

UCM Series IP PBX Firmware Release Notes

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FIRMWARE VERSION 1.0.20.38

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

Official: 4/15/2021

Beta: 3/26/2021

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin

MD5: 9395debd48dac0a47221b75fc5ced07b

- UCM6510 firmware file name: ucm6500fw.bin


















































MD5: 67302e1dba701bfc9beae758a54385d7

IMPORTANT UPGRADING NOTE

- ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- If downgrading from firmware version 1.0.20.34+ to 1.0.20.23 or lower, users must factory reset the UCM and restore a backup created on the corresponding lower version to minimize potential issues from the downgrade. Please note that restoring a backup created on 1.0.20.34+ to a UCM on 1.0.20.23 or lower may cause abnormal system behavior.**
- For UCM6xxx on firmware earlier than 1.0.20.x, please upgrade to 1.0.19.29 first, then upgrade to 1.0.20.x. To upgrade to 1.0.19.29, please check 1.0.19.29 release note “Important Upgrading Note” section and follow the instructions.**
- It is recommended to upgrade UCM to latest firmware for product lifespan and security improvements.**
- Firmware download links below:**
 - UCM62xx:** http://firmware.grandstream.com/Release_UCM62xx_1.0.20.38.zip
 - UCM6510:** http://firmware.grandstream.com/Release_UCM6510_1.0.20.38.zip

PREVIOUS FIRMWARE VERSIONS

FW Version	UCM6100 Series	UCM6200 Series	UCM6510

1.0.20.23		 	 
1.0.19.29		 	 
1.0.18.17	 		
1.0.18.13	 	 	 
1.0.17.16	 	 	 
1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.20.34

ENHANCEMENTS

- **[Recording]** Added *Enable Record Feature Code* option to queue settings. If enabled, users will be able to turn on and off call recording when *Auto Record* is enabled for the queue.
- **[SIP Settings]** Added support for SIP Content-Type:application/scaip+xml
- **[SIP Settings]** Added support for FQDN and IP address format in the *Realm for Digest Authentication* field.

BUG FIXES

- **[System]**
 - Fixed several crashing issues.

FIRMWARE VERSION 1.0.20.34

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

1/7/2021

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin









MD5: 2272a60b3da94428578f02e5a2baad46
- UCM6510 firmware file name: ucm6500fw.bin










































MD5: 4ddf23c27b817bdaabfd2d6a928adf79

IMPORTANT UPGRADING NOTE

- **ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- **After upgrading to 1.0.20.x, if you downgrade to 1.0.19.x and issues are encountered after downgrading, factory reset the UCM and restore the backup.**
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PREVIOUS FIRMWARE VERSIONS

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1.0.19.29		 	 

1.0.18.17	 		
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1.0.17.16	 	 	 
1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.20.31

ENHANCEMENTS

- **[Basic Calling]** Added the ability to restrict calls between extensions. [RESTRICTING EXT-TO-EXT CALLS]
- **[CDR]** Fuzzy search is now supported for filtering CDR. Users will no longer need to enter the exact numbers/extensions to see them in search results.
- **[Email Settings]** Added the option to select the transport method information displayed in extension information emails in the *System Settings* → *Email Settings* → *Email Template* → *Edit Extension Template* page. This will change the port in the server addresses and QR code links displayed in the emails based on what the UCM has configured for its UDP/TCP/TLS ports.
- **[Fax]** Added configuration options *User Information in Fax Header* and *Fax Header Information* to the *Call Features* → *Fax/T.38* → *Fax Settings* page. This will give users the option to send a special header in SIP fax messages.
- **[HTTP Server]** Improved compatibility for X.509 certificate formats.
- **[HTTPS API]** Added command to delete call recordings after downloading them. [HTTPS COMMAND UPDATE: CALL RECORDING]
- **[Interface Settings]** Added *DTMF Start Threshold* and *DTMF End Threshold* options to the *PBX Settings* → *Interface Settings* → *DAHDI Settings* page. If the UCM cannot detect DTMF tones from a provider, users can adjust these settings.

- **[Maintenance]** Added *External Disk Status* alert event for monitoring external storage connection status.
- **[Maintenance]** To reduce file size, UCM backups, which already contain an encrypted database of the UCM CDR, will no longer include CSV backups of the same CDR.
- **[Miscellaneous]** The language of column titles in exported CDR reports and statistics reports will now be based on the UCM's display language.
- **[Network Settings]** Users can now configure static defense rules to block traffic to the UCM HTTP port.
- **[PMS]** Added 3 more room statuses and corresponding prompts: *Room Cleared*, *Room Not Cleaned*, and *Room Closed*.
- **[PMS]** Updated Hmobile Mini Bar request. [HMOBILE MINI BAR REQUEST]
- **[Routing]** Added the *Ringback Tone* option. Users can now select a custom prompt to play as ringback tone for callers dialing in via the selected inbound route.
- **[SIP Settings]** The value configured in the *Server User Agent Value* field will now replace the whole User-Agent header value instead of just the "UCM6xxx" part.
- **[SIP Settings]** The "X-grandstream-transport=trunk" header will now only be in INVITE messages sent from audio conferences to bridge remote audio conferences instead of being in all INVITE messages through peer trunks.
- **[VoIP Trunks]** Added the ability to import/export a CSV file of the configured DODs for a specified trunk. This option is located on the *Extension/Trunk → VoIP Trunks → DOD* page.

BUG FIXES

- **[System]**
 - Fixed several crashing issues.
- **[Basic Calls]**
 - Fixed an issue with managing call redirection via endpoint settings through PRI.
- **[Email Settings]**
 - Fixed an issue with the email log not updating, causing the UCM to ignore voicemail to email settings such as deleting voicemail after emailing them.
 - Fixed an issue with attaching multiple QR codes to emails after modifying the *Extension* email HTML template.
 - Fixed an issue where the backspace key would not work when editing an email template in Internet Explorer 11 or Firefox.
- **[Fax]**
 - Fixed an issue with fax file PDF conversion.
- **[IVR]**
 - Fixed an issue with IVR prompt language changing after repeatedly dialing nonexistent extensions.
- **[Paging]**
 - Fixed an issue that caused users to not be able to set an earlier time than current time for recurring announcement pages.

- **[Queue]**
 - Fixed an issue where CDR would not display the correct talk time for queue calls that were redirected via attended transfer.
- **[QueueMetrics]**
 - Fixed an issue where queue calls that ring several agents at once would be logged as “abandoned” for agents that did not pick up the call, even if the call was picked up by an agent. These unanswered calls will now be marked as “unanswered” instead.
- **[Routing]**
 - Fixed an issue that caused users to be unable to call numbers starting with “9999”.
 - Fixed an issue with being unable to enter comments to the pattern field.
- **[SIP Settings]**
 - Fixed an issue where if *Enable Diversion Header* is toggled on, the diversion header would not be included in calls that were diverted to external numbers from UCM features:
 - Extension ring simultaneously
 - IVR
 - Ring Group
 - Queue
 - DISA
 - Dial by Name
 - Announcement
 - Fixed an issue where if a call from a peer trunk is directed to an extension that does not answer is not answered, the UCM would respond with a 603 message to the calling trunk instead of 480.
 - Fixed an issue where UCM responded to calls to ring groups with unavailable members with 200 OK instead of 486 Busy.
- **[Wave Web]**
 - Fixed an issue where users cannot test audio input/output settings after logging in for the first time.
- **[ZeroConfig]**
 - Fixed an issue with custom P-values disappearing after saving and re-editing a ZC template.

NEW FEATURES OVERVIEW

This section describes the major new features/changes introduced in the update and provides instructions for usage.

RESTRICTING EXT-TO-EXT CALLS

The **Restrict Calls** page has been added under **Call Features**. Clicking on the **Add** button will bring up the following page:

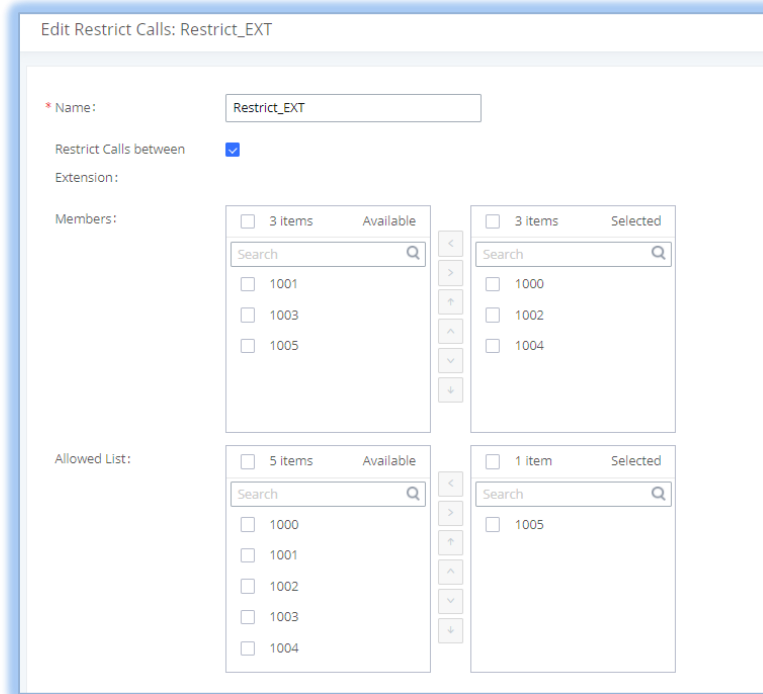


Figure 1 - Restricting Calls

- **Restrict Calls between Extensions:** Toggles the restriction rule on/off.
- **Members:** Selected extensions will not be able to call any extensions besides those in the *Allowed List*.
- **Allowed List:** The extensions configured in the *Members* list will only be able to call the extensions selected in this list.

HTTPS COMMAND UPDATE: CALL RECORDING

Users can now add the **“delete”:**“yes” command to download requests to delete call recordings after downloading them.

Example:

```
{
  "request":{
    "action":"recapi",
    "cookie":"sid1727093484-1600311595",
```

```
"delete": "yes",  
  
"filedir": "monitor",  
  
"filename": "filenames"  
  
}  
  
}
```

HMOBILE MINI BAR REQUEST

Hmobile Mini Bar requests can now be differentiated by the action parameter **<action>MB</action>**.

Example parameters and values:

credential.username : admin

credential.requesttime : 20200829163201

credential.password : 1F1608636B1808E3EA3ADBFE9CC72B7C (OK)

site : aa

address : 2006

action : MB

data :

<MB><room>2006</room><s_date>20200829</s_date><s_time>1632</s_time><maid>450</maid><minibar_code>11*12*14*13</minibar_code></MB>

KNOWN ISSUES

[System] Connecting to UCM via Wave Lite TLS can cause the system to crash.

FIRMWARE VERSION 1.0.20.31

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

10/21/2020

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin

MD5: 01629ab07e6825788dfa5ab669663083









- UCM6510 firmware file name: ucm6500fw.bin










































MD5: 3ec55fb4c24b294678b8ce944e28a5ae

IMPORTANT UPGRADING NOTE

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 - UCM6510:** http://firmware.grandstream.com/BETA/Release_UCM6510_1.0.20.31.zip

PREVIOUS FIRMWARE VERSIONS

FW Version	UCM6100 Series	UCM6200 Series	UCM6510
1.0.20.23		 	 
1.0.19.29		 	 

1.0.18.17	 		
1.0.18.13	 	 	 
1.0.17.16	 	 	 
1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.20.30

ENHANCEMENTS

- **[Maintenance]** Added more details to HA-related syslogs
- **[Maintenance]** To improve UCM flash storage lifespan, syslog will no longer be written to UCM internal storage if a syslog server is configured.

BUG FIXES

- **[System]**
 - Fixed several crashing issues.
 - Fixed a memory leak issue.
- **[SIP Settings]**
 - Fixed an issue with sending SIP NOTIFY to update BLF status.
 - Fixed an issue with sending SIP UPDATE even if the remote party does not support it.

FIRMWARE VERSION 1.0.20.30

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

07/17/2020

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin









MD5: 06aa3b206e62dfcb312127cb3fa2bce6
- UCM6510 firmware file name: ucm6500fw.bin










































MD5: 22b96513c131006c8d99c65358a29fcc

IMPORTANT UPGRADING NOTE

- **ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- **After upgrading to 1.0.20.x, if you downgrade to 1.0.19.x and issues are encountered after downgrading, factory reset the UCM and restore the backup.**
- **For UCM6xxx on 1.0.19.x, please upgrade to 1.0.20.x directly.**
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 - **UCM6510:** http://firmware.grandstream.com/BETA/Release_UCM6510_1.0.20.30.zip

PREVIOUS FIRMWARE VERSIONS

FW Version	UCM6100 Series	UCM6200 Series	UCM6510
1.0.20.23		 	 
1.0.19.29		 	 

1.0.18.17	 		
1.0.18.13	 	 	 
1.0.17.16	 	 	 
1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.20.28

ENHANCEMENTS

- **[SIP Settings]** To improve compatibility with non-Grandstream endpoints, the parameters *x-gs-call-type* and *x-gs-group-name* have been added to the ACK *From* header for calls originating from ring groups and queues.
- **[Time Settings]** Added GMT-4:00 (Atlantic Standard Time) and GMT+1:00 (Casablanca)

BUG FIXES

- **[System]**
 - Fixed several crashing issues.
 - Fixed an issue with system freezing when processing large numbers of simultaneous calls.
- **[Active Calls]**
 - Fixed an issue with calls persisting in the Active Calls page even after ending.
- **[Queue]**
 - Fixed an issue with downloading call queue statistics.
- **[Recording]**
 - Fixed an issue with call recording not being generated after an attended transfer.
- **[Ring Group]**

- Fixed an issue with transferring to an LDAP ring group member if Ring Strategy is set to Ring Simultaneously.
- **[Routing]**
 - Fixed an issue with forwarding incoming calls to external numbers if the outbound route used is set to National or International privilege.
 - Fixed an issue with route priority when Enable Filter on Source Caller ID is used.
- **[SIP Settings]**
 - Fixed an issue with the external host IP address not being used in the 183 session progress and 200 OK when "Use IP address in SDP" is enabled and the UCM receives more than one 183 session progress from SIP trunks.
- **[User Management]**
 - Fixed an issue with custom users being unable to modify certain pages even if they have the correct custom privileges.
- **[Voicemail]**
 - Fixed an issue with voicemail not being attached to email notifications.
- **[Zero Config]**
 - Fixed an issue with Zero Config templates showing numbers for parameter values instead of names after upgrading firmware.
 - Fixed an issue with Zero Config provisioning the wrong config server path when on Dual Mode.

