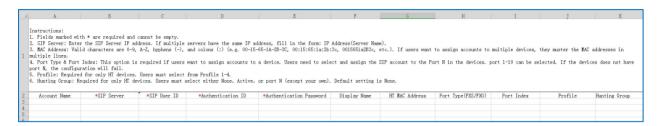


Figure 41: Import Account Template - HT Device Template

Table 16: Import Account Template Options

Account Name	This is an optional option. Users need to set the identity name for the SIP account.
SIP Server	This is a necessary option. Users need to input the SIP server address. If the SIP server does not exist in the GDMS platform, the GDMS platform will create the SIP server in the system.
SIP User ID	This is a necessary option. Configures user account information provided by your VoIP service provider (ITSP). It's usually in the form of digits similar to a phone number or actually a phone number.
SIP	This is a necessary option. Configures the SIP service subscriber's Authenticate ID
Authentication ID	used for authentication. It can be identical to or different from the SIP User ID.
SIP	This is a necessary option. Configures the account password required for the phone
Authentication	to authenticate with the ITSP (SIP) server before the account can be registered. After
Password	saving, it will appear as hidden for security purpose.
Display Name	Configure the display name of the SIP account. This option will be used for Caller ID display. The configured content will be included in the From, Contact, and P-Preferred-Identity headers of the SIP INVITE message.





Device MAC Address	Input the device MAC address: e.g. 00-15-65-1A-2B-3C; 00:15:65:1a:2b:3c; 0015651a2B3c
Account Index	Users need to select the account index which the account will be allocated to (e.g. Account 1 – Account 16). If the current account location has a configured account, the configured account will be replaced with the new account information.
Profile	For DP devices and HT devices only. Enter the profile that the account will use (e.g. Profile1, Profile2, etc.). If multiple different SIP servers use the same profile, the import will fail.
HS Mode	For DP devices only. Enter the HS mode for the account. Available options are "Circular", "Linear", "Parallel", and "HSx", where x can be 1 to 5.
HS1-HS5	For DP devices only. Users could configure the Line for each handset from Line 1 to Line 10. Each SIP account can be allocated to different handsets.
Port Type (FXS/FXO)	This option is valid only for HT devices. Input the port type which will be assigned to the device. Users could select FXO port type or FXS port type.
Port Serial Number	This option is valid only for HT devices. Input the port serial number which will be assigned to the device. Users could input the port serial number from Port 1 to Port 10.
Search Group	This option is valid only for HT devices. Users could select the search group between None (default), Active, and other port serial numbers besides your own.

- 3. Once the template is filled out, drag and drop the file to the upload window or select the file from your PC. Click on the **Import** button to confirm the import.
- 4. When the Excel file is imported into the GDMS platform successfully, the GDMS platform will prompt the execution result. If there is data that failed to be imported, the user could export the failed data and re-edit the Excel file.

Examples:

1. If the user wants to allocate 1 SIP account to multiple devices, the 1st SIP account information will be correct information to allocate to the devices. Please see the example below, the SIP account display name "Sqhuang" will be allocated to involved devices:





Account Name	*SIP Server	*SIP User ID	*Authentication ID	*Authentication Password	Display Name	Device MAC Address	Account Index
Work Account	192. 168. 120. 100	100	100	123456 S	qhuang	00:0B:82:E2:08:D8	Account1
Work Account	192. 168. 120. 100	100	100	123456 Sqhuang123		00:0B:82:D2:11:22	Account1

Figure 42: Example I

2. For the existing SIP account, if the user wants to allocate this SIP account to another device, here is the example: Account 100 has been allocated to Device 1, and the user wants to allocate the SIP account 100 to Device 2 (00:aa:bb:cc:dd:ee).



Figure 43: Example - II

3. If the user wants to allocate multiple SIP accounts to a single device, here is the example:

Account Name	*SIP Server	*SIP User ID	*Authentication ID	*Authentication Password	Display Name	Device MAC Address	Account Index
Work Account	192.168.120.100	100	100	123456 S	qhuang	00:0B:82:E2:08:D8	Account1
Work Account	192.168.120.100	200	200	123456 Sqhuang		00:0B:82:E2:08:D8	Account2
Work Account	192.168.200.100	300	300	123456 E	mily	00:0B:82:E2:08:D8	Account3

Figure 44: Example III

4. If the user wants to allocate multiple SIP accounts to a single DP device, here is the example:

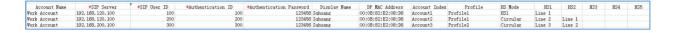


Figure 45: Example IV

Incorrect examples:

1. If the user wants to allocate multiple SIP accounts to a single device, the account index cannot be the same.

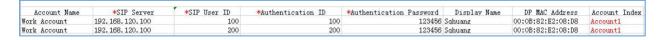


Figure 46: Example V

2. Different SIP server addresses cannot be allocated to the same Profile in the same DP device.

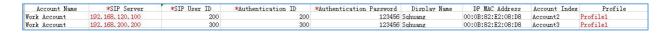


Figure 47: Example VI

3. If the user wants to allocate the SIP accounts to the same DP device, the different SIP accounts cannot be allocated to the same HS Line.







Figure 48: Example VII

Allocate Device

Users could allocate the SIP accounts to the devices during adding SIP accounts, editing SIP accounts, or importing a batch of SIP accounts to the GDMS platform. Each SIP account can be allocated to multiple devices.

Edit Account

Users could edit the SIP account information and allocated devices on **Edit Account** configuration page.

1. Click on the button for the SIP account you want to modify.

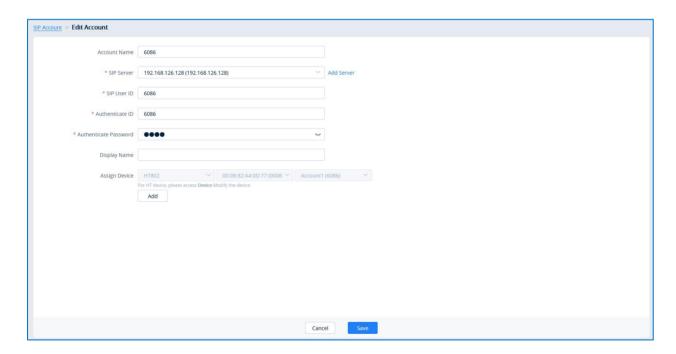


Figure 49: Edit Account

- 2. Click on the **Save** button to finalize changes. All associated devices will receive the updated account information.
 - 3. Click on the button to unallocated devices from the account. The SIP account will be removed from unassigned devices.





Note:

If the device is offline at the time, its SIP account information will be updated when it is online again.

Delete Account

To delete SIP accounts on GDMS, click on the button for a single account or the **Delete** button in the top-left corner for multiple accounts. Associated devices will automatically remove deleted SIP account information.

Users could delete 1 single SIP account or a batch of SIP accounts on the GDMS platform:

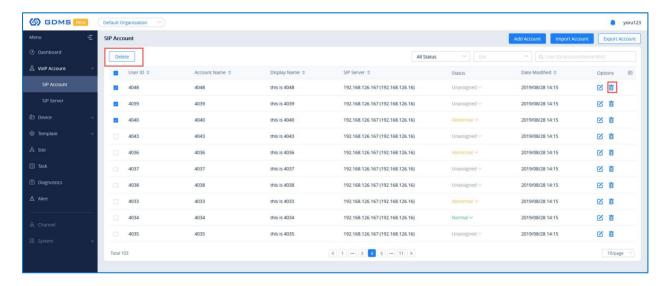


Figure 50: Delete Account

Export Account

Users can export all existing SIP accounts in GDMS to a file by clicking on the **Export Account** button in the top-right corner of the **SIP Account** page.

Edit SIP Server

Users can edit SIP server information by clicking on the button for the desired SIP server. Changes to the server will affect all associated SIP accounts.





Delete SIP Server

Users can delete selected SIP servers by selecting them in the SIP server list and clicking on the **Delete** button in the top left corner of the **SIP Server** page.



Figure 51: Delete SIP Server





DEVICE CONFIGURATION

The **Device Configuration** page allows users to create templates that can be used to provision devices of the same model or in the same group. Additionally, users can upload configuration files for individual devices and manage them individually.

By Model

Users could customize the configuration template and classify the templates by device model and site. Users could also configure a batch of devices on the GDMS platform, which means users could create a configuration template for all same model of devices or create multiple templates for different sites.

Automatic Configuration Push

When a device is added to GDMS for the first time, it will automatically obtain and use the configuration template for its model.

Manual Configuration Push

To manually push the configuration to specific device models, click on the button of the desired models.

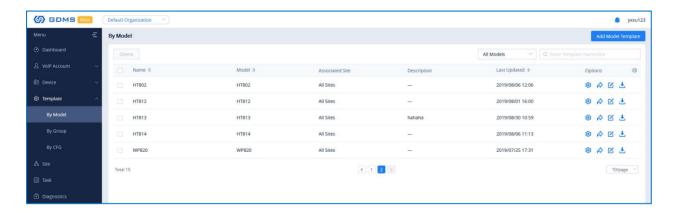


Figure 52: Manual Configuration Push

Note:

If a device's setting has not been modified in the **Device Management** \rightarrow **Device** \rightarrow **Set Parameters** page, GDMS will automatically update the device with the template settings created in the **Device Configuration** page.





Example:

For GXV3370 devices, all sites are using the same configuration template, and all the devices under the site A – D will acquire the same configuration template – GXV3370 Config Template.xml.

For DP720 devices, different sites have different configuration template. The DP720 in site A will acquire the DP720 configuration file - Config Template -1.xml; the DP720 in site B will acquire the DP720 configuration file - Config Template -2.xml.



