UCM Series IP PBX Firmware Release Notes

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FIRMWARE VERSION 1.0.25.7

PRODUCT NAME

UCM6301, UCM6302, UCM6304, UCM6308, UCM6300A, UCM6302A, UCM6304A, UCM6308A

DATE

3/22/2024

FIRMWARE FILE INFORMATION

- UCM6301/6302 firmware file name: ucm6301_ucm6302fw.bin
  MD5: aceed697cf39a343cfb48cb1ed243ccd
- UCM6304/6308 firmware file name: ucm6304_ucm6308fw.bin
  MD5: 26e61be0a1eb14dce166154f5daf5f80
- UCM6300A/6302A firmware file name: ucm6300A_ucm6302Afw.bin
  MD5: 5a0556eceb892893c2454ae4fc0c5b4e
- UCM6304A firmware file name: ucm6304Afw.bin
  MD5: eb4a66c9c5305f915124132ee32036e5
- UCM6304/6308 firmware file name: ucm6308Afw.bin
  MD5: 0665ebd836983ace1659b125dec841e3

IMPORTANT UPGRADING NOTE

- **ALWAYS create a backup of your configuration and data before a firmware upgrade.**
- **After upgrading to 1.0.2.18 or higher, you will no longer be able to downgrade to 1.0.2.17 or lower.**
- **If the device is on a firmware version lower than 1.0.2.15, please upgrade to 1.0.2.15/16/17 first and then to the latest version.**
  - **UCM6301/2:** http://firmware.grandstream.com/Release_UCM6301_6302_1.0.2.17.zip
  - **UCM6304/8:** http://firmware.grandstream.com/Release_UCM6304_6308_1.0.2.17.zip
- **For UCM6304A on firmware version lower than 1.0.9.10, please upgrade to 1.0.9.10 first before upgrading to 1.0.11.10. UCM6304A firmware 1.0.9.10 can be downloaded here:**
  https://firmware.grandstream.com/Release_UCM6304A_1.0.9.10.zip
- **If the device is on a firmware version lower than 1.0.7.x, please upgrade to 1.0.9.x first before upgrading to 1.0.15.x.**
  - **UCM6301/2:** http://firmware.grandstream.com/Release_UCM6301_6302_1.0.9.10.zip
  - **UCM6304/8:** http://firmware.grandstream.com/Release_UCM6304_6308_1.0.9.10.zip
  - **UCM6300A/6302A:** http://firmware.grandstream.com/Release_UCM6300A_6302A_1.0.9.10.zip
  - **UCM6304A:** http://firmware.grandstream.com/Release_UCM6304A_1.0.9.10.zip
  - **UCM6308A:** http://firmware.grandstream.com/Release_UCM6308A_1.0.9.10.zip

- **It is recommended to upgrade UCM to latest firmware for improved product lifespan and security.**

CHANGES SINCE FIRMWARE VERSION 1.0.23.17

ENHANCEMENTS

- **[System]** Added several system optimizations.
- **[System]** Added support for direct upload of mp3 files. Users are given the option to keep the original mp3 files after the system automatically converts them.
- **[Clustering] [6304/6308 only]** Added multi-server clustering capabilities. [CLUSTER (UCM6304/6308)]
- **[BLF]** Re-added the sorting buttons to the event list tables.
- **[BLF]** When monitoring a ring group via BLF, the CID of callers can now be seen.
- **[CDR]** Added ability to add multiple email addresses for CDR auto download.
- **[Extension]** Added ability to batch edit emergency CID. Can only be done when editing all extensions.
- **[Extension]** Added the *None* option to the custom alert-info ringtone list. This removes the URL for external ringtone streaming in the alert-info header.
- **[Extension]** Extension exports will now include the following Follow Me columns: Enable, Skip Trunk Auth, Music On Hold Class, Confirm When Answering, Enable Destination, Play Follow Me Prompt.
- **[Extension]** User passwords are now hidden by default when creating new extensions. This can be toggled by clicking on the eye icon.
- **[HTTPS API]** Added additional PMS API commands. [NEW HTTPS API COMMANDS: ROOM STATUS & MINIBAR STATUS]
- **[Onsite Meetings]** Added .ics files to onsite meeting invitation emails.
- **[Paging]** LDAP numbers and custom numbers can now be added as Announcement Center group members.
- **[Paging]** Private intercom functionality has been merged with the 2-way intercom feature.
- **[Paging]** Announcement paging functionality has been merged with the 1-way paging, multicast paging, and scheduled paging features.
- **[Paging]** Added calendar schedule to the Scheduled Paging feature.

[Paging] Added the Multicast Communities feature. [CLUSTER (UCM6304/6308)

Users can now expand the calling capabilities of their UCM by pooling together resources of up to 5 additional UCMs under the same switch and network segment, allowing the system to essentially handle more calls and meeting participants. To create a cluster, users will need to assign one UCM as the main **Business Server** and at least one other UCM as a **Media Server**.

To get started, on the UCM intended to be the main Business Server, go to the **System Settings->Cluster** page and tick the option *Enable Media Cluster*. For **Device Role, s**elect *Business Server*.

