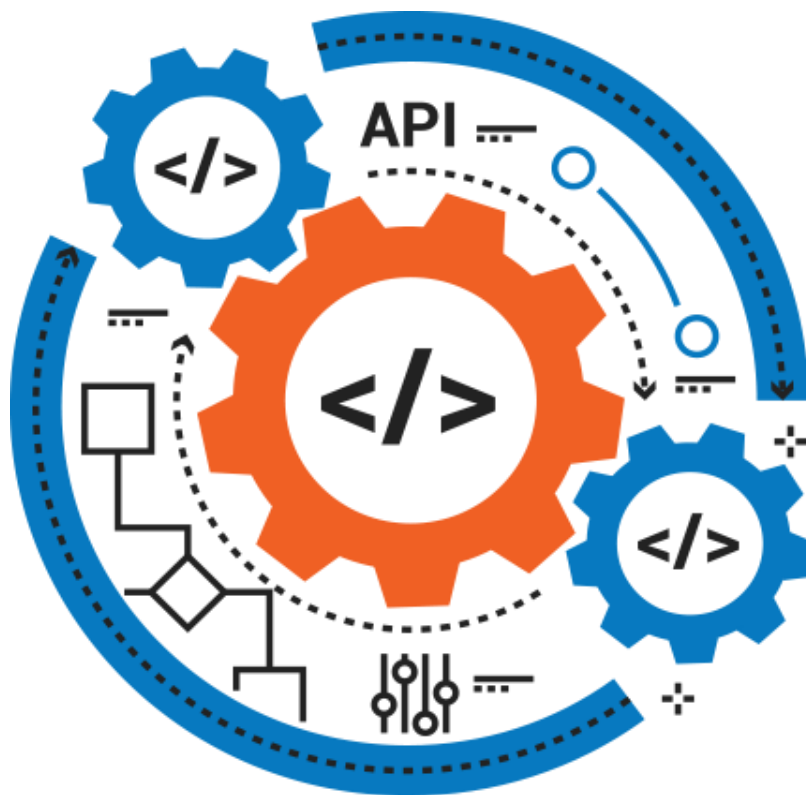


API Documentation



Version 1.3

API Documentation Contents

Common	3
Authentication	3
Originate a Call – Click To Call	4
Phone Lists	5
Phone List Leads	6
Users	8
Agents	11
Events	15
Queues	17

Common

Our API is REST-based web-service.

All URLs referenced in the documentation have the same following base:

```
https://{your_URL}
```

All API requests return JSON object with 'success' flag and optional error message 'msg'.

success	Success status (boolean <code>true</code> or <code>false</code>)
msg	(optional) error message if success=false
data	(optional) results

Tip: Use the UI with Chrome developer console (network tab), to see examples of requests and submitted/returned data.

Authentication

We use key authentication.

To setup a key create or edit user in the UI.

Go to the [Security](#) tab to generate and copy [API Auth Key](#).

To add required permissions to the user, you'll need [Call Center API](#) permission and permission for modules you want to manage with that user.

For additional security, it is good to limit the API user to IP Range or Country.

Add the parameter `api_key` to every request (GET, POST, etc.)

Requests with wrong or missing `api_key` will return with HTTP code 401 and msg: "Unauthorized".

Originate a Call – Click To Call

Click to Call allows you to perform outbound calls by launching an API URL request with a click of a button.

It benefits your agents by enabling them to reach more leads, simplify the calling process, and increase their call time and efficiency.

Generate:

GET

```
/api/cc_agent/originate?device_id={id}&cid={id}&destination={number}&lead_id={id}&api_key={key}
```

Parameters:

Parameter name	Type	Required	Description
destination		required	Destination phone number.
device_id		optional	Id of device.
user_id		optional	Id of agent/user. If no device_id, extension, user_id provided - used session user's_device.
extension		optional	Extension (must be routed to Device or User).
cid		optional	Caller id number
cnam		optional	Caller id name
display_cid		optional	Caller id number for caller
display_cnam		optional	Caller id name for caller
lead_id		optional	Lead id
sip_auto_answer		optional	Send auto answer to agent's device
required one of parameters: device_id/user_id/extension			

Return:

Success – true/false

Uuid – If originate was successful (agent picked the phone)

Example

```
https://{your_URL}/api/cc_agent/originate?device_id={id}&cid={id}&destination={number}&lead_id={id}&api_key={key}
```

JSON Response

```
{
  "Success": true,
  "uuid": "70b27a69-1363-42e1-9c37-4f9c159beb3b"
}
```

Phone Lists

You can create a new phone list or manage an existing one via API request.

