Call Summarization Import Application (CM Import)

API Documentation

Version 2.0

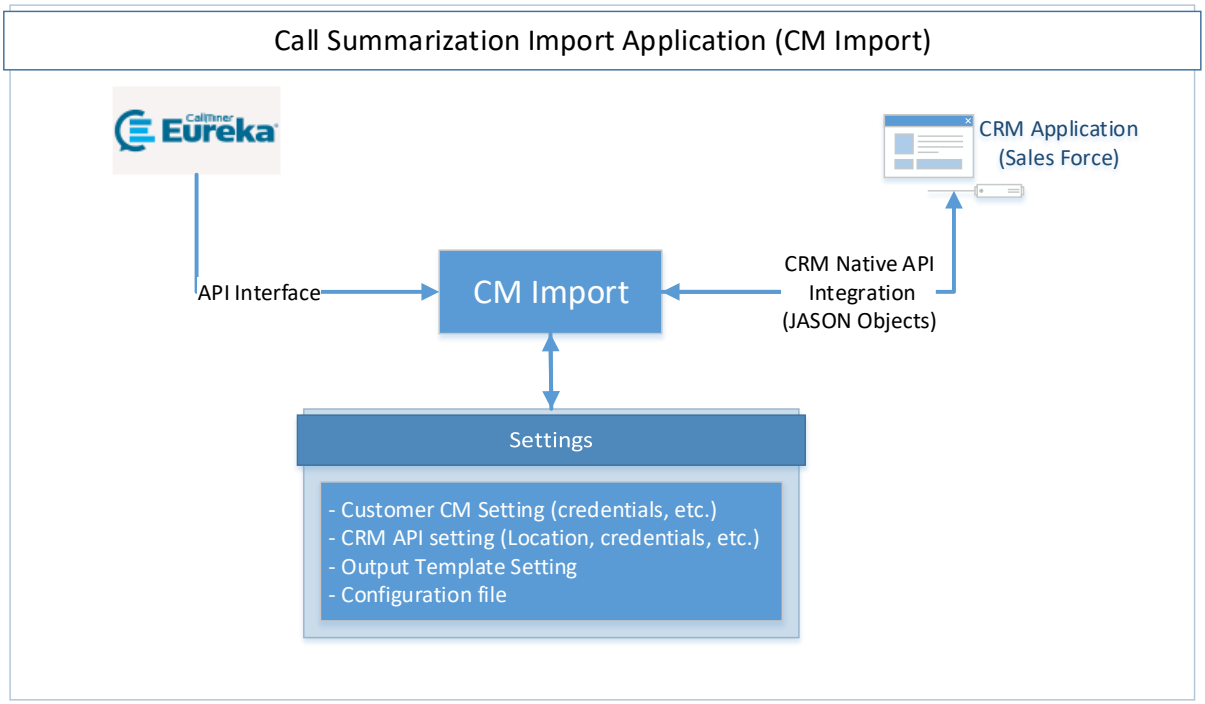
Table of Contents

Section 1: Introduction

1.1 About the Call Summarization Import (CM Import) Application

Call Summarization Import (CM Import) application extracts the categories, scores, and metadata from the Eureka platform using the data API and creates a call summarization that includes the key elements and objectives on the call. Using the application, the users can export the summary that is ready to be consumed in a third-party platform CRM system.

The below diagram shows the high-level import flow of the application:



1.2 About this Document

This document helps to understand the Call Summarization Import (CMI) application and provides a step-wise guide to the users to perform template customization, import data from the Eureka system into your own application, and export the call summary. This document mainly focuses on the below topics:

- Call Summarization Import (CMI) application.
- Customization of the template of the call summary (output JSON file).
- Importing the contact data into your own application by accessing the CallMiner Data API.
- Accessing the CallMiner Data API and interact with the data in your Eureka system.
- Generating the call summary.

The following are the sections in the document and its description:

Section 1:Introduction – This section provides information about the application, about this document, and assumptions about the user of the application.

Section 2:Generate Call Summarization - This section provides a step-wise guide on generating the call summaries.

Section 3:Export summary for a CRM system – This section provides an example to show the summary that is integration ready for CRM.

Section 4:Getting a JWT Authentication Token - This section explains how to obtain a JWT token. To access the CallMiner Data API and interact with the data in your Eureka system, you must have a current JWT token from the CallMiner Security API.

Section 5:Extract Data from Eureka Using Data API - This section provides a step-wise guide on how to export your contact data for a given time period based on a start and end date.

1.3 Assumptions

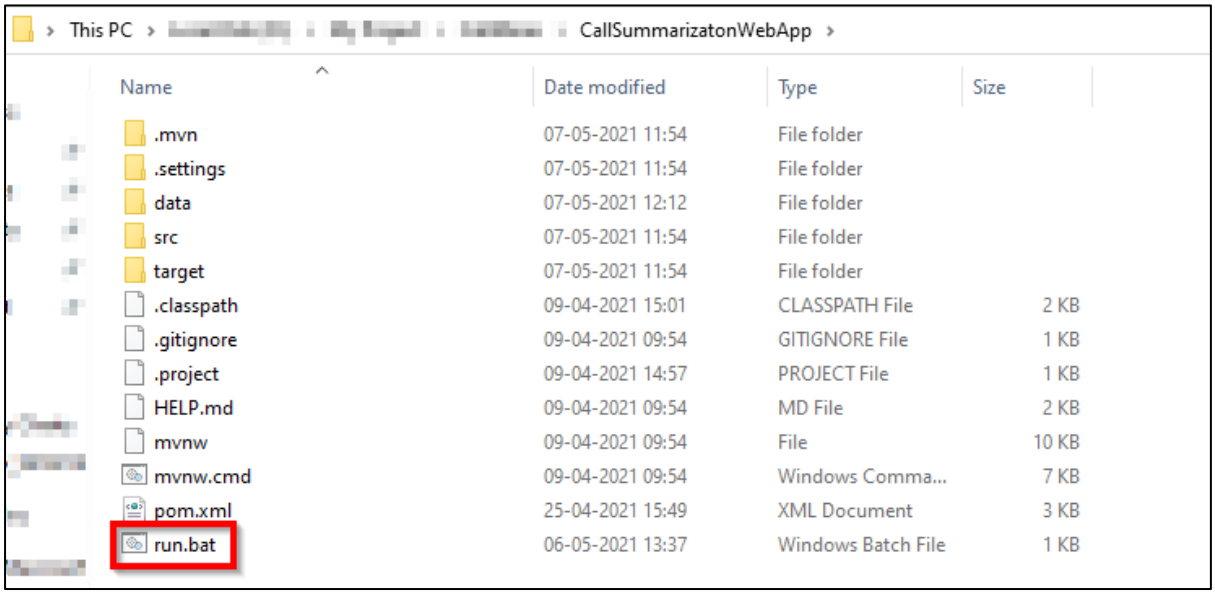
This document makes the following assumptions:

- You are familiar with JSON.
- Java version 1.8 or higher is installed in your system.
- You are familiar with the CallMiner Data API. For more information, see the CallMiner API Cookbook.

Section 2: Generate Call Summarization

This section provides a step-wise guide on generating the call summaries by using the Call Summarization Import (CM Import) application. Following are the steps to generate the call summary:

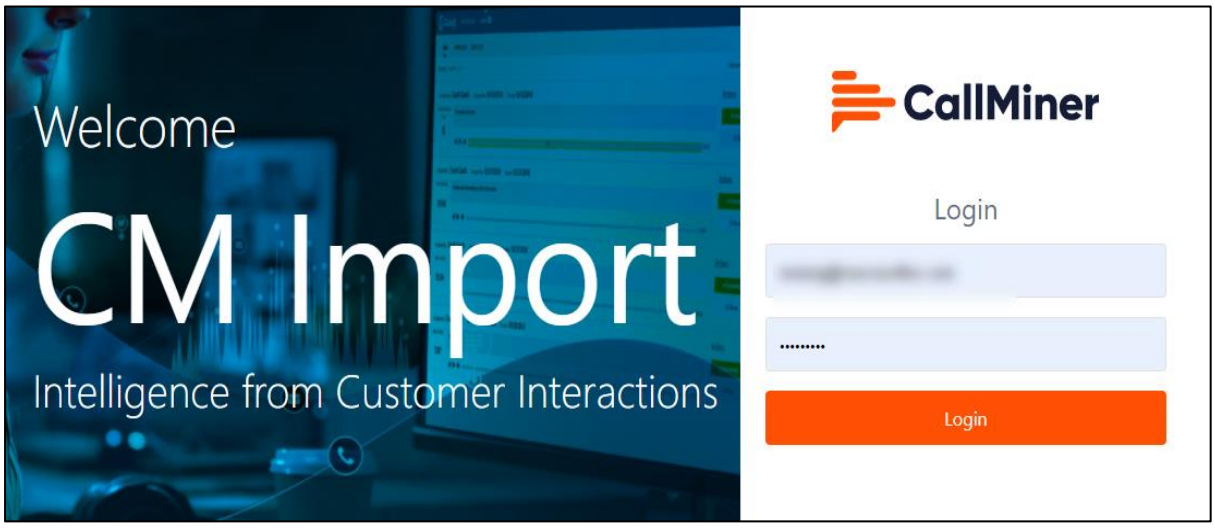
1. Open the **CallSummarizatonWebApp** folder.



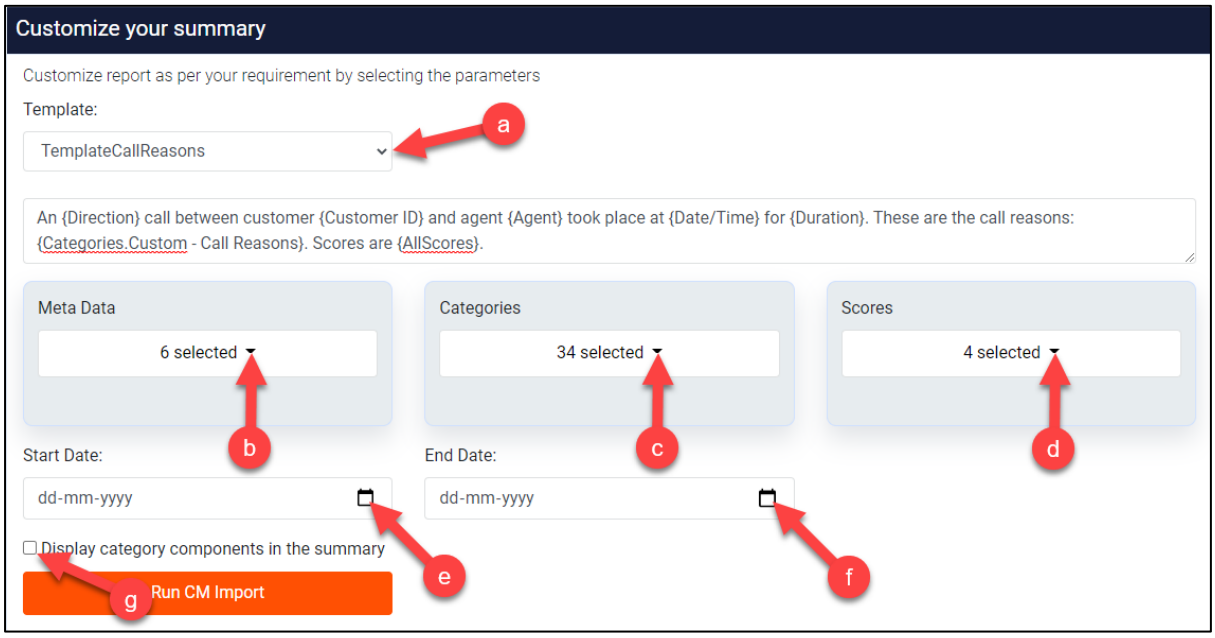
2. Double click the **run.bat**.

3. Open a browser and visit to http://localhost:8080/. This opens the **Login** page of the CM Import application.

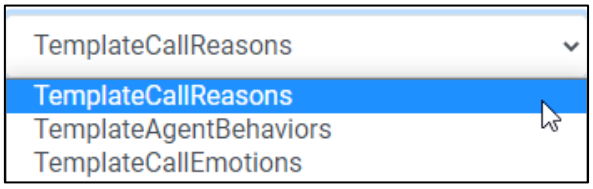
4. In the **Login** page, enter your username and password, and click **Login**. This opens the **Customize your summary** page.



