
Amazon Cognito Sync

API Reference

API Version 2014-06-30



Amazon Cognito Sync: API Reference

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Welcome

Amazon Cognito Sync provides an AWS service and client library that enable cross-device syncing of application-related user data. High-level client libraries are available for both iOS and Android. You can use these libraries to persist data locally so that it's available even if the device is offline. Developer credentials don't need to be stored on the mobile device to access the service. You can use Amazon Cognito to obtain a normalized user ID and credentials. User data is persisted in a dataset that can store up to 1 MB of key-value pairs, and you can have up to 20 datasets per user identity.

With Amazon Cognito Sync, the data stored for each identity is accessible only to credentials assigned to that identity. In order to use the Cognito Sync service, you need to make API calls using credentials retrieved with [Amazon Cognito Identity service](#).

If you want to use Cognito Sync in an Android or iOS application, you will probably want to make API calls via the AWS Mobile SDK. To learn more, see the [Developer Guide for Android](#) and the [Developer Guide for iOS](#).

This document was last published on April 18, 2019.

Actions

The following actions are supported:

- [BulkPublish](#) (p. 3)
- [DeleteDataset](#) (p. 6)
- [DescribeDataset](#) (p. 9)
- [DescribeIdentityPoolUsage](#) (p. 12)
- [DescribeIdentityUsage](#) (p. 15)
- [GetBulkPublishDetails](#) (p. 18)
- [GetCognitoEvents](#) (p. 21)
- [GetIdentityPoolConfiguration](#) (p. 23)
- [ListDatasets](#) (p. 26)
- [ListIdentityPoolUsage](#) (p. 30)
- [ListRecords](#) (p. 33)
- [RegisterDevice](#) (p. 37)
- [SetCognitoEvents](#) (p. 41)
- [SetIdentityPoolConfiguration](#) (p. 43)
- [SubscribeToDataset](#) (p. 47)
- [UnsubscribeFromDataset](#) (p. 50)
- [UpdateRecords](#) (p. 53)

BulkPublish

Initiates a bulk publish of all existing datasets for an Identity Pool to the configured stream. Customers are limited to one successful bulk publish per 24 hours. Bulk publish is an asynchronous request, customers can see the status of the request via the GetBulkPublishDetails operation.

This API can only be called with developer credentials. You cannot call this API with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
POST /identitypools/IdentityPoolId/bulkpublish HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

IdentityPoolId (p. 3)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "IdentityPoolId": "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.

IdentityPoolId (p. 3)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

AlreadyStreamedException

An exception thrown when a bulk publish operation is requested less than 24 hours after a previous bulk publish operation completed successfully.

HTTP Status Code: 400

DuplicateRequestException

An exception thrown when there is an IN_PROGRESS bulk publish operation for the given identity pool.

HTTP Status Code: 400

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

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](#)

DeleteDataset

Deletes the specific dataset. The dataset will be deleted permanently, and the action can't be undone. Datasets that this dataset was merged with will no longer report the merge. Any subsequent operation on this dataset will result in a `ResourceNotFoundException`.

This API can be called with temporary user credentials provided by Cognito Identity or with developer credentials.

Request Syntax

```
DELETE /identitypools/IdentityPoolId/identities/IdentityId/datasets/DatasetName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

DatasetName (p. 6)

A string of up to 128 characters. Allowed characters are a-z, A-Z, 0-9, '_' (underscore), '-' (dash), and '.' (dot).

Length Constraints: Minimum length of 1. Maximum length of 128.

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

IdentityId (p. 6)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

IdentityPoolId (p. 6)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Dataset": {
    "CreationDate": number,
```

```
"DatasetName": "string",  
"DataStorage": number,  
"IdentityId": "string",  
"LastModifiedBy": "string",  
"LastModifiedDate": number,  
"NumRecords": 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.

Dataset (p. 6)

A collection of data for an identity pool. An identity pool can have multiple datasets. A dataset is per identity and can be general or associated with a particular entity in an application (like a saved game). Datasets are automatically created if they don't exist. Data is synced by dataset, and a dataset can hold up to 1MB of key-value pairs.

Type: [Dataset \(p. 60\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceConflictException

Thrown if an update can't be applied because the resource was changed by another call and this would result in a conflict.

HTTP Status Code: 409

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

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](#)

DescribeDataset

Gets meta data about a dataset by identity and dataset name. With Amazon Cognito Sync, each identity has access only to its own data. Thus, the credentials used to make this API call need to have access to the identity data.

This API can be called with temporary user credentials provided by Cognito Identity or with developer credentials. You should use Cognito Identity credentials to make this API call.

Request Syntax

```
GET /identitypools/IdentityPoolId/identities/IdentityId/datasets/DatasetName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

DatasetName (p. 9)

A string of up to 128 characters. Allowed characters are a-z, A-Z, 0-9, '_' (underscore), '-' (dash), and '.' (dot).

