

---

# Amazon Connect Service

## API Reference

**API Version 2017-08-08**



## **Amazon Connect Service: API Reference**

Copyright © 2019 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
CreateUser .....	3
Request Syntax .....	3
URI Request Parameters .....	3
Request Body .....	3
Response Syntax .....	5
Response Elements .....	5
Errors .....	5
See Also .....	6
DeleteUser .....	7
Request Syntax .....	7
URI Request Parameters .....	7
Request Body .....	7
Response Syntax .....	7
Response Elements .....	7
Errors .....	7
See Also .....	8
DescribeUser .....	9
Request Syntax .....	9
URI Request Parameters .....	9
Request Body .....	9
Response Syntax .....	9
Response Elements .....	10
Errors .....	10
See Also .....	10
DescribeUserHierarchyGroup .....	12
Request Syntax .....	12
URI Request Parameters .....	12
Request Body .....	12
Response Syntax .....	12
Response Elements .....	13
Errors .....	13
See Also .....	14
DescribeUserHierarchyStructure .....	15
Request Syntax .....	15
URI Request Parameters .....	15
Request Body .....	15
Response Syntax .....	15
Response Elements .....	16
Errors .....	16
See Also .....	16
GetContactAttributes .....	18
Request Syntax .....	18
URI Request Parameters .....	18
Request Body .....	18
Response Syntax .....	18
Response Elements .....	18
Errors .....	19
See Also .....	19
GetCurrentMetricData .....	20
Request Syntax .....	20
URI Request Parameters .....	20
Request Body .....	20

Response Syntax .....	22
Response Elements .....	22
Errors .....	23
Example .....	24
See Also .....	24
GetFederationToken .....	25
Request Syntax .....	25
URI Request Parameters .....	25
Request Body .....	25
Response Syntax .....	25
Response Elements .....	25
Errors .....	26
See Also .....	26
GetMetricData .....	27
Request Syntax .....	27
URI Request Parameters .....	27
Request Body .....	27
Response Syntax .....	31
Response Elements .....	32
Errors .....	32
Example .....	33
See Also .....	33
ListRoutingProfiles .....	34
Request Syntax .....	34
URI Request Parameters .....	34
Request Body .....	34
Response Syntax .....	34
Response Elements .....	35
Errors .....	35
See Also .....	35
ListSecurityProfiles .....	37
Request Syntax .....	37
URI Request Parameters .....	37
Request Body .....	37
Response Syntax .....	37
Response Elements .....	38
Errors .....	38
See Also .....	38
ListUserHierarchyGroups .....	40
Request Syntax .....	40
URI Request Parameters .....	40
Request Body .....	40
Response Syntax .....	40
Response Elements .....	41
Errors .....	41
See Also .....	41
ListUsers .....	43
Request Syntax .....	43
URI Request Parameters .....	43
Request Body .....	43
Response Syntax .....	43
Response Elements .....	43
Errors .....	44
See Also .....	44
StartOutboundVoiceContact .....	46
Request Syntax .....	46
URI Request Parameters .....	46

Request Body .....	46
Response Syntax .....	48
Response Elements .....	48
Errors .....	48
See Also .....	49
StopContact .....	50
Request Syntax .....	50
URI Request Parameters .....	50
Request Body .....	50
Response Syntax .....	50
Response Elements .....	50
Errors .....	51
Example .....	51
See Also .....	51
UpdateContactAttributes .....	53
Request Syntax .....	53
URI Request Parameters .....	53
Request Body .....	53
Response Syntax .....	54
Response Elements .....	54
Errors .....	54
See Also .....	55
UpdateUserHierarchy .....	56
Request Syntax .....	56
URI Request Parameters .....	56
Request Body .....	56
Response Syntax .....	56
Response Elements .....	56
Errors .....	56
See Also .....	57
UpdateUserIdentityInfo .....	58
Request Syntax .....	58
URI Request Parameters .....	58
Request Body .....	58
Response Syntax .....	58
Response Elements .....	58
Errors .....	59
See Also .....	59
UpdateUserPhoneConfig .....	60
Request Syntax .....	60
URI Request Parameters .....	60
Request Body .....	60
Response Syntax .....	60
Response Elements .....	61
Errors .....	61
See Also .....	61
UpdateUserRoutingProfile .....	62
Request Syntax .....	62
URI Request Parameters .....	62
Request Body .....	62
Response Syntax .....	62
Response Elements .....	62
Errors .....	62
See Also .....	63
UpdateUserSecurityProfiles .....	64
Request Syntax .....	64
URI Request Parameters .....	64

Request Body .....	64
Response Syntax .....	64
Response Elements .....	64
Errors .....	65
See Also .....	65
Data Types .....	66
Credentials .....	67
Contents .....	67
See Also .....	67
CurrentMetric .....	68
Contents .....	68
See Also .....	68
CurrentMetricData .....	69
Contents .....	69
See Also .....	69
CurrentMetricResult .....	70
Contents .....	70
See Also .....	70
Dimensions .....	71
Contents .....	71
See Also .....	71
Filters .....	72
Contents .....	72
See Also .....	72
HierarchyGroup .....	73
Contents .....	73
See Also .....	73
HierarchyGroupSummary .....	74
Contents .....	74
See Also .....	74
HierarchyLevel .....	75
Contents .....	75
See Also .....	75
HierarchyPath .....	76
Contents .....	76
See Also .....	76
HierarchyStructure .....	78
Contents .....	78
See Also .....	78
HistoricalMetric .....	79
Contents .....	79
See Also .....	79
HistoricalMetricData .....	81
Contents .....	81
See Also .....	81
HistoricalMetricResult .....	82
Contents .....	82
See Also .....	82
QueueReference .....	83
Contents .....	83
See Also .....	83
RoutingProfileSummary .....	84
Contents .....	84
See Also .....	84
SecurityProfileSummary .....	85
Contents .....	85
See Also .....	85

Threshold .....	86
Contents .....	86
See Also .....	86
User .....	87
Contents .....	87
See Also .....	88
UserIdentityInfo .....	89
Contents .....	89
See Also .....	89
UserPhoneConfig .....	90
Contents .....	90
See Also .....	90
UserSummary .....	91
Contents .....	91
See Also .....	91
Common Parameters .....	92
Common Errors .....	94

# Welcome

The Amazon Connect API Reference provides descriptions, syntax, and usage examples for each of the Amazon Connect actions, data types, parameters, and errors. Amazon Connect is a cloud-based contact center solution that makes it easy to set up and manage a customer contact center and provide reliable customer engagement at any scale.

Throttling limits for the Amazon Connect API operations:

For the `GetMetricData` and `GetCurrentMetricData` operations, a `RateLimit` of 5 per second, and a `BurstLimit` of 8 per second.

For all other operations, a `RateLimit` of 2 per second, and a `BurstLimit` of 5 per second.

You can request an increase to the throttling limits by submitting a [Amazon Connect service limits increase form](#). You must be signed in to your AWS account to access the form.

This document was last published on February 21, 2019.



