



API Reference

Amazon Connect Contact Lens



API Version 2020-08-21

Copyright © 2026 Amazon Web Services, Inc. and/or its affiliates. All rights reserved.

Amazon Connect Contact Lens: API Reference

Copyright © 2026 Amazon Web Services, Inc. and/or its affiliates. All rights reserved.

Amazon's trademarks and trade dress may not be used in connection with any product or service that is not Amazon's, in any manner that is likely to cause confusion among customers, or in any manner that disparages or discredits Amazon. All other trademarks not owned by Amazon are the property of their respective owners, who may or may not be affiliated with, connected to, or sponsored by Amazon.

Table of Contents

Welcome	1
Actions	2
ListRealtimeContactAnalysisSegments	3
Request Syntax	3
URI Request Parameters	3
Request Body	3
Response Syntax	4
Response Elements	5
Errors	6
Examples	7
See Also	9
Data Types	10
Categories	11
Contents	11
See Also	11
CategoryDetails	13
Contents	13
See Also	13
CharacterOffsets	14
Contents	14
See Also	14
IssueDetected	15
Contents	15
See Also	15
PointOfInterest	16
Contents	16
See Also	16
PostContactSummary	17
Contents	17
See Also	18
RealtimeContactAnalysisSegment	19
Contents	19
See Also	19
Transcript	20

Contents	20
See Also	22
Common Parameters	23
Common Error Types	26

Welcome

- [Contact Lens actions](#)
- [Contact Lens data types](#)

Amazon Connect Contact Lens enables you to analyze conversations between customer and agents, by using speech transcription, natural language processing, and intelligent search capabilities. It performs sentiment analysis, detects issues, and enables you to automatically categorize contacts.

Amazon Connect Contact Lens provides both real-time and post-call analytics of customer-agent conversations. For more information, see [Analyze conversations using speech analytics](#) in the *Amazon Connect Administrator Guide*.

This document was last published on September 14, 2026.

Actions

The following actions are supported:

- [ListRealtimeContactAnalysisSegments](#)

ListRealtimeContactAnalysisSegments

Provides a list of analysis segments for a real-time analysis session for voice.

Note

Voice data is retained for 24 hours. You must invoke this API during that time.

Request Syntax

```
POST /realtime-contact-analysis/analysis-segments HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "ContactId": "string",
  "InstanceId": "string",
  "MaxResults": number,
  "NextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

ContactId

The identifier of the contact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.*\S.*`

Required: Yes

InstanceId

The identifier of the Amazon Connect instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.*\S.*`

Required: Yes

MaxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token for the next set of results. Use the value returned in the previous response in the next request to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 131070.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "NextToken": "string",
  "Segments": [
    {
      "Categories": {
```

```

    "MatchedCategories": [ "string" ],
    "MatchedDetails": {
      "string" : {
        "PointsOfInterest": [
          {
            "BeginOffsetMillis": number,
            "EndOffsetMillis": number
          }
        ]
      }
    },
    "PostContactSummary": {
      "Content": "string",
      "FailureCode": "string",
      "Status": "string"
    },
    "Transcript": {
      "BeginOffsetMillis": number,
      "Content": "string",
      "EndOffsetMillis": number,
      "Id": "string",
      "IssuesDetected": [
        {
          "CharacterOffsets": {
            "BeginOffsetChar": number,
            "EndOffsetChar": number
          }
        }
      ],
      "ParticipantId": "string",
      "ParticipantRole": "string",
      "Sentiment": "string"
    }
  }
]
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

If there are additional results, this is the token for the next set of results. If response includes nextToken there are two possible scenarios:

- There are more segments so another call is required to get them.
- There are no more segments at this time, but more may be available later (real-time analysis is in progress) so the client should call the operation again to get new segments.

If response does not include nextToken, the analysis is completed (successfully or failed) and there are no more segments to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 131070.

Pattern: .*\\S.*

Segments

An analyzed transcript or category.

Type: Array of [RealtimeContactAnalysisSegment](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Errors

For information about the errors that are common to all actions, see [Common Error Types](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceException

Request processing failed due to an error or failure with the service.

HTTP Status Code: 500

InvalidRequestException

The request is not valid.

HTTP Status Code: 400

ResourceNotFoundException

The specified resource was not found.

HTTP Status Code: 404

ThrottlingException

The throttling limit has been exceeded.

HTTP Status Code: 429

Examples

Example

This example illustrates one usage of `ListRealtimeContactAnalysisSegments`.

Sample Request