Length Constraints: Minimum length of 1. Maximum length of 128.

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

IdentityId (p. 9)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+:[0-9a-f-]+

IdentityPoolId (p. 9)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+:[0-9a-f-]+

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Dataset": {
    "CreationDate": number,
    "DatasetName": "string",
```

```
"DataStorage": number,  
"IdentityId": "string",  
"LastModifiedBy": "string",  
"LastModifiedDate": number,  
"NumRecords": 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.

Dataset (p. 9)

Metadata for a collection of data for an identity. An identity can have multiple datasets. A dataset can be general or associated with a particular entity in an application (like a saved game). Datasets are automatically created if they don't exist. Data is synced by dataset, and a dataset can hold up to 1MB of key-value pairs

Type: [Dataset \(p. 60\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

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](#)

DescribeIdentityPoolUsage

Gets usage details (for example, data storage) about a particular identity pool.

This API can only be called with developer credentials. You cannot call this API with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
GET /identitypools/IdentityPoolId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

IdentityPoolId (p. 12)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "IdentityPoolUsage": {
    "DataStorage": number,
    "IdentityPoolId": "string",
    "LastModifiedDate": number,
    "SyncSessionsCount": 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.

IdentityPoolUsage (p. 12)

Information about the usage of the identity pool.

Type: [IdentityPoolUsage \(p. 62\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

DescribeIdentityPoolUsage

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 8dc0e749-c8cd-48bd-8520-da6be00d528b
X-AMZ-TARGET:
  com.amazonaws.cognito.sync.model.AWSCognitoSyncService.DescribeIdentityPoolUsage
HOST: cognito-sync.us-east-1.amazonaws.com:443
X-AMZ-DATE: 20141111T205737Z
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;host;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<signature>

{
  "IdentityPoolId": "IDENTITY_POOL_ID"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: 8dc0e749-c8cd-48bd-8520-da6be00d528b
content-type: application/json
content-length: 271
date: Tue, 11 Nov 2014 20:57:37 GMT

{
  "IdentityPoolUsage":
  {
    "DataStorage": 0,
    "IdentityPoolId": "IDENTITY_POOL_ID",
    "LastModifiedDate": 1.413231134115E9,
    "SyncSessionsCount": null
  }
}
```

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](#)

DescribeIdentityUsage

Gets usage information for an identity, including number of datasets and data usage.

This API can be called with temporary user credentials provided by Cognito Identity or with developer credentials.

Request Syntax

```
GET /identitypools/IdentityPoolId/identities/IdentityId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

IdentityId (p. 15)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+ : [0-9a-f-]+`

IdentityPoolId (p. 15)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+ : [0-9a-f-]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "IdentityUsage": {
    "DatasetCount": number,
    "DataStorage": number,
    "IdentityId": "string",
    "IdentityPoolId": "string",
    "LastModifiedDate": 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.

IdentityUsage (p. 15)

Usage information for the identity.

Type: [IdentityUsage \(p. 63\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

DescribeIdentityUsage

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 33f9b4e4-a177-4aad-a3bb-6edb7980b283
X-AMZ-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.DescribeIdentityUsage
HOST: cognito-sync.us-east-1.amazonaws.com:443
X-AMZ-DATE: 20141111T215129Z
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;host;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<signature>
```

```
{
  "IdentityPoolId": "IDENTITY_POOL_ID",
  "IdentityId": "IDENTITY_ID"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: 33f9b4e4-a177-4aad-a3bb-6edb7980b283
content-type: application/json
content-length: 318
date: Tue, 11 Nov 2014 21:51:29 GMT