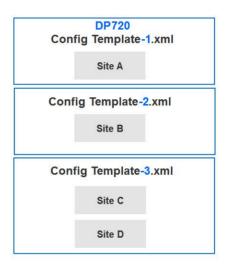


Figure 53: Example - GXV3370

Add Template

To add a configuration template for a specific device model, click on the **Add Template** button in the **By Model** page and enter the following information:





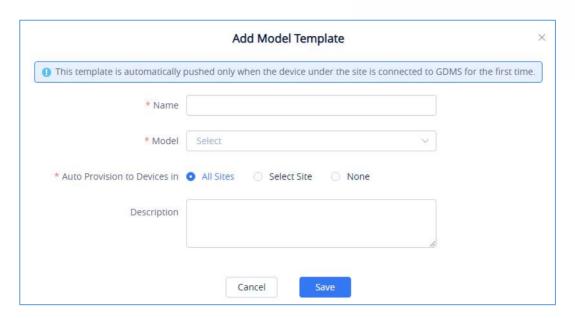


Figure 54: Add Template

Table 17: Add Template

Name	Enter the name of the template. This name must be unique and has a maximum character limit of 64.				
Model	Select the device model of the template.				
Select Site	Select the site which the template will be used for. All Sites: All devices in all sites will use this template. Select Site: All devices in the selected sites will use this template. Multiple sites can be selected. None: GDMS platform will not allocate the template to any device. The user could allocate the template to the device manually.				
Description	Users could input the descriptions of the template and the purpose.				

Once complete, users will be redirected to the **Set Parameters** page to modify the device settings of the template.

Notes:

For the new associated device, when the device first time connects to the GDMS platform, it will
acquire the configuration template according to the device model and site automatically. Users do
not need to push the configuration template manually.





 Devices already on GDMS will not automatically obtain the settings from newly added configuration templates. Users will need to update these devices manually.

Important Note:

If the GDMS platform has the model configuration template for the current device, and the user does not modify the configuration parameters from the **Device Management** \rightarrow **Device** \rightarrow **Set Parameters** menu, the GDMS platform will push the default model configuration template to the device when the device is online. Otherwise, if the user updates the device configuration on "Set Parameters" menu on the GDMS platform and push to the device, the device will use this configuration as the default configuration.

Set Parameters

Users can configure model-specific settings when editing model templates.

1. To configure these model-specific settings, click on the of the desired template.

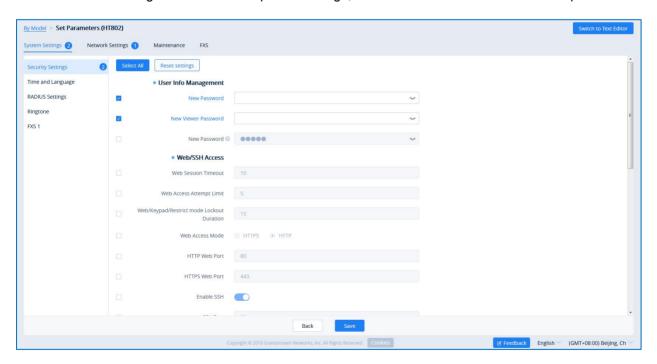


Figure 55: Set Parameters

- a. Clicking on the **Select All** button will select every option on the current page. Clicking on it again will deselect all the options.
- b. Clicking on the **Reset Settings** button will restore all settings on the current page to default values.
- 2. Modify the desired settings on the page or click on the Switch To Text Editor to configure





device settings via text editing (i.e. p-values). Key can be either a P-value or an alias.

Notes:

- The available settings for each model template are different. For more details on acceptable configuration values, please refer to the user guide for each device model.
- When the user adds a new model configuration template in GDMS platform, the GDMS platform
 will not push the template to the existing devices in the GDMS platform, and the GDMS platform
 will only push the new added template automatically to the new associated devices in the system.
- When the settings of a template are modified, the changes will not be automatically applied to related devices. Users will need to manually push the configuration to devices.
- For the new added devices, the devices will acquire the updated configuration template automatically.
- If a scheduled task involves a modified template, the task will use the template settings at the time
 of scheduling, not the newly modified settings.

Push Update

Users could push the configuration template to the device manually.

1. Select a specific configuration template, click on the button



following the template.

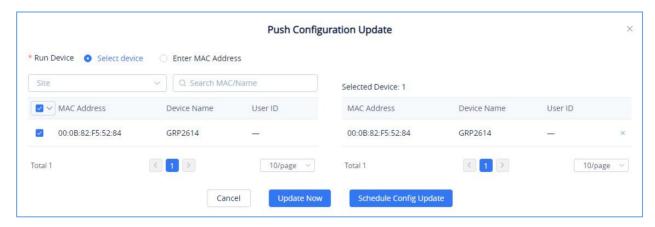


Figure 56: Push Configuration File

- 2. Users could select any device in this device model to push the configuration template, the device will be updated with the configuration template.
 - 3. Users can either push the configuration template immediately or schedule the configuration push for a specified time. If the latter is selected, users will need to enter a name and time for the





scheduled push.

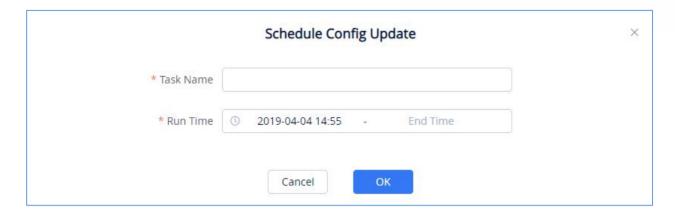


Figure 57: Schedule Config Update

4. Click on the **Save** button to finalize the task. Users can check the task status in the **Task Management** page.

Edit Template

To edit the configuration template's name, site, and description, click on the button for the desired template.

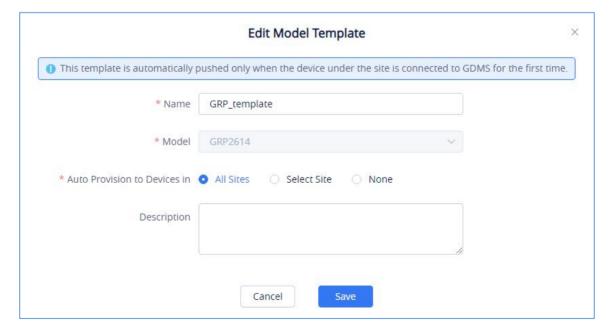


Figure 58: Edit Model Template





Download Configuration Template

To download the configuration template of a device model, click on the button for the desired template.



Figure 59: Download Configuration Template

Delete Template

To delete configuration templates from GDMS, select the desired templates and click on the **Delete** button in the top left corner of the **By Model** page.

Note:

If a scheduled task involves a deleted template, the task will still use a temporary copy of the template saved at the time of scheduling. A scheduled task will not fail due to deleted templates.



Figure 60: Delete Template

By Group

Users could customize the configuration template by group. Users could configure a group and update the configuration template by group. For example, users could classify a batch of devices to a group, and configure/manage the devices in the group. Users could push the configuration template to the group members on the GDMS platform.

Users could view the group configuration template, and the devices list in each group.

Users could modify the configuration parameters, push the configuration to the devices, edit the group and members, and download the configuration template by group.





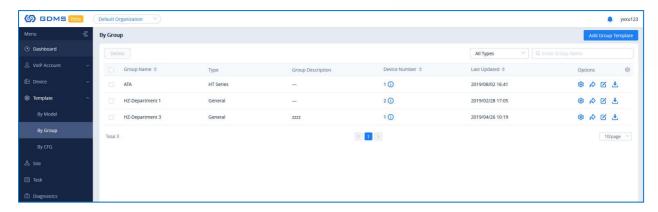


Figure 61: By Group

Add Group

Users could add a group at any time on the GDMS platform.

1. Click on the **Add Group** button at the top right of the **By Group** page.

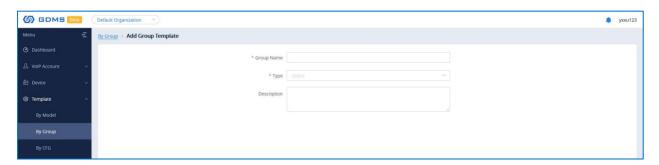


Figure 62: Add Group

Table 18: Add Group

Group Name	Enter the name of the group to easily identify it. Names must be unique and have a maximum character limit of 64.
Туре	 Users need select the type between DP series and Non-DP series: DP series: Use the configuration template for DP series. Non-DP series: Use the configuration template for GXV series, GRP series, GXP series, and WP series, and the configuration template includes all parameters in these products.
Description	Enter the detailed description and purpose of the configuration template.





Once complete, users will be redirected to the device selection page to add devices to the group.
 Users can either select devices from the list or manually enter the MAC addresses of the devices.
 Selected devices will be moved to the Selected Device list on the right of the page.

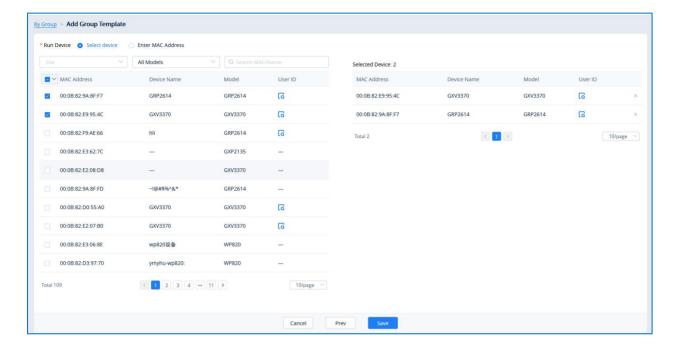


Figure 63: Finish Adding Group

- 3. Users could click on "Prev" button to go back to the group configuration page to re-edit the group information.
- 4. Click on the **Save** button to complete group member selection. Users will then be redirected to **Set Parameters** page.