Phone lists can be used for a variety of purposes, such as leads for a dialer, Do Not Call list, special numbers list, and more.

Phone List Parameters:

Parameter name	Type	Required	Description
id	int	optional	(read only)
name	string	required	Name of list (required)
list_rows	int		Number of leads in list (read only)

Phone List Methods

URL	Method	Description
/api/phone_list	GET	Get list of all phone-lists
/api/phone_list/{id}	GET	Get specific user data
/api/phone_list/?q={query}	GET	Get list of users matched the query, q – query by name
/api/phone_list/{id}	PUT	Update specific record. Only submitted values are updated.
/api/phone_list	POST	Create new phone-list
/api/phone_list/{id}	DELETE	Delete phone-list

Example

```
GET
https://{your_URL}/api/phone_list?api_key={key}
```

JSON Response

```
{
  "Success": true,
  "data": [
    {
      "id": xxx,
      "account_id": xxxx,
      "name": "XXXXXXXXXXXXX",
      "list_rows": 4
    }
  ]
}
```

Phone List Leads

The Phone list leads are the individual leads in each phone list. A lead with the same phone number can appear only once in a phone list.

Lead Parameters:

Parameter name	Type	Required	Description
----------------	------	----------	-------------

phone	string	required	Phone number
name	string	optional	Lead name (optional)
lead_id	string	optional	Lead ID (optional)
priority	int	optional	Lead priority (larger number first) (optional, default:0)
tags	string	optional	Tags (will be added to call) (optional)
ext_api_vars	json object	optional	Custom variables (could be used in conditional routes and API)

Manage Leads (phone numbers) Methods

/api/phone_list/{id}/lead	GET	Get all leads {phone, lead_id, priority, name, tags, ext_api_vars}
/api/phone_list/{id}/lead	POST	Add lead. Object or Array of objects [{phone, name, lead_id, priority, tags, ext_api_vars}...]
/api/phone_list/{id}/lead/{phone }	PUT	Update single lead
/api/phone_list/{id}/lead/{phone }	DELETE	Delete single lead
/api/phone_list/{id}/lead	DELETE	Delete multiple leads JSON Array of phone numbers in BODY ["1234567"...]

Example

GET

https://{your_URL}/api/phone_list/XXX/?api_key={key}

JSON Response

```
{
  "Success": true,
  "data": [
    {
      "id": "972xxxxxxx",
      "phone": "972xxxxxxx",
      "lead_id": "3",
      "priority": 1,
      "name": "ABC office",
      "tags": null,
      "ext_api_vars": { }
    },
    {
      "id": "191YYYYYYYY",
```

```

    "phone": "191YYYYYYYY",
    "lead_id": "2",
    "priority": 1,
    "name": "Mike US",
    "tags": null,
    "ext_api_vars": { }
  },
  {
    "id": "97254XYXYXYX",
    "phone": "97254XYXYXYX",
    "lead_id": "04",
    "priority": 1,
    "name": "Mike Cell",
    "tags": null,
    "ext_api_vars": null
  }
]
}

```

Users

You can create users, update users, login/logout users and control all of your user information via API.

This allows for customer data access.

User Methods

URL	Method	Description
/api/user	GET	Get list of all users
/api/user/{id}	GET	Get specific user data
/api/user/?q={query}&is_agent=0	GET	Get list of users matched the query, q – query filter, will match name, username or email of user is_agent=1 – list only agents.
/api/user/{id}	PUT	Update specific record. Only submitted values are updated. Response will contain 'data' property object with all record's values

/api/user	POST	Create new user Response will contain 'data' property object with new record's values
/api/user/{id}	DELETE	Delete user
/api/user/login	POST	Log-in user
/api/user/logout	GET	Log-out user
/api/user/{id}/queues	REST	Manage queues (see Manage queue agents) Format:[[queue_id, mode, position, level, timegroup_id], ...]