NEW LIMITATIONS

- **[Ring Group]** Maximum number of ring groups increased to 100.

KNOWN ISSUES

- **[Active Calls]** Callee would be displayed incorrectly if a dynamic agent logs in or out.
- **[CDR]** CDR may be displayed abnormally after deleting filtered CDR.
- **[Grandstream Wave Web]** Rare instances of a meeting suddenly ending when someone exits and rejoins the meeting.
- **[Grandstream Wave Web]** Editing a scheduled meeting from the Grandstream Wave Web portal would fail sometimes.
- **[IAX]** Video calls through an IAX trunk will fail if the calling endpoint is a GXV3370.
- **[Routing]** The feature code to remove a blacklist number is not working properly.
- **[VoIP Trunks]** Inbound calls do not contain PAI header in the 183 reply.

FIRMWARE VERSION 1.0.20.28

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

05/08/2020

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin









MD5: c8cbc828ca99cf747e82aa1e76b24715
- UCM6510 firmware file name: ucm6500fw.bin










































MD5: 6bac67b59db7e75ee5eea4630acf5523

IMPORTANT UPGRADING NOTE

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1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.20.23

ENHANCEMENTS

- **[HTTPS API]** Added HTTPS API commands to list, add, remove, and update analog trunks, SLA trunks, and digital trunks. [NEW HTTPS API COMMANDS]
- **[HTTPS API]** Added HTTP/HTTPS protocol option for sending real-time CDR output. [HTTP/HTTPS SUPPORT FOR CDR REAL-TIME OUTPUT]
- **[Web]** The “Allow Guest Calls” option in the PBX Settings→SIP Settings page is now hidden and can only be configured via developer SSH access.

BUG FIXES

- **[System]** Fixed a crashing issue that occurs when jitter buffer is enabled and a call is made to a multicast paging group.
- **[Security]** Fixed several security vulnerabilities.
- **[CDR]** Fixed an issue with sending real-time CDR data.
- **[Extensions]** Fixed an issue that caused users to be unable to reset extensions to default settings.
- **[IAX Trunks]** Fixed an issue that caused video calls to fail when using an IAX trunk.
- **[Routing]** Fixed an issue that caused the Inbound Routes page to be unable to be saved if the first Time Condition was configured as Specific time.

- **[Routing]** Fixed an issue that caused calls to be routed to the incorrect Time Condition destination if several inbound modes have been configured.
- **[ZeroConfig]** Fixed an issue that caused Zero Config to be unable to find GRP endpoints via Auto Discover SIP messages when “Use Random Port” is enabled on the endpoints.

KNOWN ISSUES

- **[Analog Trunks]** If “Caller ID Scheme” is set to ETSI-DTMF, callback prompts will not play properly.
- **[Conference]** Cannot generate call statistics if there is an extension CID name containing single quotes.
- **[GS Wave Web]** An “Unplugged” error prompt will appear when attempting to change camera/microphone access.
- **[GS Wave Web]** Meeting participant list does not collapse automatically after a new conference participant enters.
- **[HTTPS API]** Unable to detect conflicting ports when using the addDigitalTrunk command.
- **[LDAP]** LDAP Sync fails when the originating trunk has slash (/) in its name.
- **[LDAP]** Incorrect trunk prefix is displayed after syncing.
- **[Recording]** The file names for SCA/Queue call recordings are generated incorrectly if “Set CallerID” is configured in the inbound routes that were used for the calls.
- **[Routing]** Time conditions for a route with Specific Time may not work properly when changing the inbound mode via feature code (e.g., *61xxx).
- **[Speed Dial]** Unable to display video conference extensions.
- **[System]** Cases of crashing when a video call is made to an extension with Follow-Me configured, and a Follow-Me destination has Ring Simultaneously configured. To avoid this, disable Video FEC on the calling endpoint.

NEW FEATURES OVERVIEW

This section describes the major new features/changes introduced in the update and provides instructions for usage.

NEW HTTPS API COMMANDS

The following commands have been added:

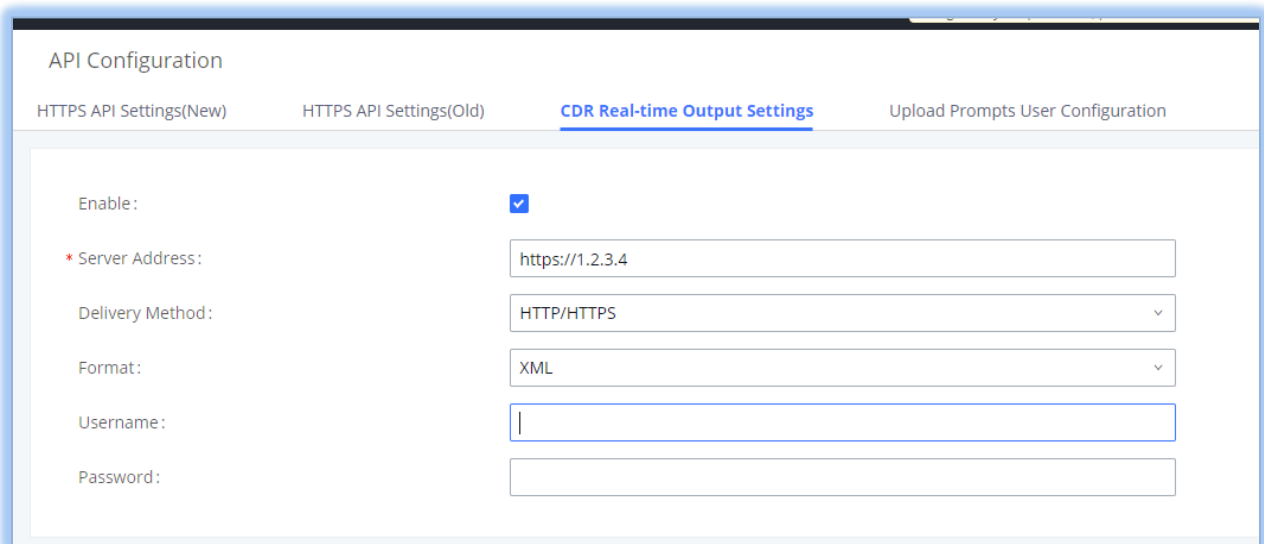
- listDigitalTrunk – lists all available digital trunks

- listAnalogTrunk – lists all available analog trunks
- getAnalogTrunk – retrieves the configuration of the specified analog trunk
- deleteAnalogTrunk – deletes the specified analog trunk
- updateAnalogTrunk – updates the specified analog trunk
- addAnalogTrunk – creates and configures a new analog trunk
- addSLATrunk – creates and configures a new SLA trunk
- updateSLATrunk – updates the specified SLA trunk
- addDigitalTrunk – creates and configures a new digital trunk
- updateDigitalTrunk – updates the specified digital trunk
- deletedigitalTrunk – deletes the specified digital trunk
- getDigitalTrunk – retrieves the configuration of the specified digital trunk

For more detailed information about these commands, please see the HTTPS API user manual on our website.

HTTP/HTTPS SUPPORT FOR CDR REAL-TIME OUTPUT

UCM now supports sending CDR real-time output data via HTTP/HTTPS in JSON and XML format.



The screenshot displays the 'API Configuration' interface with the 'CDR Real-time Output Settings' tab selected. The settings are as follows:

Setting	Value
Enable:	<input checked="" type="checkbox"/>
* Server Address:	<input type="text" value="https://1.2.3.4"/>
Delivery Method:	<input type="text" value="HTTP/HTTPS"/>
Format:	<input type="text" value="XML"/>
Username:	<input type="text"/>
Password:	<input type="text"/>

Figure 2 - CDR Real-Time Output HTTP/HTTPS Support

FIRMWARE VERSION 1.0.20.23

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

04/03/2020

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin









MD5: 4a5de1c159a2aa202aa07856fc291b68
- UCM6510 firmware file name: ucm6500fw.bin










































MD5: 52f25eed823a56b11bfd5d73fad7b565

IMPORTANT UPGRADING NOTE

- **ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- **After upgrading to 1.0.20.x, if you downgrade to 1.0.19.x and issues are encountered after downgrading, factory reset the UCM and restore the backup.**
- **For UCM6xxx on 1.0.19.x, please upgrade to 1.0.20.x directly.**
- **For UCM6xxx on firmware earlier than 1.0.20.x, please upgrade to 1.0.19.29 first, then upgrade to 1.0.20.x. To upgrade to 1.0.19.29, please check 1.0.19.29 release note “Important Upgrading Note” section and follow the instructions.**
- **It is recommended to upgrade UCM to latest firmware for product lifespan and security improvements.**
- **Firmware download links below:**
 - **UCM62xx:** http://firmware.grandstream.com/BETA/Release_UCM62xx_1.0.20.23.zip
 - **UCM6510:** http://firmware.grandstream.com/BETA/Release_UCM6510_1.0.20.23.zip

PREVIOUS FIRMWARE VERSIONS

FW Version	UCM6100 Series	UCM6200 Series	UCM6510
1.0.20.22		 	 
1.0.19.29		 	 

1.0.18.17	 		
1.0.18.13	 	 	 
1.0.17.16	 	 	 
1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.20.22

BUG FIXES

- [System] Fixed a crash caused by the pbxmid process when there are special characters '%' in the websocket.

FIRMWARE VERSION 1.0.20.22

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

3/28/2020



















FIRMWARE FILE INFORMATION




























- UCM6202/6204/6208 firmware file name: ucm6200fw.bin
MD5: 6eeea59adb7dba9db876c4d348166944
- UCM6510 firmware file name: ucm6500fw.bin
MD5: b66a0e8e866db613a9c4cae5908e453f

IMPORTANT UPGRADING NOTE

- **ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- **After upgrading to 1.0.20.x, if you downgrade to 1.0.19.x and issues are encountered after downgrading, factory reset the UCM and restore the backup.**
- For UCM6xxx on 1.0.19.x, please upgrade to 1.0.20.x directly.
- For UCM6xxx on firmware earlier than 1.0.20.x, please upgrade to 1.0.19.29 first, then upgrade to 1.0.20.x. To upgrade to 1.0.19.29, please check 1.0.19.29 release note “Important Upgrading Note” section and follow the instructions.
- It is recommended to upgrade UCM to latest firmware for product lifespan and security improvements.
- Firmware download links below:
 - **UCM62xx:** http://firmware.grandstream.com/Release_UCM62xx_1.0.20.22.zip
 - **UCM6510:** http://firmware.grandstream.com/Release_UCM6510_1.0.20.22.zip

PREVIOUS FIRMWARE VERSIONS

FW Version	UCM6100 Series	UCM6200 Series	UCM6510
1.0.19.29		 	 
1.0.18.17	 		
1.0.18.13	 	 	 
1.0.17.16	 	 	 

1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

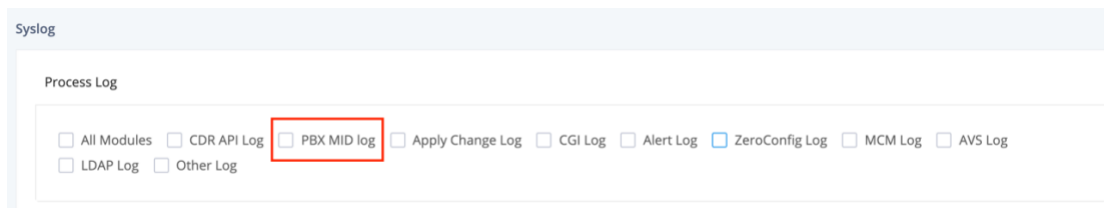
CHANGES SINCE FIRMWARE VERSION 1.0.20.20

BUG FIXES

- **[Security]**
 - Added security improvements.
- **[Ring Groups]**
 - Fixed an issue that caused ring groups to not work properly when ring group members have Ring Simultaneously configured with an external number in their extension settings.
 - Fixed an issue that caused the Ring Simultaneously calls to be sent to the wrong external number if several ring group members are configured with Ring Simultaneously in their extension settings.

KNOWN ISSUES

- The device pbxmid process crashes with coredump generated when there is special char of '%' in the websocket. To avoid system crash, please turn off pbxmid syslog module under UCM webUI->Maintenance->Syslog (see screenshot below).
 This issue has been fixed in firmware 1.0.20.23. Firmware 1.0.20.23 is available in website: <http://www.grandstream.com/support/firmware/>.



