

Grandstream Networks, Inc.

UCM6xxx Series - Conference Guide





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INTRODUCTION

The UCM6xxx support call conferencing which increase employee efficiency and productivity, and also provide more cost-effective way to hold business meetings. A variety of conference call features are offered by UCM6xxx including individual management of conference call activity, multiple conference rooms, conference bridge, and conference schedule.

The UCM6xxx supports conference bridge allowing multiple bridges used at the same time:

- UCM6xx2/6xx4 supports up to 3 conference bridges allowing up to 25 simultaneous PSTN or IP participants.
- UCM6xx8/6x16 supports up to 6 conference bridges allowing up to 32 simultaneous PSTN or IP participants
- The UCM6510 supports conference bridge allowing 64 participants with up to 8 bridges at the same time.

This document introduces the conference options, conference bridge configurations including joining, inviting, recording during conference and also including Google Calendar schedule.





CONFERENCE CONFIGURATION SETTINGS

The conference configuration settings are available under **Web GUI Call Features Conference** allowing users to create, edit, view, invite, manage the participants and delete conference bridges. The conference bridge status and conference call recordings (if recording is enabled) will be displayed under the same web page as well.

Create and Edit Conference Rooms

To create, edit or delete the conference rooms please refer to following steps:

- 1. Access the UCM6xxx Web GUI using the administrator username and password. (By default the username and password is: admin/admin).
- 2. Navigate to Call Features→Conference.
- 3. Click on "Create New Conference Room" to add a new conference bridge as displayed on figure 1 or click on to edit the conference bridge.

Note: Click on to delete the conference bridge.

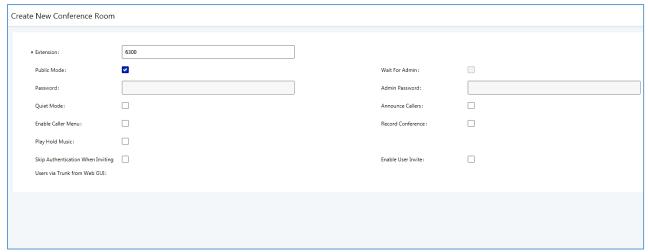


Figure 1: Creating New Conference Room

Please refer to following table describing the configuration options available for conference room feature.

Table 1: Conference Configuration Parameters

Extension	Configure the conference number for the users to dial into the conference.
	When configured, the users who would like to join the conference call must enter this password before accessing the conference bridge.
Password	 Note: If "Public Mode" is enabled, the password is not required to join the conference bridge thus this field is invalid. The password has to be at least 4 characters.





Admin Password	Configure the password to join the conference bridge as administrator. Conference administrator can manage the conference call via IVR (if "Enable Caller Menu" is enabled) as well as invite other parties to join the conference by dialing "0" (permission required from the invited party) or "1" (permission not required from the invited party) during the conference call. Note: If "Public Mode" is enabled, the password is not required to join the conference bridge thus this field is invalid. The password has to be at least 4 characters different from the conference room password.
Wait For Admin	If enabled, the participants will not hear each other until the conference administrator joins the conference. The default setting is "No". Note: If "Quiet Mode" is enabled, the voice prompt for "Wait For Admin" will not be announced.
Quiet Mode	If enabled, if there are users joining or leaving the conference, voice prompt or notification tone won't be played. The default setting is "No". Note: "Quiet Mode" and "Announce Callers" cannot be enabled at the same time.
Announce Callers	If enabled, the caller will be announced to all conference participants when there the caller joins the conference. The default setting is "No". Note: "Quiet Mode" and "Announce Callers" cannot be enabled at the same time.
Enable Caller Menu	If enabled, conference participant could press the * key to access the conference bridge menu. The default setting is "No".
Record Conference	If enabled, the calls in this conference bridge will be recorded automatically in a .wav format file. All the recording files will be displayed and can be downloaded in the conference web page. The default setting is "No".
Play Hold Music	If enabled, the UCM6200 will play Hold music when there is only one user in the conference. The default setting is "No".
Enable User Invite	If enabled, users could press 0 to invite other users (with the users' permission) or press 1 to invite other users (without the user's permission) to join the conference. The default setting is "No". Note: Conference administrator can always invite other users without enabling this option.
Public Mode	If enabled, no authentication will be required when joining the conference call. The default setting is "Yes".
Music On Hold	Select the music on hold class to be played in conference call. Music On Hold class can be set up under web UI->PBX->Internal Options->Music On Hold.
Skip Authentication When inviting User via Trunk from Web GUI	If enabled, the invitation from Web GUI for a conference bridge with password will skip the authentication for the invited users. The default setting is "No".