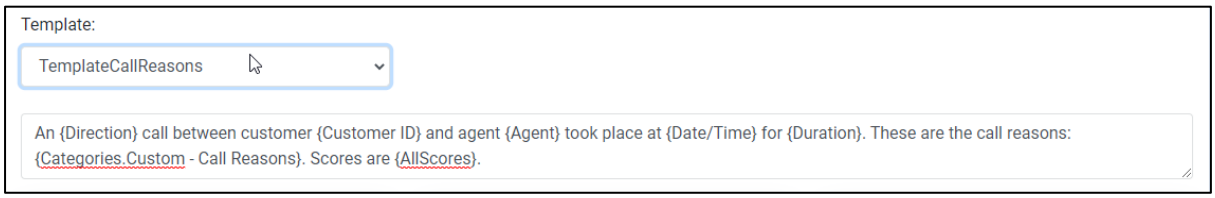
5. In the **Customize your summary** page, customize the summary report as per your requirement by selecting the parameters:



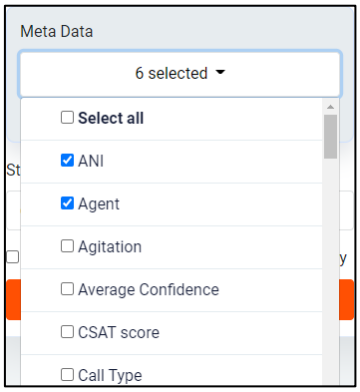
a. **Template** – Select a template of the summary report you want to generate.



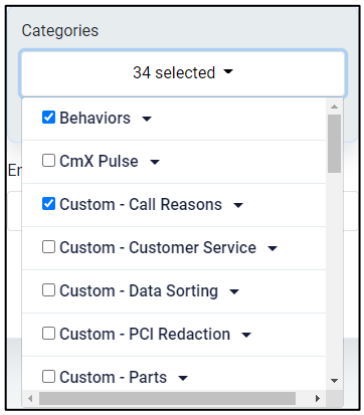
Note: Description of the selected template is displayed in the box below the **Template** drop-down. For example, refer the below screenshot that shows the description for TemplateCallReasons.



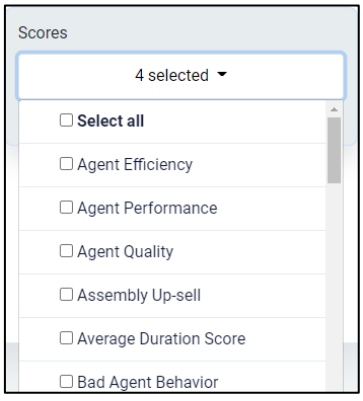
b. **Meta Data** – Select the required meta data you want to show in the summary report.



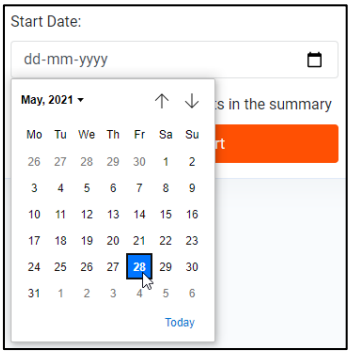
c. **Categories** – Select the required categories you want to generate report for.



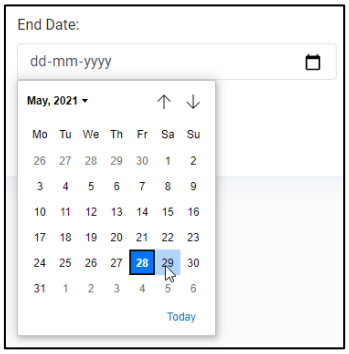
d. **Scores** – Select the required scores you want to show in the summary report.



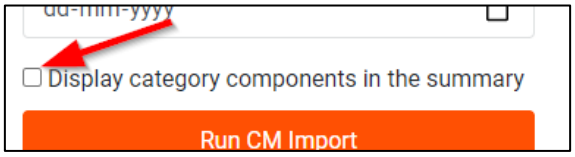
e. **Start Date** – Select the start date of the summary reports you want to generate.



f. **End Date** – Select the end date of the summary reports you want to generate.



g. **Display category components in the summary:**



i. Check in the checkbox if you want to generate summary with the component displayed. '**[section] category 1 (component 1, component 2, etc.) category 2 (component 1, component 2, etc.)'** is the typical format that is used to show the category and components that the contact hit on. For example:

```
[Behaviors] Ownership (I can check on that, Let me try
again, I`ll help set up, I will be able to, I`ll go ahead
and, What I can do is, I`m going to do, Let me make sure),
Politeness (Thanks so much, Good day)
```

ii. Check out the checkbox if you want to generate summary with the component not displayed. '**[section] category 1, category 2, etc.)'** is the typical format that is used to show the category that the contact hit on. For example:

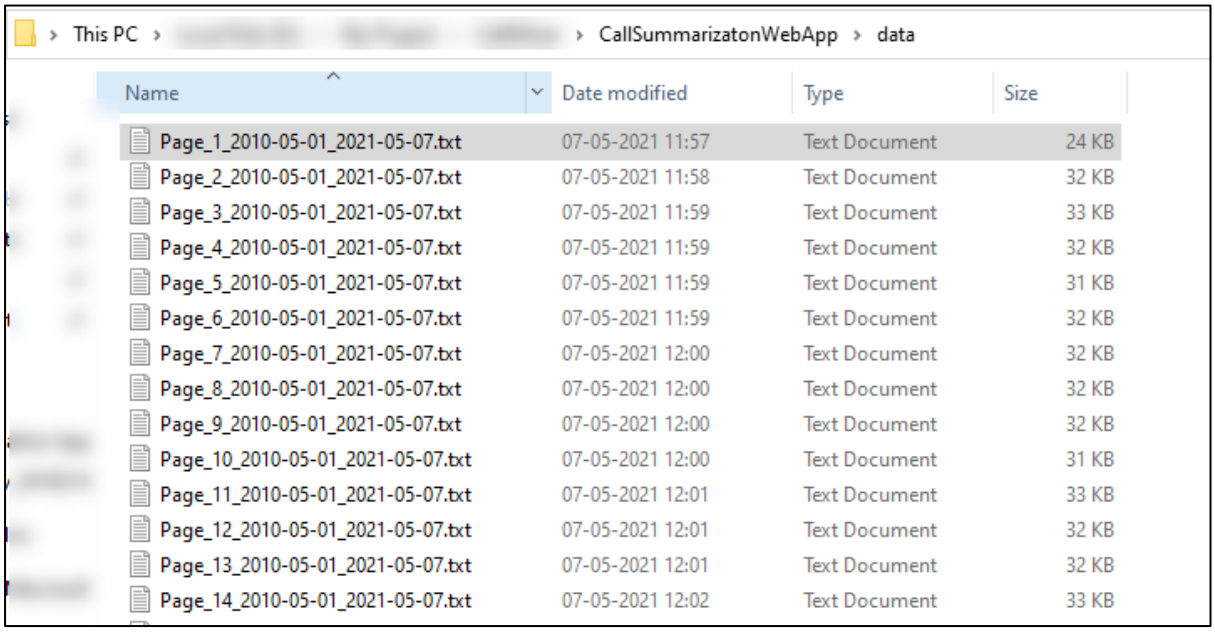
```
[Behaviors] Ownership, Politeness
```

6. After setting up all the parameters, click **Run CM Import**. This generates the summary reports and stores the summary report in to **Data** folder.

Note:

Each summary file will have fifty call data.

The summary files will be named in the following format: Page_X_Search start date (YYYY-MM-DD)_Search end date (YYYY-MM-DD)



Below is an example of a call summary generated with the component displayed (Check in the checkbox of **Display category components in the summary)**:


```
[ {
  "Agent" : "System",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Outgoing",
  "Duration" : "0 min 12 sec",
  "Date/Time" : "2021-06-15T21:24:00",
  "Categories" : [ "Custom - Call Reasons.Tracking Number", "Custom
- Call Reasons.Parts Order" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent System took place at 2021-06-15T21:24:00 for 0 min 12 sec.
```

```
These are the call reasons: Tracking Number (TrkNum), Parts Order.
Scores are Call Reasons:12, Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "CALVIN TRAN",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Incoming",
  "Duration" : "0 min 10 sec",
  "Date/Time" : "2021-06-11T08:38:00",
  "Categories" : [ "Emotion.Disgust" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent CALVIN TRAN took place at 2021-06-11T08:38:00 for 0 min 10
sec. These are the call reasons: {Categories.Custom - Call Reasons}.
Scores are Call Reasons:0, Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "System",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Outgoing",
  "Duration" : "0 min 7 sec",
  "Date/Time" : "2021-06-05T09:10:00",
  "Categories" : [ "Custom - Call Reasons.Parts Order" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent System took place at 2021-06-05T09:10:00 for 0 min 7 sec.
These are the call reasons: Parts Order. Scores are Call Reasons:0,
Tempo:0, Understandability:100, Call Emotion:100, ."
```

```
}, {
  "Agent" : "ADA FOWLER",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Incoming",
  "Duration" : "0 min 30 sec",
  "Date/Time" : "2021-05-26T18:30:00",
  "Categories" : [ "Custom - Call Reasons.Tech Service Visit",
"Custom - Call Reasons.Troubleshooting", "Emotion.Happiness",
"Behaviors.Empathy", "Behaviors.Hold Language",
"Behaviors.Politeness" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent ADA FOWLER took place at 2021-05-26T18:30:00 for 0 min 30
sec. These are the call reasons: Tech Service Visit (Tech Service
Visit), Troubleshooting (Unplug). Scores are Call Reasons:12,
Tempo:0, Understandability:100, Call Emotion:100, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Incoming",
  "Duration" : "0 min 3 sec",
  "Date/Time" : "2021-06-15T22:18:00",
  "Categories" : [ "Custom - Call Reasons.Refund", "Custom - Call
Reasons.Full Refund" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T22:18:00 for 0 min 3
sec. These are the call reasons: Refund (Refund), Full Refund (2).
```

```
Scores are Call Reasons:12, Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Outgoing",
  "Duration" : "0 min 22 sec",
  "Date/Time" : "2021-06-15T19:00:00",
  "Categories" : [ "Custom - Call Reasons.Refund", "Custom - Call
Reasons.Full Refund", "Behaviors.Ownership" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T19:00:00 for 0 min 22
sec. These are the call reasons: Refund (Refund), Full Refund (2).
Scores are Call Reasons:12, Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Incoming",
  "Duration" : "0 min 12 sec",
  "Date/Time" : "2021-06-15T17:45:00",
  "Categories" : [ ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T17:45:00 for 0 min 12
sec. These are the call reasons: {Categories.Custom - Call Reasons}.
```

```
Scores are Call Reasons:0, Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Outgoing",
  "Duration" : "0 min 11 sec",
  "Date/Time" : "2021-06-15T16:26:00",
  "Categories" : [ "Custom - Call Reasons.Refund", "Custom - Call
Reasons.Full Refund", "Behaviors.Dissatisfaction",
"Behaviors.Empathy", "Behaviors.Politeness" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 94
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T16:26:00 for 0 min 11
sec. These are the call reasons: Refund (Refund), Full Refund (2).
Scores are Call Reasons:12, Tempo:0, Understandability:100, Call
Emotion:94, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Incoming",
  "Duration" : "0 min 2 sec",
  "Date/Time" : "2021-06-15T07:48:00",
  "Categories" : [ "Behaviors.Dissatisfaction" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 94
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T07:48:00 for 0 min 2
sec. These are the call reasons: {Categories.Custom - Call Reasons}.
```

```
Scores are Call Reasons:0, Tempo:0, Understandability:100, Call
Emotion:94, ."
}, {
  "Agent" : "HUNTER CLEMENS",
  "Customer ID" : "Unknown client",
  "ANI" : null,
  "Direction" : "Internal",
  "Duration" : "0 min 11 sec",
  "Date/Time" : "2021-06-15T23:48:00",
  "Categories" : [ ],
  "Scores" : [ {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Internal call between customer Unknown client
and agent HUNTER CLEMENS took place at 2021-06-15T23:48:00 for 0 min
11 sec. These are the call reasons: {Categories.Custom - Call
Reasons}. Scores are Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "HUNTER CLEMENS",
  "Customer ID" : "Unknown client",
  "ANI" : null,
  "Direction" : "Internal",
  "Duration" : "0 min 17 sec",
  "Date/Time" : "2021-05-17T04:15:00",
  "Categories" : [ ],
  "Scores" : [ {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Internal call between customer Unknown client
and agent HUNTER CLEMENS took place at 2021-05-17T04:15:00 for 0 min
17 sec. These are the call reasons: {Categories.Custom - Call
Reasons}. Scores are Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "Bank Agent A",
  "Customer ID" : "Unknown client",
  "ANI" : "451287854",
  "Direction" : "Fort Myers",
  "Duration" : "1 min 34 sec",
```

```
  "Date/Time" : "2021-06-15T23:54:00",
  "Categories" : [ "Custom - Call Reasons.Parts Order",
"Behaviors.Ownership", "Behaviors.Politeness" ],
  "Scores" : [ {
    "ScoreName" : "Tempo",
    "Value" : 214
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 96
  } ],
  "CallSummary" : "An Fort Myers call between customer Unknown
client and agent Bank Agent A took place at 2021-06-15T23:54:00 for
1 min 34 sec. These are the call reasons: Parts Order. Scores are
Tempo:214, Understandability:100, Call Emotion:96, ."
} ]
```