FIRMWARE VERSION 1.0.20.20

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

3/23/2020

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin





MD5: 619855431258c672d22e58d01ca92087
- UCM6510 firmware file name: ucm6500fw.bin










































MD5: 7ef7464e641f4792963a7d430efd6943

IMPORTANT UPGRADING NOTE

- **ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- **After upgrading to 1.0.20.x, if you downgrade to 1.0.19.x and issues are encountered after downgrading, factory reset the UCM and restore the backup.**
- **For UCM6xxx on 1.0.19.x, please upgrade to 1.0.20.x directly.**
- **For UCM6xxx on firmware earlier than 1.0.20.x, please upgrade to 1.0.19.29 first, then upgrade to 1.0.20.x. To upgrade to 1.0.19.29, please check 1.0.19.29 release note “Important Upgrading Note” section and follow the instructions.**
- **It is recommended to upgrade UCM to latest firmware for product lifespan and security improvements.**
- **Firmware download links below:**
 - **UCM62xx:** http://firmware.grandstream.com/Release_UCM62xx_1.0.20.20.zip
 - **UCM6510:** http://firmware.grandstream.com/Release_UCM6510_1.0.20.20.zip

PREVIOUS FIRMWARE VERSIONS

FW Version	UCM6100 Series	UCM6200 Series	UCM6510
1.0.19.29		 	 

1.0.18.17	 		
1.0.18.13	 	 	 
1.0.17.16	 	 	 
1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.20.17

ENHANCEMENTS

- **[Emergency Calls]** Added Emergency Location Mapping [EMERGENCY LOCATION MAPPING]
- **[GDMS]** Added a SIP Server Address/Domain field to customize the address that GDMS will associate the UCM with.
- **[Network Settings]** Added ARP threshold settings [ARP THRESHOLD SETTINGS]

BUG FIXES

- **[System]**
 - Fixed an issue where the UCM would randomly not respond to ARP requests, causing endpoints to not being able to register to the UCM.
 - Fixed an issue with crashing when performing an attended transfer.
 - Fixed an issue with crashing involving dialog eventlist.
 - Fixed an issue with crashing when a call to a queue is unanswered.
 - Fixed an issue with crashing when making outbound calls immediately after applying changes.
 - Fixed an issue that caused frequent random crashes.
- **[CDR]** Fixed an issue with being unable to download or back up CDR where is a large number of entries.

- **[CRM]** Fixed an issue with sending incorrect CDR to Zoho CRM when a ring group member answers a call.
- **[Grandstream Wave Web]** Fixed an issue with stun address resolution.
- **[Grandstream Wave Web]** Fixed an issue with incoming calls continuing to ring even after being cancelled by the calling party.
- **[Routing]** Fixed an issue where inbound routes for all trunks except the first one broke after upgrading.
- **[Routing]** Fixed an issue where blacklist would not work for analog calls.
- **[Security]** Fixed an issue with being unable to request certificates.
- **[Zero Config]** Fixed an issue with incorrectly provisioning MPK/VMPKs to GXP/GRP devices.

NEW LIMITATIONS

- **[IVR]** Maximum number of IVR extensions allowed increased to 500.
- **[Routing]** Maximum number of inbound routes increased to 5000.
- **[Routing]** Maximum number of outbound routes increased to 500.
- **[VoIP Trunks]** Increased the maximum limit of SIP trunks to 200.

KNOWN ISSUES

- **[System]** Minor chance of crashing due to random thread lock.
- **[System]** Cases of crashing when a video call is made to an extension with Follow-Me configured, and a Follow-Me destination has Ring Simultaneously configured. To avoid this, disable Video FEC on the calling endpoint.
- **[Extensions]** After importing extensions, deleting them, and recreating them, the extensions will show as unavailable even after registering to them successfully.
- **[CDR]** CDR would show a call as Answered even when a ring group member rejects the call.
- **[Conference]** Users cannot add extensions to a contact group if an extension has apostrophe (') in the name.
- **[Emergency Calls]** Call and email notifications do not contain the configured prepended numbers.
- **[Emergency Calls]** *Edit Extension->Emergency CID* is mislabeled and has an incorrect tooltip. This option should be named "Emergency CID Name" and replaces the CID name of the extension when it makes an emergency call.
- **[Feature Codes]** Only 50 entries can be added to the remote transfer whitelist.
- **[GDMS]** If an organization has a space in its name, it will be removed.

- **[GDMS]** If an organization has a comma (,) in its name, it will be removed, all text after the comma will be displayed as another organization on the UCM GDMS configuration page.
- **[Grandstream Wave Web]** Users cannot see screen share video feed if their phone is registered to the UCM's public IP.
- **[IVR]** The IVR extension number will not be displayed when creating the 101st IVR.
- **[PMS]** Users cannot edit a minibar added by PMS API in the web portal if it was added without a name.
- **[Ring Group]** The configured Replace Display Name value would not be shown when ringing the configured Default Destination.
- **[Ring Group]** Users can leave voicemail in the ring group voicemail even if it is disabled.
- **[Routing]** Dial Trunk settings are not imported correctly.
- **[SIP Settings]** Small chance of UCM not responding properly to REGISTER requests with authorization credentials.
- **[Voicemail]** Users would not be able to reply to voicemail left by a call from a VoIP trunk.
- **[VoIP Trunks]** Video cannot be initiated when making a video call to an IPVT conference.
- **[VoIP Trunks]** After a user closes his video feed in an IPVT conference, his audio cannot be heard.
- **[Web]** Names would not be displayed when hovering the mouse over members of a ring group, call queue, or Dial by Name group.
- **[ZeroConfig]** GRP26xx Idle Screen Softkeys are provisioned incorrectly.

NEW FEATURES OVERVIEW

This section describes the major new features/changes introduced in the update and provides instructions for usage.

EMERGENCY LOCATION MAPPING

In compliance with Kari's Law and the Ray Baum's Act, UCM's Emergency Calls feature now supports emergency location mapping. This will allow users to associate subnets with emergency location identification numbers (ELINs), which can then be used by E911 service providers to determine the location of callers. The new options can be found in *Call Features* → *Emergency Calls* → *Emergency Location Mapping*.

Emergency Calls		
Emergency Calls	Emergency Recordings	<u>Emergency Location Mapping</u>
+ Add		
ELIN ↕	SUBNET ↕	LOCATION ↕
1234567890	192.168.42.1/8	Test Site
< 1 >		

Figure 3- Emergency Location Mapping Overview

To create a new mapping, click on the *Add* button. The following window will appear.

Create New Emergency Location Mapping

* ELIN:	<input type="text" value="1234567890"/>
* Subnet:	<input type="text" value="192.168.42.1/8"/>
* Location:	<input type="text" value="Test Site"/>

Figure 4- Edit Emergency Location Mapping

ELIN: The DID number that will be sent to E911 providers, who will then use it to determine the location of the emergency caller. This number will be displayed as the caller’s CID number and will overwrite the extension or trunk’s CID number (if configured). CID name is not affected. Warning: If the trunk used for the emergency call has a PAI header configured, the callee’s endpoint may display that information instead of the ELIN number.

Subnet: The subnet of the location that will be covered by the ELIN. The UCM will determine which ELIN to send out based on the subnet that the emergency caller’s phone is in.

Location: The specific area covered by the ELIN. This information is for the UCM’s administrator’s own reference.

Edit Extension: 3000

Basic Settings Media Features Specific Time Follow Me

* Permission: Local	* SIP/IAX Password:
AuthID: <input type="text"/>	Voicemail: Local V
* Voicemail Password:	Skip Voicemail Password <input type="checkbox"/>
Send Voicemail to: Default	Verification:
Email: <input type="text"/>	Keep Voicemail after: Default
Enable Keep-alive: <input type="checkbox"/>	Emailing:
Disable This Extension: <input type="checkbox"/>	* Keep-alive Frequency: 60
Emergency Calls CID: <input type="text"/>	Enable SCA: <input type="checkbox"/>

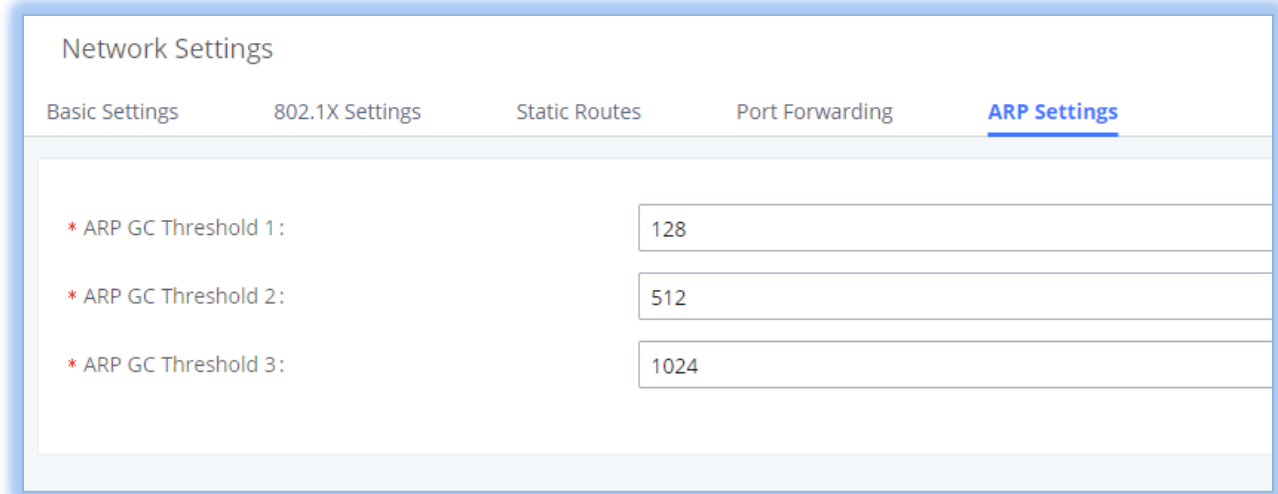
Figure 5 - Emergency CID Name

In addition to sending the configured ELIN as a CID number during emergency calls, UCM can also send a unique emergency CID name if configured for the calling extension. If this is not configured, the calling extension's default CID name will be sent instead.

Finally, UCM supports callback to the original extension that dialed the emergency number in the event that the initial emergency call disconnects. If the original callee dials the ELIN, the call will be routed back to the original emergency caller's extension.

ARP THRESHOLD SETTINGS

Users can now control the UCM's ARP cache size, allowing the UCM to be more adaptable in various scenarios. The **ARP Settings** tab has been added to the *System Settings* → *Network Settings* page.



Network Settings	
Basic Settings	802.1X Settings
Static Routes	Port Forwarding
<u>ARP Settings</u>	
* ARP GC Threshold 1:	128
* ARP GC Threshold 2:	512
* ARP GC Threshold 3:	1024

Figure 6 - ARP Threshold Settings

There are 3 available settings:

- ARP GC Threshold 1: The minimum number of entries that can be in the ARP cache. Garbage collection (the clearing of old or unused entries) will not occur if the number of entries collected by the UCM is below this.
- ARP GC Threshold 2: The soft maximum number of entries that can be in the ARP cache. Garbage collection will occur approximately 5 seconds after the number of entries collected by the UCM reaches this value.
- ARP GC Threshold 3: The hard maximum number of entries in the ARP cache. The UCM will be unable to accept any more entries once this value has been reached.

These settings should be adjusted if the UCM is not responding to ARP requests, which causes devices to be unable to register to it.

FIRMWARE VERSION 1.0.20.17

PRODUCT NAME

UCM6202, UCM6204, UCM6208, and UCM6510

DATE

2/3/2020

FIRMWARE FILE INFORMATION

- UCM6202/6204/6208 firmware file name: ucm6200fw.bin





MD5: e3a785127a866a50741c887675b246bd
- UCM6510 firmware file name: ucm6500fw.bin










































MD5: 73c349f691c2df97fedc504a4498828c

IMPORTANT UPGRADING NOTE

- **ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- **If downgrading from 1.0.20.x to 1.0.19.x or lower, please restore the backup of the corresponding version after the downgrade to avoid issues with saving settings and backing up.**
- For UCM6xxx on 1.0.19.x, please upgrade to 1.0.20.x directly.
- For UCM6xxx on firmware earlier than 1.0.20.x, please upgrade to 1.0.19.x first, then upgrade to 1.0.20.x. To upgrade to 1.0.19.x, please check 1.0.19.x release note “Important Upgrading Note” section and follow the instructions.
- It is recommended to upgrade UCM to latest firmware for product lifespan and security improvements.
- **Firmware download links below:**
 - **UCM62xx:** http://firmware.grandstream.com/Release_UCM62xx_1.0.20.17.zip
 - **UCM6510:** http://firmware.grandstream.com/Release_UCM6510_1.0.20.17.zip

PREVIOUS FIRMWARE VERSIONS

FW Version	UCM6100 Series	UCM6200 Series	UCM6510
1.0.19.29		 	 

1.0.18.17	 		
1.0.18.13	 	 	 
1.0.17.16	 	 	 
1.0.16.20	 	 	 
1.0.15.16	 	 	 
1.0.14.24			
1.0.13.14			
1.0.12.19			
1.0.11.27			
1.0.10.44			
1.0.9.97			
1.0.2.97			

CHANGES SINCE FIRMWARE VERSION 1.0.19.27

MAJOR ENHANCEMENTS

- **[Announcement]** Added Announcement feature. [ANNOUNCEMENT]
- **[Backup/Restore]** Added NAS as a backup/restore location.
- **[Conference]** Added conference contact groups. [CONFERENCE CONTACT GROUPS]
- **[Conference]** Added conference call statistics and reports. [CONFERENCE REPORTS]
- **[CRM]** Added support for Zoho CRM v2 API.
- **[Extensions]** DND Whitelist now supports patterns and no longer has the 10-number restriction.
- **[Feature Codes]** Added feature codes for remote management of extension call forwarding. [CALL FORWARDING REMOTE MANAGEMENT]
- **[GDMS]** Added GDMS SIP account syncing. [GDMS SIP ACCOUNT SYNCING]
- **[HTTPS API]** Add a new HTTPS API. [NEW HTTP API]
- **[Maintenance]** Added several more conditions for cleaning files and CDR. [NEW CLEANING CONDITIONS]
- **[Maintenance]** Added the ability to download files on external storage from the *USB Disk/SD Card File Management* page.
- **[Queue]** Added the ability to customize the keys used for virtual queue. [VIRTUAL QUEUE KEY CUSTOMIZATION]
- **[Queue]** Improved queue statistics page [QUEUE STATISTICS IMPROVEMENTS]

- **[Queue]** Added a *Welcome Prompt* option to the *Edit Queue* page. Users can now upload an audio file to play when callers call into the queue.
- **[Queue]** Added QueueMetrics support. [QUEUOMETRICS SUPPORT]
- **[Paging]** Added *Private Intercom* paging type (GSC3510 only). [PRIVATE INTERCOM (GSC3510 ONLY)]
- **[Ring Group]** Extension Ring Simultaneously settings will now apply to Ring Group calls.
- **[Routing]** Users can now add up to 10 inbound modes from the *Set Global Inbound Mode* page.
- **[Security]** Added *TLS Security* tab to allow users to manage the highest and lowest TLS versions the UCM will support.
- **[SIP Settings]** Replaced RFC2833 DTMF option with RFC4733.