Note:

Users need to set the parameters of the configuration template for the newly added group.

Set Parameters

Users could set the unique parameters of the devices in the group in the configuration template in order to push the unique parameters to the devices in the group.

- 1. Select a specific group, click on the button to access the group member parameters configuration page.
- 2. Modify the desired settings on the page or click on the Edit Configuration File to configure device settings via text editing (i.e. p-values). Key can be either a P-value or an alias.





Notes:

- The available settings for each model template are different. For more details on acceptable configuration values, please refer to the user guide for each device model.
- When the user adds a new model configuration template in GDMS platform, the GDMS platform
 will not push the template to the existing devices in the GDMS platform, and the GDMS platform
 will only push the new added template automatically to the new associated devices in the system.
- When the settings of a template are modified, the changes will not be automatically applied to related devices. Users will need to manually push the configuration to devices.
- For the new added devices, the devices will acquire the updated configuration template automatically.
- If a scheduled task involves a modified template, the task will use the template settings at the time of scheduling, not the newly modified settings.

Push Update

Users could push the group configuration template to the device manually.

1. Click on the button for the desired group.

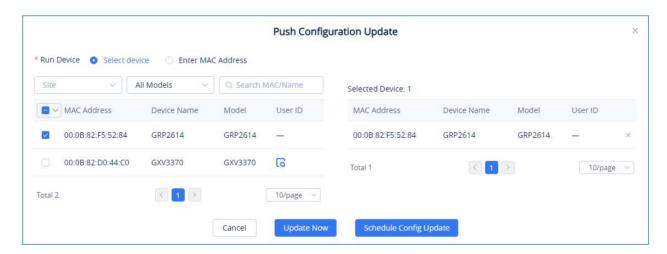


Figure 64: Push Update

- 2. In addition to being able to push the configuration template to all or select members of the group, users can also push it to non-members.
- 3. Users can either push the configuration template immediately or schedule the configuration push





for a specified time. If the latter is selected, users will need to enter a name and time for the scheduled push.

4. Click on the **Save** button to finalize the task. Users can check the task status in the Task Management page.

Edit Group

Users could edit the group name, descriptions, and group members.

1. Click on the button for the desired group.



Figure 65: Edit Group

2. Modify the desired settings and click on the **Save** button to finalize changes.

Note:

New members of an existing group will not automatically obtain the group configuration template. The template must be manually pushed to the new member devices.

Download Configuration File

Users can download the group configuration template by clicking on the button for the desired group.

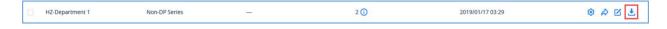


Figure 66: Download Configuration File

Delete Group

Users can delete groups by selecting the desired groups and clicking on the **Delete** button in the top-left corner of the **By Group** page.

Note:





The existing timing tasks involved the group configuration template will be reserved, and the timing task will be executed with the original group configuration template.

By CFG

Users can import configuration files for specific devices. Settings in these uploaded files will be used for their specified device.

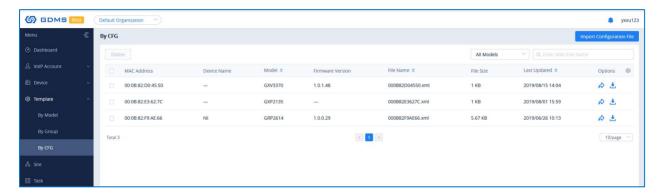


Figure 67: By CFG

Upload CFG File

Users could upload the custom configuration file to the GDMS platform and push the custom configuration file to the device.

1. Click on the **Import Configuration File** button at the top-right corner of the **By CFG** page. The following window will appear:

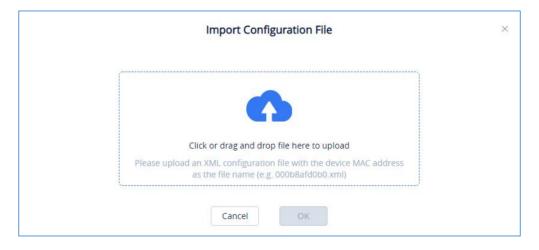


Figure 68: Upload CFG File

2. Drag and drop the file to the window or click on the upload icon to select a file from your PC.





Note:

The uploaded file must be named as the device's MAC address (e.g. 000b82afd0b0.xml).

- 3. Click on the **OK** button to finalize the import.
- 4. The following window will appear asking the user to either push the configuration to the specified device immediately or to cancel the configuration push.

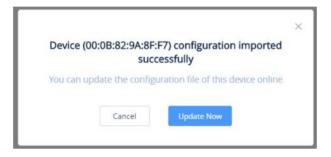


Figure 69: Finalize Import

Notes:

- Only XML file format is supported for the uploaded custom configuration file.
- If the file name does not meet MAC address format requirements, the import will fail.
- When uploading another configuration file for an existing device, the previous configuration file will be overwritten.

Push Update

button for the desired device to manually push the configuration to it.



Figure 70: Push Update

Download Configuration File



Click on the button for the desired device to get its configuration file.





Delete CFG File

To delete uploaded configuration files from GDMS, select the desired devices in the list and click on the **Delete** button at the top-left of the **By CFG** page.





SITE MANAGEMENT

Site Management allows users to organize their devices by sites and categories.

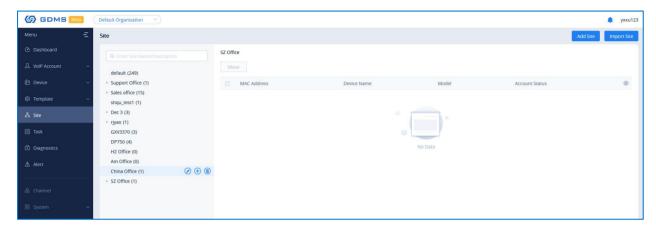


Figure 71: Site Management

Add Site

Users could add a site at any time on GDMS platform.

1. Click on the **Add Site** button at the top right of the **Site Management** page. To quickly add a sub-site under a specific site, click on the button next to the desired site. Users can create a total of 7 different levels of sites.

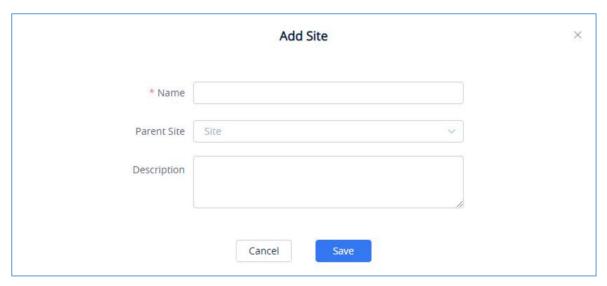


Figure 72: Add Site





Table 19: Add Site

Site Name	Enter a name for the site to easily identify it. Sites on the same level cannot have the same name.
Superior Site	The parent level of the site. This field can be left blank if the created site is a top-level site.
Site Description	Enter the descriptions of the site.

2. Once the site is created, users can then assign devices to it.

Batch Import Sites

Users could import a batch of sites into GDMS platform.

1. Click on the **Import Site** button at the trop right corner of the **Site Management** page. The following window will appear:

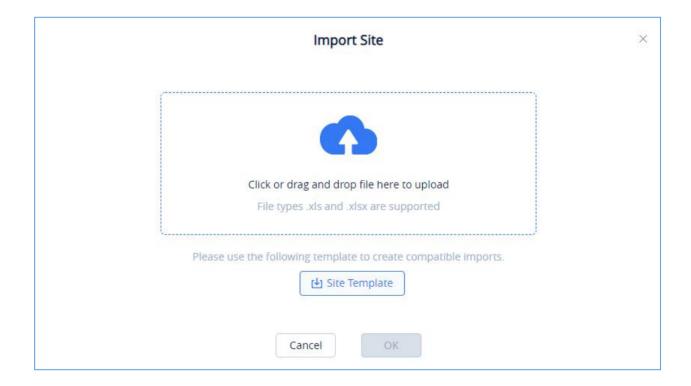


Figure 73: Import Site

2. Click on the **Download** button to get a template that will be used to import site information.





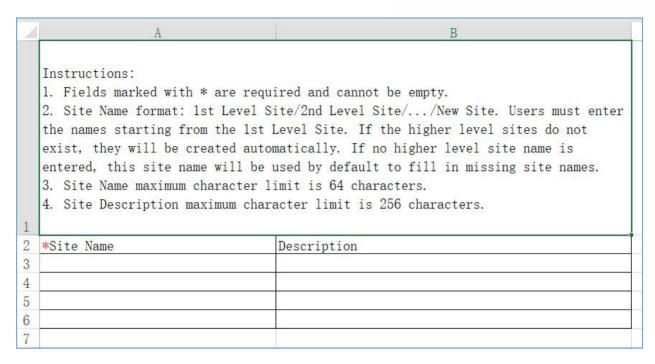


Figure 74: Site Template

Table 20: Site Template Options

Site Name	Enter the name of the site. If the site is the child of another site, users must enter the entire path (e.g. top-level site/second level site/third level site/new site name).
Description	Enter the descriptions of the site.

- 3. Once the template is filled out, drag and drop the file to the upload window or select the file from your PC. Click on the Import button to confirm the import.
- 4. When the Excel file is imported into the GDMS platform successfully, the GDMS platform will prompt the execution result. If there is data that failed to be imported, the user could export the failed data and re-edit the Excel file.

