

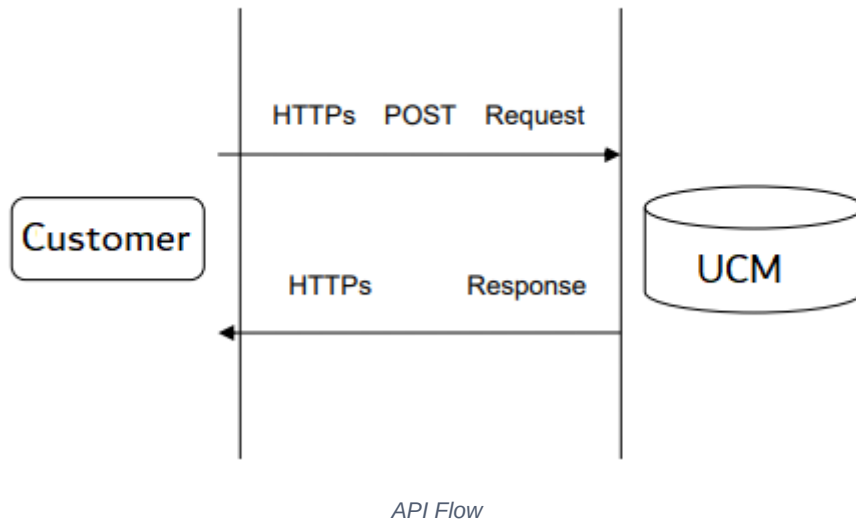
Grandstream Networks, Inc.

IPPBX HTTPS API



IPPBX HTTPS API

The UCM provides a new API interface to query, edit PBX settings and implement multiple call functions on another server connected to it via API. UCM will actively send system reports and call reports to this other server. Additionally, legacy CDR API, REC API and PMS API in addition to QUEUE API are included and supported by default when enabling API.



The UCM6xxx series includes the UCM620x, UCM630x, and UCM630xA series as well as the UCM6510.

The UCM6xxx series include the UCM620x, UCM630x and UCM630xA series as well as the UCM6510.

API Basics

To get started with UCM's API feature, users must configure the HTTPS API settings and get familiar with the feature's communication method, request structure, response messages, and event reports. WebSocket is supported to ensure a bi-directional communication between the IPPBX and the client for immediate notifications and reports.

Configuring the API

Enabling PBX API Interface

1. Log into the UCM web UI and navigate to **Integrations > API Configuration > HTTPS API Settings (New)**.
2. Check the Enable option and configure a username and password. These credentials will be used when connecting to the API.

API Configuration

API Settings (New)

HTTPS API Settings (Old)

CDR Real-time Output Settings

Upload Prompts User Configuration

The UCM provides a second API interface to query, edit PBX settings and implement multiple call functions on another server connected to it via API. PBX will actively send system reports and call reports to this other server. Additionally, legacy CDR API, REC API and PMS API are supported. Please see the user manual for more details.

Enable API: ☒

Save

+ Add

USER

cdraapi

OPTIONS

<

1

>

Total: 1

10 / page

Goto

1

Copyright © Grandstream Networks, Inc. 2022. All Rights Reserved.

HTTPS API Settings

The admin can create multiple users with different credentials to be able to authenticate into the API.

Enable	Enable/Disable API. The default setting is disabled.
Username	Configure the username for API Authentication.
Password	Configure the password for API Authentication.
Call Control	If enabled, 3rd party applications will be able to manage inbound calls via API actions. acceptCall will accept incoming calls while refuseCall will reject them. If no actions are done within 10 seconds, calls will automatically be accepted.

New API Configuration Parameters

Login Restrictions

When several failed login attempts have been made from a specific IP address, that IP address will be added to the UCM's blacklist and will be unable to access the UCM. To ensure this doesn't happen to trusted IP addresses, consider enabling and adding its IP address to the whitelist as shown on the same page as the server configuration.

Communication

Communication Protocol

The API uses HTTPS protocol and the same certificate used for UCM web portal. If the UCM is using HTTP, the API feature cannot be used.

JSON data into HTTP request

Below is a JSON example of **challenge** action and how the JSON script will be encapsulated in HTTPS Post request:

```
curl -H "Content-Type: application/json;charset=UTF-8" -H "Connection: close" -X POST -d '{
  "request": {
    "action": "challenge",
    "user": "cdrapi",
    "version": "1.0"
  }
}' -k "https://192.168.5.153:8089/api" --insecure
```

As a response to the sent request, the UCM will return a challenge string which will be used to generate the token as mentioned above and with the same structure the **login** action needs to be sent to have the cookie id as response.

Communication Method

The communication between the UCM and 3rd party applications is like the following:

- 3rd party application server sends request to UCM:
 1. 3rd party application initiates the request.
 2. 3rd party application is the client, and UCM is the server.
 3. Scenario: 3rd party application initiates calls and sends query to UCM.

Version Control

"Challenge" requests must contain the API version number. If version is not specified, requests will be parsed based on the latest version of the API, and this may result in information being processed incorrectly. Thus, it is highly recommended to include version number in the challenge request.

Example: If the latest API version is 1.2, and the 3rd party interface was developed using version 1.0, version 1.0 must be included when sending the challenge request.

```
{"request": {"action": "challenge", "version": "1.0", "user": "api"}}
```

Operation Log

UCM's Operation Log feature is able to display API activity history. API actions will be labeled with "(API)" at the end of each entry. Operation Log entries can be filtered and deleted.

Operation Log

Delete Search Result (s)	Delete All Logs	Download Search Result (s)	Download All Log	
Date ↕	User Name ↕	IP Address ↕	Results ↕	Page Operation ↕
2019-02-25 17:03:03	cdrapi	192.168.129.16	Operation successful	Logout: logout(API)
2019-02-25 17:03:02	cdrapi	192.168.129.16	Operation successful	Extensions: updateSIPAccount(API)
2019-02-25 17:03:02	cdrapi	192.168.129.16	Operation successful	applyChanges(API)
2019-02-25 17:03:01	cdrapi	192.168.129.16	Operation successful	Login: login(API)
2019-02-25 16:43:12	cdrapi	192.168.129.16	Operation successful	Extensions: updateSIPAccount(API)
2019-02-25 16:43:12	cdrapi	192.168.129.16	Operation successful	applyChanges(API)

Operation Log

Establishing Connection and User Authentication

To use HTTPS API users need to connect to the UCM's IP address with HTTPS/HTTP port which is by default **8089** then authenticate using the configured **Username** and **Password**.

Challenge

The HTTP authentication is based on challenge/response authentication protocol. The client sends a request for a challenge.

```
{
  "request":{
    "action":"challenge",
    "user":"cdrapi",
    "version":"1.0"
  }
}

{
  "response":{
    "challenge":"0000001652831717"
  },
  "status":0
}
```

Key word	Value	Mandatory	Type	Note
Request Parameter				
user		Yes	string	API username

Version		No	string	API protocol version. New versions will be available for future interfaces. Different versions will be compatible with one another. This keyword is not mandatory. By default, the latest version will be used. If the requested version cannot be matched, the latest version is used
Successful response				
status	0	Yes	int	Successful response
challenge	16-digit Random number	Yes	string	Random string returned by the API used to generate secret key for logging in.
Failed response				
status		Yes		Please see the error code list for more details.
remain_num		No	int	When obtaining parameter failed, the number of remaining attempts will be returned. After exceeding the remaining number of attempts, this IP and username will be added to UCM login blacklist. On UCM web page, the banned IP can be removed.
remain_time		No	int	When an IP address or username has been banned, the ban period will be returned.

HTTP Challenge

Login

Upon obtaining the challenge string, the client then creates an MD5 hash consisting of the challenge and the user password. By sending a login command with the username and MD5 hash, the client will be able to log in. User information will be returned upon successful login.

```
{
  "request": {
    "action": "login",
    "token": "0faa24433e3c7a9bcfa8000f735305d5",
    "url": "http://192.168.5.199:8070",
    "user": "cdrapi"
  }
}
```

```
{
  "response": {
    "cookie": "sid1652831717-1574421057"
  },
  "status": 0
}
```

```
}
```

Key word	Value	Mandatory	Type	Note
Request Parameter				
user		Yes	string	API username
token		No	string	Verification code MD5(\${challenge}\${password})
url		No	string	The URL used by the 3rd party application to obtain API reports. For example: \${ip}:\${port}/\${path} Note: If this parameter is not included, no API report can be sent. Note: This feature is not supported yet.
Successful response				
status	0	Yes	int	Successful response
Cookie		Yes	string	Cookie is generated after the 3rd party application successfully connects to the UCM. Excluding challenge and login requests, other API requests need to include the cookie returned by API authentication. Cookie times out in 10 minutes.
Failed response				
status		Yes		Please see the error code list for more details.
remain_num		No	int	When obtaining parameter failed, the number of remaining attempts will be returned. After exceeding the remaining number of attempts, this IP and username will be added to UCM login blacklist. On UCM web page, the banned IP can be removed.
remain_time		No	int	When an IP address or username has been banned, the ban period will be returned.

HTTPS API Login

Logout

The user can send a logout request to log out of the API session.

- Request

```
{
  "request": {
    "action": "logout",
    "cookie": "sid930353464-1670323942"
```

```
}  
}
```

- Response

```
{  
  "response": {},  
  "status": 0  
}
```

Key word	Value	Mandatory	Type	Note
Request Parameter				
cookie		No	string	Verification code MD5(\${challenge}\${password})
Successful response				
status	0	Yes	int	Successful response
Failed response				
status		Yes		Please see the error code list for more details.

Session Lifetime and Keepalive Mechanisms

The IPPBX HTTPS API and WebSocket (WSS) API use different session models and keepalive mechanisms. Integrators must handle each independently to prevent unintended session expiration.

HTTPS API Session Lifetime

After a successful HTTPS API login, the system issues a session cookie. This cookie represents an authenticated HTTPS session.

The HTTPS API session **expires after 5 minutes of inactivity**, meaning **no HTTPS API requests** received within this period.

Once expired, all subsequent HTTPS API requests using the expired cookie will fail and the client must perform a new challenge and login.

HTTPS Session Keepalive

To prevent HTTPS session expiration, the API provides a ping action that refreshes the session inactivity timer. Since ping is counted as HTTPS activity, clients must send a ping request at least once every five minutes with a valid session cookie to maintain the session.

- ping does not return configuration or system data.
- ping is not a login replacement.
- ping is required only if no other HTTPS API calls are being made.

- Ping Request Example

```
{  
  "request": {  
    "action": "ping",  
    "cookie": "sid1652831717-1574421057"  
  }  
}
```

```
}
```

- Ping Successful Response Example

```
{  
  "response": {},  
  "status": 0  
}
```

- Ping Failed Response Example (Expired Session)

```
{  
  "response": {},  
  "status": -8  
}
```

Data Definition

Request Data

Action: Define the action needed to be executed on the UCM.

Cookie: Session identifier.

Parameters: Parameters of the defined action.

```
{  
  "request": {  
    "action": "",  
    "cookie": "",  
    "options": "" #This field is optional to include parameters  
  }  
}
```

Parameters will be added depending on the used action

Response Data

Status: Please refer to the return code table. [Error Return Codes]

Applying Configuration (applyChanges)

Many HTTPS API operations modify the running configuration of the IPPBX. For these changes to take effect, the API client **must explicitly invoke** the applyChanges action.

Failure to call applyChanges after a configuration-changing operation will result in the change being **stored but not activated**.

The applyChanges action must be called after any HTTPS API request that modifies system configuration. Read-only and call-control operations **do not require** applyChanges.

- Request Example

```
{  
  "request": {  
    "action": "applyChanges",  
    "cookie": "sid1652831717-1574421057"  
  }  
}
```

```
}
```

- **Successful Response Example:**

```
{
  "response": {
    "settings": "0"
  },
  "status": 0
}
```

- **Failure Response Example (Apply in Progress)**

If applyChanges is called while a previous configuration apply operation is still in progress, the API returns the following response:

```
{
  "response": {},
  "status": -45
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Successful response				
status	0	yes	int	Successful response, status is 0
Failed response				
status		yes	int	Please see the error code list for more details.

applyChanges

The following HTTPS API categories do not modify persistent configuration and therefore do not require applyChanges:

- **Authentication and session control:** challenge, login, logout, ping
- **Query / list operations:** listAccount, getSIPAccount, listTrunkGroup, getQueue, etc.
- **Call control operations:** dialExtension, dialOutbound, hangup, hold, callTransfer
- **CDR and recording retrieval:** cdrapi, recapi, getRecordInfosByCall

The following table defines when applyChanges is required.

Configuration Category	APIs List
Extensions / Users	addSIPAccountAndUser, updateSIPAccount, deleteUser, updateUser
SIP Trunks	addSIPTrunk, updateSIPTrunk, deleteSIPTrunk
Analog Trunks	addAnalogTrunk, updateAnalogTrunk, deleteAnalogTrunk
Trunk Groups	addSIPTrunkGroup, updateTrunkGroup, deleteSIPTrunkGroup
DOD Rules	addDODVoIPTrunk, updateDODVoIPTrunk, deleteDODVoIPTrunk
Inbound Routes	addInboundRoute, updateInboundRoute, deleteInboundRoute

Outbound Routes	addOutboundRoute, updateOutboundRoute, deleteOutboundRoute
Call Queues	addQueue, updateQueue, deleteQueue
IVR	addIVR, updateIVR, deleteIVR
Paging / Intercom	addPaginggroup, updatePaginggroup, deletePaginggroup
PIN Sets	addPinSets, updatePinSets, deletePinSets

Operation Methods

Get System Configuration

getSystemStatus

The "getSystemStatus" action will return the system information.

- Request

```
{
  "request":{
    "action":"getSystemStatus",
    "cookie":"sid877877-1574437822"
  }
}
```

- Response

```
{
  "response":{
    "idle-time":"14:32:44",
    "part-number":"9660002815A",
    "serial-number":"21AWMJPH70BCA783",
    "system-time":"2019-11-22 17:50:26 UTC+02:00",
    "up-time":"07:33:15"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		Yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Successful response				
status	0	Yes	int	Return successful, status is 0
part-number		No	string	Product part number
up-time		No	string	System uptime since bootup
idle-time		No	string	System idle time
system-time		No	string	System time

Failed response				
status		yes	int	Please see the error code list for more details.

getSystemStatus

getSystemGeneralStatus

The "getSystemGeneralStatus" action will return the version information.

- Request

```
{
  "request":{
    "action":"getSystemGeneralStatus",
    "cookie":"sid877877-1574437822"
  }
}
```

- Response

```
{
  "response":{
    "base-version":"1.0.20.13",
    "boot-version":"1.0.20.8",
    "core-version":"1.0.20.8",
    "gswave-version":"1.0.20.13",
    "lang-version":"1.0.20.13",
    "product-model":"UCM6202 V1.5A",
    "prog-version":"1.0.20.13",
    "rcvr-version":"1.0.20.8"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Successful response				
status	0	yes	int	Successful response, status is 0
product-model		no	string	Product model
base-version		no	string	Base version
prog-version		no	string	Program version
boot-version		no	string	Boot version
core-version		no	string	Core version

rcvr-version		no	string	Recovery version
lang-version		no	string	Lang version
gswave-version		no	string	GSWave version
Failed response				
status		yes	int	Please see the error code list for more details.

getSystemGeneralStatus

Extension

Add SIPAccountAndUser

Creates a new SIP extension. The addSIPAccountAndUser's supported parameters and values are the same as the existing **updateSIPAccount** command.

- Request

```
{
  "request": {
    "action": "addSIPAccountAndUser",
    "cookie": "sid343971159-1551949394",
    "extension": "1001",
    "max_contacts": "3",
    "permission": "internal",
    "language": "ch",
    "secret": "Abc123456!",
    "vmsecret": "Abc123456!",
    "user_password": "Abc123456!",
    "wave_privilege_id": "0",
    "presence_settings":
    [{
      "presence_status": "available",
      "cfu_destination_type": "1",
      "cfb_destination_type": "0",
      "cfn_destination_type": "5",
      "cfu_timetype": "0",
      "cfb_timetype": "0",
      "cfn_timetype": "0",
      "cfu": "6000",
      "cfn": "6500",
      "cfb": ""
    }, {
      "presence_status": "away",
      "cfu_destination_type": "5",
      "cfb_destination_type": "0",
      "cfn_destination_type": "0",
      "cfu_timetype": "0",
      "cfb_timetype": "0",
      "cfn_timetype": "0",
      "cfu": "6500",
```

```

"cfm": "",
"cfb": ""
}, {
"presence_status": "chat",
"cfb": null,
"cfm": null,
"cfu": null,
"cfb_timetype": 0,
"cfm_timetype": 0,
"cfu_timetype": 0,
"cfb_destination_type": "0",
"cfm_destination_type": "0",
"cfu_destination_type": "0"
}, {
"presence_status": "userdef",
"cfu_destination_type": "0",
"cfb_destination_type": "0",
"cfm_destination_type": "0",
"cfu_timetype": "0",
"cfb_timetype": "0",
"cfm_timetype": "0",
"cfu": "",
"cfm": "",
"cfb": ""
}, {
"presence_status": "unavailable",
"cfb": null,
"cfm": null,
"cfu": null,
"cfb_timetype": 0,
"cfm_timetype": 0,
"cfu_timetype": 0,
"cfb_destination_type": "0",
"cfm_destination_type": "0",
"cfu_destination_type": "0"
}]
}
}

```

- Response

```

{
"response": {
"need_apply": "yes"
},
"status": 0
}

```

deleteUser

Delete an existing SIP extension.

Supported parameters:

Key Word	Value	Mandatory	Type	Note
Request Parameters				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
user_name		yes	string	The extension number

- Request

```
{
  "request":{
    "action":"deleteUser",
    "cookie":"sid1466367100-1946280676",
    "user_name":"1003"
  }
}
```

- Response

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

listAccount

The "listAccount" action will return information about the extensions created on the UCM, such as the extension's number, its name etc.

The needed information, can be defined in the parameter "**options**".

- Request

```
{"request":{"action":"listAccount","cookie":"sid877877-1574437822","item_num":"30","options":"extension,account_type,fullname,status,addr","page":"1","sidx":"extension","sord":"asc" #If only the action and the cookie were defined, this will return all the available account}}
```

- Response

```
{"response":{"account":[{"account_type":"SIP(WebRTC)","addr":"-","extension":"1000","fullname":null,"status":"Unavailable"},{"account_type":"SIP(WebRTC)","addr":"192.168.5.95:62144","extension":"1102","fullname":null,"status":"Idle"},],"page":1,"total_item":2,"total_page":1},"status":0}
```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.

page		no	int	Retrieves the extensions on the specified page. This page is based on the value for the item_num parameter. If item_num is unspecified, all items will be on page 1.
item_num		no	int	Maximum number of extensions to retrieve for the query. If unspecified, all extensions will be returned. This also indicates the number of items per page for the page parameter
sord	acs, desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.
sidx		no	string	Sort according to the index.
options	extension, account_type, fullname, out_of_service, status, addr, urgmsg, newmsg, oldmsg	no	string	Specify the extension details to retrieve and display. Multiple items can be entered and must be separated by commas. If unspecified, all details will be returned.
Successful response:				
status	0	yes	int	Successful response, status is 0
account		yes	Json array	Account List
total_item		yes	int	Total number of items on the list
total_page		yes	int	Total number of items on the list
page		yes	int	Page the extensions are on.
extension		yes	string	Extension number.
account_type	SIP, IAX, FXS, SIP(Web RTC)	no	string	Extension type.
fullname		no	string	Caller ID Name, which consists of first_name, space, and last name.
out_of_service	Yes, no	no	string	Indicates whether the extension is out of service
status	Idle, InUse, Busy, Unavailable, Ringing	no	string	Just "Extension status" is fine.
addr		no	string	IP address and port number of registered extensions. If there are multiple devices under the same account, they will be separated by commas.
urgmsg		no	int	Number of urgent messages.
newmsg		no	int	Number of new messages.
oldmsg		no	int	Number of old messages.

presence_status	unavailable, available, away, chat, dnd, userdef	no	string	Presence status. Only SIP extensions support presence status.
presence_def_script				Custom presence status. If presence_status is userdef, this parameter's value will be used.
user_name		no	string	Typically the same as extension number.
email_to_user		no	string	Indicates whether or not to send email notifications to an extension's configured email address if the extension gets updated.
Failed response:				
status		yes	int	Please see the error code list for more details.

listAccount

getSIPAccount

The "getSIPAccount" action will return information about specific extension.

- Request

```
{"request":{"action":"getSIPAccount","cookie":"sid877877-1574437822","extension":"1000"}}
```

- Response

```
{
  "response":{
    "cti_feature_privilege":{
      "active_call":"no",
      "callbarge":"no",
      "extension_status":"no",
      "hangup":"no"
    },
    "extension":{
      "account_type":"SIP(WebRTC)",
      "alertinfo":null,
      "allow":"ulaw, alaw, gsm, g726, g722, g729, h264, ilbc",
      "authid":null,
      "auto_record":"off",
      "bypass_outrt_auth":"no",
      "call_waiting":"yes",
      "callbarging_monitor": "",
      "cc_agent_policy":"never",
      "cc_max_agents":1,
      "cc_max_monitors":2,
      "cc_monitor_policy":"never",
      "cidnumber":"1000",
      "custom_autoanswer":"no",
      "directmedia":"no",
      "dnd":"no",
```

```
"dnd_timetype":0,
"dndwhitelist":"","
"dtmfmode":"rfc2833",
"emergcidnumber":null,
"en_ringboth":"no",
"enable_ldap":"yes",
"enable_qualify":"no",
"enable_webrtc":"yes",
"enablehotdesk":"no",
"encryption":"no",
"extension":"1000",
"external_number":null,
"fax_gateway":"no",
"faxdetect":"no",
"fullname":null,
"fwdwhitelist":null,
"hasvoicemail":"yes",
"ice_support":"yes",
"intranet_ip_filter":"no",
"limitime":null,
"local_network1":null,
"local_network10":null,
"local_network2":null,
"local_network3":null,
"local_network4":null,
"local_network5":null,
"local_network6":null,
"local_network4":null,
"local_network5":null,
"local_network6":null,
"local_network7":null,
"local_network8":null,
"local_network9":null,
"max_contacts":1,
"media_encryption":"auto_dtls",
"missed_call":"no",
"mohtsuggest":"default",
"nat":"yes",
"out_of_service":"no",
"permission":"internal",
"presence_def_script":null,
"presence_status":"available",
"qualify":1000,
"qualifyfreq":60,
"ring_timeout":null,
"ringboth_timetype":0,
"sca_enable":"no",
"seamless_transfer_members":"","
"secret":"pas0",
"sendtofax":null,
```

```
"skip_auth_timetype":0,
"skip_vmsecret":"no",
"specific_ip":null,
"strategy_ipacl":0,
"t38_udptl":"no",
"tel_uri":"disabled",
"use_avpf":"yes",
"use_callee_dod_on_fm":"no",
"use_callee_dod_on_fwd_rb":"no",
"user_outrt_passwd":null,
"vmsecret":"5333"
},
"sip_presence_settings":[
{
"cfb":null,
"cfb_destination_type":"0",
"cfb_timetype":0,
"cfn":null,
"cfn_destination_type":"0",
"cfn_timetype":0,
"cfu":null,
"cfu_destination_type":"0",
"cfu_timetype":0,
"presence_status":"available"
},
"sip_presence_settings":[
{
"cfb":null,
"cfb_destination_type":"0",
"cfb_timetype":0,
"cfn":null,
"cfn_destination_type":"0",
"cfn_timetype":0,
"cfu":null,
"cfu_destination_type":"0",
"cfu_timetype":0,
"presence_status":"available"
},
{
"cfb":null,
"cfb_destination_type":"0",
"cfb_timetype":0,
"cfn":null,
"cfn_destination_type":"0",
"cfn_timetype":0,
"cfu":null,
"cfu_destination_type":"0",
"cfu_timetype":0,
"presence_status":"away"
},
}
```

```

{
  "cfb":null,
  "cfb_destination_type":"0",
  "cfb_timetype":0,
  "cfn":null,
  "cfn_destination_type":"0",
  "cfn_timetype":0,
  "cfu":null,
  "cfu_destination_type":"0",
  "cfu_timetype":0,
  "presence_status":"chat"
},
{
  "cfb":null,
  "cfb_destination_type":"0",
  "cfb_timetype":0,
  "cfn":null,
  "cfn_destination_type":"0",
  "cfn_timetype":0,
  "cfu":null,
  "cfu_destination_type":"0",
  "cfu_timetype":0,
  "presence_status":"unavailable"
},
{
  "cfb":null,
  "cfb_destination_type":"0",
  "cfb_timetype":0,
  "cfn":null,
  "cfn_destination_type":"0",
  "cfn_timetype":0,
  "cfu":null,
  "cfu_destination_type":"0",
  "cfu_timetype":0,
  "presence_status":"userdef"
}
],
"voicemail":{
  "vm_attach":null,
  "vm_reserve":null
}
},
"status":0
}

```

If you only want to get some parameters regarding a specific extension, users can specify that parameter in the sending request.

Key Word	Value	Mandatory	Type	Note
----------	-------	-----------	------	------

Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
extension	Existing extension number	yes	string	Specify which extension's configuration to retrieve.
Successful response				
status	0	yes	int	The response is successful, status is 0.
extension		no	Json obj	The specific configuration of the extension.
account_type	SIP, IAX, FXS, SIP(WebRTC)	no	string	Extension type.
fullname		no	string	Caller ID Name, which consists of first_name, space, and last name.
hasvoicemail	yes, no	no	string	Indicates whether voicemail is enabled or disabled.
cidnumber		no	string	Caller ID of incoming calls.
secret		no	string	SIP/IAX password.
vmsecret		no	string	Voicemail password.
skip_vmsecret	Yes, no	no	string	Indicates whether an extension will need to enter a password when dialing into voicemail.
ring_timeout		no	int	Extensions' ring timeout. If unspecified, the system ring timeout will be used. Default is 60 seconds.
auto_record	all, external, internal, off	no	string	Auto-recording.all:all incoming calls to the extension will be recordedexternal: only calls to external numbers will berecorded.internal: only calls to internal numbers will berecorded.off: No calls will be recorded.
encryption	no, yes, support	no	string	SRTP encryption mode. Set whether to turn on SRTP mode to encrypt RTP streams.Support: Enable but not forced.

faxdetect	no, yes	no	string	Configure the mode of using fax. There are 2 available settings. The default is "no".no:Disable fax related features. yes (Fax detection): Fax signals from this user or the trunk can be detected during a call. The received fax will be sent to the email address set for the user. If the user's email address is not configured, the fax will be sent to the default email address set on the fax page.
sendtofax	yes, no	no	string	Indicates whether fax will also be sent to the extension's configured email address when receiving a fax call.
strategy_ipacl	0,1,2	no	int	Indicates the device's ACL policy. 0(Allow All):Any IP address can register to this extension. 1(Local Network): Only IP addresses in the configured subnets can register to this extension. Devices on the UCM's subnet is allowed by default. Up to 10 subnets can be added. 2 (Special IP address): This option seems to have been merged with 1 (Local Network) in 1.0.20.x
local_network1		no	string	local_network1-10 are the subnets that are allowed to register to the extension when 1 is configured as the value for strategy_ipacl.
local_network2		no	string	
local_network3		no	string	
local_network4		no	string	
local_network5		no	string	
local_network6		no	string	
local_network7		no	string	
local_network8		no	string	
local_network9		no	string	
local_network10		no	string	
specific_ip		no	string	When the policy is 2, that is, Special IP Address, Format is xxx.xxx.xxx.xxx or xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx.
allow	ulaw, alaw, gsm, g726, g722, g729, h264, ilbc, g726aal2, adpcm, g723, h263, h263p, vp8, opus, h265, rtx	no	string	The extension's supported codecs. Several codecs can be configured for a single extension.

dnd	yes, no	no	string	Indicates DND status.If set to yes, all calls will be ignored, and the extension's call forwarding rules will not take effect
dnd_timetype	0,1,2,3,4,5,6,8	no	int	The time conditions where DND status will be enabled.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
permission	internal,internal-local,internal-local-national,internal-local-national-international	no	string	Outbound call permissions of the extension.internal:Internal internal-local:Local internal-local-national:Nationwide internal-local-national-international:International
nat	yes, no	no	string	Indicates whether the extension is behind a NAT. If the UCM is using a public IP address to communicate with devices behind NAT, one-way audio issues may occur if this option is not enabled, NAT is not configured properly, or if SIP/RTP ports are not supported by the firewall.
bypass_outtr_auth	no, yes, bytime	no	string	Indicates whether the extension can skip password authentication when dialing out of a trunk.yes: Users will not need to enter a password when dialing out of a trunk.bytime: Users will not need to enter a password when dialing out of a trunk only during the specified time condition.
skip_auth_timetype	0,1,2,3,4,5,6,8	no	int	Time condition where the extension will be able to dial out of a trunk without needing to enter a password.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
t38_udptl	yes, no	no	string	Indicates whether T.38 support is toggled on or off

directmedia	yes, no	no	string	Indicates whether direct media is enabled or not.No: The PBX will route RTP media streams from SIP endpoints through itself.Yes: The PBX will attempt to redirect RTP media streams so that they are only between caller and callee. Note: It is not always possible for the UCM to negotiate endpoint-to endpoint media routing.
dtmfmode	rfc4733, info, inband, auto	no	string	Indicates the DTMF signaling sent from the extensionInfo: Signaling is transmitted through SIP messages.Inband: Signaling is transmitted in audio streams. Requires PCMU and PCMA codec support.RFC4733: Signaling is transmitted as audio but is encoded separately from the audio stream.Auto: Selects the signaling to use based on negotiation.Signaling is preferred in the following priority: RFC4733, Inband, Info
enable_qualify	yes, no	no	string	Indicates whether keep-alive is enabled for this extension.Yes: The PBX periodically sends SIP OPTION messages to the extension endpoint to monitor and maintain UCM's connection to the endpoint.
qualifyfreq		no	int	Keep-alive Frequency.Indicates how often keep-alive messages are sent to this extension's endpoints.
authid		no	string	Authentication ID.This is the SIP service subscriber's ID used for authentication. If not configured, the Extension Number will be used for authentication.
tel_uri	disabled, user_phone, enabled	no	string	TEL URI.Enabled: TEL URI and Remove OBP from Route cannot be enabled at the same time. "Tel:" will be used instead of "SIP:" in the SIP request.User_Phone: If the phone has an assigned PSTN telephone number, this field should be set. A "User=Phone" parameter will then be attached to the Request-Line and "TO" header in the SIP request to indicate the E.164 number.

enablehotdesk	no, yes	no	string	Indicates whether hotdesking is enabled for this extension.Yes: SIP Password will accept only alphanumeric characters; Extension will be used for AuthID.
user_outrt_passwd		no	string	Dial Trunk PasswordPassword that must be entered by the extension to dial out.
out_of_service	yes, no	no	string	Indicates whether the "Disable this Extension" option is toggled on or off for this extension.Yes: The extension is disabled.No: The extension is enabled.
mohsuggest	default,ringbacktone_default,.....	no	string	Music on Hold.Indicates the Music on Hold playlist to use when putting parties on hold.
en_ringboth	no,yes	no	string	Ring Simultaneously: Indicates whether the "Ring Simultaneously" option is toggled on or off for this extensionIf enabled, both this extension and the configured external number will be rung at the same time. If the calling the external number requires the use of aregister trunk, the register trunk's number will be displayed to the caller. Failover trunks cannot be used for Ring Simultaneously calls.
external_number		no	string	The external number configured for Ring Simultaneously. Hyphens (-) are ignored
use_callee_dod_on_fwd_r b	no, yes	no	string	Indicates whether the callee's DOD number will be used as CID for forwarded calls or Ring Simultaneously calls
use_callee_dod_on_fm	no, yes	no	string	Use Callee DOD for Follow MeIndicates whether to the callee's DOD number will be used as CID for Follow Me calls.
ringboth_timetype	0,1,2,3,4,5,6, 8	no	int	Time Condition for Ring SimultaneouslyThe time conditions when Ring Simultaneously will be used0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
enable_ldap	yes, no	no	string	Enable LDAPIndicates whether this extension can be added to LDAP phonebooks.

max_contacts		no	int	Concurrent Registrations The maximum allowed number of endpoints that can register to this extension. Supported values: 1-10
custom_autoanswer	no, yes	no	string	Custom Call-info for Auto Answer Indicates whether the extension supports auto-answer when denoted in Call-info and Alert-info headers.
sca_enable	no, yes	no	string	Enable SCA Indicates whether or not SCA is enabled for the extension
call_waiting	yes, no	no	string	Call Waiting Indicates whether calls can be made to the extension while it is already in a call. If disabled, CC service and Call Forward Busy will not work.
emergcidnumber		no	string	Emergency Calls CID CallerID number that will be used when calling out and receiving direct callbacks.
enable_webrtc	yes, no	no	string	Enable WebRTC Support Indicates whether this extension supports WebRTC registration and calling.
alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2, Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom			Alert-info Indicates the alert-info header that will be used in the extension's INVITE requests to specify a ring tone to be used by the UAS.
limitime		no	int	Maximum Call Duration Indicates the maximum duration of this extension's calls. The default value 0 means no limit.
dndwhitelist		no	string	DND whitelist Displays the numbers that can call this extension even if it has DND enabled. Multiple numbers are separated by commas.
fwdwhitelist		no	string	Forward Whitelist Displays the numbers that will ignore this extension's call forwarding rules when calling in. Multiple numbers are separated by commas
callbarging_monitor		no	string	Allow call-barging Displays the extensions that can barge in and monitor this extensions' calls via feature code.

seamless_transfer_members		no	string	Allowed to seamless transferDisplays the extensions that can seamlessly transfer to this extension.
sip_presence_settings			Json array	The specific configuration content of the online status of the SIP extension. The specific content needs to specify which state the presence_status is."sip_presence_settings": [{"presence_status": "available", "cfb": "6000", "cfn": null, "cfu": null, "cfb_timetype": 1, "cfn_timetype": 0, "cfu_timetype": 0, "cfb_destination_type": "0", "cfn_destination_type": "0", "cfu_destination_type": "0"}, {"presence_status": "unavailable", "cfb": null, "cfn": "12345", "cfu": null, "cfb_timetype": 0, "cfn_timetype": 2, "cfu_timetype": 0, "cfb_destination_type": "0", "cfn_destination_type": "0", "cfu_destination_type": "0"}]}When available, cfb to extension 6000;When unavailable, cfn to custom extension 12345.
presence_status	available, away, chat, dnd, userdef, unavailable	no	string	Presence status of this extension. Default is Available.
cfb		no	string	Call Forward Busy (CFB) destination.Callers will be redirected to this number if the extension is busy.
cfn		no	string	Call Forward No Answer (CFNA) DestinationCallers will be redirected to this number if calls to the extension are not answered before ring timeout.Note: If unspecified, this feature is disabled.
cfu		no	string	Call Forward Unconditional (CFU) destination. Callers will always be redirected to this number.
cfb_timetype	0,1,2,3,4,5,6,8	no	string	Call forward busy based on this time condition. CFB will be active only during the selected time condition.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday

cfn_timetype	0,1,2,3,4,5,6,8	no	string	Call forward no answer based on this time condition. CFNA will be active only during the selected time condition.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time
cfu_timetype	0,1,2,3,4,5,6,8	no	string	Call forward unconditional based on this time condition. CFU will be active only during the selected time condition.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
cfb_destination_type	0,1,2,3,4,5,6,8			Extension type of the CFB destination. If unspecified, CFB will be disabled.0: None1: Extension2: Custom Number3: Voicemail4: Ring Group5: Queues6: Voicemail Group
cfn_destination_type	0,1,2,3,4,5,6,8			Extension type of the CFNA destination. If unspecified, CFNA will be disabled.0: None1: Extension2: Custom Number3: Voicemail4: Ring Group5: Queues6: Voicemail Group
cfu_destination_type	0,1,2,3,4,5,6,8			Extension type of the CFU destination. If unspecified, CFU will be disabled.0: None1: Extension2: Custom Number3: Voicemail4: Ring Group5: Queues6: Voicemail Group
voicemail		no	Json obj	Specific Configuration of voicemail."voicemail": {"vm_attach": null,"vm_reserve": null}
vm_attach	NULL, yes, no	no	string	Send voicemail to emailNULL: "Default". Global voicemail settings in the Voicemail page will be used

vm_reserve	NULL, yes, no	no	string	Keep Voicemail after EmailingOnly applicable when either condition is fulfilled:1. Edit Extension->Send Voicemail to Email is enabled.2.Voicemail->Voicemail Email Settings->SendVoicemail to Email is enabled and Edit Extension->Send Voicemail to Email is set to "Default".Global voicemail settings in the Voicemail page will be used."Default". Global voicemail settings in the Voicemail page will be used.
Failed response				
status		yes	int	Please see the error code list for more details.

getSIPAccount

updateSIPAccount

This action will allow users to update an existing SIP account.

- Request

```
{
  "request":{
    "action":"updateSIPAccount",
    "cookie":"sid719338887-1574671289",
    "extension":"1000",
    "permission":"internal"
  }
}
```

- Response