{
  "IdentityUsage":
  {
    "DataStorage": 16,
    "DatasetCount": 1,
    "IdentityId": "IDENTITY_ID",
    "IdentityPoolId": "IDENTITY_POOL_ID",
    "LastModifiedDate": 1.412974081336E9
  }
}
```

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](#)

GetBulkPublishDetails

Get the status of the last BulkPublish operation for an identity pool.

This API can only be called with developer credentials. You cannot call this API with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
POST /identitypools/IdentityPoolId/getBulkPublishDetails HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

IdentityPoolId (p. 18)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+ : [0-9a-f-]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "BulkPublishCompleteTime": number,
  "BulkPublishStartTime": number,
  "BulkPublishStatus": "string",
  "FailureMessage": "string",
  "IdentityPoolId": "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.

BulkPublishCompleteTime (p. 18)

If BulkPublishStatus is SUCCEEDED, the time the last bulk publish operation completed.

Type: Timestamp

BulkPublishStartTime (p. 18)

The date/time at which the last bulk publish was initiated.

Type: Timestamp

BulkPublishStatus (p. 18)

Status of the last bulk publish operation, valid values are:

- NOT_STARTED - No bulk publish has been requested for this identity pool
- IN_PROGRESS - Data is being published to the configured stream
- SUCCEEDED - All data for the identity pool has been published to the configured stream
- FAILED - Some portion of the data has failed to publish, check FailureMessage for the cause.

Type: String

Valid Values: NOT_STARTED | IN_PROGRESS | FAILED | SUCCEEDED

FailureMessage (p. 18)

If BulkPublishStatus is FAILED this field will contain the error message that caused the bulk publish to fail.

Type: String

IdentityPoolId (p. 18)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

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](#)

GetCognitoEvents

Gets the events and the corresponding Lambda functions associated with an identity pool.

This API can only be called with developer credentials. You cannot call this API with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
GET /identitypools/IdentityPoolId/events HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

IdentityPoolId (p. 21)

The Cognito Identity Pool ID for the request

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+:[0-9a-f-]+

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Events": {
    "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.

Events (p. 21)

The Cognito Events returned from the GetCognitoEvents request

Type: String to string map

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

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](#)

GetIdentityPoolConfiguration

Gets the configuration settings of an identity pool.

This API can only be called with developer credentials. You cannot call this API with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
GET /identitypools/IdentityPoolId/configuration HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

IdentityPoolId (p. 23)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. This is the ID of the pool for which to return a configuration.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

Request Body

The request does not have a request body.

Response Syntax

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

{
  "CognitoStreams": {
    "DisabledReason": "string",
    "RoleArn": "string",
    "StreamingStatus": "string",
    "StreamName": "string"
  },
  "IdentityPoolId": "string",
  "PushSync": {
    "ApplicationArns": [ "string" ],
    "RoleArn": "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.

CognitoStreams (p. 23)

Options to apply to this identity pool for Amazon Cognito streams.

Type: [CognitoStreams \(p. 58\)](#) object

IdentityPoolId (p. 23)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

PushSync (p. 23)

Options to apply to this identity pool for push synchronization.

Type: [PushSync \(p. 65\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

GetIdentityPoolConfiguration

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: b1cfdd4b-f620-4fe4-be0f-02024a1d33da
X-AMZ-TARGET:
  com.amazonaws.cognito.sync.model.AWSCognitoSyncService.GetIdentityPoolConfiguration
HOST: cognito-sync.us-east-1.amazonaws.com
X-AMZ-DATE: 20141004T195722Z
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-
type;content-length;host;x-amz-date;x-amz-target, Signature=<signature>

{
  "IdentityPoolId": "ID_POOL_ID"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: b1cfdd4b-f620-4fe4-be0f-02024a1d33da
date: Sat, 04 Oct 2014 19:57:22 GMT
content-type: application/json
content-length: 332

{
  "IdentityPoolId": "ID_POOL_ID",
  "PushSync":
  {
    "ApplicationArns": ["PLATFORMARN1", "PLATFORMARN2"],
    "RoleArn": "ROLEARN"
  }
}
```

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](#)

ListDatasets

Lists datasets for an identity. With Amazon Cognito Sync, each identity has access only to its own data. Thus, the credentials used to make this API call need to have access to the identity data.

ListDatasets can be called with temporary user credentials provided by Cognito Identity or with developer credentials. You should use the Cognito Identity credentials to make this API call.

Request Syntax

```
GET /identitypools/IdentityPoolId/identities/IdentityId/datasets?  
maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

IdentityId (p. 26)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

IdentityPoolId (p. 26)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

MaxResults (p. 26)

The maximum number of results to be returned.

Length Constraints: Maximum length of 19.

Pattern: ^[1-9]\d*

NextToken (p. 26)

A pagination token for obtaining the next page of results.

Request Body

The request does not have a request body.

Response Syntax

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



```
"Count": number,
"Datasets": [
  {
    "CreationDate": number,
    "DatasetName": "string",
    "DataStorage": number,
    "IdentityId": "string",
    "LastModifiedBy": "string",
    "LastModifiedDate": number,
    "NumRecords": number
  }
],
"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.

Count (p. 26)

Number of datasets returned.

Type: Integer

Datasets (p. 26)

A set of datasets.