The following explains what each parameter means:

- **EurikaId**: Callminer's unique contact identifier. Each call will have its unique contact ID.
- **Agent**: Agent name (Customer service person).
- **CustomerAccount**: Name/Account of the customer.
- **Supervisor**: Supervisor's name of the agent.
- **ANI**: Automatic Number Identification
- **Direction**: Indicates the direction of the call to find who made the call. For Example:
  - **"Direction": "Inbound"** indicates the customer made the call to the agent.
  - **"Direction": "Outbound"** indicates the agent made the call to the customer
- **Duration**: Duration of the call
- **RepeatContactCount**: Repeated call count to find how many times the customer has made calls.
- **ClientCaptureDate**: The date and time of the call in ISO 8601 format in GMT.
- **ClientCaptureDateUT**: The date and time of the call in ISO 8601 format in UST.
- **Categories**: The categories that the contact hit on.
- **Scores**: The scores that the contact scored on. For example, the contact might have been scored on Agent Politeness.
  - **ScoreName**: The full name of the score.
    - **Value**: The contact's calculated score value, which is achieved by averaging or summing the score indicators' values.
- **CallSummary**: The collective information of the call. It summarizes information such as caller name, call time, repeated call count, categories and components that the contact hit on, and their scores.

- If call summary generated with the component shown (configuration set as **show_component=true** in the **application.properties** file:
  '**[section] category 1 (component 1, component 2, etc.) category 2 (component 1, component 2, etc.)'** is the typical format that is used to show the category and components that the contact hit on. For example:
  ```
  [Behaviors] Ownership (I can check on that, Let me try again, I`ll help set up, I will be able to, I`ll go ahead and, What I can do is, I`m going to do, Let me make sure), Politeness (Thanks so much, Good day)
  ```
- If call summary generated with the component not shown (configuration set as **show_component=false** in the **application.properties** file:
  '**[section] category 1, category 2, etc.)'** is the typical format that is used to show the category that the contact hit on. For example:
  ```
  [Behaviors] Ownership, Politeness
  ```

Below is an example of a call summary generated with the component not displayed (Check in the checkbox of **Display category components in the summary)**:


```
[ {
  "Agent" : "System",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Outgoing",
  "Duration" : "0 min 12 sec",
  "Date/Time" : "2021-06-15T21:24:00",
  "Categories" : [ "Custom - Call Reasons.Tracking Number", "Custom
- Call Reasons.Parts Order" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent System took place at 2021-06-15T21:24:00 for 0 min 12 sec.
These are the call reasons: Tracking Number, Parts Order. Scores are
Call Reasons:12, Tempo:0, Understandability:100, Call Emotion:100,
."
}, {
  "Agent" : "CALVIN TRAN",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Incoming",
  "Duration" : "0 min 10 sec",
```

```
  "Date/Time" : "2021-06-11T08:38:00",
  "Categories" : [ "Emotion.Disgust" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent CALVIN TRAN took place at 2021-06-11T08:38:00 for 0 min 10
sec. These are the call reasons: {Categories.Custom - Call Reasons}.
Scores are Call Reasons:0, Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "System",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Outgoing",
  "Duration" : "0 min 7 sec",
  "Date/Time" : "2021-06-05T09:10:00",
  "Categories" : [ "Custom - Call Reasons.Parts Order" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent System took place at 2021-06-05T09:10:00 for 0 min 7 sec.
These are the call reasons: Parts Order. Scores are Call Reasons:0,
Tempo:0, Understandability:100, Call Emotion:100, ."
}, {
  "Agent" : "ADA FOWLER",
  "Customer ID" : "Unknown client",
  "ANI" : "8032194935",
  "Direction" : "Incoming",
  "Duration" : "0 min 30 sec",
  "Date/Time" : "2021-05-26T18:30:00",
  "Categories" : [ "Custom - Call Reasons.Tech Service Visit",
"Custom - Call Reasons.Troubleshooting", "Emotion.Happiness",
```

```
"Behaviors.Empathy", "Behaviors.Hold Language",
"Behaviors.Politeness" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent ADA FOWLER took place at 2021-05-26T18:30:00 for 0 min 30
sec. These are the call reasons: Tech Service Visit,
Troubleshooting. Scores are Call Reasons:12, Tempo:0,
Understandability:100, Call Emotion:100, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Incoming",
  "Duration" : "0 min 3 sec",
  "Date/Time" : "2021-06-15T22:18:00",
  "Categories" : [ "Custom - Call Reasons.Refund", "Custom - Call
Reasons.Full Refund" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T22:18:00 for 0 min 3
sec. These are the call reasons: Refund, Full Refund. Scores are
Call Reasons:12, Tempo:0, Understandability:100, Call Emotion:100,
."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Outgoing",
  "Duration" : "0 min 22 sec",
  "Date/Time" : "2021-06-15T19:00:00",
```

```
  "Categories" : [ "Custom - Call Reasons.Refund", "Custom - Call
Reasons.Full Refund", "Behaviors.Ownership" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T19:00:00 for 0 min 22
sec. These are the call reasons: Refund, Full Refund. Scores are
Call Reasons:12, Tempo:0, Understandability:100, Call Emotion:100,
."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Incoming",
  "Duration" : "0 min 12 sec",
  "Date/Time" : "2021-06-15T17:45:00",
  "Categories" : [ ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T17:45:00 for 0 min 12
sec. These are the call reasons: {Categories.Custom - Call Reasons}.
Scores are Call Reasons:0, Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Outgoing",
  "Duration" : "0 min 11 sec",
  "Date/Time" : "2021-06-15T16:26:00",
```

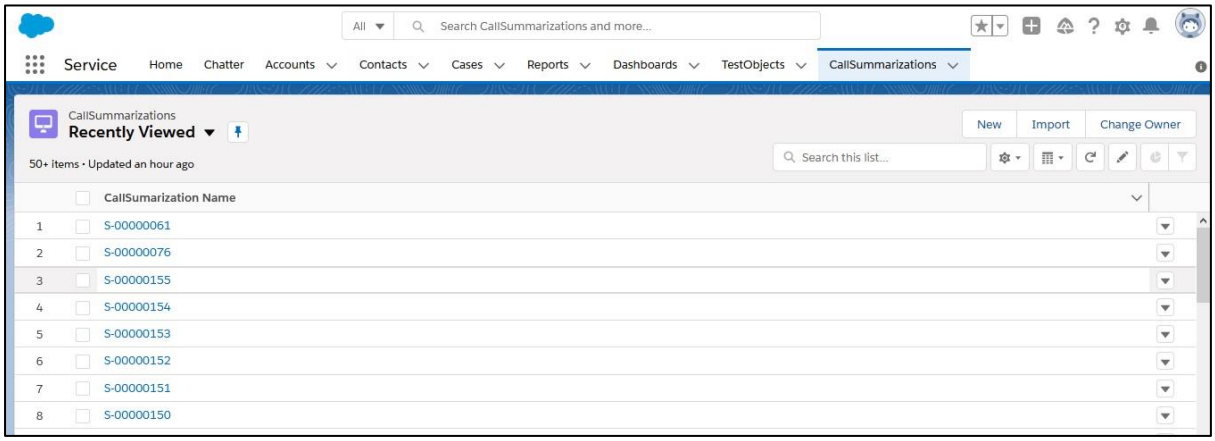
```
  "Categories" : [ "Custom - Call Reasons.Refund", "Custom - Call
Reasons.Full Refund", "Behaviors.Dissatisfaction",
"Behaviors.Empathy", "Behaviors.Politeness" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 12
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 94
  } ],
  "CallSummary" : "An Outgoing call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T16:26:00 for 0 min 11
sec. These are the call reasons: Refund, Full Refund. Scores are
Call Reasons:12, Tempo:0, Understandability:100, Call Emotion:94, ."
}, {
  "Agent" : "COLE SPENCE",
  "Customer ID" : "Unknown client",
  "ANI" : "8438591423",
  "Direction" : "Incoming",
  "Duration" : "0 min 2 sec",
  "Date/Time" : "2021-06-15T07:48:00",
  "Categories" : [ "Behaviors.Dissatisfaction" ],
  "Scores" : [ {
    "ScoreName" : "Call Reasons",
    "Value" : 0
  }, {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 94
  } ],
  "CallSummary" : "An Incoming call between customer Unknown client
and agent COLE SPENCE took place at 2021-06-15T07:48:00 for 0 min 2
sec. These are the call reasons: {Categories.Custom - Call Reasons}.
Scores are Call Reasons:0, Tempo:0, Understandability:100, Call
Emotion:94, ."
}, {
  "Agent" : "HUNTER CLEMENS",
  "Customer ID" : "Unknown client",
  "ANI" : null,
  "Direction" : "Internal",
  "Duration" : "0 min 11 sec",
  "Date/Time" : "2021-06-15T23:48:00",
  "Categories" : [ ],
```

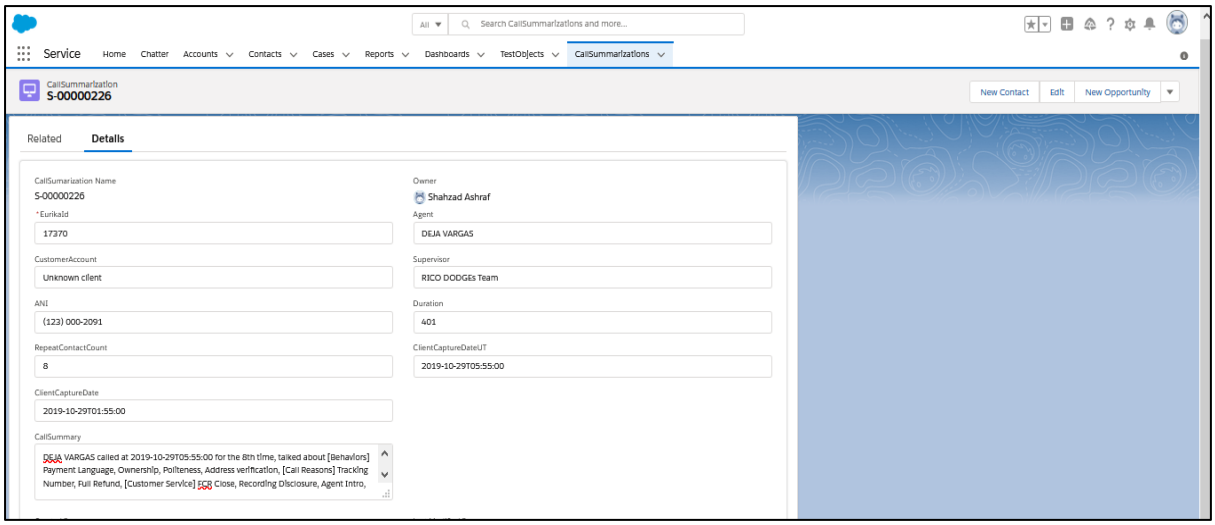
```
  "Scores" : [ {
    "ScoreName" : "Tempo",
    "Value" : 0
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 100
  } ],
  "CallSummary" : "An Internal call between customer Unknown client
and agent HUNTER CLEMENS took place at 2021-06-15T23:48:00 for 0 min
11 sec. These are the call reasons: {Categories.Custom - Call
Reasons}. Scores are Tempo:0, Understandability:100, Call
Emotion:100, ."
}, {
  "Agent" : "Bank Agent A",
  "Customer ID" : "Unknown client",
  "ANI" : "451287854",
  "Direction" : "Fort Myers",
  "Duration" : "1 min 34 sec",
  "Date/Time" : "2021-06-15T23:54:00",
  "Categories" : [ "Custom - Call Reasons.Parts Order",
"Behaviors.Ownership", "Behaviors.Politeness" ],
  "Scores" : [ {
    "ScoreName" : "Tempo",
    "Value" : 214
  }, {
    "ScoreName" : "Understandability",
    "Value" : 100
  }, {
    "ScoreName" : "Call Emotion",
    "Value" : 96
  } ],
  "CallSummary" : "An Fort Myers call between customer Unknown
client and agent Bank Agent A took place at 2021-06-15T23:54:00 for
1 min 34 sec. These are the call reasons: Parts Order. Scores are
Tempo:214, Understandability:100, Call Emotion:96, ."
} ]
```

Section 3: Export summary for a CRM system

Contact Macrosoft Inc. (https://www.macrosoftinc.com/callminer/) for exporting call summary that is integration ready for your own application.

