# Making a Call Using Your FlexML Endpoint

Learn how to customize your FlexML endpoint to perform outbound calls.

|  | **Using the Swagger Interface** | **Making API Calls Directly** |
|---|---|---|

## 1 — Accessing your Flexml Endpoint

### Using the Swagger Interface

**Flexml API Explorer**

Use the following three pieces of information to access the FlexML API Explorer.

api_url:
https://api.carrierx.com/flexml/v1

login: assigned-login
password: assigned-password

This information is provided upon successful creation of your FlexML endpoint.

See *Configuring Application Endpoints* for more information.

### Making API Calls Directly

#### GET

curl -X GET -u <your_user_name>:<your_password> 'https://api.carrierx.com/core/v2/endpoints?offset=0&limit=10&filter=type+eq+flexml'

#### Response Value to Look For

Note: The JSON response contains four values that you will need to access your API.

"**endpoint_sid**": "7f613c05-1991-4a25-9369-9b698ce1d4ad"
"**api_url**": "https://api.carrierx.com/flexml/v1"
"**login**": "assigned-login"
"**password**": "assigned-password"

## 2 — Configure Your Own Application Server to Receive POST from CarrierX

### Configure Your Own Application Server

The CarrierX API requires that you create a web server on your side to receive a POST. The CarrierX API will query your web server to receive instructions on how to handle a call such as answering, forwarding or playing a 'text-to-speech'. Here is a simple example you can try:

```
<Response>
    <Say>Hello World</Say>
</Response>
```

Note: Make sure your web server is accessible to receive outside requests.

## 3 — POST Call to Configured Application Server

### Using the Swagger Interface

**POST api/calls**

```
{
    "calling_did":"YourRentedDID",
    "called_did":"The-Number-You-Are-Calling",
    "url":"url-to-your-web-server",
    "method":"POST"
}
```

Note: The calling_did must be part of your CarrierX DID inventory. To learn how to rent a DID, refer to the *Renting a Phone Number* quick start guide.

### Making API Calls Directly

#### POST

curl -X POST -d '{"calling_did":"YourRentedDID", "called_did":"The-Number-You-Are-Calling", "url":"url-to-your-webserver", "method":"POST"}' -u <your_user_name>:<your_password> 'https://api.carrierx.com/flexml/v1/calls'

#### Response

When the call connects (System Code 200), you will receive parameters to the designated URL. At this point you can run logic on your side to handle the call.

## 4 — Executing Your Instructions

### Executing Your Specific Instructions

Now that your web server is receiving a POST from the CarrierX service, you can build complex workflows using simple verbs as outlined below.
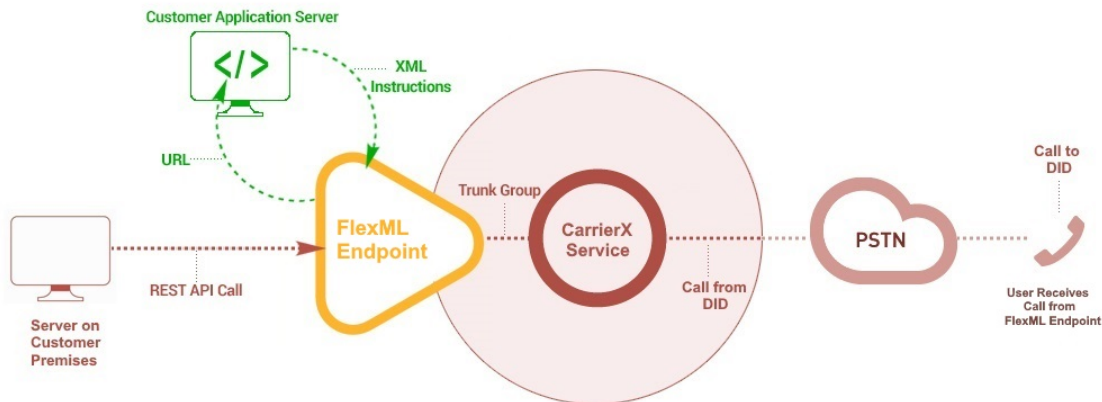
Supported FlexML voice verbs:

1. **Dial** - Dials another number and automatically bridges the call together.
2. **Gather** - Allows you capture DTMF.
3. **Hangup** - Ends the call.
4. **Pause** - Waits for the specified number of seconds.
5. **Play** - Plays a .wav or .mp3 file.
6. **Redirect** - Immediately passes control to another URL where further instructions can exist.
7. **Reject** - Ends the call without answering it.
8. **Say** - Uses text-to-speech to say a string.

> Congratulations!
>
> You've just made an outbound call from your FlexML endpoint!

# Overview - Diagram, Terms and Definitions

Making an outbound call with your FlexML endpoint requires specific building blocks to be in place. The following diagram provides an overview of how those pieces fit together.



**Step 1 - Accessing Your FlexML Endpoint**: When you created your FlexML endpoint, the main CarrierX API provided

    i. **api_url**: The URL to access the service: **https://api.carrierx.com/flexml/v1**.

    ii. **login**: Your unique login that was generated to access your endpoint.

    iii. **password:** Your unique password to use to access your endpoint.

    If you have not yet created a FlexML endpoint, see *Configuring Application Endpoints* found at https://carrierx.com/documentation/quick-start-guides.

**Step 2 - Configuring Your Own Application Server**: Your application must be accessible via the public internet in order for it to provide XML instructions to the CarrierX service. Since the CarrierX service is connected to the phone network, it needs access to your server to fetch XML instructions on how your FlexML endpoint calls will be handled. This is a standard requirement for any application looking to make or receive calls from the CarrierX service.

**Step 3 - POST Calls to Configured Application Server**: Now that your application server is ready to accept POST requests, you are ready to make your first call via POST command and set the URL.

**Step 4 - Executing Your Specific Instructions**: Your application can leverage a series of verbs to build complex actions that can be executed by your FlexML endpoint. The most common actions are to play a recording and capture DTMF tones.

For more comprehensive information on configuring services, please see the API documentation at  https://www.carrierx.com/documentation.