Note:

If an imported site has the same name as another site on the specified level, the import will fail.

Edit Site

Users could edit the information of the site on GDMS platform.

1. Click on the button next to the desired site.







2. Edit the desired fields and click on the Save button to finalize changes.

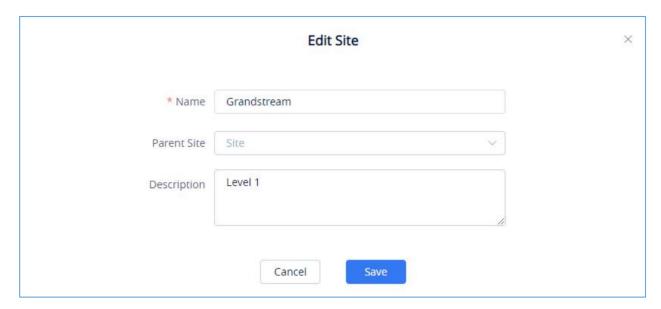


Figure 75: Edit Site

Delete Site

To remove a site from GDMS, click on the button next to the desired site.

Note:

If the selected site has devices assigned to it, the site cannot be deleted unless the devices are assigned to another site beforehand.

View Devices

To view all the devices under a specific site, click on the desired site in the Site Management list.





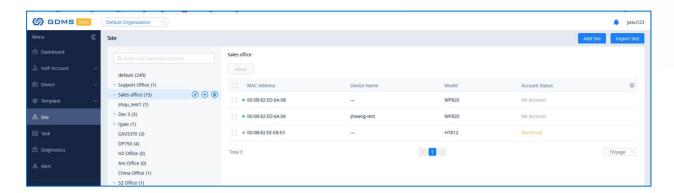


Figure 76: View Devices

Transfer Site

Users can select devices in a site and move them to another site by clicking on the Move button.

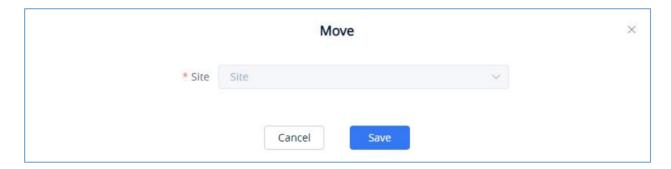


Figure 77: Transfer Site

Clicking on the Save button will finalize the move to the specified site.





TASK MANAGEMENT

The **Task Management** page displays all queued and completed tasks in GDMS such as configuration pushes, firmware upgrades, reboots, and factory resets. Users can add, edit, and delete tasks from this page.

Add Task

To add a task to GDMS, click on the Add Task button.

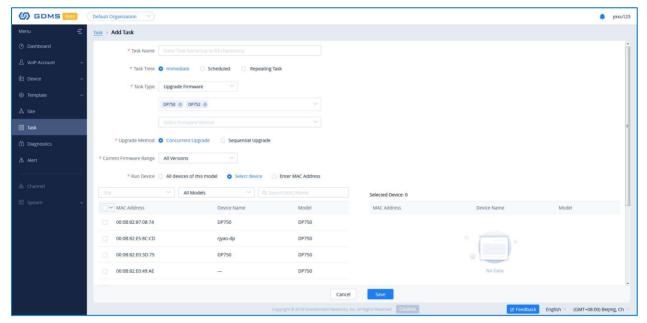


Figure 78: Add Task

Table 21: Add Task

Task Name	Enter the name of the task.
Task Type	 Immediate: The task will be run immediately. If the task is not run after 5 minutes, GDMS will automatically close it. Scheduled: Schedule the task to run at a specified time. The task will end at the specified end time, even if there are still devices queued up to run the task. Repeating: Users could reserve the recurring tasks such as daily, weekly,
	monthly, Nth week of each month, and perform a certain task.





Task Contents	Reboot Device
	Factory Reset
	Upgrade Firmware: Users will need to select the device model and firmware version to upgrade to.
	Update Config: Model: Select the model template that will be used for the configuration update push.
	Update Config: Group: Select the group template that will be used for the configuration update push.
Upgrade Method	This option is available only when Upgrade Firmware is selected as the Task Type.
	 Sequential Upgrade: Devices are upgraded one by one in a sequence. Recommended to minimize network traffic.
	• Concurrent Upgrade: All devices are upgraded simultaneously. This option may cause heavy network traffic.
Version Requirement	This option is available only when Firmware Upgrade is selected as the Task Type. Devices will be upgraded only if they meet certain requirements:
	All: Upgrade all devices regardless of their current firmware version.
	• Specific Firmware Version: Upgrade devices on the specified firmware version.
	• Firmware Version Range: For the selected devices, only the devices in a specified firmware version range (Lowest firmware version ≤ x ≤ Highest firmware version) will be upgraded.
Execution Device	Select the devices to run this task for. Users can search for devices by their model, assigned site, or MAC address.

Click on the **Save** button to finalize the task creation. Users can view this task in the **Task Management** list.







Figure 79: Task Management List

Notes:

- If there are multiple tasks for 1 device, they will be queued up to run in order of their configured start time.
- If a device is offline, pending tasks associated with the device will be run the next time the device is offline.
- Certain tasks and device setting changes can cause a device to reboot.
- Firmware upgrade tasks may require more time to run due to the size of some firmware files.
- The latest configuration files or firmware will be generated for each cycle of the recurring tasks, and the system will collect all devices of this specific model, then execute the corresponding task.

View Task Status

Users can see the status of all completed and pending tasks by looking at the Status column.





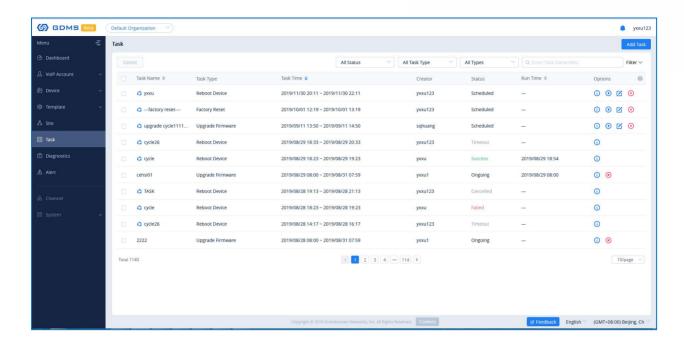


Figure 80: View Task Status

Table 22: Task Status Description

Pending	The task has not been executed yet.
Executing	The task is currently in progress.
Success	The task has completed successfully.
Failed	The task has failed.
Canceled	The task was cancelled.
Timeout	The task was not executed when it arrives the ending time.
Ended	The task was ended before it could be completed. Some of the involved devices may not have run the task before it ended.

To view more details about a task, click on the button for the desired task.







Users can view the task status of each device involved.

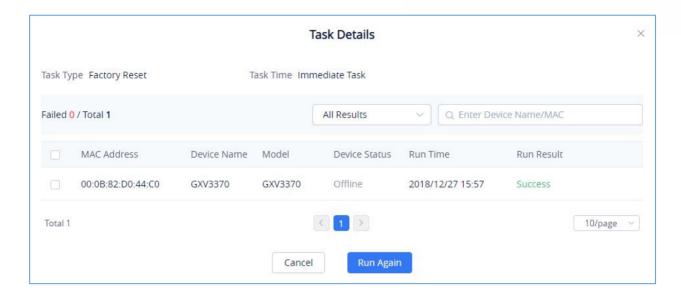


Figure 81: Task Status

Table 23: Task Status Detailed Description

Pending Executed	The task has not been run yet.
Executing	The task is currently ongoing.
Success	The task has been completed successfully.
Failed	The task has failed. A failure reason will be shown.
Timeout	The task has been sent to the device, but the device has not responded yet.
Success (Timeout)	The task has been completed successfully for this device, but it was completed later than the specified time.
Canceled	The task has been canceled before the starting time.
Ended	The task was ended before it could be completed. Some of the involved devices may not have run the task before it ended.

Users could re-create tasks for the executed failed devices, or all devices. If the user re-creates tasks for some certain devices, all attributes of the task and all executed devices information will be logged on the "Re-create Task" page.





Start Scheduled Tasks

Users can start pending scheduled tasks immediately by clicking on the button.

Cancel Pending Tasks

To cancel a pending task, click on the button for the desired task. The task status will be changed to Cancelled. To run the task again after it's completed, click on **Task Details** -> **Run Again** for the desired task.

If the task is a recurring task, users could select whether to cancel the entire recurring task or just cancel the single task.

End Task

To stop a running task, click on the button to immediately end it.

If the device has already executed the task (e.g. Reboot Device), the device will finish the task; if the device does not start to execute the task, the device will not execute the task anymore.

Search Task

Users can search for specific tasks by using the search bar and filters at the top-right of the top right corner of the **Task Management** page.





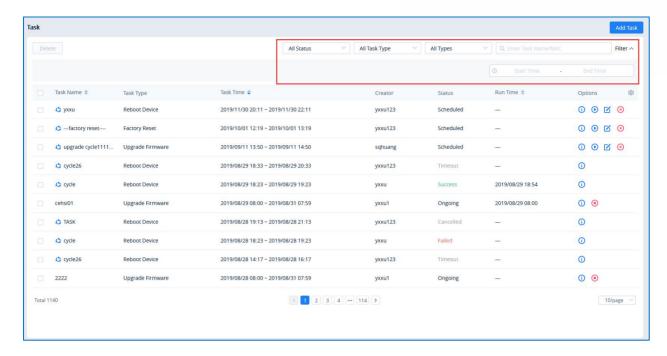


Figure 82: Search Task

Delete Task

Users can delete tasks at any time. Select one or more tasks and click on the **Delete** button at the top of the page to delete them.