User Parameters:

Parameter name	Type	Required	Description
id	int	optional	(read only)
active	int	optional	(0 or 1)
account_id	int	optional	(read only)
is_agent	bool	optional	Make user a CallCenter agent
in_reports	bool	optional	Include in reports
name	string	required	User full name (required)
username	string	required	(required)
password	string	required	Write only, not shown in get/list results (required) Must contain minimum 8 characters, numbers, uppercase and lowercase letters
email	string	required	(required)
timezone	string	optional	Timezone string (Example: 'Asia/Jerusalem') (Default: 'UTC')
sites	array	optional	List of sites IDs
groups	array	optional	User Groups IDs
intercept_groups	array	optional	Intercept Groups IDs
intercept_other_groups	array	optional	Intercept Other Groups IDs
geo_limit	string	optional	Comma separated list of 2 chars country codes (Example: 'IL,US') If not empty, will limit login to selected countries.
follow_me	int	optional	Follow me strategy. 0:simultaneously, other:Interval in seconds

last_login			int	optional	Last login epoch (unix timestamp) (read only)
ts			int	optional	Creation date epoch (unix timestamp) (read only)
follow_me			int	optional	Default devices ring strategy – delay between switch to next device.
devices			array	optional	Array of objects, devices assigned to user (read only) Example: [{device_id:1, ring:0, delay:0, timeout:0, name:'device name'}]
extensions			string	optional	Extensions directly routed to user (coma separated list) (read only)
dids			string	optional	DIDs directly routed to user (coma separated list) (read only)
dr_id			int	optional	Dial Rule ID – override account.dr_id
call_timeout			int	optional	Voice-mail timeout (in seconds)
vm_id			int	optional	Voice-mail Box ID
vm_name			string	optional	Voice-mail Box Name (read only)
pgroup_id			int	optional	Permission group ID
pgroup			string	optional	Permission group name (read only)
permissions			object	optional	Permission group overrides
queue_perms			array	optional	List of permitted queues. Format: [[queue_id, mode, position, level, timegroup_id], ...]

Device settings override

override_device			bool	optional	
			ecnam, ecnum, ocnam, ocnum, user_record, cnum_by_country, blf_ext, rec_inb_ext, rec_out_ext, rec_inb_int, rec_out_int		

Real-time status

pause_id			int	optional	(read only)
online			int	optional	(read only)
queues			array	optional	Joined queue ids (read only)

<u>Overrides (of account defaults)</u>					
session_ttl			int	optional	Session timeout (in seconds)
max_snooze			int	optional	Maximum allowed number of snoozes
wrap_up_time			int	optional	Wrap up time (in seconds)
no_answer_delay_time			int	optional	No answer delay (in seconds)
reject_delay_time			int	optional	Reject delay (in seconds)
busy_delay_time			int	optional	Busy delay (in seconds)
max_no_answer			int	optional	Max no answer (in seconds)

Example 1

```
POST
https://{your_URL}/api/user?api_key={key}
```

Body

```
POST
{
  name: "John Smith",
  username: "Jonh123",
  password: "Ab123456",
  email: "usersmail@mail.com",
  in_reports: true,
  is_agent: true,
}
```

JSON Response

```
{
  "success": true,
  "data": {
    "id": 12345,
    "account_id": XXXX,
    "active": 1,
    "in_reports": true,
    "pgroup_id": 0,
    "username": "Jonh123",
    "email": "mail@nomail.com",
    "name": "John Smith",
    .
  }
}
```

```
    .  
    .  
  }  
}
```

Example 2

```
DELETE  
https://{your_URL}/api/user/{id}?api_key={key}
```

JSON Response

```
{  
  "success": true,  
}
```

Agents

To make and / or receive calls, you need to assign device to the agent.

You can assign and unassign device to agents using CheckIn and CheckOut, as well as set / unset pause for agents and add/remove agents from queues.

CheckIn

Check in user into CallCenter Calls activity or assign device to an agent.

CheckIn is required to make calls and/or receive calls from queue.

```
GET /api/cc_agent/checkIn?user_id={id}&api_key={key}
```

Parameters:

Parameter name	Type	Required	Description
user_id	int	optional	Id of agent, if not provided used session user_id.
forceCheckOut	int	optional	Force check-out previous user from the device.

Return:

data – contains the number that the agent need to call in order to finish the check-in process.

