

Backend 5.1
USER API'S

Computer Telephony Integration (CTI)

This group of APIs enable CTI (Computer Telephony Integration) functionality to be able to control end-user calls. The APIs are authenticated using api tickets for Call Control (CALL_CONTROL) and also requires an end-user Cloud CTI API license.

The **Call Control API** enables controlling of calls for a user. The API requires that the end-user has the license for Cloud CTI API. Use the Call Control API to:

- Make a call from a device
- Answer a ringing call
- Hold a call
- Resume a held call
- Alternate call
- Park a call
- Pick up a SIP call
- Mute a call
- Unmute a muted call
- Move a call to another device
- Transfer a call to a new destination
- Transfer a call to another call that belongs to the user
- Send DTMF digits
- Add a call to an ad-hoc conference
- Leave an ad-hoc conference
- Remove a participant from an ad-hoc conference
- Terminate a call

Call Control

Hold a call

Put the call on hold. Depending on the configuration of the server, music on hold may be played to the other party.
Authorizations:

[System](#) (Call control) [Bearer](#) (Call control)

Path Parameters

domain	string
required	The domain of the organization
userId	string
required	The user having the call to hold

callId	string
required	The ID of the call to hold

Request Body Schema: application/json

POST URL: <https://telo.lab.digitalisland.co.nz/api/call/control/v1/hold/{domain}/{userId}/{callId}>

Call Control

Resume a held call

Resume a call that previously was put on hold.
Authorizations:

[System](#) (Call control) [Bearer](#) (Call control)

Path Parameters

domain	string
required	The domain of the organization
userId	string
required	The user having the call to resume
callId	string
required	The ID of the call to resume

Request Body Schema: application/json

POST URL: <https://telo.lab.digitalisland.co.nz/api/call/control/v1/resume/{domain}/{userId}/{callId}>

Call Control

Transfer a call to a new destination

Transfer a call to a new destination. The call will be automatically unheld if it is currently on hold.
Authorizations:

[System](#) (Call control) [Bearer](#) (Call control)

Path Parameters

domain	string
required	The domain of the organization
userId	string
required	The user having the call to transfer
callId	string
required	The ID of the call to transfer

Request Body Schema: application/json

stateToken	integer <int64>
	The expected stateToken of the state at the server. If not matching, the request will fail.
blind	boolean
	Default: false
	Indicate if the transferred call should be automatically cleared after the transfer has been initiated
type	string
	Default: "BASIC"
	Enum: "BASIC" "VOICEMAIL" "CAMP_ON" "DIVERSION_BYPASS"
	The extended type of the transfer.
destination	string
required	The target of the transfer. A SIP or tel URI.

POST URL:

<https://telo.lab.digitalisland.co.nz/api/call/control/v1/singlesteptransfer/{domain}/{userId}/{callId}>

Request samples

```
{  
  "stateToken": 487345453,
```

```
"blind": true,  
"type": "CAMP_ON",  
"destination": "tel:+15555"  
}
```

Response samples

```
{  
  "stateToken": 487345453,  
  "callId": "aaa111bbb",  
  "userId": "user@organization.org",  
  "remoteParty": {  
    "partyId": "nathan.hughes@organization.org",  
    "type": "USER_ID",  
    "telUri": "tel:+442528473",  
    "displayName": "Nathan Hughes",  
    "displayNumber": "8473"  
  },  
  "participants": [  
    {  
      "id": "aaa111bbb",  
      "remoteParty": {  
        "partyId": "nathan.hughes@organization.org",  
        "type": "USER_ID",  
        "telUri": "tel:+442528473",  
        "displayName": "Nathan Hughes",  
        "displayNumber": "8473"  
      },  
      "historyInfo": {  
        "subject": "Main Switchboard number",  
        "acdSupport": "+134777",  
        "campOn": false,  
        "initialParty": {
```

```

    "partyId": "nathan.hughes@organization.org",
    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "previousParty": {
    "partyId": "nathan.hughes@organization.org",
    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "previousRetargetReason": "TRANSFERRED"
}
}
],
"conference": false,
"historyInfo": {
  "subject": "Main Switchboard number",
  "acdSupport": "+134777",
  "campOn": false,
  "initialParty": {
    "partyId": "nathan.hughes@organization.org",
    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "previousParty": {
    "partyId": "nathan.hughes@organization.org",

```

```

    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "previousRetargetReason": "TRANSFERRED"
},
"inbound": true,
"status": "RINGING",
"event": "FAILED",
"eventDescription": "Call setup failed with status code 504",
"duration": 0,
"recordable": true,
"recording": true,
"recordingDuration": 0,
"externalRecording": true,
"externalRecordingDuration": 0,
"externalRecordingPaused": false,
"deviceIds": "[+1555555]",
"actions": "[{action: ANSWER, deviceIds: [+1555555]}]"
}

```

Call Control

Transfer a call to another call that belongs to the user

A user having two separate calls can use the transfer method to connect the two parties the user is talking to. The two calls does not need to be active on the same device. Should either of the calls be on hold, it will automatically be unheld as the calls are connected.
 Authorizations:

[System](#) (Call control) [Bearer](#) (Call control)

Path Parameters

domain	string
required	The domain of the organization
userId	string
required	The user having the call to transfer
callId	string
required	The ID of the call to transfer

Request Body Schema: application/json

stateToken	integer <int64>
	The expected stateToken of the state at the server. If not matching, the request will fail.
targetCallId	string
required	The callId of the target call the transferred call should be transferred to.
targetStateToken	integer <int64>
	The expected stateToken of the state of the target call at the server. If not matching the request will fail.

