Call

The following actions can be performed with the `Call` APIs:

- Make an Outbound Call
- Get All Call Details
- Get Call Detail Record (CDR) Of a Call
- Get All Live Calls
- Get Details Of a Live Call
- Hangup a Specific Call
- Transfer a Call

Make an Outbound Call

The following API enables you to make a single call or bulk outbound calls to real phone(s) or SIP endpoint(s).

```
URI: https://api.plivo.com/v1/Account/{auth_id}/Call/
Method: POST
```

Request

The following parameters are required to make an outbound call:

Required Parameters

Parameter	Description
`from`	The phone number to be used as the caller id (with the country code).For e.g, a USA caller id number could be, `15677654321`, with '1' for the country code. Multiple numbers can be sent by using a delimiter. For e.g. `15677654321<12077657621<12047657621`.
`to`	The regular number(s) or sip endpoint(s) to call. Regular number must be prefixed with country code but without the '+' sign). For e.g, to dial a number in the USA, the number could be, `15677654321`, with '1' for the country code. Multiple numbers can be sent by using a delimiter. For e.g. `15677654321<12077657621<12047657621`. Sip endpoints must be prefixed with 'sip:' E.g., `sip:john1234@phone.plivo.com`. To make bulk calls, the delimiter '<' is used. For eg. `15677654321<15673464321<sip:john1234@phone.plivo.com` Yes, you can mix regular numbers and sip endpoints !

`answer_url`	The URL invoked by Plivo when the outbound call is answered.

The following optional parameters can be specified when making an Outbound Call:

Optional Parameters

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Parameter	Description
`answer_method`	The method used to call the `answer_url`. Defaults to `POST`.
`ring_url`	The URL that is notified by Plivo when the call is ringing. Defaults not set.
`ring_method`	The method used to call the `ring_url`. Defaults to `POST`.
`hangup_url`	The URL that is notified by Plivo when the call hangs up. Defaults to `answer_url`.
`hangup_method`	The method used to call the `hangup_url`. Defaults to `POST`.
`fallback_answer_url`	Invoked by Plivo only if `answer_url` is unavailable or the XML response is invalid. Should contain a XML response.
`fallback_method`	The method used to call the `fallback_answer_url`. Defaults to `POST`.
`caller_name`	Caller name to use with the call.
`send_digits`	Plivo plays DTMF tones when the call is answered. This is useful when dialing a phone number and an extension. Plivo will dial the number, and when the automated system picks up, sends the DTMF tones to connect to the extension. E.g. If you want to dial the 2410 extension after the call is connected, and you want to wait for a few seconds before sending the extension, add a few leading 'w' characters. Each 'w' character waits 0.5 second before sending a digit. Each 'W' character waits 1 second before sending a digit. You can also add the tone duration in **ms** by appending `@duration` after the string (default duration is 2000 ms). `Eg. 1w2w3@1000` See the DTMF API for additional information.
`send_on_preanswer`	If set to `true` and `send_digits` is also set, digits are sent when the call is in `preanswer` state. Defaults to `false`.
`time_limit`	Schedules the call for hangup at a specified time after the call is answered. Value should be an integer > 0(in seconds).
`hangup_on_ring`	Schedules the call for hangup at a specified time after the call starts ringing. Value should be an integer >= 0 (in seconds).
`machine_detection`	Used to detect if the call has been answered by a machine. The valid values are `true` and `hangup`. Default time to analyze is 5000 milliseconds (or 5 seconds). You can change it with the `machine_detection_time` parameter. Note that no XML is processed during the analysis phase. If a machine is detected during the call and `machine_detection` is set to `true`, the `Machine` parameter will be set to `true` and will be sent to the `answer_url`, `hangup_url`, or any other URL that is invoked by the call. If a machine is detected during the call and `machine_detection` is set to `hangup`, the call hangs up immediately and a request is made to the `hangup_url` with the `Machine` parameter set to `true`
	Time allotted to analyze if the call has been answered by a machine. It should

`machine_detection_time`	Time allotted to analyze if the call has been answered by a machine. It should be an integer >= 2000 and <= 10000 and the unit is ms. The default value is 5000 ms.
`sip_headers`	List of SIP headers in the form of 'key=value' pairs, separated by commas. E.g. head1=val1,head2=val2,head3=val3,...,headN=valN. The SIP headers are always prefixed with `X-PH-`. The SIP headers are present for every HTTP request made by the outbound call. Only [A-Z], [a-z] and [0-9] characters are allowed for the SIP headers key and value. Additionally, the '%' character is also allowed for the SIP headers value so that you can encode this value in the URL.
`ring_timeout`	Determines the time in seconds the call should ring. If the call is not answered within the `ring_timeout` value or the default value of 120 s, it is canceled.

