

# **Airtel Cloud Communications Platform - API Specification Document – C2C**



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# 1 Click to Call

Click-to-Call API provides functionality to connect two users on the call and record the conversation. Airtel CCP will initiate a call to the first participant with configurable parameters. Once the participant answers the call recording will be started and a new call is initiated to the second participant. Both the participants are patched once second party answers.

You will get real time events of the call on the provided REST API URL along with the Call Data Record (CDR) after the call. Recording URL will be provided in CDR response.

## 1.1 Authorization

Authorization Header that contains the word “**Basic**” followed by a space and a base64-encoded string username: password.

For example, to authorize as demo / p@55w0rd the client would send below:

Authorization: Basic ZGVtbzpwQDU1dzByZA==

Authorization Header helps the server to validate the request source.

## 1.2 Content-Type

Content-Type to be passed in all requests, with application/json as the value to be passed.

## 1.3 Request

Request Type denotes the flow which will be executed basis customer shared logic.

| Method | URL                  |
|--------|----------------------|
| POST   | /v2/execute/workflow |

## 1.4 Headers

| Parameters    | Values                    |
|---------------|---------------------------|
| Authorization | Basic <username:password> |
| Content Type  | application/json          |

**Sample Request**

POST /v2/execute/workflow Host: host.example.com:8080

Authorization: Basic ZGVtbzpwQDU1dzByZA== Content-Type: application/json

Body:

```
{
  "callFlowId": "{{callFlowId}}",
  "customerId": "{{customerId}}",
  "callType": "OUTBOUND",
  "callFlowConfiguration": {
    "initiateCall_1": {
      "callerId": "{{callerId}}",
      "mergingStrategy": "SEQUENTIAL",
      "participants": [
        {
          "participantAddress": "{{participantAddress}}",
          "callerId": "{{callerId}}",
          "participantName": "A",
          "maxRetries": 1,
          "maxTime": 0
        }
      ],
      "maxTime": 0,
      "callbackURLs": [
        {
          "eventType": "CDR",
          "notifyURL": "{{cdrNotifyUrl}}",
          "method": "POST",
          "headers": {}
        },
        {
          "eventType": "ALL",
          "notifyURL": "{{eventsNotifyUrl}}",
          "method": "POST",
          "headers": {}
        }
      ]
    },
    "addParticipant_1": {
      "mergingStrategy": "SEQUENTIAL",
      "maxTime": 0,
      "participants": [
        {
          "participantAddress": "{{participantAddress}}",
```

```

        "callerId": "{{callerId}}",
        "participantName": "B",
        "maxRetries": 1,
        "maxTime": 0,
        "enableEarlyMedia": true
    }
  ],
  "record": {
    "enabled": true
  }
}

```

## 1.5 Request Parameters

| Name                  | Type   | Description   | Required |
|-----------------------|--------|---|----------|
| callFlowConfiguration | object | <p>Object detailing the call flow configuration. Click to Call use case has three components:</p> <ul style="list-style-type: none"> <li>• initiateCall</li> <li>• addParticipant</li> <li>• record</li> </ul> <p>There can be multiple components of each type specified by unique id that is given after “_”.</p> <p>&lt;componentType_uniqueld&gt;</p> | Yes      |
| callFlowId            | string | <p>Specifies the call flow ID, through which call flow will get validated/started.</p> <p>Airtel CCP will provide the unique id for each Call Flow.</p>   | Yes      |
| callType              | string | Specifies the type of call flow. [INBOUND or OUTBOUND]  | Yes      |
| callerId              | string | <p>Airtel CCP registered 10-digit virtual number for display. This will be used for all the participants if not specified in components.</p>  | Yes      |

## 1.6 INITIATE CALL COMPONENT

| Name            | Type    | Description   | Required |
|-----------------|---------|---|----------|
| callerId        | string  | Airtel CCP registered 10-digit virtual number for display. This will get override with the top level callerId.  | Yes      |
| maxTime         | integer | Max time a call is retried to a participant. value = 0 -> No limit and will wait for normal call clearing   | No       |
| mergingStrategy | string  | Provide call merging strategy for the given list of participants. Default value = SEQUENTIAL  | No       |
| participants    | array   | Array of Participant objects  | Yes      |
| callBackURLs    | array   | Array of callbackURL object. Specifying callbackURL information to POST real time events and Call Data Record (CDR) after the call ends with recording URL in it. | No       |