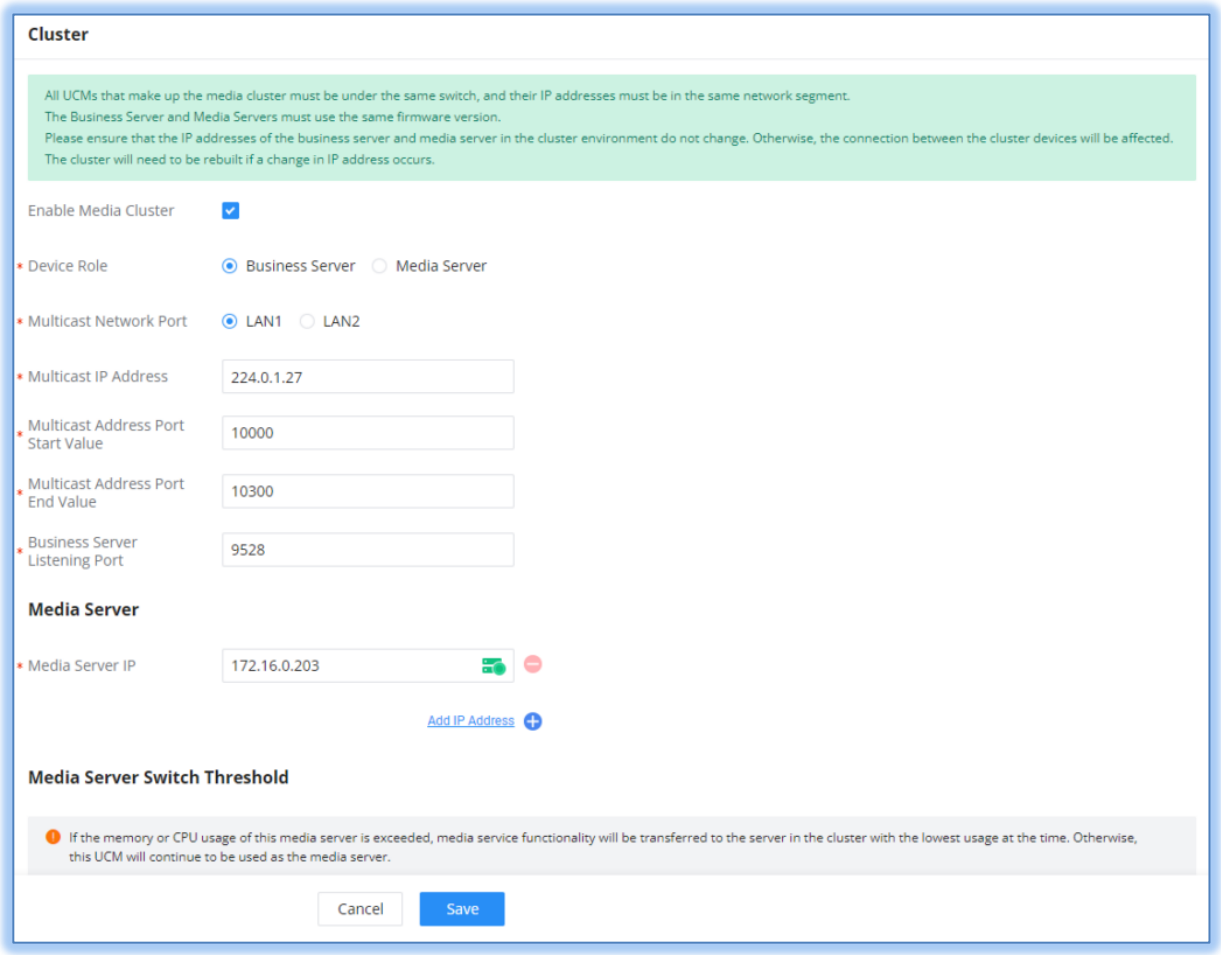

Figure 1 - Cluster Configuration

- **Enable Media Cluster** - Toggles the clustering functionality.
- **Device Role** - Assigns the role of the UCM as either Business Server or Media Server.
  - Business Server: Assigns the UCM as the main server of operations.
  - Media Server: Assigns the UCM as a resource server. All PBX related features will be disabled.
- **Multicast Network Port** - Enter the network port for multicast functionality.
- **Multicast IP Address** - Enter the multicast IP range. The allowed multicast IP address range is 224.0.1.0 - 238.255.255.255
- **Multicast Address Port Start Value** - Enter the multicast address port start value. The port number value can be within the range 1024 - 65535. Note: This start value must be lower or equal to the multicast address port end value.
- **Multicast Address Port End Value** - Enter the multicast address port end value. The port number value can be within the range 1024 - 65535. Note: This end value must be greater or equal to the multicast address port start value.
- **Business Server Listening Port** - The port on which the business server listens and receives

information reported by media servers. Port value must be within 1024 - 65535.

- **Media Server IP** - Enter the IP address of the media server. Up to 5 media servers can be added.
- **Memory Usage Threshold (%) -** When the memory usage of this media server is exceeded, media services will be assumed by another media server in the cluster with the lowest usage at the time.
- **CPU Usage Call Control Threshold (%)** - When the CPU usage of this media server is exceeded, media services will be asssumed by another media server in the cluster with the lowest usage at the time.
- **Memory Usage Threshold (%)** - When this server's memory usage exceeds the specified threshold, service from this server will be temporarily paused.
- **CPU Usage Call Control Threshold (%)** - When this server's CPU usage exceeds the specified threshold, service from this server will be temporarily paused.
- **Disk Available Space (MB)** - When the percentage of available space in the device's disk data partition falls below the set value, this server will not be used until the amount of available space is above the threshold again.