# Actions

The following actions are supported:

- [CreateUser](#) (p. 3)
- [DeleteUser](#) (p. 7)
- [DescribeUser](#) (p. 9)
- [DescribeUserHierarchyGroup](#) (p. 12)
- [DescribeUserHierarchyStructure](#) (p. 15)
- [GetContactAttributes](#) (p. 18)
- [GetCurrentMetricData](#) (p. 20)
- [GetFederationToken](#) (p. 25)
- [GetMetricData](#) (p. 27)
- [ListRoutingProfiles](#) (p. 34)
- [ListSecurityProfiles](#) (p. 37)
- [ListUserHierarchyGroups](#) (p. 40)
- [ListUsers](#) (p. 43)
- [StartOutboundVoiceContact](#) (p. 46)
- [StopContact](#) (p. 50)
- [UpdateContactAttributes](#) (p. 53)
- [UpdateUserHierarchy](#) (p. 56)
- [UpdateUserIdentityInfo](#) (p. 58)
- [UpdateUserPhoneConfig](#) (p. 60)
- [UpdateUserRoutingProfile](#) (p. 62)
- [UpdateUserSecurityProfiles](#) (p. 64)

# CreateUser

Creates a new user account in your Amazon Connect instance.

## Request Syntax

```
PUT /users/InstanceId HTTP/1.1
Content-type: application/json

{
  "DirectoryUserId": "string",
  "HierarchyGroupId": "string",
  "IdentityInfo": {
    "Email": "string",
    "FirstName": "string",
    "LastName": "string"
  },
  "Password": "string",
  "PhoneConfig": {
    "AfterContactWorkTimeLimit": number,
    "AutoAccept": boolean,
    "DeskPhoneNumber": "string",
    "PhoneType": "string"
  },
  "RoutingProfileId": "string",
  "SecurityProfileIds": [ "string" ],
  "Username": "string"
}
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 3)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

## Request Body

The request accepts the following data in JSON format.

### DirectoryUserId (p. 3)

The unique identifier for the user account in the directory service directory used for identity management. If Amazon Connect is unable to access the existing directory, you can use the `DirectoryUserId` to authenticate users. If you include the parameter, it is assumed that Amazon Connect cannot access the directory. If the parameter is not included, the `UserIdentityInfo` is used to authenticate users from your existing directory.

This parameter is required if you are using an existing directory for identity management in Amazon Connect when Amazon Connect cannot access your directory to authenticate users. If you are using

SAML for identity management and include this parameter, an `InvalidRequestException` is returned.

Type: String

Required: No

#### **HierarchyGroupId (p. 3)**

The unique identifier for the hierarchy group to assign to the user created.

Type: String

Required: No

#### **IdentityInfo (p. 3)**

Information about the user, including email address, first name, and last name.

Type: [UserIdentityInfo \(p. 89\)](#) object

Required: No

#### **Password (p. 3)**

The password for the user account to create. This is required if you are using Amazon Connect for identity management. If you are using SAML for identity management and include this parameter, an `InvalidRequestException` is returned.

Type: String

Pattern: `/^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)[a-zA-Z\d\S]{8,64}$/`

Required: No

#### **PhoneConfig (p. 3)**

Specifies the phone settings for the user, including `AfterContactWorkTimeLimit`, `AutoAccept`, `DeskPhoneNumber`, and `PhoneType`.

Type: [UserPhoneConfig \(p. 90\)](#) object

Required: Yes

#### **RoutingProfileId (p. 3)**

The unique identifier for the routing profile to assign to the user created.

Type: String

Required: Yes

#### **SecurityProfileIds (p. 3)**

The unique identifier of the security profile to assign to the user created.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

#### **Username (p. 3)**

The user name in Amazon Connect for the account to create. For instances not using SAML for identity management, the `Username` can include up to 20 characters. If you are using SAML for

identity management in your instance, the value for `Username` can include up to 64 characters from `[a-zA-Z0-9_-\.@]+`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `[a-zA-Z0-9_\-\.\@]+`

Required: Yes

## Response Syntax

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

{
  "UserArn": "string",
  "UserId": "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.

### **UserArn** (p. 5)

The Amazon Resource Name (ARN) of the user account created.

Type: String

### **UserId** (p. 5)

The unique identifier for the user account in Amazon Connect

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 94).

### **DuplicateResourceException**

A resource with that name already exists.

HTTP Status Code: 409

### **InternalServiceException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

**InvalidRequestException**

The request is not valid.

HTTP Status Code: 400

**LimitExceededException**

The allowed limit for the resource has been reached.

HTTP Status Code: 429

**ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

**ThrottlingException**

The throttling limit has been exceeded.

HTTP Status Code: 429

## See Also

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

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

# DeleteUser

Deletes a user account from Amazon Connect.

## Request Syntax

```
DELETE /users/InstanceId/UserId HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### **InstanceId** (p. 7)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

### **UserId** (p. 7)

The unique identifier of the user to delete.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

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

# DescribeUser

Returns a `User` object that contains information about the user account specified by the `UserId`.

## Request Syntax

```
GET /users/InstanceId/UserId HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 9)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

### UserId (p. 9)

Unique identifier for the user account to return.

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "User": {
    "Arn": "string",
    "DirectoryUserId": "string",
    "HierarchyGroupId": "string",
    "Id": "string",
    "IdentityInfo": {
      "Email": "string",
      "FirstName": "string",
      "LastName": "string"
    },
    "PhoneConfig": {
      "AfterContactWorkTimeLimit": number,
      "AutoAccept": boolean,
      "DeskPhoneNumber": "string",
      "PhoneType": "string"
    },
    "RoutingProfileId": "string",
    "SecurityProfileIds": [ "string" ],
    "Username": "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.

### User (p. 9)

A `User` object that contains information about the user account and configuration settings.

Type: [User \(p. 87\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### InternalServerError

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

HTTP Status Code: 500

### InvalidParameterException

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### 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

## See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

# DescribeUserHierarchyGroup

Returns a `HierarchyGroup` object that includes information about a hierarchy group in your instance.

## Request Syntax

```
GET /user-hierarchy-groups/InstanceId/HierarchyGroupId HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### [HierarchyGroupId \(p. 12\)](#)

The identifier for the hierarchy group to return.

### [InstanceId \(p. 12\)](#)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

## Request Body

The request does not have a request body.

## Response Syntax

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

```
{  
  "HierarchyGroup": {  
    "Arn": "string",  
    "HierarchyPath": {  
      "LevelFive": {  
        "Arn": "string",  
        "Id": "string",  
        "Name": "string"  
      },  
      "LevelFour": {  
        "Arn": "string",  
        "Id": "string",  
        "Name": "string"  
      },  
      "LevelOne": {  
        "Arn": "string",  
        "Id": "string",  
        "Name": "string"  
      },  
      "LevelThree": {
```

```
    "Arn": "string",
    "Id": "string",
    "Name": "string"
  },
  "LevelTwo": {
    "Arn": "string",
    "Id": "string",
    "Name": "string"
  }
},
"Id": "string",
"LevelId": "string",
"Name": "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.

### **HierarchyGroup (p. 12)**

Returns a `HierarchyGroup` object.

Type: [HierarchyGroup \(p. 73\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

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

# DescribeUserHierarchyStructure

Returns a `HierarchyGroupStructure` object, which contains data about the levels in the agent hierarchy.

## Request Syntax

```
GET /user-hierarchy-structure/InstanceId HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### [InstanceId \(p. 15\)](#)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

## Request Body

The request does not have a request body.