Response

HTTP Status: 200

JSON:

```
{
  "message": "call fired",
  "request_uuid": "9834029e-58b6-11e1-b8b7-a5bd0e4e126f",
  "api_id": "97ceeb52-58b6-11e1-86da-77300b68f8bb"
}
```

Get All Call Details

The following API enables you to get information about all completed calls. The maximum number of results that can be fetched with a single API call is 20.

```
URI: https://api.plivo.com/v1/Account/{auth_id}/Call/
Method: GET
```

Parameters

There are no mandatory parameters specified for this API. The following optional parameters can be specified:

Optional Parameters

Parameter	Description
`subaccount`	The id of the subaccount, if call details of the subaccount is needed.
`call_direction`	Filter the results by call direction. The valid inputs are `incoming` and `outgoing`.
`from_number`	Filter the results by the number from where the call originated. For example: • To filter out those numbers that contain a particular number sequence, use `from_number={sequence}` • To filter out a number that matches an exact number, use `from_number={exact_number}`
`to_number`	Filter the results by the number to which the call was made. Tips to use this filter are: • To filter out those numbers that contain a particular number sequence, use

	`to_number={sequence}` • To filter out a number that matches an exact number, use `to_number={exact_number}`
`bill_duration`	Filter the results according to billed duration. The value of billed duration is in seconds. The filter can be used in one of the following five forms: • `bill_duration` : Input the exact value. Eg:- to filter out calls that were exactly three minutes long, use `bill_duration=180` • `bill_duration__gt` : `gt` stands for greater than. Eg:- to filter out calls that were more than two hours in duration `bill_duration__gt=7200` • `bill_duration__gte` : `gte` stands for greater than or equal to. Eg:- to filter out calls that were two hours or more in duration `bill_duration__gte=7200` • `bill_duration__lt` : `lt` stands for lesser than. Eg:- to filter out calls that were less than seven minutes in duration `bill_duration__lt=420` • `bill_duration__lte` : `lte` stands for lesser than or equal to. Eg:- to filter out calls that were two hours or less in duration `bill_duration__lte=7200`
`end_time`	Filter out calls according to the time of completion. The filter can be used in the following five forms: • `end_time` : The format expected is YYYY-MM-DD HH:MM[:ss[.uuuuuu]]. Eg:- To get all calls that ended at 2012-03-21 11:47[:30], use `end_time=2012-03-21 11:47[:30]` • `end_time__gte` : `gte` stands for greater than or equal. The format expected is YYYY-MM-DD HH:MM[:ss[.uuuuuu]]. Eg:- To get all calls that ended after or exactly at 2012-03-21 11:47[:30], use `end_time__gte=2012-03-21 11:47[:30]` • `end_time__gte` : `lte` stands for lesser than or equal. The format expected is YYYY-MM-DD HH:MM[:ss[.uuuuuu]]. Eg:- To get all calls that ended before or exactly at 2012-03-21 11:47[:30], use `end_time__lte=2012-03-21 11:47[:30]` Note: The above filters can be combined to get calls that ended in a particular time range. If not end_time based filters are provided, then calls within the LAST 7 DAYS for that account are listed out.
`limit`	Used to display the number of results per page. The maximum number of results that can be fetched is 20.
`offset`	Denotes the number of value items by which the results should be offset. Eg:- If the result contains a 1000 values and `limit` is set to 10 and `offset` is set to 705, then values 706 through 715 are displayed in the results. This parameter is also used for pagination of the results.

Response

HTTP Status: 200

JSON:

```
{
      "call_duration": 3,
      "billed_duration": 60,
      "total_amount": "0.02000",
      "parent_call_uuid": null,
      "call_direction": "outbound",
      "to_number": "xxxxxxxxxx",
      "total_rate": "0.02000",
      "from_number": "xxxxxxxxx",
      "end_time": "2012-08-20T10:53:17",
      "call_uuid": "xxx-1111-xxxx-",
```

```
      "resource_uri": "/v1/Account/XXXXXXXXXXXXXXXX/Call/XXXX1/"
},
{
      "call_duration": 3,
      "billed_duration": 60,
      "total_amount": "0.02000",
      "parent_call_uuid": null,
      "call_direction": "inbound",
      "to_number": "xxxxxxxxx",
      "total_rate": "0.02000",
      "from_number": "xxxxxxxxx",
      "end_time": "2012-08-20T10:59:16",
      "call_uuid": "xxx-2222-xxxx-",
      "resource_uri": "/v1/Account/XXXXXXXXXXXXXXXX/Call/XXXX2/"
},
...
```

Get Call Detail Record (CDR) Of a Call

```
URI: https://api.plivo.com/v1/Account/{auth_id}/Call/{call_uuid}/
Method: GET
```

Parameters

There are no mandatory parameters for this API. The following optional parameters can be specified:

Optional Parameters

Parameter	Description
`subaccount`	The id of the subaccount, if Call details of the subaccount is needed.
`limit`	`limit` is the number of values shown per page when the results are fetched.
`offset`	This parameter is also used for pagination of the results. `offset` is the number of pages by which the results should be offset. Eg:- If the result contains 1000 values and `limit` is set to 10 and `offset` is set to 7, then values 71 through 80 are displayed in the results.