Type: Array of [Dataset \(p. 60\)](#) objects

NextToken (p. 26)

A pagination token for obtaining the next page of results.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

ListDatasets

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 15225768-209f-4078-aaed-7494ace9f2db
X-AMZ-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.ListDatasets
HOST: cognito-sync.us-east-1.amazonaws.com:443
X-AMZ-DATE: 20141111T215640Z
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;host;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<signature>

{
  "IdentityPoolId": "IDENTITY_POOL_ID",
  "IdentityId": "IDENTITY_ID",
  "MaxResults": "3"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: 15225768-209f-4078-aaed-7494ace9f2db, 15225768-209f-4078-aaed-7494ace9f2db
content-type: application/json
content-length: 355
date: Tue, 11 Nov 2014 21:56:40 GMT

{
  "Count": 1,
  "Datasets": [
    {
      "CreationDate": 1.412974057151E9,
      "DataStorage": 16,
      "DatasetName": "my_list",
      "IdentityId": "IDENTITY_ID",
      "LastModifiedBy": "123456789012",
      "LastModifiedDate": 1.412974057244E9,
      "NumRecords": 1
    }
  ],
  "NextToken": null
}
```

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](#)

ListIdentityPoolUsage

Gets a list of identity pools registered with Cognito.

ListIdentityPoolUsage can only be called with developer credentials. You cannot make this API call with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
GET /identitypools?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

MaxResults (p. 30)

The maximum number of results to be returned.

NextToken (p. 30)

A pagination token for obtaining the next page of results.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Count": number,
  "IdentityPoolUsages": [
    {
      "DataStorage": number,
      "IdentityPoolId": "string",
      "LastModifiedDate": number,
      "SyncSessionsCount": number
    }
  ],
  "MaxResults": number,
  "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.

Count (p. 30)

Total number of identities for the identity pool.

Type: Integer

IdentityPoolUsages (p. 30)

Usage information for the identity pools.

Type: Array of [IdentityPoolUsage \(p. 62\)](#) objects

MaxResults (p. 30)

The maximum number of results to be returned.

Type: Integer

NextToken (p. 30)

A pagination token for obtaining the next page of results.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

ListIdentityPoolUsage

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 9be7c425-ef05-48c0-aef3-9f0ff2fe17d3
X-AMZ-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.ListIdentityPoolUsage
```

```
HOST: cognito-sync.us-east-1.amazonaws.com:443
X-AMZ-DATE: 20141111T211414Z
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;host;x-amz-date;x-amz-target;x-amzn-requestid, Signature=<signature>

{
  "MaxResults": "2"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: 9be7c425-ef05-48c0-aef3-9f0ff2fe17d3
content-type: application/json
content-length: 519
date: Tue, 11 Nov 2014 21:14:14 GMT

{
  "Count": 2,
  "IdentityPoolUsages": [
    {
      "DataStorage": 0,
      "IdentityPoolId": "IDENTITY_POOL_ID",
      "LastModifiedDate": 1.413836234607E9,
      "SyncSessionsCount": null
    },
    {
      "DataStorage": 0,
      "IdentityPoolId": "IDENTITY_POOL_ID",
      "LastModifiedDate": 1.410892165601E9,
      "SyncSessionsCount": null
    }
  ],
  "MaxResults": 2,
  "NextToken": "dXMtZWZzdC0xOjBjMWJhMDUyLWUwOTgtNDZmYS1hNzZlLWVhYTJjMTI1Zjg2MQ=="
}
```

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](#)

ListRecords

Gets paginated records, optionally changed after a particular sync count for a dataset and identity. With Amazon Cognito Sync, each identity has access only to its own data. Thus, the credentials used to make this API call need to have access to the identity data.

ListRecords can be called with temporary user credentials provided by Cognito Identity or with developer credentials. You should use Cognito Identity credentials to make this API call.