If configuring the UCM as a media server instead, select *Media Server* as the device role instead.

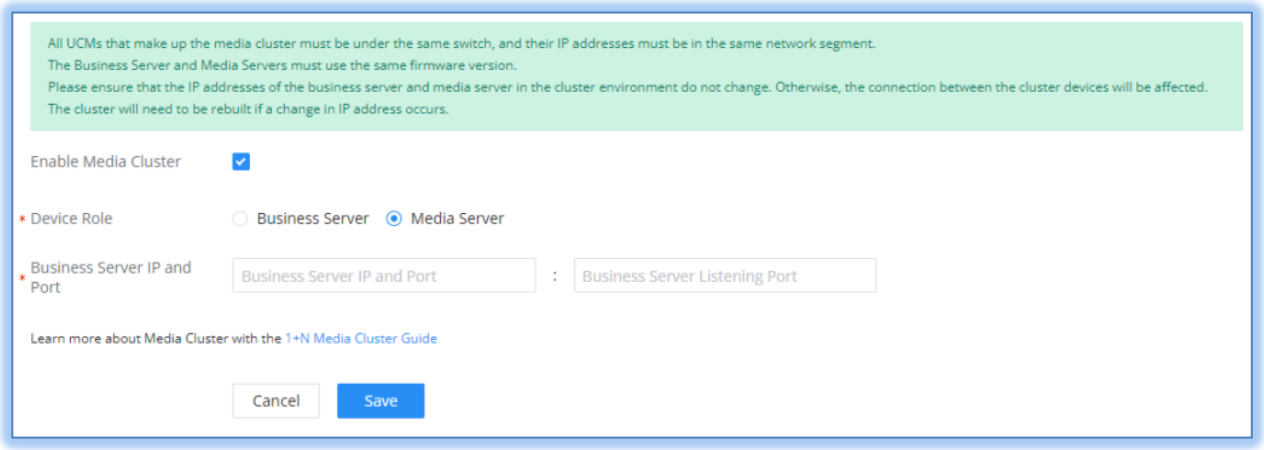

Figure 2 - Media Server Configuration

- **Enable Media Cluster** - Toggles the clustering functionality.
- **Device Role** - Assigns the role of the UCM as either Business Server or Media Server.
  - Business Server: Assigns the UCM as the main server of operations.
  - Media Server: Assigns the UCM as a media resource server. All PBX related features will be disabled.
- **Business Server IP and Port -** Enter the IP address and listening port of the business server. If the business server is using HA Local Hot Standby, the Hot Standby Cluster IP address must be used. If the business server is using HA Remote Disaster Recovery, the primary UCM and secondary UCM must have their own respective cluster environments and be configured accordingly.
  - MULTICAST COMMUNITIES]
  - **[PMS]** Added billing functionality. [PMS BILLING]
  - **[PMS]** Added ability to set call rates for billing.
  - **[Setup Wizard]** Added ability to set User/Wave password in the setup wizard.
  - **[SIP Settings]** The Contact header in 200 OK responses to INVITEs will now contain the callee's URI.
  - **[SIP Settings]** Added rtcp-mux DP attribute and trickle-ice option offer when communicating with Wave.
  - **[Speed Dial]** Added the ability to set a callee CID name field for speed dials to external numbers. This name will be displayed to the caller upon dialing.
  - **[Speed Dia]** Added a *Custom* destination field, allowing users to set values such as feature codes as speed dial destinations.
  - **[Storage Device Management]** Added the ability to hide the SFTP password from admin accounts.
  - **[User Management]** Added *Fax Sending* as a custom privilege.
  - **[User Management]** Admin users can now request HTTP certificates.
  - **[User Management]** Added Wave permission to view recordings. To provide read-only permissions for recordings, tick the *Manage Recordings* checkbox and untick the *Delete Recordings* checkbox.
  - **[VoIP Trunks]** Direct Callback no longer requires *Keep Trunk CID* to be enabled.

- **[VoIP Trunks]** Added ability to limit the number of concurrent outbound calls and inbound calls.
- **[Web]** Added several UI adjustments

BUG FIXES

- **[System]**
  - Fixed several system stability issues.
  - Fixed an issue with extensions frequently becoming unavailable in certain cases.
- **[Calling]**
  - Fixed an issue with disconnecting transferred inbound calls.
  - Fixed an issue where the second invited external call party to an N-way conference will not use the configured trunk DOD.
  - Fixed an issue where ringback tone cannot be heard when external parties call extensions with CFU set to external numbers.
  - Fixed an issue with one-way audio after several call forwardings.
  - Fixed an issue with no ringing when using alert-info on endpoints registered via the RemoteConenct address.
- **[CDR]**
  - Fixed an issue with downloading the CDR in certain cases.
- **[Device Management]**
  - Fixed an issue with being unable to call IP cameras.
- **[Fax]**
  - Fixed an issue with sending/receiving faxes through certain SBCs.
  - Fixed an issue with the Fax Sending feature randomly not generating the PDF of received faxes.
- **[Feature Codes]**
  - Fixed an issue with DTMF not being detected after seamless transferring.
- **[FXO/FXS]**
  - Fixed an issue with being unable to use the flash R button to transfer calls answered with the Call Pickup feature code.
  - [UCM6302A only] Fixed an issue with detecting CID.
- **[HA]**
  - Fixed an issue with the active device not backing up.
- **[HTTPS API]**
  - Fixed an issue with the CDR API's deletePaginggroup command.
  - Fixed an issue with adding a minibar via the PMS API.
- **[LDAP]**
  - Fixed an issue with the backslash (\) character being added to LDAP contacts that contain a plus symbol (+) when retrieved on endpoints.
  - Fixed an issue where space was added to Mobile Number values.
- **[Maintenance]**
  - Fixed an issue with automatic cleaner not working when using the "Keep X Days" option.
- **[Network Settings]**