Note:

When deleting ongoing tasks, GDMS will automatically suspend and delete them. Any changes made before the task was suspended cannot be undone.





DEVICE DIAGNOSTICS

Device Diagnostics allows users to check devices on GDMS for issues, view device information, obtain network captures and syslog, and conduct traceroutes.

Start Diagnostics

To start diagnosing a device, users can do one of the following:

- 1. Enter the device's MAC address and click on the **Start Diagnostics** button.
- Click on the button for the desired device in the list to diagnose the device.

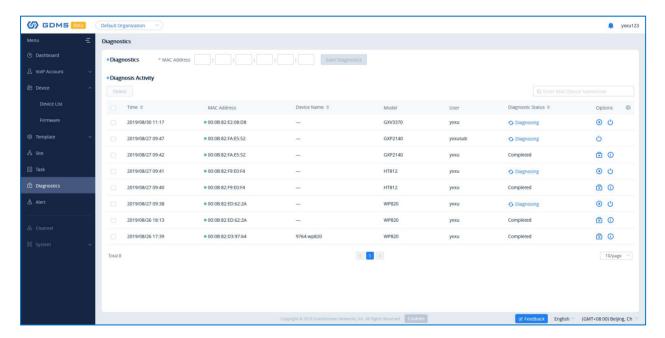


Figure 83: Device Diagnostics

To view the diagnostic details of a device, click on the



button for the desired device.





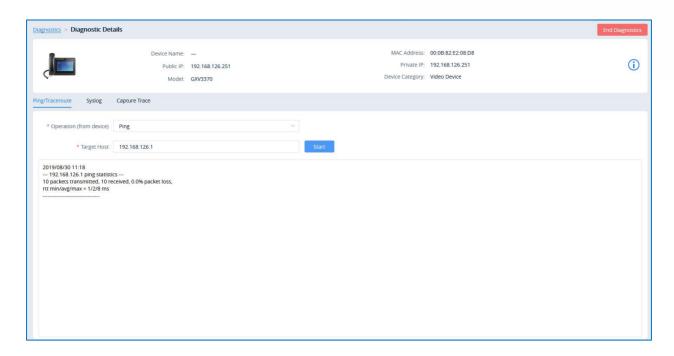


Figure 84: View Diagnostics Details

Notes:

- If the device is offline, users cannot diagnose this device on GDMS platform.
- Devices that are currently being diagnosed by a user cannot be diagnosed by other users.

View Device Details

Click on the button on the right of the **Device Diagnostics** page to view information about the device.







Figure 85: View Device Details

Ping/Traceroute

Clicking on the Ping/Traceroute tab in the Device Diagnostics page will show the following:

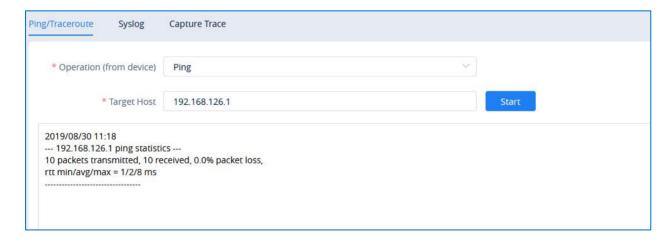


Figure 86: Ping/Traceroute

Table 24: Ping/Traceroute Options

Operation Method

Ping: Checks the connection status and speed between the device and the target host. Results include packet loss information, maximum/minimum data packets size, and the round-trip time of the packets.





	 Traceroute: Displays the route and transit delays of packets from the device to the target host. Up to 30 hops can be monitored.
Target Host	Enter the IP address or hostname of the target host.

Users could click on "Start" button, wait for the GDMS system to diagnose the device, and the GDMS platform will print out the diagnostics results.

Each operation prints the diagnostics result once, and users could operate the diagnostics for multiple times.

Note: To avoid cancelling the ping/traceroute, do not leave the Ping/Traceroute page.

Syslog

The Syslog tool allows users to capture logs from a device.

- 1. To start a capture, click on the **Start** button on the **Syslog** page. At any time during the capture, users can click on the button to download the syslog.
- 2. Clicking on the **End** button will stop the capture, and the syslog will be saved to GDMS.
- 3. Users can access these saved logs at any time.

Note:

An ongoing syslog capture will end automatically after 7 days.

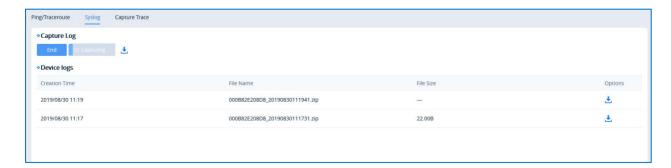


Figure 87: Syslog





Capture Trace

Users can get Capture Trace tool allows users to get a network packet capture of a device.

- 1. Click on the **Start** button to start the packet capture.
- 2. Click on the **Stop** button to end the packet capture.
- 3. Click on the button to download the capture file.

Notes:

- GDMS can only capture up to 5 minutes. An ongoing capture will end automatically after 5 minutes.
- Some models do not support to capture the trace file remotely.

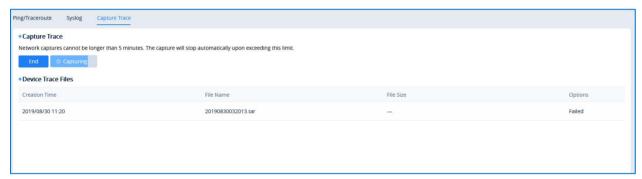


Figure 88: Capture Trace

End Diagnostics

Click on the **End Capture** button on the **Device Diagnostics** page to end diagnostics for the device. All diagnostic processes will stop.

Note:

Since GDMS does not allow multiple users to diagnose the same device simultaneously, please make sure that a diagnosis is properly ended by clicking on the **End Diagnostics** button.

Diagnostics Records

Users can view the entire diagnostic history of all devices associated with the current account.





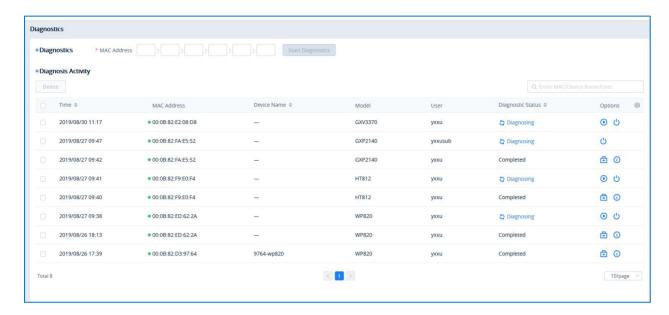


Figure 89: Diagnostics Records

- 1. If a device is currently being diagnosed, click on the button to continue diagnosing or the button to end it.
- 2. If a device has been diagnosed already, click on the button to start another round of diagnosis or the button to view the results.
- 3. View the diagnostic history of a specific device by using the search bar on top right of the **Diagnostic Records** page.
- 4. Users can delete records by selecting one or more items and clicking on the **Delete** button.





ALERT MANAGEMENT

GDMS has an alert system that will trigger when certain conditions are fulfilled. There are 3 alert levels: High, Medium, and Low.

Alert Notification Settings

Users can view and receive alert notifications in two ways: Message Notification and Email Notification.

Message Notification Settings

This displays the alert as a notification under the electric icon in the top right corner of the GDMS page.

1. To manage message alert notifications, click on the Message Notification Settings button

Message Notification Settings

on the top-right corner of the Alert Management page.

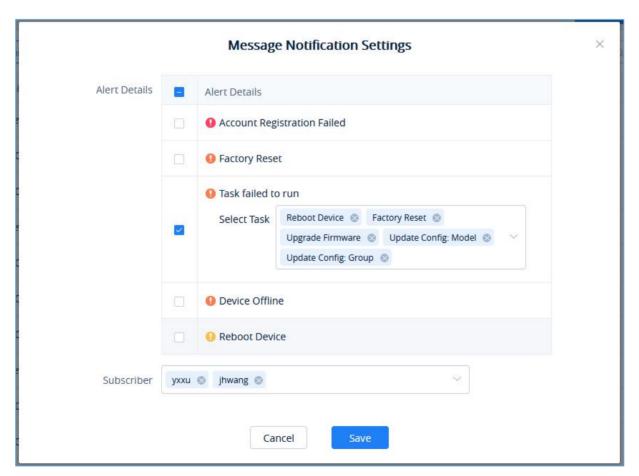


Figure 90: Message Notification Settings





Table 25: Message Notification Settings

Alert Details	Users can specify what alerts to receive. The following alert priority levels are available:
	High Level: Account Registration Failure
	Medium Level:
	Factory Reset
	 Task Run Failure (users can specify the tasks they want notifications for)
	■ Device Offline
	Low Level: Device Reboot
Subscriber	Select the users that will be alerted. Only sub-users created by current user can be selected.

Note:

If a scheduled task fails to run, the alert notification will be sent only to the task creator.

2. When there are unread alerts, and a user subscribed to alerts logs in, the icon will shake. Hovering over the icon will show the unread messages. Clicking on these messages will show more details about the alerts.

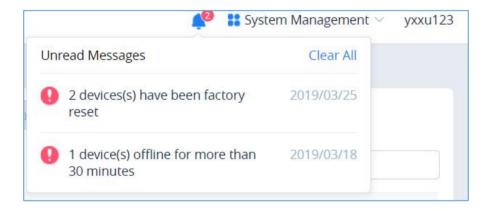


Figure 91: Unread Message Icon

Email Notification Settings

Alerts will be sent as emails to subscribers.