Configure Conference settings

Please refer to following steps in order to configure conference settings:

- 1. Access the UCM6xxx Web GUI using the administrator username and password. (By default the username and password is: admin/admin).
- Navigate to Call Features→Conference.
- 3. Click on "Conference settings".
- 4. Configure the DSP Talking/Silence Threshold and enable the talk detection if needed.

The following table describe the conference settings in details:

Table 2: Conference Settings

Enable Talk Detection	Enables/disables the talk detection, when enabled the AMI will send the corresponding event when a user starts or ends talking.
DSP Talking Threshold	Configures the time of sound above that the DSP has established as base line silence for a user before is considered to be talking. This value affects several operations and should not be changed unless the impact on call quality is fully understood. The default setting is 128. (Time in milliseconds)
DSP Silence Threshold	Configures the time of sound above that the DSP has established as base line silence for a user before is considered to be silent. This value affects several operations and should not be changed unless the impact on call quality is fully understood. The default setting is 2500. (Time in milliseconds)

Join A Conference Call

The UCM6xxx allows users to dial the conference bridge extension to join the conference. If the password is required, users need to enter the password to join the conference as a normal user, or enter the admin password to join the conference as administrator.

Invite Other Parties to Join Conference

When using the UCM6xxx conference bridge, there are two ways to invite other parties to join the conference.

Invite from Web GUI

Please refer to following steps in to invite participants to join the conference bridge:

- 1. Access the UCM6xxx Web GUI→Call Features→Conference.
- 2. Select the conference room to invite participant.





- 3. Click on the invite icon 4 for option "Invite a participant".
- 4. Enter the number of the party you would like to invite. Then click on "Add", a call will be sent to this number to join into the conference.

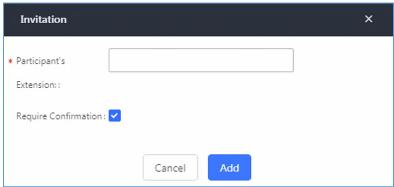


Figure 2: Conference Invitation From Web GUI

Invite by Dialing 0 or 1 During Conference Call.

During the conference calls, the conference administrator or a sample participant can invite other parties to join the conference already established by dialing **0** or **1** and following voice prompt to input the new participant's number, then the UCM will send a call to this number to join into the conference.

Notes:

- The 0 and 1 digits pressed allow to set the conference joining permission, if users press 0, once the
 invited party picks up the invitation call, a permission will be asked to "accept" or "reject" the invitation
 before joining the conference, if 1 is pressed to invite other party, no permission will be required from
 the invited party.
- Make sure that the option "Enable User Invite" is enabled for the conference bridge.

Manage The Conference Room

The following steps allow to manage conference rooms using the web GUI or IVR during a conference call.

Manage Conference Call from Web GUI

Access the UCM6xxx web GUI during the conference call, the participants in each conference bridge will be listed.

- 1. Click on $\frac{1}{2}$ to kick a participant from the conference.
- 2. Click on so to mute the participant.
- 3. Click on to lock this conference bridge so that other users cannot join it anymore.
- Click on to invite other users into the conference bridge.





Manage Conference Call from IVR

If "Enable Caller Menu" is enabled, conference participant can input * to enter the IVR menu for the conference. Please see options listed in the table below.

Table 3: Conference Caller IVR Menu

	Conference Administrator IVR Menu
1	Mute/unmute yourself.
2	Lock/unlock the conference bridge.
3	Kick the last joined user from the conference.
4	Decrease the volume of the conference call.
5	Decrease your volume.
6	Increase the volume of the conference call.
7	Increase your volume.
8	 More options. 1: List all users currently in the conference call. 2: Kick all non-Administrator participants from the conference call. 3: Mute/Unmute all non-Administrator participants from the conference call. 4: Record the conference call. 8: Exit the caller menu and return to the conference.
Conference User IVR Menu	
1	Mute/unmute yourself.
4	Decrease the volume of the conference call.
5	Decrease your volume.
6	Increase the volume of the conference call.
7	Increase your volume.
8	Exit the caller menu and return to the conference.

