

Click to Call

Technical Reference

Spokn's Click to Call service allows businesses to easily integrate cost-effective calling functionality into their products and websites. The service is exposed as a simple HTTP API that supports worldwide phone numbers and even call termination on VoIP. The service provides full caller ID propagation, caller ID masking, callback URL support and call retry features.

How it works

The Click to Call service is exposed as an HTTP REST API and can be used to set up a call between two parties. The two parties can be any international / local phone numbers or Spokn IDs. A typical flow is explained below -

1. Calling system makes an API request
2. Spokn dials the aparty number specified in the request
3. aparty sees an incoming call from bparty number
4. aparty answers the call
5. Spokn plays a prompt to aparty to hold the line while it connects to bparty
6. Spokn dials the bparty number and bridges both the calls
7. bparty sees an incoming call from aparty number
8. aparty hears the bparty number ringing and on answer continues with the call

Security

The API can be called over HTTP or HTTPS. All requests must authenticate using HTTP basic authentication method. This is done by setting the appropriate Authorization header. Please refer to http://en.wikipedia.org/wiki/Basic_access_authentication for examples and an explanation.

API reference

URL - <http://api.spokn.com/c2c/1.0/call>

HTTP method - POST

| Param | Optional | Description |
|--------|----------|--|
| aparty | Required | The first party of the call, typically the caller. Spokn first calls this number and then connects to bparty. This number can be a phone number with country code or a Spokn ID. For example, +18474255380 in case of a phone number or 1234567 in case of a Spokn ID. |

| Param | Optional | Description |
|-------------------|----------|--|
| apartycid | Optional | The number to be displayed to the aparty (typically, caller ID of bparty) for the incoming call from Spokn. This has to be a phone number with country code or a Spokn ID. It can be a Spokn ID only if aparty is also a Spokn ID. This parameter can only be set by Enterprise users. |
| bparty | Required | The second party of the call, typically the callee. Once aparty answers the call, Spokn calls bparty and bridges both calls. For example, +18474255380 in case of a phone number or 1234567 in case of a Spokn ID. |
| bpartycid | Optional | The number to be displayed to bparty (typically, caller ID of aparty) for the incoming call from Spokn. This has to be a phone number with country code or a Spokn ID. It can be a Spokn ID only if bparty is also a Spokn ID. This parameter can only be set by Enterprise users. |
| duration | Optional | Maximum duration allowed for the call in minutes, up to 60. |
| token | Optional | An opaque memo that can be used to tag the call detail record (CDR) for later use. Maximum 128 characters. |
| maxretries | Optional | Number of times to retry the call to aparty before giving up. Default is 0, which means Spokn will not retry the call in case of number busy or unreachable. Maximum value can be 3. |
| retrytime | Optional | Number of seconds to wait before retrying the call to aparty. Minimum 0 and maximum 10. |
| url | Optional | The callback URL on which Spokn posts the status of the call. This parameter can only be set by Enterprise users. |

Possible HTTP Status Codes

| Status code | Description |
|-----------------------------------|--|
| 200 OK | Request successful |
| 404 Not Found | Resource not found |
| 415 Unsupported Media Type | Sent when “Content-type” is something other than “application/x-www-form-urlencoded” |
| 401 Unauthorized | Authentication failed |
| 500 Internal Server Error | Something went wrong in the server |

Caller ID propagation

Spokn automatically sets valid caller IDs for all calls depending on aparty and bparty numbers. Here are some scenarios and the outcomes -

Automatic caller ID propagation

| Param | Value |
|-----------|-------------|
| aparty | PSTN number |
| bparty | PSTN number |
| apartycid | Not set |
| bpartycid | Not set |

- When Spokn calls aparty, it will set the caller ID as the bparty number. In other words, aparty will see an incoming call from bparty.
- When Spokn calls bparty, it will set the caller ID as the aparty number. In other words, bparty will see an incoming call from aparty.

Automatic caller ID propagation when aparty is Spokn ID

| Param | Value |
|-----------|-------------|
| aparty | Spokn ID |
| bparty | PSTN number |
| apartycid | Not set |
| bpartycid | Not set |

- When Spokn calls aparty, it will set the caller ID as the bparty number. In other words, aparty will see an incoming call from bparty.
- When Spokn calls bparty, it will set the caller ID as a local Spokn access line number. This is because a Spokn ID cannot be propagated to a regular phone.

Setting caller ID for bparty

| Param | Value |
|-----------|------------------|
| aparty | PSTN number |
| bparty | PSTN number |
| apartycid | Not set |
| bpartycid | Some PSTN number |

- When Spokn calls aparty, it will set the caller ID as the bparty number. In other words, aparty will see an incoming call from bparty.
- When Spokn calls bparty, it will set the caller ID as the bpartycid value provided in the API. In other words, bparty will see a call coming from the bpartycid number provided.

Setting caller ID for bparty, aparty Spokn ID

| Param | Value |
|-----------|------------------|
| aparty | Spokn ID |
| bparty | PSTN number |
| apartycid | Not set |
| bpartycid | Some PSTN number |

- When Spokn calls aparty, it will set the caller ID as the bparty number. In other words, aparty will see an incoming call from bparty.
- When Spokn calls bparty, it will set the caller ID as the bpartycid value provided in the API. In other words, bparty will see a call coming from the bpartycid number provided.

Response

The Click to Call API returns responses in XML. The XML schema is provided to validate and parse the response. This is an example response -

```
<?xml version="1.0"?>
<spokn xmlns="http://api.spokn.com/api/c2c.xsd">
  <c2c version="1.0">
    <code>200</code>
    <desc>Request Successful</desc>
  </c2c>
</spokn>
```

Note: Please download the XSD file from <http://api.spokn.com/api/c2c.xsd>

The possible values for the <code/> element are listed below -

| Return Code | Description |
|-------------|--------------------------|
| 200 | Request successful |
| 100 | Resource not found |
| 101 | Authentication failed |
| 102 | Invalid input parameters |

| Return Code | Description |
|-------------|--|
| 103 | Bad aparty number |
| 104 | Bad bparty number |
| 105 | Unable to fetch credits information |
| 106 | aparty destination not supported |
| 107 | bparty destination not supported |
| 108 | Insufficient credits for call |
| 109 | Token length exceeded. Max length is 128 characters. |

Callback URL

The Click to Call API can report back on the status of the call once it is completed on a callback URL. This can only be set by Enterprise users. The callback URL is of the form <http://enterprise-server/callbackurl>. Since each Click to Call request results in 2 calls being made by Spokn, the callback URL will be called twice - firstly for reporting on the call to aparty and secondly for reporting on the call to bparty.

The parameters that will be POSTed to the url are listed below

| Param | Description |
|-----------------|---|
| userid | Spokn ID using which the call was authenticated. |
| aparty | aparty phone number or Spokn ID. |
| bparty | bparty phone number or Spokn ID. |
| leg | Whether it is the call being made to aparty or bparty. If leg is 1 then the report is for the call to aparty. If leg is 2 it is for the call to bparty. |
| start | Call start time in ISO 8601 datetime format. |
| duration | Call length in seconds. |
| token | The token that was supplied in the API request, returned as is. |
| rate | The rate per minute in US cents at which the call was billed. |
| cost | The cost of the call in US cents. |

| Param | Description |
|---------------|--|
| status | Status of the call. Possible values - 0 - Success 1 - Number busy 2 - No answer 3 - Route congested 4 - Call cancelled before answer 5 - Invalid number 6 - Other error 7 - Call already in progress |