POST URL: <https://telo.lab.digitalisland.co.nz/api/call/control/v1/transfer/{domain}/{userId}/{callId}>

Request samples

```
{
  "stateToken": 487345453,
  "targetCallId": "dd33dxw9",
  "targetStateToken": 832211
}
```

Response samples

```
{
  "stateToken": 487345453,
  "callId": "aaa111bbb",
}
```

```

"userId": "user@organization.org",
"remoteParty": {
  "partyId": "nathan.hughes@organization.org",
  "type": "USER_ID",
  "telUri": "tel:+442528473",
  "displayName": "Nathan Hughes",
  "displayNumber": "8473"
},
"participants": [
{
  "id": "aaa111bbb",
  "remoteParty": {
    "partyId": "nathan.hughes@organization.org",
    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "historyInfo": {
    "subject": "Main Switchboard number",
    "acdSupport": "+134777",
    "campOn": false,
    "initialParty": {
      "partyId": "nathan.hughes@organization.org",
      "type": "USER_ID",
      "telUri": "tel:+442528473",
      "displayName": "Nathan Hughes",
      "displayNumber": "8473"
    },
    "previousParty": {
      "partyId": "nathan.hughes@organization.org",

```

```

    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "previousRetargetReason": "TRANSFERRED"
}
}
],
"conference": false,
"historyInfo": {
  "subject": "Main Switchboard number",
  "acdSupport": "+134777",
  "campOn": false,
  "initialParty": {
    "partyId": "nathan.hughes@organization.org",
    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "previousParty": {
    "partyId": "nathan.hughes@organization.org",
    "type": "USER_ID",
    "telUri": "tel:+442528473",
    "displayName": "Nathan Hughes",
    "displayNumber": "8473"
  },
  "previousRetargetReason": "TRANSFERRED"
},
"inbound": true,

```

```

"status": "RINGING",
"event": "FAILED",
"eventDescription": "Call setup failed with status code 504",
"duration": 0,
"recordable": true,
"recording": true,
"recordingDuration": 0,
"externalRecording": true,
"externalRecordingDuration": 0,
"externalRecordingPaused": false,
"deviceId": "[+1555555]",
"actions": "[{action: ANSWER, deviceId: [+1555555]}]"
}

```

Call State

Read user state

Fetch a snapshot of the current state of a user.
 Authorizations:

System (Call control) Bearer (Call control)

Path Parameters

domain	string
required	The domain of the organization
userId	string
required	The username of the user accessing the API

GET URL: <https://telo.lab.digitalisland.co.nz/api/call/state/v1/snapshot/{domain}/{userId}>

Response samples

```

{
  "fullState": true,
  "calls": [
    {
      "stateToken": 487345453,

```

```

"callId": "aaa111bbb",
"userId": "alice@organization.org",
"remoteParty": {
  "partyId": "bob@organization.org",
  "type": "USER_ID",
  "telUri": "tel:+46277464",
  "displayName": "Bob Bobson",
  "displayNumber": "7464"
},
"conference": false,
"inbound": false,
"status": "HELD",
"duration": 50,
"deviceIds": [
  "+1555555"
],
"actions": [
  {
    "action": "MOVE"
  },
  {
    "action": "TRANSFER"
  },
  {
    "action": "RESUME"
  },
  {
    "action": "PARK"
  }
]
}
]
}

```

3rd Party CRM Connector Webhook URL

The **3rd Party CRM Connector Webhook URL** must be using the HTTPS scheme.

Once configured, the MiCloud Telepo sends local and remote party information for every outgoing and incoming call to the CRM system.

Data	Meaning
seq_num	Message number. It is used to track the unique message when multiple responses are sent for the same call.
call_id	Unique call identification
timestamp	The date and time for the outgoing call follow the UTC time zone.
state	The current state of the call. Possible values for this field are: "TRYING", "PROCEEDING", "EARLY", "CONFIRMED" or "TERMINATED".
termination-reason	The reason for termination. Possible values for this field are: "CANCELLED", "ANSWERED_ELSEWHERE", "HANGUP" or "REJECTED".
direction	The direction of the call. This is set to "OUTGOING" or "INCOMING".
local_email	Caller's email address.

