

Grandstream Networks, Inc.

UCM6xxx Series - Conference Guide





Table of Content

INTRODUCTION	4
CONFERENCE CONFIGURATION SETTINGS	5
Create and Edit Conference Rooms	5
Configure Conference settings	5
Join A Conference Call	7
Invite Other Parties to Join Conference	7
Invite from Web GUI	7
Invite by Dialing 0 or 1 During Conference Call	8
Manage the Conference Room	8
Manage Conference Call from Web GUI	8
Manage Conference Call from IVR	9
Record Conference	10
CONFERENCE SCHEDULE	11
Conference Schedule Configuration	11
Create New Conference Schedule	11
Cleaner Options	13
Show/hide Conference Schedule Table	13
Contact Group	14
Contact Group Configurations	15
Conference Recordings	15
Conference Call Statistics	16
Synchronize Conference Schedule with Google Calendar	17
OAuth2.0 Authentication	18
Google Calendar Authorization	18
MULTIPLE CONFERENCE BRIDGES	19
CONFERENCE SCHEDULE EXAMPLE APPLICATION	21





Table of Figures

Figure 1: Creating New Conference Room	5
Figure 2: Conference Invitation From Web GUI	8
Figure 3: Conference Recording	10
Figure 4: Conference Schedule Options	11
Figure 5: Create New Conference Schedule → Conference Room Options	11
Figure 145: Conference Schedule	14
Figure 146: Contact Group Parameters	15
Figure 147: Conference Recording	16
Figure 148: Conference Call Statistics	16
Figure 149: Conference Report on Web	16
Figure 150: Conference Report on CSV	17
Figure 6: Google Calendar Authorization	17
Figure 7: Google Calendar Settings	18
Figure 8: Remote Conference Room Invitation	19
Figure 9: Inbound Route	20
Figure 10: Creating Conference Room 6300	
Figure 11: Conference Schedule	23
Table of Tables	
Table of Tables	
Table 1: Conference Configuration Parameters	5
Table 2: Conference Settings	7
Table 3: Conference Caller IVR Menu	9
Table 4: Conference Schedule Parameters	12
Table 74: Contact Group Parameters	15





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 UCM6200 supports conference room allowing multiple rooms used at the same time:

- UCM6202/6204 supports up to 3 conference rooms allowing up to 25 simultaneous PSTN or IP participants.
- UCM6208 supports up to 6 conference rooms allowing up to 32 simultaneous PSTN or IP participants.
- The UCM6510 supports Conference rooms allowing 64 participants with up to 8 bridged rooms at the same time.

This document introduces the conference options, conference 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).
- Navigate to Call Features→Conference.
- 3. Click on + Add 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.

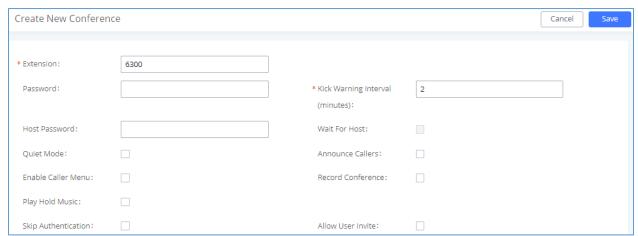


Figure 1: Creating New Conference Room

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

Table 1: Conference Configuration Parameters

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:

Extension	Configure the conference number for the users to dial into the conference. Note: Up to 64 characters.
	When configured, the users who would like to join the conference call must enter this password before accessing the conference room.
Password	 Notes: The password must be at least 4 characters. Conference extension number can no longer be used as the conference password if Strong Password is enabled.
Admin Password	Configure the password to join the conference room 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.
	 Notes: Password must be at least 4 characters and different than conference extension number.
Enable Caller Menu	If enabled, conference participant could press the * key to access the conference room menu. The default setting is "No".
Record Conference	If enabled, the calls in this conference room 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".
Quiet Mode	If enabled, if there are users joining or leaving the conference, voice prompt or notification tone will not be played. The default setting is "No". Note: "Quiet Mode" and "Announce Callers" cannot be enabled at the same time.
Kick Warning Interval (minutes)	If there is only one participant in a conference room, a kick warning prompt will play at the configured interval. If no input from the participant is received after the prompt, he will be automatically kicked out of the conference. The valid range is 1-60 minutes.
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.
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.