    - Fixed an issue with being unable to configure IPv6 gateway.
- **[Operator Panel]**
    - Fixed an issue where users with Admin privilege get banned from logging in when attempting to use the Operator Panel feature.
- **[Recordings]**
    - Fixed an issue where ring group recordings could not be played.
- **[RemoteConnect]**
    - Fixed an issue with generating abnormal reboot alerts for normal rebooting operations.
    - Fixed an issue with STUN/TURN server timeouts when running the UCMRC diagnosis tool.
- **[Routing]**
    - Fixed an issue with inbound blacklist not working in certain cases.
- **[Security]**
    - Fixed an issue with being unable to remove a Fail2ban blacklist entry.
- **[Storage Device Manager]**
    - Fixed an issue where SD cards cannot be formatted in certain cases.
- **[Time Settings]**
    - Fixed an issue where holiday time conditions set to New Year's were not followed.
- **[Wave]**
    - Fixed an issue where attended transfer to a call queue resulted in missed calls for queue agents.
    - [iOS] Fixed an issue with the incoming call notification not separating first name and last name.
- **[Web]**
    - Fixed several UI issues.
    - Fixed an issue with recordings for transferred calls not being displayed.
    - Fixed an issue where Greek characters are not counted properly.
- **[Zero Config]**
    - Fixed an issue where Athens was included in the wrong timezone.
    - Added multicast listening address configuration to the GSC Zero Config template.

NEW LIMITATIONS

- **[Queue]** Duplicate agents in different queues now count towards the total static agent limit.

KNOWN ISSUES

- **[Email Settings]** The email setting testing functionality does not work properly.
- **[PMS]** The tooltip for the call rate starting cost field is incorrect.

NEW FEATURES OVERVIEW

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

CLUSTER (UCM6304/6308)

Users can now expand the calling capabilities of their UCM by pooling together resources of up to 5 additional UCMs under the same switch and network segment, allowing the system to essentially handle more calls and meeting participants. To create a cluster, users will need to assign one UCM as the main **Business Server** and at least one other UCM as a **Media Server**.

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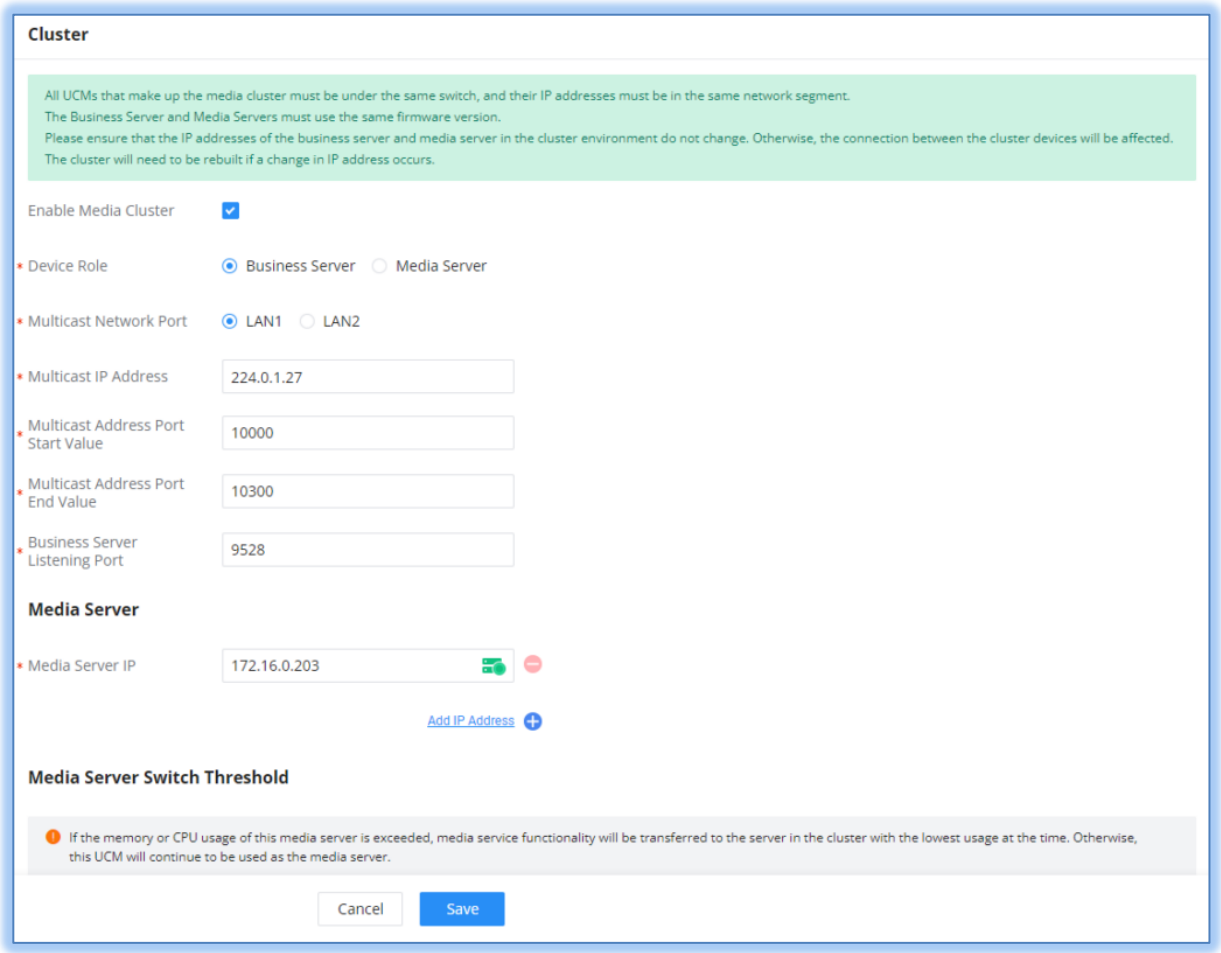