```
{
  "response":{
    "extension":{
      "alertinfo":null,
      "extension":"1000"
    }
  },
  "status":0
}
```

Editing presence configuration requires sending the entire json list of sip_presence_settings. Make sure to specify the presence status when updating presence settings.

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
extension	Required. 2-18 digits	yes	string	Specify which extension's configuration to retrieve.
hasvoicemail	yes, no	no	string	Indicates whether voicemail is enabled or disabled.
cidnumber		no	string	Caller ID of incoming calls.
secret		no	string	SIP/IAX password.
vmsecret		no	string	Voicemail password.
skip_vmsecret	Yes, no	no	string	Indicates whether an extension will need to enter a password when dialing into voicemail.
ring_timeout	Value between 3 and 600. Can be set to "null". When set to null, global settings will be used.	no	int	Ring Timeoutwhen set to NULL, the system default ring timeout is used.
auto_record	all, external, internal, off	no	string	Auto-recording.all:all incoming calls to the extension will be recordedexternal: only calls to external numbers will be recorded.internal: only calls to internal numbers will be recorded.off: No calls will be recorded.
encryption	no, yes, support	no	string	SRTP encryption mode. Set whether to turn on SRTP mode to encrypt RTP streams.Support: Enable but not forced.
faxdetect	no, yes	no	string	Configure the mode of using fax. There are 2 available settings. The default is "no".no:Disable fax related features. yes (Fax detection): Fax signals from this user or the trunk can be detected during a call. The received fax will be sent to the email address set for the user. If the user's email address is not configured, the fax will be sent to the default email address set on the fax page.
sendtofax	yes, no	no	string	Indicates whether fax will also be sent to the extension's configured email address when receiving a fax call.

strategy_ipacl	0,1,2	no	int	Indicates the device's ACL policy. 0(Allow All):Any IP address can register to this extension. 1(Local Network): Only IP addresses in the configured subnets can register to this extension. Devices on the UCM's subnet is allowed by default. Up to 10 subnets can be added. 2 (Special IP address): This option seems to have been merged with 1 (Local Network) in 1.0.20.x
local_network1		no	string	local_network1-10 are the subnets that are allowed to register to the extension when 1 is configured as the value for strategy_ipacl.
local_network2		no	string	
local_network3		no	string	
local_network4		no	string	
local_network5		no	string	
local_network6		no	string	
local_network7		no	string	
local_network8		no	string	
local_network9		no	string	
local_network10		no	string	
specific_ip	IP address	no	string	When the policy is 2, that is, Special IP Address, Format is xxx.xxx.xxx.xxx or xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx.
allow	ulaw,alaw,gsm,g726,g722,g729,h264,ilbc,g726aal2,adpcm,g723,h263,h263p,vp8,opus,h265,rtx	no	string	The extension's supported codecs. Several codecs can be configured for a single extension.
dnd	yes, no	no	string	Do Not Disturb.yes: All calls will be ignored, and the call forward unconditional/ no answer/ busy of the extension will not take effect.
dnd_timetype	0,1,2,3,4,5,6,8	no	int	The time conditions where DND status will be enabled.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
permission	internal,internal-local,internal-local-national,internal-local-national-international	no	string	Select outbound permission.internal:internal-local-local:internal-local-national:nationwideinternal-local-national-international:international

nat	yes, no	no	string	NAT is used when UCM uses public IP and communicates with devices hidden behind a NAT network, such as a broadband router. You may encounter one-way audio problem. This type of problem is often associated with NAT configuration or SIP and RTP ports supported by the firewall.
bypass_outtrt_auth	no, yes, bytime	no	string	Skip trunk authentication.yes: When dialing an external line, the user does not need to enter a password;bytime: dial an external line in the set time condition, the user does not need to enter a password.
skip_auth_timetype	0,1,2,3,4,5,6,8	no	int	Time condition where the extension will be able to dial out of a trunk without needing to enter a password.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
t38_udptl	yes, no	no	string	Whether to support T.38 UDPTL.
directmedia	yes, no	no	string	Whether to enable direct media.No: the PBX will route the media streams from SIP endpoints through itself.Yes: the PBX will attempt to redirect the RTP media streams to bypass the PBX and to go directly between caller and callee. Note: It is not always possible for the PBX to negotiate endpoint-to-endpoint media routing.
dtmfmode	rfc4733, info, inband, auto	no	string	Default mode of sending DTMF signal.The DTMF signal is carried by the info method of SIP signaling. Inband: Requires 64kbit codec PCMU and PCMA.Auto: Adaptive preference is for RFC2833, followed by inband.
enable_qualify	yes, no	no	string	Enable keeping-alive.Yes: The PBX periodically sends SIP OPTION signaling to detect if the host is online
qualifyfreq	Required. Set a value between 1and 3600.	no	int	Keep-alive Frequency.When the host is on, set the interval of sending keep-alive messages measured in seconds.

authid	Up to 32 characters excluding space., ;:?"()<>@. \[]= {}.	no	string	Authentication ID. This is the SIP service subscriber's ID used for authentication. If not configured, the Extension Number will be used for authentication.
tel_uri	disabled, user_phone, enabled	no	string	TEL URI. Enabled: TEL URI and Remove OBP from Route cannot be enabled at the same time. "Tel:" will be used instead of "SIP:" in the SIP request. User_Phone: If the phone has an assigned PSTN telephone number, this field should be set. A "User=Phone" parameter will then be attached to the Request-Line and "TO" header in the SIP request to indicate the E.164 number.
enablehotdesk	no, yes	no	string	Support Hot-desking Mode. Yes: SIP Password will accept only alphanumeric characters; Extension will be used for AuthID.
user_outrt_passwd	4-10 digits	no	string	Dial Trunk Password. Configure personal password when making outbound calls.
out_of_service	yes, no	no	string	Whether to disable this extension. Yes: disable. No: enable.
mohsuggest	Required: default, ringbacktone_default, MoH playlist name, etc	no	string	Music on Hold. Specify which Music on Hold class to suggest to the bridged channel when putting them on hold.
en_ringboth	no, yes	no	string	Ring Simultaneously. If you want the extension and external number to ring simultaneously, check this box. If you use register trunk for outbound calls, the caller will display the registered number. The outbound call will use only the main trunk. The failover trunk will not be used.
external_number	Up to 32 alphanumeric characters and special characters +-*#	no	string	Set the external number for Ring Simultaneously. "-" is the connection character and will be ignored.
use_callee_dod_on_fwd_rb	no, yes	no	string	yes: Use the callee's DOD number as callerID on Outgoing Forwarding or Ring Simultaneously calls.
use_callee_dod_on_fm	no, yes	no	string	Use Callee DOD for Follow Me. Use the callee DOD number as CID if configured Follow Me numbers are external numbers.

ringboth_timetype	0,1,2,3,4,5,6, 8	no	int	Time Condition for Ring SimultaneouslyThe time conditions when Ring Simultaneously will be used0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
enable_ldap	yes, no	no	string	Enable LDAPyes: If enabled, the extension will be added to LDAP Phonebook PBX lists.
max_contacts	Value between 1 and 10	no	int	Concurrent RegistrationsThe maximum endpoints which can be registered to this extension. Value: 1-10.
custom_autoanswer	no, yes	no	string	Custom Call-info for Auto Answeryes: If checked, the invite message sent to the extension will contain a Call-info header to indicate auto answer.
sca_enable	no, yes	no	string	Enable SCA.
call_waiting	yes, no	no	string	Call waitingyes: Allows calls to the extension even when it is already in a call. This only works if the caller is directly dialing the extension. If disabled, the CC service and busy in-call forward will not work.
emergcidnumber	2-32 alphanumeric characters	no	string	Emergency Calls CIDCallerID number that will be used when calling out and receiving direct callbacks.
enable_webrtc	yes, no	no	string	Enable WebRTC SupportEnable registration and call from WebRTC.
alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom			Alert-infoWhen present in an INVITE request, the Alert-info header field specifies an alternative ring tone to the UAS.
limitime	Value between 0 and 86400	no	int	Maximum Call DurationThe maximum call duration (in seconds). The default value 0 means no limit.
dndwhitelist		no	string	DND whitelistMultiple numbers are supported and separated by commas.
fwdwhitelist		no	string	Forward WhitelistSet extension numbers, multiple can be separated by commas. Calls from users in the forward whitelist will not be forwarded.

callbarging_monitor		no	string	Set up Allow call-barging list. Members of the list can spy on this extension via feature codes. Multiple extensions can be set, separated by commas.
seamless_transfer_members		no	string	Set up Allow to seamless transfer list. Members of the list can seamlessly transfer via feature code. Multiple extensions can be set, separated by commas.
sip_presence_settings			Json array	The specific configuration content of the online status of the SIP extension. The specific content needs to specify which state the presence_status is."sip_presence_settings": [{"presence_status": "available", "cfn": "6000", "cfn": null, "cfu": null, "cfn_timetype": 1, "cfu_timetype": 0, "cfn_destination_type": "0", "cfu_destination_type": "0", "cfu_destination_type": "0"}, {"presence_status": "unavailable", "cfn": null, "cfn": "12345", "cfu": null, "cfn_timetype": 2, "cfu_timetype": 0, "cfn_destination_type": "0", "cfu_destination_type": "0", "cfu_destination_type": "0"}]When available, cfb to extension 6000;When unavailable, cfn to custom extension 12345.
presence_status	available, away, chat, dnd, userdef, unavailable	no	string	Set the presence status of this extension. Default is Available. To set the transfer destination, configure call transfer.
cfb		no	string	Configure the target number to be forwarded to for Call Forward Busy(CFB). Incoming calls during busy time will be forwarded to the entered extension. Corresponds to the extension number under the cfb_destination_type type.
cfn		no	string	Configure the target number to be forwarded to for Call Forward No Answer(CFN). Incoming calls that are not answered after ring timeout will be forwarded to the entered extension. Note: If not specified, this feature is disabled. Corresponds to the extension number under the cfn_destination_type type.

cfu		no	string	Configure the target number to be forwarded to for Call Forward Unconditional(CFU). All incoming calls will be forwarded to the entered extension unconditionally. Corresponds to the extension number under the cfu_destination_type type.
cfb_timetype	0,1,2,3,4,5,6,8	no	string	Call forward busy based on this time condition. CFB will be active only during the selected time condition.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
cfn_timetype	0,1,2,3,4,5,6,8	no	string	Call forward no answer based on this time condition. CFNA will be active only during the selected time condition.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time
cfu_timetype	0,1,2,3,4,5,6,8	no	string	Call forward unconditional based on this time condition. CFU will be active only during the selected time condition.0:All Time1:Office Time2:Out of Office Time3:Holiday4: Out of Holiday5:Out of office time or holiday6:Specific time8:Office time and out of holiday
cfb_destination_type	0,1,2,3,4,5,6			Extension type of the CFB destination. If unspecified, CFB will be disabled.0: None1: Extension2: Custom Number3: Voicemail4: Ring Group5: Queues6: Voicemail Group
cfn_destination_type	0,1,2,3,4,5,6			Extension type of the CFNA destination. If unspecified, CFNA will be disabled.0: None1: Extension2: Custom Number3: Voicemail4: Ring Group5: Queues6: Voicemail Group
cfu_destination_type	0,1,2,3,4,5,6			Extension type of the CFU destination. If unspecified, CFU will be disabled.0: None1: Extension2: Custom Number3: Voicemail4: Ring Group5: Queues6: Voicemail Group

vm_attach	yes, nolf set to NULL, global setting will be used.	no	string	Send voicemail to emailNULL: the global setting will be used.
vm_reserve	Yes, no, NULL If set to NULL, global setting will be used.	no	string	Keep Voicemail after EmailingOnly applies if extension-level is enabled or global Send Voicemail to Email is enabled and extension-level is default.NULL: the global setting will be used.
Successful response				
status	0	yes	int	Successful response,status is 0
Failed response				
status		yes	int	Please see the error code list for more details.

updateSIPAccount

listDepartment

This action lists the information included in the department management.

- Request

```
{
  "request":{
    "action":"listDepartment",
    "cookie":"sid586289962-1731511039"
  }
}
```

- Response

```
{
  "response":{
    "local_department_info":[
      {
        "auth":"",
        "cloud_department_id":3042,
        "cloud_father_id":0,
        "department_id":1,
        "father_id":0,
        "name":"Grandstream EMEA",
        "policy_id":1,
        "type":0,
        "users_cnt":0
      },
      {
        "auth":"",
        "cloud_department_id":3043,
        "cloud_father_id":3042,
        "department_id":2,
        "father_id":1,
        "name":"Support ",
        "policy_id":1,

```

```

"type":0,
"users_cnt":0
},
{
"auth":"",
"cloud_department_id":3044,
"cloud_father_id":3043,
"department_id":3,
"father_id":2,
"name":"UC",
"policy_id":1,
"type":0,
"users_cnt":0
},
{
"auth":"",
"cloud_department_id":3045,
"cloud_father_id":3043,
"department_id":4,
"father_id":2,
"name":"Networking",
"policy_id":1,
"type":0,
"users_cnt":0
}
]
},
"status":0
}

```

- Each department has an identifier labeled "department_id".
- The departments are classified in a hierarchical manner, and sub-departments are identified by the field "father_id", which corresponds to the "department_id" of the parent department.
- The root departments have a 'father_id' of 0, indicating that they do not belong to any parent departments.

Wave

cleanTerminalChatInformation

The "cleanTerminalChatInformation" action allows the user to clear the chat history of the user's Wave client.

- Request

```

{
"request":{
"action":"cleanTerminalChatInformation",
"cookie":"sid1602522965-14864168234",
"extension":"1007"
}
}

```

```
}
```

- Response

```
{ "response":{ "need_apply":"no" }, "status":0}
```

chatTerminalChatInformation Request Parameters

Name	Supported Values	Required	Value Type	Comments
cookie		Yes	String	Cookie value is obtained after logging in via the login command. If the cookie is invalid, error code -6 will be returned.
extension		Yes	Integer	User's extension number

chatTerminalChatInformation Request Responses

If the updateUser request is successful, the following will appear:

Parameter Name	Supported Values	Value Type	Comments
status	0	Integer	Success. Status is 0.
need_apply	yes,no	String	Whether changes need to be applied to take effect.

If the cleanTerminalChatInformation request fails, the following will appear:

Parameter Name	Supported Values	Value Type	Comments
status		Integer	Error code will appear. Please refer to the list of error codes for more details.

getSIPAccountQR

Example Request

```
{
  "request":{
    "extension":"1000",
    "action":"getSIPAccountQR"
  }
}
```

Example Response:

```
{
  "response":{
    "qr_base":"iVBORw0KGgoAAAANSUUEGAAAKsAAACrAQMAAAAJv5aAAAABlBMVEUAAAD///+l2Z/dAAAAAnRSTlP//8i138cA
AAAJcEhZcwAACxIAAASAdLdfvAAALDSURBEiJ5Zc/rqQwDManUqSDCyDlGulyJbgAfy4AV6LLNSLlAKmXAuH9Msy894ot1mi
rXYQofjMKY/vzZw/xby/6v3Eimo/QHbzZvm0TD2rkOPM50BpszeVd0jQeRI6PfnL9zDTiVM+rp/ERHixN7iR3dkXtT/HMZveBNM
2F+RmuUZ6TPeeDE54/g/9jjHyPvv++v8sgwLgua/ajlq518YcgBDhRTxTzgSh5P0yyCZfjzIrZbDZeDkmKG31SjChsw3yYFfl2J
nsatFof4MripVX2EDLeYPYHuECDiK8nPJnIhU60L1L7oZJGpKNXGyKucozK47wgFUm8ct/4L0FIsoFY0Zy4b0yjk5xf50lQxfDvGp
RGpBfIXIno0c86vyF4WmhJkR5UeaEvw6myZouf7GHnIe5ZgLDHdWq20qplVLJ8bJUWsDir9Qa0/OkG0GAC3kExdLHaKkd/AyjBx
rNAR05d0j8W+HE0HMJmmFQGcP40TZzS7H7PuB4qbhwKG10KDKD3DB2eHlmgHWuzJ1cpwsBgj6+yRtNofWM0sDrCP6csEEYBQN3z
JZjjF0Zw/rNZDwBiUwxU8w/Bu1CkS3Q9walGGAwSHK6hNQMRp0lWouC8I5lqq+RJhvbyGLMFhTpwfYn63FSzBsXtg52ANcCuMIc
0Bt9rZeGYbBtK72JXaf+aCB+lG02f0iMUMgZNGMBpph0c51Batrc+4w3qlv1xTiAtFBPhgg2H2gwbcbgRPhysAeaCIFC0dTqvnMA
iRdHXYLLXcRULnflZTjps9UYjNWxXq7Zd3KMK2GxPeBVGCbxy6tEOL32lN2fI5Ro60bwyDH2wUmjHdHi0A68yuQHG0stVpXqVQg
XDnr3PrIPJSYk3tbpmv1Hg1KMJPM6reRDCr3UcsywhzC8PHiwJr0HowzXfGPx0fXzFvb97gYZ/iv/vP4p/AvzqV1YIWFVRAAAAA
BJRU5ErkJggg=="
  },
  "status": 0
}
```

Name	Supported Values	Required	Value Type	Comments
cookie		Yes	String	Cookie value is obtained after logging in via the login command. If the cookie is invalid, error code -6 will be returned.
extension		Yes	Integer	User's extension number

If the getSIPAccountQR request is successful, the following will appear:

Parameter Name	Supported Values	Value Type	Comments
status	0	Integer	Success. Status is 0.
qr_base	B	Base64 string	To turn this string into a QR code, there are various tools available to convert Base64 strings to images. For example, on linux, the terminal command <code>base64 -d aa.txt > test.jpg</code> can convert the string to a QR code image.

VoIP Trunk

listVoIPTrunk

The "listVoIPTrunk" action will allow users to get information about the existing SIP trunk, such as the trunk's name, its IP address etc.

The needed information, can be defined in the parameter "**options**". Otherwise all the information will be returned.

- Request

```
{
  "request":{
    "action":"listVoIPTrunk",
    "cookie":"sid719338887-1574671289",
    "options":"trunk_index,trunk_name,trunk_type"
  }
}
```

- Response

```
{
  "response":{
    "page":1,
    "total_item":3,
    "total_page":1,
    "voip_trunk":[
      {
        "trunk_index":2,
        "trunk_name":"test",
        "trunk_type":"peer"
      },
      {
```

```

"trunk_index":3,
"trunk_name":"test2",
"trunk_type":"peer"
},
{
"trunk_index":4,
"trunk_name":"test12",
"trunk_type":"peer"
}
]
},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Page		no	int	Get extension list by page number.
item_num		no	int	Number of trunks to return for the request. If unspecified, all trunks will be returned.
Sord	acs,desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.
Sidx		no	string	Sort by trunk index. This is based on trunk creation date.
options	trunk_index, trunk_name, host, trunk_type, username, technology, ldap_sync_enable, trunks.out_of_service	no	string	Specify the information to return. Multiple options can be selected and must be separated by commas. If unspecified, all the listed information will be returned.
Successful response				
status	0	yes	int	Successful response, status is 0
voip_trunk		yes	Json array	VOIP trunk list
total_item		yes	int	Total number of items that were returned.
total_page		yes	int	Total number of pages in the list.
page		yes	int	What page is on.
trunk_index		no	string	Trunk ID
trunk_name		no	string	Trunk name
Host		no	string	Host

trunk_type	peer, register	no	string	Trunk typePeer trunk and register trunk
username		no	string	Username of register trunk.NULL for peer trunk.
Failed response				
status		yes	int	Please see the error code list for more details.

listVoIPTrunk

addSIPTrunk

The "addSIPTrunk" action will allow users to create SIP trunks.

- Request

```
{
  "request":{
    "action":"addSIPTrunk",
    "cookie":"sid719338887-1574671289",
    "host":"192.168.5.222",
    "trunk_name":"GStest",
    "trunk_type":"peer"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
trunk_name		yes	string	Trunk name
Host		yes	string	Host
trunk_type	Peer, register	yes	string	Trunk type
Username	Up to 64 characters	yes	string	Configure the username to authenticate with the VoIP provider.
Secret				Configure the password to authenticate with the VoIP provider. Required for register trunks.

The rest options are Same as updateSIPTrunk				
Successful response				
Status	0	yes	int	The response is successful, status is 0
Failed response				
Status		yes	int	Please see the error code list for more details.

addSIPTrunk

getSIPTrunk

The "getSIPTrunk" will allow users to get information about a specific trunk.

- Request

```
{
  "request":{
    "action":"getSIPTrunk",
    "cookie":"sid23597213-1574672527",
    "trunk":"3"
  }
}
```

- Response

```
{
  "response":{
    "trunk":{
      "allow":"ulaw,alaw,gsm,g726,g729,ilbc",
      "allow_outgoing_calls_if_reg_failed":"yes",
      "auth_trunk":"no",
      "authid":null,
      "auto_recording":"no",
      "cc_agent_policy":"never",
      "cc_max_agents":5,
      "cc_max_monitors":5,
      "cc_monitor_policy":"never",
      "cidname":null,
      "cidnumber":null,
      "dialin_direct":"no",
      "did_mode":"request-line",
      "dtmfmode":null,
      "enable_qualify":"no",
      "encryption":"no",
      "fromdomain":null,
      "fromuser":null,
      "host":"1.2.55.4",
      "keepcid":"no",
      "keeporgcid":"no",
      "ldap_custom_prefix":null,

```

```

"ldap_default_outrt":null,
"ldap_default_outrt_prefix":null,
"ldap_sync_enable":"no",
"ldap_sync_passwd":null,
"ldap_sync_port":null,
"nat":"no",
"need_register":"no",
"out_maxchans":0,
"out_of_service":"no",
"outboundproxy":null,
"pai_number":null,
"passthrough_pai":"yes",
"qualifyfreq":60,
"rmv_obp_from_route":"no",
"secret":null,
"send_ppi":"no",
"status":"Unmonitored",
"tel_uri":"disabled",
"transport":"udp",
"trunk_index":3,
"trunk_name":"test2",
"trunk_type":"peer",
"uri_sip_or_sips":0,
"use_dod_as_from_name":"no",
"use_dod_in_ppi":"no",
"use_for_sfu_conf":"no",
"use_origcid_in_ppi":"no",
"username":null
}
},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
trunk		yes	string	Retrieves the configuration of the specified trunk. Please enter the trunk ID.
Successful response				
status	0	yes	int	The response is successful, status is 0.
trunk?		yes	Json, obj	Specific Trunk configuration.
trunk_index		yes	string	Trunk id.

allow	ulaw,alaw,gsm,g726,g729,ilbc,g722,g726aal2,adpcm,g723,h263,h263p,h264,h265,vp8,opus,rtx.	no	string	The trunk's supported codecs
allow_outgoing_calls_if_reg_failed	yes, no	no	string	Whether outgoing calls are allowed the trunk is unable to register successfully.
auth_trunk	yes, no	no	string	Authenticate trunk.If enabled, UCM will respond to incoming calls with 401 message to authenticate the trunk.
authid		no	string	Authenticate IDThis is the SIP service subscriber's ID used for authentication. If not configured, the Extension Number will be used for authentication.
auto_recording	no, yes	no	string	Auto record.
cc_agent_policy	native, never	no	string	To enable CC serviceControl together with cc_monitor_policy.CC service is enabled if both cc_agent_policy and cc_monitory_policy are native. It is disabled if both are set to never.
cc_max_agents		no	int	The maximum number of CCSS agents that may be allocated to this channel. In other words, this number is the maximum number of CC requests this channel is allowed to make.
cc_max_monitors		no	int	The maximum number of monitor structures which may be created for this device. In other words, this number tells how many callers may request CC services for a specific device at one time.
cc_monitor_policy	native, never	no	string	To enable CC serviceControl together with cc_agent_policy.CC service is enabled if both cc_agent_policy and cc_monitory_policy are native. It is disabled if both are set to never.
cidname		no	string	Caller ID NameCID name for this trunk that will be used if the caller does not have CID name configured.

cidnumber		no	string	Caller IDNumber that the trunk will try to use when making outbound calls.CID priority from highest to lowest is as follows:From User (register trunk only) > Inbound Call CID (enable using remote CID) > Trunk CID/register trunk username (Keep Trunk CID enabled) > DOD CID(with correspond DOD configuration) > Extension CID > Register Trunk Username (for register trunk only, Keep Trunk CID disabled) > Global Outbound CID. Note: Certain providers may ignore this CID.
dialin_direct	no, yes	no	string	Direct callbackAllows external numbers the option to get directed to the extension that last called them.
did_mode	request-line, to-header	no	string	Direct callbackAllows external numbers the option to get directed to the extension that last called them.
dtmfmode	null, rfc2833, info, inband, auto	no	string	Configures the mode for sending DTMF.Null: Use global setting.RFC4733 (default): DTMF is transmitted as audio in the RTP stream but is encoded separately from the audio stream. Backward-compatible with RFC2833.Info: DTMF is transmitted through SIP signaling using info method.Inband: DTMF is transmitted as audio and is included in the audio stream.Auto: self-adjust
enable_qualify	yes, no	no	string	Enable Heartbeat Detectionyes:the PBX will regularly send SIP OPTIONS to check if the device is online.
encryption	no, yes, support	no	string	SRTP encryption modeToggles support for RTP stream encryption.

fax_intelligent_route		no	string	Enable fax intelligent routing. Set the destination to which the fax will be forwarded when a fax is detected. The following options are available: Extension: Sends a fax to the specified extension when a fax is detected. If FXS extension is selected here, the fax will be sent to the FXS extension. * Fax to E-mail: When the fax is detected, the fax will be sent as an attachment to the specified e-mail address. The e-mail address can be the extension's mailbox or self-identification. Define a mailbox. Note: If you need to send a fax to your mailbox, make sure that the Mailbox in System is set up correctly.
fax_intelligent_route_destination		no	string	Fax destination. The destination of fax intelligent routing can only be a fax extension or an fxs extension with a fax device.
faxdetect	yes, no	no	string	
Fromdomain		no	string	From domainConfigure the actual domain where the extension comes from. Can override From field. For example,"trunk.UCM6510.provider.com "is the domain name of the following From header field. sip:1234567@trunk.UCM6510.provider.com
fromuser		no	string	Configure the actual userCan override From header field. A single ID could register multiple DID. For example "1234567" is the username of the following From header field: sip:1234567@trunk.UCM6510.provider.com
host		no	string	Enter the IP address or hostname of the VoIP provider's server.
keepcid	no, yes	no	string	Keep Trunk CIDyes: Trunk CID will not be overwritten by host CID. When set to yes, cidnumber is mandatory.

keeporgcid	no, yes	no	string	Keep Original CIDKeep CID from the inbound call when dialing out even if option "Keep Trunk CID" is enabled. Please make sure the peer PBX at the other end supports matching user entry using the "username" field from the authentication line.
ldap_custom_prefix		no	string	LDAP Dialed PrefixSystem will automatically modify the remote contacts by adding this prefix. When ldap_default_outrt is set to self-defined, use this prefix.
ldap_default_outrt		no	int	LDAP Outbound RuleSpecify an outbound rule. The PBX system will automatically modify the remote contacts by adding prefix parsed from this rule.If null and ldap_default_outrt_prefix is configured, use custom outbound prefix. If null, no outbound prefix is added by default.
ldap_sync_enable	no, yes	no	string	Sync LDAP EnableProvide and update the local LDAP contact to a remote peer automatically (SIP peer trunk only). To ensure successful synchronization, the remote peer needs to enable this service and set the same password as the local UCM.
ldap_sync_passwd		no	string	Sync LDAP PasswordThis is the password used for LDAP contact file encryption and decryption. The password must be the same for both peers to ensure successful synchronization.
ldap_sync_port		no	int	Sync LDAP PortThe TCP port used by this service.
nat	no, yes	no	string	Enable this setting if the UCM is using public IP and communicating with devices behind NAT.Note 1: This setting will overwrite the Contact header of received messages, which may affect the ability to establish calls when behind NAT. Consider changing settings in PBX Settings->SIP Settings->NAT instead.If one is experiencing one-way audio issues, please check the NAT configuration and SIP/RTP ports in the firewall.
need_register	no, yes	no	string	Whether to register on the external server.

out_maxchans		no	int	The number of current outgoing calls over the trunk at the same time. The default value 0 means no limit.
out_of_service		no	int	The number of current outgoing calls over the trunk at the same time. The default value 0 means no limit.
outboundproxy		no	string	Outbound proxyWhen configured, the outbound signal will be sent to the proxy instead of the devices directly. The outbound proxy can be domain name or IP address.
pai_number		no	string	PAI HeaderPAI header for the trunk formatted as "name<number>", "<number>", or "number". If not configured, CID will be used instead.
passthrough_pai	yes, no	no	string	Passthrough PAI HeaderIf enabled and "Send PAI Header" is disabled, PAI headers will be preserved as calls pass through the UCM.
qualifyfreq		no	int	Configure the frequency (in seconds) to send SIP OPTIONS messages to check the status of the device. Default is 60.
rmv_obp_from_route	no, yes	no	string	Remove OBP from RouteIf enabled, the outbound proxy URI in the Route header will be removed from SIP requests. Default setting is "No".
secret		no	string	Password of register trunk
send_ppi	yes, no	no	string	Send PPI HeaderYes: the invite message sent to trunks will contain PPI (P-Preferred-Identity) Header.
status	Unknown, Unmonitored, Reachable, Unreachable, Registered, Unregistered, Lagged, Failed, Request Sent, Rejected, Timeout, No Authentication	no	string	

tel_uri	disabled, user_phone, enabled	no	string	TEL URIEnabled: TEL URI and Remove OBP from Route cannot be enabled at the same time. If set to "Enable", "Tel:" will be used instead of "SIP:" in the SIP request.User_phone: If the phone has an assigned PSTN telephone number, this field should be set. A "User=Phone" parameter will then be attached to the Request-Line and "TO" header in the SIP request to indicate the E.164 number.
transport	udp, tcp, tls	no	string	Configure the SIP Transport method. Using TCP requires local TCP support; using TLS requires local TLS support.
trunk_index		no	string	Trunk ID
trunk_name		no	string	Provider nameConfigure a unique label to identify the trunk when listed in outbound rules and incoming rules.
trunk_type	peer, register	no	string	Trunk typePeer trunk or register trunk
use_dod_in_ppi	no, yes	no	string	Displays whether the DOD is being used for the PPI header.If both use_dod_in_pi and use_origcid_in_ppi are set to "no", CID will be used for the PPI header.
use_origcid_in_ppi	yes, no	no	string	Displays whether or not the original CID is used for the PPI header.If both use_dod_in_pi and use_origcid_in_ppi are set to "no", CID will be used for the PPI header.
username		no	string	Configure the username to authenticate with the VoIP provider.
use_for_sfu_conf	yes, no	no	string	IPVT ModeEnabling this will allow UCM to establish communication with IPVT.
Failed response				
status		yes	string	Please see the error code list for more details.

getSIPTrunk

updateSIPTrunk

The "updateSIPTrunk" action will allow users to update existing SIP trunk while specifying the trunk's number.

- Request

```
{
  "request":{
    "action":"updateSIPTrunk",
    "cookie":"sid23597213-1574672527",
    "trunk":"5",
    "trunk_name":"GS1"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Cookie: Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
trunk		yes	string	Trunk id, specify which trunk to edit.
allow	ulaw, alaw, gsm, g726, g729, ilbc, g722, g726aal2, adpcm, g723, h263, h263p, h264, h265, vp8, opus, rtx, mandatory	no	string	Supported codec, multiple can be set.
allow_outgoing_calls_if_registration_failed	yes, no	no	string	Whether outgoing calls are allowed when registration failed no:Calls are not allowed when the registration fails. If no outgoing registration is set, this configuration item can be ignored.
auth_trunk	yes, no	no	string	Authenticate trunk yes: the UCM will send a 401 response to the incoming call to authenticate the trunk.
authid	Up to 64 characters	no	string	Authenticate IDThis is the SIP service subscriber's ID used for authentication. If not configured, the Extension Number will be used for authentication.
auto_recording	no, yes	no	string	Auto record.

cc_agent_policy	native, never	no	string	To enable CC serviceControl together with cc_monitor_policy.When cc_agent_policy and cc_monitor_policy are native at the same time, service is enables. When both are never, service is disabled.
cc_max_agents	1-999	no	int	The maximum number of CCSS agents that may be allocated to this channel. In other words, this number is the maximum number of CC requests this channel is allowed to make.
cc_max_monitors	1-999	no	int	The maximum number of monitor structures which may be created for this device. In other words, this number tells how many callers may request CC services for a specific device at one time.
cc_monitor_policy	native, never	no	string	To enable CC serviceControl together with cc_agent_policy.When cc_agent_policy and cc_monitor_policy are native at the same time, service is enables. When both are never, service is disabled.
cidname	2-64 characters	no	string	Caller ID NameConfigure the new name of the caller when the extension has no CallerID Name configured.
cidnumber	2-64 characters	no	string	Caller IDNumber that the trunk will try to use when making outbound calls.CID priority from highest to lowest is as follows:From User (register trunk only) > Inbound Call CID (enable using remote CID) > Trunk CID/register trunk username (Keep Trunk CID enabled) > DOD CID(with correspond DOD configuration) > Extension CID > Register Trunk Username (for register trunk only, Keep Trunk CID disabled) > Global Outbound CID. Note: Certain providers may ignore this CID.
dialin_direct	no, yes	no	string	Direct callbackAllows external numbers the option to get directed to the extension that last called them.

did_mode	request-line, to-header	no	string	DID Mode Configure to obtain the destination ID of an incoming SIP call from SIP Request-line or To header.
dtmfmode	Null, rfc4733, info, inband, auto	no	string	Configures the mode for sending DTMF.Null: Use global setting.RFC4733 (default): DTMF is transmitted as audio in the RTP stream but is encoded separately from the audio stream. Backward-compatible with RFC2833.Info: DTMF is transmitted through SIP signaling using info method.Inband: DTMF is transmitted as audio and is included in the audio stream.Auto: self-adjust
enable_qualify	yes, no	no	string	Enable Heartbeat Detectionyes:the PBX will regularly send SIP OPTIONS to check if the device is online.
encryption	no, yes, support	no	string	SRTP encryption mode Set whether to turn on SRTP mode to encrypt RTP streams.
fax_intelligent_route		no	string	Enable fax intelligent routing. Set the destination to which the fax will be forwarded when a fax is detected. The following options are available: Extension: Sends a fax to the specified extension when a fax is detected. If FXS extension is selected here, the fax will be sent to the FXS extension. Fax to E-mail: When the fax is detected, the fax will be sent as an attachment to the specified e-mail address. The e-mail address can be the extension's mailbox or self-identification. Define a mailbox. Note: If you need to send a fax to your mailbox, make sure that the Mailbox in System is set up correctly.
fax_intelligent_route_destination		no	string	Fax destination. The destination of fax intelligent routing can only be a fax extension or an fxs extension with a fax device.

fromdomain	Up to 60 characters	no	string	From domainConfigure the actual domain where the extension comes from. Can override From field. For example,"trunk.UCM6510.provider.com "is the domain name of the following From header field. sip:1234567@trunk.UCM6510.provider.com
fromuser	Up to 64 characters	no	string	Configure the actual user,Can override From header field. A single ID could register multiple DID. For example "1234567"is the username of the following From header field: sip:1234567@trunk.UCM6510.provider.com
host	Required. Up to 60 characters.	no	string	Enter the IP address or hostname of the VoIP provider's server.
keepcid	no, yes	no	string	Keep Trunk CID yes: Trunk CID will not be overwritten by host CID. When set to yes, cidnumber is mandatory.
keeporgcid	no, yes	no	string	Keep Original CID Keep CID from the inbound call when dialing out even if option "Keep Trunk CID" is enabled. Please make sure the peer PBX at the other end supports matching user entry using the "username" field from the authentication line.
ldap_custom_prefix	1-14 characters	no	string	LDAP Dialed PrefixSystem will automatically modify the remote contacts by adding this prefix. When ldap_default_outrt is set to self-defined, use this prefix.
ldap_default_outrt	The existing outgoing route id	no	int	LDAP Outbound RuleSpecify an outbound rule. The PBX system will automatically modify the remote contacts by adding prefix parsed from this rule.If null and ldap_default_outrt_prefix is configured, use custom outbound prefix. If null, no outbound prefix is added by default.
ldap_sync_enable	no, yes	no	string	Sync LDAP EnableProvide and update the local LDAP contact to a remote peer automatically (SIP peer trunk only). To ensure successful synchronization, the remote peer needs to enable this service and set the same password as the local UCM.

ldap_sync_passwd	4-64 alphanumeric characters and underscore (_) only.	no	string	Sync LDAP Password This is the password used for LDAP contact file encryption and decryption. The password must be the same for both peers to ensure successful synchronization.
ldap_sync_port	Value between 1-65534	no	int	Sync LDAP Port The TCP port used by this service.
nat	no, yes	no	string	Enable this setting if the UCM is using public IP and communicating with devices behind NAT.Note 1: This setting will overwrite the Contact header of received messages, which may affect the ability to establish calls when behind NAT. Consider changing settings in PBX Settings->SIP Settings->NAT instead.If one is experiencing one-way audio issues, please check the NAT configuration and SIP/RTP ports in the firewall.This configuration needs to be confirmed under real situation because it will change the Contact header field of incoming message in tun affects the establishing of calls. Under NAT environment, it requires configuring on NAT interface of SIP settings.
need_register	no, yes	no	string	Whether to register on the external server.
out_maxchans	Value between 0-999	no	int	The number of current outgoing calls over the trunk at the same time. The default value 0 means no limit.
out_of_service	no, yes	no	string	Whether to disable the trunk.
outboundproxy	Domain name or IP address	no	string	Outbound proxyWhen configured, the outbound signal will be sent to the proxy instead of the devices directly. The outbound proxy can be domain name or IP address.
pai_number	Up to 60 characters	no	string	PAI HeaderThe user and name of the PAI header, it is formatted as "name<number>" or "<number>" or "number". If null, use the CID according to the priority.
passthrough_pai	yes, no	no	string	Passthrough PAI Header If enabled and "Send PAI Header" is disabled, PAI headers will be preserved as calls pass through the UCM.

qualifyfreq	Value between 1-3600	no	int	Configure the frequency (in seconds) to send SIP OPTIONS messages to check the status of the device. Default is 60.
rmv_obp_from_route	no, yes	no	string	Remove OBP from Route It is used for removing the URI of outbound proxy from Route header field of phone system. If enabled, Route header will be removed from SIP requests. The default setting is "No".
secret	Up to 64 characters	no	string	Password of register trunk
send_ppi	no, yes	no	string	Send PPI Header Yes: the invite message sent to trunks will contain PPI (P-Preferred-Identity) Header.
tel_uri	disabled, user_phone, enabled	no	string	TEL URI Enabled: TEL URI and Remove OBP from Route cannot be enabled at the same time. If set to "Enable", "Tel:" will be used instead of "SIP:" in the SIP request. User_phone: If the phone has an assigned PSTN telephone number, this field should be set. A "User=Phone" parameter will then be attached to the Request-Line and "TO" header in the SIP request to indicate the E.164 number.
transport	udp, tcp, tls	no	string	Configure the SIP Transport method. Using TCP requires local TCP support; using TLS requires local TLS support.
trunk_name	2-64 characters	no	string	Trunk id
use_dod_in_ppi	no, yes	no	string	Configure how to set the PPI number. When use_dod_in_ppi and use_origcid_in_ppi are both no, set the ppi number by CID option priority. When use_origcid_in_ppi is yes, use the original CID in the PPI header, if no original CID, use the default number. When use_dod_in_ppi is yes, use the DOD number in the PPI header, if no DOD number, use the default number.

use_origcid_in_ppi	no, yes	no	string	Configure how to set the PPI number. When use_dod_in_ppi and use_origcid_in_ppi are both no, set the ppi number by CID option priority. When use_origcid_in_ppi is yes, use the original CID in the PPI header, if no original CID, use the default number. When use_dod_in_ppi is yes, use the DOD number in the PPI header, if no DOD number, use the default number.
username	Up to 64 characters	no	string	Configure the username to authenticate with the VoIP provider.
use_for_sfu_conf	yes, no	no	string	IPVT Mode Configures the UCM to be used exclusively for IPVT. Warning: This will lock out certain UCM features.
Successful response				
status	0	yes	int	Successful response, the status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

updateSIPTrunk

deleteSIPTrunk

The "deleteSIPTrunk" action, allows users to delete an existing trunk.

- Request

```
{
  "request":{
    "action":"deleteSIPTrunk",
    "cookie":"sid23597213-1574672527",
    "trunk":"5"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				

Cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Trunk		yes	string	Enter the trunk ID to specify the trunk to delete.
Successful response				
Status	0	yes	int	The response is successful, status is 0
Failed response				
Status		yes	int	Please see the error code list for more details.

deleteSIPTrunk

Trunk Group

listTrunkGroup

Trunk Groups combine one or more SIP trunks belonging to the same provider or platform. Once a trunk group is created and configured, individual SIP accounts can be added by defining the username, password, and authentication ID.

The listTrunkGroup retrieves a list of all configured SIP Trunk Groups on the IP PBX. Supports pagination, sorting, and selective field retrieval for optimized data queries. Below is an example of a request:

```
{ "request": { "action": "listTrunkGroup", "cookie": "sid1224056836-1638843311", "options":
"group_index,group_name,host,trunk_type,username,technology,ldap_sync_enable,out_of_service" }}
```

The request parameters for the listTrunkGroup command are described in the table below:

Keywords	Value	Mandatory	Type	Note
cookie		yes	string	Session token returned after login; must be included in every request.
page		no	int	Specifies which page of results to retrieve.
item_num		no	int	Number of results per page. If not set, all results are returned.
sord	asc , desc	no	string	Sorting order.
sidx	group_name, host	no	string	Field used for sorting.
options	group_index,group_name,host,trunk_type,username,technology,ldap_sync_enable,out_of_service	no	string	Fields to include in the response (comma-separated). If not specified, all fields are returned.

When the listTrunkGroup command executes successfully, the PBX returns the configuration details for the specified trunk group, including SIP registration settings, transport type, NAT configuration, and codec preferences.

Below is an example o a successful response:

```
{
  "response": {
    "page": 1,
```

```

"total_item":3,
"total_page":1,
"trunk":[
{
"group_index":5,
"group_name":"72group",
"host":"172.16.0.72",
"ldap_sync_enable":"no",
"out_of_service":"yes",
"technology":"TRUNK_GROUP",
"trunk_type":"register",
"username":"",
"users":"3001"
},
{
"group_index":13,
"group_name":"test",
"host":"172.16.0.76",
"ldap_sync_enable":"no",
"out_of_service":"no",
"technology":"TRUNK_GROUP",
"trunk_type":"register",
"username":"",
"users":"t2"
},
{
"group_index":17,
"group_name":"testtest",
"host":"1.2.3.4",
"ldap_sync_enable":"no",
"out_of_service":"no",
"technology":"TRUNK_GROUP",
"trunk_type":"register",
"username":"",
"users":"1"
}
]
},
"status":0
}

```

The table below explains the response parameters for the listTrunkGroup command:

Keywords	Value	Type	Note
status	0	int	0 is the value for a successful response.
total_item		int	Total number of trunk groups.
total_page		int	Number of pages.
page		int	Current page.

trunk		Json array	List of trunk group entries, each containing the parameters below:
group_index		int	Trunk group ID.
group_name		string	Trunk group name.
host		string	Provider's SIP server hostname or IP.
trunk_type	register	string	Trunk type (only Register type is currently supported).
username		string	Trunk usernames (empty field).
users_num		string	The total number of usernames for this trunk. This field allows the VoIP provider to perform authentication.
technology	TRUNK_GROUP	string	Terminal type. Always TRUNK_GROUP.
ldap_sync_enable	yes , no	string	Indicates LDAP sync state.
out_of_service	yes , no	string	Indicates if the trunk group is disabled.

getOneTrunkGroupInfo

The getOneTrunkGroupInfo command retrieves the full configuration details for a single SIP Trunk Group on the IP PBX. This is useful for checking trunk settings, verifying registration and authentication parameters, and reviewing advanced SIP features.

Below is an example of how to query a specific trunk group:

```
{
  "request": {
    "action": "getOneTrunkGroupInfo",
    "cookie": "sid1746007990-1638848298",
    "trunk": "5"
  }
}
```

The table below describes the parameters required to execute the getOneTrunkGroupInfo command:

Keywords	Value	Mandatory	Type	Note
cookie		yes	string	Session token returned after login, must be included in every request.
trunk		yes	string	The group_index of the trunk group to retrieve. This index is obtained from listTrunkGroup.

The response contains all configuration details for the requested trunk group, including the trunk server, registration, transport, NAT settings, usernames, and other operational features.