OTHER ENHANCEMENTS

- **[Active Calls]**
 - Parked calls will now be displayed in the *Active Calls* page.
- **[Basic Calls]**
 - Added *International Call Prefix* field to *PBX Settings* → *General Settings* page.
 - After an attended transfer is completed, endpoints will now be updated with the CID of the other party instead of keeping the transferer's CID.
 - When UCM passes along SDP with no media attribute, it will use *sendrecv* as a media attribute by default instead of *inactive*.
- **[Backup/Restore]**
 - Added event logs and email notifications for scheduled SFTP backup and data sync results.
- **[CDR]**
 - Added *Extension Groups* as a CDR filter.
- **[Conference]**
 - Added a field to configure the Kick Prompt Interval.
 - Conference participant names will be announced when joining/leaving the conference even when the conference is on hold.
- **[CRM]**
 - *Add Unknown Number* option has been added for ACT! CRM
 - Added <https://www.zohoapis.eu> to the Zoho CRM Server Address dropdown list.
- **[Dial by Name]**
 - Added the ability to upload a custom Dial by Name prompt.
- **[Digital Trunks]**
 - *Direct Callback* option will now be hidden if E&M Immediate or E&M Wink is selected for the Edit T1 Port->Signaling field due to not being applicable.
- **[Email Settings]**
 - Added new variable `#{CONFR_MEMBERS}`, which shows conference participant details.
 - Added the following email type filters to the *Email Send Log* page: Send Fax, Call Queue Statistics, Conference Report.

- Updated default email template. To use the new template, users must click on the *Restore Default Template* option in the *Edit Template* page.
- **[Emergency Calls]**
 - Users can now strip the same amount of numbers as the emergency number length itself.
- **[Eventlist]**
 - Added a search bar for eventlists
- **[Extensions]**
 - *Enable CC* option added as batch edit extension option.
 - The “Local Subnet Only” and “Specified IP Address” options for the *Strategy* field (now called *ACL Policy*) have merged into the “Local Network Address” option.
 - Subnet mask can now be specified when configuring subnets that can register to the extension.
 - Updated extension DND response.
 - Voicemail count information has been moved to the “More” pop-up menu that appears when clicking on the extension number in the Extensions List.
- **[Grandstream Wave Web]**
 - A conference participant's CID number will now be displayed instead of extension number if configured.
 - Improved extension searching when transferring.
 - An error message will now appear when the maximum number of allowed registrations has been reached.
 - Hosts can now generate a link that can be used to invite others to the conference.
- **[IVR]**
 - Users can now use up to 5 IVR welcome prompts.
- **[LDAP]**
 - *LDAP Client CA Cert* field no longer supports .ca file uploads. The following file types are supported: .crt .der .pem.
 - LDAP now supports downloading phonebooks from domains.
 - Added space support to the *LDAP Client Username* and *LDAP Server RootDN* fields.
- **[Maintenance]**
 - Added Conference Call Statistics Report Cleaner
- **[Miscellaneous]**
 - GXP21xx phones can now unlock doors controlled by GDS.
- **[OpenVPN]**
 - Added option *Allow Weak SSL Ciphers*.
- **[Paging]**
 - Added an option to allow scheduled paging to play during holidays.
- **[Parking]**
 - Ring All Callback on Timeout will not be available if *Forward to Destination on Timeout* is enabled.
- **[PMS]**

- The *User Name* and *Guest Category Code* columns in the Room Status page can now be sorted.
- **[Queue]**
 - Agents can now view recordings of their calls in their user portal.
 - A queue can now have 3 chairmen to manage it.
- **[Ring Group]**
 - Added the option to skip busy members when receiving an incoming call.
- **[SIP Settings]**
 - The *TLS Self-signed CA* field no longer supports .ca file uploads. The following file types are supported: .ca .crt .der .pem.
- **[Recording]**
 - MoH will now be recorded when a party is on hold.
- **[Routing]**
 - Users can now add patterns to the blacklist to restrict calls from several numbers.
 - Inbound route imports/exports now have the following columns: Fax Detection, Fax Intelligent Routing, and Fax Destination
 - Users can now export PIN Groups.
 - The *PIN Groups with Privilege Level* option has been added to allow PIN groups to work alongside *Privilege Level* and *Filter on Source Caller ID* settings.
- **[System Information]**
 - Added duplex type and network port connection speed information to *System Information* → *Network* page.
- **[Time Settings]**
 - Users can now configure holidays for the next 4 years.
 - Added time condition *Office Time and Out of Holiday*.
 - Default NTP server is now pool.ntp.org.
 - Israel now has its own time zone to account for daylight savings.
 - São Paulo / Brazil time zone is now GMT-3:00.
- **[User Management]**
 - Added the following custom privileges:
 - CDR Records
 - CDR Statistics
 - CDR Recordings
 - Voice Prompt
 - Inbound Routes
 - Outbound Routes
 - Added the option to change Super Administrator username in the *Change Information* page. Warning: This username cannot be changed back to “admin”.
 - Regular users will now be logged out automatically if an admin resets their extension.
- **[Voicemail]**
 - The voicemail system will now mention if a voicemail is from a ring group.

- **[VoIP Trunks]**
 - When editing a register trunk or trunk group and TLS is selected in the Transport field, users can now select between SIP and SIPS URI scheme.
 - Domain names can now be sent in the request URL by configuring the From Domain field.
- **[Wakeup]**
 - The wakeup service prompt now has an option to set a wakeup for the next day.

BUG FIXES

- **[Security]**
 - Fixed a security vulnerability that allowed unauthorized outbound calls to be made.
- **[System]**
 - Fixed an issue with crashing when users with custom privileges perform certain actions.
 - Fixed an issue with crashing when receiving 120 simultaneous calls using TLS.
 - Fixed an issue where the UCM would be unable to register to trunks with domains set in the Host Name field after rebooting with no Ethernet connection.
 - Fixed an issue with potential crashing when using Zero Config to update or reboot endpoints.
 - Fixed an issue with crashing in HA environments.
- **[Active Calls]**
 - Fixed duplicate entries display when analog trunk has auto record enabled, and a transfer made from that trunk is completed.
 - Fixed an issue with displaying GS Wave Web calls.
 - Fixed an issue where if a blind transfer destination is in a peer trunk, the destination CID name would be incorrect.
 - Fixed an issue with speed dial destinations being displayed incorrectly.
 - Fixed an issue where if a call participant has a CID number configured, the call would not be monitored.
- **[API Configuration]**
 - Fixed an issue where recordings located on NAS could not be downloaded via API.
 - Fixed an issue with being unable to retrieve fax files via CDR API.
- **[Backup/Restore]**
 - Fixed an issue where *Data Sync* → *Test Connection* would not create files in the configured file path.
- **[Basic Calls]**
 - Fixed an issue with *Use Callee DOD on FWD or RS* option not working properly.
 - Fixed an issue where if OPUS was selected as top priority, and if auto record was enabled, calls would drop immediately or after pickup.
 - Fixed an issue where if *Direct Media* is enabled, and a call is rejected, the caller will not hear the call failure tone.
 - Fixed an issue where UCM does not reply to 407 Proxy Authentication challenge message.
 - Fixed an issue where Call Forward Busy would not work if call waiting was disabled.

- Fixed an issue with one-way audio when the UCM passes along SDP with no media attribute.
- **[BLF Eventlist]**
 - Fixed an issue where subscriber information disappears after rebooting or reconnecting to the network.
- **[Call Completion]**
 - Fixed an issue where the call completion success prompt would play when it has actually failed.
- **[Conference]**
 - Fixed an issue with incorrect conference participant information when participant is blind transferred to another extension.
 - Fixed an issue where the conference management buttons would still be grayed out for an empty locked conference.
 - Fixed an issue with displaying the CID Name of external numbers.
 - Fixed an issue where conference room participant limit information would not be sent to endpoints that support CEI notifications.
 - Fixed an issue where if a user places the conference on hold, the user's talking indicator would be constantly displayed.
 - Fixed an issue with the mute button not responding after clicking on it several times.
 - Fixed an issue with batch operation buttons being inconsistently inoperable when several members are selected across different conferences.
- **[CDR]**
 - Fixed an issue with repeated unanswered calls and faxes not being displayed properly when the used inbound route has time conditions to exclude holidays.
 - Fixed an issue with being unable to play recordings created from Ring Simultaneously calls.
 - Fixed an issue where inviting external numbers to conferences would not generate CDR entries.
 - Fixed an issue with CDR displaying incorrectly when there are multiple call legs are involved.
 - Fixed several issues with downloading filtered CDR entries.
 - Fixed an issue with displaying inbound calls to fax destinations.
 - Fixed an issue with statistics not matching CDR information for previous months.
 - Fixed an issue where the *Delete All* button on the CDR page would not delete recordings located on NAS.
- **[CRM]**
 - Fixed an issue where if an incoming call's CID is modified by the inbound route configuration, the call would not be reported to the CRM.
 - Fixed an issue with missing description information in the CTI pop-up for incoming calls when using VitgerCRM.
- **[Email Settings]**

- Fixed an issue with deleting HTML message content.
- Fixed an issue with embedded images not being displayed correctly in emails sent using Microsoft Outlook.
- **[Fax]**
 - Fixed an issue where sorting by name or email address in the Fax/T.38 page did not work properly.
 - Fixed an issue with dadhi channels not being cleared properly after sending a T.38 fax via FXS.
 - Fixed an issue with not being able to upload PDFs with Arabic characters in the file name when using the Fax Sending feature.
- **[Feature Codes]**
 - Fixed an issue where the *Disconnect* feature code (*0 by default) does not work while transferring a call originating from a trunk.
- **[Grandstream Wave Web]**
 - Fixed several video display issues
 - Fixed an issue with displaying special characters in GS Wave-related emails.
 - Fixed an issue with valid scheduling time slots being considered conflicting.
 - Fixed some Firefox compatibility issues with Firefox.
 - Fixed an issue with being unable to display conference participant information when they are using GXP21xx devices.
 - Fixed an issue with line breaks not working properly in video conference chat.
 - Fixed an issue with log names having the incorrect creation time.
 - Fixed an issue with *Login Timeout* setting in the web portal affecting GS Wave Web.
 - Fixed an issue with being unable to use the microphone and camera after dialing into a disabled video conference.
 - Fixed an issue with not being able to receive chat messages in certain cases.
 - Fixed an issue with where video conference extensions could not be configured as default destination in the *Inbound Route* pages for analog trunks and register SIP trunks.
 - Fixed an issue where the conference host would not have 1080p video if using Google Chrome.
 - Fixed an issue with delays with sending emails regarding video conferences.
 - Fixed an issue where calls will drop when starting a video call in the middle of an audio call with Mozilla Firefox browser.
- **[HTTP Server]**
 - Fixed an issue where the HTTP server port could not be set to 65535.
- **[IAX]**
 - *Max Call Numbers* and *Max Invalidated Call Numbers* fields are now required fields with 0 as default value (this was already the value in previous firmware).
- **[Jitter Buffer]**
 - Fixed an issue where jitter buffer settings did not apply to SCA calls.
- **[LDAP]**

- Fixed an issue with loading loops when the LDAP port is set to certain values.
- Fixed an issue with LDAP syncing with peer trunks when the peer trunk name contains a space.
- Fixed an issue with syncing when both peered UCMs are behind NATs.
- **[Music on Hold]**
 - Fixed an issue where uploaded archive files are not uploaded to the correct playlist.
- **[NAS]**
 - Fixed an issue with reestablishing NAS connection after failover.
- **[Paging]**
 - Fixed an issue with prompt file names not being case-sensitive, causing conflicts between uppercase and lowercase versions of the same name.
 - Fixed an issue where the recording prompt would play during multicast pages under certain circumstances.
 - Fixed an issue with ports being blocked when a paging call originator makes an attended transfer.
- **[Parking]**
 - Fixed an issue where if a caller dials into an empty parking lot extension, and if there is a park timeout, the call will drop on timeout instead of calling back the caller.
- **[PMS]**
 - Fixed an issue with being able change to rooms that are in repair or are being cleaned.
- **[Queue]**
 - Fixed an issue where the queue chairman could not terminate calls in virtual queue.
 - Fixed an issue with seamless transfers using the wrong outbound route and failing.
 - Fixed an issue with incorrect available agent count when agent extensions are not registered.
 - Fixed an issue where if two calls come into the queue simultaneously and to the same agent, one of the calls will be logged as a missed call.
- **[Recording]**
 - Fixed an issue with recording files not being created for DISA calls through trunks and call queues.
 - Fixed an issue with VoIP trunk auto call recordings not being displayed in the *CDR* page.
 - Fixed an issue with creating different recordings having the same audio if an attended transfer is completed before the transfer destination answers.
- **[Routing]**
 - Fixed an issue with outbound route's *Call Duration Limit* value not applying to seamless transfers.
 - Fixed an issue with inbound mode BLF status light not updating when using feature codes to change the inbound route mode and ending the call before the voice prompt finishes playing.
- **[SCA]**
 - Fixed an issue with incorrect eventlist status when SCA private number is ringing.