The generated call summary (JSON file) can be imported into CRM systems. The below screenshots show the call summary after importing the JSON file into Salesforce:





Section 4: Getting a JWT Authentication Token

This section explains how to obtain a JWT token. To access the CallMiner Data API and interact with the data in your Eureka system, you must have a current JWT token from the CallMiner Security API. This token must be submitted with each request you make to the Data API. If the token is not submitted, the Data API will return a 401 Unauthorized response.

There are two ways to obtain a JWT token from the Security API:

- Users who are just learning how to use APIs should follow the Beginner: Using the Data API Interactive Documentation Login Page section of this document because it is the easiest to use and leaves the least room for unexpected errors.
- Users who are more familiar with APIs or users who have more development experience may be interested in the Intermediate: Using the CallMiner Security API Route in a Third-Party Application section of this document. While this section offers a more complicated method of obtaining a JWT token, it also offers you the ability to use your own third-party application or your own web application to interact with the CallMiner Security API and Data API.

Choose the section that best fits your individual and organizational needs.

4.1 Beginner: Using the Data API Interactive Documentation Login Page

If you use the Data API interactive documentation to interact with your Eureka data, you'll be provided with a JWT token when you log in.

In order to use the Data API interactive documentation login page to obtain a JWT token from the CallMiner Security API, you need the following items:

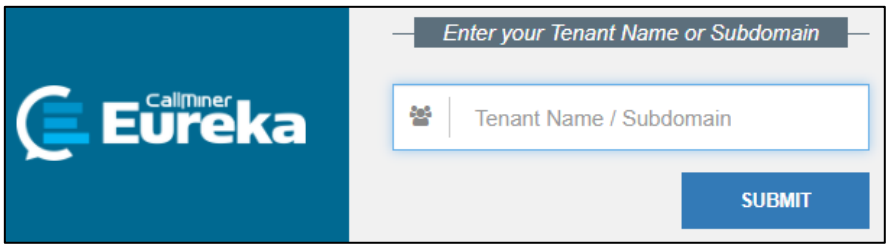
- The URL for the Data API interactive documentation.
- Valid login credentials, including your tenant name, username, and password.

Note: If you're unsure of what your tenant name is, you can find the information in Analyze. After you have logged in to Analyze, press the drop-down menu in the upper right hand corner of the screen and press the User Profile button to view your tenant name. If you're unsure of what your other login credentials are, contact your system administrator.

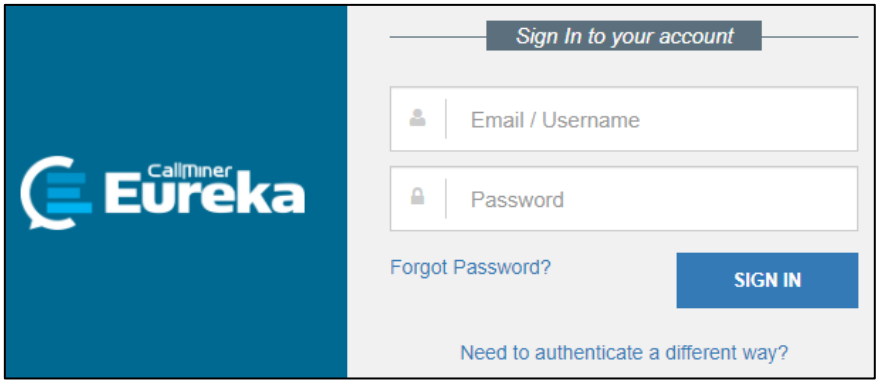
- A valid and active (non-expired) user account. Your account must not be locked out and must not have the “must change password at next login” flag set in the account settings.

To obtain the JWT token, complete the following steps:

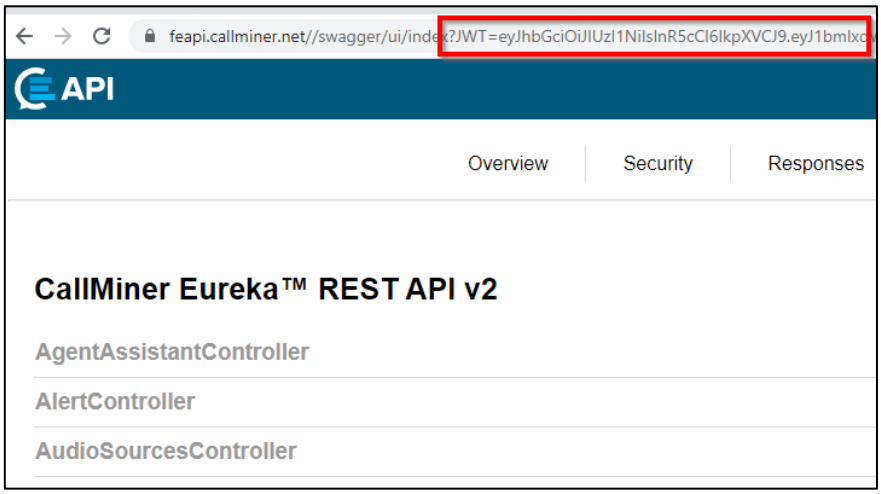
1. Enter the URL for the Data API interactive documentation into your browser.
2. Enter your tenant name and click **Submit**.



3. On the next screen, enter your username and password. Click **Sign In**.



4. After you have signed in to the Data API interactive documentation, you'll see that a JWT token has been appended to the URL in the address bar. It appears as *JWT=*, followed by a space and the token value as a series of letters and numbers.



This JWT authentication token is good for the next 30 minutes. If you use the Data API interactive documentation to access your data, each time you send a request through the API, the interactive documentation will automatically apply the JWT token to the request. You won't need to enter the token into the header for any request you make through the interactive documentation because it will do that for you.

With each request you make with the interactive documentation, you'll see your JWT token in the response headers under the auth-token-updated field. If your token is within 10 minutes of expiring, the auth-token-updated field will provide an updated JWT token that is

good for another 30 minutes. The interactive documentation will automatically use this token for any subsequent requests you make.

Note: For information on how to keep your token from expiring, see the Keeping Your JWT Authentication Token Updated section of this document.

4.2 Intermediate: Using the CallMiner Security API Route in a Third-Party Application

If you want to use your own third-party application to request a JWT token from the CallMiner Security API, you can do that as well. You may want to choose this option if you've built your own web application that makes automated requests against the CallMiner Data API and Security API. This way, your application can request the JWT token it needs to make all of its Data API requests.

In order to use a third-party application to obtain a JWT token from the CallMiner Security API, you need the following items:

- The URL for the CallMiner Security API.
- Valid login credentials, including your tenant name, username, and password.

Note: If you're unsure of what your tenant name is, you can find the information in Analyze. After you have logged in to Analyze, press the drop-down menu in the upper right hand corner of the screen and press the User Profile button to view your tenant name. If you're unsure of what your other login credentials are, contact your system administrator.

Note: Only Standard Login accounts are supported when using a third-party application to access the CallMiner Security API and Data API. If you don't already have a Standard Login account with the appropriate permissions set up, you can create one in the Admin section of Analyze.

- A valid and active (non-expired) user account. Your account must not be locked out and must not have the “must change password at next login” flag set in the account settings.

To obtain a JWT token, complete the following steps:

1. Open the third-party API application you want to use.
2. Enter the URL for the CallMiner Security API into the URL field.
3. Create a POST request with the /security/getToken route.
4. Set your HTTP request header to application/json; charset=utf-8.
5. Enter your username, password, and API key into the body of the request.

Note: Your API key is your tenant name.

Below is an example of what the body of the request will look like:

```
{
"Username": "username@email.com",
"Password": "password",
"ApiKey": "TenantName"
}
```

Parameter Name	Description
ApiKey	Tenant-specific API Key provided by CallMiner services or support
Username	The username or email address of the account which is accessing the API
Password	The password for the username utilized above

6. Send the request. If the session request is successful, the API server responds with a 201 (Created) HTTP status code and gives you a JSON payload with the requested authentication token information.

The following example demonstrates the response body you receive, complete with JWT token:


```
"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1bmlxdWVfbmFtZSI6Ik1hcnkuTWV5ZXJzQ
GNhbGxtaW5lcmhxLmNhbGxtaW5lci5uZXQiLCJlbWFpbCI6Ik1hcnkuTWV5ZXJzQGNhbGxtaW5l
ci5jb20iLCJhY3RvcnQiOiJjbTFmdHIwMDEiLCJodHRwOi8vc2NoZW1hcy54bWxzb2FwLm9yZy9
3cy8yMDA1LzA1L2lkZW50aXR5L2NsYWltcy9sb2NhbGl0eSI6ImVuLVVTIiwicm9sZSI6WyJBZ2
VudCIsIkNvYWNoIG5vIExpc3RlbiB0byBBdWRpbyIsIkFkbWluaXN0chcdy838DGC3jKDPGwgQ2
FsbHMiLCJDb2FjaCBBdWRpdGluZyJdLCJncm91cHNpZCI6WyJBZ2VudCIsIkFsbENhbGxzR3Jvd
XAiLCJBZG1pbmlzdHJhdG9yIl0sIm5iZiI6MTU2MzU0MzQ0MCwiZXhwIjoxNTYzNTc5NDQwLCJp
YXQiOjE1NjM1NDM0NDAsImlzcyI6Imh0dHA6Ly9hcGkuY2FsbG1pbmVyLm5ldCIsImF1ZCI6Imh
0dHA6Ly9hcGkuY2FsbG1pbmVyLm5ldCJ9.FsuwmLvf1VDfxcO-DPTzAkuv0UV_
0EIk1LhncWZU1X0"
```


7. You may now take your JWT token and use it to make requests against the CallMiner Data API. This JWT authentication token is good for the next 30 minutes. Place this authentication token in the Authorization request header of the first request you make against the Data API.

Note: For information on how to keep your token from expiring, see the Keeping Your JWT Authentication Token Updated section of this document.

8. If the request fails, a status code in the 400 or 500 range is displayed.

4.3 Code Examples: C#

```
using System;
using System.Collections.Generic;
using System.Net.Http; // Required for HttpClient
namespace SecurityExample
{
    class Program
    {
        static void Main(string[] args)
        {
            // Create base address.
            Uri baseAddress = new Uri("https://sapi.callminer.net");
            // Identify resource to use.
            string requestUri = "security/getToken";
            // Create credentials as a dictionary instead of a key-
value pair list.
            var postData = new Dictionary();
            // Add API credentials parameter values.
            postData.Add("apiKey", "yourkey");
            postData.Add("username", "yourusername");
            postData.Add("password", "yourpassword");
            // Execute the request.
            Run(baseAddress, requestUri, postData);

            // Wrap things up.
            Console.WriteLine("Press any key to continue");
            Console.ReadLine();
        }
        // POST REQUEST
        private static async void Run(Uri baseAddress, string
requestUri, object postData)
        {
            try
            {
                // Create a HttpClient instance.
                HttpClient client = new HttpClient();
                client.BaseAddress = baseAddress;
                // Send a request asynchronously; continue when
complete.
                HttpResponseMessage response = await
client.PostAsJsonAsync(requestUri, postData);
                // Check that the response was successful, or throw
an exception.
                response.EnsureSuccessStatusCode();
                // Read the response to get the token.
                string responseBody = await
response.Content.ReadAsStringAsync();
                Console.WriteLine(responseBody);
                // Remove leading and trailing double quotes.
                var token = responseBody.Trim(new char[] { '\u0022'
});

                // Print token.
```

```
                Console.WriteLine(token);
            }
            catch (HttpRequestException ex)
            {
                Console.WriteLine("An error occurred when making the
request: " + ex.Message);
            }
        }
    }
}
```

4.4 Keeping Your JWT Authentication Token Updated

Each JWT token expires after 30 minutes. To prevent yourself from encountering authentication errors, choose a method below to keep your JWT token updated:

4.4.1 Beginner: Using the Data API Interactive Documentation

If you are using the Data API interactive documentation to access your data, each time you send a request through the API, the interactive documentation will automatically apply the JWT token to the request. You won't need to enter the token into the header for any request you make through the interactive documentation because it will do that for you.