Request Syntax

```
GET /identitypools/IdentityPoolId/identities/IdentityId/datasets/DatasetName/records?  
lastSyncCount=LastSyncCount&maxResults=MaxResults&nextToken=NextToken&syncSessionToken=SyncSessionToken  
HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

DatasetName (p. 33)

A string of up to 128 characters. Allowed characters are a-z, A-Z, 0-9, '_' (underscore), '-' (dash), and '.' (dot).

Length Constraints: Minimum length of 1. Maximum length of 128.

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

IdentityId (p. 33)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

IdentityPoolId (p. 33)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

LastSyncCount (p. 33)

The last server sync count for this record.

MaxResults (p. 33)

The maximum number of results to be returned.

NextToken (p. 33)

A pagination token for obtaining the next page of results.

SyncSessionToken (p. 33)

A token containing a session ID, identity ID, and expiration.

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Count": number,
  "DatasetDeletedAfterRequestedSyncCount": boolean,
  "DatasetExists": boolean,
  "DatasetSyncCount": number,
  "LastModifiedBy": "string",
  "MergedDatasetNames": [ "string" ],
  "NextToken": "string",
  "Records": [
    {
      "DeviceLastModifiedDate": number,
      "Key": "string",
      "LastModifiedBy": "string",
      "LastModifiedDate": number,
      "SyncCount": number,
      "Value": "string"
    }
  ],
  "SyncSessionToken": "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.

Count (p. 34)

Total number of records.

Type: Integer

DatasetDeletedAfterRequestedSyncCount (p. 34)

A boolean value specifying whether to delete the dataset locally.

Type: Boolean

DatasetExists (p. 34)

Indicates whether the dataset exists.

Type: Boolean

DatasetSyncCount (p. 34)

Server sync count for this dataset.

Type: Long

LastModifiedBy (p. 34)

The user/device that made the last change to this record.

Type: String

MergedDatasetNames (p. 34)

Names of merged datasets.

Type: Array of strings

NextToken (p. 34)

A pagination token for obtaining the next page of results.

Type: String

Records (p. 34)

A list of all records.

Type: Array of [Record \(p. 66\)](#) objects

SyncSessionToken (p. 34)

A token containing a session ID, identity ID, and expiration.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

ListRecords

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: b3d2e31e-d6b7-4612-8e84-c9ba288dab5d
X-AMZN-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.ListRecords
HOST: cognito-sync.us-east-1.amazonaws.com:443
X-AMZN-DATE: 20141111T183230Z
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;host;x-amzn-date;x-amzn-target;x-amzn-requestid, Signature=<signature>

{
  "IdentityPoolId": "IDENTITY_POOL_ID",
  "IdentityId": "IDENTITY_ID",
  "DatasetName": "newDataSet"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: b3d2e31e-d6b7-4612-8e84-c9ba288dab5d
content-type: application/json
content-length: 623
date: Tue, 11 Nov 2014 18:32:30 GMT

{
  "Count": 0,
  "DatasetDeletedAfterRequestedSyncCount": false,
  "DatasetExists": false,
  "DatasetSyncCount": 0,
  "LastModifiedBy": null,
  "MergedDatasetNames": null,
  "NextToken": null,
  "Records": [],
  "SyncSessionToken": "SYNC_SESSION_TOKEN"
}
```

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](#)

RegisterDevice

Registers a device to receive push sync notifications.

This API can only be called with temporary credentials provided by Cognito Identity. You cannot call this API with developer credentials.

Request Syntax

```
POST /identitypools/IdentityPoolId/identity/IdentityId/device HTTP/1.1
Content-type: application/json

{
  "Platform": "string",
  "Token": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

IdentityId (p. 37)

The unique ID for this identity.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

IdentityPoolId (p. 37)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. Here, the ID of the pool that the identity belongs to.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

Request Body

The request accepts the following data in JSON format.

Platform (p. 37)

The SNS platform type (e.g. GCM, SDM, APNS, APNS_SANDBOX).

Type: String

Valid Values: `APNS` | `APNS_SANDBOX` | `GCM` | `ADM`

Required: Yes

Token (p. 37)

The push token.

Type: String

Required: Yes

Response Syntax

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

{
  "DeviceId": "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.

DeviceId (p. 38)

The unique ID generated for this device by Cognito.

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 \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidConfigurationException

This exception is thrown when Amazon Cognito detects an invalid configuration.

HTTP Status Code: 400

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

RegisterDevice

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 368f9200-3eca-449e-93b3-7b9c08d8e185
X-AMZN-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.RegisterDevice
HOST: cognito-sync.us-east-1.amazonaws.com
X-AMZ-DATE: 20141004T194643Z
X-AMZ-SECURITY-TOKEN: <securitytoken>
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;content-length;host;x-amz-date;x-amz-target, Signature=<signature>

{
  "IdentityPoolId": "ID_POOL_ID",
  "IdentityId": "IDENTITY_ID",
  "Platform": "GCM",
  "Token": "PUSH_TOKEN"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: 368f9200-3eca-449e-93b3-7b9c08d8e185
date: Sat, 04 Oct 2014 19:46:44 GMT
content-type: application/json
content-length: 145

{
  "DeviceId": "5cd28fbe-dd83-47ab-9f83-19093a5fb014"
}
```

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](#)

SetCognitoEvents

Sets the AWS Lambda function for a given event type for an identity pool. This request only updates the key/value pair specified. Other key/values pairs are not updated. To remove a key value pair, pass a empty value for the particular key.

This API can only be called with developer credentials. You cannot call this API with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
POST /identitypools/IdentityPoolId/events HTTP/1.1
Content-type: application/json

{
  "Events": {
    "string" : "string"
  }
}
```

URI Request Parameters

The request requires the following URI parameters.

IdentityPoolId (p. 41)

The Cognito Identity Pool to use when configuring Cognito Events

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

Request Body

The request accepts the following data in JSON format.

Events (p. 41)

The events to configure

Type: String to string map

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 \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

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](#)

SetIdentityPoolConfiguration

Sets the necessary configuration for push sync.

This API can only be called with developer credentials. You cannot call this API with the temporary user credentials provided by Cognito Identity.

Request Syntax

```
POST /identitypools/IdentityPoolId/configuration HTTP/1.1
Content-type: application/json