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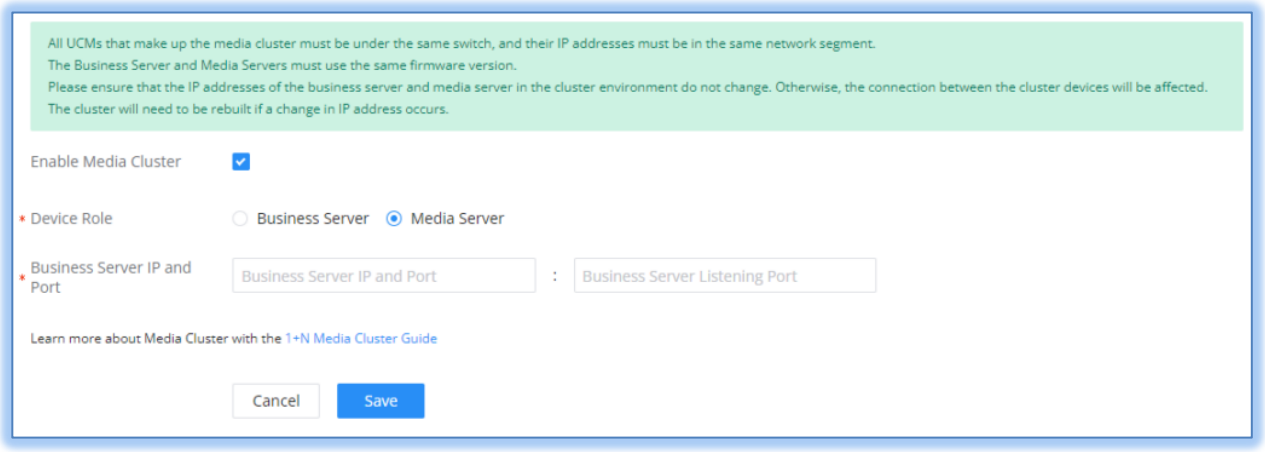

Figure 2 - Media Server Configuration

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MULTICAST COMMUNITIES

Users can now create and page several multicast paging groups at once with the Multicast Communities feature.