## Response Syntax

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

```
{  
  "HierarchyStructure": {  
    "LevelFive": {  
      "Arn": "string",  
      "Id": "string",  
      "Name": "string"  
    },  
    "LevelFour": {  
      "Arn": "string",  
      "Id": "string",  
      "Name": "string"  
    },  
    "LevelOne": {  
      "Arn": "string",  
      "Id": "string",  
      "Name": "string"  
    },  
    "LevelThree": {  
      "Arn": "string",  
      "Id": "string",  
      "Name": "string"  
    },  
    "LevelTwo": {
```

```
    "Arn": "string",  
    "Id": "string",  
    "Name": "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.

### [HierarchyStructure \(p. 15\)](#)

A `HierarchyStructure` object.

Type: [HierarchyStructure \(p. 78\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)



# GetContactAttributes

Retrieves the contact attributes associated with a contact.

## Request Syntax

```
GET /contact/attributes/InstanceId/InitialContactId HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### InitialContactId (p. 18)

The ID for the initial contact in Amazon Connect for which to retrieve contact attributes.

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

### InstanceId (p. 18)

The instance ID for the Amazon Connect instance from which to retrieve contact attributes.

Length Constraints: Minimum length of 1. Maximum length of 100.

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "Attributes": {
    "string" : "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.

### Attributes (p. 18)

The attributes associated with the specified `InitialContactId`.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 32767.

Value Length Constraints: Minimum length of 0. Maximum length of 32767.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **InternalServerErrorException**

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

## See Also

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

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

# GetCurrentMetricData

The `GetCurrentMetricData` operation retrieves current metric data from your Amazon Connect instance.

If you are using an IAM account, it must have permission to the `connect:GetCurrentMetricData` action.

## Request Syntax

```
POST /metrics/current/InstanceId HTTP/1.1
Content-type: application/json

{
  "CurrentMetrics": [
    {
      "Name": "string",
      "Unit": "string"
    }
  ],
  "Filters": {
    "Channels": [ "string" ],
    "Queues": [ "string" ]
  },
  "Groupings": [ "string" ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 20)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

## Request Body

The request accepts the following data in JSON format.

### CurrentMetrics (p. 20)

A list of `CurrentMetric` objects for the metrics to retrieve. Each `CurrentMetric` includes a name of a metric to retrieve and the unit to use for it. You must list each metric to retrieve data for in the request.

The following metrics are available:

AGENTS\_AVAILABLE

Unit: COUNT

AGENTS\_ONLINE

Unit: COUNT

AGENTS\_ON\_CALL

Unit: COUNT

AGENTS\_STAFFED

Unit: COUNT

AGENTS\_AFTER\_CONTACT\_WORK

Unit: COUNT

AGENTS\_NON\_PRODUCTIVE

Unit: COUNT

AGENTS\_ERROR

Unit: COUNT

CONTACTS\_IN\_QUEUE

Unit: COUNT

OLDEST\_CONTACT\_AGE

Unit: SECONDS

CONTACTS\_SCHEDULED

Unit: COUNT

Type: Array of [CurrentMetric \(p. 68\)](#) objects

Required: Yes

#### **Filters (p. 20)**

A `Filters` object that contains a list of queue IDs or queue ARNs, up to 100, or list of Channels to use to filter the metrics returned in the response. Metric data is retrieved only for the resources associated with the queue IDs, ARNs, or Channels included in the filter. You can include both IDs and ARNs in the same request. To retrieve metrics for all queues, add the queue ID or ARN for each queue in your instance. Only VOICE is supported for Channels.

To find the ARN for a queue, open the queue you want to use in the Amazon Connect Queue editor. The ARN for the queue is displayed in the address bar as part of the URL. For example, the queue ARN is the set of characters at the end of the URL, after 'id=' such as `arn:aws:connect:us-east-1:270923740243:instance/78fb859d-1b7d-44b1-8aa3-12f0835c5855/queue/1d1a4575-9618-40ab-bbeb-81e45795fe61`. The queue ID is also included in the URL, and is the string after 'queue/'.

Type: [Filters \(p. 72\)](#) object

Required: Yes

#### **Groupings (p. 20)**

The grouping applied to the metrics returned. For example, when grouped by QUEUE, the metrics returned apply to each queue rather than aggregated for all queues. If you group by CHANNEL, you should include a Channels filter. The only supported channel is VOICE.

If no `Grouping` is included in the request, a summary of `CurrentMetrics` is returned.

Type: Array of strings

Array Members: Maximum number of 2 items.

Valid Values: `QUEUE` | `CHANNEL`

Required: No

### MaxResults (p. 20)

`MaxResults` indicates the maximum number of results to return per page in the response, between 1 and 100.

Type: Integer

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

Required: No

### NextToken (p. 20)

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.

The token expires after 5 minutes from the time it is created. Subsequent requests that use the `NextToken` must use the same request parameters as the request that generated the token.

Type: String

Required: No

## Response Syntax

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

{
  "DataSnapshotTime": number,
  "MetricResults": [
    {
      "Collections": [
        {
          "Metric": {
            "Name": "string",
            "Unit": "string"
          },
          "Value": number
        }
      ],
      "Dimensions": {
        "Channel": "string",
        "Queue": {
          "Arn": "string",
          "Id": "string"
        }
      }
    }
  ],
  "NextToken": "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.

#### **DataSnapshotTime (p. 22)**

The time at which `CurrentMetricData` was retrieved and cached for pagination.

Type: Timestamp

#### **MetricResults (p. 22)**

A list of `CurrentMetricResult` objects organized by `Dimensions` combining with `CurrentMetricDataCollections`.

`Dimensions` is the `resourceId` specified in the `Filters` of the request.

`Collections` is a list of `CurrentMetricData` objects with corresponding values to the `CurrentMetrics` specified in the request.

If no `Grouping` is specified in the request, `Collections` is a summary for the `CurrentMetric` returned.

Type: Array of `CurrentMetricResult (p. 70)` objects

#### **NextToken (p. 22)**

A string returned in the response. Use the value returned in the response as the value of the `NextToken` in a subsequent request to retrieve the next set of results.

The token expires after 5 minutes from the time it is created. Subsequent requests that use the `NextToken` must use the same request parameters as the request that generated the token.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

#### **InternalServiceException**

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

HTTP Status Code: 500

#### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

#### **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

## Example

### Example granting Allow access to this operation

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "connect:GetCurrentMetricData"
      ],
      "Resource": "arn:aws:connect:us-
west-2:432047966757:instance/0c7d681d-5546-4f93-97f8-0976e896dae9/
queue/28915e20-4592-4f7c-8a53-a24ce6950cb5"
    }
  ]
}
```

## See Also

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

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

# GetFederationToken

Retrieves a token for federation.

## Request Syntax

```
GET /user/federate/InstanceId HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### [InstanceId \(p. 25\)](#)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "Credentials": {
    "AccessToken": "string",
    "AccessTokenExpiration": number,
    "RefreshToken": "string",
    "RefreshTokenExpiration": number
  }
}
```

## 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.

### [Credentials \(p. 25\)](#)

The credentials to use for federation.

Type: [Credentials \(p. 67\)](#) object



## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **DuplicateResourceException**

A resource with that name already exists.

HTTP Status Code: 409

### **InternalServiceException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **InvalidRequestException**

The request is not valid.

HTTP Status Code: 400

### **ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

### **UserNotFoundException**

No user with the specified credentials was found in the Amazon Connect instance.

HTTP Status Code: 404

## See Also

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

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

# GetMetricData

The `GetMetricData` operation retrieves historical metrics data from your Amazon Connect instance.

If you are using an IAM account, it must have permission to the `connect:GetMetricData` action.