## 1.7 ADD PARTICIPANT COMPONENT

| Name            | Type    | Description   | Required |
|-----------------|---------|---|----------|
| callerId        | string  | Airtel CCP registered 10-digit virtual number for display. This will get override with the top level callerId.          | Yes      |
| maxTime         | integer | Max time a call is retried to a participant. value = 0 -> No limit and will wait for normal call clearing               | No       |
| mergingStrategy | string  | Provide call merging strategy for the given list of participants. Default value = SEQUENTIAL or ROUND ROBIN or PARALLEL | No       |
| Participants    | array   | Array of Participant objects  | Yes      |

## 1.8 Record Component Configuration Parameters

| Name    | Type    | Description                                 | Required             |
|---------|---------|---|----------------------|
| enabled | boolean | Specifies whether to record the call or not | false (default-true) |

## 1.9 CallbackURL

| Name      | Type   | Description   | Required |
|-----------|--------|---|----------|
| eventType | String | Event type for which callback needs to be received.<br>[ALL, CALL, MEDIA, DTMF, RECORD, CDR, API, SUBMITTED, DELIVERED, ERROR]  | Yes      |
| Headers   | Object | Specifies headers to be sent with callback URL.   | No       |
| Method    | String | Specifies Method supported by the callback URL. This is POST by default.  | Yes      |
| notifyURL | String | URL of Web Application Service to be notified. Domain must be whitelisted from Airtel Security Team.<br><br>Airtel will need SSL certificate in case of https server.<br><br>It is the responsibility of the certificate owner to notify Airtel Team before certificate gets expired. | Yes      |

## 1.10 Participant

| Name               | Type    | Description   | Required |
|--------------------|---------|---|----------|
| callerId           | string  | Registered 10-digit MSISDN number for display   | Yes      |
| enableEarlyMedia   | boolean | Early Media is to play actual network announcements in the call. To Enable Early-Media mode for the given Participant, This will get captured in Participant Object in "addParticipant" variable. | No       |
| maxRetries         | integer | Number of retries to be made to the participant in case the number is not reachable / switched off / NoAnswer etc.  | No       |
| maxTime            | integer | Max time a call is retried to a participant. value = 0 -> No limit and will wait for normal call clearing   | No       |
| participantAddress | string  | Participant 10-digit MSISDN to which the call will be made  | Yes      |
| participantName    | string  | Name of Participant. Alias to identify the participant in CDR.  |          |

### [Postman link](#) for making a request.

Airtel CCP.postman\_environment.json to import environment variables. Fill with the details provided to you.

## 2 Call Response Codes

### Sample Response:

HTTP/1.1 200 OK

Access-Control-Allow-Origin: \*

Access-Control-Allow-Credentials: true Content-Type: application/json

```
{
  "status": "success", "correlationId": "Xchange123863"
}
```

| Status | Response   |
|--------|--|
| 200    | <pre>{   "correlationId": &lt;correlation_id&gt; }</pre> <p>correlation_id (<b>string</b>) - unique identifier of the call</p>   |
| 400    | <pre>{   "httpStatus": 400,   "displayMessage": null,   "errorMessage": &lt;error_msg&gt;,   "errorCode": &lt;error_code&gt;,   "errorType": null,   "apiPath": null,   "errorDetails": null,   "resourceLayer": "CONTROLLER",   "errorMeta": null }</pre> <p>Distinct error codes and error messages</p> <pre>{ "error_code": "error_msg" } { "INCORRECT_CALL_FLOW_ID": "incorrect call flow id" } { "CUSTOMER_DETAILS_NOT_AVAILABLE": "cpm details not found" } { "INCORRECT_CUSTOMER_ID": "incorrect customerId" } { "INVALID_CALLER_ID": "invalid called id" } { "CALLER_ID_REGEX_ERROR": "Incorrect number" } { "DUPLICATE_PARTICIPANT_ADDRESS_FOUND": "participant address cannot be duplicate" } { "UNABLE_TO_CREATE_SECRET_KEY": "unable to create secret key data" } { "CLICK_TO_CALL_REQUEST_NULL_ERROR": "click to call request cannot be null/blank" }</pre> |