Note: The conference bridge configuration cannot be modified, when there is participant in the conference. The Administrator needs to enable the option "Enable Caller Menu" before inviting participants to join the conference bridge.

Record Conference

The UCM6xxx allows users to record the conference call and retrieve the recording from **web GUI→Call** Features→Conference.

To record the conference call, when the conference bridge is in idle, enable "Record Conference" from the conference bridge configuration settings. Save the setting and apply the change.





When the conference call starts, the call will be automatically recorded in .wav format. The recording files will be listed under "Conference Recording" as below once available. Users could click on to download the recording or click on to delete the recording. Users could also delete all recording files by clicking on "Delete All Recording Files", or delete multiple recording files at once by clicking on "Delete Selected Recording Files" after selecting the recording files.

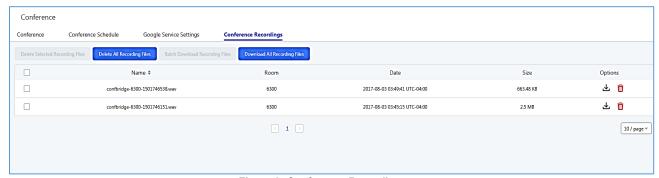


Figure 3: Conference Recording





CONFERENCE SCHEDULE

Conference Schedule Configuration

Create New Conference Schedule

Conference schedule Settings can be found under UCM6xxx web GUI→Call Features→Conference.

Users can create, edit, view and delete a Conference Schedule.

- Click on "Create New Conference Schedule" to add a new Conference Schedule and configure schedule settings.
- Or click on the scheduled conference to edit or delete the event.

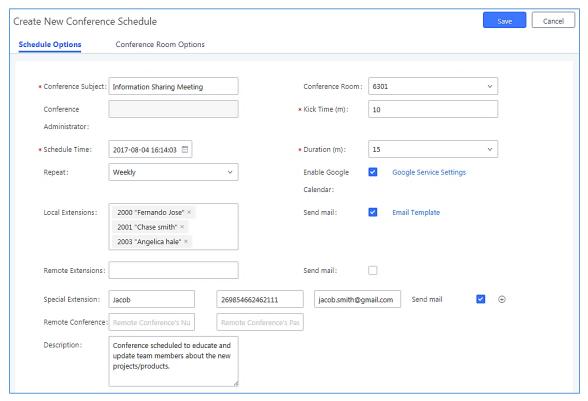


Figure 4: Conference Schedule Options

More advanced options such as configuring password, quiet mode, recording conference, announcing callers and others are available under "Conference Room Options" section.





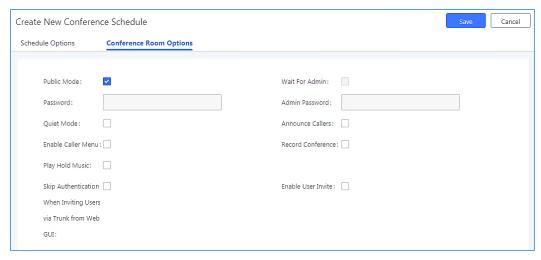


Figure 5: Create New Conference Schedule → Conference Room Options

The following table describes the conference schedule settings:

Table 4: Conference Schedule Parameters

	Table 4: Conference Schedule Parameters
Schedule Options	
Conference Subject	Configure the name of the scheduled conference. Letters, digits, $\underline{\ }$ and - are allowed.
Conference Room	Select a conference room for this scheduled conference.
Conference Administrator	Select the administrator of scheduled conference from selected extensions. Note: "Public Mode" must be disabled from Conference Room Options tab.
Schedule Time	Configure the beginning date and duration of scheduled conference. Note: Please pay attention to avoid time conflict on schedules in the same conference room.
Kick Time(m)	Set kick time before conference starts. When kick time is reached, a warning prompt will be played for all attendees in the conference room. After 5 minutes, this conference room will be cleared and locked for the scheduled conference to begin. Note: Kick Time cannot be less than 6 minutes in order to clear the conference room.
Duration(m)	Set the period required to finish the scheduled conference.
Local Extension	Select available extensions from the list to attend scheduled conference.
Remote Extension	Select available extensions from the remote peer PBX. Note: "LDAP Sync" must be enabled on the UCM6200 in order to view remote extensions here.
Special Extension	Add extensions that are not in the list (both local and remote list). If the user wishes to add the special extension, please match the pattern on the outbound route.
Remote Conference	Invite a remote conference by specifying the number and the password.
Description	The description of scheduled conference.