Example

```
GET  
https://{your_URL}/api/cc_agent/checkIn?user_id={id}&api_key={key}
```

JSON Response

```
{  
  "success": true,  
  "data": "***9477"  
}
```

CheckOut

Check out the user from CallCenter Calls activity or unassign the device from an agent.

```
GET /api/cc_agent/checkOut?user_id={id}&api_key={key}
```

Parameters:

Parameter name	Type	Required	Description
<code>user_id</code>	int	optional	Id of agent, if not provided used session user_id.

Example

```
GET
https://{your_URL}/api/cc_agent/checkOut?user_id={id}&api_key={key}
```

JSON Response

```
{
  "success": true,
}
```

CheckInDevice

Check in user into a CallCenter selected device (doesn't require action from user)

```
GET /api/cc_agent/checkInDevice?user_id={id}&device_id={id}&api_key={key}
```

Parameters:

Parameter name	Type	Required	Description
<code>user_id</code>	int	required	Id of agent, if not provided used session user_id.
<code>device_id</code>	int	required	If of device
<code>forceCheckOut</code>		optional	send '1' to force CheckOut user from current device + CheckOut target device (if in use)

Example

```
GET
https://{your_URL}/api/cc_agent/checkOut?user_id={id}&device_id={id}&api_key={key}
```

JSON Response

```
{
  "success": true,
}
```

SetPause

Set/unset pause for the agent

```
GET /api/cc_agent/setPause?id={id}&user_id={user_id}&api_key={key}
```

Parameters:

Parameter name	Type	Required	Description
id	int	required	Id of pause, or 0 for available.
user_id	int	optional	Id of agent, if not provided used session user_id.

Example

```
GET
https://{your_URL}/api/cc_agent/setPause?id={id}&user_id={user_id}&api_key={key}
```

JSON Response

```
{
  "success": true,
}
```

SetQueues

Add/remove agent to queues

```
GET /api/cc_agent/setQueues?queue_ids={ids}&user_id={id}&api_key={key}
```

Parameters:

Parameter name	Type	Required	Description
queue_ids	int	required	array or comma separated list of ids
user_id	int	optional	Id of agent, if not provided used session user_id.

Example

```
GET
https://{your_URL}/api/setQueues?queue_ids={ids}&user_id={id}&api_key={key}
```

JSON Response

```
{
  "success": true,
  "data": {
    "id": XXX,
    "account_id": YYYY,
    "site_id": null,
    "name": "Training Queue",
    "tv_name": null,
  }
}
```

```

    "strategy": "longest-idle-agent",
    "record": 0,
    "users": [
      [
        17798,
        3,
        10,
        1,
        "user name",
        null,
        false
      ],
    ],
  }
}

```

WrapUp

Change wrap-up time for a user

```
GET /api/cc_agent/wrapup?user_id={id}&seconds=0&api_key={key}
```

Parameters:

Parameter name	Type	Required	Description
user_id	int	optional	Id of agent, if not provided used session user_id.
seconds	int	optional	Set wrap-up timer to number of seconds from now. If omitted – add user default wrap-up time.

Example

```

GET
https://{your_URL}/api/cc_agent/wrapup?user_id={id}&seconds=0&api_key={key}
}

```

JSON Response

```

{
  "success": true,
}

```

Events

To enable Events, you need to set Event Push Notifications URL in account configuration in the UI.

Queue and call events will be sent upon enabling.

Queue events

Variables in Queue events

Event	Data
agent:checkin	user_id, device_id, device_name
agent:checkout	user_id
queue:join	user_id, queues - (array) joined queue ids
queue:leave	user_id, queues - (array) queue ids that was left
agent:status	user_id, activity_id, pause_id, in_calls (1 if calls activity)

Call events

Event names: `call:ring`, `call:answer`, `call:end`, `call:start` (only for queue calls)

Variables in call events

Event	Data
id	Call UUID
call_id	UUID of first leg, same for all legs of one call
ts	Event time epoch (unix timestamp)
site_id	Site ID
type	type of call (inbound / outbound / internal / queue / fax / conf)
dst_num	Dialed destination number
src_device_id	Source device ID
dst_device_id	Destination device ID
src_user_id	Source user ID
dst_user_id	Destination user ID
cid_num	Caller ID number
cid_name	Caller ID name
a2	Country code (in ISO 3166-1 alpha-2 format)
tags	Provided tags
queue_id	If queue calls
lead_id	Provided lead_id
lead_name	Provided lead_name
campaign_id	Provided campaign_id
dialer_id	If originated by dialer