```
POST /realtime-contact-analysis/analysis-segments
{
  "InstanceId": "eeeeeee-eeee-eeee-eeee-eeeeeeeeeeee",
  "ContactId": "11111111-1111-1111-1111-111111111111",
  "MaxResults": 50,
  "NextToken": "fdsfsadgdfsgdfgfdhfhghfghfgjmbnmnm"
}
```

Sample Response

```
{
  "Segments": [
    {
      "Transcript": {
        "Id": "tttttttt-tttt-tttt-tttt-tttttttt",
        "ParticipantId": "AGENT",
        "ParticipantRole": "AGENT",
        "Content": "I can't login.",
        "BeginOffsetMillis": 19010,
        "EndOffsetMillis": 22690,
        "Sentiment": "NEUTRAL",
        "IssuesDetected": [
```

```
        {
            "CharacterOffsets": {
                "BeginOffsetChar": 8,
                "EndOffsetChar": 12
            }
        }
    ],
},
{
    "Categories": {
        "MatchedCategories": [
            "CreditCardRelated",
            "CardBrokenIssue"
        ],
        "MatchedDetails": {
            "CreditCardRelated": {
                "PointsOfInterest": [
                    {
                        "BeginOffsetMillis": 19010,
                        "EndOffsetMillis": 22690
                    }
                ]
            },
            "CardBrokenIssue": {
                "PointsOfInterest": [
                    {
                        "BeginOffsetMillis": 25000,
                        "EndOffsetMillis": 29690
                    }
                ]
            }
        }
    }
},
],
"NextToken": "fdsfsadgdfsgdfgfdhfgfhgfhfgjmbnmmn"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python \(Boto3\)](#)
- [AWS SDK for Ruby V3](#)

Data Types

The Amazon Connect Contact Lens API contains several data types that various actions use. This section describes each data type in detail.

Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [Categories](#)
- [CategoryDetails](#)
- [CharacterOffsets](#)
- [IssueDetected](#)
- [PointOfInterest](#)
- [PostContactSummary](#)
- [RealtimeContactAnalysisSegment](#)
- [Transcript](#)

Categories

Provides the category rules that are used to automatically categorize contacts based on uttered keywords and phrases.

Contents

MatchedCategories

The category rules that have been matched in the analyzed segment.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 150 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.*\S.*`

Required: Yes

MatchedDetails

The category rule that was matched and when it occurred in the transcript.

Type: String to [CategoryDetails](#) object map

Map Entries: Minimum number of 0 items. Maximum number of 150 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

CategoryDetails

Provides information about the category rule that was matched.

Contents

PointsOfInterest

The section of audio where the category rule was detected.

Type: Array of [PointOfInterest](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CharacterOffsets

For characters that were detected as issues, where they occur in the transcript.

Contents

BeginOffsetChar

The beginning of the issue.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

EndOffsetChar

The end of the issue.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IssueDetected

Potential issues that are detected based on an artificial intelligence analysis of each turn in the conversation.

Contents

CharacterOffsets

The offset for when the issue was detected in the segment.

Type: [CharacterOffsets](#) object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PointOfInterest

The section of the contact audio where that category rule was detected.

Contents

BeginOffsetMillis

The beginning offset in milliseconds where the category rule was detected.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

EndOffsetMillis

The ending offset in milliseconds where the category rule was detected.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PostContactSummary

Information about the post-contact summary.

Contents

Status

Whether the summary was successfully COMPLETED or FAILED to be generated.

Type: String

Valid Values: FAILED | COMPLETED

Required: Yes

Content

The content of the summary.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1762.