Data	Meaning
local_user_id	Caller's user ID.
local_number	Caller's contact number.
device_type	The device from which the call is initiated or received. Possible values are these: "MOBILE", "SOFT", "DESKTOP", "FXS", "EXTERNAL_PBX", "FAX", "VOICEMAIL", "EXTERNAL", "MOBILE_EXT", "CONFERENCE", "QUEUE", "MOBILE_VOIP", "WEB".
remote_email	Callee's email address.
remote_user_id	Callee's user ID.
remote_number	Callee's contact number.

Sample message

The message sent to the CRM Connector URL via HTTP POST requests is in standard JSON format with below contents:

```
{ "seq_num": 5, "call_id": "8Z7SCgOCRyCewZ6yHmDR3g", "branch_id": "2e7e5911", "timestamp": "2018-02-02T12:34:57.699+0000", "state": "TERMINATED", "termination-reason": "REJECTED",
"direction": "OUTGOING", "local_email": "user2@test.com", "local_user_id": "user2@test.org", "local_number": "+12202", "device_type": "SOFT", "remote_email": "user1@test.com",
"remote_user_id": "user1@test.org", "remote_number": "+12201" }
```

Unsupported API:

<https://{telo.digitalisland.co.nz}/api/call/remote/{domain}/{userID}/list>

Replacement:

<https://{telo.digitalisland.co.nz}/api/getUserDeviceDetails/device/info/v1/details/{domain}/{userId}/{deviceId}>

Get user device

Retrieve detailed information about a certain user device. The returned document contains a list of attributes providing detailed information about the user's device.

Authorizations:

[System](#) (User info) [Bearer](#) (User info)

Path Parameters

domain	string
required	The domain of the organization the user belongs to
userId	string
required	The user ID
deviceId	string
required	The device ID

Response Schema: application/json

Array ()

name String

Enum: "USER_AGENT" "CLIENT_VERSION" "USED_SINCE" "FREE_SEATED" "ACTIVE_DEVICE_COUNT" "EXTERNAL_SYSTEM"

Name of attribute for the device. Note that all attributes are not applicable for all devices.

The following attributes are available:

USER_AGENT - The name of the device user agent

CLIENT_VERSION - The client version of the device

USED_SINCE - The first noted use of the device (e.g. activation time) in UTC timezone, string format

FREE_SEATED - True if the user is logged in on a deskphone with Free Seating

ACTIVE_DEVICE_COUNT - The number of currently active devices of this type (applicable for integration points, e.g. DECT phones)

EXTERNAL_SYSTEM - The name of the External Telephony System connecting this device

value string

The value of the attribute for the device.

Unsupported API:

<https://{telo.digitalisland.co.nz}/api/call/remote/{domain}/{user}/{deviceType}/call?destination={destination}>

Replacement:

<https://{telo.digitalisland.co.nz}/api/setupCall/calls/current/{domain}/{user}/{atype}/{cid}>

Sets up a call-back call to the contact with the specified ID.

Examples:

If user Alice want to make a call to Bob, and use her mobile as the call device and call with the role Private the following syntax could be used.

```
POST
http://bcs.mydomain.com/api/calls/current/foo.com/alice/mobile/bob@foo.com?role=PRIVATE
```

Org-admin James wants to setup a call for Alice to call Bob, use Alice's mobile as the call device and call with the role Private. The same syntax as before can be used, but instead of using Alice's token. James should use his own token with access granted for Call setup and Call control.

```
POST
http://bcs.mydomain.com/api/calls/current/foo.com/alice/mobile/bob@foo.com?role=PRIVATE
```

If Bob happens to be an external party, the parameter needs to be URL encoded and the phone number in international format, i.e a leading "+" ("%2B" when URL encoded):

POST
http://bcs.mydomain.com/api/calls/current/foo.com/alice/mobile/%2B468123456789?role=PRIVATE
Authorizations:

[System](#) (Call setup) [Bearer](#) (Call setup)

Path Parameters

domain string

required The domain of the organization the user belongs to.

user string

required The user performing the call setup.

aptype string

required The aptype defines where the callback will be connected. It should be a valid answerplace for the specified user. Valid values are:

```
mobile - to set up the call to the mobile
soft - to set up the call to the softphone
desktop - to set up the call to the desktop phone
fxs - to set up the call to an analog phone
external_pbx - to set up the call to a phone on an external pbx
```

cid string

required can be one of the following:

```
receiving_user - the receiving users URL encoded answerplace. For instance: targetname@yourdomain.com
phone_number - If the answerplace is an external party, the parameter needs to be URL encoded
```

Query Parameters

role string

what role to call with. The roles PRIVATE and BUSINESS are always possible to set, but additional roles may be specified. If no role is specified as a parameter, then it will be set to a default according to the call rules.

bypass string

Bypass call routing ('true' or 'false')

intrude string

Intrude the current call ('true' or 'false')

callback-via-gsm

boolean

True if the callback should prefer GSM call.