A successful query for trunk group ID 5 would return data as shown below:

```
{
  "response": {
    "trunk": {
      "access_info": "",
      "allow": "ulaw,alaw,gsm,g726,g729,ilbc",

```

```
"allow_outgoing_calls_if_reg_failed": "yes",
"auth_trunk": "no",
"auto_recording": "no",
"cc_agent_policy": "never",
"cc_max_agents": 10,
"cc_max_monitors": 10,
"cidname": "",
"dialin_direct": "no",
"did_mode": "request-line",
"dtmfmode": "",
"enable_audio_fec": 0,
"enable_fecc": 0,
"enable_gin": 0,
"enable_qualify": "no",
"enable_retransmission": 1,
"enable_video_fec": 0,
"encryption": "no",
"fax_gateway": "no",
"fax_intelligent_route": "no",
"fax_intelligent_route_destination": "",
"faxdetect": "no",
"fromdomain": "",
"fromuser": "",
"host": "172.16.0.72",
"ice_support": "no",
"jblen": 100,
"jbmax": 100,
"jbmpl": "fixed",
"jitter_buffer": "neteq",
"keepcid": "yes",
"keeporgcid": "no",
"ldap_sync_enable": "no",
"ldap_sync_port": "",
"mcc_thrshld_inbound": 0,
"mcc_thrshld_outbound": 0,
"mcc_thrshld_toal": 0,
"nat": "no",
"need_register": "yes",
"out_maxchans": 0,
"out_of_service": "yes",
"outboundproxy": "",
"pai_number": "",
"passthrough_pai": "yes",
"qualifyfreq": 60,
"rc_mode": 0,
"rmv_obp_from_route": "no",
"send_anonymous": 0,
"send_pai": 0,
"send_ppi": "no",
"stir_shaken": "no",
```

```

"t38_udptl": "yes",
"t_index": "00004",
"technology": "TRUNK_GROUP",
"tel_uri": "disabled",
"tmp": 4,
"transport": "udp",
"trunk_index": 5,
"trunk_name": "72group",
"trunk_type": "register",
"uri_sip_or_sips": 0,
"use_dod_as_from_name": "no",
"use_dod_in_ppi": "no",
"use_origcid_in_ppi": "no",
"username": [
{
"authid": "",
"number": "3001",
"secret": "*****"
},
{
"authid": "",
"number": "3002",
"secret": "*****"
}
]
},
"status": 0
}

```

The table below explains each field returned in the response, providing a clear understanding of the trunk group configuration:

Keywords	Value	Type	Note
status	0	int	Indicates a successful response, 0 means success.
trunk		Json obj	Describes the trunk configuration details for the queried trunk group.
trunk_index		string	The unique ID of the trunk group
technology	TRUNK_GROUP	string	Terminal type. Always TRUNK_GROUP.
trunk_type	register	string	Trunk type (only Register type is currently supported).
trunk_name		string	The name of the trunk group provider.
host		string	Server IP or hostname of the VoIP provider.

keeporgcid	yes , no	string	Retain the incoming call's CID for outgoing calls, even if "Keep Trunk CID" is enabled. Ensure the remote PBX supports authentication using the username field.
keepcid	yes , no	string	Use the trunk's CID. If set to "yes", the trunk's CID will not be overwritten by the host's CID.
nat	yes , no	string	Enable if communicating with devices behind NAT. Modifies the Contact header and may affect call setup. Confirm configuration on the NAT page under SIP settings.
out_of_service	yes , no	string	Indicates if the trunk group is disabled.
tel_uri	disabled, user_phone, enabled	string	Configure TEL URI behavior.enabled: TEL URI used instead of SIP (cannot be used with removing outbound proxy from Route header).user_phone: adds User=Phone to SIP request and TO header for PSTN number.disabled: not used (default).
need_register	yes, no	string	Whether to register with external entities.
allow_outgoing_call_if_reg_failed	yes, no	string	Configure whether to allow outbound calls even if registration fails. Note: If you have configured not to register externally, ignore this option.
cidname		string	Caller ID name for the trunk.
auth_trunk	yes, no	string	Authenticate incoming calls using a 401 response if enabled.
auto_recording	yes, no	string	Automatic call recording status.
dialin_direct	yes , no	string	If set to "yes", it allows an internal user to call an external number and receive a direct callback connection through the trunk.
allow	ulaw, alaw, gsm, g726, g729, ilbc, g722, siren7, siren14, g723, h263, h263p, h264, h265, vp8, opus, at least one of these is correct.	string	Supported codecs for the trunk, multiple values allowed.ulaw : PCMU alaw : PCMA gsm : GSMg725 : G.726g729 : G.729siren7 : G.722.1siren14 : G.722.1C g723 : G.723 h263: H.263 h263p : H.263P h264 : H.264h265 : H.265vp8 : VP8 opus : OPUS(default is ulaw, alaw, gsm, g726, g729, ilbc)
did_mode	request-line, to-header	string	Determines where the SIP DID is obtained from: Request-line or To-header. Default: Request-line.
send_ppi	yes, pai, no	string	Controls whether to include a PPI (P-Preferred-Identity) or PAI (P-Asserted-Identity) header field in messages sent to the relay.yes: Sends the PPI header in INVITE messages.pai: Sends the PAI header in INVITE, 18x, and 200 messages.no: Disables both headers.

pai_number		string	PAI header field ID, which can be name, number, or empty. If empty, the ID information carried in the PAI header field is determined according to CID priority .
use_dod_as_from_name	yes, no	string	Use DOD number as the From field.
passthrough_pai	yes, no	string	When enabled, if the trunk is not configured to send a PAI header, any PAI header received on one side of the trunk will be transparently forwarded to the other side.
rmv_obp_from_route	No, yes	string	When enabled, the phone system will remove the Route header field from the SIP request.
dtmfmode	Empty , rfc4733, rfc4733_info, info, inband, auto	string	DTMF transmission mode. Default: empty.
enable_qualify	yes, no	string	Enable heartbeat detection, which allows the PBX to periodically send SIP OPTION signals to detect whether the trunk is online.
use_origcid_in_ppi	yes, no	string	Configure the number retrieval mode for the PPI header field. Options for configuring the number retrieval mode for the PPI header field: Default: The PPI number is determined based on the priority of the configured CID option . Remote CID : Uses the remote CID as the PPI number; if no remote CID exists , the default value is used. DOD Number: Uses the DOD number as the PPI number; if no DOD number exists, the default value is used. `use_dod_in_ppi` and `use_origcid_in_ppi` are used together for control. When both are set to " no ", the PPI number is determined based on the priority of the configured CID option . When "use_origcid_in_ppi" is " yes" , the remote CID is used as the PPI number; when "use_dod_in_ppi " is " yes" , the DOD number is used as the PPI number. The default is both are " no" .
qualifyfreq		int	OPTION signals are sent , in seconds. The default is 60 seconds.
out_maxchans		int	The maximum number of outgoing calls that can exist on a relay is 0 by default, meaning there is no limit.
ldap_sync_enable	No, yes	string	Enable LDAP synchronization. Yes: UCM will automatically provide local LDAP contact information and updates to the peer, supporting only SIP peering relays. The peer also needs to enable this service and set the same password to ensure successful synchronization.
ldap_sync_port		int	TCP port used for LDAP synchronization .

use_dod_in_ppi	yes, no	string	Configure the number retrieval mode for the PPI header field. Options for configuring the number retrieval mode for the PPI header field: Default: The PPI number is determined based on the priority of the configured CID option . Remote CID : Uses the remote CID as the PPI number; if no remote CID exists , the default value is used. DOD Number: Uses the DOD number as the PPI number; if no DOD number exists, the default value is used. `use_dod_in_ppi` and `use_origcid_in_ppi` are used together for control. When both are set to " no ", the PPI number is determined based on the priority of the configured CID option . When "use_origcid_in_ppi" is " yes" , the remote CID is used as the PPI number; when "use_dod_in_ppi " is " yes" , the DOD number is used as the PPI number. The default is both are " no" .
outboundproxy	Domain name or IP address	string	After configuration, outbound signaling will be sent to the agent instead of directly to the device. The outbound agent can be a domain name or an IP address. Outbound agent support will be enabled automatically after configuration.
fromdomain		string	Setting a real domain name for an extension can override the From header field. For example, "trunk.UCM6510.provider.com" is the domain name for the following From header field: sip:1234567@trunk.UCM6510.provider.com .
fromuser		string	Setting a real username for an extension can override the From header field. A single ID can register multiple DIDs . For example, "1234567" is the username in the following From header field: sip:1234567@trunk.UCM6510.provider.com .
transport	UDP, TCP, TLS	string	transmitting SIP messages. To use TCP transmission, the local TCP service must be started first. Similarly, to use TLS transport, a local TLS service must be enabled first. UDP : UDP , TCP : TCP , TLS : TLS . The default is UDP .
uri_sip_or_sips	0 , 1	int	SIP URI format used by TLS . 0 : SIP , 1 : SIPS . The default is 0 , but this can be set when transport is selected as tls .
encryption	No , yes , support	string	SRTP encryption mode. Whether to enable SRTP encryption for RTP streams. no : Off, yes : Enabled and mandatory, support : Enabled but not mandatory. Default is no.

jitter_buffer	normal, disable, neteq	string	Temporary users (those joining via a link without registering an extension) select the type of jitter buffer used. This is controlled in conjunction with jbmpl . Disable : disable ; Adaptive : jitter_buffer : normal , jbmpl : adaptive ; Fixed: jitter_buffer: normal , jbmpl : fixed ; neteq: uses neteq as the jitter buffer algorithm. The default is neteq .
jbmpl	fixed, adaptive	string	Jitter buffer type. Controlled in conjunction with jitter_buffer . Adaptive : jitter_buffer : normal , jbmpl : adaptive ; Fixed: jitter_buffer: normal , jbmpl : fixed . Defaults to empty.
jblen		int	Jitter buffer size (milliseconds). Sets the buffering time for fixed jitter buffers or the initial buffering time for adaptive jitter buffers, in milliseconds. The default value is 100 .
jbmax		int	Maximum jitter buffer (milliseconds). The maximum duration of the adaptive jitter buffer. The value of maximum jitter buffer (milliseconds) cannot be less than the value of jitter buffer size (milliseconds). The default value is 100 .
enable_audio_fec	0, 1	int	Configure whether to enable audio forward correction; 0 for off, 1 for on.
enable_video_fec	0,1	int	Configure whether to perform forward video correction; 0 is off, 1 is on.
enable_retransmission	0,1,2	int	Whether to enable packet loss retransmission. A value of 2 enables the NACK packet loss retransmission mechanism; a value of 1 enables the NACK+RTX (SSRC-GROUP) mechanism, which is the default mechanism; a value of 0 disables the mechanism.
enable_fecc	0,1	int	Whether to enable remote camera control: 0 for off, 1 for on.
send_anonymous	0,1	int	Anonymous call option: 0 : Off, 1 : On.
enable_gin	0,1	int	Enables or disables implicit registration. 0 indicates off, 1 indicates on. See RFC6140.
send_pani	0,1	int	Send the PANI header field. If checked, the P-Access-Network-Info header field will be included on the call. 0 : Off, 1 : On.
access_info		string	Interface network information. This must be set after enabling the sending of the PANI header field.
t38_udptl	No, yes	string	Whether to enable support for t38-udptl .
ice_support	yes, no	string	Whether to enable ICE support.

rc_mode	0,1	int	Remote connection mode. If enabled, remote connection parameters will also be set, including From domain, transport, enabling heartbeat, and ICE support. Please ensure that the peer host has a public IP address assigned by GDMS or supports TLS transport. 0 : Off, 1 : On.
mcc_alert_enable	0,1	int	Enable concurrent call count alarm. If enabled, the " Trunking Concurrent Calls " system event will monitor the number of concurrent calls to this trunk. If the number of concurrent calls exceeds the set threshold within a certain period, an alarm message will be generated. Note: Please enable the " Trunking Concurrent Calls " event alarm first. 0 : Off, 1 : On.
mcc_thrshld_toal		int	Concurrent call threshold
mcc_thrshld_outbound		int	Outgoing concurrent call threshold
mcc_thrshld_inbound		int	Incoming concurrent call threshold
stir_shaken	yes, no	string	STIR/SHAKEN enabled?
username		Json obj	For users registering as relays, the VoIP provider will authenticate them based on their usernames.
number		string	Username used for verification
secret		string	When verifying a password, for security reasons, the returned value is the type.
authid		string	Verify ID

addSIPTrunkGroup

The addSIPTrunkGroup command is used to create a new SIP Trunk Group on the IP PBX. Once a trunk group is created, individual SIP accounts (usernames and passwords) can be added to the group for registration and authentication.

SIP Trunk Groups always operate in REGISTER mode, meaning the PBX actively registers one or more SIP accounts to the provider's SIP server.

After a trunk group is created, the configuration will not take effect until applyChanges is executed.

The example below creates a SIP trunk group named **carrier01** that registers **three SIP accounts** (userA, userB, userC) to the provider server sip.carrier.net.

```
{
  "request": {
    "action": "addSIPTrunkGroup",
    "allow_outgoing_calls_if_reg_failed": "yes",
    "auth_trunk": "no",
    "authid": "authA,authB,authC",
    "auto_recording": "no",
    "cookie": "sid780558190-1638498143",
    "dialin_direct": "no",
    "host": "sip.carrier.net",
```

```

"keepcid":"yes",
"keeporgcid":"no",
"nat":"no",
"out_of_service":"no",
"secret": "passA passB passC",
"tel_uri":"disabled",
"trunk_name":"carrier01",
"trunk_type":"register",
"username": "userA,userB,userC"
}
}

```

The following table describes all parameters that can be included in the addSIPTrunkGroup request.

Keywords	Value	Must	Type	Note
cookie		yes	string	The value returned after login must be included in all requests. If not included, error code -6 is returned.
trunk_type	register	yes	string	Trunk type. Adding a SIP trunk group always results in "register".
trunk_name	2 to 64 characters, excluding ` "="&\$,;<> and .	yes	string	Provider name. The name displayed in the exit and entry rules.
host	IP address or URL address	yes	string	Host. Configure the server IP address or URL of your VoIP provider.
transport	UDP, TCP, TLS	no	string	Transmitting SIP messages. TCP/TLS require local TCP/TLS service enabled. Default is UDP.
keeporgcid	yes , no	no	string	Use the remote CID. Retain the incoming call's CID when making an outgoing call, even if "Use trunk CID" is enabled.
keepcid	yes , no	no	string	Use the relay's CID. Yes: The relay's CID will not be overwritten by the host's CID.
nat	yes , no	no	string	NAT setting. Modifies SIP Contact header and affects call establishment; confirm with installer based on actual environment.
out_of_service	yes , no	no	string	Should this relay be disabled?
tel_uri	disabled, user_phone, enabled	no	string	TEL URI. enabled: uses TEL instead of SIP (cannot work with removing outbound proxy from Route). user_phone: adds User=Phone for E.164. Default is disabled.

allow_outgoing_calls_if_reg_failed	yes, no	no	string	Allow outbound calls even if registration fails. Ignored if external registration is disabled.
cidname	2-64 bytes	no	string	Caller ID Name. Sets a new name for the caller if no caller ID name is configured.
username	1~64 bytes; allowed: +*#- _\$&	yes	string	The VoIP provider will use the username for authentication. For multiple users, connect with commas (one-to-one with authid and secret).
secret	1~64 bytes	yes	string	The VoIP provider will authenticate users based on their usernames. For multiple users, connect passwords with spaces (one-to-one with username and authid).
authid	0~64 bytes	yes	string	Verify ID. For multiple users, connect with commas (one-to-one with username and secret).
auth_trunk	yes, no	no	string	Verify relay. If enabled, incoming calls will be authenticated using a 401 redirect.
auto_recording	yes, no	no	string	Automatic recording.
dialin_direct	yes , no	no	string	Callback service. External number can connect directly to the internal number that recently called it via a trunk.
rc_mode	0, 1	no	int	Remote connection mode. 0: Off, 1: On.
mcc_alert_enable	0, 1	no	int	Enable concurrent call count alarm. 0: Off, 1: On.
mcc_thrshld_total	[1,75]	no	int	Concurrent call threshold.
mcc_thrshld_outbound	[1,75]	no	int	Outgoing concurrent call threshold.
mcc_thrshld_inbound	[1,75]	no	int	Incoming concurrent call threshold.

When the trunk group is created successfully, the PBX returns a response indicating whether configuration changes must be applied before the trunk becomes operational.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

The following parameters are returned when the trunk group is created successfully.

Keywords	Value	Type	Note
status		int	The response was successful, and the status is 0.

need_apply	yes , no	string	Do I need to call applychanges to make the configuration take effect?
------------	----------	--------	---

If the request fails, the PBX returns an error status.

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

updateTrunkGroup

The updateTrunkGroup command is used to modify the configuration of an existing SIP Trunk Group on the IP PBX. It allows updating SIP registration parameters, authentication credentials, routing behavior, codec settings, security options, and signaling features.

A trunk group is identified by its trunk_index, which is obtained from listTrunkGroup. Only the parameters included in the request are modified; all other parameters remain unchanged.

The example below modifies the SIP trunk group with ID 5.

```
{
  "request": {
    "action": "updateTrunkGroup",
    "cookie": "sid969190165-1638503876",
    "trunk_index": "5",
    "trunk_name": "testtest",
    "host": "1.2.3.4",
    "username": "1",
    "authid": "3",
    "secret": "2",
    "keepcid": "yes",
    "keeporgcid": "no",
    "nat": "no",
    "tel_uri": "disabled",
    "allow_outgoing_calls_if_reg_failed": "yes",
    "auth_trunk": "no",
    "auto_recording": "no",
    "dialin_direct": "no",
    "need_register": "yes",
    "out_of_service": "no"
  }
}
```

The following table defines all parameters that can be supplied when calling updateTrunkGroup.

Keywords	Value	Mandatory	Type	Note
cookie		yes	string	The value returned after login must be included in all requests. If cookies are not included, return error code -6.
trunk_index		yes	string	Relay group ID, which relay group's configuration to modify.
trunk_name	2 to 64 characters, excluding ` "=&\$,;<> and .	no	string	Provider name, relay name.

host	IP address or URL address	no	string	host
transport	UDP, TCP, TLS	no	string	transmitting SIP messages. To use TCP transmission, the local TCP service must be started first. Similarly, to use TLS transport, a local TLS service must be enabled first. UDP : UDP , TCP : TCP , TLS : TLS . The default is UDP .
uri_sip_or_sips	0 , 1	no	int	SIP URI format used by TLS . 0 : SIP , 1 : SIPS . The default is 0 , but this can be set when transport is selected as tls .
keeporgcid	yes , no	no	string	Use the remote CID . Retain the incoming call's CID when making an outgoing call, even if " Use trunk CID" is enabled . Ensure that the other party's PBX supports authentication using the "username" field in the verification line when verifying the user .
keepcid	yes , no	no	string	Whether to use the relay's CID . yes: The relay's CID will not be overwritten by the host's CID . When set to yes , cidnumber must be set.
nat	yes , no	no	string	When a device on a public IP address communicates with a device behind a NAT (broadband router), try configuring this setting. If there are one-way communication issues, it's usually due to NAT configuration or firewall SIP and RTP support. This configuration setting needs to be tested and confirmed by the installer based on the actual situation, as it modifies the Contact header field of received messages, affecting call establishment. In a NAT environment, it also needs to be configured on the NAT page under SIP settings.
out_of_service	yes , no	no	string	Disable this relay?

tel_uri	disabled, user_phone, enabled	no	string	TEL URI . Enabled: The TEL URI and the option to remove the outbound proxy from the Route header field cannot work simultaneously. If set to "Use " , "TEL" will be used instead of "SIP " in the SIP request . user_phone: If the phone is assigned a PSTN number, the user must set this to "User=Phone" . In this case, this parameter will be added to the request and the "TO" header field in the SIP request to indicate E.164 parameters. disabled : not used, user_phone : User=Phone , enabled : used. The default is disabled .
need_register	No, yes	no	string	Whether to register with external entities.
allow_outgoing_calls_if_reg_failed	yes, no	no	string	Configure whether to allow outbound calls even if registration fails. `no` : Do not allow outbound calls even if registration fails. If you have configured not to register externally, ignore this configuration option.
cidname	Field length 2-64 bytes.	no	string	Caller ID Name. Sets a new name for the caller if no caller ID name is configured.
jitter_buffer	normal, disable, neteq	no	string	Temporary users (those joining via a link without registering an extension) select the type of jitter buffer used. This is controlled in conjunction with jbmpl . Disable : disable ; Adaptive : jitter_buffer : normal , jbmpl : adaptive ; Fixed: jitter_buffer: normal , jbmpl : fixed ; neteq: uses neteq as the jitter buffer algorithm. The default is neteq .
jbmpl	fixed, adaptive	no	string	Jitter buffer type. Controlled in conjunction with jitter_buffer . Adaptive : jitter_buffer : normal , jbmpl : adaptive ; Fixed: jitter_buffer: normal , jbmpl : fixed . Defaults to empty.
jblen	[100,1000]	no	int	Jitter buffer size (milliseconds). Sets the buffering time for fixed jitter buffers or the initial buffering time for adaptive jitter buffers, in milliseconds. The default value is 100 .

jbmax	[100,1000]	no	int	Maximum jitter buffer (milliseconds). The maximum duration of the adaptive jitter buffer. The value of maximum jitter buffer (milliseconds) cannot be less than the value of jitter buffer size (milliseconds). The default value is 100 .
username	1~64 bytes. Only numbers, letters, and special characters are allowed : +*#-_. \$&	yes	string	The VoIP provider will use the username for authentication. Note: If you need to configure multiple users, connect the usernames with commas, for example: admin1,admin2,admin3,... (corresponding one-to-one with authid and secret) .
secret	1~64 bytes.	yes	string	The VoIP provider will authenticate users based on their usernames. Note: If you need to configure multiple users, connect the passwords with spaces, for example: pass1 pass2 pass3 ... (corresponding one-to-one with username and authid) .
authid	0~64 bytes. In English mode, any character except spaces, ;?'"&()<>./[]= {} .	yes	string	Verify ID : The VoIP provider will authenticate users based on their usernames. Note: If you need to configure multiple users, connect the verification IDs with commas, for example: authid1,authid2,authid3,... (corresponding one-to-one with username and secret) .
auth_trunk	yes, no	no	string	Verify relay . If this option is enabled, incoming calls will be authenticated using a 401 redirect . This setting is used when adding a registered trunk.
auto_recording	yes, no	no	string	Automatic recording
dialin_direct	yes , no	no	string	Callback service. This function allows an internal number to call an external number, and the external number can then directly connect to the number that recently called it via a trunk.
fromdomain	0~60 bytes.	no	string	Setting a real domain name for an extension can override the From header field. For example, "trunk.UCM6510.provider.com" is the domain name for the following From header field: sip:1234567@trunk.UCM6510.provider.com .

fromuser	The maximum field length is 64 bytes.	no	string	Setting a real username for an extension can override the From header field. A single ID can register multiple DIDs . For example, "1234567" is the username in the following From header field: sip:1234567@trunk.UCM6510.provider.com .
rc_mode	0,1	no	int	Remote connection mode. If enabled, remote connection parameters will also be set, including From domain, transport, enabling heartbeat, and ICE support. Please ensure that the peer host has a public IP address assigned by GDMS or supports TLS transport. 0 : Off, 1 : On.
mcc_alert_enable	0,1	no	int	Enable concurrent call count alarm. If enabled, the " Trunking Concurrent Calls " system event will monitor the number of concurrent calls to this trunk. If the number of concurrent calls exceeds the set threshold within a certain period, an alarm message will be generated. Note: Please enable the " Trunking Concurrent Calls " event alarm first. 0 : Off, 1 : On.
mcc_thrshld_total	[1,75]	no	int	Concurrent call threshold
mcc_thrshld_outbound	[1,75]	no	int	Outgoing concurrent call threshold
mcc_thrshld_inbound	[1,75]	no	int	Incoming concurrent call threshold
allow	ulaw,alaw,gsm,g726,g729, ilbc,g722,siren7, siren14,g723,h263,h263p, h264,h265,vp8,opus , at least one of these must be selected.	no	string	Supported codecs can be selected in multiple ways. ulaw : PCMU , alaw : PCMA , gsm : GSM , g725 : G.726 , g729 : G.729 , ilbc : iLBC , g722 : G.722, siren7 : G.722.1, siren14 : G.722.1C, g723 : G.723, h263 : H.263, h263p : H.263P, h264 : H.264, h265 : H.265, vp8 : VP8, opus : OPUS (default is ulaw, alaw, gsm, g726, g729, ilbc) .

send_ppi	yes,no,pai	no	string	Send the PPI header field and the PAI header field. Enabling the sending of the PPI header field will include a PPI (P-Preferred-Identity) header field in Invite messages sent to the relay. Enabling the sending of the PAI header field will include a PAI (P-Asserted-Identity) header field in Invite, 18x , and 200 messages sent to the relay . You cannot send both PPI and PAI header fields simultaneously. `yes` : Enables sending the PPI header field; `pai` : Enables sending the PAI header field; `no` : Neither is enabled.
use_dod_in_ppi	yes, no	no	string	Configure the number retrieval mode for the PPI header field. Options for configuring the number retrieval mode for the PPI header field: Default: The PPI number is determined based on the priority of the configured CID option . Remote CID : Uses the remote CID as the PPI number; if no remote CID exists , the default value is used. DOD Number: Uses the DOD number as the PPI number; if no DOD number exists, the default value is used. `use_dod_in_ppi` and `use_origcid_in_ppi` are used together for control. When both are set to "no" , the PPI number is determined based on the priority of the configured CID option . When "use_origcid_in_ppi" is " yes" , the remote CID is used as the PPI number ; when "use_dod_in_ppi" is " yes" , the DOD number is used as the PPI number. The default is both are " no" .

use_origcid_in_ppi	yes, no	no	string	Configure the number retrieval mode for the PPI header field. Options for configuring the number retrieval mode for the PPI header field: Default: The PPI number is determined based on the priority of the configured CID option . Remote CID : Uses the remote CID as the PPI number; if no remote CID exists , the default value is used. DOD Number: Uses the DOD number as the PPI number; if no DOD number exists, the default value is used. `use_dod_in_ppi` and `use_origcid_in_ppi` are used together for control. When both are set to "no" , the PPI number is determined based on the priority of the configured CID option . When "use_origcid_in_ppi" is " yes" , the remote CID is used as the PPI number ; when "use_dod_in_ppi" is " yes" , the DOD number is used as the PPI number. The default is both are " no" .
pai_number	The maximum field length is 60 bytes. Input numbers, letters, and special characters: +*#<>_-.	no	string	PAI Header Field ID . This sets the name and number used in the PAI header field, in the format of "name" , "" , or "number" . If empty, the ID information carried in the PAI header field is determined according to CID priority .
use_dod_as_from_name	yes, no	no	string	DOD number displayed as From
passthrough_pai	yes, no	no	string	Transmit PAI header field. If this configuration is set to yes and the relay is not configured to send PAI header field, the PAI header field received on one side of the relay will be transparently transmitted to the other side.
send_pani	0,1	no	string	Send the PANI header field. If checked, the P-Access-Network-Info header field will be included on the call. 0 : Off, 1 : On.
access_info	2 to 64 characters. Only numbers, letters, and special characters #, ., and = are allowed.	no	string	Interface network information. This must be set after enabling the sending of the PANI header field.
send_anonymous	0,1	no	int	Anonymous call option: 0 : Off, 1 : On.

outboundproxy	Domain name or IP address	no	string	After configuration, outbound signaling will be sent to the agent instead of directly to the device. The outbound agent can be a domain name or an IP address. Outbound agent support will be enabled automatically after configuration.
rmv_obp_from_route	No, yes	no	string	from the Route header field. This is typically used to set the URI from which the phone system removes the outgoing agent . Yes: It will remove the Route header field from the SIP request.
did_mode	request-line, to-header	no	string	DID mode. Obtains the address ID of the SIP incoming call from the SIP Request-line or To header field . Request-line : Request-line , To-header : To-header . The default is Request-line .
enable_gin	0,1	no	int	Enable implicit registration (0 for off, 1 for on), see RFC6140 . Registration is proprietary to relays.
dtmfmode	Empty , rfc4733, rfc4733_info, info, inband, auto	no	string	Configures the DTMF transmission mode. Empty: Default; rfc4733 : RFC4733; rfc4733_info : RFC4733_info; info: Info; inband: In-band ; auto : Automatic.
enable_qualify	yes, no	no	string	Enable heartbeat detection. yes : The PBX will periodically send SIP OPTION signals to detect whether the trunk is online.
qualifyfreq	The valid value range is 1-3600 .	no	int	OPTION signals are sent , in seconds. The default is 60 seconds.
out_maxchans	The valid value range is 0-999 .	no	int	The maximum number of outgoing calls that can exist on a relay is 0 by default, meaning there is no limit.
enable_retransmission	0,1,2	no	int	Whether to enable packet loss retransmission. A value of 2 enables the NACK packet loss retransmission mechanism; a value of 1 enables the NACK+RTX (SSRC-GROUP) mechanism, which is the default mechanism; a value of 0 disables the mechanism.
enable_audio_fec	0, 1	no	int	Configure whether to enable audio forward correction; 0 for off, 1 for on.

enable_video_fec	0,1	no	int	Configure whether to perform forward video correction; 0 is off, 1 is on.
ice_support	yes, no	no	string	Whether to enable ICE support.
enable_fecc	0,1	no	int	Whether to enable remote camera control: 0 for off, 1 for on.
encryption	No , yes , support	no	string	SRTP encryption mode. Whether to enable SRTP encryption for RTP streams. no : Off, yes : Enabled and mandatory, support : Enabled but not mandatory. Default is no.
joint_ipvt	yes, no	no	string	is for IPVT only . Enabling it will cause some services on the PBX to become unavailable. Please enable it with caution.
ldap_sync_enable	No, yes	no	string	Enable LDAP synchronization. Yes: UCM will automatically provide local LDAP contact information and updates to the peer, supporting only SIP peering relays. The peer also needs to enable this service and set the same password to ensure successful synchronization.
ldap_sync_passwd	4 to 64 characters. Must include at least two of the following types: numbers, lowercase letters, uppercase letters, or special characters: letters, numbers, or underscores.	no	string	The system uses this password to encrypt and decrypt LDAP contact files; both ends must have the same password set for the encryption to succeed.
ldap_custom_prefix	The field is a numerical value with a length of 1-14 characters.	no	string	Outgoing prefix: A manually specified dialing prefix added to the original number of the other end. This prefix is used when the default outgoing rule for LDAP is set to custom.
ldap_sync_type	wget , rsync	no	string	LDAP synchronization method. wget : wget , rsync : rsync . The default is wget .
t38_udptl	No, yes	no	string	Whether to enable support for t38-udbtl .
stir_shaken	yes, no	no	string	STIR/SHAKEN enabled?
cc_agent_policy	native, never	no	string	Enable CC service. It shares the same control as cc_monitor_policy ; setting it to `native` indicates it's enabled. That is, both cc_agent_policy and cc_monitor_policy must be set to `native` to enable, and both must be set to `never` to disable. The default is `never` .

cc_monitor_policy	native, never	no	string	Enable CC service. It shares the same control as cc_agent_policy ; setting it to `native` indicates it's enabled. That is, both cc_agent_policy and cc_monitor_policy must be set to `native` to enable, and both must be set to `never` to disable. The default is `never` .
cc_max_agents	The value can be a number from 1 to 999 .	no	int	The maximum number of proxies that this channel or device can provide, i.e., the maximum number of CC requests that can exist simultaneously on this channel or device. The default value is 10 .
cc_max_monitors	The value can be a number from 1 to 999 .	no	int	The maximum number of monitoring requests this device can provide, i.e., how many calling parties are allowed to simultaneously request the called party's CC service. The default value is 10 .

When the trunk group is updated successfully, the PBX returns a response indicating whether the new configuration must be applied before it becomes active.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

The following table describes the fields returned when the update is successful.

Keywords	Value	Type	Note
status		int	The response was successful, and the status is 0.
need_apply	yes , no	string	Do I need to call applychanges to make the configuration take effect?

If the request fails, the PBX returns a non-zero status code indicating the error.

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

deleteSIPTrunkGroup

The deleteSIPTrunkGroup command is used to permanently remove an existing SIP Trunk Group from the IP PBX.

Once deleted, all SIP accounts (usernames), routing references, and registration data associated with the trunk group are removed.

The following example deletes the SIP trunk group with ID 2.

```
{
  "request": {
    "action": "deleteSIPTrunkGroup",
    "cookie": "sid780558190-1638498143",
    "trunk": "2"
  }
}
```

The following table describes all parameters that can be included in the deleteSIPTrunkGroup request.

Keywords	Value	Mandatory	Type	Note
cookie		yes	string	Session token returned after login. If missing, error code -6 is returned.
trunk		yes	string	Relay group ID specifying which SIP trunk group will be deleted.

The following table describes the fields returned when the update is successful.

Keywords	Value	Type	Note
status		int	The response was successful, and the status is 0.
need_apply	yes , no	string	Do I need to call applychanges to make the configuration take effect?

If the request fails, the PBX returns a non-zero status code indicating the error.

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

Analog Trunk

listAnalogTrunk

The "listAnalogTrunk" action will allow users to get information about the existing analog trunks, such as the trunk's name, trunk index etc.

Note: The needed information, can be defined in the parameter "**options**". Otherwise, all the information will be returned.

- Request

```
{
  "request":{
    "action":"listAnalogTrunk",
    "cookie":"sid1838731674-1582859646",
    "options":"trunk_name,trunk_index,chans,out_of_service,trunkmode"
  }
}
```

- Response

```
{
```

```

"response":{
  "analogtrunk":[
    {
      "chans":"1",
      "out_of_service":"no",
      "trunk_index":7,
      "trunk_name":"123",
      "trunkmode":"normal"
    }
  ],
  "page":1,
  "total_item":1,
  "total_page":1
},
"status":0

}

```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
Cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Page		no	int	Get extension list by page number.
item_num		no	int	Number of trunks to return for the request. If unspecified, all trunks will be returned.
Sord	acs,desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.
Sidx		no	string	Sort by trunk index. This is based on trunk creation date.
options	trunk_name, trunk_index, chans, out_of_service, trunkmode	no	string	
Successful response				
Status	0	yes	int	Successful response, status is 0
analogtrunk		yes	Json array	Analog trunk list
total_item		yes	int	Total number of items that were returned.
total_page		yes	int	Total number of pages in the list.
Page		yes	int	What page is on.
trunk_index		no	string	Trunk ID
trunk_name		no	string	Trunk name

out_of_service		no	string	Either the trunk is disabled or not
Chans		no	string	Used ports
trunkmode		no	string	Trunk mode
Failed response				
status		yes	int	Please see the error code list for more details.

listAnalogTrunk

addAnalogTrunk

The "addAnalogTrunk" action will allow users to create Analog trunks.

- Request

```
{
  "request":{
    "chans": 2,
    "trunkgroup":"",
    "action": "addAnalogTrunk",
    "cookie":"sid65643067-1582875896"
    "trunk_name":"1232",
    "trunkmode": "normal",
    "polarityswitch": "no",
    "enablecurrentdisconnectthreshold":"yes",
    "currentdisconnectthreshold": 200,
    "ringtimeout": 8000,
    "rxgain": 0,
    "txgain": 0,
    "usecallerid": "yes",
    "cidmode": 0,
    "fxooutbandcalldialdelay": 0,
    "auto_record": "no",
    "out_of_service": "no",
    "dahdilineselectmode": "ascend",
    "lectype": 0,
    "busydetect": "yes",
    "busycount": 2,
    "congestiondetect": "yes",
    "congestioncount": 2,
    "countrytone": "us",
    "busy": "f1=480@-50,f2=620@-50,c=500/500",
    "congestion": "f1=480@-50,f2=620@-50,c=250/250",
    "dialin_direct": "no",
    "cidstart": "ring",
    "cidsignalling": "bell",
    "faxdetect": "incoming",
    "fax_gateway": "no"
  }
}
```

- Response

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
Cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
trunk_name		yes	string	Trunk name
Auto_record	Yes, no	no	string	Whether to enable automatic recording
Busy		no	string	Busy tone settings
Busydetect	Yes, no	no	string	Whether to enable busy tone detection
busycount		no	int	The number of busy tones the user will hear before hanging up the call when Busy Detection is enabled.
Chans		yes	int	Used ports
Congestion		no	string	Congestion tone settings
Congestioncount		no	int	The number of congestion tones to wait for when Congestion Detection is enabled.
Congestiondetect	Yes, no	no	string	Congestion Detection is used for detecting far end congestion signal.
Countrytone		no	string	Country for tone settings. You can also select Custom and set the values manually.
Currentdisconnectthreshold	50-3000	no	int	Current hang-up threshold (ms)
Dahdilineselectmode		no	string	Outgoing line selection
dialin_direct	Yes, no	no	string	Direct callback
Enablecurrentdisconnectthreshold		no	string	Whether to enable the current hang-up threshold
Fxooutbandcalldialdelay	0-3000	no	int	FXO dial delay
Fax_gateway	Yes, no	no	string	Either the FXO mode is set to fax gateway or not
Lectype		no	int	Echo cancellation mode
out_maxchans		no	int	Maximum number of calls

out_of_service	Yes, no	no	string	Either the trunk is disabled or not
Polarityonanswerdelay	100 - 2000	no	int	Polarity reversal response delay
Polarityswitch	Yes, no	no	string	Detect polarity reversal
ringtimeout	4000 - 20000	no	int	ringtimeout
Rxgain	-13 - +12	no	real	RX gain
trunkmode	Normal, SLA	no	string	Trunk mode
Txgain	-13 - +12	no	real	TX gain
Usecallerid	Yes, no	no	string	Whether to enable use callerID option or not
Trunkgroup		yes	string	The default is 0 when adding. The value is the same as trunk index
Cidsignaling		no	string	CallerID scheme
Cidmode		no	int	Caller number combination
Successful response				
Status	0	yes	int	The response is successful, status is 0
Failed response				
Status		yes	int	Please see the error code list for more details.

listAnalogTrunk

getAnalogTrunk

The "getAnalogTrunk" will allow users to get information about a specific trunk.

- Request

```
{
  "request":{
    "action":"getAnalogTrunk",
    "cookie":"sid23597213-1574672527",
    "analogtrunk":"3"
  }
}
```

- Response

```
{
  "response":{
    "analogtrunk":{
      "auto_record":"no",
      "busy":"f1=480@-50, f2=620@-50, c=500/500",
      "busycount":2,
      "busydetect":"yes",
      "callerid":"asreceived",
      "chans":"1",

```

```

"cidmode":0,
"cidsignalling":"bell",
"cidstart":"ring",
"congestion":"f1=480@-50,f2=620@-50,c=250/250",
"congestioncount":2,
"congestiondetect":"yes",
"countrytone":"us",
"currentdisconnectthreshold":200,
"dahdilineselectmode":"ascend",
"dialin_direct":"no",
"echocancel":128,
"enablecurrentdisconnectthreshold":"yes",
"fax_gateway":"no",
"fax_intelligent_route":"no",
"fax_intelligent_route_destination":null,
"faxdetect":"incoming",
"fxooutbandcalldialdelay":0,
"lectype":0,
"out_maxchans":0,
"out_of_service":"no",
"polarityonanswerdelay":600,
"polarityswitch":"no",
"ringtimeout":8000,
"rxgain":0.0,
"tmp":7,
"trunk_index":7,
"trunk_name":"123",
"trunkgroup":7,
"trunkmode":"normal",
"txgain":0.0,
"usecallerid":"yes"
}
},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
Cookie		Yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
analogtrunk		yes	int	Trunk id
Successful response				
trunk_name		Yes	string	Trunk name
Auto_record	Yes, no	No	string	Whether to enable automatic recording
Busy		No	string	Busy tone settings

Busydetect	Yes, no	No	string	Whether to enable busy tone detection
busycount		No	int	The number of busy tones the user will hear before hanging up the call when Busy Detection is enabled.
Chans		yes	int	Used ports
Congestion		No	string	Congestion tone settings
Congestioncount		No	int	The number of congestion tones to wait for when Congestion Detection is enabled.
Congestiondetect	Yes, no	No	string	Congestion Detection is used for detecting far end congestion signal.
Countrytone		No	string	Country for tone settings. You can also select Custom and set the values manually.
Currentdisconnectthreshold	50-3000	No	int	Current hang-up threshold (ms)
Dahdilineselectmode		No	string	Outgoing line selection
dialin_direct	Yes, no	No	string	Direct callback
Enablecurrentdisconnectthreshold		No	string	Whether to enable the current hang-up threshold
Fxooutbandcalldialdelay	0-3000	No	int	FXO dial delay
Fax_gateway	Yes, no	No	string	Either the FXO mode is set to fax gateway or not
Lectype		No	int	Echo cancellation mode
out_maxchans		No	int	Maximum number of calls
out_of_service	Yes, no	No	string	Either the trunk is disabled or not
Polarityonanswerdelay	100 - 2000	No	int	Polarity reversal response delay
Polarityswitch	Yes, no	No	string	Detect polarity reversal
ringtimeout	4000 - 20000	No	int	Ringtimeout
Rxgain	-13 - +12	No	real	RX gain
Trunkmode	Normal, SLA	No	string	Trunk mode
Txgain	-13 - +12	No	real	TX gain
Usecallerid	Yes, no	No	string	Whether to enable use callerID option or not
Trunkgroup		yes	string	The default is 0 when adding. The value is the same as trunk index
Cidsignaling		No	string	CallerID scheme
Cidmode		No	int	Caller number combination
Status	0	Yes	int	The response is successful, status is 0
Failed response				

Status		Yes	int	Please see the error code list for more details.
--------	--	-----	-----	--

getAnalogTrunk

updateAnalogTrunk

The "updateAnalogTrunk" action will allow users to update the existing Analog trunk while specifying the trunk group.

- Request

```
{
  "request":{
    "trunkmode": "normal",
    "polarityswitch": "no",
    "enablecurrentdisconnectthreshold":"yes",
    "currentdisconnectthreshold": 200,
    "ringtimeout": 8000,
    "rxgain": 0,
    "txgain": 0,
    "usecallerid": "yes",
    "cidmode": 0,
    "fxooutbandcalldialdelay": 0,
    "auto_record": "no",
    "out_of_service": "no",
    "dahdilineselectmode": "ascend",
    "lectype": 0,
    "busydetect": "yes",
    "busycount": 2,
    "congestiondetect": "yes",
    "congestioncount": 2,
    "countrytone": "us",
    "busy": "f1=480@-50,f2=620@-50,c=500/500",
    "congestion": "f1=480@-50,f2=620@-50,c=250/250",
    "dialin_direct": "no",
    "cidstart": "ring",
    "cidsignalling": "bell",
    "faxdetect": "incoming",
    "fax_gateway": "no",
    "chans": 2,
    "trunkgroup":7,
    "action": "updateAnalogTrunk",
    "cookie":"sid65643067-1582875896"
  }
}
```

- Response

```
{
  "response":{
```

```
"need_apply": "yes"
},
"status": 0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
Cookie		Yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Trunk_index		Yes	string	Trunk index
Other parameters are the same as addAnalogTrunk action				
Successful response				
Status	0	Yes	int	The response is successful, status is 0
Failed response				
Status		Yes	int	Please see the error code list for more details.

updateAnalogTrunk

deleteAnalogTrunk

The "deleteAnalogTrunk" action, allows users to delete an existing trunk.