With each request you make with the interactive documentation, you'll see your JWT token in the response headers under the **auth-token-updated** field. If your token is within 10 minutes of expiring, the auth-token-updated field will provide an updated JWT token that is good for another 30 minutes. The interactive documentation will automatically use this token for any subsequent requests you make.

4.4.2 Intermediate: Using a Third-Party Application

Every time you make a request against the Data API, the API will return certain response headers. One of these response headers, the **auth-token-updated** field, will provide you with an updated JWT token if your current token is within 10 minutes of expiring.

To ensure that you always have a valid token, complete the following steps:

Section 5: Extract Data from Eureka Using Data API

5.1 Exporting Contact Data by Date

This section describes how to export your contact data for a given time period based on a start and end date. Some common uses for this request are:

- You want to export all of the contacts for a certain date range to import them into your own application.
- You want to investigate contacts within a particular date range. For example, you might have a new campaign and you want to evaluate the contacts' scores within the date range of the campaign to determine whether or not it is effective.
- You need to pull contacts for a specific range for audit purposes.

In order to export contact data by date, you need the following items:

- A valid authentication token to complete requests. For more information about getting a token, refer to the Getting a JWT Authentication Token section.
- Export permission. For more information on permissions, contact your system administrator.
- The URL for the Data API interactive documentation or the URL for the specific route you want to use.

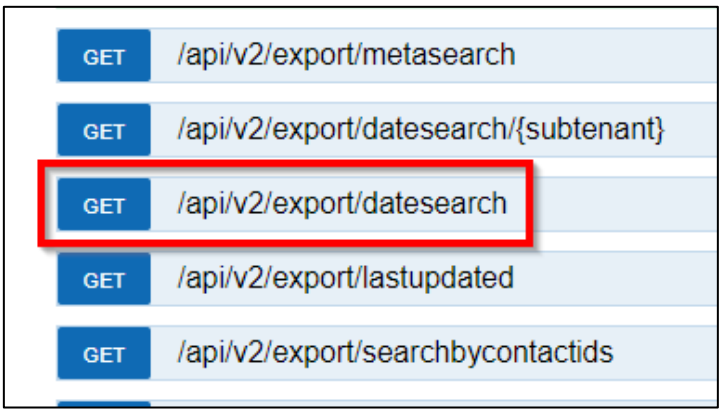
5.1.1 Beginner: Using the Data API Interactive Documentation

If you want to use a third-party application to make the request, skip to the Intermediate: Using a Third-Party Application section.

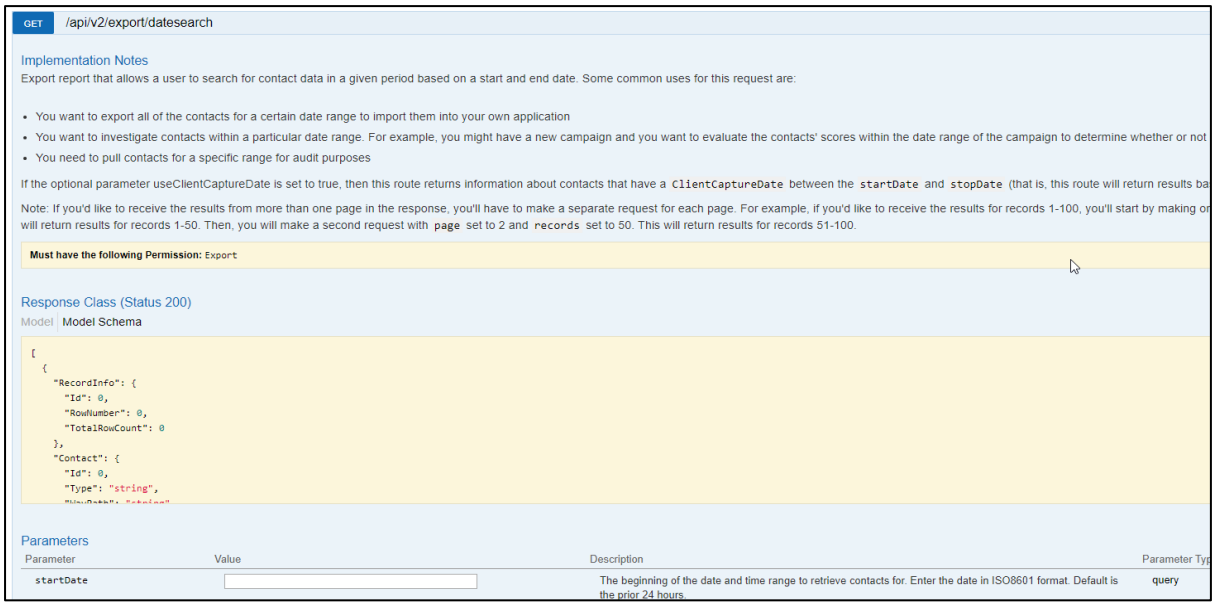
To export the contact data in your Eureka system based on a specific date range, complete the following steps:

1. Log in to the Data API interactive documentation page.
2. Scroll down the main page and click **ExportController**.

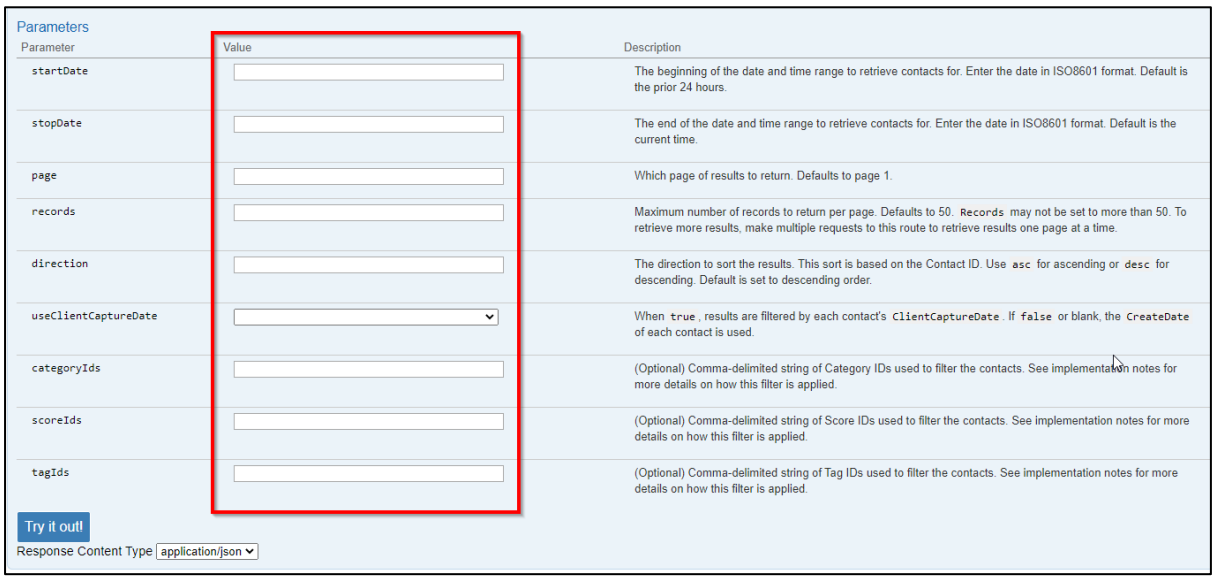
3. Click the **GET /api/v2/export/datesearch** route to expand it.



4. Scroll through the expanded route to see what information is required to make the request.



5. Set the query parameters.



The following explains what each query parameter does:

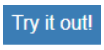
- **lstartDate** (string): The beginning of the date and time range that you want to retrieve contacts for. Enter the date in ISO 8601 format in UTC time (see DateTime Formatting). Defaults to the prior 24 hours in UTC.
- **stopDate** (string): The end of the date and time range that you want to retrieve contacts for. Enter the date in ISO 8601 format in UTC time (see DateTime Formatting). Defaults to the current time in UTC.
- **page** (integer): Which page of the results to return. Defaults to page 1.

Note: The maximum number of records returned on each page is 50. If you'd like to receive the results from more than one page in the response, you'll have to make a separate request for each page. For example, if you'd like to receive the results for records 1-100, you'll start by making a request with page set to 1 and records set to 50. This will return results for records 1-50. Then, you will make a second request with page set to 2 and records set to 50. This will return the results for records 51-100.

- **records** (integer): Maximum number of records to return per page. Default and the maximum value allowed is 50.
- **direction** (string): The direction to sort the results. This sort is based on the Contact ID. Use asc for ascending or desc for descending. Default is set to descending order.
- **useClientCaptureDate** (boolean): When true, it filters by ClientCaptureDate. If false or blank, it uses the CreateDate.
- **categoryIds** (string) (Optional): The list of Category IDs you want to use to filter the contacts. Separate each ID in the list with a comma. To retrieve a list of all categories and their Category IDs, see the Getting a List of All Categories in Your Eureka System recipe.
- **scoreIds** (string) (Optional): The list of Score IDs you want to use to filter the contacts. Separate each ID in the list with a comma. To retrieve a list of all scores and their Score IDs, see the Getting a List of All Scores in Your Eureka System recipe.
- **tagIds** (string) (Optional): The list of Tag IDs you want to use to filter the contacts. Separate each ID in the list with a comma. To retrieve a list of all tags and their Tag IDs, see the Getting a List of All Tags in Your Eureka System recipe.

Note: Any Category, Tag, or Score parameters provided will filter using OR logic. This means if you enter the Dissatisfaction category and the Politeness category as filters in the query parameter, the route will return all contacts that hit on either Dissatisfaction or Politeness. The same is true if you provide the Dissatisfaction category and an Agent Quality score in the query parameters for the route. The Data API will return all contacts that hit on either the Dissatisfaction category or the Agent Quality score.

Note: Any invalid Category, Score, or Tag IDs will be ignored.

6. Send the request by pressing 

the button.

7. Go to The Response from the Data API section for the next steps and detailed information about the response.

5.1.2 Intermediate: Using a Third-Party Application

To export the contact data in your Eureka system based on a specific date range, complete the following steps:

1. Open the third-party application you want to use to run the route.
2. Create a GET request with the Data API URL and the **/api/v2/export/datesearch** route.

This is an example of the GET request you will create. The sample demonstrates what you would do if you wanted to retrieve all contacts using 08/12/19 as the start date and 08/16/19 as the stop date:

```
GET CallMiner_Data_API_URL
/api/v2/export/datesearch?startDate=08%2F12%2F19&stopDate=08%2F16%2F
19 HTTP/1.1
Authorization: JWT AUTH_TOKEN
Content-Type: application/json; charset=utf-8
```

3. Set the following HTTP request headers:

- Authorization: The letters JWT followed by a space and then the authorization token. For example, JWT 123456.
- Content-Type: Set the value to application/json; charset=utf-8.

4. Set the following query parameters:

- **startDate** (string): The beginning of the date and time range that you want to retrieve contacts for. Enter the date in ISO 8601 format in UTC time. Defaults to the prior 24 hours in UTC.
- **stopDate** (string): The end of the date and time range that you want to retrieve contacts for. Enter the date in ISO 8601 format in UTC time. Defaults to the current time in UTC.
- **page** (integer): Which page of the results to return. Defaults to page *1*.

Note: The maximum number of records returned on each page is *50*. If you'd like to receive the results from more than one page in the response, you'll have to make a separate request for each page. For example, if you'd like to receive the results for records 1-100, you'll start by making a request with page set to *1* and records set to *50*. This will return results for records 1-50. Then, you will make a second request with page set to *2* and records set to *50*. This will return the results for records 51-100.

- **records** (integer): Maximum number of records to return per page. Default and the maximum value allowed is *50*.
- **direction** (string): The direction to sort the results. This sort is based on the Contact ID. Use *asc* for ascending or *desc* for descending. Default is set to descending order.