{
  "CognitoStreams": {
    "DisabledReason": "string",
    "RoleArn": "string",
    "StreamingStatus": "string",
    "StreamName": "string"
  },
  "PushSync": {
    "ApplicationArns": [ "string" ],
    "RoleArn": "string"
  }
}
```

URI Request Parameters

The request requires the following URI parameters.

IdentityPoolId (p. 43)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. This is the ID of the pool to modify.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

Request Body

The request accepts the following data in JSON format.

CognitoStreams (p. 43)

Options to apply to this identity pool for Amazon Cognito streams.

Type: [CognitoStreams \(p. 58\)](#) object

Required: No

PushSync (p. 43)

Options to apply to this identity pool for push synchronization.

Type: [PushSync \(p. 65\)](#) object

Required: No

Response Syntax

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

{
  "CognitoStreams": {
    "DisabledReason": "string",
    "RoleArn": "string",
    "StreamingStatus": "string",
    "StreamName": "string"
  },
  "IdentityPoolId": "string",
  "PushSync": {
    "ApplicationArns": [ "string" ],
    "RoleArn": "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.

CognitoStreams (p. 44)

Options to apply to this identity pool for Amazon Cognito streams.

Type: [CognitoStreams](#) (p. 58) object

IdentityPoolId (p. 44)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+:[0-9a-f-]+

PushSync (p. 44)

Options to apply to this identity pool for push synchronization.

Type: [PushSync](#) (p. 65) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 72).

ConcurrentModificationException

Thrown if there are parallel requests to modify a resource.

HTTP Status Code: 400

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

SetIdentityPoolConfiguration

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: a46db021-f5dd-45d6-af5b-7069fa4a211b
X-AMZ-TARGET:
  com.amazonaws.cognito.sync.model.AWSCognitoSyncService.SetIdentityPoolConfiguration
HOST: cognito-sync.us-east-1.amazonaws.com
X-AMZ-DATE: 20141004T200006Z
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;content-length;host;x-amz-date;x-amz-target, Signature=<signature>

{
  "IdentityPoolId": "ID_POOL_ID",
  "PushSync":
  {
    "ApplicationArns": ["PLATFORMARN1", "PLATFORMARN2"],
    "RoleArn": "ROLEARN"
  }
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: a46db021-f5dd-45d6-af5b-7069fa4a211b
date: Sat, 04 Oct 2014 20:00:06 GMT
```

```
content-type: application/json
content-length: 332

{
  "IdentityPoolId": "ID_POOL_ID",
  "PushSync":
  {
    "ApplicationArns": ["PLATFORMARN1", "PLATFORMARN2"],
    "RoleArn": "ROLEARN"
  }
}
```

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](#)

SubscribeToDataset

Subscribes to receive notifications when a dataset is modified by another device.

This API can only be called with temporary credentials provided by Cognito Identity. You cannot call this API with developer credentials.

Request Syntax

```
POST /identitypools/IdentityPoolId/identities/IdentityId/datasets/DatasetName/subscriptions/DeviceId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

DatasetName (p. 47)

The name of the dataset to subscribe to.

Length Constraints: Minimum length of 1. Maximum length of 128.

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

DeviceId (p. 47)

The unique ID generated for this device by Cognito.

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

IdentityId (p. 47)

Unique ID for this identity.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

IdentityPoolId (p. 47)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. The ID of the pool to which the identity belongs.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

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 \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidConfigurationException

This exception is thrown when Amazon Cognito detects an invalid configuration.

HTTP Status Code: 400

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

SubscribeToDataset

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 8b9932b7-201d-4418-a960-0a470e11de9f
X-AMZ-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.SubscribeToDataset
HOST: cognito-sync.us-east-1.amazonaws.com
X-AMZ-DATE: 20141004T195350Z
X-AMZ-SECURITY-TOKEN: <securitytoken>
```

```
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;content-length;host;x-amz-date;x-amz-target, Signature=<signature>
```

```
{
  "IdentityPoolId": "ID_POOL_ID",
  "IdentityId": "IDENTITY_ID",
  "DatasetName": "Rufus",
  "DeviceId": "5cd28fbe-dd83-47ab-9f83-19093a5fb014"
}
```

Sample Response

```
1.1 200 OK
x-amzn-requestid: 8b9932b7-201d-4418-a960-0a470e11de9f
date: Sat, 04 Oct 2014 19:53:50 GMT
content-type: application/json
content-length: 99
```

```
{
}
```

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](#)

UnsubscribeFromDataset

Unsubscribes from receiving notifications when a dataset is modified by another device.

This API can only be called with temporary credentials provided by Cognito Identity. You cannot call this API with developer credentials.

