

Getting started with Beyond Verbal's REST API

PURPOSE

This Quick Reference Guide is made to help you get up and running using Beyond Verbal's Emotions Analytics REST API (API).

Using the API you will:

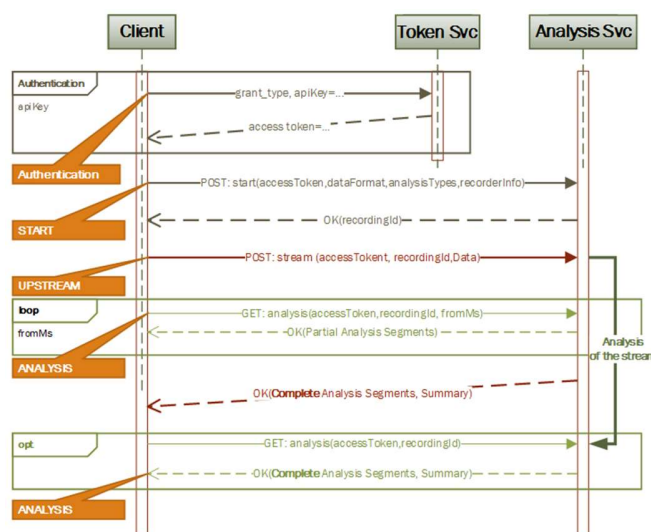
1. Send the voice samples to Beyond Verbal cloud-based Emotions Analytics engine for analysis.
2. Receive the analysis back from the API.

To obtain better understanding of the data received back from the API, please take a moment to browse our **Result Interpretation guide**.

To better understand how to create and record good-quality, emotionally effective voice inputs please refer to our **Voice Input Guidelines**.

THE ESSENTIALS PROCESSES OF WORKING WITH OUR API

Each of the below callouts represents a separate step in the process of working with our API. These steps are described in further details - each in a separately dedicated chapter. Feel free to browse the guide in full or jump directly to the chapters that interest you the most.



AUTHENTICATION

Use this request to acquire an authentication token from the API Key. This token needs to be sent with each subsequent request to the analysis server.

The Authentication Token must be sent as an Authorization field in the HTTP request header.

Authentication Request Parameters

Name	Location (Body \ URL \ Header)	Optional	Default value	Explanation
grant_type	Body	No	client_credentials	Client requests an access token.
apiKey	Body	No	Your API key	The API key you received from Beyond Verbal.
Content-Type	Header	No	x-www-form-urlencoded	Default Internet media type.

Example: Get token request

```
POST https://token.beyondverbal.com/token
Content-Type:application/x-www-form-urlencoded
...
grant_type=client_credentials&apikey=*****
```

Example: Response token

```
{
  "access_token":"21G2BA4iZJavSJQbsyuppWmfSMLgLn-**gDTCfguhZGa_k8",
  "token_type":"bearer",
  "expires_in":172799
}
```

You **must** use the received authentication token in all subsequent requests.

Example: Using the token

```
POST https://saddetector.beyondverbal.com/v5/recording/start
...
Authorization: Bearer 21G2BA4iZJavSJQbsyuppWmfSMLgLn-**gDTCfguhZGa_k8
...
```

This token may be reused for multiple sessions.

START

Use this request to initialize an analysis session.

Define the type of audio file you will send (wav or pcm). If the format is pcm, also provide the channels, sample rate, and bits per sample (in a wav file these parameters are read from the header).

Optionally, you can send metadata about the client, such as clientId or deviceId. See "Metadata Guide" for more details.

Example: Simple request body

```
{ dataFormat: { type:"WAV" }, metadata:{ ClientID:"12345" } }
```

Start Request

Method: POST

URL: <https://saddetector.beyondverbal.com/v5/recording/start>

Start Request Parameters

Name	Location (Body \ URL\ Header)	Optional	Default value	Explanation	Example
<code>dataFormat</code>	Body	Yes	<code>dataFormat: {type: "WAV"}</code>	Information about the data stream that will be sent to the server (using recording / call).	For file with WAV header <code>dataFormat:{ type:"WAV" }</code> --- For Raw PCM file <code>dataFormat : { "type": "pcm", "channels": 1, "sample-rate": 8000, "bits-per-sample": 16 }</code>
<code>metadata</code>	Body	Yes	<code>metadata: {}</code>	Metadata information describing user/ client/ device/ session. For more details see "Metadata" Error! Bookmark not defined..	<code>metadata: { clientId: "someUser123@gmail.com", deviceId: "121332423423", phone: "1718-555-555" }</code>