Response

HTTP Status: 200

JSON:

```
For Inbound:
{
      "call_duration": 4,
      "billed_duration": 60,
      "total_amount": "0.00400",
      "parent_call_uuid": null,
      "call_direction": "inbound",
```

```
      "to_number": "1xxxxxxxxx",
      "total_rate": "0.00400",
      "api_id": "xxxxxxxxxxxxxxxxxxxxxxxx",
      "from_number": "1xxxxxxxxx",
      "end_time": "2012-09-16T19:05:08",
      "call_uuid": "xxxxxx",
      "resource_uri": "/v1/Account/XXXXXXXXXXXXXXXX/Call/XXXX/"
    }

For Outbound:
{
      "call_duration": 3,
      "billed_duration": 60,
      "total_amount": "0.02000",
      "parent_call_uuid": null,
      "call_direction": "outbound",
      "to_number": "xxxxxxxxxx",
      "total_rate": "0.02000",
      "api_id": "xxxxxxxxxxxxxxxxxxxxxxxx",
      "from_number": "1xxxxxxxxx",
      "end_time": "2012-08-20T10:53:17",
      "call_uuid": "xxxxxx",
      "resource_uri": "/v1/Account/XXXXXXXXXXXXXXXX/Call/XXXX/"
}
```

Get All Live Calls

Get all current active calls made from an account.

```
URI: https://api.plivo.com/v1/Account/{auth_id}/Call/?status=live
Method: GET
```

Parameters

```
None
```

Response

HTTP Status: 200

JSON:

```
{
  "api_id": "c9527676-5839-11e1-86da-6ff39efcb949",
  "calls": [
    "eac94337-b1cd-499b-82d1-b39bca50dc31",
    "0a70a7fb-168e-4944-a846-4f3f4d2f96f1"
  ]
}
```

Get Details Of a Live Call

Get information on an active call.

```
URI: https://api.plivo.com/v1/Account/{auth_id}/Call/{call_uuid}/?status=live
Method: GET
```

Parameters

```
None
```

Response

HTTP Status: 200

JSON:

```
{
  direction: "inbound",
  from: "1212121212",
  call_status: "in-progress",
  api_id: "45223222-74f8-11e1-8ea7-12313806be9a",
  to: "121212121212",
  caller_name: "+19724390596",
  call_uuid: "6653422-91b6-4716-9fad-9463daaeeec2",
  session_start: "2012-03-23 14:49:39.722551"
}
```

Hangup A Specific Call

Hangup an incoming or outgoing call.

```
URI: https://api.plivo.com/v1/Account/{auth_id}/Call/{call_uuid}/
Method: DELETE
```

Parameters

```
None
```

Response

HTTP Status: 204

Transfer a Call

This API enables an in-progress or active call to a different URL and fetch and execute XML from a new URL. If the call (the A leg) is in a Dial, you can also transfer the other party (the B leg) at the same time or only transfer the B leg to an URL. This is useful for many applications where you want to asynchronously change the behavior of a live call. For example, you can play music while the call is on hold, queue calls, transfer calls etc.

```
URI: https://api.plivo.com/v1/Account/{auth_id}/Call/{call_uuid}/
Method: POST
```

Parameters

There are no mandatory parameters for this API. The following optional parameters can be specified when you transfer a call:

Optional Parameters

Parameter	Description
`legs`	'aleg', 'bleg' or 'both' Defaults to 'aleg' 'aleg' will transfer call_uuid 'bleg' will transfer the bridged leg (if found) of call_uuid 'both' will transfer call_uuid and bridged leg of call_uuid
`aleg_url`	URL to transfer for 'aleg', if `legs` is 'aleg' or 'both', then `aleg_url` has to be specified.
`aleg_method`	HTTP method to invoke `aleg_url`. Defaults to `POST`.
`bleg_url`	URL to transfer for bridged leg, if `legs` is 'bleg' or 'both', then `bleg_url` has to be specified.
`bleg_method`	HTTP method to invoke `bleg_url`. Defaults to `POST`.

Response

HTTP Status: 202

JSON:

```
{
  "message": "call transfered",
  "api_id": "08c94608-58bd-11e1-86da-adf28403fe48"
}
```

Asynchronous Mode

All Plivo APIs can be invoked in asynchronous mode with the inclusion of the `callback_url` parameter.
Note: In asynchronous mode, you will only get back a response with the `api_id`.
The response is sent to the `callback_url` which is fired immediately after execution of the Plivo API.
See API Request and API Response for more information.

Asynchronous Parameters

Parameter	Description
`callback_url`	The URL that is notified by the API when the response is available and to which the response is sent.
`callback_method`	The method used to notify the `callback_url` URL. Defaults to `POST`.

Asynchronous Response

The Asynchronous Response is sent in json format in the `response` field.
See the API Response section for more information.