1. To manage email alert notifications, click on the Email Notification Settings button on the top-right corner of the Alert Management page.





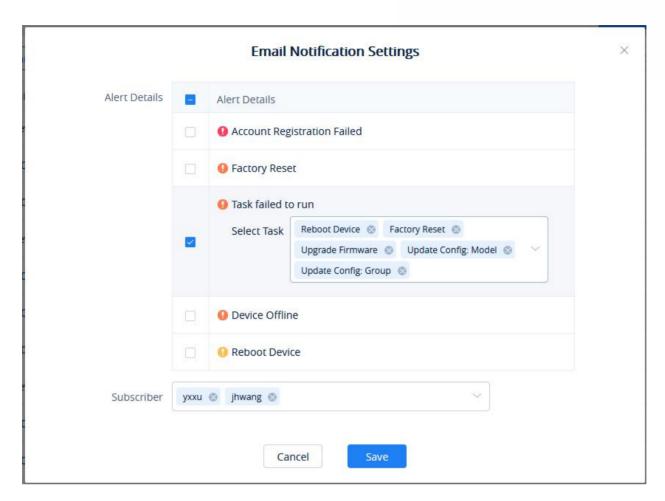
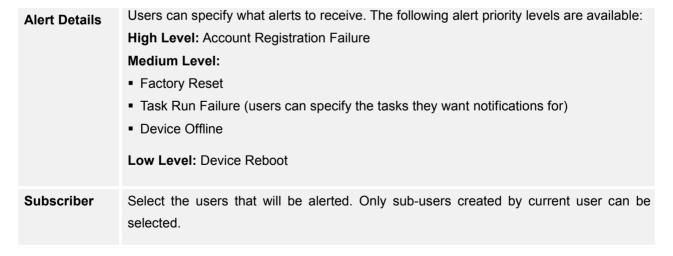


Figure 92: Email Notification Settings

Table 26: Email Notification Settings



Note:

If a scheduled task fails to run, the alert notification will be sent only to the task creator.





2. When the subscriber receives the alarm notification, the GDMS platform will send an email to inform the subscriber. In order to avoid the alarm notification emails disturbing the subscriber, the GDSM platform only can send one alarm notification email to the subscriber's email box per hour.

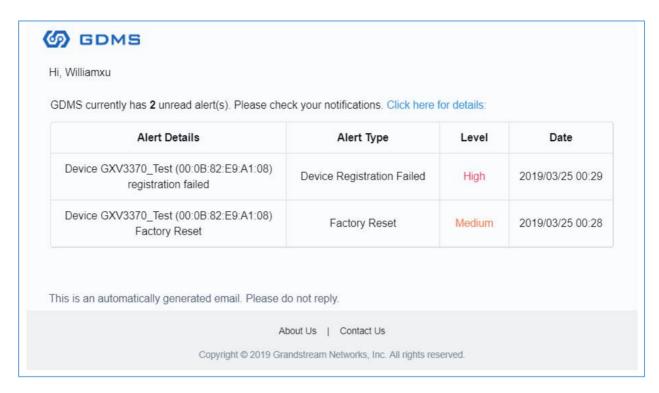


Figure 93: Email Alert Notification

View Alert Notification

The **Alert Management** page shows all alerts that have been generated by GDMS.

Note:

Users can be limited by their privileges on the alerts they can view on the **Alert Management** page. Please refer to the **User Management** section for more details.





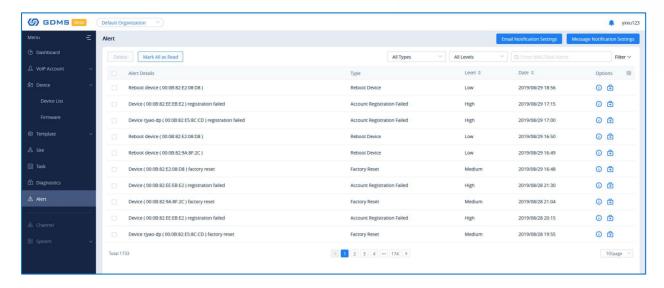


Figure 94: View Alert Notification

- Search: Users can find specific alerts by using the filter and search features in the top right corner of the Alert Management page.
- Latest alarm notification: If the alarm notification includes a red dot at the beginning of the item, it
 means the alarm notification is an unread notification. Users could click on the button
 Mark All as Read

to mark all unread notifications as "Read".

- View Details: Users could click on the button
 following the alert notification to view the alert notification details, and the red dot will disappear if the user has viewed the alert notification details.
- Device Diagnostics: For the device which has a fault, the user could click on the option to access the Device Diagnostics page to diagnose the device.
- Delete Alerts: Users can delete notifications by selecting one or more items and clicking on the
 Delete button.





CHANNEL MANAGEMENT

Channel customers and service providers can obtain a list of purchased devices from Grandstream ERP. This list will allow the channel customer or service provider to:

- 1. Quickly assign devices to sub-channel customers. These customers will then be able to log into GDMS to manage the devices.
- 2. Manage devices directly for customers.

Note:

Channel customers and service providers will need to contact Grandstream support to associate their GDMS account with an ERP account.

Sub-channel

Add Sub-channel

Users can add sub-channels' GDMS accounts at any time. Once added, the user can assign devices to the sub-channels. To properly add a sub-channel:

Obtain the bind address from sub-channels to add their GDMS accounts. This address can be found in the **Personal Information** page as shown in the image below:

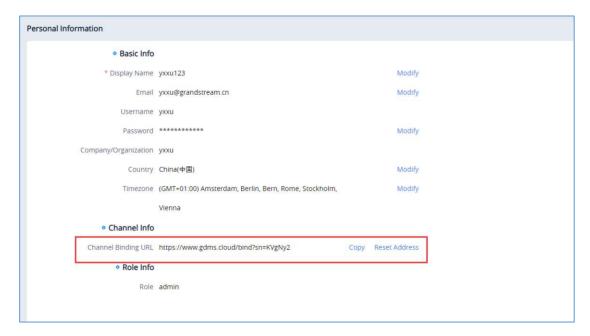


Figure 95: Add Sub-channel





1. On the **Channel Management** page, click on the **Add Sub-channel** button. The following window will appear:

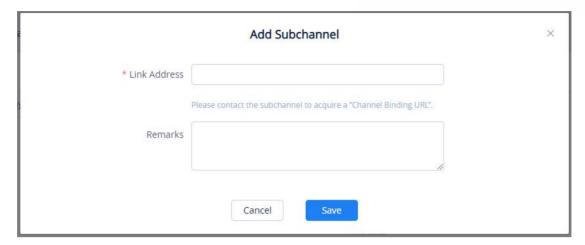


Figure 96: Link Address

- 2. Enter the provided bind address from the sub-channel into the Link Address field.
- 3. Add a description or comment for this sub-channel.
- 4. Click on the Save button to finalize changes.
- 5. Once the sub-channel is added, users can now assign devices to it via the Trace Devices tab.

Notes:

- Each user could be the subordinate channel customer for multiple GDMS users.
- Each user could be the superior channel distributor for multiple GDMS users.
- Users could only add subordinate channel customers which are in the same region (If the user is
 in the region of United State, the user could only add the enterprises in the United State region as
 the subordinate channel customers).

Edit Subordinate Channel Customer

After adding a sub-channel, users can only edit the **Remarks** field for it. To edit it, click on the button for the desired sub-channel.





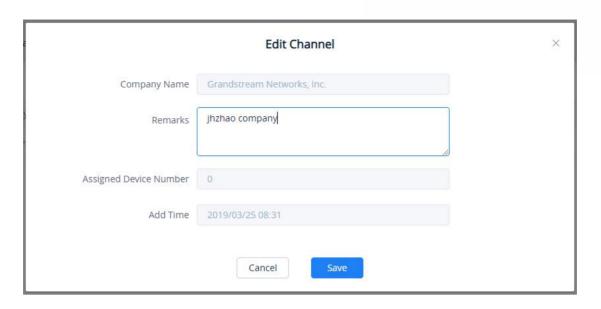


Figure 97: Add Remarks

Delete Subordinate Channel Customer

To remove sub-channels from GDMS, select the desired sub-channels and click on the **Disassociate** button. Devices can no longer be assigned to this sub-channel.



Figure 98: Disassociate Sub-channel

Track Device

View Device

To view all devices assigned to the account, click on the **Track Device** tab.





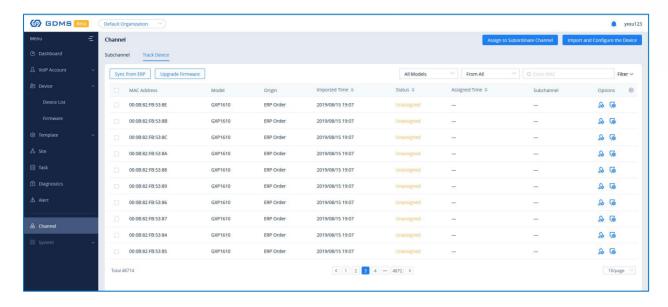


Figure 99: Track Device

Table 27: Track Device

MAC Address	The MAC address of the device.
Device Model	The model of the device.
Resource	Where the device originated from. Currently there are two values: 1. ERP Order – The device's data was synced from Grandstream ERP. 2. Main Channel – The device was added by the main channel.
Warehousing Time	The date/time the device was assigned to the account.
Status	Allocated: The device has been assigned to a sub-channel and cannot be assigned to other sub-channels. Unallocated: The device is not allocated to any sub-channel yet.
Outgoing Time	The date/time the device was assigned to a sub-channel. The company name of the sub-channel will also be displayed.