- **[Setup Wizard]**
 - Fixed an issue with a time zone not displaying properly in the list.
 - Fixed an issue with repeating reboot prompts after saving.
- **[SIP Settings]**
 - Fixed an issue where the *Enable Diversion Header* option was not working.
- **[Speed Dial]**
 - Fixed an issue where speed dials using 1000 as the rigger will fail.
- **[System Events]**
 - Fixed an issue generating duplicate alert log entries after call failure 488 errors.
 - Fixed an issue with usernames with special characters being displaying incorrectly in alert logs.
 - Fixed an issue with sending out notifications via HTTPS.
- **[Time Settings]**
 - Fixed an issue with 12:00 – 1:00 PM displaying as AM instead when using 12-hour time display format.
 - Fixed an issue where daylight savings was not applied to Adelaide, Australia, and New Zealand time zones.
- **[Trunk Groups]**
 - Fixed an issue where entering "--" into the *CallerID Name* field would result in the trunk group entry being deleted.
- **[Voicemail]**
 - Fixed an issue where the date/time format in emails would not be correct.
 - Fixed an issue where voicemail for voicemail groups and ring groups would not be deleted even when *Keep Voicemail after Emailing* is disabled.
 - Fixed an issue where batch resetting extensions would not reset the voicemail password.
- **[Voice Prompts]**
 - Fixed an issue where a NOTIFY won't be sent immediately after changing voicemail type.
 - Fixed an issue with some prompts playing in English instead of Hebrew when the Hebrew voice prompt package is selected.
- **[VoIP Trunks]**
 - Fixed an issue where the *From Domain* setting does not work properly until the trunk is disabled and re-enabled.
- **[Web]**
 - Corrected and modified several tooltips.
 - Fixed an issue where Internet Explorer could not access the UCM web portal.
 - Fixed an issue where users would be logged out while changing password even if the old password was wrong.
 - Fixed an issue where IAX and fax extensions could not see calls on their user portal switchboard.
 - Fixed an issue with being unable to reboot devices from the user portal without the Zero Config permission.

- Fixed an issue where after adding and saving a server address in the *STUN Server Address* field, the server address would be between two brackets [].
- Fixed an issue where after uploading a custom prompt, it would not appear in the prompt dropdown lists.
- Fixed an issue with sorting not working properly on the LDAP phonebook page.
- Fixed an issue with user portal not displaying the correct amount of voicemail.
- Fixed an issue where the *Recordings* page could not refresh the file list after plugging and unplugging an external device several times.
- **[ZeroConfig]**
 - Fixed an issue with custom field descriptions not showing in previews.
 - Fixed an issue with being not being able to provision admin password to GDS3710
 - Fixed an issue with HT813 templates not having account setting fields.
 - Fixed an issue with configured p-values getting deleted if description contains certain words.
 - Fixed an issue with being unable to upload files to a directory with Chinese characters.
- **[UCM6510] [HA]**
 - Fixed an issue with template package updates not syncing properly.
 - Fixed an issue with syncing deleted PMS voicemail.

NEW LIMITATIONS

- [AMI] AMI username can no longer exceed 64 characters.
- [Announcement Center] Announcement Center group name and numbers now have a character limit of 64.
- [Call Completion] The number of CC requests a SIP extension can make is now limited by its concurrent registration setting.
- [Conference] Conference extension number can no longer be used as the conference password if *Strong Password* is enabled.
- [Conference] Conferences can now be scheduled to last 8 hours.
- [DOD] DOD names and numbers now have a character limit of 32
- [Extensions] *Extension* and *Auth ID* fields now support plus signs (+).
- [LDAP] Plus signs (+) are now supported when creating contacts and receiving calls with "+" in the CID.
- [LDAP] Character limit changes for the following fields:
 - LDAP Server→Root Password: 32
 - LDAP Server→Root DN: 64

- Phonebook Download Configurations→User Name: 64
- [LDAP] The *User Name* field will no longer require "cn=" to precede username.
- [Paging] "=" is no longer supported in the Alert-Info Header field.
- [Paging] Failover Destination field now has a character limit of 32.
- [Pickup Groups] Pickup groups now have a limit of 50 pickup groups of up to 100 members each.
- [Queue] Callers can no longer use feature codes in established callbacks.
- [Ring Group] The character limit of the email address fields for ring group voicemail boxes has been changed from 256 to 128.
- [Routing] Outbound routes is now limited to 50 routes.
- [Routing] Inbound routes is now limited to 50 routes per trunk.
- [Voicemail] Voicemail group member limit increased from 16 to 27.
- [Voice Prompt] Voice prompt package upload file size limit increased to 50MB.
- [Voice Prompt] Custom voice prompt file name character limits for the Voice Prompt and Announcement Center pages have been changed to 100.
- [VoIP Trunks] PAI headers now have a character limit of 64 and can only contain alphanumeric characters and/or special characters #*-_+.
- [VoIP Trunks] VoIP trunks now have a maximum limit of 50.

KNOWN ISSUES

- [GDMS] The GDMS password field is unable to accept many special characters.
- [Grandstream Wave Web] If BFCP TCP is used for video conferencing, crashing may occur when toggling video and screen sharing.
- [Routing] If an exported inbound route has the Alert-Info field configured with a value other than "None" or "Custom", it cannot be imported.
- [System] Crashing may occur if *PBX Settings*→*SIP Settings*→*Misc*→*Enable Use of Final SDP* is toggled on.
- [System] Slight chance of crashing when loading or reloading PJSIP extensions (e.g., applying changes to extensions).

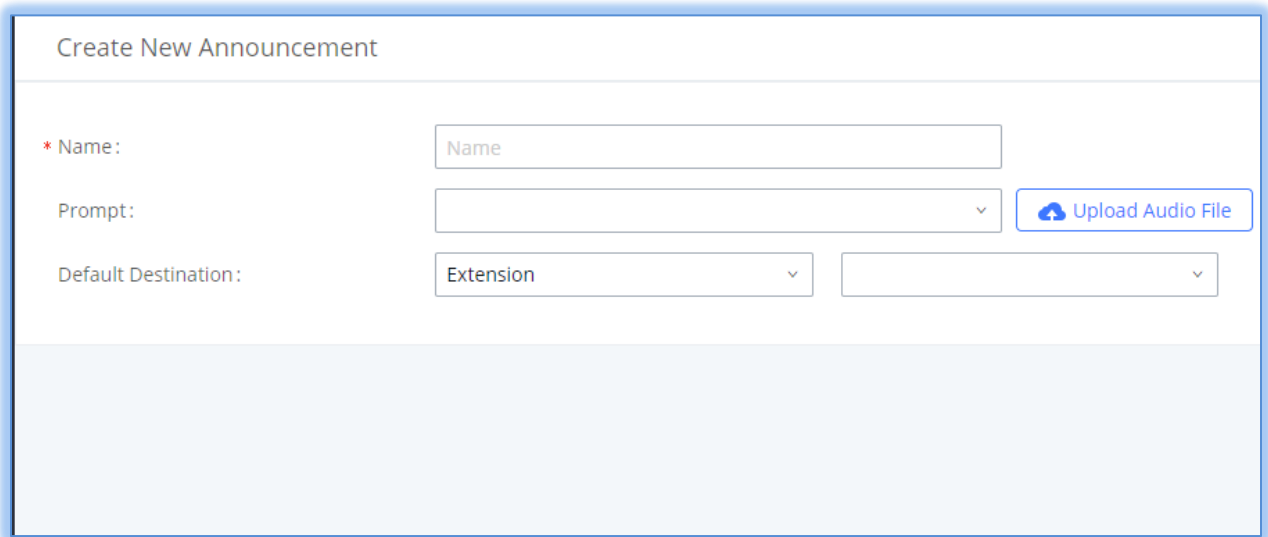
- [ZeroConfig] If a template has custom parameters with names containing the character “P”, the values of these parameters may be wiped after upgrading from 1.0.19.29 to 1.0.20.17 and saving the template page.

NEW FEATURES OVERVIEW

This section describes the major new features/changes introduced in the update and provides instructions for usage.

ANNOUNCEMENT

The Announcement feature (not to be confused with Announcement Paging and Announcement Center) is a feature that allows users to set an unskippable audio file to play to callers before routing them to a configured destination. Announcements can be configured as a destination in the *Inbound Routes* page.



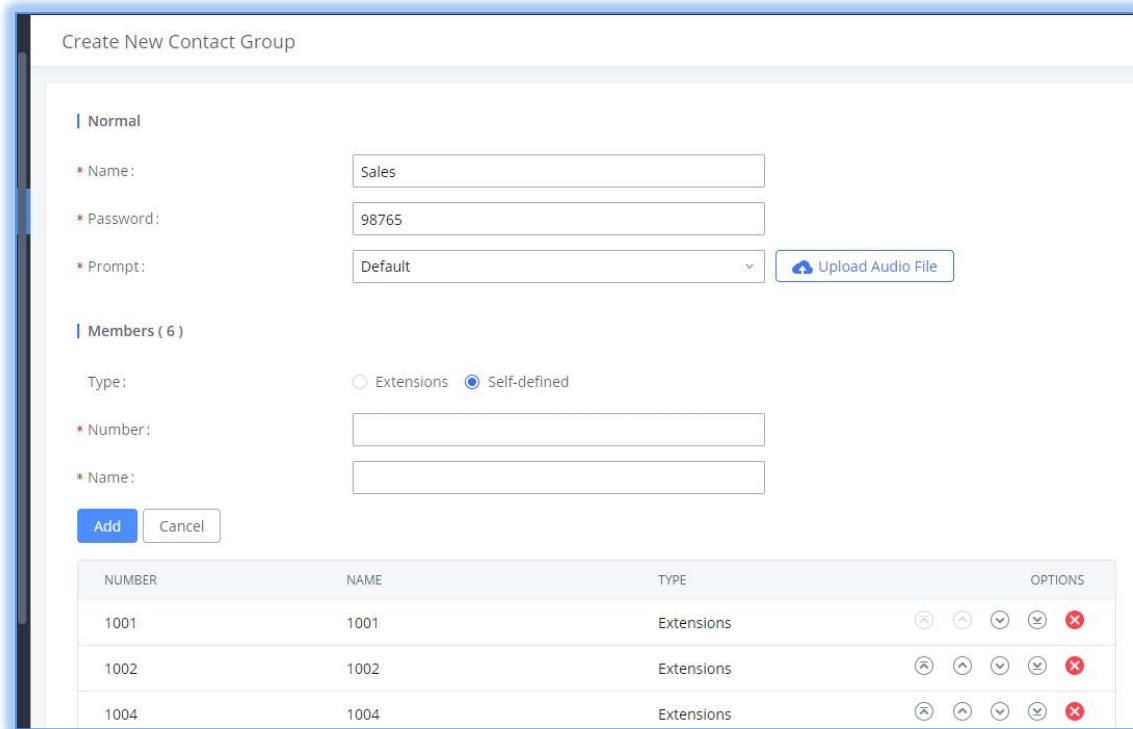
The screenshot shows a web form titled "Create New Announcement". It contains the following fields and controls:

- Name:** A required text input field with the placeholder "Name".
- Prompt:** A dropdown menu with a downward arrow.
- Default Destination:** A dropdown menu with the placeholder "Extension" and a downward arrow.
- Upload Audio File:** A button with a cloud upload icon and the text "Upload Audio File".

Figure 7 - Announcement page

CONFERENCE CONTACT GROUPS

Users can now 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.



NUMBER	NAME	TYPE	OPTIONS
1001	1001	Extensions	[Icons]
1002	1002	Extensions	[Icons]
1004	1004	Extensions	[Icons]

Figure 8 - Contact Group

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.

CONFERENCE REPORTS

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.

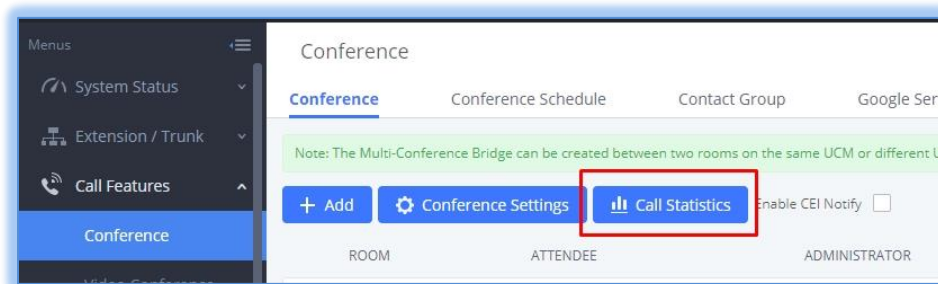


Figure 9 - Call Statistics

CONFERENCE	START TIME	TIME
6301	2019-11-07 16:12:16	00:01:16
1001 State	1001 Number	Received Admission Mode Answered State
Sales State	---	Invitation Admission Mode 0 / 4 State
Conference invitation State	1002 Number	Invitation Admission Mode Failed State
Conference invitation State	1005 Number	Invitation Admission Mode Failed State

Figure 10 - Conference Report on Web

	A	B	C	D	E	F	G
1	Room	Start Time	Duration Time				
2	6301	11/7/2019 16:12	0:01:16				
3	Contact Number	Name	Way	Status	Contact Group Name		
4	1002	Conference invitatio	INVITE	FAILURE	Sales		
5	1005	Conference invitatio	INVITE	FAILURE	Sales		
6	1004	Conference invitatio	INVITE	FAILURE	Sales		
7	1003	Conference invitatio	INVITE	FAILURE	Sales		
8	1001	1001	CALLIN	ANSWER			
9							

Figure 11 - Conference Report on CSV

CALL FORWARDING REMOTE MANAGEMENT

Users can now remotely change the call forwarding settings of another extension via feature codes. Additionally, a whitelist can be configured to restrict this ability to specific users.