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". Notes: "Quiet Mode" and "Announce Callers" cannot be enabled at the same time. Conference participant names will be announced when joining/leaving the
Play Hold Music	conference even when the conference is on hold. If enabled, the UCM6200 will play Hold music when there is only one user in the conference. The default setting is "No".
Customer 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 GUI→PBX Settings→Music On Hold.
Skip Authentication	If enabled, the invitation from Web GUI for a conference room with password will skip the authentication for the invited users. The default setting is "No".

Table 2: Conference Settings

Enable Neteq	If enabled, conference audio quality may improve, but system performance will be lowered.
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.

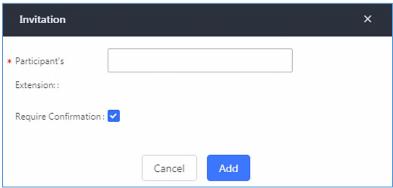


Figure 2: Conference Invitation From Web GUI

Invite by Dialing 0 or 1 During Conference Call.

A conference participant can invite other parties to the conference by dialing from the phone during the conference call. Please make sure option "Enable User Invite" is turned on for the conference room first. Enter 0 or 1 during the conference call. Follow the voice prompt to input the number of the party you would like to invite. A call will be sent to this number to join it into the conference.

0: If 0 is entered to invite other party, once the invited party picks up the invitation call, a permission will be asked to "accept" or "reject" the invitation before joining the conference.

1: If 1 is entered to invite other party, no permission will be required from the invited party.



Conference administrator can always invite other parties from the phone during the call by entering 0 or 1. To join a conference room as administrator, enter the admin password when joining the conference. A conference room can have multiple administrators.

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 \$\int \text{to kick a participant from the conference.}\$





- 2. Click on ute the participant.
- 3. Click on to lock this conference bridge so that other users cannot join it anymore.
- 4. Click on 4 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

Table 5. Conterence Caller TVR 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.

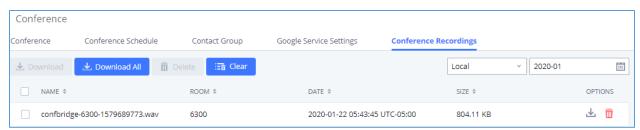


Figure 3: Conference Recording





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 + Add to add a new Conference Schedule and configure schedule settings.
- Or click on the scheduled conference to edit or delete the event.

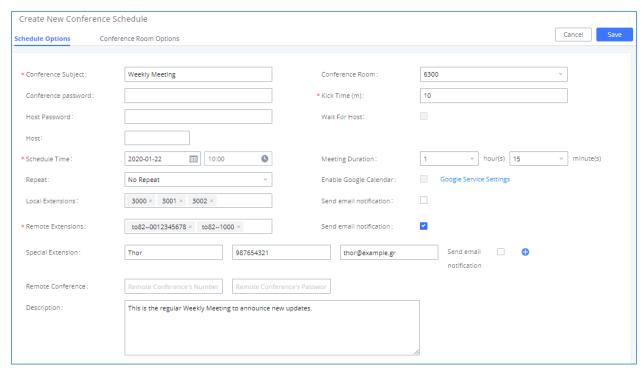


Figure 4: Conference Schedule Options

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

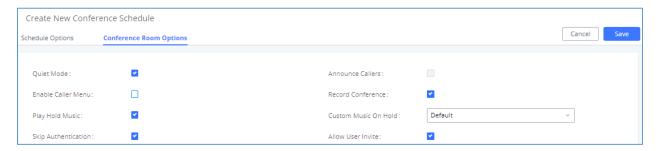


Figure 5: Create New Conference Schedule → Conference Room Options

The following table describes the conference schedule settings:





Table 4: Conference Schedule Parameters

Schedule Options	Table 4: Conference Schedule Parameters
Ochedule Options	Configure the name of the scheduled conference Letters digital and
Conference Subject	Configure the name of the scheduled conference. Letters, digits, _ and - are allowed.
Conference Room	Select a conference room for this scheduled conference.
Conference Password	Conference login password.
Host Password	Host Password.
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.
Wait for Host	If enabled, conference participants will not hear each other until the host joins the conference. Note: If Quiet Mode is enabled, the voice prompt for this option will not be played.
Host	Select the extension of the conference's host.
Description	The description of scheduled conference.
Repeat	Repeat interval of scheduled conference. By default, set to single event.
	Configure the beginning date and duration of scheduled conference.
Schedule Time	Note: Please pay attention to avoid time conflict on schedules in the same conference room.
Meeting Duration	Duration of the conference meeting. Note: The maximum allowed meeting duration that can be set is 8 hour(s).
Enable Google Calendar	Select this option to synchronize scheduled conference with Google Calendar. Note: Google Service Setting OAuth2.0 must be configured on the UCM6xxx. Please refer to section [Synchronize Conference Schedule with Google Calendar].
Send email notification	Sends Email notification to the extension.
Local Extension	Select available extensions from the list to attend scheduled conference.
Local Extension	Select available extensions from the remote peer PBX.
Remote Extension	Note: "LDAP Sync" must be enabled on the UCM6510 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.
Conference Room Options	
Enable Caller Menu	If this option is enabled, conference participants will be able to access conference room 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.
Quiet Mode	If this option is enabled, the notification tone or voice prompt for joining or leaving the conference will not be played. Note: Option "Quiet Mode" and option "Announce Caller" cannot be enabled at the same time.





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 room to another conference room Press '3' to drop all current multi-conference rooms
Announce Callers	Note: Conference Administrator is always allowed to access this menu. 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.
Play Hold Music	If this option is enabled, UCM6510 will play Hold Music while there is only one participant in the conference room or the conference is not yet started.
Skip Authentication	If this option is enabled, the invitation from Web GUI via a trunk with password will not 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.

Show/hide Conference Schedule Table

Enable this option will allow Web GUI to display scheduled conference in Conference Schedule Table. Please see figure below.





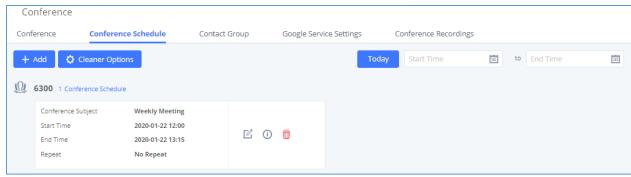


Figure 6: Conference Schedule

Once the conference room is scheduled, at the kick time, all users will be removed from conference room and no extension is allowed to join the conference room anymore. At the scheduled conference time, UCM6510 will send INVITE to the extensions that have been selected for conference.

⚠ Note:

- Please make sure that outbound route is properly configured for remote extensions to join the conference.
- Once Kick Time is reached, Conference Schedule is locked and cannot be modified.

Contact Group

Users can quickly invite multiple participants at once to a conference via conference contact groups. Up to 5 contact groups can be created. The maximum allowed number of contacts per group is based on the UCM model's conference participant limit: 25 for 6202/6204, 32 for 6208, 64 for 6510.

Each contact group must have a password configured, which will be required when inviting the specified contact group to a conference. Additionally, an audio file can be uploaded to each group to be used to announce the contact group name such as "Sales" or "Marketing". The default announcement for each group is "Conference Contact Group 1", "Conference Contact Group 2", etc.