Users can search for specific devices by using the filter and search options in the top-right of the **Channel Management** page.

Note:





Users cannot directly upgrade the firmware or update the configuration file of the devices from this list. Please refer to **Configure Device** section.

Device Assignment Notification

When devices are assigned to an account, the icon will show a notification. Clicking on the notification will show the list of assigned devices.

Device Assignment

For the devices which have been sold to the subordinate channel customer, the user could allocate the devices to them. The subordinate channel customer could log in the GDMS platform to view and manage the devices.

The user could allocate a single device or allocate a batch of devices:

Assign a Single Device:

Click on the button for the desired device. The following window will appear:

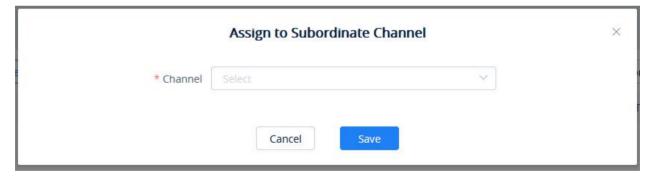


Figure 100: Assign Single Device to Subordinate Channel

2. Select the sub-channel to assign the device to.

Assign Multiple Devices:

- 1. Click on the Device Operation button at the top-right of the **Channel Management** page.
- 2. Click on **Assign to Subordinate Channel** on **Track Device** page. The user will be redirected to the batch device assignment page.





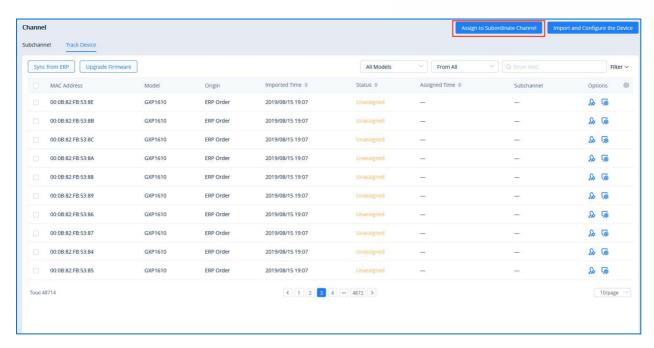


Figure 101: Device Operation Options

3. The user will be directed to the batch devices allocating page:

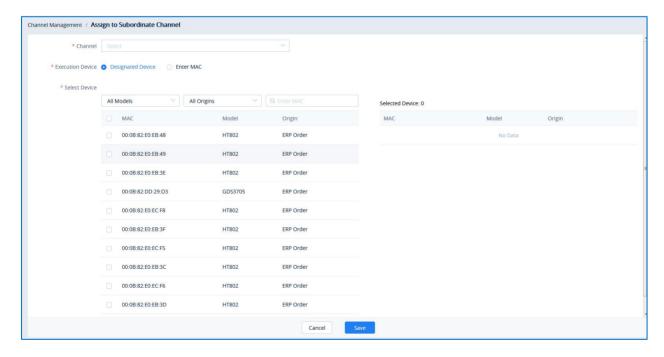
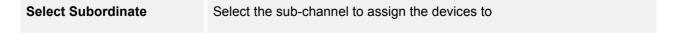


Figure 102: Assign Multiple Devices to Subordinate Channel

Table 28: Assign to Subordinate Channel







Channel Customer	
Device	Select the devices to assign to the sub-channel from the list or enter the MAC addresses of the devices.



Figure 103: Copy and Paste Multiple MAC Addresses

4. Click the **Save** button to finalize changes and the assignment. The sub-channel will then be notified of the device assignment.

Notes:

- 1. The device which has been allocated to a customer cannot be allocated to any customer else.
- 2. When the device is allocated, the user cannot acquire back the device. If the device is allocated to a customer incorrectly, the user could contact the subordinate channel customer to allocate the device back to the user.

Configure Device

To manage devices from the **Channel Management** device list, users must first import the devices to **GDMS Device Management**.

Import Single Device

1. Click on the button for the desired device. The following window will appear:







Figure 104: Import to Manage Device

2. Click on the "OK" button to finalize the import.

Upgrade Firmware

Users can select multiple devices in the Track Device page to upgrade.

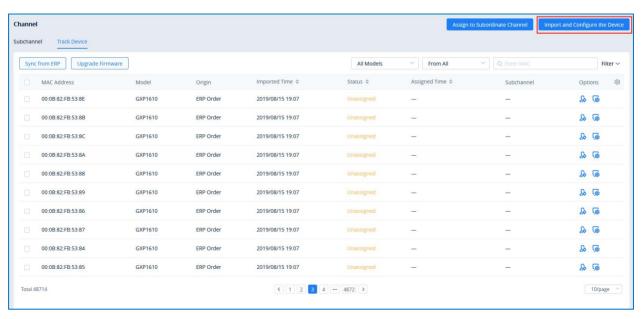
Note:

Only devices that have not been allocated or configured can be upgraded from this page.

Import Multiple Devices

 Click on the "Device Operation" button on the top of Track Device page and click on "Import and Configure the Device" option on the **Track Device** page to import a batch of devices to Device Management

m







odule on the GDMS platform. The following window will appear:

Figure 105: Device Operation

2. Click on the "Import and Configure the Device" page, the user could select the devices, or input the devices' MAC addresses to manage the devices. The user could also copy the MAC addresses from Excel file and paste the devices' information in "Enter MAC" field.

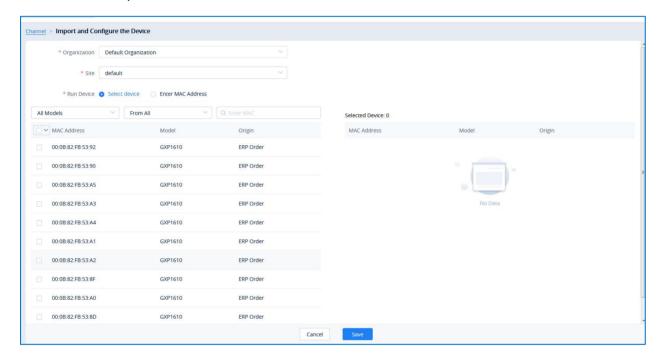


Figure 106: Import and Configure the Device

3. When users click to save the configuration, the devices can be managed in the Device Management module on the GDMS platform.

Note:

- 1. Each device can be assigned and imported to only one account.
- 2. To assign a device to another account, delete the device from the **Device Management** page.





USER MANAGEMENT

The **User Management** page allows users to view, add, and edit users and manage role privileges. By default, GDMS has one administrator, which has all available privileges. Roles are sets of privileges that admins can assign sub-users.

Add Role

To add a role with specific privileges, click on the **Add Role** button at the top right of the **User Management -> Role** page and enter the following information:

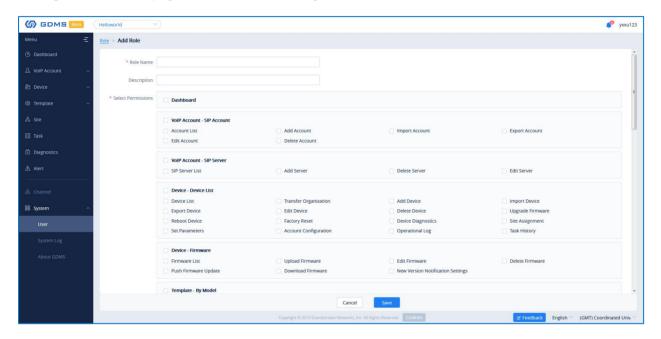


Figure 107: Add Role

Table 29: Add Role

Role Name	Users need to input the name of the role in this field.
Description	Users need to input the description of the role in this field.
Select Permissions	Users need to select the privileges of the role.

Note:

If a role does not have the privilege for a feature, GDSM portal will not show it.





Edit Role

To edit a role's name, description, and privileges, click on the button for the desired role.

Note:

Users cannot edit the roles of the default admin account.

Delete Role

To delete a role, click on the button for the desired role. If the role includes some sub-users accounts, the role cannot be deleted.

Add Sub-user

To add a sub-user to the GDMS account, click on the **Add Sub-user** button and enter the following information:

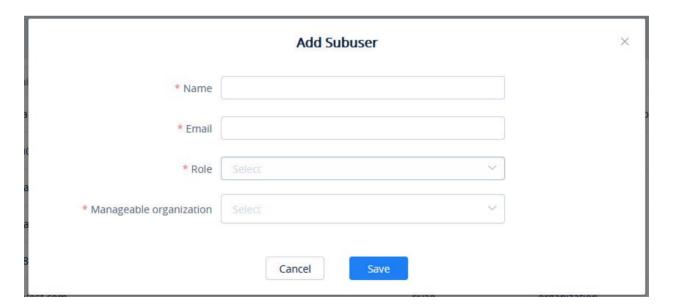
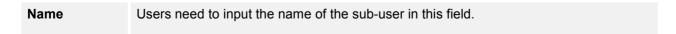


Figure 108: Add Sub-user

Table 30: Add Sub-user







Email Address	Users need to input the email address of the sub-user. The sub-user will use this to verify and activate this account, log into GDMS, and receive email notifications.
Role	Users need to select the role of the sub-user.
Manageable Organization	Assign the manageable organization to the user, and the administrator could select the manageable organizations from the existing organizations.

Upon creating the sub-user, an activation email will be sent to the configured email address. The sub-user must click on the provided link to activate the account.