## Request Syntax

```
POST /metrics/historical/InstanceId HTTP/1.1  
Content-type: application/json
```

```
{  
  "EndTime": number,  
  "Filters": {  
    "Channels": [ "string" ],  
    "Queues": [ "string" ]  
  },  
  "Groupings": [ "string" ],  
  "HistoricalMetrics": [  
    {  
      "Name": "string",  
      "Statistic": "string",  
      "Threshold": {  
        "Comparison": "string",  
        "ThresholdValue": number  
      },  
      "Unit": "string"  
    },  
    ...  
  ],  
  "MaxResults": number,  
  "NextToken": "string",  
  "StartTime": number  
}
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 27)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

## Request Body

The request accepts the following data in JSON format.

### EndTime (p. 27)

The timestamp, in UNIX Epoch time format, at which to end the reporting interval for the retrieval of historical metrics data. The time must be specified using an interval of 5 minutes, such as `11:00`, `11:05`, `11:10`, and must be later than the `StartTime` timestamp.

The time range between `StartTime` and `EndTime` must be less than 24 hours.

Type: Timestamp

Required: Yes

### [Filters \(p. 27\)](#)

A `Filters` object that contains a list of queue IDs or queue ARNs, up to 100, or a list of Channels to use to filter the metrics returned in the response. Metric data is retrieved only for the resources associated with the IDs, ARNs, or Channels included in the filter. You can use both IDs and ARNs together in a request. Only VOICE is supported for Channel.

To find the ARN for a queue, open the queue you want to use in the Amazon Connect Queue editor. The ARN for the queue is displayed in the address bar as part of the URL. For example, the queue ARN is the set of characters at the end of the URL, after 'id=' such as `arn:aws:connect:us-east-1:270923740243:instance/78fb859d-1b7d-44b1-8aa3-12f0835c5855/queue/1d1a4575-9618-40ab-bbeb-81e45795fe61`. The queue ID is also included in the URL, and is the string after 'queue/'.

Type: [Filters \(p. 72\)](#) object

Required: Yes

### [Groupings \(p. 27\)](#)

The grouping applied to the metrics returned. For example, when results are grouped by `queueId`, the metrics returned are grouped by queue. The values returned apply to the metrics for each queue rather than aggregated for all queues.

The current version supports grouping by Queue

If no `Grouping` is included in the request, a summary of `HistoricalMetrics` for all queues is returned.

Type: Array of strings

Array Members: Maximum number of 2 items.

Valid Values: `QUEUE` | `CHANNEL`

Required: No

### [HistoricalMetrics \(p. 27\)](#)

A list of `HistoricalMetric` objects that contain the metrics to retrieve with the request.

A `HistoricalMetric` object contains: `HistoricalMetricName`, `Statistic`, `Threshold`, and `Unit`.

You must list each metric to retrieve data for in the request. For each historical metric you include in the request, you must include a `Unit` and a `Statistic`.

The following historical metrics are available:

`CONTACTS_QUEUED`

Unit: COUNT

Statistic: SUM

`CONTACTS_HANDLED`

Unit: COUNT

Statistics: SUM  
CONTACTS\_ABANDONED  
Unit: COUNT

Statistics: SUM  
CONTACTS\_CONSULTED  
Unit: COUNT

Statistics: SUM  
CONTACTS\_AGENT\_HUNG\_UP\_FIRST  
Unit: COUNT

Statistics: SUM  
CONTACTS\_HANDLED\_INCOMING  
Unit: COUNT

Statistics: SUM  
CONTACTS\_HANDLED\_OUTBOUND  
Unit: COUNT

Statistics: SUM  
CONTACTS\_HOLD\_ABANDONS  
Unit: COUNT

Statistics: SUM  
CONTACTS\_TRANSFERRED\_IN  
Unit: COUNT

Statistics: SUM  
CONTACTS\_TRANSFERRED\_OUT  
Unit: COUNT

Statistics: SUM  
CONTACTS\_TRANSFERRED\_IN\_FROM\_QUEUE  
Unit: COUNT

Statistics: SUM  
CONTACTS\_TRANSFERRED\_OUT\_FROM\_QUEUE  
Unit: COUNT

Statistics: SUM  
CALLBACK\_CONTACTS\_HANDLED  
Unit: COUNT

Statistics: SUM  
CALLBACK\_CONTACTS\_HANDLED  
Unit: COUNT

Statistics: SUM  
API\_CONTACTS\_HANDLED  
Unit: COUNT

Statistics: SUM  
CONTACTS\_MISSED  
Unit: COUNT

Statistics: SUM  
OCCUPANCY  
Unit: PERCENT

Statistics: AVG  
HANDLE\_TIME  
Unit: SECONDS

Statistics: AVG  
AFTER\_CONTACT\_WORK\_TIME  
Unit: SECONDS

Statistics: AVG  
QUEUED\_TIME  
Unit: SECONDS

Statistics: MAX  
ABANDON\_TIME  
Unit: SECONDS

Statistics: AVG  
QUEUE\_ANSWER\_TIME  
Unit: SECONDS

Statistics: AVG  
HOLD\_TIME  
Unit: SECONDS

Statistics: AVG  
INTERACTION\_TIME  
Unit: SECONDS

Statistics: AVG  
INTERACTION\_AND\_HOLD\_TIME  
Unit: SECONDS

Statistics: AVG  
SERVICE\_LEVEL  
Unit: PERCENT

Statistics: AVG

Threshold: Only "Less than" comparisons are supported, with the following service level thresholds: 15, 20, 25, 30, 45, 60, 90, 120, 180, 240, 300, 600

Type: Array of [HistoricalMetric \(p. 79\)](#) objects

Required: Yes

#### [MaxResults \(p. 27\)](#)

Indicates the maximum number of results to return per page in the response, between 1-100.

Type: Integer

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

Required: No

#### [NextToken \(p. 27\)](#)

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

Required: No

#### [StartTime \(p. 27\)](#)

The timestamp, in UNIX Epoch time format, at which to start the reporting interval for the retrieval of historical metrics data. The time must be specified using a multiple of 5 minutes, such as 10:05, 10:10, 10:15.

`StartTime` cannot be earlier than 24 hours before the time of the request. Historical metrics are available in Amazon Connect only for 24 hours.

Type: Timestamp

Required: Yes

## Response Syntax

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

{
  "MetricResults": [
    {
      "Collections": [
        {
          "Metric": {
            "Name": "string",
            "Statistic": "string",
            "Threshold": {
              "Comparison": "string",
              "ThresholdValue": number
            },
            "Unit": "string"
          },
          "Value": number
        }
      ]
    }
  ]
}
```

```
    ],  
    "Dimensions": {  
      "Channel": "string",  
      "Queue": {  
        "Arn": "string",  
        "Id": "string"  
      }  
    }  
  }  
],  
"NextToken": "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.

### MetricResults (p. 31)

A list of `HistoricalMetricResult` objects, organized by `Dimensions`, which is the ID of the resource specified in the `Filters` used for the request. The metrics are combined with the metrics included in `Collections`, which is a list of `HistoricalMetricData` objects.

If no `Grouping` is specified in the request, `Collections` includes summary data for the `HistoricalMetrics`.

Type: Array of [HistoricalMetricResult \(p. 82\)](#) objects

### NextToken (p. 31)

A string returned in the response. Use the value returned in the response as the value of the `NextToken` in a subsequent request to retrieve the next set of results.

The token expires after 5 minutes from the time it is created. Subsequent requests that use the `NextToken` must use the same request parameters as the request that generated the token.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### InternalServerErrorException

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

HTTP Status Code: 500

### InvalidParameterException

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### 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

## Example

### Example granting Allow access to this operation

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "connect:GetMetricData"
      ],
      "Resource": "arn:aws:connect:us-
west-2:432047966757:instance/0c7d681d-5546-4f93-97f8-0976e896dae9/
queue/28915e20-4592-4f7c-8a53-a24ce6950cb5"
    }
  ]
}
```

## See Also

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

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



# ListRoutingProfiles

Returns an array of `RoutingProfileSummary` objects that includes information about the routing profiles in your instance.