Request Syntax

```
DELETE /identitypools/IdentityPoolId/identities/IdentityId/datasets/DatasetName/subscriptions/DeviceId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

DatasetName (p. 50)

The name of the dataset from which to unsubscribe.

Length Constraints: Minimum length of 1. Maximum length of 128.

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

DeviceId (p. 50)

The unique ID generated for this device by Cognito.

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

IdentityId (p. 50)

Unique ID for this identity.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

IdentityPoolId (p. 50)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. The ID of the pool to which this identity belongs.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

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 \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidConfigurationException

This exception is thrown when Amazon Cognito detects an invalid configuration.

HTTP Status Code: 400

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

HTTP Status Code: 429

Example

UnsubscribeFromDataset

The following examples have been edited for readability.

Sample Request

```
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZ-REQUESTSUPERTRACE: true
X-AMZN-REQUESTID: 676896d6-14ca-45b1-8029-6d36b10a077e
X-AMZ-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.UnsubscribeFromDataset
HOST: cognito-sync.us-east-1.amazonaws.com
X-AMZ-DATE: 20141004T195446Z
X-AMZ-SECURITY-TOKEN: <securitytoken>
```

```
AUTHORIZATION: AWS4-HMAC-SHA256 Credential=<credential>, SignedHeaders=content-type;content-length;host;x-amz-date;x-amz-target, Signature=<signature>
```

```
{  
  "IdentityPoolId": "ID_POOL_ID",  
  "IdentityId": "IDENTITY_ID",  
  "DatasetName": "Rufus",  
  "DeviceId": "5cd28fbe-dd83-47ab-9f83-19093a5fb014"  
}
```

Sample Response

```
1.1 200 OK  
x-amzn-requestid: 676896d6-14ca-45b1-8029-6d36b10a077e  
date: Sat, 04 Oct 2014 19:54:46 GMT  
content-type: application/json  
content-length: 103
```

```
{  
}
```

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](#)

UpdateRecords

Posts updates to records and adds and deletes records for a dataset and user.

The sync count in the record patch is your last known sync count for that record. The server will reject an UpdateRecords request with a ResourceConflictException if you try to patch a record with a new value but a stale sync count.

For example, if the sync count on the server is 5 for a key called highScore and you try and submit a new highScore with sync count of 4, the request will be rejected. To obtain the current sync count for a record, call ListRecords. On a successful update of the record, the response returns the new sync count for that record. You should present that sync count the next time you try to update that same record. When the record does not exist, specify the sync count as 0.

This API can be called with temporary user credentials provided by Cognito Identity or with developer credentials.

Request Syntax

```
POST /identitypools/IdentityPoolId/identities/IdentityId/datasets/DatasetName HTTP/1.1
x-amz-client-context: ClientContext
Content-type: application/json

{
  "DeviceId": "string",
  "RecordPatches": [
    {
      "DeviceLastModifiedDate": number,
      "Key": "string",
      "Op": "string",
      "SyncCount": number,
      "Value": "string"
    }
  ],
  "SyncSessionToken": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

ClientContext (p. 53)

Intended to supply a device ID that will populate the lastModifiedBy field referenced in other methods. The ClientContext field is not yet implemented.

DatasetName (p. 53)

A string of up to 128 characters. Allowed characters are a-z, A-Z, 0-9, '_' (underscore), '-' (dash), and '.' (dot).

Length Constraints: Minimum length of 1. Maximum length of 128.

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

IdentityId (p. 53)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

IdentityPoolId (p. 53)

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: `[\w-]+:[0-9a-f-]+`

Request Body

The request accepts the following data in JSON format.

DeviceId (p. 53)

The unique ID generated for this device by Cognito.

Type: String

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

Required: No

RecordPatches (p. 53)

A list of patch operations.

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

Required: No

SyncSessionToken (p. 53)

The SyncSessionToken returned by a previous call to ListRecords for this dataset and identity.

Type: String

Required: Yes

Response Syntax

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

{
  "Records": [
    {
      "DeviceLastModifiedDate": number,
      "Key": "string",
      "LastModifiedBy": "string",
      "LastModifiedDate": number,
      "SyncCount": number,
      "Value": "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.

Records (p. 54)

A list of records that have been updated.

Type: Array of [Record \(p. 66\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 72\)](#).

InternalErrorException

Indicates an internal service error.

HTTP Status Code: 500

InvalidLambdaFunctionOutputException

The AWS Lambda function returned invalid output or an exception.

HTTP Status Code: 400

InvalidParameterException

Thrown when a request parameter does not comply with the associated constraints.

HTTP Status Code: 400

LambdaSocketTimeoutException

This exception is thrown when your Lambda function fails to respond within 5 seconds. For more information, see [Amazon Cognito Events](#).

HTTP Status Code: 400

LambdaThrottledException

AWS Lambda throttled your account, please contact AWS Support

HTTP Status Code: 429

LimitExceededException

Thrown when the limit on the number of objects or operations has been exceeded.