Name	Location (Body \ URL \ Header)	Optional	Default value	Explanation	Example
displayLang	Body	Yes	displayLang: "en-us"	Language used for the result. If the requested language is not supported, an error is returned. Note that "en-us" is always supported.	
Auth token	Authorization Header	No			Bearer XXX_TOKEN_XXX

Example: Start request (including token)

```
POST https://saddetector.beyondverbal.com/v5/recording/start
...
Authorization: Bearer 21G2BA4iZJavSJQbsyuppWmfSMLgLn-**gDTCfguhZGa_k8
...
{
  "dataFormat": {"type": "WAV"},
  "metadata": {"clientId": "12345"}
}
```

Start Response

Example: OK Response (200)

```
{status: "success", recordingId: "someGUID"}
```

The **recordingId** field is used to access a particular session that was created.

Example: Error Response (4xx)

```
{status: "failure", reason: "This is optional text explaining the error"}
```

UPSTREAM

Use this request to send a voice input to the server for analysis. The response contains the analysis for the whole file.

Note: The response to this request is returned only when the whole body has been received and analyzed by the server. This may take a long time; thus to receive intermediate analysis results use the [ANALYSIS](#) request.

Upstream Request

Method: POST

URL: <https://apiv5.beyondverbal.com/v5/recording/{recordingId}>

Upstream Request Parameters

Name	Location (Body \ URL \ Header)	Optional	Explanation
recordingId	URL	No	Unique identifier of recording. Provided in the recordingId field of the START response.
Auth token	Authorization Header	No	See "Authentication"
Sample Data	Body	No	Post your audio samples as the body of this HTTP message. Note: Http "Content-Length" header If the length of your sample is unknown in advance (real-time streaming), use a Chunked Transfer Encoding. See (http://en.wikipedia.org/wiki/Chunked_transfer_encoding for details.

Example: Upstream request

```
POST https://saddetector.beyondverbal.com/v5/recording/{recordingId}
...
Authorization: Bearer 21G2BA4iZJavSJQbsyuppWmfSMLgLn-**gDTCfguhZGa_k8
...
<body: Sample Data goes here>
```

Upstream Response

The response is a JSON object containing an array of the analysis results for whole analysis session.

Example: OK Response (200)

```
{
```

```
status: "success"
recordingId: "someGUID",
result: {
  duration: 295096,
  sessionStatus: "Done",
  analysisSegments: [
    {
      "offset": 1586,
      "duration": 23201,
      "analysis": {...}
    }
  ]
}
}
```

ANALYSIS

Use this request to fetch the analysis for a particular offset (segment) of the analysis session. You can issue this request in parallel with the UPSTREAM request in order to receive intermediate analysis.

Analysis Request

Method: GET

URL: <https://saddetector.beyondverbal.com/v5/recording/{recordingId}/analysis?fromMs=n>

Analysis Request Parameters

Name	Location (Body \ URL \ Header)	Optional	Explanation
recordingId	URL	No	Unique identifier of recording. Provided in the recordingId field of the <u>START</u> response.
fromMs	URL	Yes	Filters out any analysis older than the given value.
Auth token	Authorization Header	No	See "Authentication"

Example: Initial analysis request

This example requests an analysis from the beginning of the recording session (fromMS=0).

```
GET https://saddetector.beyondverbal.com/v5/recording/{recordingId}/analysis?fromMs=0
...
Authorization: Bearer 21G2BA4iZJavSJQbsyuppWmfSMLgLn-**gDTCfguhZGa_k8
...
```

Analysis Response

The response is a JSON object containing an array of all the analysis segments from the fromFS, offset from the beginning of the session, until the current moment in time. This moment is the duration. The value of duration indicates the beginning of the next analysis segment.

Example: Analysis OK response (200)

```
{
  status: "success"
  recordingId: "someGUID",
  result: {
    duration: 295096,
    sessionStatus: "Done",
    analysisSegments: [...]
  }
}
```

Subsequent Analysis Request

In the next analysis request, increase fromMS to the next offset, that is the duration received in the response, to receive only the most recent analysis.

Example: Subsequent analysis request

This example requests an analysis from where the previous recording session finished (fromMS=295096).

```
GET https://saddetector.beyondverbal.com/v5/recording/{recordingId}/analysis?fromMs=295096
...
Authorization: Bearer 21G2BA4iZJavSJQbsyuppWmfSMLgLn-**gDTCfguhZGa_k8
...
```

Continue with such requests until the session is completed (session status = done).

Note that you can request additional analysis requests for up to 24 hours after the session started. The analysis data is cached for 24 hours.