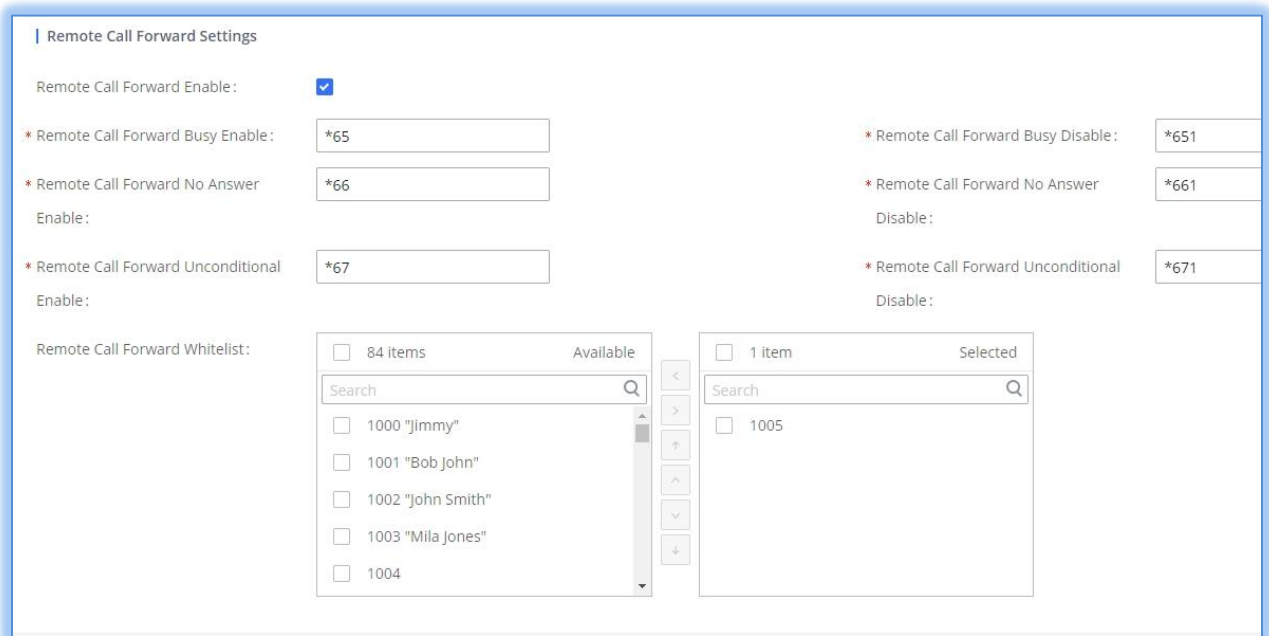


Figure 12 - Remote Call Forwarding Feature Codes

GDMS SIP ACCOUNT SYNCING

UCM can now sync its SIP accounts to GDMS cloud management system. To do get started, log into your GDMS account and navigate to the *System* → *API Developer* page. Click on the *Enable API Developer Mode* button if it has not been enabled yet.

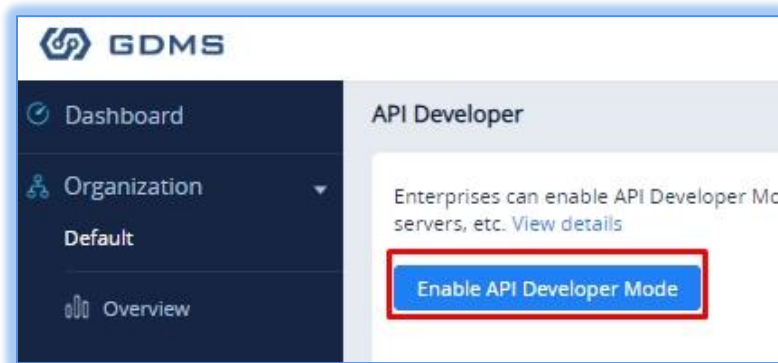


Figure 13 - GDMS Developer Mode Button

After clicking on it, the API ID and Secret Key will be displayed. Note down these credentials.

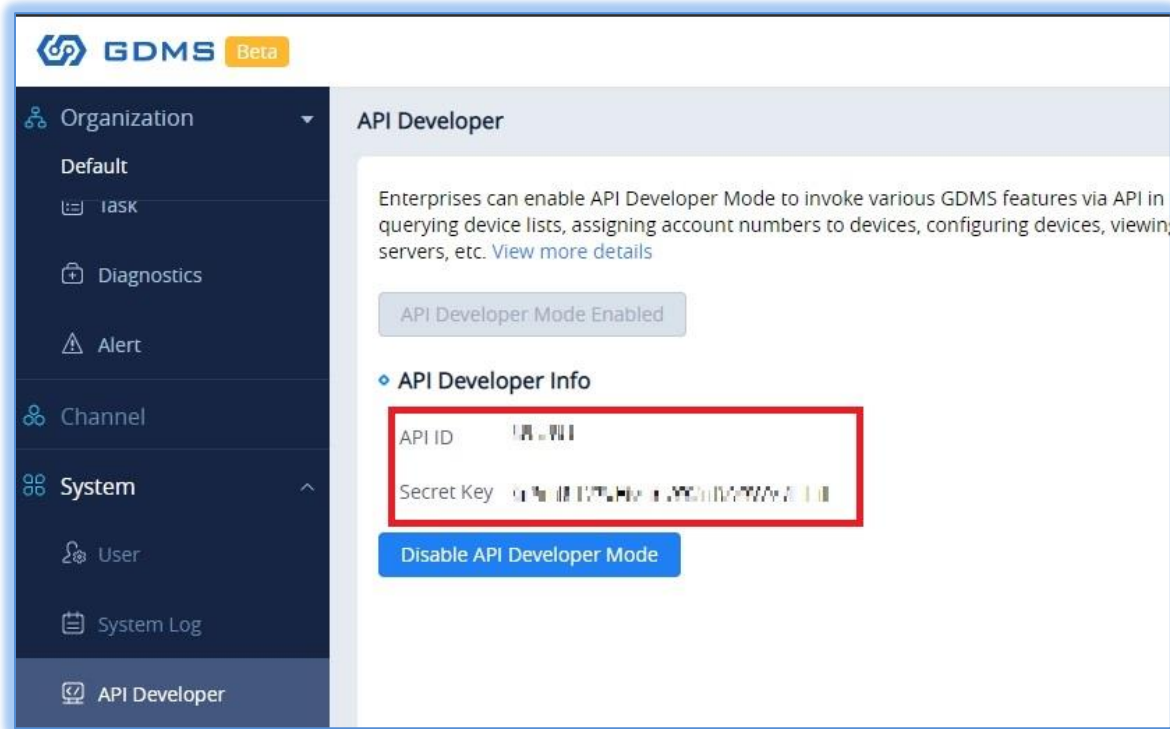


Figure 14- GDMS API Credentials

On the UCM, navigate to *System Settings* → *GDMS Settings*. Check the *Enable* option if it has not been toggled on.

GDMS Settings

UCM supports syncing all SIP extensions to GDMS Cloud Platform. After authentication, select the organization to sync extensions to. This function

Enable:	<input checked="" type="checkbox"/>
* Server Region:	<input type="text" value="US Region"/>
* Account Email/Username:	<input type="text" value="testadmin"/>
* Password:	<input type="password" value="....."/>
* API ID:	<input type="text" value="111111"/>
* Secret Key:	<input type="password" value="....."/>
Connection Status:	No authentication
Organization:	<input type="text"/>

Figure 15 - GDMS Settings

Enter your GDMS account credentials and the API developer credentials. For the *Account* field, enter either your account username or email address. Once all the information has been entered, click on the *Authenticate* button to connect to GDMS. If successful, you will now be able to select an organization on GDMS to sync all UCM SIP accounts to.

Connection Status:	Authentication success
* Organization:	<input type="text" value="Default"/>

Figure 16 - GDMS Authentication

After authenticating successfully and selecting the organization will be placed under, click on the **Save** and **Apply Changes** buttons. The UCM will then start the syncing process.

SIP Server

Delete

<input type="checkbox"/>	Server Name ↕	Server Address
<input type="checkbox"/>	192.168.42.63 UCM	192.168.42.63

Total 1

Figure 17 - UCM on GDMS

Once the initial sync is complete, you will now be able to see the UCM and its extensions on GDMS, which will have an orange label with the words “UCM”. Any future creation, deletion, or modification of SIP accounts will automatically be synced to GDMS.

SIP Account

Delete

<input type="checkbox"/>	User ID ↕	Account Name ↕	Display Name ↕	SIP Server ↕
<input type="checkbox"/>	1000 UCM	1000	1000	192.168.42.63
<input type="checkbox"/>	1001 UCM	1001	1001	192.168.42.63
<input type="checkbox"/>	1002 UCM	1002	1002	192.168.42.63
<input type="checkbox"/>	1003 UCM	1003	1003	192.168.42.63

Figure 18 - UCM SIP Extensions on GDMS

Note: UCM extensions' names currently cannot be synced.

NEW HTTP API

A new HTTP API has been added and is slated to replace the previous HTTP API. The previous HTTP API will still be available in 1.0.20.x firmware but will no longer be available in the near future. Please see the HTTP API Configuration Guide on our website for more details on usage.

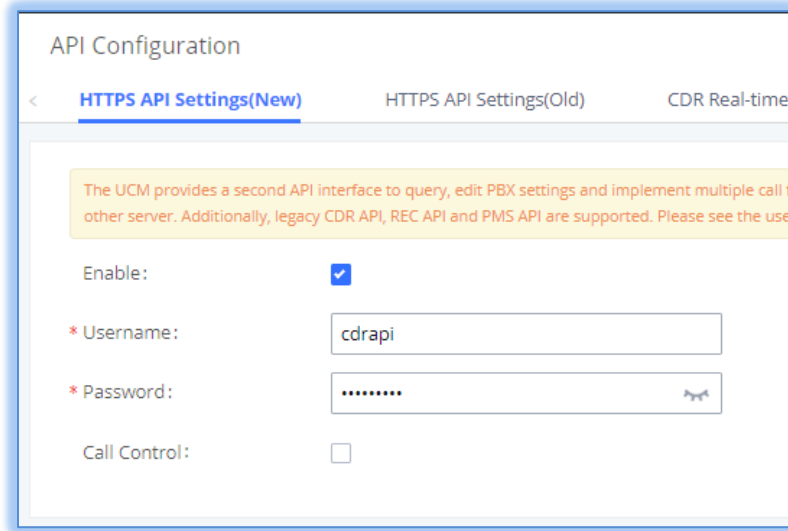


Figure 19 - HTTPS API

NEW CLEANING CONDITIONS

The CDR and file cleaner now offers more conditions to allow more control over when cleaning takes place. The following options have been added to the cleaners for CDR, queue statistics reports, and conference call statistics reports:

By Schedule – This was the only available condition in previous firmware. CDR and reports on deleted every X days at the configured *Clean Time*.

Keep Last X Records – Keep the last X entries and delete everything else at the configured *Clean Time*.

Keep Last X Days – Keep the last X days of entries and delete everything older than X days at the configured *Clean Time*.

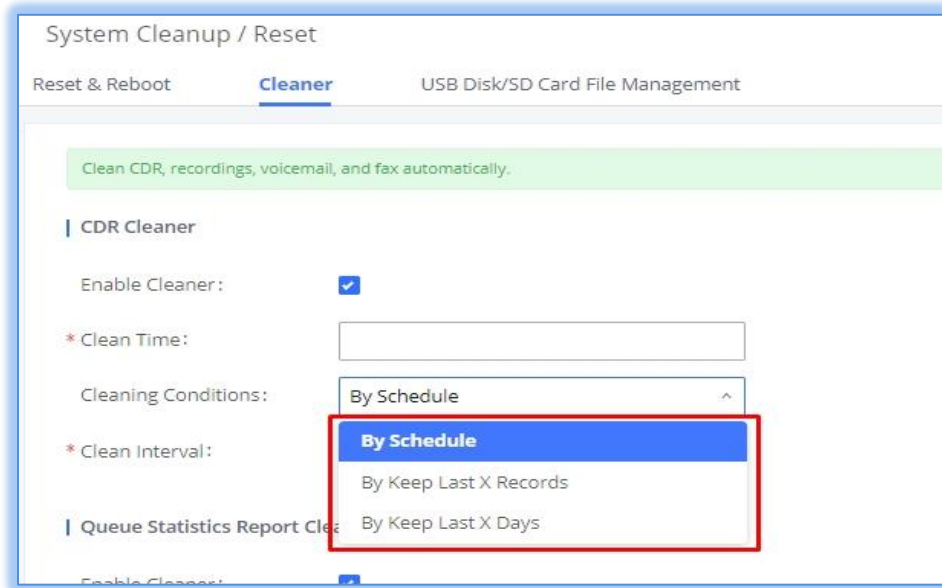


Figure 20 - CDR and Statistics Report Cleaning Options

The following options have been added to the file cleaner:

By Threshold – Delete files once internal storage usage has reached the percentage configured in the *File Clean Threshold* field. If this option is selected, the *Keep Last X Days* option will also be available to allow users to delete only files older than the configured number of days. If unconfigured, all files will be deleted at the configured *Clean Time* upon reaching the threshold.

Keep Last X Days – Delete all files older than the number of days configured in the *Keep Last X Days* field at the configured *Clean Time*.

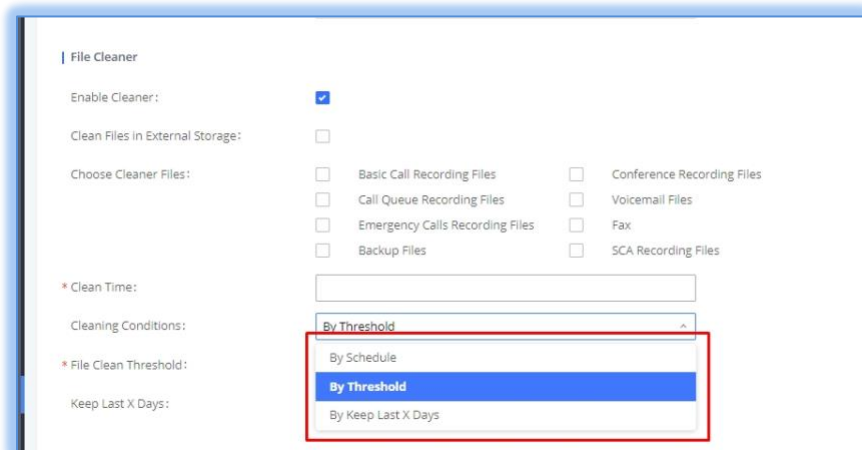


Figure 21 - File Cleaning Options

VIRTUAL QUEUE KEY CUSTOMIZATION

Users can now customize the keys for virtual queue options. These options are found in the new *Global Queue Settings* page alongside dynamic agent login settings.