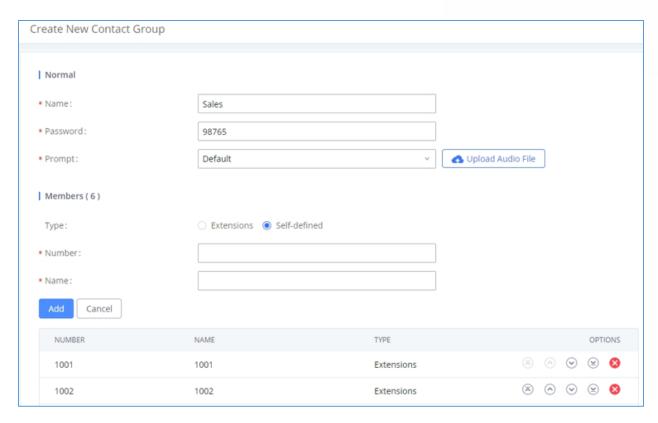


Figure 7: Contact Group Parameters

Contact Group Configurations

- Click on "Create New Contact Group" to add a new Contact Group.
- Click on to edit the Contact Group.
- Click on to delete the Contact Group.

Table 5: Contact Group Parameters

Name	Name associated to the contact group.
Password	Password required to invite the specified contact group to a conference.
Prompt	Audio file that can be uploaded to the group to announce the contact group name such as "Sales" or "Marketing". The default announcement for each group is "Conference Contact Group 1", "Conference Contact Group 2", etc.
Members	Contacts that needs to be added in each group.
Туре	Type of the members to be added, it can be either Extensions or a self-defined number .

Conference Recordings

The UCM6510 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 room is in idle, enable "Record Conference" from the conference room configuration dialog. 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 as below once available. Users could click on download the recording or click on to delete the recording.

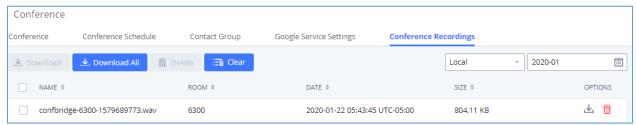


Figure 8: Conference Recording

Conference Call Statistics

Conference reports will now be generated after every conference. These reports can be exported to a .CSV file for offline viewing. The conference report page can be accessed by clicking on the Call Statistics button on the main Conference page.

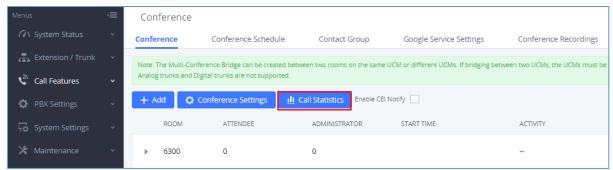


Figure 9: Conference Call Statistics

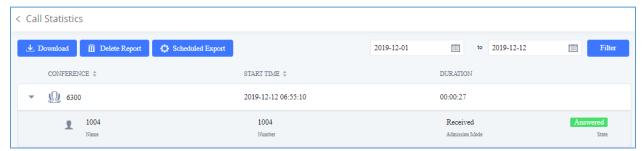


Figure 10: Conference Report on Web





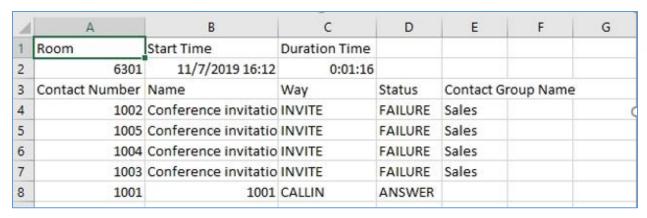


Figure 11: Conference Report on CSV

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

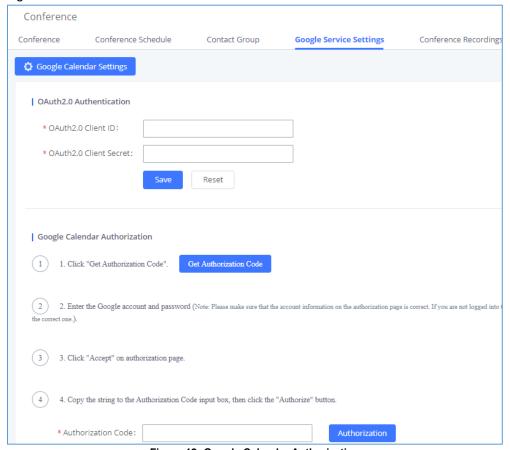


Figure 12: Google Calendar Authorization





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.
- 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).