## Request Syntax

```
GET /routing-profiles-summary/InstanceId?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 34)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

### MaxResults (p. 34)

The maximum number of routing profiles to return in the response.

Valid Range: Minimum value of 1. Maximum value of 1000.

### NextToken (p. 34)

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.

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "NextToken": "string",
  "RoutingProfileSummaryList": [
    {
      "Arn": "string",
      "Id": "string",
      "Name": "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** (p. 34)

A string returned in the response. Use the value returned in the response as the value of the NextToken in a subsequent request to retrieve the next set of results.

Type: String

### **RoutingProfileSummaryList** (p. 34)

An array of `RoutingProfileSummary` objects that include the ARN, Id, and Name of the routing profile.

Type: Array of `RoutingProfileSummary` (p. 84) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 94).

### **InternalServiceException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

# ListSecurityProfiles

Returns an array of SecurityProfileSummary objects that contain information about the security profiles in your instance, including the ARN, Id, and Name of the security profile.

## Request Syntax

```
GET /security-profiles-summary/InstanceId?maxResults=MaxResults&nextToken=NextToken  
HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 37)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

### MaxResults (p. 37)

The maximum number of security profiles to return.

Valid Range: Minimum value of 1. Maximum value of 1000.

### NextToken (p. 37)

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.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200  
Content-type: application/json  
  
{  
  "NextToken": "string",  
  "SecurityProfileSummaryList": [  
    {  
      "Arn": "string",  
      "Id": "string",  
      "Name": "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** (p. 37)

A string returned in the response. Use the value returned in the response as the value of the NextToken in a subsequent request to retrieve the next set of results.

Type: String

### **SecurityProfileSummaryList** (p. 37)

An array of SecurityProfileSummary objects.

Type: Array of SecurityProfileSummary (p. 85) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 94).

### **InternalServiceException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

# ListUserHierarchyGroups

Returns a `UserHierarchyGroupSummaryList`, which is an array of `HierarchyGroupSummary` objects that contain information about the hierarchy groups in your instance.

## Request Syntax

```
GET /user-hierarchy-groups-summary/InstanceId?maxResults=MaxResults&nextToken=NextToken
HTTP/1.1
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 40)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

### MaxResults (p. 40)

The maximum number of hierarchy groups to return.

Valid Range: Minimum value of 1. Maximum value of 1000.

### NextToken (p. 40)

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.

## Request Body

The request does not have a request body.

## Response Syntax

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

{
  "NextToken": "string",
  "UserHierarchyGroupSummaryList": [
    {
      "Arn": "string",
      "Id": "string",
      "Name": "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** (p. 40)

A string returned in the response. Use the value returned in the response as the value of the `NextToken` in a subsequent request to retrieve the next set of results.

Type: String

### **UserHierarchyGroupSummaryList** (p. 40)

An array of `HierarchyGroupSummary` objects.

Type: Array of `HierarchyGroupSummary` (p. 74) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 94).

### **InternalServiceException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)



- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

## ListUsers

Returns a `UserSummaryList`, which is an array of `UserSummary` objects.

### Request Syntax

```
GET /users-summary/InstanceId?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

### URI Request Parameters

The request requires the following URI parameters.

#### [InstanceId \(p. 43\)](#)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

#### [MaxResults \(p. 43\)](#)

The maximum number of results to return in the response.

Valid Range: Minimum value of 1. Maximum value of 1000.

#### [NextToken \(p. 43\)](#)

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.

### Request Body

The request does not have a request body.

### Response Syntax

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

{
  "NextToken": "string",
  "UserSummaryList": [
    {
      "Arn": "string",
      "Id": "string",
      "Username": "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 (p. 43)**

A string returned in the response. Use the value returned in the response as the value of the NextToken in a subsequent request to retrieve the next set of results.

Type: String

#### **UserSummaryList (p. 43)**

An array of UserSummary objects that contain information about the users in your instance.

Type: Array of UserSummary (p. 91) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

#### **InternalServiceException**

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

HTTP Status Code: 500

#### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

#### **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

## See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

# StartOutboundVoiceContact

The `StartOutboundVoiceContact` operation initiates a contact flow to place an outbound call to a customer.

If you are using an IAM account, it must have permission to the `connect:StartOutboundVoiceContact` action.

There is a 60 second dialing timeout for this operation. If the call is not connected after 60 seconds, the call fails.

## Request Syntax

```
PUT /contact/outbound-voice HTTP/1.1  
Content-type: application/json
```

```
{  
  "Attributes": {  
    "string": "string"  
  },  
  "ClientToken": "string",  
  "ContactFlowId": "string",  
  "DestinationPhoneNumber": "string",  
  "InstanceId": "string",  
  "QueueId": "string",  
  "SourcePhoneNumber": "string"  
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### Attributes (p. 46)

Specify a custom key-value pair using an attribute map. The attributes are standard Amazon Connect attributes, and can be accessed in contact flows just like any other contact attributes.

There can be up to 32,768 UTF-8 bytes across all key-value pairs per contact. Attribute keys can include only alphanumeric, dash, and underscore characters.

For example, if you want play a greeting when the customer answers the call, you can pass the customer name in attributes similar to the following:

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 32767.

Value Length Constraints: Minimum length of 0. Maximum length of 32767.

Required: No

### ClientToken (p. 46)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request. The token is valid for 7 days after creation. If a contact is already started, the contact ID is returned. If the contact is disconnected, a new contact is started.

Type: String

Length Constraints: Maximum length of 500.

Required: No

#### **ContactFlowId (p. 46)**

The identifier for the contact flow to connect the outbound call to.

To find the `ContactFlowId`, open the contact flow you want to use in the Amazon Connect contact flow editor. The ID for the contact flow is displayed in the address bar as part of the URL. For example, the contact flow ID is the set of characters at the end of the URL, after 'contact-flow/' such as `78ea8fd5-2659-4f2b-b528-699760ccfc1b`.

Type: String

Length Constraints: Maximum length of 500.

Required: Yes

#### **DestinationPhoneNumber (p. 46)**

The phone number of the customer in E.164 format.

Type: String

Required: Yes

#### **InstanceId (p. 46)**

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Required: Yes

#### **QueueId (p. 46)**

The queue to add the call to. If you specify a queue, the phone displayed for caller ID is the phone number specified in the queue. If you do not specify a queue, the queue used will be the queue defined in the contact flow.

To find the `QueueId`, open the queue you want to use in the Amazon Connect Queue editor. The ID for the queue is displayed in the address bar as part of the URL. For example, the queue ID is the set of characters at the end of the URL, after 'queue/' such as `queue/aeg40574-2d01-51c3-73d6-bf8624d2168c`.

Type: String

Required: No

#### **SourcePhoneNumber (p. 46)**

The phone number, in E.164 format, associated with your Amazon Connect instance to use for the outbound call.

Type: String

Required: No

## Response Syntax

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

{
  "ContactId": "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.

### ContactId (p. 48)

The unique identifier of this contact within your Amazon Connect instance.

Type: String

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### DestinationNotAllowedException

Outbound calls to the destination number are not allowed.

HTTP Status Code: 403

### InternalServiceException

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

HTTP Status Code: 500

### InvalidParameterException

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### InvalidRequestException

The request is not valid.

HTTP Status Code: 400

### LimitExceededException

The allowed limit for the resource has been reached.

HTTP Status Code: 429

### **OutboundContactNotPermittedException**

The contact is not permitted.

HTTP Status Code: 403

### **ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

## See Also

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

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



# StopContact

Ends the contact initiated by the `StartOutboundVoiceContact` operation.

If you are using an IAM account, it must have permission to the `connect:StopContact` action.

## Request Syntax

```
POST /contact/stop HTTP/1.1  
Content-type: application/json
```

```
{  
  "ContactId": "string",  
  "InstanceId": "string"  
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### ContactId (p. 50)

The unique identifier of the contact to end.