Required: No

FailureCode

If the summary failed to be generated, one of the following failure codes occurs:

- QUOTA_EXCEEDED: The number of concurrent analytics jobs reached your service quota.
- INSUFFICIENT_CONVERSATION_CONTENT: The conversation needs to have at least one turn from both the participants in order to generate the summary.
- FAILED_SAFETY_GUIDELINES: The generated summary cannot be provided because it failed to meet system safety guidelines.
- INVALID_ANALYSIS_CONFIGURATION: This code occurs when, for example, you're using a [language](#) that isn't supported by generative AI-powered post-contact summaries.
- INTERNAL_ERROR: Internal system error.

Type: String

Valid Values: QUOTA_EXCEEDED | INSUFFICIENT_CONVERSATION_CONTENT
| FAILED_SAFETY_GUIDELINES | INVALID_ANALYSIS_CONFIGURATION |
INTERNAL_ERROR

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RealtimeContactAnalysisSegment

An analyzed segment for a real-time analysis session.

Contents

Categories

The matched category rules.

Type: [Categories](#) object

Required: No

PostContactSummary

Information about the post-contact summary.

Type: [PostContactSummary](#) object

Required: No

Transcript

The analyzed transcript.

Type: [Transcript](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Transcript

A list of messages in the session.

Contents

BeginOffsetMillis

The beginning offset in the contact for this transcript.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

Content

The content of the transcript.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `.*\S.*`

Required: Yes

EndOffsetMillis

The end offset in the contact for this transcript.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

Id

The identifier of the transcript.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\\S.*

Required: Yes

ParticipantId

The identifier of the participant. Valid values are CUSTOMER or AGENT.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\\S.*

Required: Yes

ParticipantRole

The role of participant. For example, is it a customer, agent, or system.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*\\S.*

Required: Yes

Sentiment

The sentiment detected for this piece of transcript.

Type: String

Valid Values: POSITIVE | NEUTRAL | NEGATIVE

Required: Yes

IssuesDetected

List of positions where issues were detected on the transcript.

Type: Array of [IssueDetected](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key/YYYYMMDD/region/service/aws4_request*.

For more information, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see [AWS services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Error Types

This section lists common error types that this AWS service may return. Not all services return all error types listed here. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You don't have permission to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 403

ExpiredTokenException

The security token included in the request has expired. Request a new security token and try again.

HTTP Status Code: 403

IncompleteSignature

The request signature doesn't conform to AWS standards. Verify that you're using valid AWS credentials and that your request is properly formatted. If you're using an SDK, ensure it's up to date.

HTTP Status Code: 403

InternalFailure

The request can't be processed right now because of an internal server issue. Try again later. If the problem persists, contact AWS Support.

HTTP Status Code: 500

MalformedHttpRequestException

The request body can't be processed. This typically happens when the request body can't be decompressed using the specified content encoding algorithm. Verify that the content encoding header matches the compression format used.

HTTP Status Code: 400

NotAuthorized

You don't have permissions to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 401

OptInRequired

Your AWS account needs a subscription for this service. Verify that you've enabled the service in your account.

HTTP Status Code: 403

RequestAbortedException

The request was aborted before a response could be returned. This typically happens when the client closes the connection.

HTTP Status Code: 400

RequestEntityTooLargeException

The request entity is too large. Reduce the size of the request body and try again.

HTTP Status Code: 413

RequestTimeoutException

The request timed out. The server didn't receive the complete request within the expected time frame. Try again.

HTTP Status Code: 408

ServiceUnavailable

The service is temporarily unavailable. Try again later.

HTTP Status Code: 503

ThrottlingException

Your request rate is too high. The AWS SDKs automatically retry requests that receive this exception. Reduce the frequency of requests.

HTTP Status Code: 400

UnknownOperationException

The action or operation isn't recognized. Verify that the action name is spelled correctly and that it's supported by the API version you're using.

HTTP Status Code: 404

UnrecognizedClientException

The X.509 certificate or AWS access key ID you provided doesn't exist in our records. Verify that you're using valid credentials and that they haven't expired.

HTTP Status Code: 403

ValidationError

The input doesn't meet the required format or constraints. Check that all required parameters are included and that values are valid.

HTTP Status Code: 400