- **useClientCaptureDate** (boolean): When *true*, it filters by ClientCaptureDate. If *false* or blank, it uses the CreateDate.
- **categoryIds** (string) (Optional): The list of Category IDs you want to use to filter the contacts. Separate each ID in the list with a comma. To retrieve a list of all categories and their Category IDs.
- **scoreIds** (string) (Optional): The list of Score IDs you want to use to filter the contacts. Separate each ID in the list with a comma. To retrieve a list of all scores and their Score IDs.
- **tagIds** (string) (Optional): The list of Tag IDs you want to use to filter the contacts. Separate each ID in the list with a comma. To retrieve a list of all tags and their Tag IDs.

Note: Any Category, Tag, or Score parameters provided will filter using OR logic. This means if you enter the Dissatisfaction category and the Politeness category as filters in the query parameter, the route will return all contacts that hit on either Dissatisfaction or Politeness. The same is true if you provide the Dissatisfaction category and an Agent Quality score in the query parameters for the route. The Data API will return all contacts that hit on either the Dissatisfaction category or the Agent Quality score.

Note: Any invalid Category, Score, or Tag IDs will be ignored.

5. Send the request.
6. Go to the next section for information about the response from the API.

5.1.3 The Response from the Data API

If the request fails, a status code in the 400 or 500 range is displayed.

If the session request is successful, the API server responds with a 200 HTTP status code and the following response fields.

You will receive response headers from the API server that look like the following example:

```
{
"date": "Fri, 16 Aug 2019 18:00:37 GMT",
"auth-token-updated": "JWT AUTH_TOKEN_UPDATED",
"x-powered-by": "ASP.NET",
"content-type": "application/json; charset=utf-8",
"ratelimit-windowinminutes": "1",
"ratelimit-limit": "3000",
"ratelimit-remaining": "2999",
"content-length": "550222",
"server": "Microsoft-IIS/10.0"
}
```

The response headers include the following information:

- **date**: The date that the request was made. It gives you the weekday, date, month, year, and time of the request in GMT.

- **auth-token-updated**: The updated JWT token.Note: Each JWT token expires after 30 minutes. If your token is within 10 minutes of expiring, this header field will return an updated JWT token. If you are using the CallMiner Data API interactive documentation to make requests, it will automatically take the updated JWT token and place it in the headers of any subsequent requests you make. If, however, you're using a third-party application to make requests against the Data API, you must take this updated JWT token and manually enter it into the Authorization request header for any subsequent requests you make.
- **x-powered-by**: The technology supporting the web application. It can be *ASP.NET*, *PHP*, *JBoss*, etc.
- **content-type**: The value is the same *application/json; charset=utf-8* that you set when you sent the request.
- **ratelimit-windowinminutes**: The duration in minutes left in the current time window.
- **ratelimit-limit**: The maximum number of API requests you can make during each time window.
- **ratelimit-remaining**: The number of API requests you can make for the remainder of this time window.
- **content-length**: The size of the response body in bytes.
- **server**: The identifying information about the software used by the server to handle the request.

The following example shows a sample response body:


```
[
{
"Contact": {
"Id": 1524441,
"Type": "Call",
"WavPath": "\\Environment\\abc.wav.pgp"
},
"RecordInfo": {
"Id": 1524441,
"RowNumber": 1,
"TotalRowCount": 643
},
"Attributes": {
"Agent": "John Smith",
"Dept": "Sales",
"AgentGroup": "Richard`s Team",
"Direction": "outbound"
},
"Measures": {
"Agitation": 4174.66455,
"TempoAverageWordsPerMinute": 193.108948,
"SilenceDurationMaxSeconds": 80.701,
"Silence_percent": 0.51953274,
"WordCount": 4885
},
```

```
"Others": {
"CreateDate": "2019-08-19T06:48:02.187",
"ID": 1524441,
"ClientCaptureDate": "2019-08-18T19:30:00",
"ClientID": "23-30-10-163-7028525608-
a59135e2d704d94e370a809091e40b5f@64.13.47.92.wav"
},
"Sections": [
{
"CallId": 1524441,
"SectionId": 1,
"SectionName": "Behaviors"
} ],
"Categories": [
{
"CallId": 1524441,
"BucketId": 920,
"SectionId": 56,
"BucketFullName": "Categories.Behaviors.Empathy",
"Weight": 2
}
],
"Scores": [
{
"CallId": 1524441,
"ScoreId": 746,
"ScoreName": "Agent Quality",
"Weight": 100
}
],
"ScoreComponents": [
{
"CallId": 1524441,
"ScoreComponentId": 5925,
"ScoreComponentName": "Agitation",
"ScoreId": 750,
"Weight": 100
}
]
}
]
```


The response body includes the following information:

- **Contact** (array): The information that identifies a contact.
  - **Id** (integer): The contact's unique identifier.
  - **Type** (string): The type of contact. This can be *call*, *chat*, etc.
  - **WavPath** (string): The file location for an audio contact. If the contact is text-based, this field will return empty.
- **RecordInfo**: The individual contact's number and position out of all of the contacts returned for the request.

- **Id** (integer): The contact's unique identifier.
- **RowNumber** (integer): The position number of the contact out of the list of total number of contacts returned for the request.
- **TotalRowCount** (integer): The total number of individual contacts returned for the request.

- **Attributes** (array): The metadata items that are labeled as *Attributes* that identify the contact. The items returned with each contact depend on your system metadata configurations.
- **Measures** (array): The metadata items that are labeled as *Measures* that identify the contact. The items returned with each contact depend on your system metadata configurations.
- **Others** (array): The metadata items that are labeled as *Undefined* that identify the contact. These metadata items aren't labeled as *Attributes* or *Measures*. The items returned with each contact depend on your system metadata configurations.
  If the contact is an email contact, the following information will also return under the Others array:

```
"SegmentInformation": [
{
"From": "agent@example.com",
"Subject": "Just saying hi",
"Attachments": [
"NewCustomerForms.docx",
"WelcomePacket.pdf"
],
"RecipientsBCC": [
"supportTicketBot@example.com"
],
"RecipientsCC": [],
"RecipientsTo": [
"customer@example.com"
],
"PostDateTime": "2020-04-13T15:16:57",
"Speaker": 0,
"Start": -32768,
"End": -32696
}
]
```

- **SegmentInformation** (array): The identifying information for the individual emails that compose the larger email contact thread. Each segment information item represents one speaker's individual email in the larger email thread contact. Each email in the email thread may have some or all of the following information:

  - **From** (string): The email address for the sender of the email.
  - **Subject** (string): The subject line of the email.
  - **Attachments** (array): The file names of attachments on the email.
  - **RecipientBCC** (array): The BCC recipients of the email.

- **RecipientCC** (array): The CC recipients of the email.
- **RecipientTo** (array): The direct recipients of the email.
- **PostDateTime** (string): The date and time that the email was originally posted in ISO 8601 format.
- **Speaker** (integer): The Speaker ID assigned to the speaker in your Eureka system. For example, your agent might be labeled as *1* and the customer might be labeled as *2*.
- **Start** (integer): The start time for the email in deciseconds. The start time begins at -32768 deciseconds and adds 3 deciseconds to that number for each word in the email contact thread. The number of words in each email is used to calculate the start time of each individual email in the thread.
- End (integer): The end time for the email in deciseconds. The number of words in each email is used to calculate the end time of each individual email in the thread.

If the contact is another type of text-based contact (chat, survey, etc.), the following information will return under the Others array:

```
"SegmentInformation": [
{
"TextInformation": "agent@example.com",
"PostDateTime": "2020-04-13T15:16:57",
"Speaker": 0,
"Start": -32768,
"End": -32696
},
]
```

- **SegmentInformation** (array): The identifying information for the individual text segments in the text-based contact. Each segment in the contact may have some or all of the following information:
  - **TextInformation** (string): The information that further identifies the speaker in the text segment. This includes things like a speaker's username, handle, email, etc.
  - **PostDateTime** (string): The date and time that the text segment was originally posted in ISO 8601 format.
  - **Speaker** (integer): The Speaker ID assigned to the speaker in your Eureka system. For example, your agent might be labeled as *1* and the customer might be labeled as *2*.
  - **Start** (integer): The start time for the text segment in deciseconds. The start time begins at -32768 deciseconds and adds 3 deciseconds to that number for each word in the transcript. The number of words in each text segment is used to calculate the start time of each individual segment.
  - **End** (integer): The end time for the text segment in deciseconds. The number of words in each text segment is used to calculate the end time of each segment in the contact.

- **Sections** (array): The group of categories or tags that the contact hit on. For example, you could have a Behavior section that contains categories for Politeness and Dissatisfaction.
  - **CallId** (integer): The contact's unique identifier.
  - **SectionId** (integer): The unique identifier for the section.
  - **SectionName** (string): The full name of the section.
- **Categories** (array): The categories that the contact hit on.
  - **CallId** (integer): The contact's unique identifier.
  - **BucketId** (integer): The category's unique identifier.
  - **SectionId** (integer): The unique identifier for the section the category falls under.
  - **BucketFullName** (string): The full name of the category.
  - **Weight** (number): The weight of the category. A category's weight is calculated based on the number of times the category's components' syntax hits on words or phrases within the contact's transcript. The more hits, the higher the weight will be.
- **Scores** (array): The scores that the contact scored on. For example, the contact might have been scored on Agent Politeness.
  - **CallId** (integer): The contact's unique identifier.
  - **ScoreId** (integer): The score's unique identifier.
  - **ScoreName** (string): The full name of the score.
  - **Weight** (number): The contact's calculated score value, which is achieved by averaging or summing the score indicators' values.
- **ScoreComponents** (array): The individual indicators that make up a score that the contact hit on.
  - **CallId** (integer): The contact's unique identifier.
  - **ScoreComponentId** (integer): The score indicator's unique identifier.
  - **ScoreComponentName** (string): The full name of the score indicator.
  - **ScoreId** (integer): The score's unique identifier.
  - **Weight** (number): The indicator's calculated score value for the contact.

5.2 Exporting a List of Events Using Contact IDs

This section describes how to use Contact IDs to retrieve a list of events associated with each Contact ID. Events are things like over talk events, redaction events, category hits, tag hits, etc. Some common uses for this request are:

- You want to get more information about specific events in a particular set of contacts. For example, you might want to look at the specific details surrounding silence or over talk events.
- You want to perform silence analysis on a specific set of contacts to understand what is going on in those contacts.

In order to export events using Contact ID, you need the following items:

- ،A valid authentication token to complete requests. For more information about getting a token.
- .Export, View Transcript, and Details Page permissions. For more information on permissions, contact your system administrator.
- The URL for the Data API interactive documentation or the URL for the specific route you want to use.

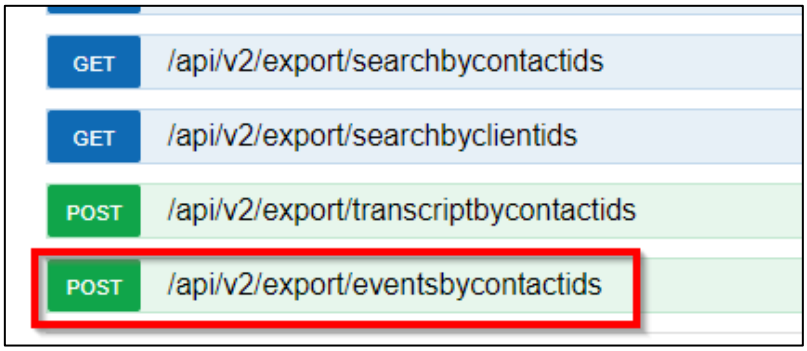
5.2.1 Beginner: Using the Data API Interactive Documentation

If you want to use a third-party application to make the request, skip to the Intermediate: Using a Third-Party Application section.