- Request

```
{
  "request": {
    "action": "deleteAnalogTrunk",
    "analogtrunk": 7,
    "cookie": "sid1449753552-1582877632"
  }
}
```

- Response

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
Cookie		Yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.

analogtrunk		Yes	int	Enter the trunk ID to specify the trunk to delete.
Successful response				
status	0	yes	int	The response is successful, status is 0
Failed response				
Status		yes	int	Please see the error code list for more details.

deleteAnalogTrunk

SLA Trunk

addSLATrunk

The action "addSLATrunk" allows user to enable SLA on an existing analog trunk.

- Request

```
{
  "request":{
    "action":"addSLATrunk",
    "bargeallowed":"yes",
    "cookie":"sid1344581054-1582879094",
    "device":"DAHDI/1",
    "holdaccess":"open",
    "trunk_name":"1232"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
Cookie		Yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Trunk_name		yes	string	Trunk name
Device		no	string	Device port id (DAHDI / 1)
Bargeallowed	Yes, no	no	string	Whether to allow barge or not.
Holdaccess	Open, private	no	string	
Successful response				

Status	0	Yes	Int	The response is successful, status is 0
Failed response				
Status		Yes	int	Please see the error code list for more details.

addSLATrunk

updateSLATrunk

The "updateSLATrunk" action allows user to update an existing SLA analog trunk.

- Request

```
{
  "request":{
    "action":"updateSLATrunk",
    "bargeallowed":"yes",
    "cookie":"sid1344581054-1582879094",
    "device":"DAHDI/1",
    "holdaccess":"open",
    "trunk_index":7,
    "trunk_name":"43243"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
Cookie		Yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Trunk_index		yes	string	Trunk index
Other parameters are the same as addSLATrunk action				
Successful response				
Status	0	Yes	int	The response is successful, status is 0
Failed response				
Status		Yes	int	Please see the error code list for more details.

deleteSLATrunk

The deleteSLATrunkcommand disables SLA mode on an existing analog trunk. This operation removes the SLA binding from the specified trunk and returns it to normal analog trunk behavior.

This example below illustrates disabling SLA mode on the analog trunk with ID 10.

```
{
  "request": {
    "action": "deleteSLATrunk",
    "cookie": "sid832022203-1637918526",
    "trunk_index": 10
  }
}
```

The following table describes all parameters that can be included in the deleteSLATrunkrequest.

Keywords	Value	Must	Type	Note
cookie		yes	string	Session token returned after login. If missing, error code -6 is returned.
trunk_index		yes	int	Analog trunk ID for which SLA mode will be removed.

When the deletion is successful, the PBX returns whether applyChanges is required.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

VoIP Trunk DOD

VoIP Trunk DOD (Direct Outward Dialing) entries define how inbound DID numbers received from a SIP Trunk are routed inside the PBX.

DOD entries are used when inbound calls arrive on a SIP Trunk and must be delivered to an internal extension, IVR, ring group, queue, or other destination.

The following APIs are provided to manage VoIP Trunk DOD records:

- listDODVoIPTrunk
- addDODVoIPTrunk
- updateDODVoIPTrunk
- deleteDODVoIPTrunk

listDODVoIPTrunk

The listDODVoIPTrunkcommand retrieves all configured DOD entries for a SIP Trunk Group.

It is used to view which DID numbers are configured and how inbound calls from the provider are routed inside the PBX.

Below is an example request:

```
{
```

```

"request":{
"action":"listDODVoIPTrunk",
"cookie":"sid635852808-1638515821",
"options":"number,name,add_extension,members,members_ldap,enable_strip,strip_number",
"trunk":"3"
}
}

```

The request parameters for listDODVoIPTrunk are described in the table below:

Keywords	Value	Mandatory	Type	Note
cookie		yes	string	The value returned after login must be included in all requests. If cookies are not included, an error code will be returned.
page		no	int	You can retrieve the extension list in pages, and specify which page to retrieve.
item_num		no	int	How to separate the page, i.e., the maximum number of members returned each time. If not set, all are returned by default.
sord	asc,desc	no	string	Sorting order: asc for ascending order, desc for descending order.
trunk		yes	Int	Trunk ID. Obtain the DOD information list under the corresponding VOIP trunk.
sidx	number, name, members	no	string	Sort by this field
options	number,name,add_extension,members,members_ldap,enable_strip,strip_number	yes	string	Options for obtaining DOD information. Specify the options to fetch. Multiple options can be set, separated by commas.

When the command executes successfully, the PBX returns a list of DOD entries associated with the specified trunk group.

A successful response returns data similar to the following:

```

{
"response":{
"dod":[
{
"add_extension":"no",
"enable_strip":"no",
"members":"3001,3002",
"members_ldap":"",
"name":"grandstream",
"number":"0003",
"strip_number":0
}
],
"page":1,
"total_item":1,

```

```

"total_page":1
},
"status":0
}

```

The response parameters are described in the table below:

Keywords	Value	Type	Note
status	0	int	The response was successful, and the status is 0.
total_item		int	Total number of list members
total_page		int	Total number of pages in the list
page		int	The number of page the list is on
dod		Json array	DOD list
number		string	DOD Number
name		string	DOD Name
add_extension	yes, no	string	Add extension number. If enabled, the extension number will be added to the DOD number. E.g., if the DOD number is 1122, when 1000 makes an outbound call, the new Caller ID (DOD) number will be 11221000.
enable_strip	yes, no	string	Strip the digits from the beginning.
strip_number		int	Strip the digits from the beginning. The number of digits stripped from the front of the appended number. For example, if the strip digits is set to 2, and the DOD number is 1122, then if 4002 dials out, the new Caller ID (DOD) number will be 112202.
members		string	Local extension number. Multiple numbers can be separated by commas.
members_ldap		string	LDAP member numbers. When specifying LDAP members, the corresponding phonebook name (must exist locally) must be complete and detailed. The name and number must be separated by #. Multiple members are separated by . Example: 2000#ou=test1,dc=pbx,dc=com 2001#ou=test2,dc=pbx,dc=com

addDODVoIPTrunk

The addDODVoIPTrunkcommand is used to create a new Direct Outward Dialing (DOD) number under an existing VoIP trunk.

After a DOD is created, the configuration does not become active until applyChanges is executed.

The following example creates a DOD number 5600 on trunk 3. Calls placed by extensions 3001 and 3002, as well as LDAP users, will present 5600 as the outbound caller ID.

```

{
  "request":{
    "action":"addDODVoIPTrunk",
    "cookie":"sid1935693476-1595928610",
    "number":"5600",
    "name":"grandstream",
    "members":"3001,3002",
    "add_extension":"no",
    "enable_strip":"no",
    "strip_number":"0",
    "members_ldap":"2000#ou=test1,dc=pbx,dc=com|3000#ou=test2,dc=pbx,dc=com",

```

```
"trunk": "3"
}
}
```

The following table defines all parameters that can be supplied when calling addDODVoIPTrunk

Keywords	Value	Mandatory	Type	Note
cookie		yes	string	The value returned after login must be included in all requests. If cookies are not included, an error code will be returned.
trunk		yes	Int	Trunk ID. Add DOD information under this trunk.
number	2 to 32 characters. Only letters, numbers, and special characters (-+,_*#) are allowed.	yes	string	DOD Number
name	Maximum 32 characters. Can only contain letters, numbers, hyphens, underscores, or spaces.	yes	string	DOD Name
add_extension	yes, no	yes	string	Add extension number. If enabled, the extension number will be added to the DOD number. E.g., if the DOD number is 1122, when 1000 makes an outbound call, the new Caller ID (DOD) number will be 11221000.
enable_strip	yes, no	yes	string	Strip the digits from the beginning.
strip_number	[0,64]	yes	int	Strip the digits from the beginning. The number of digits stripped from the front of the appended number. For example, if the strip digits is set to 2, and the DOD number is 1122, then if 4002 dials out, the new Caller ID (DOD) number will be 112202.
members	Existing extension numbers or extension groups	yes	string	Local extension number. Multiple numbers can be separated by commas.
members_ldap		no	string	LDAP member numbers. When specifying LDAP members, the corresponding phonebook name (must exist locally) must be complete and detailed. The name and number must be separated by #. Multiple members are separated by . Example: 2000#ou=test1,dc=pbx,dc=com 2001#ou=test2,dc=pbx,dc=com

When the DOD is created successfully, the PBX returns whether applyChanges is required.

```
{
```

```

"response": {
  "need_apply": "yes"
},
"status": 0
}

```

The following parameters are returned when the DOD is created successfully.

Keywords	Value	Type	Note
status		int	The response was successful, and the status is 0.
need_apply	yes , no	string	Do I need to call applychanges to make the configuration take effect?

The result returned when the request fails is described below.

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

updateDODVoIPTrunk

The updateDODVoIPTrunkcommand modifies an existing DOD entry that belongs to a specific VoIP trunk. This API is also used to update how a DOD number behaves when it is used for outbound calls, including:

- Which extensions or LDAP users may use the DOD.
- Whether the extension number is appended to the DOD.
- Whether digits are stripped before forming the outbound caller ID.
- The display name of the DOD entry

Only the configuration of the DOD is modified, the DOD number itself remains fixed.

The following example updates the DOD number 5600 under VoIP trunk ID 4, assigning it to two local extensions and two LDAP users, while disabling digit stripping and extension appending.

```

{
  "request": {
    "action": "updateDODVoIPTrunk",
    "cookie": "sid1935693476-1595928610",
    "number": "5600",
    "name": "grandstream",
    "members": "3001,3002",
    "add_extension": "no",
    "enable_strip": "no",
    "strip_number": "0",
    "members_ldap": "2000#ou=test1,dc=pbx,dc=com|3000#ou=test2,dc=pbx,dc=com",
    "trunk": "4"
  }
}

```

The following table describes all parameters that can be included in the updateDODVoIPTrunkrequest:

Keywords	Value	Mandatory	Type	Note
----------	-------	-----------	------	------

cookie		yes	string	The value returned after login must be included in all requests . If cookies are not included , return error code -6.
trunk		yes	Int	Trunk ID. Modify the DOD information under the corresponding trunk.
number	2 to 32 characters. Only letters, numbers, and special characters (-+,_*#) are allowed.	yes	string	DOD number (number value cannot be modified). Modify the DOD information under the corresponding DOD number.
name	Maximum 32 characters. Can only contain letters, numbers, hyphens, underscores, or spaces.	yes	string	DOD Name
add_extension	yes, no	yes	string	Number Addition. If enabled, the extension number will be added to the DOD number. For example, if the DOD number is 1122, when 1000 makes an outside call, the new calling (DOD) number will be 11221000.
enable_strip	yes, no	yes	string	Strip the digits from the beginning.
strip_number	[0,64]	yes	int	Strip the digits from the beginning. The number of digits stripped from the front of the appended number. For example, if the strip digits is set to 2, and the DOD number is 1122, then if 4002 dials out, the new Caller ID (DOD) number will be 112202.
members	Existing extension numbers or extension groups	yes	string	Local extension number. Multiple numbers can be separated by commas.
members_ldap		no	string	LDAP member numbers. When specifying LDAP members, the corresponding phonebook name (must exist locally) must be complete and detailed. The name and number must be separated by #. Multiple members are separated by . Example: 2000#ou=test1,dc=pbx,dc=com 2001#ou=test2,dc=pbx,dc=com

This response indicates that the DOD configuration was updated successfully and that applyChanges must be executed before the new configuration becomes active.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

```
}
```

deleteDODVoIPTrunk

The deleteDODVoIPTrunkcommand permanently removes a DOD entry from a VoIP trunk. Once deleted, the DOD number is no longer available for outbound caller-ID presentation or routing, and all associated extension and LDAP bindings are removed.

The following example deletes the DOD number 5600 from the VoIP trunk with ID 3.

```
{
  "request": {
    "action": "deleteDODVoIPTrunk",
    "cookie": "sid1935693476-1595928610",
    "number": "5600",
    "trunk": "3"
  }
}
```

The following table describes all parameters that can be included in the deleteDODVoIPTrunkrequest:

Keywords	Value	Mandatory	Type	Note
cookie		yes	string	The value returned after login must be included in all requests. If cookies are not included, return error code -6.
number		yes	string	DOD number, delete the DOD information corresponding to this number.
trunk		yes	Int	Trunk ID. Delete DOD number under this trunk.

The returned successful response indicates that the DOD entry was successfully removed and that applyChanges must be executed for the change to take effect.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Outbound Route

listOutboundRoute

The "listOutboundRoute" allows users to list the existing outbound route such as the route's name, its permission, etc.

Note: The needed information, can be defined in the parameter "**options**".

- Request

```
{
  "request": {
```

```

"action": "listOutboundRoute",
"cookie": "sid23597213-1574672527",
"options": "outbound_rt_name,outbound_rt_index,permission,sequence,pattern,out_of_service"
}
}

```

- Response

```

{
  "response": {
    "outbound_route": [
      {
        "members": [],
        "out_of_service": "no",
        "outbound_rt_index": 2,
        "outbound_rt_name": "test123",
        "pattern": "_1xxx",
        "permission": "none",
        "sequence": 1
      }
    ],
    "page": 1,
    "total_item": 1,
    "total_page": 1
  },
  "status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
Cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Page		no	int	Retrieves outbound routes by the page they're on.
item_num		no	int	Extension number on each page, which is, the maximum items of each return. If empty, all members are returned by default.
Sord	acs, desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.
Sidx		no	string	Sort according to the index.
options	outbound_rt_name, outbound_rt_index, permission, sequence, pattern, out_of_service	no	string	Specifies the information to retrieve. Several items can be entered and separated by commas. If unspecified, all outbound route information will be retrieved.

Successful Response				
status	0	yes	int	Successful response, status is 0
outbound_route		yes	Json array	Outbound route list
total_item		yes	int	Total number of items that were returned.
total_page		yes	int	Total number of pages in the list.
Page		yes	int	Page number that the trunks are on.
outbound_rt_index		no	string	ID of the outbound route. Used for updating and deleting outbound routes.
outbound_rt_name		no	string	Name of the outbound route.
Permission		no	string	Privilege Level The required permission level to use the outbound route.
sequence		no	string	Trunk typePeer trunk and register trunk
pattern		no	string	Outbound routing rules. Multiple patterns are separated by commas.
Failed response				
Status		yes	int	Please see the error code list for more details.

listOutboundRoute

addOutboundRoute

The "addOutboundRoute" will allow users to add an outbound route for a specific trunk that needs to be defined using the "**default_trunk_index**".

- Request

```
{
  "request":{
    "action":"addOutboundRoute",
    "cookie":"sid23597213-1574672527",
    "default_trunk_index":"3",
    "outbound_rt_name":"test123",
    "pattern":[
      {
        "match":"_1xxx"
      }
    ]
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
outbound_rt_index		yes	string	The id of the outgoing route, which configuration of the outgoing route is obtained.
outbound_rt_name	2-24 letters/numbers/special characters_-. Mandatory.	yes	string	Outbound route name
default_trunk_index	mandatory	yes	string	Corresponding trunk id used by the outbound route
pattern	mandatory	no	Json array	Available Extensions/Extension Groups after enabling filter on source caller ID.Outgoing prefixAll patterns are prefixed by " _ " character, but please do not enter more than one " _ " at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: [12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. Multiple patterns can be one member in json array, which is saved in match. For example, pattern is _1, _2: "pattern":[{ "allow":null, "match": "_1", "outbound_rt_index":2, "strip_prefix":null }, { "allow":null, "match": "_2", "outbound_rt_index":2, "strip_prefix":null }]

permission	none, Internal, local, national, international	no	string	outbound permission.internal:interna linternal-local:localinternal -local-national:nationwidei nternal-local-national-inter national:international
out_of_service	Yes, no	no	string	Whether to disable the outgoing route
password	4-10 digits. If null, no outbound password is used.	no	string	Outbound password
strip	[0,32]	no	int	StripSpecify the number of digits that will be stripped from the beginning of the dialed string before the call is placed via the selected trunk. For example, the users will dial 9 as the first digit of a long distance calls. However, 9 should not be sent out via analog lines and the PSTN line. In this case, one digit should be stripped before the call is placed.
prepend	0 to 20 alphanumeric characters or +_*#	no	string	PrependThose digits will be prepended after the dialing number is stripped.
enable_wlist	Yes, no	no	string	Enable Filter on Source Caller IDSet to yes to enable filter on Source Caller ID. If enabled, Caller ID must in the selected list or match Custom Dynamic Route to make outbound calls.
Successful response				
status	0	yes	int	The response is successful, status is 0
Failed response				
status		yes	int	Please see the error code list for more details.

addOutboundRoute

getOutboundRoute

The "getOutboundRoute" allows users to get information about an existing outbound route.

- Request

```
{
  "request":{
    "action":"getOutboundRoute",
    "cookie":"sid932531770-1574674600",
    "custom_member":"","
    "default_trunk_index":"","
    "enable_wlist":"","
```

```
"failover_outbound_data":"","  
"limitime":"","  
"members":"","  
"out_of_service":"","  
"outbound_route":"2",  
"outbound_rt_index":"","  
"outbound_rt_name":"","  
"password":"","  
"pattern":"","  
"permission":"","  
"pin_sets_id":"","  
"prepend":"","  
"strip":"","  
"time_mode":"","  
}  
}
```

- Response

```
{  
  "response":{  
    "failover_outbound_data":[],  
    "outbound_route":{  
      "custom_member":null,  
      "default_trunk_index":3,  
      "enable_wlist":"no",  
      "limitime":null,  
      "members":null,  
      "out_of_service":"no",  
      "outbound_rt_index":2,  
      "outbound_rt_name":"test123",  
      "password":null,  
      "permission":"none",  
      "pin_sets_id":null,  
      "prepend":null,  
      "strip":0,  
      "time_mode":0  
    },  
    "pattern":[  
      {  
        "allow":null,  
        "match":"_1xxx",  
        "outbound_rt_index":2,  
        "strip_prefix":null  
      }  
    ],  
    "status":0  
  }  
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned
outbound_route		yes	string	Outbound route id, which configuration of the outgoing route is obtained.
Successful response				
status	0	yes	int	The response is successful, status is 0
outbound_route		yes	Json, obj	Configuration of the specified outbound route
outbound_rt_index		yes	string	ID of the outbound route.
outbound_rt_name		no	string	Name of the outbound route
permission	none, Internal, local, national, international	no	string	The required permission level to use the outbound route.disableinternal:internallocal-local:localinternational-local-national:nationalinternational-local-national-international:international
default_trunk_index		no	string	The ID of the trunk used for the outbound route.
out_of_service	Yes, no		string	Disable this Route Displays whether this outbound route is disabled.
password			string	The password required to use the outbound route
strip			int	StripThe number of digits to remove from the beginning of a dialed number before actually making the call.Don't think the example is necessary in this case.
prepend			string	PrependThe digits to add to the beginning of a dialed number before actually making the call.
enable_wlist	Yes, no		string	Enable Filter on Source Caller IDIf enabled, only the selected extensions/extension groups or extensions that satisfy the Custom Dynamic Route pattern can use the outbound route.

members			string	Available Extensions/Extension Groups.The extensions and extension groups that can use this outbound route when Enable Filter on Source Caller ID is toggled on. Extension groups will be identified by ID.
pattern		no	json array	Outgoing prefixAll patterns are prefixed by " _ " character, but please do not enter more than one " _ " at the beginning. All patterns can add comments, such as " _pattern /* comment */". In patterns, some characters have special meanings:[12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. Multiple patterns can be one member in json array, which is saved in match. For example, pattern is _1, _2: "pattern":[{ "allow":null, "match": "_1", "outbound_rt_index":2, "strip_prefix":null }, { "allow":null, "match": "_2", "outbound_rt_index":2, "strip_prefix":null }]
failover_outbound_data			json array	Each failover trunk is a member of json array. failover_prepend:failover prepend failover_strip:failover strip failover_trunk_index:failover trunk id failover_trunk_sequence:failover trunk sequence outbound_rt_index:outbound route id For example, the first failover trunk of outbound route 3 is Trunk 4, strip is 2, prepend is 1: "failover_outbound_data":[{ "failover_prepend": "1", "failover_strip":2, "failover_trunk_index":4, "failover_trunk_sequence":1, "outbound_rt_index":3 }]
Failed response				
status		yes	int	Please see the error code list for more details.

updateOutboundRoute

The "updateOutboundRoute" allows users to update an existing outbound route.

- Request

```
{
  "request":{
    "action":"updateOutboundRoute",
    "cookie":"sid932531770-1574674600",
    "outbound_route":"2",
    "outbound_rt_name":"out1",
    "permission":"internal"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
outbound_rt_index		yes	string	The id of the outgoing route, which configuration of the outgoing route is updated
outbound_rt_name	Required. 2-24 alphanumeric characters, hyphens (-), or underscores (_)	no	string	Outgoing route name
permission	none, Internal, local, national, international	no	string	outbound permission.internal:interna linternal-local:localinternal -local-national:nationwidei nternal-local-national-inter national:international
default_trunk_index	required	no	string	The corresponding trunk id of the outbound route

pattern	required	no	Json array	PatternAll patterns are prefixed by " _ " character, but please do not enter more than one " _ " at the beginning. All patterns can add comments, such as " _pattern /* comment */". In patterns, some characters have special meanings: [12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9 Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. For multiple modes, see the array written in json. For example, rules for allowing 2xxx, 12xx outgoing is set as following: [{"match": " _2xxx/*asadad*/"}, {"match": " _12xx"}]
out_of_service	Yes, no	no	string	Whether to disable the outgoing route
password	4-10 digits. If not configured, no password will be used for the outbound route.			
strip	0-32	no	int	StripSpecify the number of digits that will be stripped from the beginning of the dialed string before the call is placed via the selected trunk. For example, the users will dial 9 as the first digit of a long-distance calls. However, 9 should not be sent out via analog lines and the PSTN line. In this case, one digit should be stripped before the call is placed.
prepend	0-20 alphanumeric characters or special characters +_#*	no	string	PrependThe digits that will be prepended after the dialing number is stripped.
enable_wlist	Yes, no	no	string	Enable Filter on Source Caller IDSet yes to enable filter on Source Caller ID. If enabled, Caller ID must in the selected list or match Custom Dynamic Route to make outbound calls.

members		no	string	Available Extensions/Extension Groups after enabling filter on source caller ID.If is extension group, use the id of the group. Multiple should be separated by commas:6000,6001,group-1
Successful response				
status	0	yes	int	The response is successful, status is 0
Failed response				
status		yes	int	Please see the error code list for more details.

updateOutboundRoute

deleteOutboundRoute

The "deleteOutboundRoute" action allows users to delete an existing outbound route.

- Request

```
{
  "request":{
    "action":"deleteOutboundRoute",
    "cookie":"sid932531770-1574674600",
    "outbound_route":"2"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
inbound_route		yes	string	The ID of the inbound route
Successful response				
status	0	yes	int	The response is successful, status is 0.

need_apply	Yes, no	yes	string	Whether "Apply" is required for the configuration to take effect.
Failed response				
status		yes	int	Please see the error code list for more details.

deleteOutboundRoute

PIN Groups

The UCM IPPBX stores all PIN codes used for authorization (e.g., DISA, outbound dialing, call authorization, etc.) inside PIN Sets (also called Password Groups).

Each PIN Set is uniquely identified by `pin_sets_id`. A PIN Set contains one or more PIN members, where each member consists of:

- **pin:** the numeric password
- **pin_name:** a label for the PIN

PIN Sets can also be logged into CDRs (Call Detail Records) when used for dialing authentication. The following HTTPS APIs operate on PIN Sets:

1. `listPinSets`
2. `getPinSets`
3. `addPinSets`
4. `updatePinSets`
5. `deletePinSets`

listPinSets

The `listPinSets` command returns a paginated list of all PIN Sets configured on the UCM, including their names and CDR logging status.

- Request

```
{
  "request": {
    "action": "listPinSets",
    "item_num": "10",
    "sid": "pin_sets_id",
    "sord": "asc",
    "page": "1",
    "cookie": "sid81747798-1551856142"
  }
}
```

- Response

```
{
  "response": {
    "pin_sets_id": [
      {
        "pin_sets_id": "1557210434090",
```

```

"pin_sets_name": "hehe",
"record_in_cdr": "no"
},
{
"pin_sets_id": "1557210889523",
"pin_sets_name": "kp",
"record_in_cdr": "no"
}
],
"total_item": 2,
"total_page": 1,
"page": 1
},
"status": 0

}

```

- listPinSets Parameters Table

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
page		no	int	username
sord	acs,desc	no	string	User phone number
sidx		no	string	User family phone number
item_num		no	int	User fax
options	group_name, members, group_id	no	string	The Email address of this user. For example, "bobjones@bobjones.null"
Successful response				
status		yes	int	The response is successful, status is 0
total_item	yes, no	yes	int	Whether "Apply" is required for the configuration to take effect
total_page		yes	int	Total pages of the list
page		yes	int	What page is on.
pin_sets_id		no	int	ID of the PIN set
pin_sets_name		yes	string	Name of the PIN set
record_in_cdr		yes	string	Whether to record in CDR
Failed response				
status		yes	int	Please see the error code list for more details.

getPinSets

The getPinSets command retrieves the full definition of a password group (PIN Set), including all PIN members and whether the group is recorded in CDR.

The example below queries the password group with ID 1636531199155.

```
{
  "request": {
    "action": "getPinSets",
    "cookie": "sid862218411-1636595421",
    "pin_sets_id": "1636531199155"
  }
}
```

The following table defines all parameters that can be supplied when calling getPinSets.

Parameter	Value	Must	Type	Note
cookie		yes	string	The value returned after login. If missing, error code -6 is returned.
pin_sets_id		yes	string	The ID of the PIN Set to retrieve.

When the PIN Set is found, the UCM returns the PIN group metadata and all its PIN members.

```
{
  "response": {
    "members": [
      {
        "pin": "1260",
        "pin_name": "1260",
        "pin_sets_id": "1636531199155"
      }
    ],
    "pin_sets_id": {
      "pin_sets_id": "1636531199155",
      "pin_sets_name": "bb",
      "record_in_cdr": "no"
    }
  },
  "status": 0
}
```

The following table defines all the successful response fields:

Parameter	Type	Note
Top-level fields		
status	int	0 indicates success.
members	json array	List of PIN members in this PIN Set.
pin_sets_id	json array	PIN Set metadata.
members[] object		
pin	string	Numeric PIN value.
pin_name	string	Display name of the PIN.

pin_sets_id	string	ID of the PIN Set this PIN belongs to.
pin_sets_id object		
pin_sets_id	string	Unique ID of the PIN Set.
pin_sets_name	string	Name of the PIN Set.
record_in_cdr	string	Whether this PIN Set is logged into CDR (yes or no).

If the request fails (e.g., invalid PIN Set ID or missing cookie), the PBX returns:

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

deletePinSets

The deletePinSets command deletes an existing password group (PIN Set) from the UCM. The PIN Set is identified by its pin_sets_id. After deletion, the change does not take effect until applyChanges is executed.

The example below deletes the PIN Set with ID 1636528706378.

```
{
  "request": {
    "action": "deletePinSets",
    "cookie": "sid778649980-1636533135",
    "pin_sets_id": "1636528706378"
  }
}
```

The following table defines all parameters that can be supplied when calling deletePinSets.

Parameter	Value	Must	Type	Note
cookie		yes	string	The value returned after login. If missing, error code -6 is returned.
pin_sets_id		yes	string	The unique ID of the password group to be deleted.

When the PIN Set is deleted successfully, the PBX returns the deleted PIN Set information and whether applyChanges is required.

```
{
  "response": {
    "need_apply": "yes",
    "pin_sets_id": {
      "pin_sets_id": "1602745045405",
      "pin_sets_name": "test",
      "record_in_cdr": "no"
    }
  },
  "status": 0
}
```

The following table defines all the successful response fields:

Parameter	Type	Note
-----------	------	------

Top-level fields		
status	int	0 indicates success.
need_apply	string	Whether applyChanges must be called (yes or no).
pin_sets_id	json array	Metadata of the deleted PIN Set.
pin_sets_id object		
pin_sets_id	string	ID of the deleted PIN Set.
pin_sets_name	string	Name of the deleted PIN Set.
record_in_cdr	string	Whether this PIN Set was recorded in CDR (yes or no).

If the request fails (e.g., invalid PIN Set ID or missing cookie), the PBX returns:

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

addPinSets

The addPinSets command creates a new password group (PIN Set) in the UCM. The PIN Set is identified by pin_sets_id, which must be a unique timestamp-style value. **At least one** member PIN must be provided when creating a PIN Set.

The example below creates a PIN Set named test with one PIN member.

```
{
  "request": {
    "action": "addPinSets",
    "cookie": "sid1911250918-1636535871",
    "members": [
      {
        "pin": "1260",
        "pin_name": "1260",
        "pin_sets_id": "1636531736"
      }
    ],
    "pin_sets_id": "1636531736",
    "pin_sets_name": "test",
    "record_in_cdr": "no"
  }
}
```

The following table defines all parameters that can be supplied when calling addPinSets.

Parameter name	Required	type	illustrate
cookie	yes	String	The value returned after login must be included in all requests. If cookies are not included, return error code -6.
pin_sets_name	yes	String	The name of the cipher group. Value range: 2-32 characters, including letters, numbers, or the special character _.

record_in_cdr	no	String	record will also record the cipher set information used in the CDR. Value range: yes, no.
pin_sets_id	yes	String	The cipher set ID is equivalent to the timestamp of the generation time.
members	yes	JSONArray	Members of a cipher group; at least one member must be added when adding a cipher group.
pin	yes	String	Member's number. Value range: 4 to 32 numbers.
pin_name	yes	String	The names of the members. Value range: 2-32 characters, including letters, numbers, or the special character _.
pin_sets_id	yes	String	The cipher set ID is equivalent to the timestamp of the generation time.

When the PIN Set is created successfully, the PBX returns whether applyChanges is required.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

updatePinSets

The updatePinSets command modifies an existing password group (PIN Set). It allows users to update the PIN set name, the member PIN list, and whether the PIN set is logged in CDR.

The example below updates the PIN Set 1636534585278, changing its name, member list, and disabling CDR logging.

```
{
  "request": {
    "action": "updatePinSets",
    "cookie": "sid344888764-1636597075",
    "members": [
      {
        "pin": "1260",
        "pin_name": "test",
        "pin_sets_id": "1636534585278"
      }
    ],
    "pin_sets_id": "1636534585278",
    "pin_sets_name": "test",
    "record_in_cdr": "no"
  }
}
```

The following table defines all parameters that can be supplied when calling updatePinSets.

Parameter name	Required	type	illustrate
----------------	----------	------	------------

cookie	yes	String	The value returned after login must be included in all requests. If cookies are not included, return error code -6.
pin_sets_name	yes	String	The name of the cipher group. Value range: 2-32 characters, including letters, numbers, or the special character _.
record_in_cdr	no	String	Record will also record the cipher set information used in the CDR. Value range: yes, no.
pin_sets_id	yes	String	The cipher set ID is equivalent to the timestamp of the generation time.
members	yes	JSONArray	Members of a cipher group; at least one member must be added when adding a cipher group.
pin	yes	String	Member's number. Value range: 4 to 32 numbers.
pin_name	yes	String	The names of the members. Value range: 2-32 characters, including letters, numbers, or the special character _.
pin_sets_id	yes	String	The cipher set ID is equivalent to the timestamp of the generation time.

When the PIN Set is updated successfully, the PBX returns whether applyChanges is required.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Inbound Route

listInboundRoute

The "listInboundRoute" allows users to list the existing inbound routes such as the route's name, its permission, etc.

Note: The needed information, can be defined in the parameter "**options**".

- Request

```
{
  "request":{
    "action":"listInboundRoute",
    "cookie":"sid932531770-1574674600",
    "trunk_index":"1"
  }
}
```

- Response

```
"response":{
  "inbound_route":[
    {
      "account":null,
      "accout_voicemail_out_of_service":"no",
      "alertinfo":null,
      "announcement":null,
      "blocking_did_collect_calls":"no",
      "callback":null,
      "conference":null,
      "destination_type":"byDID",
      "dialdirect":"no",
      "did_pattern_allow":"",
      "did_pattern_match":"_.",
      "did_strip":0,
      "directory":null,
      "disa":null,
      "en_multi_mode":"no",
      "enable_fax_detect":"no",
      "enable_inbound_muti_mode":"no",
      "external_number":null,
      "fax":null,
      "fax_intelligent_route":"email",
      "fax_intelligent_route_destination":null,
      "inbound_mode":0,
      "inbound_muti_mode":0,
      "inbound_rt_index":1,
      "inbound_suffix":null,
      "incoming_prepend":null,
      "ivr":null,
      "members":[
        {
          "account":null,
          "announcement":null,
          "callback":null,
          "conference":null,
          "destination_type":"byDID",
          "did_strip":0,
          "directory":null,
          "disa":null,
          "en_multi_mode":"no",
          "end_hour":"",
          "end_min":"",
          "external_number":null,
          "fax":null,
          "inbound_mode":"0",
          "ivr":null,
          "mode":"",
          "multimedia_conference":null,
          "paginggroup":null,
```

```

"queue":null,
"ringgroup":null,
"sequence":"0",
"start_hour":"",
"start_min":"",
"tc":"0",
"timetype":"0",
"vmgroup":null,
"voicemail":null
}
],
"multimedia_conference":null,
"out_of_service":"no",
"paginggroup":null,
"permission":"internal-local-national-international",
"prepend_inbound_name":null,
"prepend_inbound_name_enable":null,
"prepend_trunk_name":"no",
"queue":null,
"ringgroup":null,
"set_callerid_enable":"no",
"set_callerid_name":"${CALLERID(name)}",
"set_callerid_number":"${CALLERID(num)}",
"trunk_index":1,
"vmgroup":null,
"voicemail":null
}
],
"page":1,
"total_item":1,
"total_page":1
},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
page		no	int	Retrieves all the inbound routes on the specified page.
item_num		no	int	Retrieves the maximum number of inbound routes to retrieve for the query. If unspecified, all inbound routes will be returned.

sord	acs,desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.
sidx		no	string	Sort according to the index.
trunk_index		yes	int	The ID of the trunk of which to retrieve the inbound routes of.
options	inbound_rt_index, did_pattern_match, did_pattern_allow, out_of_service	no	string	See previous comments regarding similar parameter
Successful response				
status	0	yes	int	The response is successful, status is 0
inbound_route		yes	Json array	List of inbound routes
total_item		yes	int	Total number of items that were returned.
total_page		yes	int	Total number of pages in the list.
page		yes	int	Page number that the trunks are on.
inbound_rt_index		yes	string	ID of the inbound route.
members		yes	Json array	Destination of the inbound route
did_pattern_match		no	string	Callee id pattern match mode of the inbound routeAll patterns are prefixed by "_" character, but please do not enter more than one "_" at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: [12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z.
did_pattern_allow		no	string	Callee pattern match
out_of_service	yes, no	no	string	Indicates whether the extension is out of service
Failed response				
status		yes	int	Please see the error code list for more details.

addInboundRoute

The "addInboundRoute" action allows users to add and configure an inbound route for a specific trunk that needs to be defined using the "**trunk_index**".

- Request

```
{
  "request":{
    "account":"1001",
    "action":"addInboundRoute",
    "cookie":"sid1302335489-1574676590",
    "destination_type":"account",
    "dial_trunk":"no",
    "did_pattern_match":["{\"did_pattern_match\": \"_x.\"}"],
    "did_strip":"0",
    "en_multi_mode":"no",
    "enable_fax_detect":"no",
    "enable_inbound_muti_mode":"no",
    "ext_conference":"no",
    "ext_directory":"no",
    "ext_group":"no",
    "ext_local":"yes",
    "ext_paging":"no",
    "ext_queues":"no",
    "fax_intelligent_route":"email",
    "fax_intelligent_route_destination":"1001",
    "inbound_muti_mode":"0",
    "multi_mode":[""],
    "out_of_service":"no",
    "permission":"internal",
    "prepend_trunk_name":"no",
    "set_callerid_enable":"no",
    "set_callerid_name":"${CALLERID(name)}",
    "set_callerid_number":"${CALLERID(num)}",
    "time_condition":[""],
    "trunk_index":"6",
    "voicemailgroups":"no",
    "voicemenus":"no"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

```
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
inbound_route		yes	string	Inbound route id, which inbound route to obtain configuration from.
trunk_index		yes	int	Trunk id of inbound route
inbound_suffix		no	string	Inbound Mode SuffixDial global inbound feature code + the inbound mode suffix(or dial inbound mode suffix) could switch the mode of the inbound route.BLF subscription inbound mode suffix can monitor inbound multiple mode.
inbound_multi_mode		no	string	Inbound mode
permission	Internal, local, national, international	no	string	Inbound permissionInternal, local, national, international.
enable_inbound_muti_mode		no	string	Inbound multiple modeCan be configured in the "Inbound Routes" page. If enabled, the global inbound mode will be used. Otherwise, the default mode will be used.

set_callerid_number		no	string	Configure the pattern-matching format to manipulate the numbers of incoming callers or to set a fixed callerID number for calls that go through this inbound route. <code>\${CALLERID(num)}</code>: Default value which indicates the number of an incoming caller (CID). The CID will not be modified. <code>\${CALLERID(num):n}</code>: Skips the first n characters of a CID number, where n is a number. <code>\${CALLERID(num):-n}</code>: Takes the last n characters of a CID number, where n is a number. <code>\${CALLERID(num):s:n}</code>: Takes n characters of a CID number starting from s+1, where n is a number and s is a character position (e.g. <code>\${CALLERID(num):2:7}</code> takes 7 characters after the second character of a CID number. <code>n\${CALLERID(num)}</code>: Prepends n to a CID number, where n is a number.
set_callerid_name			string	Configure the pattern-matching format to customize the callerID name of incoming callers. <code>\${CALLERID(name)}</code>: Default value which indicates the name of an incoming caller. <code>A\${CALLERID(name)}B</code>: Prepends the character "A" and appends the character "B" to <code>\${CALLERID(name)}</code>. Using a string instead of the pattern-matching syntax will set a fixed name to incoming callers.
set_callerid_enable	yes, no	no	string	Manipulate Caller ID (CID) name and/or number within the call flow.
out_of_service	yes, no	no	string	Whether to disable this inbound route
prepend		no	string	Prepend Those digits will be prepended after the dialing number is stripped.
enable_wlist	yes, no	no	string	Enable Filter on Source Caller ID Set to yes to enable filter on Source Caller ID. If enabled, Caller ID must in the selected list or match Custom Dynamic Route to make outbound calls.
incoming_prepend		no	string	Prepend Those digits will be prepended after the dialing number is stripped.

alertinfo		no	string	Alert info
did_strip		no	string	Strip Specify the number of digits that will be stripped from the beginning of the dialed string before the call is placed via the selected trunk. For example, the users will dial 9 as the first digit of a long distance calls. However, 9 should not be sent out via analog lines and the PSTN line. In this case, one digit should be stripped before the call is placed.
callback		no	string	Default destination-callback
external_number		no	string	Default destination-external number
directory		no	string	Default destination-dial by name
disa		no	string	Default destination-DISA
fax		no	string	Default destination-Fax
paginggroup		no	string	Default destination-paging/intercom group
queue		no	string	Default destination-Queues
ringgroup		no	string	Default destination-ring group
ivr		no	string	Default destination-IVR
vmgroup		no	string	Default destination-voicemail group
conference		no	string	Default destination-conference rooms
voicemail		no	string	Default destination-voicemail
account		no	string	Default destination-extension
prepend_trunk_name	yes, no	no	string	Prepend trunk name
destination_type		no	string	Default destination

did_pattern_allow		no	string	callerID pattern All patterns are prefixed by "_" character, but please do not enter more than one "_" at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: [12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z.
did_pattern_match		yes	string	Pattern All patterns are prefixed by "_" character, but please do not enter more than one "_" at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: [12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. Multiple patterns should be separated by commas. For example the patterns are _1xx, _2xx, the configuration should be: "did_pattern_allow": "_1xx, _2xx"
seamless_transfer_did_whitelist		no	string	Extension list allowed to seamless transfer. Allows the selected extension to use this function. If an extension is busy, and a mobile phone is bound to that extension, the mobile phone can pick up calls to that extension.
ext_directory	yes, no	no	string	Dial by name, add at least one destination for the did destination.

ext_paging	yes, no	no	string	Paging/intercom group, add at least one destination for the did destination.
ext_group	yes, no	no	string	Ring group, add at least one destination for the did destination.
ext_queues	yes, no	no	string	Queues, add at least one destination for the did destination.
ext_conference	yes, no	no	string	Conference room, add at least one destination for the did destination.
voicemenus	yes, no	no	string	IVR, add at least one destination for the did destination.
voicemailgroups	yes, no	no	string	Voicemail groups, add at least one destination for the did destination.
ext_fax	yes, no	no	string	Fax, add at least one destination for the did destination
ext_local	yes, no	yes	string	extensions, add at least one destination for the did destination.
dial_trunk	yes, no	no	string	Dial trunk
multi_mode		yes	Json obj	Mode1
time_condition		yes	Json obj	Time condition
blocking_did_collect_calls	yes, no	no	string	Block Collect Calls If enabled, collect calls will be blocked. Otherwise calls will be dealt as normal calls. Note: Collect calls are indicated by the header "P-Asserted-Service-Info: service-code=Backward Collect Call, P-Asserted-Service-Info: service-code=Collect Call".
Successful response				
status	0	yes	int	The response is successful, status is 0.
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect.
Failed response				
status		yes	int	Please see the error code list for more details.

addInboundRoute

getInboundRoute

The "getInboundRoute" action allows users to get information about a specific inbound route.