|     |  |
|-----|--|
|     | <pre> {"FROM_BODY_NULL_ERROR":"from body cannot be null/blank"} {"TO_BODY_NULL_ERROR":"to body cannot be null/blank"} {"CUSTOMER_ID_NULL_ERROR":"customerId cannot be null/blank"} {"CALL_FLOW_ID_NULL_ERROR":"callflowId cannot be null/blank"} {"CALLER_ID_REGEX_ERROR":"caller Id not valid"} {"ROUNDROBIN_AGENT_ID_MISSING":"Agent Pool Id cannot be null/empty in case of Round Robin"} {"ROUNDROBIN_PARTICIPANT_DATA_NOT_ALLOWED":"Participant List not allowed in case of Round Robin. Please provide Agent pool Id"}  {"FROM_NUMBER_NULL_ERROR":"There should be atleast one participant in from"} {"FROM_PARTICIPANT_NUMBER_NULL_ERROR":"from participant number null error"} {"FROM_PARTICIPANT_NUMBER_REGEX_ERROR":"from participant number not valid"} {"FROM_PARTICIPANT_MAX_RETRIES_GREATER_THAN_REQUIRED_VALUE":"Max retries can't be greater than 3"} {"CALLER_ID_NULL_ERROR":"caller Id required"} {"TO_NUMBER_NULL_ERROR":"There should be atleast one participant in to"} {"TO_PARTICIPANT_NUMBER_NULL_ERROR":"to participant number null error"} {"TO_PARTICIPANT_NUMBER_REGEX_ERROR":"to participant number not valid"} {"TO_PARTICIPANT_MAX_RETRIES_GREATER_THAN_REQUIRED_VALUE":"Max retries can't be greater than 3"} {"CONFERENCE_MERGING_STRATEGY_NOT_ALLOWED_FOT_TO_NUMBER":"CONFERENCE merging strategy not allowed in toNumber"} </pre> |
| 401 | <pre> {"message":"Unauthorized"} </pre>  |
| 500 | <pre> {   "httpStatus": 500,   "displayMessage": null,   "errorMessage": "2",   "errorCode": "AIRTEL_ONLINE_UNCAUGHT_ERROR",   "errorType": null,   "apiPath": null,   "errorDetails": null,   "resourceLayer": "UNKNOWN",   "errorMeta": null } </pre>  |

### 3 Real Time Events

Airtel CCP will post the real time events on callbackURL specified in the request. It can be for ALL types of events OR specified type of events.

#### Sample Request

POST /application\_url

Host: host.example.com:8080

Content-Type: application/json

Body:

```
{
  "eventType": "CALL",
  "participantAddress": "{{ participantAddress }}",
  "event": "Removed",
  "time": "2020-02-26T12:19:46.399+0000",
  "metaData": {
    "causeCode": "16",
    "sipCode": "699",
    "causeCodeDescription": "Normal call clearing"
  }
}
```

Airtel CCP expect 200 OK for the above request

## 4 Glossary

### 4.1 Conventions

- **Status** - HTTP status code of response
- All the possible responses are listed under 'Responses' for each method. Only one of them is issued per request server
- All responses are in JSON format
- All request parameters where required is marked true are mandatory

### 4.2 Status Codes

All status codes are standard HTTP status codes. The below ones are used in this API.

**2XX** - Success of some kind

**4XX** - Error occurred in client's part

**5XX** - Error occurred in server's part

| Status Code | Description   |
|-------------|---|
| 200         | OK  |
| 201         | Created   |
| 202         | Accepted (Request accepted, and queued for execution) |
| 400         | Bad request   |
| 401         | Authentication failure                                |
| 403         | Forbidden   |
| 404         | Resource not found                                    |
| 405         | Method Not Allowed                                    |
| 409         | Conflict  |
| 412         | Precondition Failed                                   |
| 413         | Request Entity Too Large                              |
| 500         | Internal Server Error                                 |
| 501         | Not Implemented                                       |
| 503         | Service Unavailable                                   |