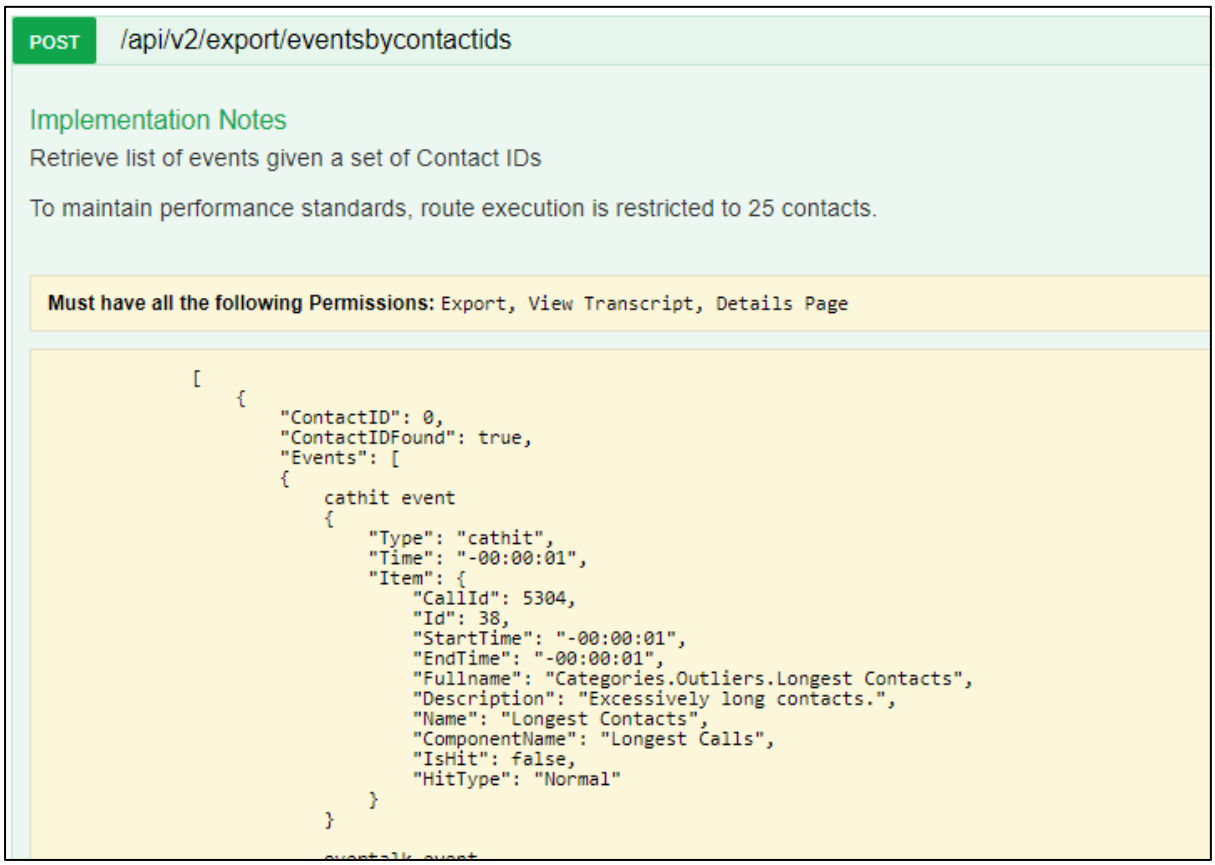
To use Contact IDs to retrieve a list of associated events for each contact, complete the following steps:

1. Scroll down the main page and press ExportController.

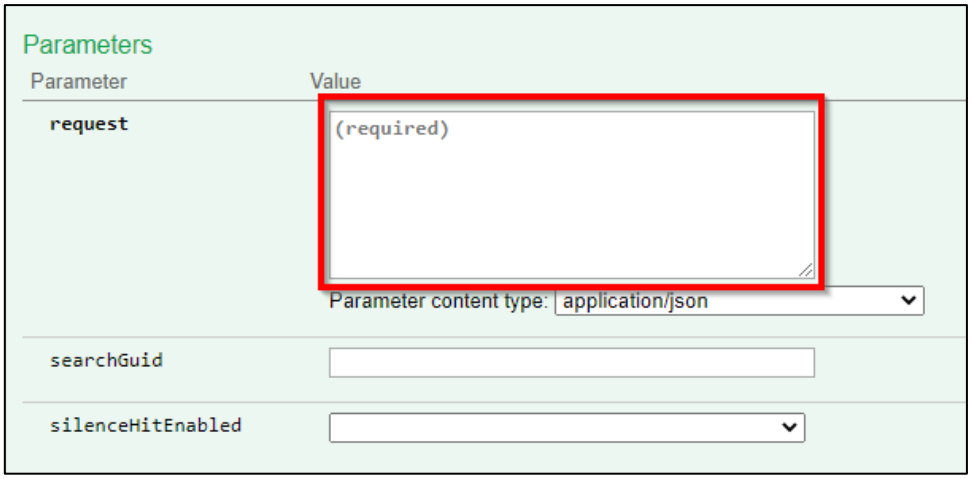
2. Click the **POST /api/v2/export/eventsbycontactids** route to expand it.



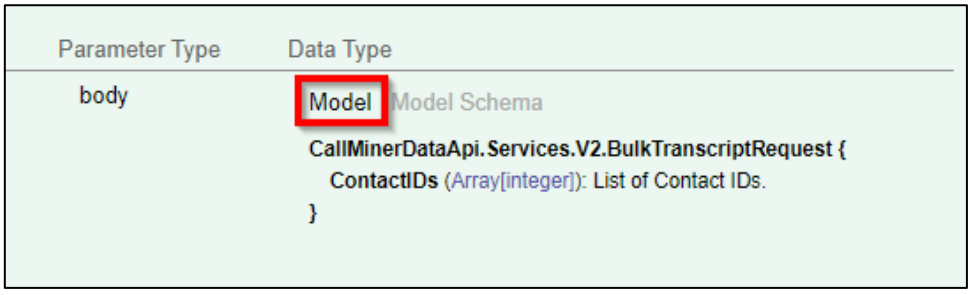
3. Scroll through the expanded route to see what information is required to make the request.



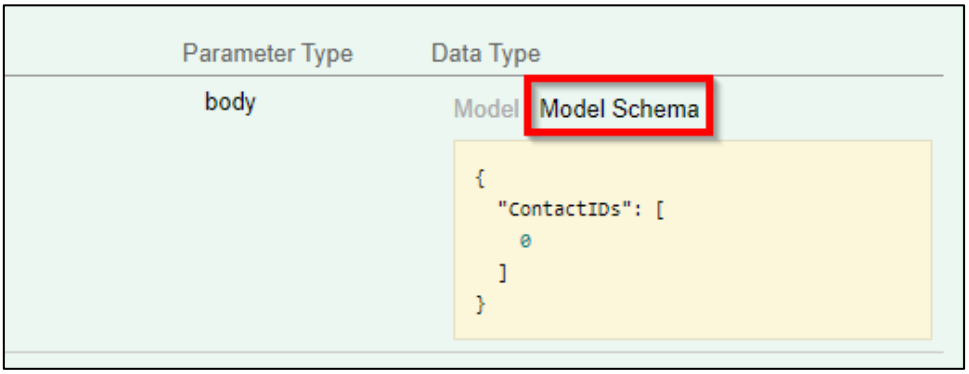
4. Enter the body of the request in the request text box.



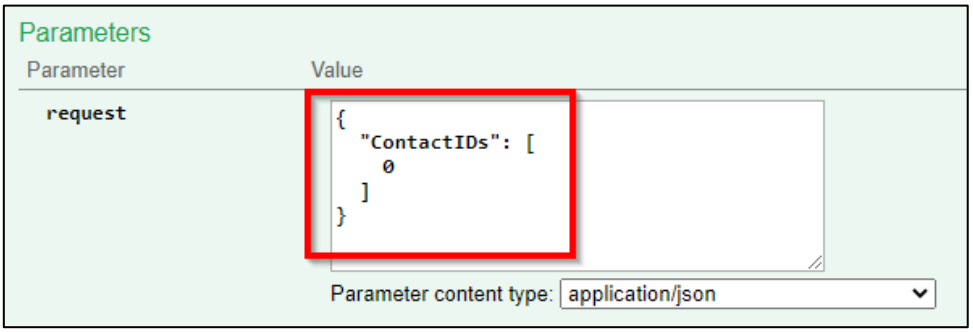
The Model shows you what each attribute and value in the body of the request means.



The Model Schema shows you what the body of the request should look like in JSON format.



Click anywhere on the Model Schema example box and the interactive documentation will auto-fill the outline of the JSON document into the request text box for you.

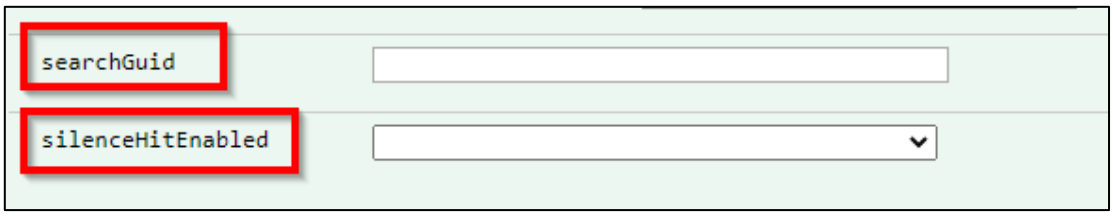


The body for this request should include the list of Contact IDs for which you want to retrieve a list of events. You should enter the list of Contact IDs in integer format into the ContactIDs array, with each Contact ID separated by a comma.

5. (Optional) Enter a Search GUID into the searchGuid parameter text box.

You can use a Search GUID to return a list of specific phrase or word snippet hits in this route. If you create a search for a specific phrase, and you pass in the Search GUID for that search in the query parameter on this route, you can use the route to return snippet hits for that phrase. For example, if you want to get all the contacts for the last seven days that had the phrase "hello how are you" in them, you can create a search. Once you have created that search, you can use the Search GUID attached to the search in this route to retrieve a list all of the contacts with snippet hit events for the phrase "hello how are you".

Note: Because the request body containing a list of Contact IDs is required for this route, if you include a Search GUID in the query parameter on this route, the route will return the list of events for every contact you indicated in the body of the request, and it will return the list of phrase snippet event hits for the contacts associated with the Search GUID you provided.



6. (Optional) (Only affects silence events) Set the silenceHitEnabled query parameter using the drop-down. If *false*, the response will include the duration of the silence block event. If *true*, the response will include an object that contains IsHit and Duration fields for each silence block event. If you pass in a Search GUID and set silenceHitEnabled to *true*, the IsHit field will tell you which silence block events were hits for the given search. Defaults to *false* as this is the legacy behavior for the route.
7. Send the request by clicking the Try it out! button.
8. Go to The Response from the Data API section for the next steps and detailed information about the response.

5.2.2 Intermediate: Using a Third-Party Application

To use Contact IDs to retrieve a list of associated events for each contact, complete the following steps:

1. Open the third-party application you want to use to run the route.
2. Create a POST request with the Data API URL and the **/api/v2/export/eventsbycontactids** route.

```
POST CallMiner_Data_API_URL/api/v2/export/eventsbycontactids
HTTP/1.1
Authorization: JWT AUTH_TOKEN
Content-Type: application/json; charset=utf-8
{
"ContactIDs": [
101491, 531511
]
}
```

3. Set the following HTTP request headers:

- Authorization: The letters *JWT* followed by a space and then the authorization token. For example, *JWT 123456*.
- Content-Type: Set the value to *application/json; charset=utf-8*.

4. The body for this request should include the list of Contact IDs that you want to retrieve a list of events for, like the example above. Enter the list of Contact IDs in integer format into the ContactIDs array, with each Contact ID separated by a comma.
5. (Optional) Enter a Search GUID in the searchGuid parameter if you'd like to get a list of phrase snippet hits for a defined search.

You can use a Search GUID to return a list of specific phrase or word snippet hits in this route. If you create a search for a specific phrase, and you pass in the Search GUID for that search in the query parameter on this route, you can use the route to return snippet hits for that phrase. For example, if you want to get all the contacts for the last seven days that had the phrase "hello how are you" in them, you can create a search. Once you have created that search, you can use the Search GUID attached to the search in this route to retrieve a list all of the contacts with snippet hit events for the phrase "hello how are you".

Note: Because the request body containing a list of Contact IDs is required for this route, if you include a Search GUID in the query parameter on this route, the route will return the list of events for every contact you indicated in the body of the request, and it will return the list of phrase snippet event hits for the contacts associated with the Search GUID you provided.

6. (Optional) (Only affects silence events) Set the silenceHitEnabled query parameter using the drop-down. If *false*, the response will include the duration of the silence block event. If *true*, the response will include an object that contains IsHit and Duration fields for each silence block event. If you pass in a Search GUID and set silenceHitEnabled to *true*, the IsHit field will tell you which silence block events were hits for the given search. Defaults to *false* as this is the legacy behavior for the route.
7. Send the request.
8. Go to the next section for information about the response from the API.

5.2.3 The Response from the Data API

If the request fails, a status code in the 400 or 500 range is displayed.