Type: String

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

Required: Yes

### InstanceId (p. 50)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **ContactNotFoundException**

The contact with the specified ID is not active or does not exist.

HTTP Status Code: 410

### **InternalServerErrorException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **InvalidRequestException**

The request is not valid.

HTTP Status Code: 400

### **ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

## Example

Example policy that grants permissions to this operation:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "connect:StopContact"
      ],
      "Resource": "arn:aws:connect:us-west-2:854005473701:instance/97940ff5-2ce5-424b-a570-8d954e6862bd/contact/*"
    }
  ]
}
```

## See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

## UpdateContactAttributes

The `UpdateContactAttributes` operation lets you programmatically create new, or update existing, contact attributes associated with a contact. You can use the operation to add or update attributes for both ongoing and completed contacts. For example, you can update the customer's name or the reason the customer called while the call is active, or add notes about steps that the agent took during the call that are displayed to the next agent that takes the call. You can also use the `UpdateContactAttributes` operation to update attributes for a contact using data from your CRM application and save the data with the contact in Amazon Connect. You could also flag calls for additional analysis, such as legal review or identifying abusive callers.

Contact attributes are available in Amazon Connect for 24 months, and are then deleted.

### *Important:*

You cannot use the operation to update attributes for contacts that occurred prior to the release of the API, September 12, 2018. You can update attributes only for contacts that started after the release of the API. If you attempt to update attributes for a contact that occurred prior to the release of the API, a 400 error is returned. This applies also to queued callbacks that were initiated prior to the release of the API but are still active in your instance.

## Request Syntax

```
POST /contact/attributes HTTP/1.1
Content-type: application/json

{
  "Attributes": {
    "string" : "string"
  },
  "InitialContactId": "string",
  "InstanceId": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### **Attributes (p. 53)**

Specify a custom key-value pair using an attribute map. The attributes are standard Amazon Connect attributes, and can be accessed in contact flows just like any other contact attributes.

There can be up to 32,768 UTF-8 bytes across all key-value pairs per contact. Attribute keys can include only alphanumeric, dash, and underscore characters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 32767.

Value Length Constraints: Minimum length of 0. Maximum length of 32767.

Required: Yes

### InitialContactId (p. 53)

The unique identifier of the contact for which to update attributes. This is the identifier for the contact associated with the first interaction with the contact center.

Type: String

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

Required: Yes

### InstanceId (p. 53)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### InternalServiceException

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

HTTP Status Code: 500

### InvalidParameterException

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### InvalidRequestException

The request is not valid.

HTTP Status Code: 400

### ResourceNotFoundException

The specified resource was not found.

HTTP Status Code: 404

## See Also

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

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

# UpdateUserHierarchy

Assigns the specified hierarchy group to the user.

## Request Syntax

```
POST /users/InstanceId/UserId/hierarchy HTTP/1.1
Content-type: application/json

{
  "HierarchyGroupId": "string"
}
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 56)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

### UserId (p. 56)

The identifier of the user account to assign the hierarchy group to.

## Request Body

The request accepts the following data in JSON format.

### HierarchyGroupId (p. 56)

The identifier for the hierarchy group to assign to the user.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

**InternalServerErrorException**

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

HTTP Status Code: 500

**InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

**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

## See Also

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

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



# UpdateUserIdentityInfo

Updates the identity information for the specified user in a `UserIdentityInfo` object, including email, first name, and last name.

## Request Syntax

```
POST /users/InstanceId/UserId/identity-info HTTP/1.1
Content-type: application/json

{
  "IdentityInfo": {
    "Email": "string",
    "FirstName": "string",
    "LastName": "string"
  }
}
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 58)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

### UserId (p. 58)

The identifier for the user account to update identity information for.

## Request Body

The request accepts the following data in JSON format.

### IdentityInfo (p. 58)

A `UserIdentityInfo` object.

Type: `UserIdentityInfo` (p. 89) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

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

# UpdateUserPhoneConfig

Updates the phone configuration settings in the `UserPhoneConfig` object for the specified user.

## Request Syntax

```
POST /users/InstanceId/UserId/phone-config HTTP/1.1
Content-type: application/json

{
  "PhoneConfig": {
    "AfterContactWorkTimeLimit": number,
    "AutoAccept": boolean,
    "DeskPhoneNumber": "string",
    "PhoneType": "string"
  }
}
```

## URI Request Parameters

The request requires the following URI parameters.

### [InstanceId \(p. 60\)](#)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after `instance/`, such as `10a4c4eb-f57e-4d4c-b602-bf39176ced07`.

Length Constraints: Minimum length of 1. Maximum length of 100.

### [UserId \(p. 60\)](#)

The identifier for the user account to change phone settings for.

## Request Body

The request accepts the following data in JSON format.

### [PhoneConfig \(p. 60\)](#)

A `UserPhoneConfig` object that contains settings for `AfterContactWorkTimeLimit`, `AutoAccept`, `DeskPhoneNumber`, and `PhoneType` to assign to the user.

Type: [UserPhoneConfig \(p. 90\)](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

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

# UpdateUserRoutingProfile

Assigns the specified routing profile to a user.

## Request Syntax

```
POST /users/InstanceId/UserId/routing-profile HTTP/1.1
Content-type: application/json

{
  "RoutingProfileId": "string"
}
```

## URI Request Parameters

The request requires the following URI parameters.

### InstanceId (p. 62)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

### UserId (p. 62)

The identifier for the user account to assign the routing profile to.

## Request Body

The request accepts the following data in JSON format.

### RoutingProfileId (p. 62)

The identifier of the routing profile to assign to the user.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

**InternalServerErrorException**

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

HTTP Status Code: 500

**InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

**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

## See Also

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

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

# UpdateUserSecurityProfiles

Updates the security profiles assigned to the user.

## Request Syntax

```
POST /users/InstanceId/UserId/security-profiles HTTP/1.1
Content-type: application/json

{
  "SecurityProfileIds": [ "string" ]
}
```

## URI Request Parameters

The request requires the following URI parameters.

### [InstanceId \(p. 64\)](#)

The identifier for your Amazon Connect instance. To find the ID of your instance, open the AWS console and select Amazon Connect. Select the alias of the instance in the Instance alias column. The instance ID is displayed in the Overview section of your instance settings. For example, the instance ID is the set of characters at the end of the instance ARN, after instance/, such as 10a4c4eb-f57e-4d4c-b602-bf39176ced07.