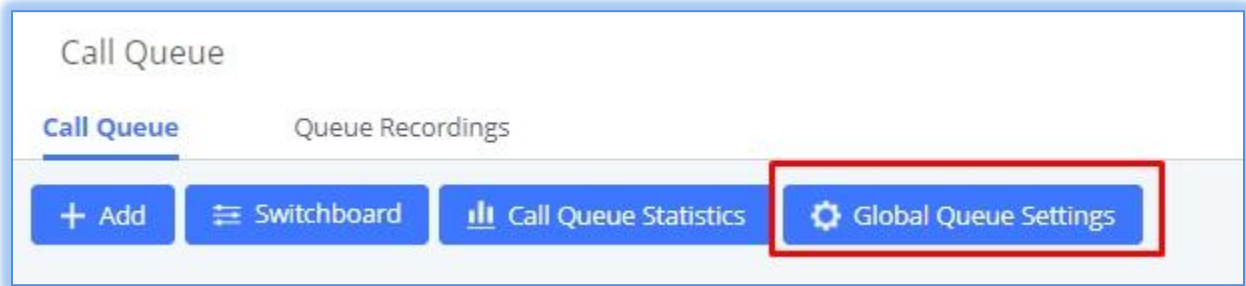


Figure 22 - Global Queue Settings

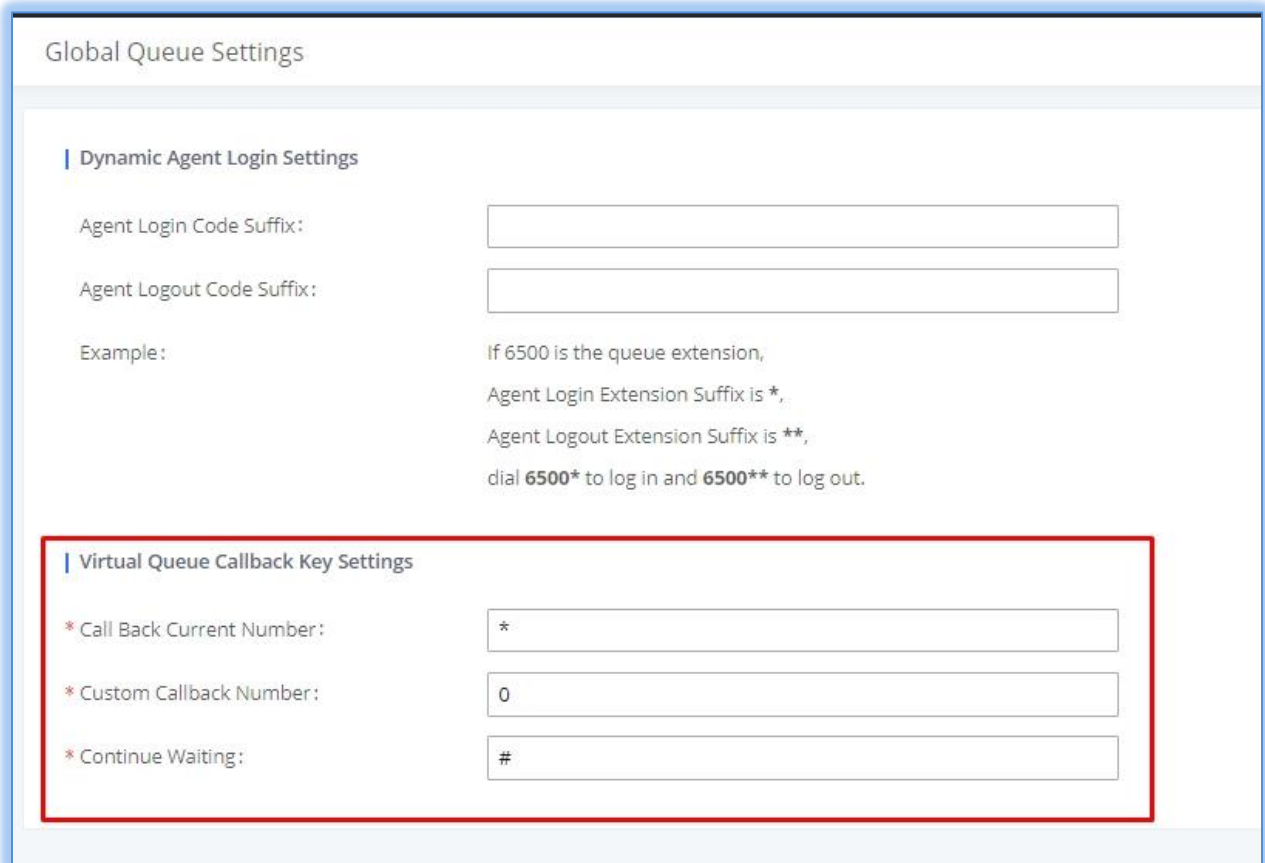
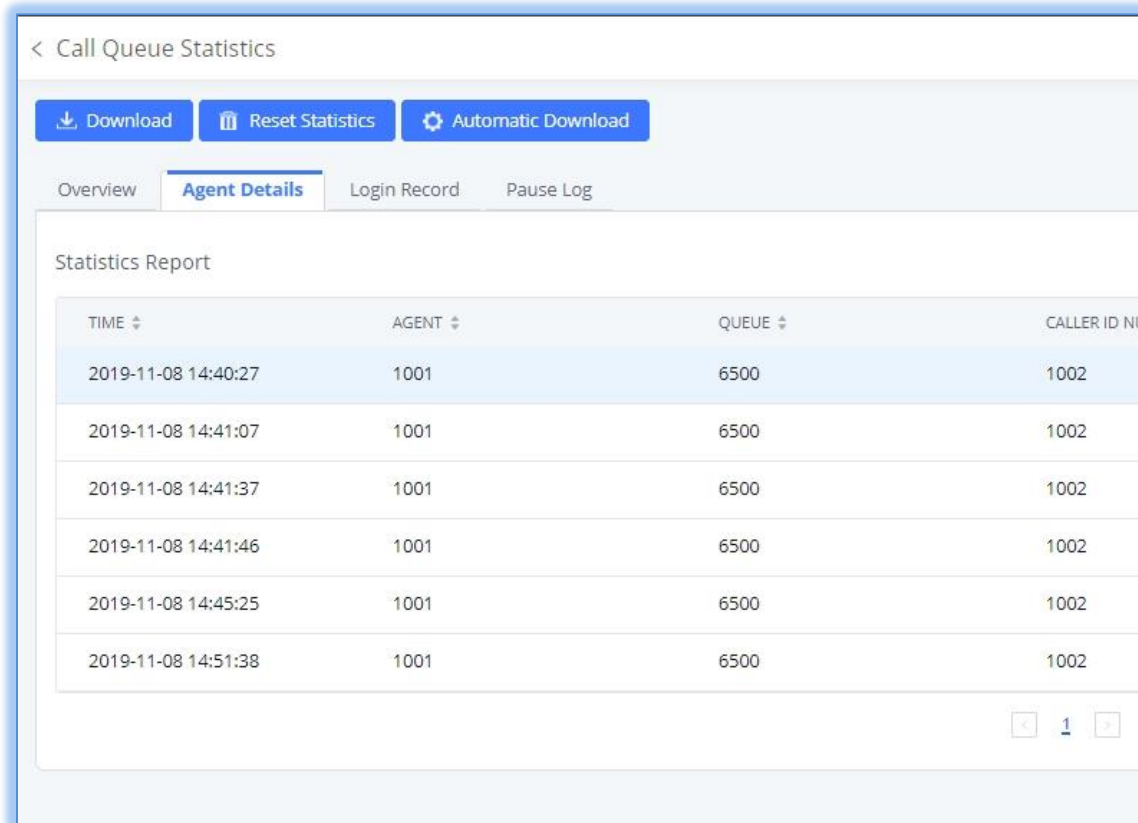

 A screenshot of the 'Global Queue Settings' page. The page is divided into two sections. The first section, 'Dynamic Agent Login Settings', contains two input fields for 'Agent Login Code Suffix' and 'Agent Logout Code Suffix'. Below these is an 'Example:' section with text explaining how to dial numbers like 6500* or 6500**. The second section, 'Virtual Queue Callback Key Settings', is highlighted with a red border and contains three input fields: '* Call Back Current Number' (with '*' entered), '* Custom Callback Number' (with '0' entered), and '* Continue Waiting' (with '#' entered).

Figure 23 - Virtual Queue Key Customization

QUEUE STATISTICS IMPROVEMENTS

Significantly more information is now available UCM's queue statistics page. In addition to the information presented in previous firmware, users can now view a call log that displays calls to all agents and queues, a dynamic agent login/logout record, and a pause log. Statistics reports for these new pages can be obtained by pressing the *Download* button in the top left corner of the *Call Queue Statistics* page. The reports are in .CSV format and will be packaged into a single tar.gz file upon download.



Call Queue Statistics

Download Reset Statistics Automatic Download

Overview **Agent Details** Login Record Pause Log

Statistics Report

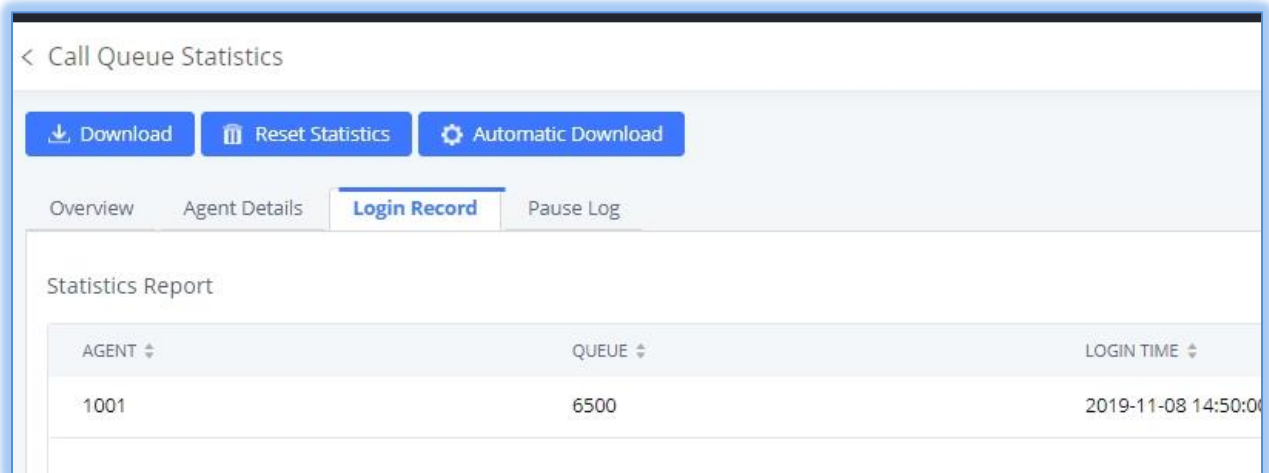
TIME	AGENT	QUEUE	CALLER ID NUMBER
2019-11-08 14:40:27	1001	6500	1002
2019-11-08 14:41:07	1001	6500	1002
2019-11-08 14:41:37	1001	6500	1002
2019-11-08 14:41:46	1001	6500	1002
2019-11-08 14:45:25	1001	6500	1002
2019-11-08 14:51:38	1001	6500	1002

1

Figure 24 - Agent Details

Agent Details is a call log that shows every call to each individual agent from all queues. The following information is available:

- Time – the date and time the call was received.
- Agent – the agent that was rung for the call.
- Queue – the queue that the call went to.
- Caller ID Number – the CID of the caller
- Abandoned – indicates whether the call was picked up or not by that specific agent. If the call rang several agents simultaneously, and this specific agent did not pick up the call, the call will be considered abandoned even if a different agent in the same queue picked it up.
- Wait Time – the amount of time that the call was waiting in queue after dialing in.
- Talk Time – the duration of the call after it was picked up by agent.



The screenshot shows the 'Call Queue Statistics' interface. At the top, there are three buttons: 'Download', 'Reset Statistics', and 'Automatic Download'. Below these are four tabs: 'Overview', 'Agent Details', 'Login Record' (which is selected), and 'Pause Log'. The main content area is titled 'Statistics Report' and contains a table with the following data:

AGENT ↕	QUEUE ↕	LOGIN TIME ↕
1001	6500	2019-11-08 14:50:00

Figure 25 - Login Record

Login Record is a report that shows the timestamps of dynamic agent logins and logouts and calculates the amount of time the dynamic agents were logged in. Dynamic agents are extensions that log in and out either via agent login/logout codes (configured in *Global Queue Settings* page) or by using the GXP21xx call queue softkey. A new record will be created only when an agent logs out. The following information is available:

- Agent – the extension that logged in and out.
- Queue – the queue that the extension logged in and out of.
- Login Time – the time that the extension logged into the queue.
- Logout Time – the time that the extension logged out of the queue.
- Login Duration – the total length of time that the extension was logged in.



The screenshot shows the 'Call Queue Statistics' interface with the 'Pause Log' tab selected. The main content area is titled 'Statistics Report' and contains a table with the following data:

AGENT ↕	QUEUE ↕	PAUSE TIME ↕
1001	6500	2019-11-08 14:51:52

Figure 26 - Pause Log

Pause Log is a report that shows the times of agent pauses and unpauses and calculates the amount of time that agents are paused. If an agent is part of several queues, an entry will be created for each queue.