If the session request is successful, the API server responds with a 200 HTTP status code and the following response fields.

You will receive response headers from the API server that look like the following example:

```
{
"date": "Wed, 21 Aug 2019 18:26:19 GMT",
"auth-token-updated": "JWT AUTH_TOKEN_UPDATED",
"x-powered-by": "ASP.NET",
"content-type": "application/json; charset=utf-8",
"access-control-allow-origin": "*",
"access-control-expose-headers": "auth-token-updated,content-
disposition",
"ratelimit-windowinminutes": "1",
"ratelimit-limit": "2777",
"ratelimit-remaining": "2776",
"content-length": "44950",
"server": "Microsoft-IIS/10.0"
}
```

The response headers include the following information:

- **date**: The date that the request was made. It gives you the weekday, date, month, year, and time of the request in GMT.
- **auth-token-updated**: The updated JWT token.Note: Each JWT token expires after 30 minutes. If your token is within 10 minutes of expiring, this header field will return an updated JWT token. If you are using the CallMiner Data API interactive documentation to make requests, it will automatically take the updated JWT token and place it in the headers of any subsequent requests you make. If, however, you're using a third-party application to make requests against the Data API, you must take this updated JWT token and manually enter it into the Authorization request header for any subsequent requests you make.
- **x-powered-by**: The technology supporting the web application. It can be *ASP.NET*, *PHP*, *JBoss*, etc.
- **content-type**: The value is the same *application/json; charset=utf-8* that you set when you sent the request.
- **access-control-allow-origin**: Indicates if response content can be accessed by certain origins, which include other domains and port numbers. For example, a value of * indicates that response content can be accessed by any origin.
- **access-control-expose-headers**: Indicates which response headers can be exposed to the browser as part of the response.
- **ratelimit-windowinminutes**: The duration in minutes left in the current time window.
- **ratelimit-limit**: The maximum number of API requests you can make during each time window.
- **ratelimit-remaining**: The number of API requests you can make for the remainder of this time window.
- **content-length**: The size of the response body in bytes.
- **server**: The identifying information about the software used by the server to handle the request.

The following example demonstrates the response body you would receive when exporting the list of events for the contact with Contact ID *531511*:


```
[
{
"ContactID": 0,
"ContactIDFound": true,
"Events": [{
{
"Type":"cathit",
"Time":"-00:00:01",
"Item": {
"CallId": 5304,
"Id": 38,
"StartTime":"-00:00:01",
"EndTime":"-00:00:01",
"Fullname":"Categories.Outliers.Longest Contacts",
"Description":"Excessively long contacts.",
```

```
"Name":"Longest Contacts",
"ComponentName":"Longest Calls",
"IsHit": false,
"HitType":"Normal"
}
},
{
"Type":"overtalk",
"Time":"00:00:17.5000000",
"Item": {
"StartTime":"00:00:17.5000000",
"EndTime":"00:00:17.8000000",
"Duration": 0.3,
"IsHit": true
}
},
{
"Type":"snippethit",
"Time":"00:00:33.5000000",
"Item": {
"Start": -32433,
"End": 0,
"Type": null,
"Speaker": 1,
"Word":"ticket",
"StartTime":"00:00:33.5000000",
"CallId": 0,
"IsPhraseHit": 0,
"IsCatHit": 0,
"SpeakerDescription":"Agent"
}
},
{
"Type":"taghit",
"Time":"00:01:46.9000000",
"Item": {
"CallId": 5304,
"BucketId": 47,
"StartTime":"00:01:46.9000000",
"Start": -31699,
"End": -31699,
"Name":"Tag A Word"
}
},
{
"Type":"alerthit",
"Time":"00:00:05.3000000",
"Item": {
"CallId": 14156,
"TimeFired":"2020-06-15T15:42:42.477",
"AlertId": -2147481503,
"Start":"00:00:05.3000000",
"Name":"Agent Ownership",
"Description":"Alert fires on ownership language",
```

```
"ComponentName":"Agent Ownership",
"IsHit": true
},
"IsDuplicate": false
},
{
"Type":"redaction",
"Time":"00: 02: 32.1000000",
"Item": {
"CallId": 5580,
"StartTime":"00: 02: 32.1000000",
"EndTime":"00: 02: 32.5000000",
"SegmentTypeID": 1,
"Name":"Redacted by SM",
"Duration": 0.39999999999999997
}
},
{
"Type":"silence",
"Time":"00: 00: 32.6990000",
"Item": {
"IsHit": true,
"Duration":"00: 00: 03.0010000",
} "
IsDuplicate": false
},
{
"Type":"missing",
"Time":"00: 00: 32.6990000",
"Item": {
"Duriation":"150.0"
}
}
}]
}
]
```


The response body includes the following information:

- **ContactId** (integer): The unique identifier for the contact.
- **ContactIDFound** (boolean): Indicates if the contact was found in the system. If *true*, the contact was found. If *false*, the contact wasn't found. If a contact wasn't found, it could mean that the contact aged out of the system or that you had a typo in the Contact ID you entered.
- **Events** (array): The list of events for the contact.

Note: If the Contact ID isn't found in the system, this array and the following attributes will return empty.

- **Type** (string): The type of event. For example, you could have a category hit, overtalk, snippet hit, redaction event, etc. as an event. Each type of event will return different

information, depending on the type of event. You can have the following types of events:

- **Category Hit Event**: Indicates that the contact had a category hit.
  - **Type** (string): Indicates the type of event. Will return as *cathit* to indicate that the event is a category hit.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item** (array): Provides more information about the category hit.
  - **CallID** (integer): The unique identifier for the contact that had the category hit.
  - **Id** (integer): The unique ID for the category that the contact hit on.
  - **StartTime** (string): The start time of the category hit event in hh:mm:ss format.
  - **EndTime** (string): The end time of the category hit event in hh:mm:ss format.
  - **Fullname** (string): The full name of the category that the contact hit on.
  - **Description** (string): The description of the category that the contact hit on.
  - **Name** (string): The short name of the category that the contact hit on.
  - **ComponentName** (string): The name of the category component that the contact hit on.
  - **IsHit** (boolean): Indicates if the contact hit on the category. If *true*, the contact hit on the category. If *false*, the contact didn't hit on the category.
  - **HitType** (string): Deprecated. The type of search component hit for the category for the contact. This field is deprecated and will always return as *Off*.

Note: A negative time value of *-00:00:01* indicates a whole contact category hit. This is a category hit that is based on a metadata, category, section, or score filter, rather than language. In this situation, the category is applied to the entire contact.

- **Overtalk Event**: Indicates that the contact had an overtalk event.
  - **Type** (string): Indicates the type of event. Will return as *overtalk* to indicate that the event is an overtalk event.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item** (array): Provides more information about the overtalk event.
    - **StartTime** (string): The start time of the overtalk event in hh:mm:ss format.
    - **EndTime** (string): The end time of the overtalk event in hh:mm:ss format.
    - **Duration** (number): The duration of the overtalk evexnt in seconds.
- **Snippet Hit Event**: Indicates that the contact had a snippet hit event.
  - **Type** (string): Indicates the type of event. Will return as *snippethit* to indicate that the event is a snippet hit event.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item** (array): Provides more information about the snippet hit event.
    - **Start** (integer): The start time index that the database calculates for the event in deciseconds. The database calculates the start time using an index that starts at

-32768 deciseconds, and adds deciseconds to that number to indicate when the event began in the contact.

- **End** (integer): Deprecated. The end time index for the event in deciseconds. The database calculates the start time using an index that starts at -32768 deciseconds, and adds deciseconds to that number to indicate when the event ended in the contact.
- **Type** (string): Deprecated. The type of snippet hit. This field is deprecated and will always return *null*.
- **Speaker** (integer): Indicates who was speaking during the snippet hit. For example, *0* might
- indicate the speaker was the agent and *1* might indicate that the speaker was the customer. This depends on how you've configured the speaker values in your system.
- **Word (string): The individual word or phrase that makes up the snippet hit.**
- **StartTime** (string): The start time of the snippet hit event in hh:mm:ss format.
- **CallID** (integer): The unique identifier for the contact that had the snippet hit.
- **IsPhraseHit** (integer): Deprecated. Indicates if the snippet hit is also part of a phrase hit. This field is deprecated and will always return a *0*.
- **IsCatHit** (integer): Deprecated. Indicates if the snippet hit is also part of a category hit. This field is deprecated and will always return a *0*.
- **SpeakerDescription** (string): The label used to describe the speaker. For example, the response might return *Agent* as the speaker description attached to a given snippet hit. This depends on how you've configured the speaker labels in your system.

- **Tag Hit Event**: Indicates that the contact had a tag hit event.
  - **Type** (string): Indicates the type of event. Will return as *taghit* to indicate that the event is a tag hit event.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item** (array): Provides more information about the tag hit event.
    - **CallId** (integer): The unique identifier for the contact that had the tag hit.
    - **BucketId** (string): The unique ID for the tag that the contact hit on.
    - **StartTime** (string): The start time of the tag hit event in hh:mm:ss format.
    - **Start** (integer): The start time index that the database calculates for the event in deciseconds. The database calculates the start time using an index that starts at -32768 deciseconds, and adds deciseconds to that number to indicate when the event began in the contact.
    - **End** (integer): The end time index for the event in deciseconds. The database calculates the start time using an index that starts at -32768 deciseconds, and adds deciseconds to that number to indicate when the event ended in the contact.
    - **Name** (string): The name of the tag that the contact hit on.

- **Alert Hit Event**: Indicates that an alert fired on the contact.
  - **Type** (string): Indicates the type of event. Will return as *alerthit* to indicate that the event is for an alert that fired in the contact.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item** (array): Provides more information about the alert that fired.
    - **CallID** (integer): The unique identifier for the contact that the alert fired on.
    - **TimeFired** (string): The time that the alert fired in the contact in ISO 8601 format.
    - **AlertId** (integer): The unique ID for the alert that fired on the contact.
    - **Start** (string): The start time indicating when the alert fired in the contact in hh:mm:ss format.
    - **Name** (string): The name of the alert that fired.
    - **Description** (string): The description of the alert that fired.
    - **ComponentName** (string): The name of the alert component that the contact hit on.
    - **IsHit** (boolean): Indicates if the contact hit on the alert. If *true*, the contact hit on the alert. If *false*, the contact didn't hit on the alert.
    - **IsDuplicate** (boolean): Indicates if the alert fired multiple times in the contact. If *true*, the alert fired multiple times in the contact. If *false*, the alert only fired once in the contact.
- **Redaction Event**: Indicates that the contact had a redaction event.
  - **Type** (string): Indicates the type of event. Will return as *redaction* to indicate that the event is a redaction event.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item** (array): Provides more information about the redaction event.
  - **CallID** (integer): The unique identifier for the contact that had the redaction event.
    - **StartTime** (string): The start time of the redaction event in hh:mm:ss format.
    - **EndTime** (string): The end time of the redaction event in hh:mm:ss format.
    - **SegmentTypeID** (integer): Indicates the type of redaction segment. This field will always return as *1* for redaction events.
    - **Name** (string): The name of the redaction event. This value will always return as *Redacted by* SM.
    - **Duration** (integer): The duration of the redaction event in seconds.
- **Silence Block Event**: Indicates that the contact had a silence block event.
  - **Type** (string): Indicates the type of event. Will return as *silence* to indicate that the event is a silence block event.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item**: If you set the silenceHitEnabled query parameter to *false*, this attribute will tell you the duration of the silence block event. If you set it to *true*, this will be an object that contains the following attributes:

- **IsHit** (boolean): If you passed in a Search GUID when you made the request, this field will indicate if the silence block event was a hit for the search. If *true*, the silence block event was a hit for the search. If *false*, the silence block event wasn't a hit for the search.
- **Duration** (number): The duration of the silence block event. The duration will be given in hh:mm:ss.fffffff format.
- **IsDuplicate** (boolean): Indicates if the event occurred multiple times in the contact. If *true*, the event occurred multiple times in the contact. If *false*, the event only occurred once in the contact.

- **Missing Block Event**: Indicates that the contact had a segment where no audio was recognized or transcribed. Missing block events only appear for contacts that enter the system through Alert.
  - **Type** (string): Indicates the type of event. Will return as *missing* to indicate that the event is a missing block event.
  - **Time** (string): The time that the event occurred in the contact.
  - **Item** (array): Provides more information about the missing block event.
  - **Duration** (number): The duration of the missing block event in seconds.