- Request

```
{
  "request":{
    "action":"getInboundRoute",
    "cookie":"sid1148042340-1574781519"
  }
}
```

- Response

```
{
  "response":{
    "inbound_did_destination":{
      "dial_trunk":"yes",
      "ext_conference":"yes",
      "ext_directory":"yes",
      "ext_fax":"yes",
      "ext_group":"yes",
      "ext_local":"yes",
      "ext_multimedia_conference":"yes",
      "ext_paging":"yes",
      "ext_queues":"yes",
      "inbound_rt_index":1,
      "voicemailgroups":"yes",
      "voicemenus":"yes"
    },
    "inbound_routes":{
      "account":null,
      "accout_voicemail_out_of_service":"no",
      "alertinfo":null,
      "announcement":null,
      "blocking_did_collect_calls":"no",
      "callback":null,
      "conference":null,
      "destination_type":"byDID",
      "dialdirect":"no",
      "did_pattern_allow":"",
      "did_pattern_match":"_.",
      "did_strip":0,
      "directory":null,
      "disa":null,
      "en_multi_mode":"no",
      "enable_fax_detect":"no",
      "enable_inbound_muti_mode":"no",
      "external_number":null,
      "fax":null,
      "fax_intelligent_route":"email",
      "fax_intelligent_route_destination":null,
      "inbound_muti_mode":0,

```

```

"inbound_rt_index":1,
"inbound_suffix":null,
"incoming_prepend":null,
"ivr":null,
"multimedia_conference":null,
"out_of_service":"no",
"paginggroup":null,
"permission":"internal-local-national-international",
"prepend_inbound_name":null,
"prepend_inbound_name_enable":null,
"prepend_trunk_name":"no",
"queue":null,
"ringgroup":null,
"seamless_transfer_did_whitelist":"",
"set_callerid_enable":"no",
"set_callerid_name":"${CALLERID(name)}",
"set_callerid_number":"${CALLERID(num)}",
"trunk_index":1,
"vmgroup":null,
"voicemail":null
}
},
"status":0

```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
inbound_route		yes	string	The ID of the inbound route
Successful response				
status	0	yes	int	The response is successful, status is 0
inbound_routes		yes	Json obj	Configuration of the specified inbound route
inbound_suffix		no	string	Inbound Mode Suffix The suffix of the inbound route. Dialing the global inbound mode feature code + this suffix will toggle the route's inbound mode. BLF subscription inbound mode suffix can monitor inbound multiple mode.
inbound_multi_mode		no	string	The current inbound mode of the inbound route.

permission	Internal, local, national, international	no	string	Privilege Level. Permission level of incoming calls when they are routed to other trunks. This must be equal to or higher than the destination trunk's Privilege Level for calls to be routed successfully.
enable_inbound_multi_mode		no	string	Inbound multiple mode Displays whether this route
set_callerid_number		no	string	Configure the pattern-matching format to manipulate the numbers of incoming callers or to set a fixed CallerID number for calls that go through this inbound route \${CALLERID(num)}: Default value which indicates the number of an incoming caller (CID). The CID will not be modified. \${CALLERID(num):n}: Skips the first n characters of a CID number, where n is a number. \${CALLERID(num):-n}: Takes the last n characters of a CID number, where n is a number. \${CALLERID(num):s:n}: Takes n characters of a CID number starting from s+1, where n is a number and s is a character position (e.g. \${CALLERID(num):2:7} takes 7 characters after the second character of a CID number). n\${CALLERID(num)}: Prepends n to a CID number, where n is a number.
set_callerid_name			string	Configure the pattern-matching format to customize the CallerID name of incoming callers. \${CALLERID(name)}: Default value which indicates the name of an incoming caller. A\${CALLERID(name)}B: Prepends the character "A" and appends the character "B" to \${CALLERID(name)}. Using a string instead of the pattern-matching syntax will set a fixed name to incoming callers.
set_callerid_enable	yes, no	no	string	Set CallerID Info Displays whether the route will manipulate the CID information of incoming calls based on set_callerid_number and set_callerid_name.

out_of_service	yes, no	no	string	Indicates whether the extension is out of service
prepend		no	string	PrependThe digits to add to the beginning of a dialed number before actually making the call.
alertinfo		no	string	Alert info
callback		no	string	The number configured for callback when selected as Default Destination.
external_number		no	string	The number configured for external number when selected as Default Destination.
directory		no	string	The number configured for dial by name when configured as Default Destination.
disa		no	string	Default destination-DISA
fax		no	string	Default destination-Fax
paginggroup		no	string	Default destination-paging/intercom group
queue		no	string	Default destination-Queues
ringgroup		no	string	Default destination-ring group
ivr		no	string	Default destination-IVR
vmgroup		no	string	Default destination-voicemail group
conference		no	string	Default destination-conference rooms
voicemail		no	string	Default destination-voicemail
account		no	string	Default destination-extension
prepend_trunk_name	yes, no	no	string	Prepend trunk name
destination_type		no	string	Default DestinationThe destination that incoming calls will be routed to.

did_pattern_allow		no	string	callerID patternAll patterns are prefixed by "_" character, but please do not enter more than one "_" at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. Multiple patterns should be separated by commas. For example the patterns are _123, _234, the configuration should be:"did_pattern_allow": "_123, _234"
did_pattern_match		yes	string	All patterns are prefixed by "_" character, but please do not enter more than one "_" at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: [12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. Multiple patterns should be separated by commas. For example the patterns are _1xx, _2xx, the configuration should be: "did_pattern_allow": "_1xx, _2xx"
trunk_index		yes	string	ID of the trunk associated with the inbound route.
seamless_transfer_did_whitelist		no	string	List of extensions allowed to seamless transfer. Allows the selected extension to use this function. If an extension is busy, and a mobile phone is bound to that extension, the mobile phone can pick up calls to that extension.

inbound_did_destination		yes	Json obj	Allowed DID Destination Extension types that incoming calls can be routed to when "By DID" is selected for Default Destination..
ext_directory		no	string	Dial by name
ext_paging		no	string	Paging/intercom group
ext_group		no	string	Ring group
ext_queues		no	string	queues
ext_conference		no	string	Conference room
voicemenus		no	string	IVR
voicemailgroups		no	string	Voicemail groups
ext_fax		no	string	Fax
ext_local		no	string	extensions
dial_trunk	yes, no	no	string	Dial trunk
blocking_did_collect_calls	yes, no	no	string	Block collect callsIndicates whether or not collect calls will be blocked. Note: Collect calls are indicated by the header "P-Asserted-Service-Info: service-code=Backward Collect Call, P-Asserted-Service-Info: service-code=Collect Call".
Failed response				

getInboundRoute

updateInboundRoute

The "updateInboundRoute" action allows users to update an existing inbound route.

- Request

```
{
  "request":{
    "account":"1001",
    "action":"updateInboundRoute",
    "cookie":"sid1058050971-1574689082",
    "destination_type":"account",
    "inbound_route":"3"
  }
}
```

- Response

```
{
  "response":{
```

```

"need_apply": "yes"
},
"status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request Parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
inbound_route		yes	string	The ID of the inbound route
inbound_suffix		no	string	Inbound Mode Suffix The suffix of the inbound route. Dialing the global inbound mode feature code + this suffix will toggle the route's inbound mode. BLF subscription inbound mode suffix can monitor inbound multiple mode.
inbound_multi_mode		no	string	The current inbound mode of the inbound route.
permission	Internal, local, national, international	no	string	Privilege Level. Permission level of incoming calls when they are routed to other trunks. This must be equal to or higher than the destination trunk's Privilege Level for calls to be routed successfully.
enable_inbound_multi_mode		no	string	Inbound multiple mode Displays whether this route

set_callerid_number		no	string	Configure the pattern-matching format to manipulate the numbers of incoming callers or to set a fixed CallerID number for calls that go through this inbound route <code>\${CALLERID(num)}</code>: Default value which indicates the number of an incoming caller (CID). The CID will not be modified. <code>\${CALLERID(num):n}</code>: Skips the first n characters of a CID number, where n is a number. <code>\${CALLERID(num):-n}</code>: Takes the last n characters of a CID number, where n is a number. <code>\${CALLERID(num):s:n}</code>: Takes n characters of a CID number starting from s+1, where n is a number and s is a character position (e.g. <code>\${CALLERID(num):2:7}</code> takes 7 characters after the second character of a CID number). <code>n\${CALLERID(num)}</code>: Prepends n to a CID number, where n is a number.
set_callerid_name			string	Configure the pattern-matching format to customize the CallerID name of incoming callers. <code>\${CALLERID(name)}</code>: Default value which indicates the name of an incoming caller. <code>A\${CALLERID(name)}B</code>: Prepends the character "A" and appends the character "B" to <code>\${CALLERID(name)}</code>. Using a string instead of the pattern-matching syntax will set a fixed name to incoming callers.
set_callerid_enable	yes, no	no	string	Set callerID infoManipulate Caller ID (CID) name and/or number within the call.
out_of_service	yes, no	no	string	Whether to disable the inbound route.
prepend		no	string	PrependThose digits will be prepended after the dialing number is stripped.
enable_wlist	yes, no	no	string	Enable Filter on Source Caller IDSet to yes to enable filter on Source Caller ID. If enabled, Caller ID must in the selected list or match Custom Dynamic Route to make outbound calls.

incoming_prepend		no	string	PrependThose digits will be prepended after the dialing number is stripped.
alertinfo		no	string	Alert info
did_strip		no	string	StripSpecify the number of digits that will be stripped. For example, the users will dial 9 as the first digit of a long-distance calls. However, 9 should not be sent out via analog lines and the PSTN line. In this case, one digit should be stripped before the call is placed.
callback		no	string	The number configured for callback when selected as Default Destination.
external_number		no	string	The number configured for external number when selected as Default Destination.
directory		no	string	Default destination-dial by name
disa		no	string	Default destination-DISA
fax		no	string	Default destination-Fax
paginggroup		no	string	Default destination-paging/intercom group
queue		no	string	Default destination-Queues
ringgroup		no	string	Default destination-ring group
ivr		no	string	Default destination-IVR
vmgroup		no	string	Default destination-voicemail group
conference		no	string	Default destination-conference rooms
voicemail		no	string	Default destination-voicemail
account		no	string	Default destination-extension
prepend_trunk_name	yes, no	no	string	Prepend trunk name
destination_type		no	string	Default DestinationThe destination that incoming calls will be routed to.

did_pattern_allow		no	string	callerID patternAll patterns are prefixed by "_" character, but please do not enter more than one "_" at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. Multiple patterns should be separated by commas. For example the patterns are _123, _234, the configuration should be:"did_pattern_allow": "_123, _234"
did_pattern_match		yes	string	All patterns are prefixed by "_" character, but please do not enter more than one "_" at the beginning. All patterns can add comments, such as "_pattern /* comment */". In patterns, some characters have special meanings: [12345-9] ... Any digit in the brackets. In this example, 1,2,3,4,5,6,7,8,9 are allowed. N ... Any digit from 2-9. Wildcard, matching one or more characters. ! ... Wildcard, matching zero or more characters immediately. X ... Any digit from 0-9. Z ... Any digit from 1-9. - ... Hyphen is to connect characters and it will be ignored. [] Contain special characters ([x], [n], [z]) represent letters x, n, z. Multiple patterns should be separated by commas. For example the patterns are _1xx, _2xx, the configuration should be: "did_pattern_allow": "_1xx, _2xx"
seamless_transfer_did_whitelist		no	string	List of extensions allowed to seamless transfer. Allows the selected extension to use this function. If an extension is busy, and a mobile phone is bound to that extension, the mobile phone can pick up calls to that extension.
ext_directory		no	string	Dial by name

ext_paging		no	string	Paging/intercom group
ext_group		no	string	Ring group
ext_queues		no	string	queues
ext_conference		no	string	Conference room
voicemenus		no	string	IVR
voicemailgroups		no	string	Voicemail groups
ext_fax		no	string	Fax
ext_local		no	string	extensions
dial_trunk	yes, no	no	string	Dial trunk
multi_mode		yes	Json obj	Mode1
time_condition		yes	Json obj	Time condition
blocking_did_collect_calls	yes, no	no	string	Block collect callsIndicates whether or not collect calls will be blocked. Note: Collect calls are indicated by the header "P-Asserted-Service-Info: service-code=Backward Collect Call, P-Asserted-Service-Info: service-code=Collect Call".
Successful response				
status	0	yes	int	The response is successful, status is 0
need_apply	Yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

updateInboundRoute

deleteInboundRoute

The "deleteInboundRoute" action allows users to delete an existing inbound route.

- Request

```
{
  "request":{
    "action":"deleteInboundRoute",
    "cookie":"sid1058050971-1574689082",
    "inbound_route":"3"
  }
}
```

- Response

```
{
```

```

"response":{
  "need_apply":"yes"
},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
outbound_route		yes	string	The id of the outbound route, which configuration of the outbound route is obtained
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

deleteInboundRoute

Inbound Route Blacklist

listInboundBlacklist

Query the basic information for the PBX inbound route blacklist, such as blacklist number and range

- Request

Parameters	Mandatory	Type	Description
Cookie	Yes	String	This is the return value after login. All requests need to carry this value. If no cookie is included, error code -6 will be returned
Sord	No	String	Sorting rule. Range: asc: ascending desc: descending default: asc
Sidx	No	String	Sort by this string. Range: number: blacklist by number
Page	No	String	Obtain blacklist by page (define which page).
Item_num	No	String	Define how many members to return in each query. If not specified, all members will be returned.

- Response: successful

Parameter	Type	Description
status	Integer	If response is successful, status is 0.
number	String	Blacklist number

inbound_rt_index	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.
total_item	Integer	Total number of inbound route blacklist.
total_page	Integer	Total number of pages.
page	Integer	Page number
total_blacklist_item	Integer	Total number of pages.

- Response: failed

Parameter	Type	Description
status	Integer	See error code.

Example:

- Request

Query inbound route blacklist:

```
{
  "request":{
    "action":"listInboundBlacklist",
    "cookie":"sid323724187-1655780813"
  }
}
```

- Response

```
{
  "response": {
    "number": [
      {
        "number": "123",
        "inbound_rt_index": "1"
      },
      {
        "number": "1234",
        "inbound_rt_index": "0"
      }
    ],
    "total_item": 2,
    "total_page": 1,
    "page": 1,
    "total_blacklist_item": 2
  },
  "status": 0
}
```

deleteAllInboundBlacklist

Delete PBX's all inbound route blacklist

- Request

Parameter	Mandatory	Type	Description
-----------	-----------	------	-------------

cookie	yes	String	This is the return value after login. All requests need to carry this value. If no cookie is included, error code -6 will be returned
--------	-----	--------	---

- Response: successful

Parameter	Type	Description
Status	Integer	If response is successfull, status is 0
need_apply	String	Whether to require "apply" to make configuration take effect.Range: yes no

- Response: failed

Parameter	Type	Description
status	Integer	See error code.

Example:

- Request:

```
{
  "request":{
    "action":"deleteAllInboundBlacklist",
    "cookie":"sid323724187-1655780813"
  }
}
```

- Response:

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

deleteInboundBlacklist

Delete IPPBX's specific inbound route blacklist.

- Request

Parameter	Mandatory	Type	Description
cookie	yes	String	This is the return value after login. All requests need to carry this value. If no cookie is included, error code -6 will be returned.
number	yes	String	Blacklist number

- Response: Successful

Parameter	Type	Description
Status	Integer	If response is successfull, status is 0
need_apply	String	Whether to require "apply" to make configuration take effect.Range: yes no

- Response: Failed

Parameter	Type	Description
-----------	------	-------------

status	Integer	See error code.
--------	---------	-----------------

Example:

Delete number "123" from inbound route blacklist.

- Request

```
{
  "request": {
    "action": "deleteInboundBlacklist",
    "number": "123",
    "cookie": "sid323724187-1655780813"
  }
}
```

- Response

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

addInboundBlacklist

Add inbound route blacklist and configure related information such as blacklist number and range.

- Request

Parameter	Mandatory	Type	Description
cookie	yes	String	This is the return value after login. All requests need to carry this value. If no cookie is included, error code -6 will be returned.
number	yes	String	Blacklist number
inbound_rt_index	yes	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.

- Response: Successful

Parameter	Type	Description
status	Integer	If response is successful, status is 0.
number	String	Blacklist number
inbound_rt_index	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.
total_item	Integer	Total number of inbound route blacklist.
total_page	Integer	Total number of pages.
page	Integer	Page number
total_blacklist_item	Integer	Total number of pages.

- Response: Failed

Parameter	Type	Description
status	Integer	See error code.

Example:

- Request

Add blacklist 123 and configure the range to take effect. For example, to specify the inbound route to take effect, please use listInboundRoute interface to obtain inbound route id first.

```
{
  "request": {
    "action": "addInboundBlacklist",
    "inbound_rt_index": " ****get by listInboundRoute**** ",
    "number": "123",
    "cookie": "sid323724187-1655780813"
  }
}
```

- Response: Successful

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

updateInboundBlacklist

Modify inbound route blacklist and the range to take effect.

- Request

Parameter	Mandatory	Type	Description
cookie	yes	String	This is the return value after login. All requests need to carry this value. If no cookie is included, error code -6 will be returned.
number	yes	String	Blacklist number
inbound_rt_index	yes	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.

- Response: Successful

Parameter	Type	Description
status	Integer	If response is successful, status is 0.
number	String	Blacklist number
inbound_rt_index	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.
total_item	Integer	Total number of inbound route blacklist.
total_page	Integer	Total number of pages.
page	Integer	Page number

total_blacklist_item	Integer	Total number of pages.
----------------------	---------	------------------------

- Response: Failed

Parameter	Type	Description
status	Integer	See error code.

Example:

- Request

Modify blacklist number 123 effective range. Please use list InboundRoute interface to obtain inbound route id first.

```
{
  "request": {
    "action": "updateInboundBlacklist",
    "inbound_rt_index": " ****get by listInboundRoute**** ",
    "number": "123",
    "cookie": "sid323724187-1655780813"
  }
}
```

- Response

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

getInboundBlacklistSettings

Get inbound route blacklist settings, i.e., whether to use blacklist.

- Request

Parameter	Mandatory	Type	Description
cookie	yes	String	This is the return value after login. All requests need to carry this value. If no cookie is included, error code -6 will be returned.

- Response: Successful

Parameter	Type	Description
status	Integer	If response is successful, status is 0.
number	String	Blacklist number
inbound_rt_index	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.
total_item	Integer	Total number of inbound route blacklist.
total_page	Integer	Total number of pages.
page	Integer	Page number
total_blacklist_item	Integer	Total number of pages.

- **Response:** Failed

Parameter	Type	Description
status	Integer	See error code.

Example:

Get inbound route blacklist settings, i.e., whether a blacklist is enabled or not.

- **Request:**

```
{
  "request": {
    "action": "getInboundBlacklistSettings",
    "cookie": "sid323724187-1655780813"
  }
}
```

- **Response:**

```
{
  "response": {
    "inbound_blacklist_settings": {
      "enable": "yes"
    }
  },
  "status": 0
}
```

updateInboundBlacklistSettings

Modify inbound route blacklist settings, i.e., whether to enable a blacklist.

- **Request**

Parameter	Mandatory	Type	Description
cookie	yes	String	This is the return value after login. All requests need to carry this value. If no cookie is included, error code -6 will be returned.
number	yes	String	Blacklist number
inbound_rt_index	yes	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.

- **Response:** Successful

Parameter	Type	Description
status	Integer	If response is successful, status is 0.
number	String	Blacklist number
inbound_rt_index	String	Range. Enter inbound route id. If inbound route id is 0, it means all inbound route will take effect. 0: all inbound route. Existing inbound route id.
total_item	Integer	Total number of inbound route blacklist.
total_page	Integer	Total number of pages.
page	Integer	Page number

total_blacklist_item	Integer	Total number of pages.
----------------------	---------	------------------------

- **Response:** Failed

Parameter	Type	Description
status	Integer	See error code.

Example:

- **Request**

```
{
  "request":{
    "action":"updateInboundBlacklistSettings",
    "enable":"yes",
    "cookie":"sid323724187-1655780813"
  }
}
```

- **Response**

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Call Control

playPromptByOrg

The "playPromptByOrg" actions allows to play the selected prompt in the configured extension.

- **Request**

The request below sends an IVR named "prompt1" to extension 1000

```
{
  "request":{
    "action":"playPromptByOrg",
    "channel":"1000",
    "cookie":"sid1863069817-1574933211",
    "type":"ivr"
    "variable":"prompt1"
  }
}
```

Send an IVR prompt named "prompt2" to extension groups named "group1" and "group2", ring group extensions 6400 and extension 6401, and extensions 1000 and 1001.

```
{
  "request":{
    "action": "playPromptByOrg",
    "type": "ivr",
```

```

"cookie": "sid612583207-1551962142",
"Variable": "prompt2",
"specified_channel":[{"exten_type":"extension_group","extension":"group1,group2"},{"exten_type":"ringgroup","extension":"6400,6401"},{"exten_type":"extension","extension":"1000,1001"}]
}
}

```

Send the name prompt for extension 1001 to extension 1002.

```

{
  "request": {
    "action": "playPromptByOrg",
    "type": "name_voice",
    "cookie": "sid2006520196-1731582161",
    "Variable": "1001",
    "channel": "1002"
  }
}

```

Send an MoH audio prompt named "macroform-cold_day" that's under the Default playlist.

```

{
  "request": {
    "action": "playPromptByOrg",
    "type": "moh",
    "cookie": "sid612583207-1551962142",
    "Variable": "macroform-cold_day",
    "class": "",
    "channel": "2000"
  }
}

```

- Response

```

{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
type	ivr, name_voice, moh	yes	string	Type of audio prompt to play. ivr: Custom prompt uploaded to IVR. name_voice: Username prompt for an extension moh: Music on Hold file

channel		yes	string	Extension to send the prompt to.Example: If set to 6000, extension 6000 will ring, and the prompt will play upon answering the call
specified_channel		no	json string	Specifies the target extensions, extension group names, and ring group extensions to send the voice prompt to in a json array format.
variable		yes	string	File name of the audio promptFile extension is not necessary. The audio prompt should exist under the specified type.
class		no	string	Music on Hold PlaylistIf "moh" is selected as type, enter the MoH playlist name. If unspecified, the Default playlist will be used.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

playPromptByOrg

listBridgedChannels

The "listBridgedChannels" action will list the bridged channels.

- Request

```
{
  "request":{
    "action":"listBridgedChannels",
    "cookie":"sid95569340-1574692824"
  }
}
```

- Response

```
{
  "response":{
    "channel":[
      {
        "bridge_id":"7f12ed1a-f03d-4575-a4cb-f986f864c2a2",
        "bridge_time":"2019-11-25 09:43:19",
        "callerid1":"1001",
        "callerid2":"1000",
        "channel1":"PJSIP/1001-00000002",
```

```

"channel2": "PJSIP/1000-00000003",
"have_send": 1,
"inbound_trunk_name": "",
"name1": "1001",
"name2": "",
"outbound_trunk_name": "",
"uniqueid1": "1574692996.4",
"uniqueid2": "1574692996.5"
}
],
"page": 1,
"total_item": 1,
"total_page": 1
},
"status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Successful response				
status	0	yes	int	The response is successful, status is 0.
total_item			int	Current number of established calls.
page			int	Current page is on.
channel			Json array	Detailed list of currently established calls.
channel1			string	The calling channel. If the call is from an extension, the extension number will be displayed. If the call originated from an external source instead, the trunk ID will be displayed instead. This channel name will be used for call control commands.
channel2			string	The called channel. If the call is from an extension, the extension number will be displayed. If the call originated from an external source instead, the trunk ID will be displayed instead. This channel name will be used for call control commands.
callerid1			string	Calling number
callerid2			string	Called number
uniqueid1			string	Calling channel identifier

uniqueid2			string	Called channel identifier
bridge_time			string	Duration of the call starting from the time the call was answered.
name1			string	Caller's name
name2			string	Callee's name
bridge_id			string	Bridge ID
inbound_trunk_name			string	Name of the trunk used for the inbound call. If the call is outbound, this field will be empty.
outbound_trunk_name			string	Name of the trunk used for the outbound call. If the call is inbound, this field will be empty.
Failed response				
status		yes	int	Please see the error code list for more details.

listBridgedChannels

listUnBridgedChannels

The "listUnBridgedChannels" action allows users to list the unbridged channels.

- Request

```
{ "request": { "action": "listUnBridgedChannels", "cookie": "sid624909538-1574783406" }}
```

- Response

```
{ "response": { "channel": [], "page": 1, "total_item": 0, "total_page": 1 }, "status": 0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Successful response				
status	0	yes	int	The response is successful, status is 0.
total_item			int	Current number of established calls.
page			int	Current page is on.
channel			Json array	Detailed list of currently established calls.

channel			string	The calling channel. If the call is from an extension, the extension number will be displayed. If the call originated from an external source instead, the trunk ID will be displayed instead. This channel name will be used for call control commands.
state			string	Channel status(Up, Ringing...)
service			string	Channel type(macro-dial, queue.....)
callername			string	Caller name
callernum			string	Caller number
connectednum			string	Connected number(when the channel is not bridged, display s)
connectedname			string	Connected name
alloc_time			string	Channel change time(the first one is channel establish time)
inbound_trunk_name			string	The name of trunk from where the unanswered incoming call originated.
outbound_trunk_name			string	The name of the trunk used for the unanswered outgoing call.
Failed response				
status		yes	int	Please see the error code list for more details.

listUnBridgedChannels

Hangup

The "Hangup" action allows users to end an active call.

- Request

```
{ "request": { "action": "Hangup", "channel": "PJSIP/4000-00000084", "cookie": "sid1926227010-1576858973" }}
```

- Response

```
{"response":{"need_apply":"yes"},"status":0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.

channel		yes	string	The channel of the call to hang up. This information can be obtained by using the listBridgeChannels command.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

Hangup

Callbargue

The "Callbargue" action allows users to barge into an ongoing call.

- Request

```
{
  "request": {
    "action": "callbargue",
    "bargue-exten": "4002",
    "channel": "PJSIP/4003-00000087",
    "cookie": "sid1926227010-1576858973",
    "exten": "4003"
  }
}
```

- Response

```
{
  "response": {
    "need_apply": "yes",
    "status": 0
  }
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel to monitor
exten		yes	string	The extension that will monitor the call.
mode		yes	string	Null: Only listen in on the call. No parties will be able to hear you. W: Talk to the extension being monitored. The other party will not hear you. B: Join in on the call. Both parties will be able to hear and talk to you.
bargue-exten		yes	string	Specify whether to request permission from an extension before monitoring its call. Request permission: @1Don't request permission: @0Example: To request permission from extension 2002 permission to monitor its ongoing call, enter 2002@1

Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

Callbarge

Mute

Mute the extension through this interface. That is, the remote party of the extension cannot hear the extension,

and the extension can hear the voice of the other party. To unmute, use the unmute interface. The extension

will also be automatically unmuted after the call ends.

- Request

```
{"request": {"action": "mute", "cookie": "sid612583207-1551962142", "channel": "PJSIP/2000-00000013", }}
```

- Response

```
{ "response": {}, "status": 0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel to be muted
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

Mute

Unmute

Unmute muted calls through the API.

- Request

```
{"request": {"action": "unmute", "cookie": "sid612583207-1551962142", "channel": "PJSIP/2000-00000013", }}
```

- Response

```
{"response": {}, "status": 0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel to monitor
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

Unmute

Hold

This action allows users to hold the current call of the specified extension through this interface. Use unhold action if need to resume the call.

- Request

```
{"request": {"action": "hold", "cookie": "sid612583207-1551962142", "channel": "PJSIP/2000-00000013", }}
```

- Response

```
{"response": {}, "status": 0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel to hold. Users can obtain the channel number by using the listBridgeChannels command.
Successful response				

status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

Hold

Unhold

This action allows users to Resume the held call.

- Request

```
{"request": {"action": "unhold", "cookie": "sid612583207-1551962142", "channel": "PJSIP/2000-00000013", }}
```

- Response

```
{"response": {}, "status": 0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel to resume a held call.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

Unhold

DialExtension

This action allows users to dial a local extension.

- Request

```
{
  "request": {
    "action": "dialExtension",
    "callee": "1002",
    "caller": "1005",
    "cookie": "sid2035575025-1556156494"
  }
}
```

```
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
caller		yes	string	Caller number
Successful response				
status	0	yes	int	The response is successful, status is 0.
need_apply	no	No	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

DialExtension

DialOutbound

This application allows users to dial external numbers.

- Request

```
{
  "request":{
    "action":"dialOutbound",
    "outbound":"4002",
    "caller":"1005",
    "cookie":"sid2035575025-1556156494"
  }
}
```

- Response

```
{
  "request":{
    "action":"dialOutbound",
```

```

"outbound": "4002",
"caller": "1005",
"cookie": "sid2035575025-1556156494"
}
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
caller		yes	string	Caller number
outbound		yes	string	Callee number
Successful response				
status	0	yes	int	The response is successful, status is 0.
need_apply	no	No	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

DialOutbound

CallTransfer

The action allows users to transfer an in-call number to another number.

- Request

```

{
  "request": {
    "action": "callTransfer",
    "channel": "PJSIP/1008-00000040",
    "extension": "1002",
    "cookie": "sid49474975-1556163431"
  }
}

```

- Response

```

{
  "response": {
    "need_apply": "no"
  },
  "status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel that initiates the transfer.
extension		yes	string	The transfer destination.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

CallTransfer

TransferNumberInbound

This action allows users to transfer an external inbound call that is ringing or in a call to another extension.

- Request

```
{
  "request":{
    "action":"transferNumberInbound",
    "cookie":"sid1612261872-1556164651",
    "channel":"PJSIP/trunk_4-00000044",
    "callee":"1008"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	Channel of the inbound call.

callee		yes	string	The destination that the caller will be transferred to.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

TransferNumberInbound

TransferNumberOutbound

This action allows users to transfer the caller of an unanswered or ongoing outbound call to another destination

- Request

```
{
  "request":{
    "action":"transferNumberOutbound",
    "cookie":"sid1612261872-1556164651",
    "channel":"PJSIP/1008-00000048",
    "outbound":"4002"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	Channel of the outbound call.
outbound		yes	string	The destination that the caller will be transferred to.
Successful response				

status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

TransferNumberOutbound

DialIVR

This action allows users to dial another extension via IVR.

- Request

```
{
  "request":{
    "action":"dialIVR",
    "cookie":"sid806817679-1556171969",
    "caller":"1002",
    "ivrnumber":"7000"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
caller		yes	string	The internal extension that will be used to dial other extensions via the IVR specified for the ivrnumber parameter.
ivrnumber		yes	string	IVR number.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

DialIVR

DialIVROutbound

This action will allow users to dial an external number via IVR.

- Request

```
{
  "request":{
    "action":"dialIVROutbound",
    "cookie":"sid806817679-1556171969",
    "outcaller":"4005",
    "ivrnumber":"7000"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
caller		yes	string	The internal extension that will be used to dial external numbers via the IVR specified for the ivrnumber parameter.
ivrnumber		yes	string	IVR number.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

DialIVROutbound

DialQueue

This action allows users to dial into a queue's extension.

- Request

```
{
  "request":{
    "action":"dialQueue",
    "cookie":"sid1772490686-1556173837",
    "outcaller":"4005",
    "queue":"6500"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
outcaller		yes	string	Caller number (external extension)
queue		yes	string	Call Queue number
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

DialQueue

DialRinggroup

This action allows users to dial into a ring group's extension.

- Request

```
{
  "request": {
    "action": "dialRinggroup",
    "cookie": "sid1772490686-1556173837",
    "outcaller": "4005",
    "ringgroup": "6500"
  }
}
```

```
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
outcaller		yes	string	Caller number (external extension)
ringgroup		yes	string	Ring Group number
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

DialRinggroup

DialOutboundTwo

This action allows users to call between two external extensions.

- Request

```
{
  "request":{
    "action":"dialOutboundTwo",
    "cookie":"sid1772490686-1556173837",
    "outcaller":"4005",
    "outcallee":"1506"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"no"
  }
}
```

```

},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
outcaller		yes	string	Caller number (external extension)
outcallee		yes	string	Callee number(external extension)
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

DialOutboundTwo

refuseCall

This action allows users to reject an inbound call and this is doable if the "Call Control option" is enabled in the UCM's API Configuration page which gives a 3rd party service 10 seconds to manage incoming calls.

- Request

```

{
  "request": {
    "action": "refuseCall",
    "cookie": "sid612583207-1551962142",
    "channel": "PJSIP/2000-00000013"
  }
}

```

- Response

```

{
  "response": {},
  "status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				

cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel of the call to be rejected.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

refuseCall

AcceptCall

This action allows users to accept inbound calls, and this is doable if the "Call Control option" is enabled in the UCM's API Configuration page which gives a 3rd party service 10 seconds to manage incoming calls.

- Request

```
{
  "request": {
    "action": " acceptCall",
    "cookie": "sid612583207-1551962142",
    "channel": "PJSIP/2000-00000013"
  }
}
```

- Response

```
{
  "response": {},
  "status": 0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
channel		yes	string	The channel of the call to be accepted.
Successful response				
status	0	yes	int	The response is successful, status is 0.
Failed response				
status		yes	int	Please see the error code list for more details.

Multimedia Conference

The Multimedia Conference API provides full programmatic control over the UCM audio and video conference rooms. These APIs are used to create scheduled conference rooms, manage participants in real time, and dynamically control conference behavior such as muting, and participant admission.

The Multimedia Conference subsystem is divided into two functional layers:

- **Conference Room Management:** These APIs are used to create, modify, query, and delete conference rooms. They are typically called by scheduling systems, PMS platforms, or UC management applications.
- **Conference Control:** These APIs operate on active conference rooms and allow real-time moderation and layout control. They are used by operator consoles, video controllers, or supervisory applications.

The following sections document how multimedia conferences are created, discovered, and controlled through the UCM HTTPS API.

addMultimediaConferenceReservation

The addMultimediaConferenceReservation command is used to create a scheduled multimedia conference room (audio/video meeting) on the PBX. This API defines the meeting topic, access codes, time window, recurrence, participants, and email reminder behavior. A reservation may use a fixed conference number or allow the system to generate a random one.

The following example schedules a daily conference on room 6300 starting at 14:00 and ending at 14:15, with extension 1003 as the host.

```
{
  "request":{
    "action": "addMultimediaConferenceReservation",
    "cookie":"sid62524989-1747797529",
    "reservation_id": "1747796416",
    "subject": "aaawww",
    "conf_number": "6300",
    "invite_by_noadmin": "yes",
    "members": [
      {
        "member_extension": "1003",
        "email": "",
        "location": "local",
        "is_admin": "yes"
      }
    ],
    "config_timezone": "Etc/GMT-8",
    "config_start_time": "2025-05-21 14:00",
    "config_end_time": "2025-05-21 14:15",
    "cycle": "DAILY",
    "email_remind_time": "60",
    "enable_remind": "yes",
    "admin_pincode": "1245",
    "is_random_conf": "no"
  }
}
```

The following table defines all parameters that can be supplied when calling `addMultimediaConferenceReservation`.

Keywords	Value	Mandatory	Type	Note
pincode		no	int	Meeting room password
admin_pincode		yes	int	Meeting room host code
description		no	string	Meeting Description
reservation_id		yes	string	Current Unix timestamp
subject		yes	string	Meeting room booking topic
conf_number		no	string	Reserve meeting room number; if it's a random meeting room, set it to null.
invite_by_noadmin	yes/no	no	string	Are attendees allowed to invite members?
call_member	yes/no	no	string	Call the scheduled member?
members		yes	json	Meeting room member information includes the following: member_name (member name), member_extension (member number), email (member email address), and location (extension type: local, remote, special). is_admin (whether the host is listed; host information is required and must be included in the members information).
config_start_time		yes	string	Meeting configuration start time
config_end_time		yes	string	Meeting configuration end time
cycle	none, DAILY, MONTHLY, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	yes	string	Loop type, value none, single iteration: DAILY (daily), MONTHLY (monthly), Sunday (weekly), Monday (weekly), Tuesday (weekly), Wednesday (weekly), Thursday (weekly), Friday (weekly), Saturday (weekly).
config_timezone		yes	string	Please provide the city and time zone information for your reservation, including the IANA time zone name (e.g., 'America/New_York', 'Europe/London').
is_random_conf		yes	string	Is it a random meeting?

email_remind_time		yes	string	A pre-meeting email reminder will be sent before the meeting begins. The email contains a link to join the meeting. The default duration is 60 minutes, configurable from 5 to 120 minutes.
cycle_interval		no	int	Custom cycle period: Every N days: N can be set from 1 to 30; Every N weeks: N can be set from 1 to 4; the default value for non-custom cycles is 0.
enable_remind		yes	String	Should we send a pre-meeting email reminder?

When the conference is created successfully, the PBX returns the reservation ID and, if applicable, the randomly assigned conference number.

```
{
  "response": {
    "need_apply": "no",
    "reservation_id": "b21617d2-4c3a-45fc-8657-3bd783e8b817"
  },
  "status": 0
}
```

The following parameters are returned when the conference is created successfully.

Keywords	Value	Must	Type	Note
status	0	yes	int	The response was successful, and the status is 0.
need_apply		yes	string	Shows whether the changes need to be applied.
new_conf_num		no	string	Returns the number of the randomly created meeting room when creating a random meeting room.
occupy_info		no	json	Return when there is a time conflict
reservation_id		yes	string	Unique ID for scheduling a meeting
utc_start_time		yes	string	Schedule the meeting start time in UTC (terminals should automatically convert to their local timezone).
utc_end_time		yes	string	Schedule the meeting's end time in UTC (terminals should automatically convert to their local timezone).
subject		yes	string	Schedule a meeting topic
conf_number		yes	string	Meeting room number

updateMultimediaConferenceReservation

The updateMultimediaConferenceReservation command is used to modify an existing scheduled multimedia conference. It allows changing the meeting subject, time window, recurrence, members, access codes, and reminder behavior. The meeting is identified by its reservation_id, which is returned by get or list operations.

The following example updates the subject, time, and members of an existing reservation.