Length Constraints: Minimum length of 1. Maximum length of 100.

### [UserId \(p. 64\)](#)

The identifier of the user account to assign the security profiles.

## Request Body

The request accepts the following data in JSON format.

### [SecurityProfileIds \(p. 64\)](#)

The identifiers for the security profiles to assign to the user.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 94\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 500

### **InvalidParameterException**

One or more of the parameters provided to the operation are not valid.

HTTP Status Code: 400

### **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

## See Also

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

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



# Data Types

The Amazon Connect Service 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:

- [Credentials](#) (p. 67)
- [CurrentMetric](#) (p. 68)
- [CurrentMetricData](#) (p. 69)
- [CurrentMetricResult](#) (p. 70)
- [Dimensions](#) (p. 71)
- [Filters](#) (p. 72)
- [HierarchyGroup](#) (p. 73)
- [HierarchyGroupSummary](#) (p. 74)
- [HierarchyLevel](#) (p. 75)
- [HierarchyPath](#) (p. 76)
- [HierarchyStructure](#) (p. 78)
- [HistoricalMetric](#) (p. 79)
- [HistoricalMetricData](#) (p. 81)
- [HistoricalMetricResult](#) (p. 82)
- [QueueReference](#) (p. 83)
- [RoutingProfileSummary](#) (p. 84)
- [SecurityProfileSummary](#) (p. 85)
- [Threshold](#) (p. 86)
- [User](#) (p. 87)
- [UserIdentityInfo](#) (p. 89)
- [UserPhoneConfig](#) (p. 90)
- [UserSummary](#) (p. 91)

# Credentials

The credentials to use for federation.

## Contents

### **AccessToken**

An access token generated for a federated user to access Amazon Connect

Type: String

Required: No

### **AccessTokenExpiration**

A token generated with an expiration time for the session a user is logged in to Amazon Connect

Type: Timestamp

Required: No

### **RefreshToken**

Renews a token generated for a user to access the Amazon Connect instance.

Type: String

Required: No

### **RefreshTokenExpiration**

Renews the expiration timer for a generated token.

Type: Timestamp

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# CurrentMetric

A `CurrentMetric` object that contains the Name and Unit for the metric.

## Contents

### Name

The name of the metric.

Type: String

Valid Values: AGENTS\_ONLINE | AGENTS\_AVAILABLE | AGENTS\_ON\_CALL | AGENTS\_NON\_PRODUCTIVE | AGENTS\_AFTER\_CONTACT\_WORK | AGENTS\_ERROR | AGENTS\_STAFFED | CONTACTS\_IN\_QUEUE | OLDEST\_CONTACT\_AGE | CONTACTS\_SCHEDULED

Required: No

### Unit

The unit for the metric.

Type: String

Valid Values: SECONDS | COUNT | PERCENT

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# CurrentMetricData

A `CurrentMetricData` object.

## Contents

### Metric

The metric in a `CurrentMetricData` object.

Type: [CurrentMetric](#) (p. 68) object

Required: No

### Value

The value of the metric in the `CurrentMetricData` object.

Type: Double

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# CurrentMetricResult

A `CurrentMetricResult` object.

## Contents

### Collections

The Collections for the `CurrentMetricResult` object.

Type: Array of [CurrentMetricData \(p. 69\)](#) objects

Required: No

### Dimensions

The Dimensions for the `CurrentMetricResult` object.

Type: [Dimensions \(p. 71\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# Dimensions

A `Dimensions` object that includes the Channel and Queue for the metric.

## Contents

### Channel

The channel used for grouping and filters. Only VOICE is supported.

Type: String

Valid Values: VOICE

Required: No

### Queue

A `QueueReference` object used as one part of dimension for the metrics results.

Type: [QueueReference \(p. 83\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# Filters

The filter, either channel or queues, to apply to the metric results retrieved.

## Contents

### Channels

The Channel to use as a filter for the metrics returned. Only VOICE is supported.

Type: Array of strings

Array Members: Maximum number of 1 item.

Valid Values: VOICE

Required: No

### Queues

A list of up to 100 queue IDs or queue ARNs to use to filter the metrics retrieved. You can include both IDs and ARNs in a request.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# HierarchyGroup

A `HierarchyGroup` object that contains information about a hierarchy group in your Amazon Connect instance.

## Contents

### **Arn**

The Amazon Resource Name (ARN) for the hierarchy group.

Type: String

Required: No

### **HierarchyPath**

A `HierarchyPath` object that contains information about the levels in the hierarchy group.

Type: [HierarchyPath](#) (p. 76) object

Required: No

### **Id**

The identifier for the hierarchy group.

Type: String

Required: No

### **LevelId**

The identifier for the level in the hierarchy group.

Type: String

Required: No

### **Name**

The name of the hierarchy group in your instance.

Type: String

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)



# HierarchyGroupSummary

A `HierarchyGroupSummary` object that contains information about the hierarchy group, including ARN, Id, and Name.

## Contents

### Arn

The ARN for the hierarchy group.

Type: String

Required: No

### Id

The identifier of the hierarchy group.

Type: String

Required: No

### Name

The name of the hierarchy group.

Type: String

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# HierarchyLevel

A `HierarchyLevel` object that contains information about the levels in a hierarchy group, including ARN, Id, and Name.

## Contents

### Arn

The ARN for the hierarchy group level.

Type: String

Required: No

### Id

The identifier for the hierarchy group level.

Type: String

Required: No

### Name

The name of the hierarchy group level.

Type: String

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# HierarchyPath

A `HierarchyPath` object that contains information about the levels of the hierarchy group.

## Contents

### LevelFive

A `HierarchyGroupSummary` object that contains information about the level of the hierarchy group, including ARN, Id, and Name.

Type: [HierarchyGroupSummary \(p. 74\)](#) object

Required: No

### LevelFour

A `HierarchyGroupSummary` object that contains information about the level of the hierarchy group, including ARN, Id, and Name.

Type: [HierarchyGroupSummary \(p. 74\)](#) object

Required: No

### LevelOne

A `HierarchyGroupSummary` object that contains information about the level of the hierarchy group, including ARN, Id, and Name.

Type: [HierarchyGroupSummary \(p. 74\)](#) object

Required: No

### LevelThree

A `HierarchyGroupSummary` object that contains information about the level of the hierarchy group, including ARN, Id, and Name.

Type: [HierarchyGroupSummary \(p. 74\)](#) object

Required: No

### LevelTwo

A `HierarchyGroupSummary` object that contains information about the level of the hierarchy group, including ARN, Id, and Name.

Type: [HierarchyGroupSummary \(p. 74\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)

- [AWS SDK for Ruby V2](#)

# HierarchyStructure

A `HierarchyStructure` object that contains information about the hierarchy group structure.

## Contents

### LevelFive

A `HierarchyLevel` object that contains information about the hierarchy group level.

Type: [HierarchyLevel \(p. 75\)](#) object

Required: No

### LevelFour

A `HierarchyLevel` object that contains information about the hierarchy group level.

Type: [HierarchyLevel \(p. 75\)](#) object

Required: No

### LevelOne

A `HierarchyLevel` object that contains information about the hierarchy group level.

Type: [HierarchyLevel \(p. 75\)](#) object

Required: No

### LevelThree

A `HierarchyLevel` object that contains information about the hierarchy group level.

Type: [HierarchyLevel \(p. 75\)](#) object

Required: No

### LevelTwo

A `HierarchyLevel` object that contains information about the hierarchy group level.