An entry will only be created after an agent unpauses. The following information is available:

- Agent – the extension that paused and unpaused
- Queue – the queue that the agent is in.
- Pause Time – the time that the agent paused.
- Resume Time – the time that the agent unpaused.
- Pause Duration – the total length of time the agent was paused for.

QUEUOMETRICS SUPPORT

UCM now supports QueueMetrics. To get started on using this, navigate to the **Value-added Features**→**QueueMetrics** page and enter your QueueMetrics server address and credentials. Please see the QueueMetrics Configuration documentation on our website for more details on usage.

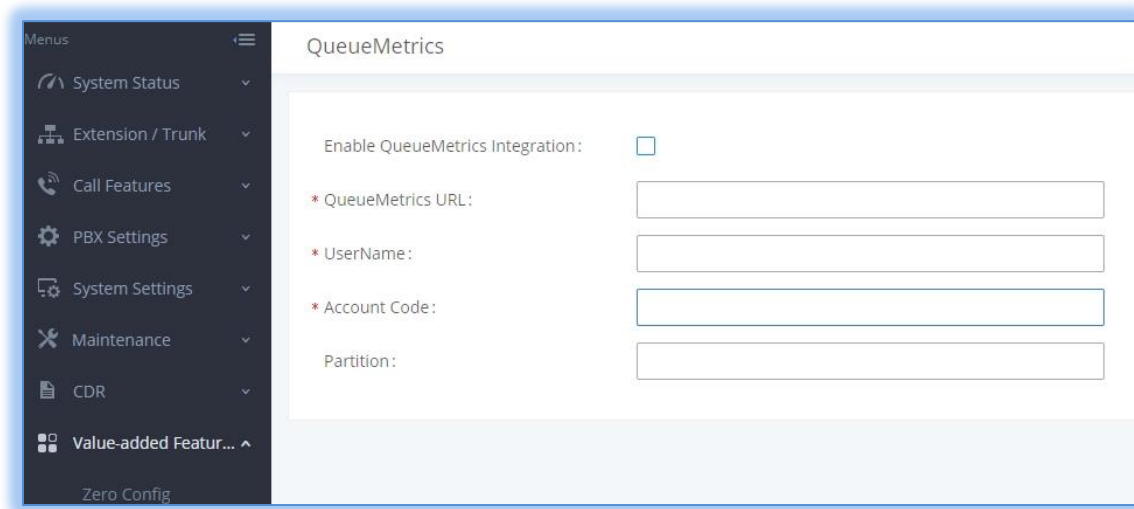


Figure 27- QueueMetrics Page

PRIVATE INTERCOM (GSC3510 ONLY)

Private Intercom is a new paging type that is meant to be used with Grandstream GSC3510. In a private intercom:

- The initiator can be heard by all parties
- The initiator can hear only one of the intercom members, which is determined by whose audio is initially detected. Audio from other members cannot be heard until the first responder is done talking.
- Intercom members can hear only the initiator's audio and not other intercom members'.

Figure 28 - Private Intercom option

PMS VOICEMAIL BACKUP ON CHECK-OUT

Users now have the option to enable automatic backup of voicemail recordings from room extensions upon guest check-out. Voicemail can be backed up to SD card, USB disk, NAS, or an SFTP server. Additionally, users can configure an email address to send voicemail recordings to upon backup.

Figure 29 - PMS Voicemail Backup

CALLING INTO IPVT MEETINGS

UCM extensions can now dial into IPVT meetings by creating a peer trunk to an IPVT server. However, users must make sure that the IPVT server they are peering to also has a peer trunk to their UCM configured. This setting can be found in *Admin Center* → *SIP Trunk Configuration*.

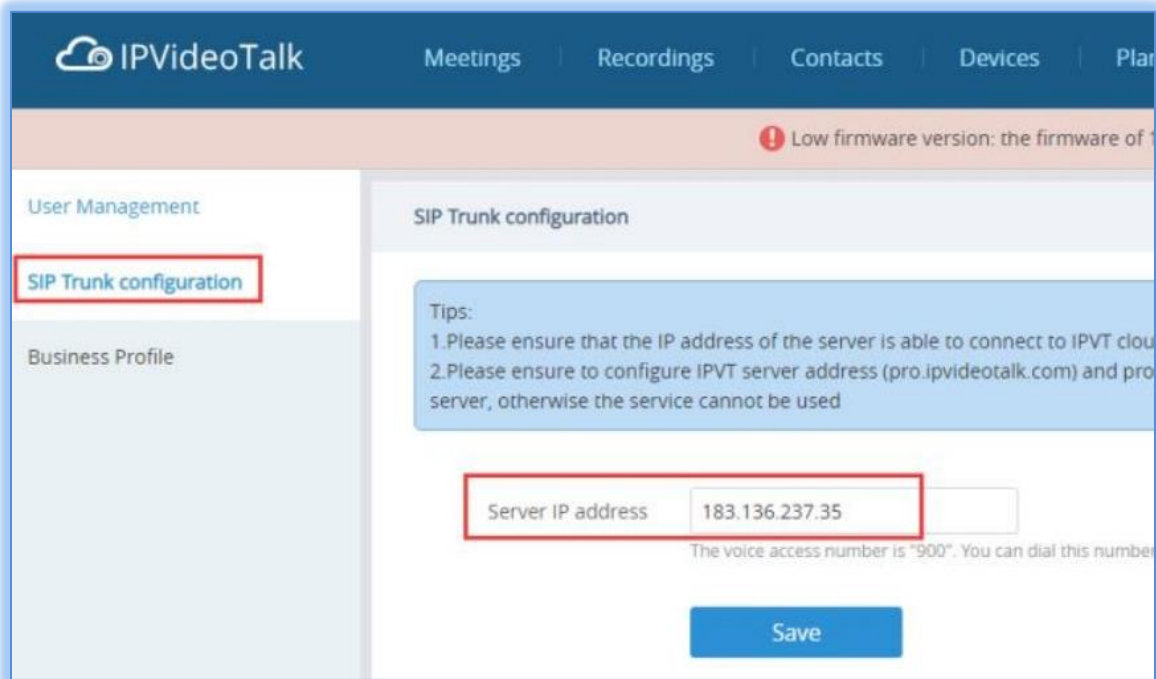


Figure 30 - IPVT SIP Trunk page

Next, users must create a peer trunk on the UCM to the IPVT server. Enter one of the following addresses based on the desired connection protocol:

- TCP: pro.ipvideotalk.com:20000
- TLS: pro.ipvideotalk.com:20001

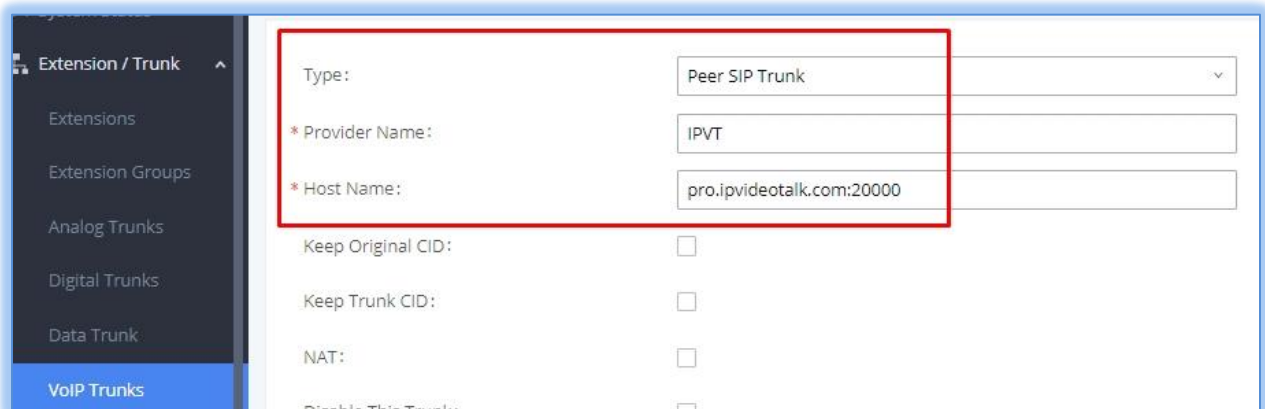


Figure 31 - Peer Trunk to IPVT

Make sure that the *Transport* field is either “TCP” or “TLS”. Save and apply changes to create the trunk.

Next, edit the newly created trunk and click on the *Advanced Settings* tab. Make sure the *IPVT Mode* option is checked. Otherwise, you may experience audio issues when dialing into IPVT.

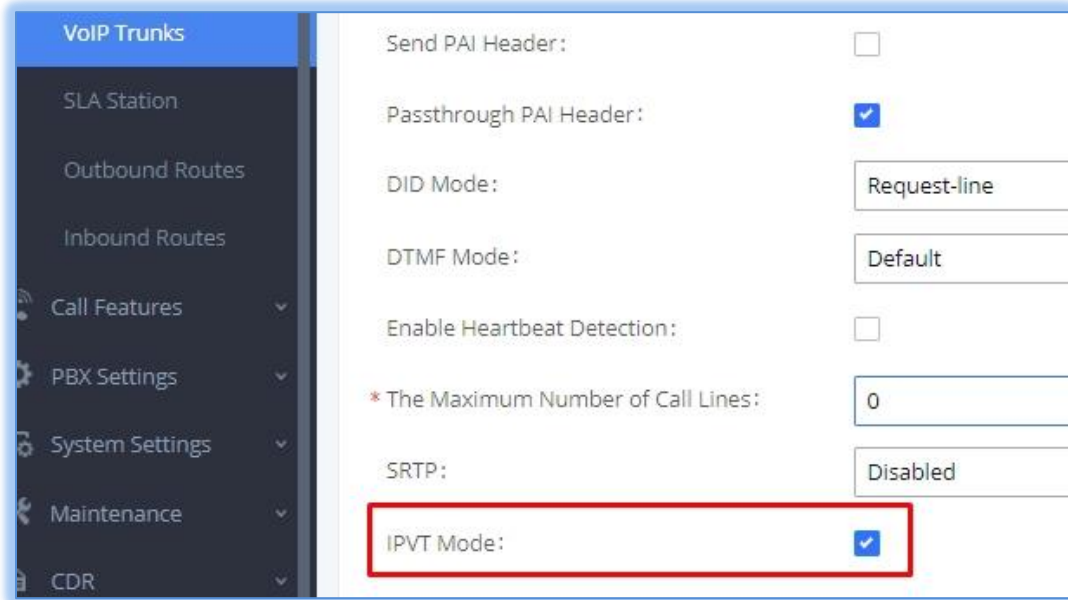


Figure 32 - IPVT Mode


Finally, create an outbound route for this trunk. This route will be used to dial IPVT meeting IDs. Due to IPVT meeting IDs having a random assortment of numbers, it is recommended to use a unique code to precede the meeting ID so that UCM can direct calls to the IPVT trunk without fail (e.g., *99). In the below image, “x.” would be the meeting ID.



Figure 33 - IPVT Outbound Pattern

However, if a unique code is used, users must also configure the *Strip* field to remove the unique code from

the meeting ID before the call is sent to IPVT.



| Main Trunk

* Trunk: SIPTrunks -- IPVT

Strip: 3

Prepend:

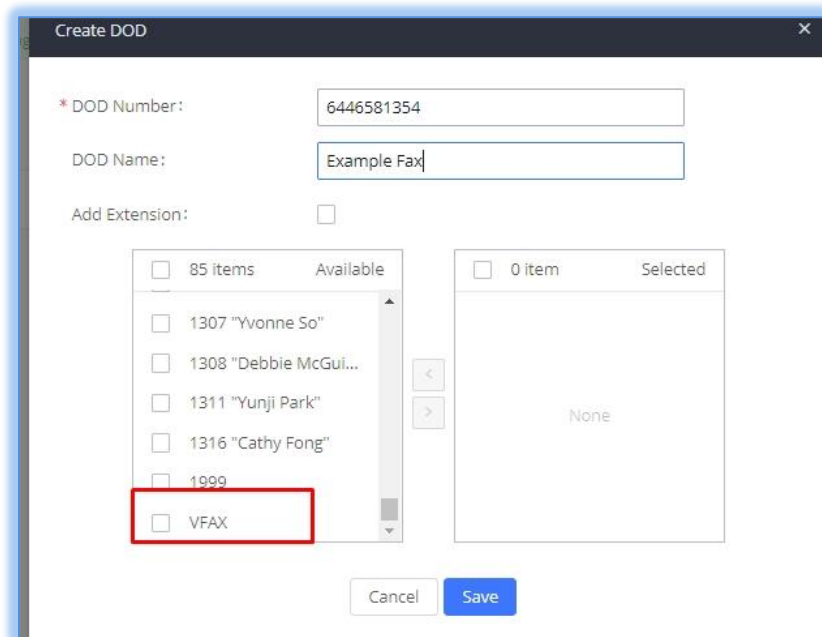
Figure 34 - IPVT Outbound Strip

In this example, the *Strip* field has “3” configured to remove the example unique code *99 from the dialed number before the call is routed out to the IPVT server. Once this outbound route has been created, users can now use a UCM extension to dial IPVT meeting rooms.

Note: An IPVT account can have only 1 SIP trunk peered to it.

ASSIGNING DOD TO FAX SENDING

DOD can now be assigned to the UCM's **Fax Sending** feature. To do this, select “VFAX” from the extension list when creating or editing a DOD number.



Create DOD

* DOD Number: 6446581354

DOD Name: Example Fax

Add Extension:

Available	Selected
<input type="checkbox"/> 85 items <input type="checkbox"/> 1307 "Yvonne So" <input type="checkbox"/> 1308 "Debbie McGul..." <input type="checkbox"/> 1311 "Yunji Park" <input type="checkbox"/> 1316 "Cathy Fong" <input type="checkbox"/> 1999 <input type="checkbox"/> VFAX	<input type="checkbox"/> 0 item None

Cancel Save

Figure 35 - Fax Sending DOD