```
{
  "request":{
    "action": "updateMultimediaConferenceReservation",
    "cookie":"sid62524989-1747797529",
    "reservation_id": "1ddcbe4f-29cd-4249-be2c-62ff21a95bcf",
    "subject": "aaawww",
    "conf_number": "6300",
    "invite_by_noadmin": "yes",
    "members": [
      {
        "member_extension": "1003",
        "email": "",
        "location": "local",
        "is_admin": "yes"
      }
    ],
    "config_timezone": "Etc/GMT-8",
    "config_start_time": "2025-05-21 14:00",
    "config_end_time": "2025-05-21 14:15",
    "cycle": "DAILY",
    "email_remind_time": "60",
    "enable_remind": "yes",
    "admin_pincode":"1245",
    "is_random_conf": "no"
  }
}
```

The following table defines all parameters that can be supplied when calling updateMultimediaConferenceReservation.

Keywords	Value	Mandatory	Type	Note
pincode		no	int	Meeting room password
admin_pincode		yes	int	Meeting room host code
description		no	string	Meeting Description
reservation_id		yes	string	ID for reserving a meeting room is returned using GET or list requests.
subject		yes	string	Meeting room booking topic
conf_number		no	string	The meeting room number for reservations cannot be edited if it is a randomly selected meeting room.
invite_by_noadmin	yes/no	no	string	Are attendees allowed to invite members?

call_member	yes/no	no	string	Call the scheduled member?
members		yes	json	Meeting room member information includes the following: member_name (member name), member_extension (member number), email (member email address), and location (extension type: local, remote, special). is_admin (whether the host is listed; host information is required and must be included in the members information).
config_start_time		yes	string	Meeting configuration start time
config_end_time		yes	string	Meeting configuration end time
cycle	none, DAILY, MONTHLY, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	yes	string	Loop type, value none, single iteration: DAILY (daily), MONTHLY (monthly), Sunday (weekly), Monday (weekly), Tuesday (weekly), Wednesday (weekly), Thursday (weekly), Friday (weekly), Saturday (weekly).
config_timezone		yes	string	Please provide the city and time zone information for your reservation, including the IANA time zone name (e.g., 'America/New_York', 'Europe/London').
email_remind_time		yes	string	A pre-meeting email reminder will be sent before the meeting begins. The email contains a link to join the meeting. The default duration is 60 minutes, configurable from 5 to 120 minutes.
cycle_interval		no	int	Custom cycle period: Every N days: N can be set from 1 to 30; Every N weeks: N can be set from 1 to 4; the default value for non-custom cycles is 0.
enable_remind		yes	String	Should we send a pre-meeting email reminder?

When the conference reservation is updated successfully, the PBX returns whether applyChanges is required.

```
{
  "response": {
    "need_apply": "no"
  },
  "status": 0
}
```

getMultimediaConferenceReservation

The getMultimediaConferenceReservation command is used to retrieve the full configuration of a scheduled multimedia conference by its reservation_id.

This API returns both reservation data (subject, time window, recurrence, members, and access codes) and live session information (connected participants, join times, admin roles, and media state). Wave App access links and QR-code data are also returned so users can join the meeting from desktop or mobile clients.

The following example queries an existing multimedia conference reservation.

```
{
  "request": {
    "action": "getMultimediaConferenceReservation",
    "reservation_id": "cca8831c-619c-4797-be54-2344ff569ee2",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling getMultimediaConferenceReservation.

Keywords	Value	Must	Type	Note
reservation_id		yes	string	Meeting room reservation ID

When the request is successful, the PBX returns the meeting definition together with current attendance and access information.

```
{
  "response": {
    "subject": "aaawww",
    "conf_number": "6301",
    "config_timezone": "Etc/GMT-8",
    "members": [
      {
        "access_token": "1599729973756",
        "member_name": "6301",
        "member_extension": "6301",
        "email": "",
        "location": "local",
        "is_admin": "no"
      }
    ],
    "attending": [
      {
        "user_no": "1599729973756",
        "conf_number": "6302",
        "member_number": "6301",
        "member_name": "6301",
        "channel_name": "PJSIP/1000-00000098",
        "join_time": "2021-03-19 14:00:17",
        "is_admin": 1,
        "is_audio_muted": "no",
        "is_video_pause": "no",

```

```

"is_compere": "no",
"media_status": "vedio",
"username_change": 0
}
],
"config_start_time": "2020-09-10 14:00",
"config_end_time": "2020-09-10 18:00",
"start_time": "2020-09-10 14:00",
"end_time": "2020-09-10 18:00",
"utc_start_time": "2020-09-10 06:00",
"utc_end_time": "2020-09-10 10:00",
"cycle": "DAILY"
},
"status": 0
}

```

The following parameters are returned when the request is successful.

Keywords	Value	Mandatory	Type	Note
pincode		no	int	Meeting room password
admin_pincode		no	int	Meeting room host code
description		no	string	Meeting Description
reservation_id		yes	string	Meeting room reservation ID
subject		yes	string	Meeting room booking topic
conf_number		yes	string	Meeting room reservation number
invite_by_noadmin	yes, no	no	string	Are attendees allowed to invite members?
call_member	yes, no	no	string	Call the scheduled member?
members		no	json	Meeting room member information, including the following: member_name (member name), member_extension (member number), email (member email address), location (extension type: local, remote, special), and is_admin (whether it is the host).
attending		no	json	user_no: participant ID; extension: meeting room number; caller_id: user ID; caller_name: username; join_time: joining time; is_admin: whether the user is an administrator (1 for yes).
config_start_time		yes	string	Meeting configuration start time
config_end_time		yes	string	Meeting configuration end time

cycle	none, DAILY, MONTHLY, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	yes	string	Loop type, value none, single iteration: DAILY (daily), MONTHLY (monthly), Sunday (weekly), Monday (weekly), Tuesday (weekly), Wednesday (weekly), Thursday (weekly), Friday (weekly), Saturday (weekly).
config_timezone		yes	string	City information for reservation
ucm_timezone		Yes	string	UCM time zone information
is_random_conf		yes	string	Is it a random meeting?
lan_link (wave app)		Yes	String	LAN port connection address
wan_link (wave app)		Yes	String	WAN port connection address
lan1_link (wave app)		Yes	String	LAN1 port connection address in dual-card mode
lan2_link (wave app)		Yes	String	LAN2 port connection address in dual-card mode
public_link (wave app)		Yes	String	Public network membership link
qr_base (wave app)		Yes	String	Base64 information of the membership QR code
qr_full (wave app)		Yes	String	Download the base64 information of the QR code

deleteMultimediaConferenceReservation

The deleteMultimediaConferenceReservation command is used to cancel an existing multimedia conference reservation identified by its reservation_id.

Once a reservation is deleted, the meeting room becomes unavailable for all scheduled participants. If a cancellation reason is provided, it may be included in notification workflows or audit logs.

The following example cancels an existing multimedia conference reservation.

```
{
  "request": {
    "action": "deleteMultimediaConferenceReservation",
    "reservation_id": "cca8831c-619c-4797-be54-2344ff569ee2",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling deleteMultimediaConferenceReservation.

Keywords	Value	Must	Type	Note
reservation_id		yes	string	Meeting room reservation ID
cancel_reason		no	string	Reason for cancellation

When the reservation is successfully deleted, the PBX confirms the operation. The operation does not

require applyChanges, as conference reservations are managed dynamically.

```
{
  "response": {
    "need_apply": "no"
  },
  "status": 0
}
```

listMultimediaConferenceReservationInfo

The listMultimediaConferenceReservationInfo command is used to retrieve a paginated list of multimedia conference reservations. It supports filtering by time range, subject, creator, and conference number, and supports sorting for large datasets.

The following example retrieves the first 10 conference reservations, sorted by meeting start time in ascending order.

```
{
  "request": {
    "action": "listMultimediaConferenceReservationInfo",
    "item_num": "10",
    "page": "1",
    "sidx": "start_time",
    "sord": "asc",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling listMultimediaConferenceReservationInfo.

Keywords	Value	Mandatory	Type	Note
page		no	int	You can retrieve the user list in paginated form, specifying which page to retrieve.
sidx		no	string	Sort by this field
sord	asc, desc	no	string	Ascending/descending order
item_num		no	int	How many pages to paginate, i.e., the maximum number of members returned each time; if not set, all members are returned by default.
start_time		no	string	Search for the start time range of the meeting, in YYYY-MM-DD format.
end_time		no	string	Search for the end time range of the meeting, in YYYY-MM-DD format.
subject		no	string	Search meeting topics
Creator		no	string	Search meeting initiator
conf_number		no	string	Search meeting number

When the request is successful, the PBX returns a list of conference reservations that match the search and pagination criteria.

```
{
  "response": {
    "conference": [
      {
        "reservation_id": "cca8831c-619c-4797-be54-2344ff569ee2",
        "conf_number": "6300",
        "subject": "gang wang",
        "description": "",
        "start_time": "2024-11-20 02:30",
        "end_time": "2024-11-20 03:00",
        "pincode": "2334",
        "admin_pincode": "4128",
        "cycle": "none",
        "config_start_time": "2024-11-20 10:30",
        "config_end_time": "2024-11-20 11:00",
        "config_timezone": "Asia/Shanghai",
        "creator": "6003",
        "host": "6003",
        "invite_by_noadmin": "yes",
        "call_member": "no",
        "utc_start_time": "2024-11-20 02:30",
        "utc_end_time": "2024-11-20 03:00",
        "is_random_conf": "no",
        "meeting_duration": 30,
        "enable_remind": "yes"
      },
      {
        "reservation_id": "d1b1d77e-c741-4600-a873-8f4545334fbb",
        "conf_number": "30608021",
        "subject": "test",
        "description": "",
        "start_time": "2024-11-22 02:30",
        "end_time": "2024-11-22 02:45",
        "pincode": "",
        "admin_pincode": "5946",
        "cycle": "none",
        "config_start_time": "2024-11-22 10:30",
        "config_end_time": "2024-11-22 10:45",
        "config_timezone": "Etc/GMT-8",
        "creator": "admin",
        "host": "2000",
        "invite_by_noadmin": "yes",
        "call_member": "yes",
        "utc_start_time": "2024-11-22 02:30",
        "utc_end_time": "2024-11-22 02:45",
        "is_random_conf": "yes",
        "meeting_duration": 15,
      }
    ]
  }
}
```

```

"enable_remind": "yes"
}
],
"total_item": 2,
"total_page": 1,
"page": 1
},
"status": 0
}

```

The following parameters are returned when the request is successful.

Keywords	Value	Mandatory	Type	Note
status	0	yes	int	The response was successful, and the status is 0.
pincode		no	int	Meeting room password
admin_pincode		no	int	Meeting room host code
description		no	string	Meeting Description
reservation_id		yes	string	Meeting room reservation ID
subject		yes	string	Meeting room booking topic
conf_number		yes	string	Meeting room reservation number
config_timezone		yes	string	Meeting room time zone reservation
invite_by_noadmin	yes, no	no	string	Are attendees allowed to invite members?
call_member	yes, no	no	string	Call the scheduled member?
config_start_time		yes	string	Meeting configuration start time
config_end_time		yes	string	Meeting configuration end time
cycle	none, DAILY, MONTHLY, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	yes	string	Loop type, value none, single iteration: DAILY (daily), MONTHLY (monthly), Sunday (weekly), Monday (weekly), Tuesday (weekly), Wednesday (weekly), Thursday (weekly), Friday (weekly), Saturday (weekly).
ucm_timezone		Yes	string	UCM time zone information
is_random_conf		yes	string	Is it a random meeting?

addMeetNowForGeneral

The addMeetNowForGeneral command is used to start an instant multimedia conference (Meet-Now) without creating a scheduled reservation. The PBX dynamically allocates a temporary meeting room and immediately invites the specified participants.

This API is used by Wave, web clients, and third-party applications to create on-demand video or audio conferences.

The following example starts an instant video meeting titled "The 2007 Conference" and invites extensions 6002 and 6004.

```
{
  "request": {
    "action": "addMeetNowForGeneral",
    "subject": "The 2007 Conference",
    "members": [
      {
        "member_extension": "6002",
        "email": "",
        "location": "local"
      },
      {
        "member_extension": "6004",
        "email": "",
        "location": "local"
      }
    ],
    "reservation_id": "1619602966844",
    "cookie": "sid1985983188-1732072342",
    "is_sfu": "yes"
  }
}
```

The following table defines all parameters that can be supplied when calling addMeetNowForGeneral.

Keywords	Value	Mandatory	Type	Note
reservation_id		yes	string	Unix timestamp
subject		yes	string	Conference Theme
members		no	json	Meeting members Meeting room member information includes the following: member_extension (member number), email (member email address; either member_extension or email is required; setting the email address will send an invitation email to that address), and is_admin (whether the person initiating the meeting is the host; the default host for immediate meetings is the initiator). Reserved options include: first_name (member name), last_name (member name), and location (extension type: local, remote, special).
is_sfu	yes	yes	string	Yes represents video conferencing.

When the meeting is created successfully, the PBX allocates a temporary meeting room and returns the

assigned conference number and a unique reservation ID.

```
{
  "response": {
    "new_conf_num": "20506042",
    "reservation_id": "4c85498d-b3ae-4f54-874a-0c04362bb0e5",
    "need_apply": "no"
  },
  "status": 0
}
```

The status field for this command an return the following:

- 0: Conference created successfully
- -130: No meeting room resources are currently available
- -131: An existing group meeting is already scheduled
- -132: All meeting rooms are fully occupied
- -9: General error

The following parameters are returned when the request is successful.

Keywords	Value	Mandatory	Type	Note
status	0	yes	int	The response was successful, with a status of 0
new_conf_num		yes	string	Temporary meeting room number
available_num		no	int	If meeting resources are insufficient, return to previous session; remaining available resources include the number of participants.
reservation_id		yes	string	Unique meeting ID, UUID format

HangupRoom

The HangupRoom command is used to forcibly terminate an active multimedia conference room. All participants are disconnected and the meeting room is released back to the system.

The following example terminates the active meeting room 30307085.

```
{
  "request": {
    "action": "HangupRoom",
    "module-type": "mcm",
    "conf_number": "30307085",
    "originator": "",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling HangupRoom.

Keywords	Value	Must	Type	Note
module-type	mcm	yes	string	Control type The current default is mcm

conf_number		yes	string	Current meeting room number
originator		yes	string	Operator Channel-ID (can be obtained from signaling)

When the meeting room is terminated successfully, the PBX returns a success status.

```
{
  "response": {},
  "status": 0
}
```

The following parameters are returned when the request is successful.

Keywords	Value	Type	Note
status	0	int	The response was successful, and the status is 0.

The result returned when the request fails is described below.

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

InviteUser

The InviteUser command is used to invite one or more users into an active multimedia conference room. The PBX places outbound calls to the specified extensions and connects them to the target meeting.

The following example invites extension 6002 to join meeting room 90909047.

```
{
  "request": {
    "action": "InviteUser",
    "conf_number": "90909047",
    "user": "6002",
    "module-type": "mcm",
    "originator": "",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling InviteUser.

Keywords	Value	Must	Type	Note
conf_number		yes	string	Meeting room number
user		yes	string	Invited number. This is the user parameter for sending an invitation to extensions. Multiple extensions are separated by commas.
module-type	mcm	yes	string	Invitation type
originator		yes	string	Inviter Channel-ID (can be obtained from signaling)

When the invitation is sent successfully, the PBX returns a success status.

```
{
  "response": {},
  "status": 0
}
```

The following parameters are returned when the request is successful.

Keywords	Value	Type	Note
status	0	int	The response was successful, and the status is 0.

The result returned when the request fails is described below.

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

UserMuteAudio

The UserMuteAudio command is used to mute the audio stream of a specific participant in an active multimedia conference. The target participant is identified by its Channel-ID, which is obtained from the conference signaling or from the getMultimediaConferenceReservation API.

This command is typically used by a conference host, moderator, or Wave client to enforce audio control during an active meeting.

The following example mutes the participant with Channel-ID PJSIP/1002-0000000c in conference room 6301.

```
{
  "request": {
    "action": "UserMuteAudio",
    "user_id": "PJSIP/1002-0000000c",
    "module-type": "mcm",
    "conf_number": "6301",
    "originator": "PJSIP/1003-0000000c",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling UserMuteAudio.

Keywords	Value	Must	Type	Note
user_id		yes	string	The Channel-ID of the mute member (which can be obtained from the signaling).
module-type	mcm	yes	string	Control type, currently the default is mcm
conf_number		yes	string	Meeting room number
originator			string	Operator Channel-ID (can be obtained from signaling)

When the participant is successfully muted, the PBX returns the following response:

```
{
  "response": {},
}
```

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

UserUnmuteAudio

The UserUnmuteAudio command is used to restore the audio stream of a previously muted participant in an active multimedia conference. The participant is identified by its Channel-ID, which is obtained from conference signaling or from the attending list returned by getMultimediaConferenceReservation.

The following example unmutes the participant with Channel-ID PJSIP/1002-0000000c in conference room 6301.

```
{
  "request": {
    "action": "UserUnmuteAudio",
    "user_id": "PJSIP/1002-0000000c",
    "module-type": "mcm",
    "conf_number": "6301",
    "originator": "PJSIP/1003-0000000c",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling UserUnmuteAudio.

Keywords	Value	Must	Type	Note
user_id		yes	string	The Channel-ID of the mute member (which can be obtained from the signaling).
module-type	mcm	yes	string	Control type, currently the default is mcm
conf_number		yes	string	Meeting room number
originator			string	Operator Channel-ID (can be obtained from signaling)

When the participant is successfully unmuted, the PBX returns:

```
{
  "response": {},
  "status": 0
}
```

KickUser

The KickUser command is used to forcibly remove a participant from an active multimedia conference. The participant is identified by its Channel-ID, which is obtained from conference signaling or from the attending list returned by getMultimediaConferenceReservation.

The following example removes the participant with Channel-ID PJSIP/1000-0000000e from conference room 6301.

```
{
  "request": {
    "action": "KickUser",
    "user_id": "PJSIP/1000-0000000e",
    "module-type": "mcm",

```

```

"conf_number": "6301",
"originator": "PJSIP/1003-0000000c",
"cookie": "sid1985983188-1732072342"
}
}

```

The following table defines all parameters that can be supplied when calling KickUser.

Keywords	Value	Must	Type	Note
module-type	mcm	yes	string	Control type, currently the default is mcm
conf_number		yes	string	Meeting room number
user_id		yes	string	The Channel-ID of the kicked member (can be obtained from the signaling).
originator			string	Operator Channel-ID (can be obtained from signaling)

When the participant is successfully removed, the PBX returns:

```

{
  "response": {},
  "status": 0
}

```

ConfSetLayout

The ConfSetLayout command is used to control the video layout of an active multimedia conference. It allows the host to switch the conference into focus mode, where a specific participant's video stream is highlighted and presented as the main view for all attendees.

In focus layout mode, the user_id parameter is required to indicate which participant's video should be focused.

The following example sets the video layout of conference 6301 to focus mode, highlighting the participant with Channel-ID PJSIP/1003-00000003.

```

{
  "request": {
    "action": "ConfSetLayout",
    "module-type": "mcm",
    "layout": "focus",
    "conf_number": "6301",
    "originator": "PJSIP/1003-00000003",
    "user_id": "PJSIP/1003-00000003",
    "cookie": "sid1985983188-1732072342"
  }
}

```

The following table defines all parameters that can be supplied when calling ConfSetLayout.

Keywords	Value	Must	Type	Note
conf_number		yes	string	Meeting room number
user_id		no	string	The channel that is set to focus (this parameter is required in focus mode)

originator			string	Operator Channel
layout	focus	yes	string	Meeting layout mode
module-type	mcm	yes	string	Control type, currently the default is mcm

When the layout is successfully changed, the PBX returns:

```
{
  "response": {},
  "status": 0
}
```

ConfCancelLayout

The ConfCancelLayout command is used to cancel a previously applied conference layout, such as focus mode, and restore the conference to its default video layout.

This is typically used after a ConfSetLayout operation when the host no longer wants a specific participant to remain highlighted.

The following example cancels the focus layout for conference 6301, removing the focus from the participant with Channel-ID PJSIP/1003-00000003.

```
{
  "request": {
    "action": "ConfCancelLayout",
    "module-type": "mcm",
    "layout": "focus",
    "conf_number": "6301",
    "type": "user",
    "originator": "PJSIP/1003-00000003",
    "user_id": "PJSIP/1003-00000003",
    "cookie": "sid1985983188-1732072342"
  }
}
```

The following table defines all parameters that can be supplied when calling ConfCancelLayout.

Keywords	Value	Must	Type	Note
conf_number		yes	string	Meeting room number
user_id		no	string	The channel of focus (this parameter is required in focus mode)
originator			string	Operator Channel
layout	focus	yes	string	Meeting layout mode
module-type	mcm	yes	string	Control type, currently the default is mcm

When the layout is successfully cancelled, the PBX returns:

```
{
  "response": {},
  "status": 0
}
```

Call Queue

listQueue

The "listQueue" action will allow users to list the available call queues such as the queue's name, the members, etc.

Note: The needed information, can be defined in the parameter "**options**".

- Request

```
{
  "request":{
    "action":"listQueue",
    "cookie":"sid226931826-1574694317",
    "options":"extension,queue_name,strategy,queue_chairmans,members",
    "sidx":"extension",
    "sord":"asc"
  }
}
```

- Response

```
{
  "response":{
    "page":1,
    "queue":[
      {
        "extension":"6500",
        "members":null,
        "queue_chairmans":null,
        "queue_name":"Test",
        "strategy":"ringall"
      }
    ],
    "total_item":1,
    "total_page":1
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
page		no	int	Get queue list by page number.
sord	acs,desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.

sidx		no	string	Sort according to the index.
options	extension,queue_name,strategy,queue_chairmans,static_members,dynamic_members,live_chat_mode	no	string	Specify the options to retrieve; multiple options can be set, separated by commas. If no options are specified, all options will be returned by default.
item_num		no	int	How many pages to show, i.e., the maximum number of members returned each time; if not set, all members are returned by default.
Successful response				
status	0	yes	int	The response is successful, status is 0.
total_item		yes	int	Total number of items on the list
total_page		yes	int	Total pages of the list
page		yes	int	What page is on.
extension		no	int	Extension number.
queue_name		no	string	Queue name
strategy	ringall, linear, leastrecent, fewestcalls, random, memory	no	string	StrategyRing All: Ring all available agents simultaneously until one agent answers.Linear: Ring agents in the specified order.Least Recent: Ring the agent who has been called the least recently.Fewest Calls: Ring the agent with the fewest completed calls.Random: Ring a random agent.Round Robin: Ring agents using round robin schedule with memory.
queue_chairmans		no	string	Queue chairman
members		no	string	Call queue seats (static seats, dynamic seats)
dynamic_members		no	string	Dynamic call queue seats
live_chat_mode		no	string	Shows whether or not this queue is chat customer service associated.
Failed response				
status		yes	int	Please see the error code list for more details.

listQueue

getQueue

The "getQueue" action allows users to get information about a specific call queue.

- Request

```
{
  "request":{
    "action":"getQueue",
    "cookie":"sid226931826-1574694317",
    "queue":"6500"
  }
}
```

- Response

```
{
  "response":{
    "queue":{
      "account":null,
      "account_el":null,
      "account_t":null,
      "account_v":null,
      "alertinfo":null,
      "announce_frequency":20,
      "announce_holdtime":"no",
      "announce_position":"no",
      "announcement":null,
      "announcement_el":null,
      "announcement_t":null,
      "announcement_v":null,
      "auto_record":"off",
      "autofill":"yes",
      "createid":"0",
      "custom_dates":null,
      "custom_months":null,
      "custom_prompt":null,
      "custom_welcome_prompt":null,
      "destination_type":"voicemail",
      "destination_type_el":"playsound",
      "destination_type_t":"hangup",
      "destination_type_v":"account",
      "destination_voice_enable":"no",
      "directory":null,
      "directory_el":null,
      "directory_t":null,
      "directory_v":null,
      "email":null,
      "enable_agent_login":"no",
      "enable_destination":"D",
      "enable_feature":"no",
      "enable_welcome":"no",
      "extension":"6500",
      "external_number":null,

```

```
"external_number_el":null,
"external_number_t":null,
"external_number_v":null,
"hasvoicemail":"no",
"ivr":null,
"ivr_el":null,
"ivr_t":null,
"ivr_v":null,
"joinempty":"no",
"leavewhenempty":"strict",
"maxlen":0,
"members":null,
"musicclass":"default",
"pagingtype":"once",
"permission":"internal",
"pin":null,
"queue_chairman":null,
"queue_chairmans":null,
"queue_dest":null,
"queue_dest_el":null,
"queue_dest_t":null,
"queue_dest_v":null,
"queue_name":"Test",
"queue_timeout":60,
"queuesasvm":"no",
"replace_caller_id":"no",
"reporholdtime":"no",
"retry":5,
"ringgroup":null,
"ringgroup_el":null,
"ringgroup_t":null,
"ringgroup_v":null,
"ringtime":30,
"schedule_clean_enable":"no",
"starttime":null,
"strategy":"ringall",
"tmp":null,
"tmp2":"6500",
"vm_extension":null,
"vm_extension_el":null,
"vm_extension_t":null,
"vm_extension_v":null,
"vmgroup":null,
"vmgroup_el":null,
"vmgroup_t":null,
"vmgroup_v":null,
"vmsecret":null,
"voice_prompt_time":60,
"vq_callback_enable_timeout":"no",
"vq_callback_timeout":60,
```

```

"vq_mode":"periodic",
"vq_outprefix":null,
"vq_periodic":20,
"vq_switch":"no",
"waittime":null,
"week_date":null,
"wrapuptime":10
}
},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
queue		no	string	Specific queue number
Successful response				
queue_name	0	yes	string	Queue name
musicclass		yes	string	The Music on Hold playlist used by the queue.
leavewhenempty		yes	string	Configures whether to disconnect callers in queue based on agent status. There are three options: Yes: Callers will be disconnected from queue if all agents are paused or unavailable. No: Callers will never be disconnected from queue. Strict (Default): Callers will be disconnected from the queue if there are no agents or if all agents are unavailable or paused.
joinempty		yes	string	Configures whether callers can dial into a call queue with no agents. There are three options: Yes: Callers can always dial into a queue even if it is empty. No (Default): Callers cannot dial into a queue if all agents are unavailable or paused. Strict: Callers cannot dial into a queue if there are no agents or if all agents are unavailable or paused.
pin		no	string	PIN for dynamic agent login. The suffix for dynamic agent login can be configured on the Agent Login page.

ringtime		yes	string	Ring timeConfigure the number of seconds to ring an agent. The minimum is 5.
strategy	ringall, linear, leastrecent, fewestcalls, random, memory	yes	string	Strategy Ring All: Ring all available agents simultaneously until one agent answers. Linear: Ring agents in the specified order. Least Recent: Ring the agent who has been called the least recently. Fewest Calls: Ring the agent with the fewest completed calls. Random: Ring a random agent. Round Robin: Ring agents using round robin schedule with memory.
wrapuptime		yes	string	Wrap-up timeConfigure the delay time (in seconds) after a completed call before a new call will ring. If set to 0, there will be no delay between call completion and a new call.
maxlen		yes	string	Max Queue LengthConfigure the maximum number of calls to be queued at once. This number does not include calls that have been connected to agents, only calls that are still in queue. When this maximum value is exceeded, the caller will hear a busy tone and be forwarded to the configured failover destination. Default value is 0 (unlimited).
reporholdtime	yes, no	no	string	Report wait timelf enabled, the wait time of the caller will be shown to the agent before establishing the call.
auto_record	all, external, internal, off	yes	string	Auto Recordall: All incoming calls to this extension will be recorded.Off: This extension's calls will not be recorded.External: All external calls of the extension will be recorded.Internal: All internal calls of the extension will be recorded.
queue_timeout		yes	int	Max wait timeAmount of time to keep a caller in queue before rerouting them to the timeout destination.
enable_feature	yes, no	no	string	Enable Feature CodesIf enabled, call queue members can use feature codes to transfer, call park or disconnect calls.

alertinfo	none, ring1 ,ring2, ring3, ring4 ,ring5, ring6, ring7 ,ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2, Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom	no	string	Alert-infoWhen the extension is callee, the Alert-info header field specifies an alternative ring tone to the callee.
voice_prompt_time		no		Destination Prompt CycleConfigures the amount of time (in seconds) to pass before repeating the audio prompt specified in the custom_prompt parameter below to callers. During the prompt, users can press 1 to transfer to the queue's configured Destination Prompt destination. Valid range is 20-200. Default is 20 seconds.
custom_prompt		no	string	Custom promptWhen playing a custom prompt, press 1 to enter the failover destination or continue waiting in queue.
retry		no	int	Retry timeConfigure the number of seconds to wait before ringing the next agent. The minimum is 1.
replace_caller_id	yes, no	no	string	Replace display nameIf enabled, the UCM will replace the caller CID name with Call Queue name.
queue_chairmans		no	string	Queue chairman
enable_agent_login	yes, no	no	string	Enable agent loginAllows agent logins via 3rd party services. Warning: Enabling this will log out all dynamic agents.
vq_switch	yes, no	no	string	Enable Virtual QueueIf enabled, virtual queue will be available for callers. Virtual queue allows callers to hang up the call while still maintaining their position in line. Callers will be called back when an agent is available to answer them.
vq_mode	yes, no	no	string	Virtual Queue ModeWhen in DTMF mode,press 2 to trigger virtual queue. When in timeout mode, virtual queue will be triggered when the configured Virtual Queue Period has passed.
vq_periodic		no	int	Virtual Queue PeriodWhen vq_mode is set to timeout mode and when callers have waited the configured amount time, they will automatically be entered into virtual queue.

vq_outprefix		no	string	Virtual Queue Outbound PrefixSystem will add this prefix to dialed numbers when calling back users.
announce_position	yes, no	no	string	Enable Position AnnouncementIf enabled, the UCM will announce to callers their position in queue.
announce_frequency		no	int	Announcement IntervalThe time interval (in seconds) in which positions and estimated wait times will be announced to callers.
destination_type_t	playsound, account, voicemail, queue, ringgroup, vmgroup, ivr, external_number	no	string	Timeout DestinationThe destination that the call will be routed to if not answered within the configured queue wait time.
vm_extension_t		no	string	Timeout Destination - VoicemailUse this as reference for the other "max wait time destination options" commands below.
account_t		no	string	Max wait time-Destination-extension
vmgroup_t		no	string	Max wait time-Destination-voicemail group
ivr_t		no	string	Max wait time-Destination-IVR
ringgroup_t		no	string	Max wait time-Destination-Ring Group
queue_dest_t		no	string	Max wait time-Destination-queues
external_number_t		no	string	Max wait time-Destination-external number
destination_type_v	account, voicemail, queue, ringgroup, vmgroup, ivr, external_number	no	string	Destination Prompt Cycle-destinationThe caller will be prompted to follow steps and get redirected to the configured failover destination.
vm_extension_v		no	string	Destination Prompt Cycle-destination-voicemail
account_v		no	string	Destination Prompt Cycle-destination-extension
vmgroup_v		no	string	Destination Prompt Cycle-destination-voicemail group
ivr_v		no	string	Destination Prompt Cycle-destination-IVR
ringgroup_v		no	string	Destination Prompt Cycle-destination-Ring group

queue_dest_v		no	string	Destination Prompt Cycle-destination-queues
external_number_v		no	string	Destination Prompt Cycle-destination-external number
destination_voice_enable	Yes, no	no	string	Configure whether callers will be prompted to be rerouted to the configured Destination Prompt Cycle destination.
autofill	Yes, no	no		Configures the queue's call handling behavior. See the UCM user manual for more details. yes: Parallel call handlingno: Serial call handling
destination_type_el	playsound, account, voicemail, queue, ringgroup, vmgroup, ivr, external_number	no	string	Failover DestinationThe destination that callers will be redirected to if the queue is empty or if all agents are unavailable.
vm_extension_el		no	string	Failover Destination-voicemail
account_el		no	string	Failover Destination-extension
vmgroup_el		no	string	Failover Destination-voicemail group
ivr_el		no	string	Failover Destination-IVR
ringgroup_el		no	string	Failover Destination-Ring group
queue_dest_el		no	string	Failover Destination-queues
external_number_el		no	string	Failover Destination-external number
vq_callback_enable_timeo ut	yes, no	no	string	Whether or not a timeout will be set for callers waiting in virtual queue. Upon timeout, callers will be disconnected from virtual queue.
vq_callback_timeout		no	int	The virtual queue timeout period.
announce_holdtime	yes, no	no	string	Enable Wait Time AnnouncementIf enabled, the estimated wait time for the call to get answered will periodically be announced to the caller. Note: Wait time will not be announced if less than one minute.
enable_welcome	yes, no	no	string	Enable welcome prompt
custom_welcome_prompt		no	string	Custom welcome prompt
schedule_clean_enable	once, daily, week, month	no	string	Whether or not to enable periodic agent call count clearing.
extension		no	string	Extension number

starttime		no	string	The time to reset agent call count.
pagingtype	once, daily, week, month	no	string	How often to reset agent call count.
week_date	sun, mon, tue, wed, thu, fri, sat	no	string	The weekday to reset agent call count.
custom_months	jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec	no	string	The month to reset agent call count.
custom_dates		no	string	The day of the month to reset agent call count.
members		no	string	Static agents
status		Yes	int	Successful response,status is 0
Failed response				
status	0	yes	int	Please see the error code list for more details.

getQueue

addQueue

The "addQueue" action will allow users to add a call queue.

- Request

```
{ "request":{ "action":"addQueue", "extension":"6502", "queue_name":"6502", "strategy":"ringall",
"musicclass":"default", "maxlen":"0", "wrapuptime":"10", "retry":"5", "ringtime":"30",
"auto_record":"all", "enable_welcome":"yes", "custom_welcome_prompt":"", "queue_timeout":"60",
"external_number_t":"", "destination_voice_enable":"yes", "voice_prompt_time":"60",
"custom_prompt":"record/sanguosha", "external_number_v":"", "vq_switch":"yes",
"vq_mode":"periodic", "vq_periodic":"20", "vq_outprefix":"12", "vq_callback_enable_timeout":"yes",
"vq_callback_timeout":"60", "announce_position":"yes", "announce_holdtime": "no",
"announce_frequency":"20", "leavewhenempty":"strict", "joinempty":"no", "external_number_el":"",
"enable_agent_login":"yes", "reporholdtime":"yes", "replace_caller_id":"yes",
"enable_feature":"yes", "autofill":"yes", "pin":"123433", "alertinfo":"ring3", "members":"1000",
"queue_chairmans":"1001", "destination_type_t":"hangup", "destination_type_v":"account",
"destination_type_el":"playsound", "account_t":"", "account_v":"3000", "account_el":"",
"vm_extension_t":"", "vm_extension_v":"", "vm_extension_el":"", "queue_dest_t":"",
"queue_dest_v":"", "queue_dest_el":"", "ringgroup_t":"", "ringgroup_v":"", "ringgroup_el":"",
"vmgroup_t":"", "vmgroup_v":"", "vmgroup_el":"", "ivr_t":"", "ivr_v":"", "ivr_el":"" }}}
```

- Response

```
{
"response":{
"need_apply":"yes"
},
"status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				

cookie		yes	string	The value returned after login must be included in all requests . If cookies are not included , return error code -6.
extension	2-10 digits	no	string	Queue number.
queue_name	2-25 characters, including letters, numbers, or special characters - _	yes	string	Queue name.
strategy	ringall, linear, leastrecent, fewestcalls, random, memory	yes	string	StrategyRing All: Ring all available agents simultaneously until one agent answers.Linear: Ring agents in the specified order.Least Recent: Ring the agent who has been called the least recently.Fewest Calls: Ring the agent with the fewest completed calls.Random: Ring a random agent.Round Robin: Ring agents using round robin schedule with memory.
musicclass	default, hold, ringbacktone_default	no	string	The Music on Hold playlist used by the queue.
maxlen	0~99	yes	string	Max Queue LengthConfigure the maximum number of calls to be queued at once. This number does not include calls that have been connected to agents, only calls that are still in queue. When this maximum value is exceeded, the caller will hear a busy tone and be forwarded to the configured failover destination. Default value is 0 (unlimited).
wrapuptime	0~999	yes	string	Wrap-up timeConfigure the delay time (in seconds) after a completed call before a new call will ring. If set to 0, there will be no delay between call completion and a new call.
retry	1~999	no	int	Retry timeConfigure the number of seconds to wait before ringing the next agent. The minimum is 1.
ringtime	5~999	yes	string	Ring timeConfigure the number of seconds to ring an agent. The minimum is 5.
auto_record	all, external, internal, off	yes	string	Auto Recordall: All incoming calls to this extension will be recorded.Off: This extension's calls will not be recorded.External: All external calls of the extension will be recorded.Internal: All internal calls of the extension will be recorded.

enable_welcome	yes, no	no	string	Enable welcome prompt
custom_welcome_prompt	Empty, welcome , record/....	no	string	Custom welcome prompt. Empty indicates none, "welcome" will play the system's default welcome notification sound.
satisfaction_survey_prompt	Empty, queue-satisfaction-survey , record/....	no	string	Satisfaction survey notification sound. Empty for none, "queue-satisfaction-survey " plays the system satisfaction survey notification sound.
queue_timeout	0~1800	yes	int	Max wait timeAmount of time to keep a caller in queue before rerouting them to the timeout destination.
external_number_t	1 to 32 characters, only numbers, letters, or +-*# are allowed.	no	string	Destination external number.
destination_voice_enable	yes, no	no	string	Configure whether callers will be prompted to be rerouted to the configured Destination Prompt Cycle destination.
voice_prompt_time	20~2000	no	int	Destination Prompt CycleConfigures the amount of time (in seconds) to pass before repeating the audio prompt specified in the custom_prompt parameter below to callers. During the prompt, users can press 1 to transfer to the queue's configured Destination Prompt destination. Valid range is 20-200. Default is 20 seconds.
custom_prompt	Empty, record/....	no	string	Custom promptWhen playing a custom prompt, press 1 to enter the failover destination or continue waiting in queue.
external_number_v	1 to 32 characters, only numbers, letters, or +-*# are allowed.	no	string	Destination Prompt Cycle-destination-external number
vq_switch	yes, no	no	string	Enable Virtual QueueIf enabled, virtual queue will be available for callers. Virtual queue allows callers to hang up the call while still maintaining their position in line. Callers will be called back when an agent is available to answer them.
vq_mode	periodic , digit , auto	no	string	Virtual Queue ModeWhen in DTMF mode,press 2 to trigger virtual queue. When in timeout mode, virtual queue will be triggered when the configured Virtual Queue Period has passed.

vq_periodic	5~2000	no	int	Virtual Queue PeriodWhen vq_mode is set to timeout mode and when callers have waited the configured amount time, they will automatically be entered into virtual queue.
vq_outprefix	1 to 20 characters, only numbers, letters, or +-*# are allowed.	no	string	Virtual Queue Outbound PrefixSystem will add this prefix to dialed numbers when calling back users.
vq_announce_position	yes, no	no	string	Enable virtual queue position announcement.If enabled, the UCM will announce to callers their position in queue.
vq_announce_holdtime	yes, no	no	string	Enable virtual queue wait time. Enabling this option periodically announces the caller's expected wait time.
vq_callback_enable_timeout	yes, no	no	string	Whether or not a timeout will be set for callers waiting in virtual queue. Upon timeout, callers will be disconnected from virtual queue.
vq_callback_timeout	1~120	no	int	The virtual queue timeout period.
vq_sound_welcome	Empty, virtualqueue-welcome , record/....	no	int	Virtual queue welcome sound. Empty for none, "virtualqueue-welcome" plays the system's own virtual queue welcome sound.
announce_position	yes, no	no	string	Enable queuing notifications. Once enabled, the system will display the caller's queuing ranking.
announce_holdtime	yes, no	no	string	Enable Wait Time AnnouncementIf enabled, the estimated wait time for the call to get answered will periodically be announced to the caller. Note: Wait time will not be announced if less than one minute.
announce_frequency	20~2000	no	int	Announcement IntervalThe time interval (in seconds) in which positions and estimated wait times will be announced to callers.

leavewhenempty	yes , no , strict	yes	string	Configures whether to disconnect callers in queue based on agent status. There are three options:Yes: Callers will be disconnected from queue if all agents are paused or unavailable.No: Callers will never be disconnected from queue.Strict (Default): Callers will be disconnected from the queue if there are no agents or if all agents are unavailable or paused.
external_number_el	1 to 32 characters, only numbers, letters, or +-*# are allowed.	no	string	Failover Destination-external number
enable_agent_login	yes, no	no	string	Enable agent loginAllows agent logins via 3rd party services. Warning: Enabling this will log out all dynamic agents.
reporholdtime	yes, no	no	string	Report wait timelf enabled, the wait time of the caller will be shown to the agent before establishing the call.
replace_caller_id	yes, no	no	string	Replace display namelf enabled, the UCM will replace the caller CID name with Call Queue name.
enable_feature	yes, no	no	string	Enable Feature CodesIf enabled, call queue members can use feature codes to transfer, call park or disconnect calls.
joinempty	yes , no , strict	yes	string	Configures whether callers can dial into a call queue with no agents. There are three options:Yes: Callers can always dial into a queue even if it is empty.No (Default): Callers cannot dial into a queue if all agents are unavailable or paused.Strict: Callers cannot dial into a queue if there are no agents or if all agents are unavailable or paused.
autofill	yes, no	no		Configures the queue's call handling behavior. See the UCM user manual for more details. yes: Parallel call handlingno: Serial call handling
pin	0-8 digits	no	string	PIN for dynamic agent login.The suffix for dynamic agent login can be configured on the Agent Login page.

alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2, Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom	no	string	Alert-infoWhen the extension is callee, the Alert-info header field specifies an alternative ring tone to the callee.
members	Existing extension number, existing extension group ID	no	string	Static agents
queue_chairmans	Existing extension number	no	string	Queue chairman
destination_type_t	account, voicemail, queue, ringgroup, vmgroup, ivr, external_number, announcement, hangup	no	string	Timeout DestinationThe destination that the call will be routed to if not answered within the configured queue wait time.
destination_type_v	account, voicemail, queue, ringgroup, vmgroup, ivr, external_number	no	string	Destination Prompt Cycle-destinationThe caller will be prompted to follow steps and get redirected to the configured failover destination.
destination_type_el	playsound, account, voicemail, queue, ringgroup, vmgroup, ivr, external_number	no	string	Failover DestinationThe destination that callers will be redirected to if the queue is empty or if all agents are unavailable.
account_t	Existing extension number	no	string	Max wait time-Destination-extension
account_v	Existing extension number	no	string	Destination Prompt Cycle-destination-extension
account_el	Existing extension number	no	string	Failover Destination-extension
vm_extension_t	The extension number for voicemail has been enabled.	no	string	Timeout Destination - VoicemailUse this as reference for the other "max wait time destination options" commands below.
vm_extension_v	The extension number for voicemail has been enabled.	no	string	Destination Prompt Cycle-destination-voicemail
vm_extension_el	The extension number for voicemail has been enabled.	no	string	Failover Destination-voicemail
queue_dest_t	Existing queue number	no	string	Max wait time-Destination-queues
queue_dest_v	Existing queue number	no	string	Destination Prompt Cycle-destination-queues
queue_dest_el	Existing queue number	no	string	Failover Destination-queues
ringgroup_t	Existing ringing group	no	string	Max wait time-Destination-Ring Group
ringgroup_v	Existing ringing group	no	string	Destination Prompt Cycle-destination-Ring group
ringgroup_el	Existing ringing group	no	string	Failover Destination-Ring group

vmgroup_t	Existing voicemail groups	no	string	Max wait time-Destination-voicemail group
vmgroup_v	Existing voicemail groups	no	string	Destination Prompt Cycle-destination-voicemail group
vmgroup_el	Existing voicemail groups	no	string	Failover Destination-voicemail group
ivr_t	Existing IVR	no	string	Max wait time-Destination-IVR
ivr_v	Existing IVR	no	string	Destination Prompt Cycle-destination-IVR
ivr_el	Existing IVR	no	string	Failover Destination-IVR
announcement_t	Existing Announcement	no	string	Longest wait time - destination - announcement
announcement_v	Existing Announcement	no	string	Destination Periodic Reminder - Destination - Announcements
announcement_el	Existing Announcement	no	string	Queue empty - empty destination - announcement
schedule_clean_enable	yes, no	no	string	Whether or not to enable periodic agent call count clearing.
starttime		no	string	The time to reset agent call count.
pagingtype	once, daily, week, month	no	string	Repeat (Reset agent count cycle type).
week_date	sun, mon, tue, wed, thu, fri, sat	no	string	The weekday to reset agent call count.
custom_months	jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec	no	string	The month to reset agent call count.
custom_dates		no	string	The day of the month to reset agent call count.
notification_prompt		no	string	Once a caller joins the queue, the system will play a notification tone periodically. The default setting is empty, you can select an existing notification tone or upload an audio file.
notification_frequency		no	string	The announcement period refers to the time from the start of this playback to the start of the next playback.
enable_vq_notification	yes, no	no	string	Enable virtual queue announcement.
language	^[+az A-Z0-9_]{1,256}	no	string	Call queue prompt tone language.
premium code	^[0-9]{1,16}	no	string	1-16 digit privilege code.
premium_code_prompt		no	string	Custom privileged code prompts.

updateQueue

The "updateQueue" action allows users to update an existing call queue.

- Request