D	Describing and of subset to describe a sufficiency Describe West and the size of succession
Repeat	Repeat interval of scheduled conference. By default it's set to single event.
Enable Google Calendar	Select this option to sync scheduled conference with Google Calendar. Note: Google Service Setting OAuth2.0 must be configured on the UCM6xxx.
Conference Room Opt	ions
Public Mode	If this option is enabled, no authentication is required for entering the conference room. Note: Please be aware of the potential security risks when turning on this option.
Wait For Admin	If this option is enabled, the participants in the conference won't be able to hear each other until conference administrator joins the conference. Note: If "Quiet Mode" is enabled, voice prompt for this option won't be played.
Password	Configure conference room password. Please note that if "Public Mode" is enabled, this option is automatically disabled.
Admin Password	Configure the password to join as conference administrator. Please note that if "Public Mode" is enabled, this option is automatically disabled.
Quiet Mode	If this option is enabled, the notification tone or voice prompt for joining or leaving the conference won't be played. Note: Option "Quiet Mode" and option "Announce Caller" cannot be enabled at the same time.
Announce Callers	If this option is enabled, when a participant joins the conference room, participant's name will be announced to all members in the conference room. Note: Option "Quiet Mode" and option "Announce Caller" cannot be enabled at the same time.
Enable Caller Menu	If this option is enabled, conference participants will be able to access conference bridge menu by pressing the * key.
Record Conference	If this option is enabled, conference call will be recorded in .wav format. The recorded file can be found from Conference page.
Enable User Invite	 If this option is enabled, the user can: Press '0' to invite others to join the conference with invited party's permission Press '1' to invite without invited party's permission Press '2' to create a multi-conference bridge to another conference room Press '3' to drop all current multi-conference bridges Note: Conference Administrator is always allowed to access this menu.
Play Hold Music	If this option is enabled, UCM6xxx will play Hold Music while there is only one participant in the conference room or the conference is not yet started.
Custom Music On Hold	Specifies the custom hold music played while there is only one participant in the conference room or the conference is not yet started.
Skip Authentication When Inviting Users via Trunk from Web GUI	If this option is enabled, the invitation from Web GUI via a trunk with password won't require authentication. Note: Please be aware of the potential security risks when turning on this option.





Cleaner Options

The cleaner options allow users to automatically clean up configured conference schedule, please refer to following table describing the cleaner parameters.

Cleaner Options	
Enable Conference Schedules Cleaner	If this option is enabled, conference schedules will be automatically cleaned as configured.
Conference Schedules Clean Time	Enter the clean time (in hours). The valid range is from 0 to 23.
Clean Interval	Enter the clean interval (in days). The valid range is from 1 to 30.

Synchronize Conference Schedule with Google Calendar

There are two ways to authorize the synchronization of the conference schedule with the google calendar of your account:

- OAuth2.0 Authentication
- Google Calendar Authorization

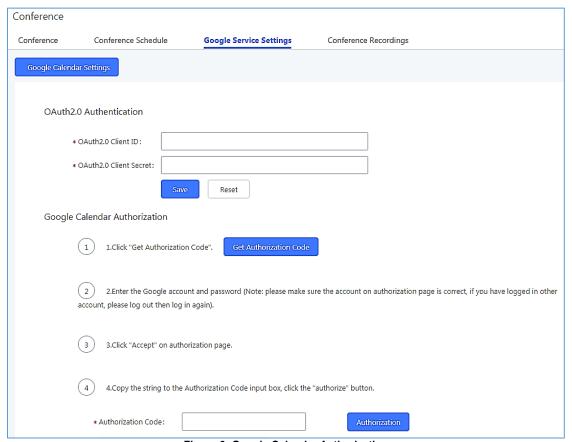


Figure 6: Google Calendar Authorization





OAuth2.0 Authentication

Please refer to following steps:

- 1. Go to the Google Developers Console (https://console.developers.google.com/project).
- 2. Select a project or create a new one.
- 3. In the sidebar on the left, expand APIs & auth. Next, click APIs.
- 4. Select the enabled APIs link in the API section to see all the enabled APIs. Make sure that "calendar API" is on the list of enabled APIs. If you have not enabled it, select API from the list of APIs, then select the enable API button for the API.
- 5. In the sidebar on the left, select "Credentials". Click "Create New Client ID".
- 6. Select the installed application type for your project and enter any additional information required. Click create Client ID.
- 7. Copy the "OAuth2.0 Client ID" and "OAuth2.0 Client Secret" to the UCM6xxx's web GUI under Call Features → Conference → Google Service Settings, and click "SAVE".

Google Calendar Authorization

Please refer to following steps:

- 1. Access the UCM6xxx web GUI → Call Features → Conference → Google Service Settings.
- 2. Click "Get Authorization Code" to obtain authentication code from Google Service.
- 3. Enter the Google account and password (Note: please make sure the account on authorization page is correct, if you have logged in other account, please log out then log in again).
- 4. Click "Accept" on authorization page.
- 5. Copy the strings returned by Google authentication server under "**Authorization code**" input field, and click the "**Authorization**" button.

Once the google account is authorized, it will be displayed under "**Authorized Account**" and it will be connected with Google Service.

Important: Users can also configure the Status update, which refresh automatically your Google Calendar with the configured time (m). (**Note**: "Zero" means disable).



Figure 7: Google Calendar Settings





MULTIPLE CONFERENCE BRIDGES

The UCM6xxx support multiple conference bridges between different conference (remote or local) rooms to essentially bridge two conference rooms together reducing bandwidth usage as displayed on the following diagram illustration a conference bridge between two UCMs in a peered scenario.



Please refer to following steps in order to invite a conference room to join the conference call:

- 1. Access the UCM6xxx Web GUI → Call Features → Conference.
- 2. Select the conference room to invite participants.
- 3. Click on the conference room invite icon for option "Invite Conference Room".
- 4. Enter the remote conference's number that you would like to invite and its appropriated password.

 Note: Users can also invite a local conference room to join the conference call by adding its room number under "Remote Conference's Number" field.
- 5. Click on "Add", a call will be sent to this number to join into the conference.

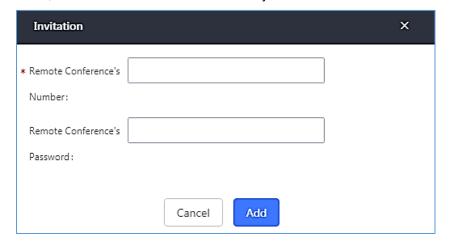


Figure 8: Remote Conference Room Invitation





Important notes:

For the peered trunks, users need to do the following on both UCM6xxx peered:

- 1. Enable Sync LDAP feature.
- 2. Configure the Sync LDAP Port and password.
- 3. Set the LDAP outbound rules under VoIP Trunk > Advanced settings.
- 4. Synchronize the LDAP by click on Sync LDAP under VolP Trunk Settings.
- 5. Configure the inbound routes and set the default destination to "By DID and check "Conference" on DID destination as displayed on following screenshot.

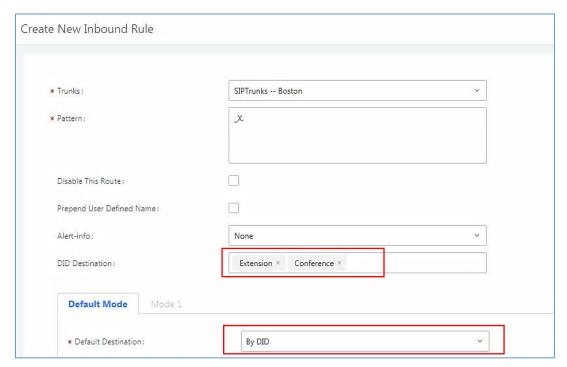


Figure 9: Inbound Route





CONFERENCE SCHEDULE EXAMPLE APPLICATION

This chapter illustrates an example of configuring conference schedule feature.