<code>conference_id</code>	On conference calls
<code>call_script</code>	Call Script ID
<code>waitms</code>	Waiting time (in milliseconds)
<code>durationms</code>	Call duration (in milliseconds)
<code>progressms</code>	The amount of time in milliseconds between the sip invite and the sip 180 message
<code>billms</code>	Time between answer and hang-up (in milliseconds)
<code>cc_wait</code>	Waiting time in queue (in seconds)
<code>hangup_cause</code>	Hang-up code. See: https://freeswitch.org/confluence/display/FREESWITCH/Hangup+Cause+Code+Table
<code>canceled</code>	Contains disconnect reason for not answered queue calls. One of: NONE - no specific reason TIMEOUT - caller has been waiting more than the timeout NO_AGENT_TIMEOUT - caller has been waiting more than the BREAK_OUT no_agent_timeout - caller abandoned

Queues

Queues allow you to route incoming calls to a specific group of agents based on the department (ex. technical or financial), language (English, Spanish, German, French ...) or other criteria.

Within the queue the call gets routed to the first available agent according to the strategy set (Longest Idle Agent, Round Robin, Top Down or other).

`/api/cc_queue`

Queue Properties

Field	Type	Required	Description
<code>id</code>	int	optional	(read only)
<code>account_id</code>	int	optional	(read only)
<code>name</code>	string	required	User full name (required)
<code>tv_name</code>	string	optional	Short name (for TV title)
<code>strategy</code>	string	required	(required) ring-all / longest-idle-agent / round-robin / top-down / agent-with-least-talk-time / agent-with-fewest-calls / sequentially-by-agent-order / sequentially-by-next-agent-order / random

record	int	optional	Override recording flag
time_base_score	string	required	(required) system / queue
max_wait_time	int		
max_wait_time_with_no_agent	int	optional	
max_wait_time_with_no_agent_time_reached	int	optional	
tier_rules_apply	bool	optional	
tier_rule_wait_second	int	optional	
tier_rule_no_agent_no_wait	bool	optional	
discard_abandoned_after	int	optional	
abandoned_resume_allowed	bool	optional	
tier_rule_wait_multiply_level	bool	optional	
announce_id	int	optional	Periodic announcement media id
announce_frequency	int	optional	(in seconds)
moh_id	int	optional	Music on hold media id
sla_strategy	int	optional	Service-level agreement Strategy
sla_answer_time	int	optional	Service-level agreement time (in seconds)
auto_answer	bool	optional	
pre_bridge_announce	int	optional	Media id
join_announce	int	optional	Media id
exits	json	optional	Exits destinations config
ring_timeout	int	optional	
background_color	string	optional	(in TV)
font_color	string	optional	(in TV)
labels	array	optional	Array or comma separated list of label IDs
avg_wait_range	int	optional	
audio_playback	json	optional	
music_advanced	bool	optional	
user_ids		optional	(read only)
extensions		optional	(read only)
users		optional	(put/post only) Assigned agents array Format: [[user_id, mode, position, level, timegroup_id], ...]

Example

GET

https://{your_URL}/api/cc_queue?name={name}&strategy={strategy}&time_base_score={system/queue}&api_key={key}

JSON Response

```
{
  "success": true,
  "data": {
    "id": XXX,
    "account_id": XXXX,
    "site_id": null,
    "name": "QUEUE-NAME",
    "tv_name": null,
    "strategy": "longest-idle-agent",
    "record": 0,
    "time_base_score": "",
    .
    .
    .
  }
}
```

Queue Additional Methods

Manage queue agents

URL	Method	Description
/api/cc_queue/{id}/users	GET	List of assigned agents
/api/cc_queue/{id}/users	POST	Add agents Params: users - [[user_id, mode, position, level, timegroup_id], ...]
/api/cc_queue/{id}/users	PUT	Replace agents Params: users - [[user_id, mode, position, level, timegroup_id], ...]
/api/cc_queue/{id}/users	DELETE	Delete agents Params: ids - array or comma separated list or user_ids

Example

GET

```
https://{your_URL}/api/cc_queue/{id}/users?api_key={key}
```

JSON Response

```
{
  "success": true,
  "data": [
    [
      XXXXX,
      4,
      10,
      1,
      "User 1",
      null,
      false
    ],
    [
      23250,
      4,
      10,
      1,
      "John Smith",
      null,
      false
    ]
  ],
}
```