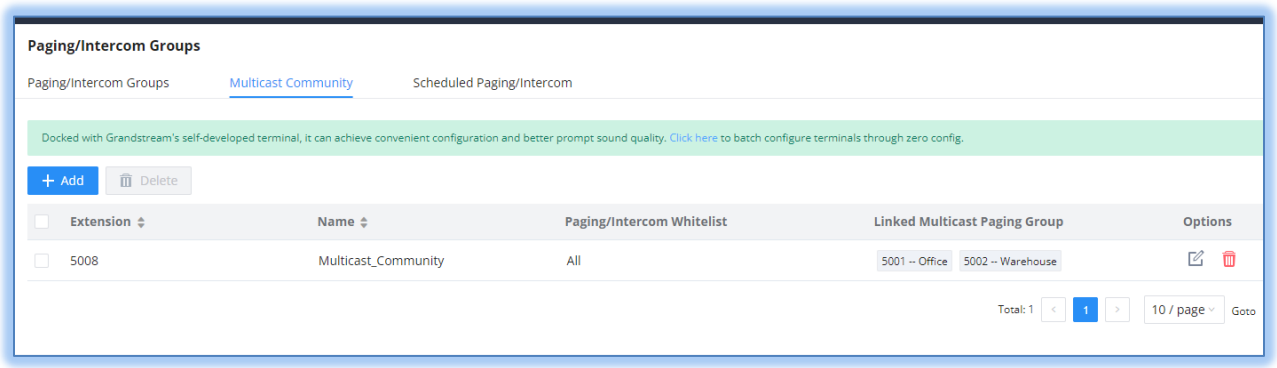

Figure 3 - Multicast Community Overview

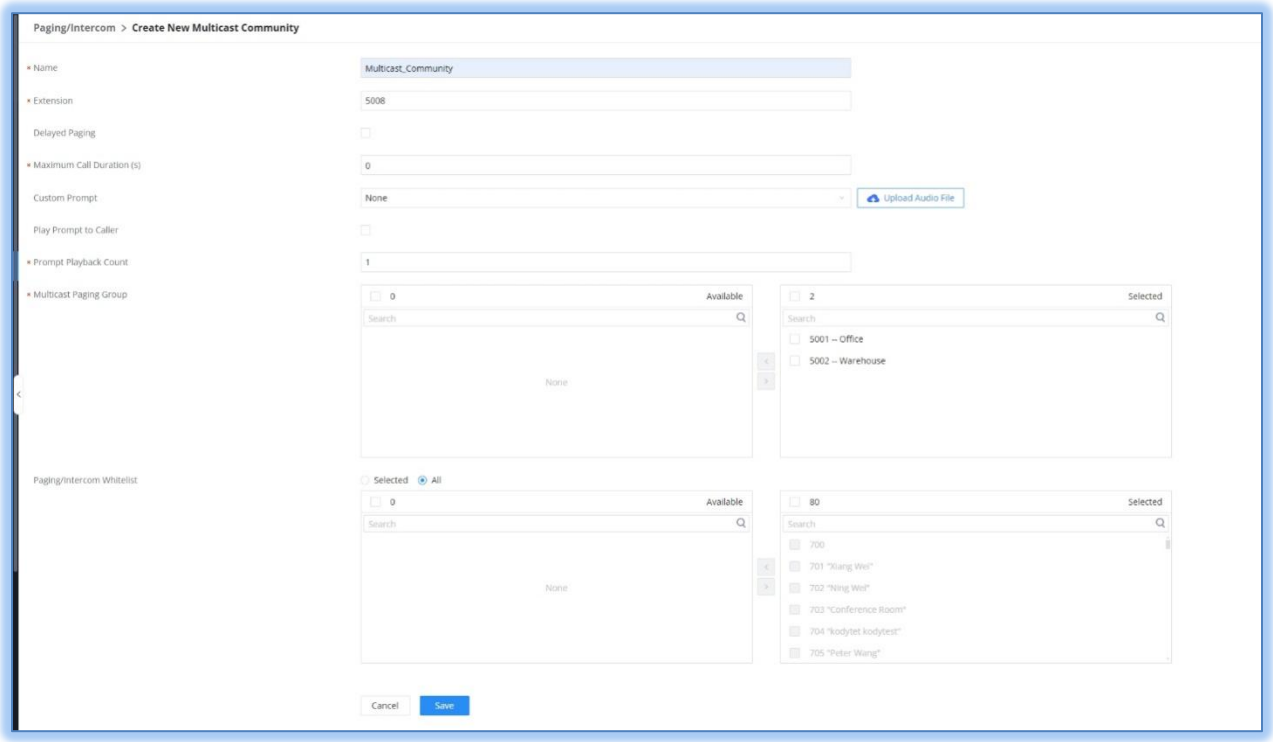

Figure 4 - Multicast Community Settings

In the scenario that a large-scale announcement must be made, but an organization's existing announcement structure is segmented, multicast communities can be used to make site-wide or company-wide announcements without the hassle of having to create new paging groups and configure endpoints to listen to another multicast address.

PMS BILLING

UCM has now added billing functionality to its PMS integration offerings, including its own Local PMS.

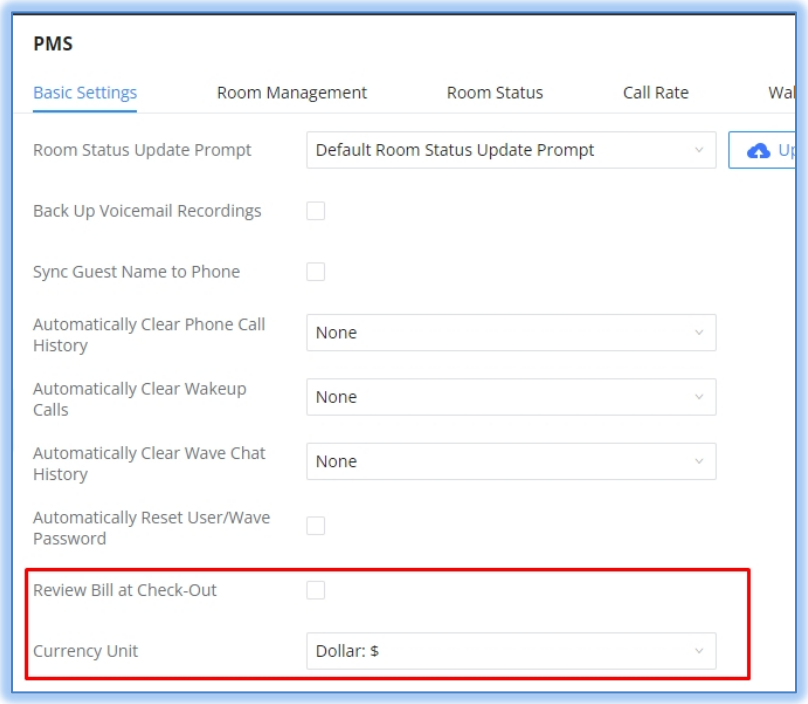

Figure 5 - Local PMS Billing

Call rates can now be set for outside call billing purposes.