The sales director of the company "ABC" needs to organize a conference and invite different sales managers to discuss different topics. We will assume the following:

- 1. Sales director needs to have a conference room available on the extension number **6300** which will allow him to invite manually **Sales Team** members to discuss different topics.
- Every Monday at 9 AM, the sales director will organize with sales team a conference to discuss different topics and assign new tasks, the conference room used to host this weekly meeting is 6301.
- We will assume in this example that the UCM6xxx is already synchronized with Google Calendar services.
- Configuring Conference room 6300

Please refer to following steps in order to configure the conference room 6300:

- 1. Access the Web GUI of the UCM6xxx using the administrator username and password (By default the admin username/password is: admin/admin).
- 2. Navigate to Call Feature → Conference.
- 3. Click on "Create New Conference Room".
- 4. Set the extension number to "6300.
- 5. Press Save button to save the new conference room.

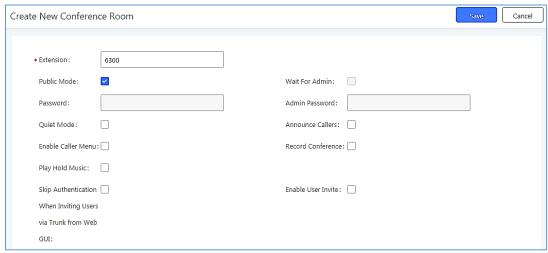


Figure 10: Creating Conference Room 6300

Once creating the conference room 6300, the sales director can initiate the conference by dialing 6300 and inviting other participant. Please see steps bellow:

- 6. Click on the invite icon 👫 for option "Invite a participant".
- 7. Enter the number of the party you would like to invite. Then click on "Add", a call will be sent to this number to join into the conference.





Note:

- Inviting other participant is also available by dialing **0** or **1** and following voice prompt to input the new participant's number, then the UCM will send a call to this number to join into the conference.
- Users may disable "Pubic mode" for authentication while joining the conference, if this mode is disabled, password options should be configured.
- Enabling "Record Conference" permits to record the conference calls and retrieve them under conference recording.

Configuring conference room 6301

The conference room 6301 is programmed to host the weekly meeting planned with Google calendar, on the following steps we will create a new conference schedule and update the Google calendar.

- 1. Access the Web GUI of the UCM6xxx using the administrator username and password. (By default the admin username/password is: admin/admin)
- 2. Navigate to Call Feature → Conference.
- 3. Click on "Create New Conference Room".
- Set the extension number to "6301".
- Press Save button to save the new conference room.
- 6. Access to Call Feature → Conference schedule.
- 7. Click on "Create New Conference Schedule".
- 8. Set the "Conference topic" and select the "Conference room".
- 9. Configure the "kick time" and set the "Description".
- 10. Since this meeting is planned for each week, configure "Repeat" to weekly.
- 11. Enable **Google Calendar** and select the extensions of the participants to join.
- 12. Press Save button and click on "Update Google Calendar "to update the Google calendar.
- 13. Press **Apply Changes** button to save and apply the new settings on the UCM6xxx.





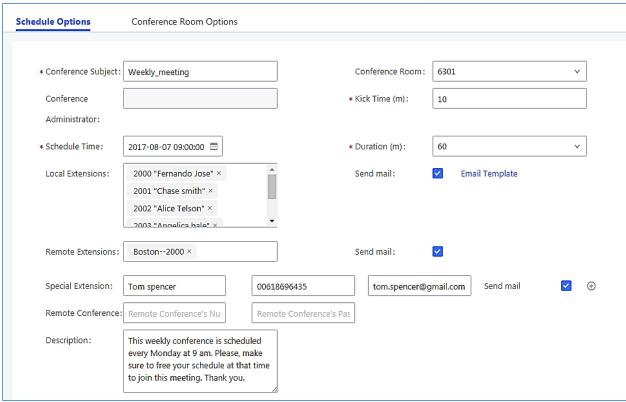


Figure 11: Conference Schedule

Note:

- The conference can also invite remote extensions available when the main UCM6xxx is peered with other UCMs or a special extension.
- The Google Calendar is updated also on your Google Account with the new parameters of the conference schedule.