Type: [HierarchyLevel \(p. 75\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# HistoricalMetric

A `HistoricalMetric` object that contains the Name, Unit, Statistic, and Threshold for the metric.

## Contents

### Name

The name of the historical metric.

Type: String

Valid Values: CONTACTS\_QUEUED | CONTACTS\_HANDLED | CONTACTS\_ABANDONED  
| CONTACTS\_CONSULTED | CONTACTS\_AGENT\_HUNG\_UP\_FIRST |  
CONTACTS\_HANDLED\_INCOMING | CONTACTS\_HANDLED\_OUTBOUND |  
CONTACTS\_HOLD\_ABANDONS | CONTACTS\_TRANSFERRED\_IN | CONTACTS\_TRANSFERRED\_OUT  
| CONTACTS\_TRANSFERRED\_IN\_FROM\_QUEUE | CONTACTS\_TRANSFERRED\_OUT\_FROM\_QUEUE  
| CONTACTS\_MISSED | CALLBACK\_CONTACTS\_HANDLED | API\_CONTACTS\_HANDLED  
| OCCUPANCY | HANDLE\_TIME | AFTER\_CONTACT\_WORK\_TIME | QUEUED\_TIME  
| ABANDON\_TIME | QUEUE\_ANSWER\_TIME | HOLD\_TIME | INTERACTION\_TIME |  
INTERACTION\_AND\_HOLD\_TIME | SERVICE\_LEVEL

Required: No

### Statistic

The statistic for the metric.

Type: String

Valid Values: SUM | MAX | AVG

Required: No

### Threshold

The threshold for the metric, used with service level metrics.

Type: [Threshold \(p. 86\)](#) object

Required: No

### Unit

The unit for the metric.

Type: String

Valid Values: SECONDS | COUNT | PERCENT

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 Go](#)
- [AWS SDK for Go - Pilot](#)

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

# HistoricalMetricData

A `HistoricalMetricData` object than contains a `Metric` and a `Value`.

## Contents

### Metric

A `HistoricalMetric` object.

Type: [HistoricalMetric \(p. 79\)](#) object

Required: No

### Value

The `Value` of the metric.

Type: `Double`

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)



# HistoricalMetricResult

The metrics data returned from a `GetMetricData` operation.

## Contents

### Collections

A list of `HistoricalMetricData` objects.

Type: Array of [HistoricalMetricData \(p. 81\)](#) objects

Required: No

### Dimensions

The `Dimensions` for the metrics.

Type: [Dimensions \(p. 71\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# QueueReference

A QueueReference object that contains the the QueueId and ARN for the queue resource for which metrics are returned.

## Contents

### Arn

The Amazon Resource Name (ARN) of queue.

Type: String

Required: No

### Id

The ID of the queue associated with the metrics returned.

Type: String

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# RoutingProfileSummary

A `RoutingProfileSummary` object that contains information about a routing profile, including ARN, Id, and Name.

## Contents

### Arn

The ARN of the routing profile.

Type: String

Required: No

### Id

The identifier of the routing profile.

Type: String

Required: No

### Name

The name of the routing profile.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# SecurityProfileSummary

A `SecurityProfileSummary` object that contains information about a security profile, including ARN, Id, Name.

## Contents

### Arn

The ARN of the security profile.

Type: String

Required: No

### Id

The identifier of the security profile.

Type: String

Required: No

### Name

The name of the security profile.

Type: String

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# Threshold

A `Threshold` object that includes a comparison and `ThresholdValue` to compare to. Used with service level metrics.

## Contents

### Comparison

The `Threshold` to use to compare service level metrics to. Only "Less than" (LT) comparisons are supported.

Type: String

Valid Values: `LT`

Required: No

### ThresholdValue

The value of the threshold to compare the metric to. Only "Less than" (LT) comparisons are supported.

Type: Double

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# User

A `User` object that contains information about a user account in your Amazon Connect instance, including configuration settings.

## Contents

### **Arn**

The ARN of the user account.

Type: String

Required: No

### **DirectoryUserId**

The directory Id for the user account in the existing directory used for identity management.

Type: String

Required: No

### **HierarchyGroupId**

The identifier for the hierarchy group assigned to the user.

Type: String

Required: No

### **Id**

The identifier of the user account.

Type: String

Required: No

### **IdentityInfo**

A `UserIdentityInfo` object.

Type: [UserIdentityInfo \(p. 89\)](#) object

Required: No

### **PhoneConfig**

A `UserPhoneConfig` object.

Type: [UserPhoneConfig \(p. 90\)](#) object

Required: No

### **RoutingProfileId**

The identifier of the routing profile assigned to the user.

Type: String

Required: No

### **SecurityProfileIds**

The identifier(s) for the security profile assigned to the user.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### **Username**

The user name assigned to the user account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: [a-zA-Z0-9\\_\\-\\. ]+

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# UserIdentityInfo

A `UserIdentityInfo` object that contains information about the user's identity, including email address, first name, and last name.

## Contents

### Email

The email address added to the user account. If you are using SAML for identity management and include this parameter, an `InvalidRequestException` is returned.

Type: String

Required: No

### FirstName

The first name used in the user account. This is required if you are using Amazon Connect or SAML for identity management.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Required: No

### LastName

The last name used in the user account. This is required if you are using Amazon Connect or SAML for identity management.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)



# UserPhoneConfig

A `UserPhoneConfig` object that contains information about the user phone configuration settings.

## Contents

### **AfterContactWorkTimeLimit**

The After Call Work (ACW) timeout setting, in seconds, for the user.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **AutoAccept**

The Auto accept setting for the user, Yes or No.

Type: Boolean

Required: No

### **DeskPhoneNumber**

The phone number for the user's desk phone.

Type: String

Required: No

### **PhoneType**

The phone type selected for the user, either Soft phone or Desk phone.

Type: String

Valid Values: `SOFT_PHONE` | `DESK_PHONE`

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# UserSummary

A `UserSummary` object that contains Information about a user, including ARN, Id, and user name.

## Contents

### Arn

The ARN for the user account.

Type: String

Required: No

### Id

The identifier for the user account.

Type: String

Required: No

### Username

The Amazon Connect user name for the user account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: [a-zA-Z0-9\\_-\.\ ]+

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

# 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 [Signature Version 4 Signing Process](#) in the *Amazon Web Services General Reference*.

## Action

The action to be performed.

Type: string

Required: Yes

## Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

## 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 [Task 2: Create a String to Sign for Signature Version 4](#) in the *Amazon Web Services General Reference*.

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'THHMMSS'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 [Handling Dates in Signature Version 4](#) in the *Amazon Web Services General Reference*.

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 Security Token Service, go to [AWS Services That Work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from the AWS Security Token Service, 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 [Task 1: Create a Canonical Request For Signature Version 4](#) in the *Amazon Web Services General Reference*.

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 Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

## **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

## **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

## **InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **InvalidAction**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

## **InvalidClientTokenId**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

## **InvalidParameterCombination**

Parameters that must not be used together were used together.

HTTP Status Code: 400

## **InvalidParameterValue**

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

## **InvalidQueryParameter**

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

## **MalformedQueryString**

The query string contains a syntax error.

HTTP Status Code: 404

## **MissingAction**

The request is missing an action or a required parameter.

HTTP Status Code: 400

**MissingAuthenticationToken**

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

**MissingParameter**

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

**OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

**RequestExpired**

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

**ServiceUnavailable**

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 400

**ValidationError**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400