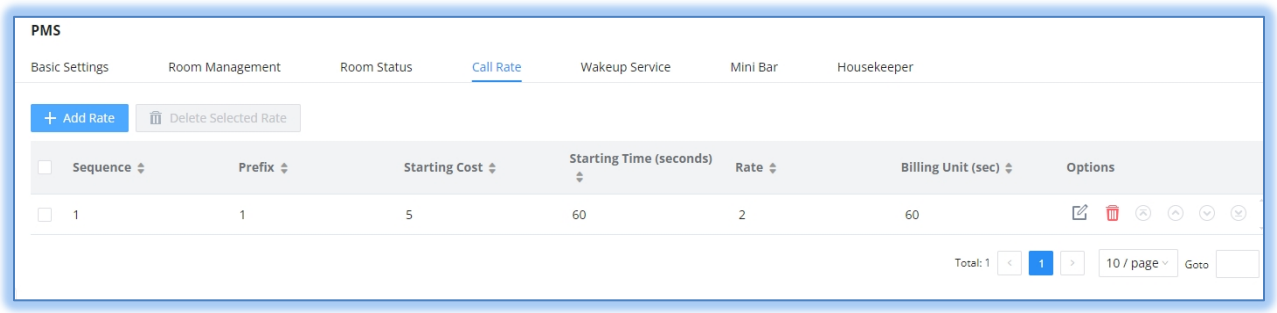

Figure 6 - Call Rate Overview

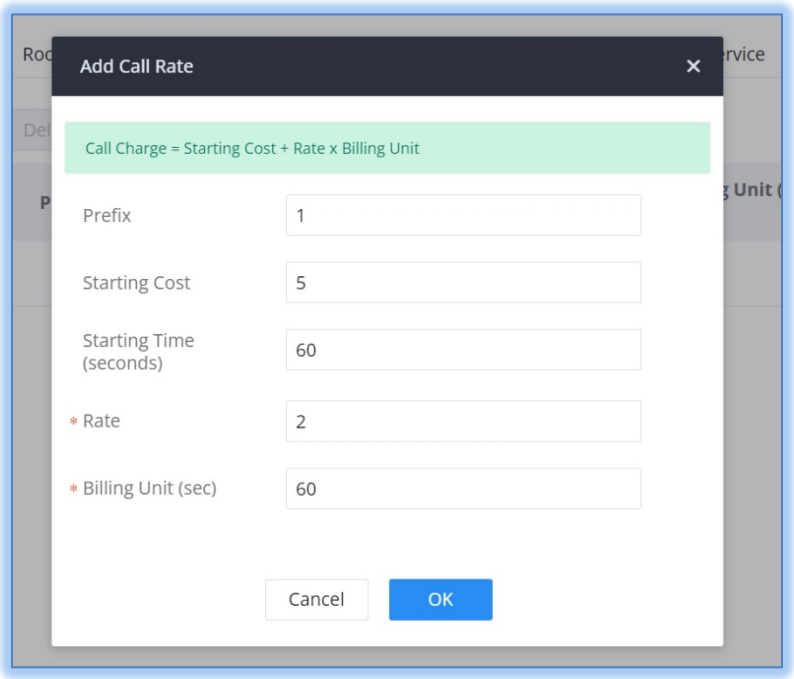

Figure 7 - Call Rate Options

In this example, calls to numbers starting with 1 will be billed. Assuming the currency is USD, the base cost of a call is $5, and this will be charged as soon as a call is successfully established. No additional charges will be added for the first 60 seconds (1 minute). After 60 seconds have elapsed, additional charges will be added based on the configured rate and billing unit. In this case, an extra $2 will be charged for every additional 60 seconds.

If an analog trunk is used for external calls instead of a SIP trunk, the following will need to be considered:

- If the analog trunk's *Polarity Reversal* option is enabled, the call will only be charged when the call is established/answered on the other end.
- If the analog trunk's *Polarity Reversal* option is disabled, the call will be charged as soon as it successfully leaves the UCM.

NEW HTTPS API COMMANDS: ROOM STATUS & MINIBAR STATUS

The following API commands have been added

- **getMiniBar:** Retrieves information about the configured minibar.
- **listMiniBarGoods**: Retrieves the list of purchasable items that have been configured.
- **listPMSRoom**: Retrieves a list of all rooms.
- **getPMSRoomGoods**: Retrieves the status of purchasable minibar items in a specified room.

Example Requests & Responses:

getMiniBar - Retrieves information about the configured minibar.

Request

```
{
    "request": {
        "action": "pmsapi",
        "cookie": "sid833196619-1706253582",
        "data": {
            "getMiniBar": {}
        },
        "token": "16c4a7b1fe890f89c8908f3f522fc18f"
    }
}
```

Successful Response

```
{
    "response":{
        "minibar_settings":{
                "del_extension":"10087",
                "enable_list_goods":"yes",
                "extension":"10086",
                "global_tax":1.0,
                "minibar_enable":"yes",
                "minibar_name":"",
                "prompt":"welcome",
                "verify_skip":"no"
            }
    },
    "status":0
}
```

Failed Response

```
{
    "response":{
        "error":"[16] AUTH ERROR !"
    },
    "status":-1
}
```

Parameters

Parameter	Type	Description
status	int	Returns 0 if successful
extension	String	The number to dial to bill a minibar item to a Guest.
del_extension	String	The number to dial to remove/cancel a minibar item billed to a Guest.
prompt	String	The filename of a custom voice prompt on the UCM that's used for the minibar. If this is used as a request parameter, the value must be formatted as record/filename (e.g., if the prompt's file name is kiri.wav, the value must be *record/kiri*).