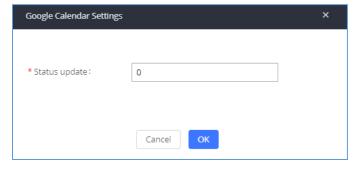


Figure 13: Google Calendar Settings





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.

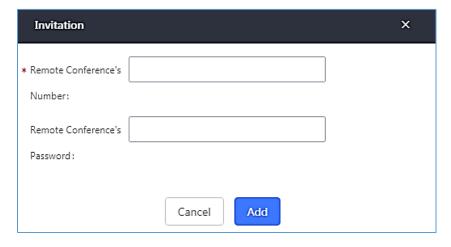


Figure 14: Remote Conference Room Invitation





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 VoIP Trunk Settings.
- 5. Configure the inbound routes and set the default destination to "Conference Rooms" and select the conference room number.

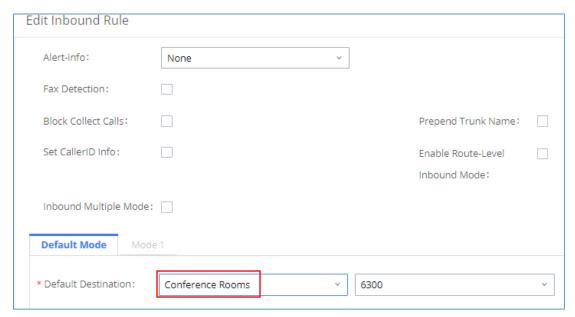


Figure 15: Inbound Route





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.
- 2. 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).
- 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.

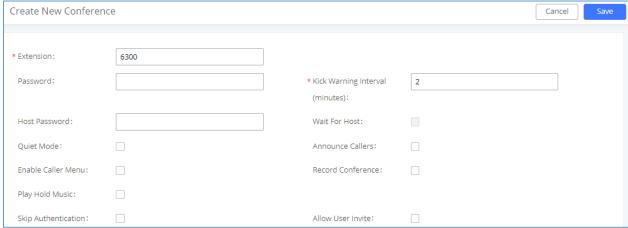


Figure 16: Creating Conference Room 6300

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 4 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.
- 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.
- Click on "Add" to create a new Conference Room.
- 4. Set the extension number to "6301".
- 5. Press Save button to save the new conference room.
- Access to Call Feature → Conference schedule.
- 7. Click on "Add" to create a new Conference Schedule.
- 8. Set the "Conference Subject" 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.





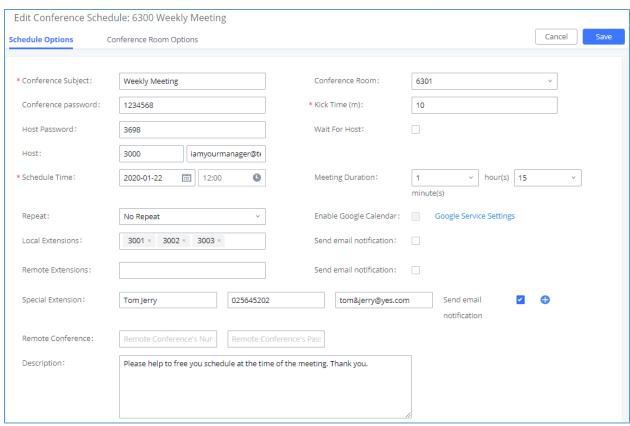


Figure 17: Conference Schedule

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.