Edit User

To edit a verified sub-user's role, click on the button for the desired sub-user and select the new role.

The sub-user's other information cannot be modified even by an administrator.

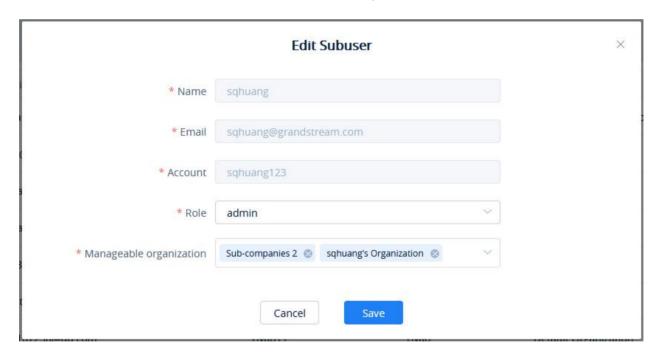


Figure 109: Edit Sub-user

For unverified sub-users, administrators can modify the name, email address, and role. Additionally, they can send an account activation email to the configured email address.



Figure 110: Edit Unverified Sub-user





Delete User

To delete user accounts, click on the button for the desired user. Deleted users cannot log into GDMS.





ORGANIZATION MANAGEMENT

If users want to manage devices in multiple subordinate organizations, users could create multiple organizations (such as customer enterprises, sub-companies), and assign the devices to multiple users to manage separately. The devices, SIP accounts, and other parameters are separated between different organizations. The data in a specific organization can only be viewed and managed by the administrator who has the permission.

All devices and data are in "Default" organization by default.

Multiple organizations and administrators:

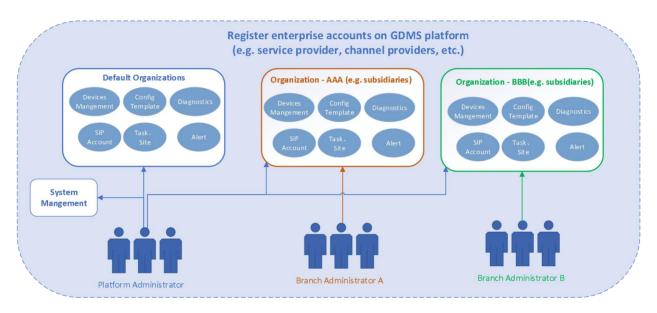


Figure 111: Multiple Organizations and Administrators

Switch Organization

If the user has permissions for multiple organizations, the user could switch to manage different organizations.

- 1. Click the drop-down box of the Organizations menu at the upper left corner of the page to select the organization the user wants to manage.
- 2. After switching the organization, the user only could view/edit the Device, SIP Account, Template, and other data under the organization.







Figure 112: Switch Organization

Note:

If the user only has one organization, the Switch Organization entry is not displayed.

Add Organization

The user could create an organization if the user has the permission.

- 1. On the menu at the right side of the page, select System management -> User Management, and select the "Organization" tab, click the "Add Organization" button at the upper right corner.
- 2. Fill in the information of the organization as shown in the following figure:

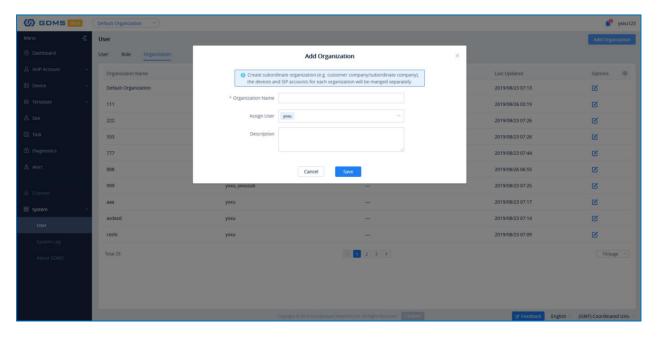


Figure 113: Add Organization





Table 31: Add Organization

Organization Name	Input the name of the organization.
Assign User	Select the users who will have the permission to manage the organization.
Description	Input the detailed descriptions of the organization.

- 3. Click Save button to save the organization in GDMS platform.
- 4. The system will switch to the new created organization by default, and the user could add devices to the new created organization for management.

Edit Organization

Users could edit the organization's information at any time.

- 1. On the menu at the right side of the page, select System management -> User Management, and select the "Organization" tab to view all organizations under the account.
- 2. Click on the button following the organization name to access to the editing page. The user could edit the organization name, the administrator of the organization, and descriptions, as the figure shows below:

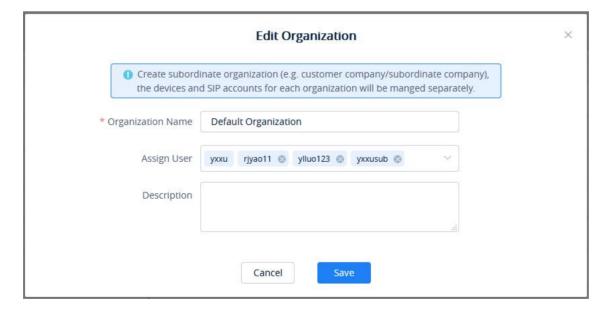


Figure 114: Edit Organization





Delete Organization

- 1. On the menu at the right side of the page, select System management → User Management, and select the "Organization" tab to view all organizations under the account.
- 2. Click on the Delete button following the organization name, the organization will be deleted completely after confirmation, including the SIP accounts, templates, tasks, diagnostics histories and other data under the organization.

Note:

If there are devices in the organization, the organization cannot be deleted. Please transfer the devices to other organizations before deleting the organization.





SYSTEM LOG

Users could view all operation logs of the system, including the login/logout logs of the user, adding new devices, deleting SIP accounts, deleting SIP accounts, firmware upgrading/downgrading logs, updating configuration files for devices, devices factory reset logs, devices diagnostics logs, creating model template logs, and etc.

On menu at the right side of the page, select System management -> System Log, and users could view all operation logs of the system. Users could also search the operation logs by level, operation contents, operators and time.

Note:

Users could only view the system logs for the last 30 days.

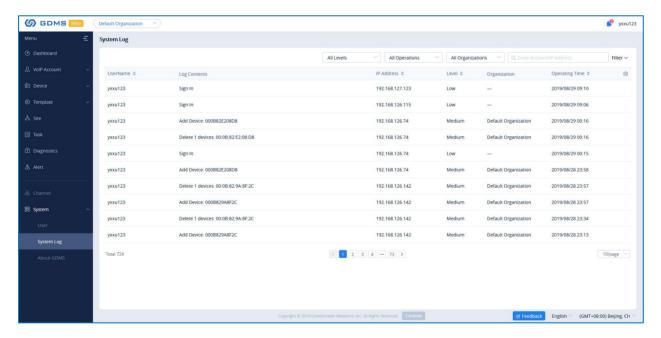


Figure 115: System Log

Personal Information

Users can view and edit their personal information on GDMS by clicking on their name in the top-right corner of the GDMS portal and clicking on **Personal Information**.







Figure 116: Personal Information

Table 32: Personal Information

Name	This option shows the display name for the account.
Email Address	This option shows the email address associated with the account. To modify this email address, the user will need to enter the current login password.
Login Name	This option shows the username for the account. This is used for logging into GDMS, and it cannot be modified.
Password	The login password is editable. The user needs to input the original login password to modify the current login password.
Company	This option shows the name of the user's company.
Country	This option shows the country of the user.
Time Zone	This option shows the time zone of the user.
Business Info	 Channel Binding URL. This can be provided to main channels for device assignment. Copy: Click to copy the link address to the clipboard Reset Address: Generate another address. The previous link will be invalid.
Role Info	This option shows the current role of the user.

Sign Out

Log out of the account by clicking on the username on the top-right corner of the GDMS portal and click **Sign Out**.





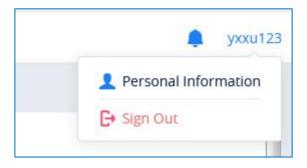


Figure 117: Sign Out





ABOUT GDMS

Users can view GDMS system information, supported device models, and firmware requirements for device models by clicking on **System Management** -> **About GDMS**.

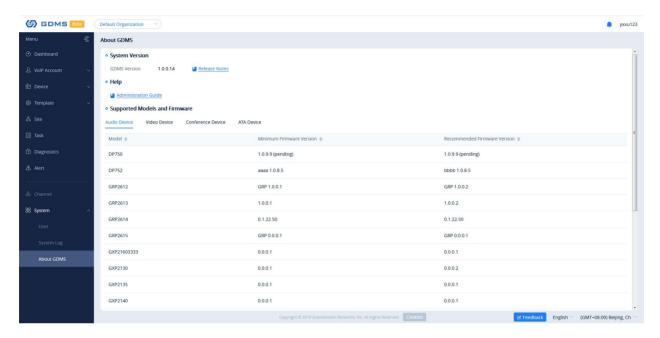


Figure 118: About GDMS





EXPERIENCING GDMS SYSTEM

Please visit our product website at http://www.grandstream.com for the latest release, features instructions, FAQs, latest documentations, and latest products information.

We encourage you to browse our <u>product related documentation</u>, <u>FAQs</u> and <u>User and Developer Forum</u> for answers to your general questions. If you have purchased our products through a Grandstream Certified Partner or Reseller, please contact them directly for immediate support.

Our technical support staff is trained and ready to answer all your questions. Contact a technical support member or <u>submit a trouble ticket online</u> to receive in-depth support.

Thank you again for using Grandstream GDMS system, it will be sure to bring convenience to both your business and personal life.