```
{ "request": { "queue": "6500", "action": "updateQueue", "extension": "6500", "queue_name": "hahah1",
"strategy": "fewestcalls", "musicclass": "default", "maxlen": "1", "wrapuptime": "10", "retry": "5",
"ringtime": "30", "auto_record": "all", "enable_welcome": "yes", "custom_welcome_prompt": "welcome",
"queue_timeout": "999", "external_number_t": "", "schedule_clean_enable": "yes", "pagingtype": "week",
"starttime": "14:36", "destination_voice_enable": "yes", "voice_prompt_time": "20",
"custom_prompt": "record/sanguosha", "external_number_v": "", "vq_switch": "yes",
"vq_mode": "periodic", "vq_periodic": "20", "vq_outprefix": "12", "vq_callback_enable_timeout": "yes",
"vq_callback_timeout": "60", "announce_position": "yes", "announce_holdtime": "yes",
"announce_frequency": "20", "leavewhenempty": "no", "joinempty": "yes", "external_number_el": "",
"enable_agent_login": "yes", "reporholdtime": "yes", "replace_caller_id": "yes",
"enable_feature": "yes", "autofill": "yes", "pin": "1256", "alertinfo": "ring1", "members": "1002",
"queue_chairmans": "1001", "destination_type_t": "hangup", "destination_type_v": "ringgroup",
"destination_type_el": "account", "account_t": "", "account_v": "", "account_el": "1119",
"vm_extension_t": "", "vm_extension_v": "", "vm_extension_el": "", "queue_dest_t": "",
"queue_dest_v": "", "queue_dest_el": "", "ringgroup_t": "", "ringgroup_v": "6400", "ringgroup_el": "",
"vmgroup_t": "", "vmgroup_v": "", "vmgroup_el": "", "ivr_t": "", "ivr_v": "", "ivr_el": "",
"week_date": "sun,mon,tue,wed,thu,fri,sat" }}
```

- Response

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	The value returned after login must be included in all requests . If cookies are not included , return error code -6.
queue	2-10 digits	no	string	Current queue number.
extension	2-10 digits	no	string	Update the modified queue number
queue_name	2-25 characters, including letters, numbers, or special characters - _	yes	string	Queue name.

strategy	ringall, linear, leastrecent, fewestcalls, random, memory	yes	string	StrategyRing All: Ring all available agents simultaneously until one agent answers.Linear: Ring agents in the specified order.Least Recent: Ring the agent who has been called the least recently.Fewest Calls: Ring the agent with the fewest completed calls.Random: Ring a random agent.Round Robin: Ring agents using round robin schedule with memory.
musicclass	default, hold, ringbacktone_default	no	string	The Music on Hold playlist used by the queue.
maxlen	0~99	yes	string	Max Queue LengthConfigure the maximum number of calls to be queued at once. This number does not include calls that have been connected to agents, only calls that are still in queue. When this maximum value is exceeded, the caller will hear a busy tone and be forwarded to the configured failover destination. Default value is 0 (unlimited).
wrapuptime	0~999	yes	string	Wrap-up timeConfigure the delay time (in seconds) after a completed call before a new call will ring. If set to 0, there will be no delay between call completion and a new call.
retry	1~999	no	int	Retry timeConfigure the number of seconds to wait before ringing the next agent. The minimum is 1.
ringtime	5~999	yes	string	Ring timeConfigure the number of seconds to ring an agent. The minimum is 5.
auto_record	all, external, internal, off	yes	string	Auto Recordall: All incoming calls to this extension will be recorded.Off: This extension's calls will not be recorded.External: All external calls of the extension will be recorded.Internal: All internal calls of the extension will be recorded.
enable_welcome	yes, no	no	string	Enable welcome prompt
custom_welcome_prompt	Empty, welcome , record/....	no	string	Custom welcome prompt. Empty indicates none, "welcome" will play the system's default welcome notification sound.

satisfaction_survey_prompt	Empty, queue-satisfaction-survey, record/....	no	string	Satisfaction survey notification sound. Empty for none, "queue-satisfaction-survey" plays the system satisfaction survey notification sound.
queue_timeout	0~1800	yes	int	Max wait timeAmount of time to keep a caller in queue before rerouting them to the timeout destination.
external_number_t	1 to 32 characters, only numbers, letters, or +-*# are allowed.	no	string	Destination external number.
destination_voice_enable	yes, no	no	string	Configure whether callers will be prompted to be rerouted to the configured Destination Prompt Cycle destination.
voice_prompt_time	20~2000	no	int	Destination Prompt CycleConfigures the amount of time (in seconds) to pass before repeating the audio prompt specified in the custom_prompt parameter below to callers. During the prompt, users can press 1 to transfer to the queue's configured Destination Prompt destination. Valid range is 20-200. Default is 20 seconds.
custom_prompt	Empty, record/....	no	string	Custom promptWhen playing a custom prompt, press 1 to enter the failover destination or continue waiting in queue.
external_number_v	1 to 32 characters, only numbers, letters, or +-*# are allowed.	no	string	Destination Prompt Cycle-destination-external number
vq_switch	yes, no	no	string	Enable Virtual QueueIf enabled, virtual queue will be available for callers. Virtual queue allows callers to hang up the call while still maintaining their position in line. Callers will be called back when an agent is available to answer them.
vq_mode	periodic , digit , auto	no	string	Virtual Queue ModeWhen in DTMF mode,press 2 to trigger virtual queue. When in timeout mode, virtual queue will be triggered when the configured Virtual Queue Period has passed.
vq_periodic	5~2000	no	int	Virtual Queue PeriodWhen vq_mode is set to timeout mode and when callers have waited the configured amount time, they will automatically be entered into virtual queue.

vq_outprefix	1 to 20 characters, only numbers, letters, or +-*# are allowed.	no	string	Virtual Queue Outbound PrefixSystem will add this prefix to dialed numbers when calling back users.
vq_announce_position	yes, no	no	string	Enable virtual queue position announcement.If enabled, the UCM will announce to callers their position in queue.
vq_announce_holdtime	yes, no	no	string	Enable virtual queue wait time. Enabling this option periodically announces the caller's expected wait time.
vq_callback_enable_timeout	yes, no	no	string	Whether or not a timeout will be set for callers waiting in virtual queue. Upon timeout, callers will be disconnected from virtual queue.
vq_callback_timeout	1~120	no	int	The virtual queue timeout period.
vq_sound_welcome	Empty, virtualqueue-welcome , record/....	no	int	Virtual queue welcome sound. Empty for none, "virtualqueue-welcome" plays the system's own virtual queue welcome sound.
announce_position	yes, no	no	string	Enable queuing notifications. Once enabled, the system will display the caller's queuing ranking.
announce_holdtime	yes, no	no	string	Enable Wait Time AnnouncementIf enabled, the estimated wait time for the call to get answered will periodically be announced to the caller. Note: Wait time will not be announced if less than one minute.
announce_frequency	20~2000	no	int	Announcement IntervalThe time interval (in seconds) in which positions and estimated wait times will be announced to callers.
leavewhenempty	yes , no , strict	yes	string	Configures whether to disconnect callers in queue based on agent status. There are three options:Yes: Callers will be disconnected from queue if all agents are paused or unavailable.No: Callers will never be disconnected from queue.Strict (Default): Callers will be disconnected from the queue if there are no agents or if all agents are unavailable or paused.
external_number_el	1 to 32 characters, only numbers, letters, or +-*# are allowed.	no	string	Failover Destination-external number

enable_agent_login	yes, no	no	string	Enable agent loginAllows agent logins via 3rd party services. Warning: Enabling this will log out all dynamic agents.
reporholdtime	yes, no	no	string	Report wait timelf enabled, the wait time of the caller will be shown to the agent before establishing the call.
replace_caller_id	yes, no	no	string	Replace display namelf enabled, the UCM will replace the caller CID name with Call Queue name.
enable_feature	yes, no	no	string	Enable Feature CodesIf enabled, call queue members can use feature codes to transfer, call park or disconnect calls.
joinempty	yes , no , strict	yes	string	Configures whether callers can dial into a call queue with no agents. There are three options:Yes: Callers can always dial into a queue even if it is empty.No (Default): Callers cannot dial into a queue if all agents are unavailable or paused.Strict: Callers cannot dial into a queue if there are no agents or if all agents are unavailable or paused.
autofill	yes, no	no		Configures the queue's call handling behavior. See the UCM user manual for more details. yes: Parallel call handlingno: Serial call handling
pin	0-8 digits	no	string	PIN for dynamic agent login.The suffix for dynamic agent login can be configured on the Agent Login page.
alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2, Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom	no	string	Alert-infoWhen the extension is callee, the Alert-info header field specifies an alternative ring tone to the callee.
members	Existing extension number, existing extension group ID	no	string	Static agents
queue_chairmans	Existing extension number	no	string	Queue chairman
destination_type_t	account, voicemail, queue, ringgroup, vmgroup, ivr, external_number, announcement, hangup	no	string	Timeout DestinationThe destination that the call will be routed to if not answered within the configured queue wait time.

destination_type_v	account, voicemail, queue, ringgroup, vmgroup, ivr, external_number	no	string	Destination Prompt Cycle-destination The caller will be prompted to follow steps and get redirected to the configured failover destination.
destination_type_el	playsound, account, voicemail, queue, ringgroup, vmgroup, ivr, external_number	no	string	Failover Destination The destination that callers will be redirected to if the queue is empty or if all agents are unavailable.
account_t	Existing extension number	no	string	Max wait time-Destination-extension
account_v	Existing extension number	no	string	Destination Prompt Cycle-destination-extension
account_el	Existing extension number	no	string	Failover Destination-extension
vm_extension_t	The extension number for voicemail has been enabled.	no	string	Timeout Destination - VoicemailUse this as reference for the other "max wait time destination options" commands below.
vm_extension_v	The extension number for voicemail has been enabled.	no	string	Destination Prompt Cycle-destination-voicemail
vm_extension_el	The extension number for voicemail has been enabled.	no	string	Failover Destination-voicemail
queue_dest_t	Existing queue number	no	string	Max wait time-Destination-queues
queue_dest_v	Existing queue number	no	string	Destination Prompt Cycle-destination-queues
queue_dest_el	Existing queue number	no	string	Failover Destination-queues
ringgroup_t	Existing ringing group	no	string	Max wait time-Destination-Ring Group
ringgroup_v	Existing ringing group	no	string	Destination Prompt Cycle-destination-Ring group
ringgroup_el	Existing ringing group	no	string	Failover Destination-Ring group
vmgroup_t	Existing voicemail groups	no	string	Max wait time-Destination-voicemail group
vmgroup_v	Existing voicemail groups	no	string	Destination Prompt Cycle-destination-voicemail group
vmgroup_el	Existing voicemail groups	no	string	Failover Destination-voicemail group
ivr_t	Existing IVR	no	string	Max wait time-Destination-IVR
ivr_v	Existing IVR	no	string	Destination Prompt Cycle-destination-IVR
ivr_el	Existing IVR	no	string	Failover Destination-IVR

announcement_t	Existing Announcement	no	string	Longest wait time - destination - announcement
announcement_v	Existing Announcement	no	string	Destination Periodic Reminder - Destination - Announcements
announcement_el	Existing Announcement	no	string	Queue empty - empty destination - announcement
schedule_clean_enable	yes, no	no	string	Whether or not to enable periodic agent call count clearing.
starttime		no	string	The time to reset agent call count.
pagingtype	once, daily, week, month	no	string	Repeat (Reset agent count cycle type).
week_date	sun, mon, tue, wed, thu, fri, sat	no	string	The weekday to reset agent call count.
custom_months	jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec	no	string	The month to reset agent call count.
custom_dates		no	string	The day of the month to reset agent call count.
notification_prompt		no	string	Once a caller joins the queue, the system will play a notification tone periodically. The default setting is empty, you can select an existing notification tone or upload an audio file.
notification_frequency		no	string	The announcement period refers to the time from the start of this playback to the start of the next playback.
enable_vq_notification	yes, no	no	string	Enable virtual queue announcement.
language	^[+az A-Z0-9_]{1,256}	no	string	Call queue prompt tone language.
premium code	^[0-9]{1,16}	no	string	1-16 digit privilege code.
premium_code_prompt		no	string	Custom privileged code prompts.

updateQueue

deleteQueue

The "deleteQueue" allows users to delete an existing queue.

- Request

```
{
  "request": {
    "action": "deleteQueue",
```

```

"cookie": "sid1095249077-1574756325",
"queue": "6502"
}
}

```

- Response

```

{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
queue		yes	int	Queue number
Successful response				
status	0	yes	int	The response is successful, status is 0.
need_apply	Yes, no	yes	string	Whether "Apply" is required for the configuration to take effect.

deleteQueue

loginLogoffQueueAgent

The "loginLogoffQueueAgent" action allows users to log in or log off static agents.

- Request

```

{
  "request": {
    "action": "loginLogoffQueueAgent",
    "cookie": "sid1632521748-1574853548",
    "extension": "6502",
    "interface": "1001",
    "operatetype": "logoff"
  }
}

```

- Response

```

{
  "response": {},
  "status": 0
}

```

```
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
operatetype	login, logoff	yes	string	Operation type
interface		yes	string	Agent number
extension		yes	string	Queue number
Successful response				
status	0	yes	int	The response is successful, status is 0.

loginLogoffQueueAgent

pauseUnpauseQueueAgent

The "pauseUnpauseQueueAgent" action allows users to pause or unpause static agents.

- Request

```
{
  "request":{
    "action":"pauseUnpauseQueueAgent",
    "cookie":"sid1632521748-1574853548",
    "interface":"1002",
    "operatetype":"pause"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.

operatetype	pause, unpause	yes	string	Operation type
interface		yes	string	Agent number
extension		no	string	Queue number
Successful response				
status	0	yes	int	The response is successful, status is 0.
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect

pauseUnpauseQueueAgent

Queueapi

The "Queueapi" action allows users to get the Queue Statistics.

- Request

```
{
  "request":{
    "action":"queueapi",
    "cookie":"sid1682729010-1574760528",
    "endTime":"2019-11-28",
    "startTime":"2019-11-27",
    "queue":"6500" #If this line is not specified, results return all available queues
  }
}
```

- Response

```
<?xml version="1.0"?>
<root_statistics>
  <total>
    <queuechairman>admin</queuechairman>
    <total_calls>2</total_calls>
    <abandoned_rate>50.0</abandoned_rate>
    <avg_wait>2</avg_wait>
    <avg_talk>7</avg_talk>
    <vq_total_calls>0</vq_total_calls>
  </total>
  <queue>
    <queuechairman>admin</queuechairman>
    <queue>6500</queue>
    <total_calls>2</total_calls>
    <answered_calls>1</answered_calls>
    <answered_rate>50.0</answered_rate>
    <avg_wait>2</avg_wait>
    <avg_talk>7</avg_talk>
    <vq_total_calls>0</vq_total_calls>
  </queue>
</root_statistics>
```

```

<agent>
<queuechairman>admin</queuechairman>
<agent>1004</agent>
<total_calls>2</total_calls>
<answered_calls>1</answered_calls>
<answered_rate>50.0</answered_rate>
<avg_talk>7</avg_talk>
</agent>
</root_statistics>

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
format	csv, xml, json	no	string	Define output format of matching call queue statistics. Default is xml.
queuechairman	Admin, number	no	string	Queue chairmanDefault is admin
queue	Number,*	no	string	Queue numberif queue number is *(default), all call queue information will be listed.
agent	Number,*	no	string	Agent numberIf agent number is *(default), all agent information will be listed.
statisticsType	overview,calldetail,loginhistory,pausedhistory,	no	string	overview:overview(default) calldetail:agent detailloginhistory:login recordpausedhistory :pause log
numRecords	[0,1000]	no	int	Number of returned recordsDefault is 1000, which is also the maximum allowed.
offset	number	no	int	The number of records that need to be skipped, use together with numRecords.Accept all records when multiple responses show up. Default is 0.
startTime	Date and/or time, format is YYYY-MM-DD	yes	int	Start time of the range of call queue statistics, format is YYYY-MM-DD
endTime	Date and/or time, format is YYYY-MM-DD	yes	int	End time of the range of call queue statistics, format is YYYY-MM-DD
Successful response				
Returns details regarding the queue(s).				
Failed response				

status		yes	int	Please see the error code list for more details.
--------	--	-----	-----	--

Queueapi

getQueueCalling

- Request

```
{
  "request": {
    "action": "getQueueCalling",
    "cookie": "sid1471950793-1740734983",
    "extension": "6500",
    "role": "answer"
  }
}
```

- Response

```
{
  "response": {
    "CallQueues": {
      "extension": "6500",
      "member": [
        {
          "callerchannel": "PJSIP/1002-0000000e",
          "callerid": "1002",
          "callername": "<unknown>",
          "position": 1,
          "starttime": "2025-03-03 09:51:13"
        },
        {
          "callerchannel": "PJSIP/1003-0000000f",
          "callerid": "1003",
          "callername": "<unknown>",
          "position": 2,
          "starttime": "2025-03-03 09:51:54"
        }
      ]
    },
    "status": 0
  }
}
```

Paging/Intercom

addPaginggroup

The "addPaginggroup" will allow users to add a paging group.

- Request

```
{
  "request":{
    "action":"addPaginggroup",
    "cookie":"sid1095249077-1574756325",
    "extension":"8004",
    "members":"1000,1001,1002",
    "number_allowed":"1000",
    "paginggroup_name":"8004",
    "paginggroup_type":"1way"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
extension		yes	string	extension
paginggroup_name		yes	string	Paging group name
paginggroup_type	3way, 2way, 1way, announcement	yes	string	Type: 1way:1-way paging 2way:2-way intercom 3way:Multicast paging announcement:announcement paging
custom_prompt		no	string	Custom Prompt
replace_caller_id	yes, no	no	string	Replace Display NameIf enabled, the UCM will replace the caller display name with Paging/Intercom name.
multicast_ip		no	string	Multicast IP AddressThe allowed multicast IP address range is 224.0.1.0 - 238.255.255.255.
multicast_port		no	int	port
limitime		no	int	Maximum Call Duration In seconds. Default is 0 means no limit.
custom_date		no	string	date
time		no	string	time, HH:MM
enable	yes, no	no	string	Enable. Whether to enable announcement paging.

members		no	string	Members that need paging/intercom
paginggroup		yes	string	Paging group number
old_multicast_ip		no	string	Multicast ip address set beforeThe allowed multicast IP address range is 224.0.1.0 - 238.255.255.255.
old_multicast_port		no	string	Multicast port set before
number_allowed		no	string	Paging/Intercom WhitelistOnly selected extensions will be able to initiate paging/intercom calls. If no extension is selected, all extensions will be able to initiate paging/intercom calls.
Successful response				
status		yes	int	The response is successful, status is 0.
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

addPaginggroup

listPaginggroup

The "listPaginggroup" allows users to list the existing paging group.

- Request

```
{
  "request":{
    "action":"listPaginggroup",
    "cookie":"sid1095249077-1574756325",
    "page":"1",
    "sidx":"extension",
    "sord":"asc"
  }
}
```

- Response

```
{
  "response":{
    "page":1,
    "paginggroup":[
      {
        "custom_date":"2018-08-01",
        "custom_prompt":null,
```

```

"enable": "yes",
"extension": "8004",
"holiday": null,
"limitime": 0,
"members": "1000,1001,1002",
"multicast_ip": "null",
"multicast_port": "null",
"paginggroup_name": "8004",
"paginggroup_type": "1way",
"replace_caller_id": "no",
"time": "00:00",
"tmp": "8004"
}
],
"total_item": 1,
"total_page": 1
},
"status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
page		no		Get extension list by page number.
sord	acs,desc	no		Sorting method. acs stands for ascending, and desc stands for descending.
sidx		no		Sort according to the index.
item_num		no		Extension number on each page, which is, the maximum items of each return. If empty, all members are returned by default.
options	paginggroup_name, paginggroup_type, extension, custom_prompt, replace_caller_id, multicast_ip, multicast_port, limitime, custom_date, time, enable, members	no		Specify obtaining options. Multiple can be set, separated by commas. If empty, all options are returned by default.
Successful response				
status	0	yes	int	Total number of items on the list
total_item		yes	int	Total pages of the list
total_page		yes	int	What page is on.

page		yes	int	Extension number.
extension		no	string	extension
paginggroup_name		no	string	Paging group name
paginggroup_type	3way, 2way, 1way, announcement	no	string	Type: 1way: 1-way paging 2way: 2-way intercom 3way: Multicast paging announcement: announcement paging
custom_prompt		no	string	Custom Prompt
replace_caller_id	yes, no	no	string	Replace Display NameIf enabled, the UCM will replace the caller display name with Paging/Intercom name.
multicast_ip		no	string	Multicast IP AddressThe allowed multicast IP address range is 224.0.1.0 - 238.255.255.255.
multicast_port		no	int	port
limitime		no	int	Maximum Call Duration In seconds. Default is 0 means no limit.
custom_date		no	string	date
time		no	string	Time in HH:MM format
enable	yes, no	no	string	Enable. Whether to enable announcement paging.
members		no	string	The members that will be paged.
Failed response				
status		yes	int	Please see the error code list for more details.

listPaginggroup

getPaginggroup

The "getPaginggroup" action allows users to get a specific paging group.

- Request

```
{
  "request":{
    "action":"getPaginggroup",
    "cookie":"sid1095249077-1574756325",
    "paginggroup":"8004"
  }
}
```

- Response

```
{
  "response":{
```

```

"paginggroup":{
"custom_date":"2018-08-01",
"custom_prompt":null,
"enable":"yes",
"extension":"8004",
"holiday":null,
"limitime":0,
"members":"1000,1001,1002",
"multicast_ip":"null",
"multicast_port":"null",
"number_allowed":"1000",
"paginggroup_name":"8004",
"paginggroup_type":"1way",
"replace_caller_id":"no",
"time":"00:00",
"tmp":"8004"
}
},
"status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
paginggroup		yes	string	Paging/intercom group number
Successful response				
status		yes	int	the response is successful, status is 0
extension		no	string	extension
paginggroup_name		no	string	Paging group name
paginggroup_type	3way, 2way, 1way, announcement	no	string	Type: 1way: 1-way paging 2way: 2-way intercom 3way: Multicast paging announcement: announcement paging
custom_prompt		no	string	Custom Prompt
replace_caller_id	yes, no	no	string	Replace Display NameIf enabled, the UCM will replace the caller display name with Paging/Intercom name.
multicast_ip		no	string	Multicast IP AddressThe allowed multicast IP address range is 224.0.1.0 - 238.255.255.255.
multicast_port		no	int	port

limitime		no	int	Maximum Call Duration In seconds. Default is 0 means no limit.
custom_date		no	string	date
time		no	string	Time in HH:MM format
Failed response				
status		yes	int	Please see the error code list for more details.

getPaginggroup

updatePaginggroup

The "updatePaginggroup" action allows users to update an existing paging group.

- Request

```
{
  "request":{
    "action":"updatePaginggroup",
    "cookie":"sid1381890074-1574854661",
    "members":"1003",
    "paginggroup":"8005",
    "paginggroup_type":"2way"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
extension		yes	string	extension
paginggroup_name		yes	string	Paging group name
paginggroup_type	3way, 2way, 1way, announcement	yes	string	Type: 1way:1-way paging 2way:2-way intercom 3way:Multicast paging announcement:announcement paging
custom_prompt		no	string	Custom Prompt

replace_caller_id	yes, no	no	string	Replace Display NameIf enabled, the UCM will replace the caller display name with Paging/Intercom name.
multicast_ip		no	string	Multicast IP AddressThe allowed multicast IP address range is 224.0.1.0 - 238.255.255.255.
multicast_port		no	int	port
limitime		no	int	Maximum Call Duration In seconds. Default is 0 means no limit.
custom_date		no	string	date
time		no	string	time, HH:MM
enable	yes, no	no	string	Enable. Whether to enable announcement paging.
members		no	string	Members that need paging/intercom
paginggroup		yes	string	Paging group number
old_multicast_ip		no	string	Multicast ip address set beforeThe allowed multicast IP address range is 224.0.1.0 - 238.255.255.255.
old_multicast_port		no	string	Multicast port set before
number_allowed		no	string	Paging/Intercom WhitelistOnly selected extensions will be able to initiate paging/intercom calls. If no extension is selected, all extensions will be able to initiate paging/intercom calls.
Successful response				
status		yes	int	The response is successful, status is 0.
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

updatePaginggroup

deletePaginggroup

The "deletePaginggroup" action allows users to delete an existing paging group.

- Request

```
{
  "request":{
    "action":"deletePaginggroup",
```

```

"cookie":"sid627603306-1574758858",
"paginggroup":"8004"
}
}

```

- Response

```

{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
paginggroup		yes	string	Paging/intercom group number
Successful response				
status		yes	int	the response is successful, status is 0
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

deletePaginggroup

MulticastPaging

The "MulticastPaging" action allows users to initiate a multicast paging call.

- Request

```

{
  "request":{
    "action":"MulticastPaging",
    "caller":"1004",
    "cookie":"sid1381890074-1574854661",
    "pagingnum":"8005"
  }
}

```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
pagingnum		yes	string	Multicast paging number
caller		yes	string	The extension used to initiate the page.
Successful response				
status		yes	int	the response is successful, status is 0
need_apply	no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

MulticastPaging

MulticastPagingHangup

The "MulticastPagingHangup" action allows users to hang up an ongoing multicast paging call.

- Request

```
{
  "request":{
    "action":"MulticastPagingHangup",
    "cookie":"sid1381890074-1574854661",
    "pagingnum":"8005"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
pagingnum		yes	string	Multicast paging number
Successful response				
status		yes	int	the response is successful, status is 0
need_apply	no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

MulticastPagingHangup

IVR

addIVR

The "addIVR" action allows users to add an IVR.

- Request

```
{ "request":{ "action":"addIVR", "alertinfo":"ring1", "cookie":"sid1682729010-1574760528",
"dial_directory":"no", "dial_extension":"no", "dial_fax":"no", "dial_paginggroup":"no",
"dial_queue":"no", "dial_ringgroup":"no", "dial_trunk":"yes", "dial_vmgroup":"no",
"digit_timeout":3, "extension":"7000", "iloop":3, "invalid_prompt":"invalid",
"ivr_blackwhite_list":"", "ivr_name":"7000", "ivr_out_blackwhite_list":"1000", "language":null,
"members":[ { "keypress":"i", "keypress_event":"member_prompt", "member_prompt":"goodbye" }, {
"keypress":"t", "keypress_event":"member_prompt", "member_prompt":"goodbye" } ],
"permission":"internal-local", "replace_caller_id":"yes", "response_timeout":10, "switch":"no",
"timeout_prompt":"ivr-create-timeout", "tloop":3, "welcome_prompt":"welcome" }}
```

- Response

```
{
"response":{
"need_apply":"yes"
},
"status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				

cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
ivr_name		yes	string	IVR Name
extension		yes	string	IVR number, the extension number of automatic voice reply.
welcome_prompt		yes	string	Prompt Initial tone that plays when the user enters the IVR.
response_timeout		yes	int	Response Timeout Timeout occurs when no DTMF entry is detected for the configured number of seconds after the IVR finishes playing the prompts.
digit_timeout		yes	int	Digit timeout After the user enters a digit, the user needs to enter the next digit within the timeout. If no digit is detected within the timeout, the PBX will consider the entries complete. The default timeout is 3 seconds.
timeout_prompt		yes	string	Response Timeout Prompt Play the selected prompt if response timeout occurs.
invalid_prompt		yes	string	Maximum calling period. In seconds, default is 0, which means unlimited.
tloop		yes	int	Response Timeout Prompt RepeatsNumber of times to repeat the prompt.After the final repeat, calls will be redirected to the Timeout destination (if configured) or dropped.
iloop		yes	int	Invalid Input Prompt RepeatsNumber of times to repeat the prompt.After the final repeat, calls will be redirected to the Invalid destination (if configured) or dropped.
dial_extension	yes, no	no	string	Dial Another Extensions-extension
dial_queue	yes, no	no	string	Dial Another Extensions-queues
dial_ringgroup	yes, no	no	string	Dial Another Extensions-ring group
dial_vmgroup	yes, no	no	string	Dial Another Extensions-voicemail group
dial_paginggroup	yes, no	no	string	Dial Another Extensions-paging/intercom group
dial_fax	yes, no	no	string	Dial Another Extensions-fax

dial_trunk	yes, no	no	string	Dial trunkIf enabled, users will be able to access trunks through this IVR. if using this feature, it is mandatory to configure permission.
dial_directory	yes, no	no	string	Dial Another Extensions-dial by name
permission	internal,internal-local,internal-local-national,internal-local-national-international	no	string	permissioninternal-international-local-local-localinternal-local-national-nationalinternational-local-national-international-international
language		no	string	language
alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom	no	string	Alert-infoWhen present in an INVITE request, the Alert-info header field specifies an alternative ring tone to the UAS.
replace_caller_id		no	string	Replace Display Name
switch	nowwhiteblack	no	string	IVR Black/Whitelist Only whitelisted numbers and numbers not blacklisted can be called from the IVR.
ivr_blackwhite_list		no	string	Internal Black/Whitelist
ivr_out_blackwhite_list		no	string	External Blacklist/Whitelist Can be used only when Dial Trunk is enabled. Numbers will be added as follows: number1, number2, number3.
members		no	Json array	Key Pressing Events
Successful response				
status		yes	int	the response is successful, status is 0
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

addIVR

listIVR

The "listIVR" action allows users to list the available IVR.

- Request

```
{
  "request":{
    "action":"listIVR",
```

```
"cookie":"sid1682729010-1574760528"
```

```
}
```

```
}
```

- Response

```
{ "response":{ "ivr":[ { "alertinfo":"ring1", "dial_directory":"no", "dial_extension":"no",  
"dial_failed_back2menu":"no", "dial_fax":"no", "dial_multimedia_conference":"no",  
"dial_paginggroup":"no", "dial_queue":"no", "dial_ringgroup":"no", "dial_trunk":"yes",  
"dial_vmggroup":"no", "digit_timeout":3, "extension":"7000", "iloop":3, "invalid_prompt":"invalid",  
"ivr_id":"ivr-1", "ivr_name":"7000", "language":null, "permission":"internal-local",  
"replace_caller_id":"yes", "response_timeout":10, "switch":"no",  
"timeout_prompt":"ivr-create-timeout", "tloop":3, "welcome_prompt":"welcome" } ], "page":1,  
"total_item":1, "total_page":1 }, "status":0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
page		no	int	Get extension list by page number.
sord	acs,desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.
sidx		no	string	Sort according to the index.
item_num		no	int	Extension number on each page, which is, the maximum items of each return. If empty, all members are returned by default.
options	ivr_id, ivr_name, extension, response_timeout, digit_timeout	no	string	Specify obtaining options. Multiple can be set, separated by commas. If empty, all options are returned by default.
Successful response				
status	0	yes	int	Successful response, status is 0
total_item		yes	int	Total pages of the list
total_page		yes	int	Total pages of the list
page		yes	int	What page is on.
ivr_id		no	string	IVR id
ivr_name		yes	string	IVR name
extension		yes	string	IVR number, the extension number of automatic voice reply.
custom_prompt		yes	string	Prompt The welcome prompt that plays when a caller dials into the IVR.

response_timeout		yes	int	Response Timeout The timeout that occurs when no DTMF input is detected for the configured number of seconds after an IVR prompt finishes playing.
digit_timeout		yes	int	Digit timeout The amount of time to enter each subsequent key after the first key entry. If no input is detected within the timeout period, the UCM will consider the entry complete. Default is 3 seconds.
timeout_prompt		yes	string	Response Timeout Prompt Play the selected prompt if response timeout occurs.
invalid_prompt		yes	string	Description doesn't match the parameter. Invalid Prompt Prompt that plays when invalid input is detected.
tloop		yes	int	Response Timeout Prompt Repeats Amount of times to repeat the response timeout prompt before redirecting the call to the timeout destination (if configured) or disconnecting the call.
iloop		yes	int	Invalid Input Prompt Repeats Number of times to repeat the invalid prompt before redirecting the call to the invalid destination (if configured) or disconnecting the call.
dial_extension	yes, no	no	string	Whether or not the IVR can dial regular extensions.
dial_queue	yes, no	no	string	Dial Other Extensions-queues
dial_ringgroup	yes, no	no	string	Dial Other Extensions-ring group
dial_vmgroup	yes, no	no	string	Dial Other Extensions-voicemail group
dial_paginggroup	yes, no	no	string	Dial Other Extensions-paging/intercom group
dial_fax	yes, no	no	string	Dial Other Extensions-fax
dial_trunk	yes, no	no	string	Dial trunk Whether or not the IVR can dial to trunks. If enabled, the IVR must have permission level configured.
dial_directory	yes, no	no	string	Dial Other Extensions-dial by name

permission	internal,internal-local,internal-local-national,international	no	string	permissioninternal-international-local-local-local-national-national-international-international
language		no	string	language
alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom	no	string	Alert-infoWhen present in an INVITE request, the Alert-info header field specifies an alternative ring tone to the UAS.
replace_caller_id		no	string	Replace Display Name
switch	nowhiteblack	no	string	IVR Black/Whitelistwhite: Only numbers in the whitelist can access this IVR.black: Numbers in the blacklist cannot access the IVR.
Failed response				
status		yes	int	Please see the error code list for more details.

listIVR

getIVR

The "getIVR" action allows users to get information about a specific IVR.

- Request

```
{
  "request":{
    "action":"getIVR",
    "cookie":"sid1682729010-1574760528",
    "ivr":"ivr-1"
  }
}
```

- Response

```
{ "response":{ "ivr":{ "alertinfo":"ring1", "dial_directory":"no", "dial_extension":"no",
"dial_failed_back2menu":"no", "dial_fax":"no", "dial_multimedia_conference":"no",
"dial_paginggroup":"no", "dial_queue":"no", "dial_ringgroup":"no", "dial_trunk":"yes",
"dial_vmggroup":"no", "digit_timeout":3, "extension":"7000", "iloop":3, "invalid_prompt":"invalid",
"ivr_blackwhite_list":"","ivr_id":"ivr-1", "ivr_name":"7000", "ivr_out_blackwhite_list":"1000",
"language":null, "permission":"internal-local", "replace_caller_id":"yes", "response_timeout":10,
"switch":"no", "timeout_prompt":"ivr-create-timeout", "tloop":3, "welcome_prompt":"welcome" },
"members":[ { "keypress":"i", "keypress_event":"member_prompt", "member_prompt":"goodbye" },{
"keypress":"t", "keypress_event":"member_prompt", "member_prompt":"goodbye" } ] }, "status":0}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				

cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
ivr?		yes	string	IVR number
Successful response				
status	0	yes	int	Successful response, status is 0
ivr_id		no	string	IVR id
ivr_name		yes	string	IVR name
extension		yes	string	IVR number, the extension number of automatic voice reply.
welcome_prompt		yes	string	Prompt The welcome prompt that plays when a caller dials into the IVR.
response_timeout		yes	int	Response TimeoutThe timeout that occurs when no DTMF input is detected for the configured number of seconds after an IVR prompt finishes playing.
digit_timeout		yes	int	Digit timeoutThe amount of time to enter each subsequent key after the first key entry. If no input is detected within the timeout period, the UCM will consider the entry complete. Default is 3 seconds.
timeout_prompt		yes	string	Response Timeout PromptPlay the selected prompt if response timeout occurs.
invalid_prompt		yes	string	Description doesn't match the parameter.Invalid PromptPrompt that plays when invalid input is detected.
tloop		yes	int	Response Timeout Prompt RepeatsAmount of times to repeat the response timeout prompt before redirecting the call to the timeout destination (if configured) or disconnecting the call.
iloop		yes	int	Invalid Input Prompt RepeatsNumber of times to repeat the invalid prompt before redirecting the call to the invalid destination (if configured) or disconnecting the call.
dial_extension	yes, no	no	string	Whether or not the IVR can dial regular extensions.
dial_queue	yes, no	no	string	Dial Other Extensions-queues

dial_ringgroup	yes, no	no	string	Dial Other Extensions-ring group
dial_vmgroup	yes, no	no	string	Dial Other Extensions-voicemail group
dial_paginggroup	yes, no	no	string	Dial Other Extensions-paging/intercom group
dial_fax	yes, no	no	string	Dial Other Extensions-fax
dial_trunk	yes, no	no	string	Dial trunk Whether or not the IVR can dial to trunks. If enabled, the IVR must have permission level configured.
dial_directory	yes, no	no	string	Dial Other Extensions-dial by name
permission	internal,internal-local,internal-local-national,internal-local-national-international	no	string	permissioninternal-internal internal-local-localinternal-local-national-nationalinternal-local-national-international-international
language		no	string	language
alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom	no	string	Alert-infoWhen present in an INVITE request, the Alert-info header field specifies an alternative ring tone to the UAS.
replace_caller_id		no	string	Replace Display Name
switch	nowhiteblack	no	string	IVR Black/Whitelistwhite: Only numbers in the whitelist can access this IVR.black: Numbers in the blacklist cannot access the IVR.
ivr_blackwhite_list		no	string	Internal Black/Whitelist
ivr_out_blackwhite_list		no	string	External Blacklist/WhitelistCan be used only when Dial Trunk is enabled. Numbers will be added as follows: number1, number2, number3.
members		no	Json array	Key Pressing Events
Failed response				
status		yes	int	Please see the error code list for more details.

getIVR

updateIVR

The "updateIVR" action allows users to update a specific IVR.