HTTP Status Code: 400

NotAuthorizedException

Thrown when a user is not authorized to access the requested resource.

HTTP Status Code: 403

ResourceConflictException

Thrown if an update can't be applied because the resource was changed by another call and this would result in a conflict.

HTTP Status Code: 409

ResourceNotFoundException

Thrown if the resource doesn't exist.

HTTP Status Code: 404

TooManyRequestsException

Thrown if the request is throttled.

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 Cognito Sync 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:

- [CognitoStreams](#) (p. 58)
- [Dataset](#) (p. 60)
- [IdentityPoolUsage](#) (p. 62)
- [IdentityUsage](#) (p. 63)
- [PushSync](#) (p. 65)
- [Record](#) (p. 66)
- [RecordPatch](#) (p. 68)

CognitoStreams

Configuration options for configure Cognito streams.

Contents

DisabledReason

A string containing the reason why streaming of updates to the identity pool was disabled.

Type: String

Required: No

RoleArn

The ARN of the role Amazon Cognito can assume in order to publish to the stream. This role must grant access to Amazon Cognito (cognito-sync) to invoke PutRecord on your Cognito stream.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws:iam::\d+:role/.*`

Required: No

StreamingStatus

Status of the Cognito streams. Valid values are:

- **ENABLED** - Streaming of updates to identity pool is enabled.
- **DISABLED** - Streaming of updates to identity pool is disabled. Bulk publish will also fail if StreamingStatus is DISABLED.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

StreamName

The name of the Cognito stream to receive updates. This stream must be in the developers account and in the same region as the identity pool.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

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](#)

Dataset

A collection of data for an identity pool. An identity pool can have multiple datasets. A dataset is per identity and can be general or associated with a particular entity in an application (like a saved game). Datasets are automatically created if they don't exist. Data is synced by dataset, and a dataset can hold up to 1MB of key-value pairs.

Contents

CreationDate

Date on which the dataset was created.

Type: Timestamp

Required: No

DatasetName

A string of up to 128 characters. Allowed characters are a-z, A-Z, 0-9, '_' (underscore), '-' (dash), and '.' (dot).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

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

Required: No

DataStorage

Total size in bytes of the records in this dataset.

Type: Long

Required: No

IdentityId

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+:[0-9a-f-]+

Required: No

LastModifiedBy

The device that made the last change to this dataset.

Type: String

Required: No

LastModifiedDate

Date when the dataset was last modified.

Type: Timestamp

Required: No

NumRecords

Number of records in this dataset.

Type: Long

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](#)

IdentityPoolUsage

Usage information for the identity pool.

Contents

DataStorage

Data storage information for the identity pool.

Type: Long

Required: No

IdentityPoolId

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

Required: No

LastModifiedDate

Date on which the identity pool was last modified.

Type: Timestamp

Required: No

SyncSessionsCount

Number of sync sessions for the identity pool.

Type: Long

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](#)

IdentityUsage

Usage information for the identity.

Contents

DatasetCount

Number of datasets for the identity.

Type: Integer

Required: No

DataStorage

Total data storage for this identity.

Type: Long

Required: No

IdentityId

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

Required: No

IdentityPoolId

A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito. GUID generation is unique within a region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+ : [0-9a-f-]+

Required: No

LastModifiedDate

Date on which the identity was last modified.

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](#)

PushSync

Configuration options to be applied to the identity pool.

Contents

ApplicationArns

List of SNS platform application ARNs that could be used by clients.

Type: Array of strings

Pattern: `arn:aws:sns:[-0-9a-z]+:\d+:app/[A-Z_]+/[a-zA-Z0-9_.-]+`

Required: No

RoleArn

A role configured to allow Cognito to call SNS on behalf of the developer.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws:iam::\d+:role/.*`

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](#)

Record

The basic data structure of a dataset.

Contents

DeviceLastModifiedDate

The last modified date of the client device.

Type: Timestamp

Required: No

Key

The key for the record.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

LastModifiedBy

The user/device that made the last change to this record.

Type: String

Required: No

LastModifiedDate

The date on which the record was last modified.

Type: Timestamp

Required: No

SyncCount

The server sync count for this record.

Type: Long

Required: No

Value

The value for the record.

Type: String

Length Constraints: Maximum length of 4194304.

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](#)

RecordPatch

An update operation for a record.

Contents

DeviceLastModifiedDate

The last modified date of the client device.

Type: Timestamp

Required: No

Key

The key associated with the record patch.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Op

An operation, either replace or remove.

Type: String

Valid Values: `replace` | `remove`

Required: Yes

SyncCount

Last known server sync count for this record. Set to 0 if unknown.

Type: Long

Required: Yes

Value

The value associated with the record patch.

Type: String

Length Constraints: Maximum length of 4194304.

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