Parameter	Type	Description
verify_skip	String	yes/no. If yes, housekeepers will use 0000 as their housekeeper code.
enable_list_goods	String	yes/no. If yes, users will be able to bill multiple items at once by separating each item with *. Otherwise, items must be billed one at a time.
global_tax	Double	Set the global tax rate of minibar items. If an individual item does not have its own tax rate, this tax rate value will be used.
minibar_enable	String	yes/no. If yes, the minibar will be enabled, and users will be able to bill minibar items to Guests.
minibar_name	String	Name of the minibar

listMiniBarGoods - Retrieves the list of purchasable items that have been set.

Request

```
{
    "request": {
        "action": "pmsapi",
        "cookie": "sid833196619-1706253582",
        "data": {
            "listMiniBarGoods": {}
        },
        "token": "16c4a7b1fe890f89c8908f3f522fc18f"
    }
}
```

Successful Response

```
{
    "response":{
        "goods_name":[
            {
                "amount":"100",
                "extension":"01",
                "goods_name":"apple",
                "goods_tax":1.1,
                "prompt_error":"set-failture",
                "prompt_success":"set-success"
            },
            {
                "amount":"5",
                "extension":"02",
                "goods_name":"banana",
                "goods_tax":1.1,
                "prompt_error":"set-failture",
                "prompt_success":"set-success"
            },
            {
                "amount":"",
                "extension":"03",
                "goods_name":"paper",
                "goods_tax":0.0,
```

```
                "prompt_error":"set-failture",
                "prompt_success":"set-success"
            }
        ],
        "page":1,
        "total_item":3,
        "total_page":1
    },
    "status":0
}
```


Failed Response


```
{
    "response":{
        "error":"[16] AUTH ERROR !"
    },
    "status":-1
}
```


Parameters

Parameters	Type	Description
status	int	Returns 0 if successful.
amount	Double	Price of the minibar item.
extension	String	Item code of the minibar item.
goods_name	String	Name of the minibar item.
goods_tax	Double	Tax rate of the minibar item. If set to 0, the global tax rate will be used for billing.

listPMSRoom: Lists all existing rooms

Request


```
{
    "request": {
        "action": "pmsapi",
        "cookie": "sid833196619-1706253582",
        "data": {
            "listPMSRoom": {}
        },
        "token": "16c4a7b1fe890f89c8908f3f522fc18f"
    }
}
```

Successful Response


```
{
    "response":{
        "page":1,
        "pms_room":[
            {
                "account":"",
                "address":"4000",
                "chki_status":"yes",
                "credit":"",
                "datein":"2024-01-11 15:59:00",
                "dateout":"2024-01-12 15:59:00",
                "default_permission":"internal",
                "extension":"4000",
                "first_name":"",
                "language":"",
                "last_name":"",
                "maid":"",
                "number":"4000",
                "order_id":"203009081022274000",
                "permission":"internal",
                "room":"4000",
                "s_date":"",
                "s_time":"",
                "status":"1",
                "tmp_address":"4000",
                "tmp_extension":"4000",
                "tmp_user_name":"4000",
                "user_name":"",
                "vipcode":""
            }
        ],
        "total_item":3,
        "total_page":1
    },
    "status":0
}
```


Failed Response


```
{
    "response":{
        "error":"[16] AUTH ERROR !"
    },
    "status":-1
}
```


Parameters

Parameter	Type	Description
user_name	String	Guest's full name
vipcode	String	Guest's category code
address	String	Unique identifier of the room

Parameter	Type	Description
extension	String	Extension number of the room
room	String	Room number
number	String	Room number
account	String	Guest's account number
firstname	String	Guest's first name
lastname	String	Guest's last name
language	String	Language of the phone system prompts. English and Chinese are available by default. Additional language voice packs can be downloaded from the *PBX Settings -> Voice Prompts* page.
datein	String	Check-in date
dateout	String	Check-out date
credit	String	Guest's credit amount
tmp_addres	String	Guest's room before a room change
chki_status	String	Room status
default_permission	String	Default calling privileges of the room upon check-in
tmp_extension	String	Guest's extension number before a room change
tmp_user_name	String	Guest's name before a room change
status	String	Room occupancy status (1 - Occupied, 2 - Unoccupied)
s_time	String	Room status change time
s_date	String	Room status change date

getPMSRoomGoods: Retrieves the status of purchasable minibar items in a specified room

Request

```
{
    "request": {
        "action": "pmsapi",
        "cookie": "sid833196619-1706253582",
        "data": {
            "getPMSRoomGoods": {
                "room": "4001"
            }
        },
        "token": "16c4a7b1fe890f89c8908f3f522fc18f"
    }
}
```

Successful Response

```
{
    "response":{
        "minibar_goods":[],
        "page":1,
        "total_item":0,
        "total_page":1
```

```
    },
    "status":0
}
```

Failed Response

```
{
    "response":{
        "error":"[16] AUTH ERROR !"
    },
    "status":-1
}
```

Parameters

Parameters	Type	Description
status	int	Returns 0 if successful.
room	string	Specifies the room to get information of
goods_name	String	Name of the minibar item
count	int	Quantity of the minibar item
amount	Double	Price of the minibar item
time	String	Log time
maid	String	Code of the assigned housekeeper
tax	Double	Tax rate of the minibar item