- Request

```
{ "request":{ "action":"updateIVR", "alertinfo":"ring2", "cookie":"sid1682729010-1574760528",
"dial_directory":"no", "dial_extension":"no", "dial_failed_back2menu":"no", "dial_fax":"no",
"dial_paginggroup":"no", "dial_queue":"no", "dial_ringgroup":"no", "dial_trunk":"yes",
"dial_vmgroup":"no", "digit_timeout":"3", "extension":"7000", "iloop":"3",
"invalid_prompt":"invalid", "ivr":"ivr-1", "ivr_name":"7000", "ivr_out_blackwhite_list":"1009",
"permission":"internal-local", "replace_caller_id":"yes", "response_timeout":"10", "switch":"no",
"timeout_prompt":"ivr-create-timeout", "tloop":"3", "welcome_prompt":"welcome" }}
```

- Response

```
{
"response":{
"need_apply":"yes"
},
"status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
ivr		yes	string	IVR number
ivr_name		yes	string	IVR Name
extension		yes	string	IVR number, the extension number of automatic voice reply.
welcome_prompt		yes	string	Prompt Initial tone that plays when the user enters the IVR.
response_timeout		yes	int	Response Timeout Timeout occurs when no DTMF entry is detected for the configured number of seconds after the IVR finishes playing the prompts.
digit_timeout		yes	int	Digit timeout After the user enters a digit, the user needs to enter the next digit within the timeout. If no digit is detected within the timeout, the PBX will consider the entries complete. The default timeout is 3 seconds.
timeout_prompt		yes	string	Response Timeout Prompt Play the selected prompt if response timeout occurs.
invalid_prompt		yes	string	Maximum calling period. In seconds, default is 0, which means unlimited.

tloop		yes	int	Response Timeout Prompt RepeatsNumber of times to repeat the prompt.After the final repeat, calls will be redirected to the Timeout destination (if configured) or dropped.
iloop		yes	int	Invalid Input Prompt RepeatsNumber of times to repeat the prompt.After the final repeat, calls will be redirected to the Invalid destination (if configured) or dropped.
dial_extension	yes, no	no	string	Dial Another Extensions-extension
dial_queue	yes, no	no	string	Dial Another Extensions-queues
dial_ringgroup	yes, no	no	string	Dial Another Extensions-ring group
dial_vmgroup	yes, no	no	string	Dial Another Extensions-voicemail group
dial_paginggroup	yes, no	no	string	Dial Another Extensions-paging/intercom group
dial_fax	yes, no	no	string	Dial Another Extensions-fax
dial_trunk	yes, no	no	string	Dial trunkIf enabled, users will be able to access trunks through this IVR. if using this feature, it is mandatory to configure permission.
dial_directory	yes, no	no	string	Dial Another Extensions-dial by name
permission	internal,internal-local,internal-local-national,internal-local-national-international	no	string	permissioninternal-internal internal-local-localinternal-local-national-nationalinternal-local-national-international-international
language		no	string	language
alertinfo	none, ring1, ring2, ring3, ring4, ring5, ring6, ring7, ring8, ring9, ring10, Bellcore-dr1, Bellcore-dr2Bellcore-dr3, Bellcore-dr4, Bellcore-dr5, custom	no	string	Alert-infoWhen present in an INVITE request, the Alert-info header field specifies an alternative ring tone to the UAS.
replace_caller_id		no	string	Replace Display Name
switch	nowhiteblack	no	string	IVR Black/Whitelist Only whitelisted numbers and numbers not blacklisted can be called from the IVR.
ivr_blackwhite_list		no	string	Internal Black/Whitelist
ivr_out_blackwhite_list		no	string	External Blacklist/Whitelist Can be used only when Dial Trunk is enabled. Numbers will be added as follows: number1, number2, number3.

members		no	Json array	Key Pressing Events
Successful response				
status		yes	int	the response is successful, status is 0
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

updateIVR

deleteIVR

The "deleteIVR" action allows users to delete an existing IVR.

- Request

```
{
  "request":{
    "action":"deleteIVR",
    "cookie":"sid1682729010-1574760528",
    "ivr":"ivr-1"
  }
}
```

- Response

```
{
  "response":{
    "need_apply":"yes"
  },
  "status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
ivr		yes	string	Talked to development team. This is the IVR index, not extension. Will be changed to IVR extension in the future.
Successful response				
status		yes	int	The response is successful, status is 0

need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

deleteIVR

User Information

listUser

The "listUser" action allows users to get information about a user.

- Request

```
{
  "request": {
    "action": "listUser",
    "item_num": "10",
    "sid": "extension",
    "sord": "asc",
    "page": "1",
    "cookie": "sid81747798-1551856142"
  }
}
```

- Response

```
{

  "response": {
    "user_id": [
      {
        "user_id": 0,
        "user_name": "admin",
        "privilege": 0,
        "department": null,
        "first_name": null,
        "last_name": null,
        "enable_multiple_extension": "no",
        "multiple_extension": null,
        "email": null,
        "language": null,
        "fax": null,
        "family_number": null,
        "phone_number": null,
        "cookie": "sid523099813-1555662509",
        "login_time": "2019-04-19 16:49:05",

```

```
"email_to_user":"no",
"ip":"192.168.129.55"
},
{
"user_id":2,
"user_name":"1083",
"privilege":3,
"department":null,
"first_name":"aaa",
"last_name":"aaa",
"enable_multiple_extension":"no",
"multiple_extension":null,
"email":null,
"language":null,
"fax":null,
"family_number":null,
"phone_number":null,
"cookie":null,
"login_time":null,
"email_to_user":"no",
"ip":null
},
{
"user_id":3,
"user_name":"1084",
"privilege":3,
"department":null,
"first_name":null,
"last_name":null,
"enable_multiple_extension":"no",
"multiple_extension":null,
"email":null,
"language":null,
"fax":null,
"family_number":null,
"phone_number":null,
"cookie":null,
"login_time":null,
"email_to_user":"no",
"ip":null
}
],
"total_item":3,
"total_page":1,
"page":1
},
"status":0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
page		no	int	Get extension list by page number.
sord	acs,desc	no	string	Sorting method. acs stands for ascending, and desc stands for descending.
sidx		no	string	Sort according to the index.
item_num		no	int	Extension number on each page, which is, the maximum items of each return. If empty, all members are returned by default.
options	department, first_name, last_name, email, language, fax, family_number, phone_number, login_time, ip	no	string	Specify obtaining options. Multiple can be set, separated by commas. If empty, all options are returned by default.
Successful response				
status	0	yes	int	Successful response, status is 0
total_item		yes	int	Total number of items on the list
total_page		yes	int	Total pages of the list
page		yes	int	What page is on.
user_id		no	int	User id
user_name		yes	string	User name
privilege		yes	int	The privilege level granted to the user.
department		yes	string	The department that the user belongs to.
first_name		yes	string	First name of the user
last_name		yes	string	Last name of the user
email		yes	string	Email address of the user. For example, "bobjones@bobjones.null".
language		yes	string	LanguageThe language that the user will hear voice prompts in."default" uses the language of global settings.
fax		yes	string	Fax number of the user.
family_number		yes	string	User family number

phone_number		yes	string	User phone number
login_time		yes	string	Last login time
ip		yes	string	IP address of the user.
Failed response				
status		yes	int	Please see the error code list for more details.

listUser

getUser

The "getUser" action allows users to obtain the user's configuration.

- Request

```
{
  "request": {
    "action": "getUser",
    "user_name": "1083",
    "cookie": "sid81747798-1551856142"
  }
}
```

- Response

```
{
  "response": {
    "user_name": {
      "login_time": null,
      "cookie": null,
      "phone_number": "18373710740",
      "family_number": "8888",
      "fax": "123",
      "language": "en",
      "email": "2453034231@gmail.com",
      "multiple_extension": null,
      "enable_multiple_extension": "no",
      "email_to_user": "yes",
      "last_name": "John",
      "first_name": "Doe",
      "department": "Documentation",
      "privilege": 3,
      "user_id": 2
    }
  },
  "status": 0
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
user_name		yes	string	username
Successful response				
status	0	yes	int	Successful response, status is 0
phone_number		yes	string	User phone number
family_number		yes	string	User family phone number
fax		yes	string	User fax
language		yes	string	LanguageLanguage of voice prompt."default" uses the language of global settings.
email		yes	string	The Email address of this user. For example, "bobjones@bobjones.null"
last_name		yes	string	The last Name of the user.
first_name		yes	string	The first Name of the user.
department		yes	string	The Department that the user belongs to
privilege		yes	int	The privilege level granted to the user.
user_id		yes	int	User id
Failed response				
status		yes	int	Please see the error code list for more details.

getUser

updateUser

The "updateUser" action allows users to update a user.

- Request

```
{

  "request":{
    "user_name":"1083",
    "department":"R&D department 2",
    "fax":"123",
    "email":"gangwang@grandstream.cn",
    "first_name":"aaa",
    "last_name":"aaa",
```

```

"family_number": "8888",
"phone_number": "18373710740",
"privilege": "3",
"action": "updateUser",
"user_id": "2"
}

}

```

- Response

```

{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}

```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
user_name		yes	string	username
phone_number		yes	string	User phone number
family_number		yes	string	User family phone number
fax		yes	string	User fax
email		yes	string	The Email address of this user. For example, "bobjones@bobjones.null".
last_name		yes	string	The last Name of the user.
first_name		yes	string	The first Name of the user.
department		yes	string	The Department that the user belongs to
Privilege		yes	Int	The privilege level granted to the user.
user_id		yes	int	User id
Successful response				
status		yes	int	The response is successful, status is 0
need_apply	yes, no	yes	string	Whether "Apply" is required for the configuration to take effect
Failed response				
status		yes	int	Please see the error code list for more details.

Extension Groups

listExtensionGroup

The "listExtensionGroup" action allows users to list extension groups.

- Request

```
{
  "request": {
    "action": "listExtensionGroup",
    "item_num": "10",
    "sidx": "group_name",
    "sord": "asc",
    "page": "1",
    "cookie": "sid81747798-1551856142"
  }
}
```

- Response

```
{
  "response": {
    "extension_group": [
      {
        "group_id": "group-3",
        "group_name": "1083",
        "members": "1083",
        "tmp": "group-3"
      },
      {
        "group_id": "group-2",
        "group_name": "45",
        "members": "1083,1084",
        "tmp": "group-2"
      },
      {
        "group_id": "group-1",
        "group_name": "ew",
        "members": null,
        "tmp": null
      }
    ],
    "total_item": 3,
    "total_page": 1,
    "page": 1
  },
  "status": 0
}
```

```
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
page		no	int	username
sord	acs,desc	no	string	User phone number
sidx		no	string	User family phone number
item_num		no	int	User fax
options	group_name, members, group_id	no	string	The Email address of this user. For example, "bobjones@bobjones.null"
Successful response				
status		yes	int	The response is successful, status is 0
total_item	yes, no	yes	int	Whether "Apply" is required for the configuration to take effect
total_page		yes	int	Total pages of the list
page		yes	int	What page is on.
group_id		no	int	Group id
group_name		yes	string	Group name
members		yes	int	Extensions in the group
Failed response				
status		yes	int	Please see the error code list for more details.

listExtensionGroup

Phonebook Management

The UCM IPPBX implements all phonebooks using an internal LDAP directory. Every contact is stored as an LDAP object inside the PBX and uniquely identified by: (phonebook_dn, accountnumber)

Where:

- **phonebook_dn** specifies the LDAP branch where the contact is stored
- **accountnumber** is the contact's unique number within that branch

The following contact APIs operate on LDAP objects:

1. **addContact**
2. **updateContact**
3. **deleteContact**

ou=pbx,dc=pbx,dc=com is a system-generated **read-only** phonebook containing PBX objects, while all other phonebooks are writable via HTTPS API, including:

- Trunk synced phonebooks.
- User-created phonebooks.
- Phonebooks synced from external systems (Windows AD, SQL, etc.)

The following sections describe in detail each of these APIs, including their request and response parameters.

addContact

The addContact command is used to create a new contact entry inside a specified phonebook branch in the UCM LDAP directory. After a contact is created, the change does not take effect until applyChanges is executed.

The example below adds a contact with account number 123123 to a writable phonebook.

```
{
  "request": {
    "action": "addContact",
    "cookie": "sid81747798-1551856142",
    "calleridname": "test123",
    "email": "wylu@grandstream.cn",
    "firstname": "wy",
    "lastname": "lu",
    "fax": "110110",
    "homenumber": "110110",
    "mobilenumber": "111111",
    "department": "dev",
    "position": "Engineer",
    "accountnumber": "123123",
    "phonebook_dn": "ou=Grandstream,dc=pbx,dc=com"
  }
}
```

The following table defines all parameters that can be supplied when calling addContact.

Parameter	Value	Must	Type	Note
session_name		no	string	The value returned after login is used to support multi-tab login.
accountnumber		yes	int	Account numbers must be unique and can only be numbers.
calleridname		yes	string	Caller ID Name
email		yes	string	Email address
firstname		yes	string	name
lastname		yes	string	Surname
fax		yes	string	fax
department		yes	string	department
mobilenumber		yes	string	phone number
homenumber		yes	string	Home phone

position		yes	string	Position
phonebook_dn	UCM's existing phonebook_dn	yes	string	Node Name

When the contact is created successfully, the PBX returns whether applyChanges is required.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Keywords	Value	Type	Note
status		int	The response was successful, and the status is 0.
need_apply	yes , no	string	Do I need to call applychanges to make the configuration take effect?

If the request fails, the PBX returns:

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

updateContact

The updateContact command is used to modify an existing contact stored in a phonebook. The example below updates the contact 1000 in phonebook ou=test,dc=pbx,dc=com.

```
{
  "request": {
    "action": "updateContact",
    "cookie": "sid81747798-1551856142",
    "calleridname": "test123",
    "email": "abc@grandstream.cn",
    "firstname": "wy",
    "lastname": "lu",
    "email": "wylu@grandstream.cn",
    "family_number": "1111111111",
    "fax": "110110",
    "homenumber": "110110",
    "mobilenumber": "111111",
    "department": "dev",
    "position": "Engineer",
    "accountnumber": "123123",
    "ldap_contacts": {
      "phonebook_dn": "ou=test,dc=pbx,dc=com",
      "accountnumber": "1000"
    }
  }
}
```

The following table defines all parameters that can be supplied when calling `updateContact`.

Parameter	Value	Must	Type	Note
session_name		no	string	The value returned after login is used to support multi-tab login.
accountnumber		yes	int	Updated accountnumber. Can match existing ldap_contacts accountnumber.
calleridname		yes	string	Updated Caller ID name
email		yes	string	Updated Email address
firstname		yes	string	Updated name
lastname		yes	string	Updated surname
fax		yes	string	Updated fax
department		yes	string	Updated department
mobilenumber		yes	string	Updated mobile phone number
homenumber		yes	string	Updated home phone
position		yes	string	Updated position
ldap_contacts		yes	json	Object identifying the contact to update. Must include phonebook_dn and accountnumber.

When the contact is updated successfully, the PBX returns whether `applyChanges` is required.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Keywords	Value	Type	Note
status		int	The response was successful, and the status is 0.
need_apply	yes , no	string	Do I need to call <code>applychanges</code> to make the configuration take effect?

If the request fails, the PBX returns:

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

deleteContact

The `deleteContact` command removes a contact from a phonebook. The contact is identified by `ldap_contacts`, which provides the contact's **phonebook_dn** and **accountnumber**.

If the contact is referenced by ringing groups, `ringgroup_mem_exten` must also be supplied to remove those associations.

The example below deletes contact 1000 from phonebook ou=test,dc=pbx,dc=com.

```
{
  "request": {
    "action": "deleteContact",
    "ldap_contacts": {
      "phonebook_dn": "ou=test,dc=pbx,dc=com",
      "accountnumber": "1000"
    },
    "ringgroup_mem_exten": {
      "phonebook_dn": "ou=test,dc=pbx,dc=com",
      "accountnumber": "1000"
    }
  }
}
```

The table below describes all parameters that can be supplied when using the deleteContact command.

Parameter	Value	Must	Type	Note
session_name		no	string	Session identifier for multi-tab login.
ldap_contacts		yes	json	Identifies the contact to delete (DN + account number).
ringgroup_mem_exten		yes	json	Removes the contact from ring group (DN + account number).

When the contact is deleted successfully, the PBX returns whether applyChanges is required.

```
{
  "response": {
    "need_apply": "yes"
  },
  "status": 0
}
```

Keywords	Value	Type	Note
status		int	The response was successful, and the status is 0.
need_apply	yes , no	string	Do I need to call applychanges to make the configuration take effect?

If the deletion request fails, the PBX returns:

Keywords	Value	Type	Note
status		int	Error code. See Section (Error Codes) for details.

CDR

cdrapi

The "cdrapi" action allows users to get the CDR database.

- Request

```
{
  "request":{
    "action":"cdrapi",
    "cookie":"sid1381890074-1574854661",
    "format":"json"
  }
}
```

- Response

```
{
  "cdr_root":[
    {
      "AcctId":"1",
      "accountcode":"",
      "action_owner":"1004",
      "action_type":"PAGE[8005]",
      "amaflags":"DOCUMENTATION",
      "answer":"2019-11-27 07:17:13",
      "billsec":"1",
      "caller_name":"1004",
      "cdr":"1574857028274003-1004",
      "chanext":"",
      "channel":"PJSIP/1004-00000010",
      "channel_ext":"1004",
      "clid":"\"1004\" <1004>",
      "dcontext":"pagegroups",
      "disposition":"ANSWERED",
      "dst":"8005",
      "dst_trunk_name":"",
      "dstanswer":"8005",
      "dstchanext":"",
      "dstchannel":"MulticastRTP/0x47e2650c",
      "dstchannel_ext":"0x47e2650c",
      "duration":"6",
      "end":"2019-11-27 07:17:14",
      "lastapp":"Dial",
      "lastdata":"MulticastRTP/basic/224.0.1.2:8080,10,zA()",
      "recordfiles":"",
      "service":"p",
      "session":"1574857028274003-1004",
      "src":"1004",
      "src_trunk_name":"",
      "start":"2019-11-27 07:17:08",
      "uniqueid":"1574857028.56",
      "userfield":"Internal"
    }
  ]
}
```

```
]
}
```

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
format	csv, xml, json	no	int	username
numRecords	[0,1000]	no	string	User phone number
offset	number	no	string	User family phone number
caller	Extension separated by comma, extension range, caller regular expression	no	string	The filter can find call records that match the input parameter, based on source (caller) number or destination (callee) number. A format including wildcard ('@' or '_') will be treated as regular expression. ',' is treated as range symbol rather than hyphen; '@' represents characters of any digit(including 0); '_' represents one character. Otherwise, digits including a hyphen will be recognized as an
callee				
startTime	Date and /or time, format is as follows: YYYY-MM-DDTHH:MMYY YY-MM-DDTHH:MM:SSY YYY-MM-DDTHH:MM:SS. SSS('T' is the separator of the 3 formats)HH:MMHH:MM:S SHH:MM:SS.SSS	yes	int	Filter is based on value of starting time. It matches calls start time in this period, despite the time of answering or hangup. If null, there is no limitation of minimum and maximum start time. If date is null, the default date is 2000-01-01; If time is null,
endTime				
minDur	Number(in seconds)	no	int	Filter is based on call duration.
maxDur				
answeredby		no	string	callee
timeFilterType	Start, End	no	string	
callerName		no	string	
delete		no	string	Delete CDR records
Successful response				
Consistent with former cdrapi interface. Return corresponding content based on format.				
Failed response				
status		yes	int	Please see the error code list for more details.

cdrapi

For more details regarding parameters to use in the request please refer to:

Recordings

Recapi

Local Files

The "recapi" action allows users to download the wanted audio file.

- Request

```
{
  "request":{
    "action":"recapi",
    "cookie":"sid1381890074-1574854661",
    "filedir":"monitor",
    "filename":"auto-1574857256-1003-1004.wav"
  }
}
```

- Response

Once successful, it will prompt you to choose a location to save the downloaded file.

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
filedir	monitor, emergencymeetme, queue, sca	no	string	Which type of record file to obtain. Multiple can be separated commas.If filename and filedir are null at the same time, the supported filedir list will be returned.If only filename is set, filedir is set to monitor as default.
filename		no	string	If only filedir is set, all csv files of the corresponding type will be returned. When multiple files are downloaded, they are separated bt commas.
Successful response				
Consistent with former cdrapi interface. Return corresponding content based on format.				
Failed response				
Consistent with original recapi interface. Error description.				

GDMS and NAS Files

To retrieve recording files that are stored on GDMS and NAS files use the following parameters and values:

Key Word	Value	Mandatory	Type	Note
Request Parameter				
Cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.
Filedir	monitor, emergencymeetme, queue, sca	no	string	Which type of record file to obtain. Multiple can be separated commas.If filename and filedir are null at the same time, the supported filedir list will be returned.If only filename is set, filedir is set to monitor as default.
gdms_date		no	string	Enter the recording date. If the parameter is not included in the request, the value "thismonth" will be used.
gdms_item_number		no	integer	Enter the max number of recordings to view/retrieve. If the parameter is not included in the request, the value 20 will be used.
gdms_page		no	Integer	Enter the number of pages of recordings you want to view/retrieve. If the parameter is not included in the request, the value requested will be 1.
path_type	gdms, netdisk	yes	string	Enter the location of the recordings to view/retrieve information from. "gdms" indicates gdms cloud platform. "netdisk" indicates NAS.

- Get Request

```
{
  "request":{
    "action":"recapi",
    "cookie":"sid173710538-1681394925",
    "filedir":"monitor",
    "gdms_date":"2023-04",
    "gdms_item_number":"20",
    "gdms_page":"1",
    "path_type":"gdms"
  }
}
```

- Get Response

```
Directory,Filename,uniqueCode
monitor,auto-1680780504-2015-2002.venc,18831795fad74300a949bc353fa91f65
monitor,auto-1680780501-2015-2002.venc,9c2d11eadb6c41089b16647c721ce50e
monitor,auto-1680779629-2015-2002.venc,0b38ccfcad934ae6b11503c33915d5b1
monitor,auto-1680779623-2015-2002.venc,d0dbc060a4f84c81a976c5c90fb0e778
```

- Download Request

```
{
  "request":{
    "action":"recapi",
    "cookie":"sid2044000962-1681399117",
    "filedir":"monitor",
    "filename":"auto-1680779623-2015-2002.venc",
    "path_type":"gdms",
    "uniquecode":"d0dbc060a4f84c81a976c5c90fb0e778"
  }
}
```

Downloading from NAS is similar and would only require changing the path_type to "netdisk".

- Get Request

```
{
  "request":{
    "action":"recapi",
    "cookie":"sid173710538-1681394925",
    "filedir":"monitor",
    "path_type":"netdisk"
  }
}
```

For more details regarding parameters to use in the request please refer to:

<https://documentation.grandstream.com/knowledge-base/cdr-rec-api/>

getRecordInfosByCall

The "getRecordInfosByCall" allows the user to retrieve the names of the recording files.

- Request

```
{
  "request":{
    "action":"getRecordInfosByCall",
    "id":"2",
    "cookie":"sid348153148-1729096598"
  }
}
```

- Response

```
{
  "response":{
    "recordfiles":"2024-10/auto-1526845607-1003-1005.wav,2024-10/auto-1526845833-1003-1005.wav"
  },
  "status":0
}
```

Parameter	Supported Values	Required	Type	Note
cookie		yes	string	Required by almost all requests. Cookie value is generated after a successful login. Without a valid cookie, error code -6 will be returned.
id		yes	string	The id of the CDR entry with the recording. Which is the "AcctId" field from the returned cdrapi action. Users can filter the cdrapi by time to simplify the search as such: <pre> "request":{ "action":"cdrapi", "cookie":"sid28003956-1731578210", "endTime":"2024-11-14T11:00:00", "startTime":"2024-11-14T10:00:00", "format":"json" }</pre>

getRecordInfosByCall

Pmsapi

The pmsapi action allows users to perform PMS (Property Management System) functions such as check-in, checkout, minibar management, wake-up calls, and more. Each sub-command defines a specific action within the PMS integration.

Below are the available PMS API actions and their request/response formats.

Check-in

The "checkin" action is used to register a guest into the system. It stores guest information such as name, room number, dates, and credit details.

- Request

```

{ "request":{ "action":"pmsapi", "cookie":"sid992645785-1575025577", "data":"<pms_data_request>
<checkin> <address>1001</address> <room>1001</room> <account>1001</account>
<firstname>John</firstname> <lastname>Doe</lastname> <language>EN</language> <vipcode>2</vipcode>
<datein>2021/01/01 10:00</datein> <dateout>2021/01/07 11:00</dateout> <credit>9999900</credit>
<cos>3</cos> </checkin> </pms_data_request>", "format":"xml",
"token":"16c4a7b1fe890f89c8908f3f522fc18f" }}
```

- Response

```

{
  "response": {},
  "status": 0
}
```

The parameters included in the checkin action are describes in the table below:

Key Word	Value	Mandatory	Type	Note
Request parameter				
cookie		yes	string	Returned value after login. All requests must include this value. If no cookie is included, error code -6 will be returned.

token		no	string	String consists of PMS username and password after md5 encryption.
data	xml, json	yes	string	Type of data string String in xml or json format: ---- xml ----<pms_data_request><checkin><address>1000</address><room>100</room><account>123456</account><firstname>John</firstname><lastname>Doe</lastname><language>EN</language><vipcode>2</vipcode><datein>2010/01/01 10:00</datein><dateout>2010/01/07 11:00</dateout><credit>9999900</credit><cos>3</cos></checkin></pms_data_request>---- json ----{"checkin": {"address": "2345", "room": "2345", "account": "2345", "datein": "20180909", "dateout": "20180910", "language": "en", "firstname": "grand", "lastname": "stream", "vipcode": "1234", "cos": "1", "credit": "100"}}
address				identifier recognized by destination
room				room number, source room
account				account number
firstname				firstname of guest
lastname				lastname of guest
language				language for account
vipcode				vipcode
datein				datein format YYYY/MM/DD hh:mm
dateout				dateout format YYYY/MM/DD hh:mm
credit				credit
cos				call permission 1 < 2 < 3 < 4
d_address				Mov :destination address
r_room				Move :destination room
w_action	0,1			1 = set. 0 = cancel
w_mode	1,2			1 = single (default). 2 = daily.
w_date	YYYYMMDD			wakeup date format YYYYMMDD
w_time	HHMM			wakeup time format HHMM

status	0, 1, 2, 3, 4, 5, 6	No	int	Each value means a specific status. Find below each status with its corresponding code. 0 = Not checked in (This is the default status of a newly created room and cannot be set via PMS API Update) 1 = Available 2 = Cleaning 3 = Repairing 4 = Vacant 5 = Dirty 6 = Closed
Successful response				
status	0	yes	int	Successful response,status is 0
Failed response				
status	0	yes	int	Status is -1
error		yes	string	Error description

Pmsapi

The following actions can also be done using pmsapi action :

Update

The "update" action modifies an existing guest record, allowing updates to personal details, credit, call permissions, or status.

```
{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request>
<update>
<address>1000</address>
<room>100</room>
<account>123456</account>
<firstname>John</firstname>
<lastname>Doe</lastname>
<language>EN</language>
<vipcode>2</vipcode>
<datein>2010/01/01 10:00</datein>
<dateout>2010/01/07 11:00</dateout>
<credit>9999900</credit>
<cos>3</cos>
<status>3</status>
</update>
</pms_data_request>"
  }
}
```

Mov

The "mov" action transfers a guest from one room to another. It updates both the source and destination room records in the PMS.

```
{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request>
      <mov>
        <address>1000</address>
        <room>100</room>
        <d_address>1002</d_address>
        <d_room>1002</d_room>
      </mov>
    </pms_data_request>"
  }
}
```

Wakeup

The "wakeup" action sets or cancels a wake-up call for a room. Users can define the wake-up time, date, and whether the action should be single or daily.

```
{
  "request": {
    "action": "pmsapi",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request>
      <wakeup>
        <address>1000</address>
        <room>1000</room>
        <w_action>1</w_action>
        <w_mode>1</w_mode>
        <w_date>20140101</w_date>
        <w_time>0900</w_time>
      </wakeup>
    </pms_data_request>",
    "cookie": "sid612583207-1551962142"
  }
}
```

Checkout

The "checkout" action removes a guest record from the PMS system when the guest checks out.

```
{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
```

```
"token": "63E780C3F321D13109C71BF81805476E",
"format": "xml",
"data": "<pms_data_request>
<checkout>
<address>1000</address>
<room>100</room>
</checkout>
</pms_data_request>"
}
```

Update Mini Bar

The "updateMinibar" command allows users to configure or modify minibar-related settings for a specific extension. If the addextension field is left blank, the command will delete the existing configuration for that extension.

The key parameters for this command are:

Parameter	Type	Description
addextension	String	The extension number to configure. Leave blank to delete the existing configuration.
prompt	String	The audio prompt to play during the call. Format: record/<PromptName>. record/ is fixed; <PromptName> is the name of the audio file.
verifyskip	String	Skip housekeeper and password authentication when set to "yes". Default housekeeper code is 0000.
listgoods	String	Enable multi-item billing when set to "yes". Users can enter multiple goods in a single call separated by *.

```
{ "request":{ "action":"pmsapi", "cookie":"sid536559988-1761532063", "data":{ "updateMinibar":{
"addextension":"1245", "prompt":"record/Announcement", "verifyskip":"yes", "listgoods":"yes" } },
"format":"json", "token":"1f0c5a9f3c4668d4fe8493daacc03f2b" }}
```

Add Mini Bar goods

The addminibargoods action adds a new item to the minibar's list of available goods for billing.

```
{
"request": {
"action": "pmsapi",
"token": "63E780C3F321D13109C71BF81805476E",
"cookie": "sid612583207-1551962142",
"format": "xml",
"data": "<pms_data_request><addminibargoods>
<goodscode>900</goodscode>
<goodsname>beverage</goodsname>
</addminibargoods>
</pms_data_request>",
}
```

Delete Mini Bar goods

The "delminibargoods" action removes a minibar item from the system based on its goodscodes.

```
{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request><delminibargoods>
<goodscodes>900</goodscodes>
</delminibargoods>
</pms_data_request>"
  }
}
```

List Mini Bar goods

The "listMiniBarGoods" action retrieves a list of all goods available for minibar billing, including their prices, tax rates, and extensions.

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-failure",
        "prompt_success": "set-success"
      },
      {
        "amount": "5",
        "extension": "02",
        "goods_name": "banana",
        "goods_tax": 1.1,
        "prompt_error": "set-failure",
        "prompt_success": "set-success"
      }
    ]
  }
}
```

```

},
{
  "amount": "",
  "extension": "03",
  "goods_name": "paper",
  "goods_tax": 0.0,
  "prompt_error": "set-failure",
  "prompt_success": "set-success"
}
],
"page": 1,
"total_item": 3,
"total_page": 1
},
"status": 0
}

```

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 of billing.

Get Mini Bar information

The "getMiniBar" action retrieves current minibar configuration settings such as extensions, prompts, tax rates, and enablement status.

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
}

```

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).
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.

Add Waiter

The "adminibarwaiter" action adds a housekeeper or waiter account authorized to perform minibar billing, using their maid code and password.

```

{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request><adminibarwaiter>
<maidcode>9898</maidcode>
<password>1324</password>
</adminibarwaiter>
</pms_data_request>"
  }
}

```

Delete Waiter

The "delminibarwaiter" action removes a previously added waiter or housekeeper account from the minibar authorization list.

```
{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request><delminibarwaiter>
<maidcode>9898</maidcode>
</delminibarwaiter>
</pms_data_request>"
  }
}
```

Callforward unconditional

The "cfu" action enables call forwarding for a specific room extension to another destination extension.

```
{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request><cfu>
<address>4000</address>
<room>400</room>
<cfwt>4002</cfwt>
</cfu>
</pms_data_request>"
  }
}
```

DND

The "dnd" action enables or disables the Do Not Disturb status for a given room.

```
{
  "request": {
    "action": "pmsapi",
    "cookie": "sid612583207-1551962142",
    "token": "63E780C3F321D13109C71BF81805476E",
    "format": "xml",
    "data": "<pms_data_request><address>4000</address>
<room>400</room>
<status>0</status>
</dnd>
</pms_data_request>"
  }
}
```

List PMS rooms

The "listPMSRoom" action retrieves all existing rooms configured in the PMS, including their occupancy status, call permissions, and guest information (if checked in).

This allows administrators to review the current state of guest rooms across the property.

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
}
```

Parameters:

Parameter	Type	Description
user_name	String	Guest's full name
vipcode	String	Guest's category code
address	String	Unique identifier of the room
extension	String	Extension number of the room
room	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	Check-in 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	int	Room status. The supported statuses are: 0 - Not checked in (This is the default status of a newly created room and cannot be set via PMS API Update) 1 - Available 2 - Cleaning 3 - Repairing 4 - Vacant 5 - Dirty 6 - Closed
s_time	String	Room status change time
s_date	String	Room status change date

Get PMS Room

The "getPMSRoom" action retrieves a specific room configured in the PMS, including its occupancy status, call permissions, and guest information (if checked in).

This allows administrators to review the current state of a specific room.

Request:

```
{ "request":{ "action":"pmsapi", "cookie":"sid1293149398-1791458401", "data":{ "getPMSRoom":{
"room":"1001" } }, "token":"a12ad00a951c4d9f46c539b4b724dd09" }}
```

Successful Response:

```
{ "response":{ "address":{ "account":"1001", "actual_datein":"2026-10-08 10:00",
"actual_pay":"49.99", "address":"1001", "advance_pay":"20", "chki_status":"yes",
"credit":"9999900", "datein":"2026-10-08 10:00", "dateout":"2026-10-08 16:00",
"default_permission":"internal", "extension":"1001", "group_name":"comfort", "hourly_room":"yes",
"maid":"", "room":"1001", "room_type_id":"room_type-0", "room_type_name":"suite", "s_date":"",
"s_time":"", "status":"1", "unit_price":"60", "vipcode":"2" } }, "status":0}
```

Parameters:

Parameter	Type	Description
vipcode	String	Guest's category code
address	String	Unique identifier of the room
extension	String	Extension number of the room
room	String	Room number
account	String	Guest's account number
datein	String	Check-in date
dateout	String	Check-out date
credit	String	Guest's credit amount
chki_status	String	Check-in status
default_permission	String	Default calling privileges of the room upon check-in
status	int	Room status. The supported statuses are: 0 - Not checked in (This is the default status of a newly created room and cannot be set via PMS API Update) 1 - Available 2 - Cleaning 3 - Repairing 4 - Vacant 5 - Dirty 6 - Closed
s_time	String	Room status change time
s_date	String	Room status change date
actual_datein	String	Room actual check-in date
unit_price	Double	Room rate
actual_pay	Double	Actual amount charged to the guest
advance_pay	Double	Amount paid in advance by the guest
maid	String	Code of the assigned housekeeper
hourly_room	String	Specifies whether the room is rented hourly or for a full day. The supported values are: Yes No
room_type_id	String	ID of the room type
room_type_name	String	Name of the room type
group_name	String	Name of the room group

Get PMS room goods

The "getPMSRoomGoods" action retrieves minibar billing status for a specific room. This includes which items were consumed, their price, tax, and associated service log details.

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
}

```

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

addMessageBroadcast

This API command allows broadcasting a message to extensions.

- Request

The request below sends a message to extensions 1000, 1001, and 1002 in department with ID "1" (found through [listDepartment](#) command)

```

{
  "request":{
    "action":"addMessageBroadcast",
    "subject":"the name of this broadcast",
    "source":"Sender Name",
    "content":"Message Content",
    "recipient":{"extension\":"\",
      \"department\":"\", \"extension_group\":"\", \"department_extension\":[{\"department_id\":"1\", \"extension\":"1002\"}, {\"department_id\":"1\", \"extension\":"1001\"}, {\"department_id\":"1\", \"extension\":"1000\"}]}},
    "cookie":"sid299755200-1721961953"
  }
}

```

```
}
```

Sending a message to extension groups "group-3" and "group-2"

```
{
  "request":{
    "action":"addMessageBroadcast",
    "subject":"the name of this broadcast",
    "source":"Sender Name",
    "content":"Message Content",
    "recipient":{"\extension\":"\", \"department\":"\", \"extension_group\":"group-3, group-2\", \"department_extension\":[ ]},
    "cookie":"sid299755200-1721961953"
  }
}
```

Sending a message to ring group "6400"

```
{
  "request":{
    "action":"addMessageBroadcast",
    "subject":"the name of this broadcast",
    "source":"Sender Name",
    "content":"Message Content",
    "recipient":{"\extension\":"\", \"department\":"\", \"extension_group\":"\", \"department_extension\":[{\department_id\":"1\", \"extension\":"6400\"}]},
    "cookie":"sid299755200-1721961953"
  }
}
```

Parameter	Supported Values	Required	Type	Note
cookie		yes	string	Required by almost all requests. Cookie value is generated after a successful login. Without a valid cookie, error code -6 will be returned.
subject		yes	string	Enter the name/subject of the message broadcast.
source		no	string	Enter the sender name of the message broadcast.
content		no	json string	Enter the message contents of the broadcast.
recipient		yes	json string	Enter the recipients of the message broadcast.

addMessageBroadcast

Device Management

listIPC

The listIPC command is used to query all IPC (IP Camera) devices registered on the IPPBX. It returns the device number, name, IP address, streaming parameters, and online status, and supports pagination and sorting.

This API is typically used by management applications to build camera inventories, monitor reachability, and map cameras to extensions.

The following example retrieves the complete IPC device list.

```
{
  "request": {
    "action": "listIPC",
    "cookie": "sid81747798-1551856142"
  }
}
```

The following table defines all parameters that can be supplied when calling listIPC.

Parameter	Must	Type	Note
cookie	yes	String	The value returned after login must be included in all requests. If cookies are not included, error code -6 is returned.
page	no	Integer	You can retrieve the extension list in pages and specify which page it is on.
item_num	no	Integer	The pagination count determines the maximum number of members returned each time; if not set, all members are returned by default.
sort	no	String	Sorting rules. The supported values are:asc: ascending order desc: descending orderThe default value is "asc".
sidx	no	String	Sort by this field. Value range: For details on extension, ipc_name, and status, please see the response parameter description table below.

When the request succeeds, the PBX returns the IPC device list.

```
{
  "response": {
    "ipc": [
      {
        "extension": "6000",
        "ipc_name": "hkvision",
        "ipc_host": "192.168.129.104",
        "ipc_port": 554,
        "status": "Unmonitored",
        "enable_qualify": "no",
        "streaming_protocol": "rtsp"
      }
    ],
    "page": 1,
    "total_item": 1,
    "total_page": 1
  },
  "status": 0
}
```

The following parameters are returned when the request is successful.

Parameter	Type	Note
status	int	The response was successful, and the status is 0.
total_item	int	Total number of list members.
total_page	int	How many pages are there in the list?
page	int	Which page is this list on?
ipc	JSONArray	IPC devices.
extension	string	IPC device number.
ipc_host	string	the IPC device.
ipc_name	string	IPC device name.
ipc_port	int	IPC device port.
streaming_protocol	string	Protocol for obtaining streams
enable_qualify	string	Enable heartbeat detection. Values: yes, no.
status	string	IPC Status. The possible values are:Unmonitored: Not monitoredReachable: AvailableUnreachable: Unavailable

Error Return Codes

Code	Description
-0	Success
-1	Invalid parameters
-5	Need authentication
-6	Cookie error
-7	Connection closed
-8	System timeout
-9	Abnormal system error!
-15	Invalid value
-16	No such item. Please refresh the page and try again
-19	Unsupported
-24	Failed to operate data
-25	Failed to update data
-26	Failed to get data
-37	Wrong account or password!
-43	Some data in this page has been modified or deleted. Please refresh the page and try again
-44	This item has been added
-45	Operating too frequently or other users are doing the same operation. Please retry after 15 seconds.
-46	Operating too frequently or other users are doing the same operation. Please retry after 15 seconds.
-47	No permission
-50	Command contains sensitive characters

-51	Another task is running now
-57	Operating too frequently, or other users are doing the same operation. Please retry after 60 seconds
-68	Login Restriction
-69	There is currently a conference going on. Changes cannot be applied at this time
-70	Login Forbidden
-71	The username doesn't exist
-90	The conference is busy, cannot be edited or deleted
-98	There are currently digital calls. Failed to apply configuration

Error Return Codes

CHANGELOG

This section documents significant changes from previous versions of the UCM API Guide. Only major API capabilities, new interfaces, or major documentation expansions are listed. Minor corrections and editorial changes are not included.

FP15 API Release

- Added full LDAP phonebook write support through HTTPS API. [[Phonebook Management](#)]

FP14 API Release

- Updated Wake-Up Service API to support redial count and redial interval parameters. [[Wakeup](#)]
- Enhanced Call Queue APIs with extended parameters. [[Call Queue](#)]

FP13 API Release

- Added Message Broadcast API for sending system announcements to extensions and paging groups. [[addMessageBroadcast](#)]
- Enhanced listQueue with dynamic member and live-chat mode visibility. [[listQueue](#)]
- Extended PMS API to support room status modification and recorded file lookup through CDR. [[Pmsapi](#)]
- Expanded Call Queue creation with notification prompts, notification frequency, and queue voice alert settings. [[Call Queue](#)]

FP11B API Release

- Extended dialExtension API compatibility range for new firmware series. [[DialExtension](#)]
- Added API support for updating user information by extension number. [[updateSIPAccount](#)]
- Added API support for adding and deleting SIP extensions. [[deleteUser](#)][[Add SIPAccountAndUser](#)]

FP11 API Release

- Added pagination support to list APIs via item_num parameter. [[listAccount](#)][[listVoIPTrunk](#)]
- Removed dial_conference parameter from IVR API. [[IVR](#)]
- Added PMS minibar status query capability. [[List Mini Bar goods](#)]

FP10 API Release

- Redesigned Call Queue API with expanded queue parameter model. [[Call Queue](#)]
- Added Wave chat history clearing API. [[cleanTerminalChatInformation](#)]
- Added API to retrieve Wave QR codes. [[getSIPAccountQR](#)]