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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 29, 2022.
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. 38)
- SetCognitoEvents (p. 42)
- SetIdentityPoolConfiguration (p. 44)
- SubscribeToDataset (p. 48)
- UnsubscribeFromDataset (p. 51)
- UpdateRecords (p. 54)
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 uses 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.


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

Required: Yes

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
Pattern: \[\w-]+[0-9a-f-]+\\n
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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses 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).


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

Required: Yes

**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.


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

Required: Yes

**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.


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

Required: Yes

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.

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. 61) 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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses 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).


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

Required: Yes

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.


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

Required: Yes

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.


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

Required: Yes

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.

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. 61) 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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**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 uses 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.


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

Required: Yes

**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. 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

**Examples**

**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
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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses 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.


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

Required: Yes

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.


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

Required: Yes

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
   }
}

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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. 64) 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

Examples

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": 1412974081336E9
    }
}

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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses 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.


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

Required: Yes

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


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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses the following URI parameters.

**IdentityPoolId (p. 21)**

The Cognito Identity Pool ID for the request


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

Required: Yes

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

Map Entries: Maximum number of 1 item.
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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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**

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

**URI Request Parameters**

The request uses 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.
  
  
  Pattern: `\[\w-]+:[0-9a-f-]+`
  
  Required: Yes

**Request Body**

The request does not have a request body.

**Response Syntax**

```plaintext
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. 59) object

IdentityPoolId (p. 23)
A name-spaced GUID (for example, us-east-1:23EC4050-6AEA-7089-A2DD-08002EXAMPLE) created by Amazon Cognito.
Type: String
Pattern: [\w-]+:[0-9a-f-]+

PushSync (p. 23)
Options to apply to this identity pool for push synchronization.
Type: PushSync (p. 66) 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

Examples
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.AWSIdentityPoolConfiguration
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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses 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.


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

Required: Yes

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.


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

Required: Yes

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

```json
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. 27)**

Number of datasets returned.
Type: Integer

**Datasets (p. 27)**

A set of datasets.
Type: Array of Dataset (p. 61) objects

**NextToken (p. 27)**

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

Examples

ListDatasets

The following examples have been edited for readability.

Sample Request

```plaintext
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 15225768-209f-4078-aaed-7494ace9f2db
X-AMZ-TARGET: com.amazonaws.cognito.sync.model.AWSIdentityPoolSyncService.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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses 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.
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

Examples

**ListIdentityPoolUsage**

The following examples have been edited for readability.

**Sample Request**

```plaintext
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 9be7c425-ef05-48c0-aef3-9f0ff2fe17d3
```
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": "dXMtZWFzdC0xOjBjMWJhMDUyLWUwOTgtNDFmYS1hNzZlLWVhYTJjMTI1Zjg2MQ=="
}

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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses 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).


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

Required: Yes

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.


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

Required: Yes

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.


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

Required: Yes

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. 67) 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
Examples

ListRecords

The following examples have been edited for readability.

Sample Request

```http
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: b3d2e31e-d6b7-4612-8e84-c9ba288dab5d
X-AMZ-TARGET: com.amazonaws.cognito.sync.model.AWSCognitoSyncService.ListRecords
HOST: cognito-sync.us-east-1.amazonaws.com:443
X-AMZ-DATE: 20141111T183230Z
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",
  "DatasetName": "newDataSet"
}
```

Sample Response

```http
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 Java V2
- AWS SDK for JavaScript
See Also

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses the following URI parameters.

IdentityId (p. 38)

The unique ID for this identity.


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

Required: Yes

IdentityPoolId (p. 38)

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.


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

Required: Yes

Request Body

The request accepts the following data in JSON format.

Platform (p. 38)

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

Type: String

Valid Values: APNS | APNS_SANDBOX | GCM | ADM

Required: Yes

Token (p. 38)

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. 39)**
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

Examples

RegisterDevice

The following examples have been edited for readability.

Sample Request

```plaintext
POST / HTTP/1.1
CONTENT-TYPE: application/json
X-AMZN-REQUESTID: 368f9200-3eca-449e-93b3-7b9c08d8e185
X-AMZ-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

```plaintext
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 Java V2
See Also

- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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/IdenentityPoolId/events HTTP/1.1
Content-type: application/json

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

URI Request Parameters

The request uses the following URI parameters.

IdentityPoolId (p. 42)

The Cognito Identity Pool to use when configuring Cognito Events


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

Required: Yes

Request Body

The request accepts the following data in JSON format.

Events (p. 42)

The events to configure

Type: String to string map

Map Entries: Maximum number of 1 item.

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

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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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses the following URI parameters.

IdentityPoolId (p. 44)

   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.


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

   Required: Yes

Request Body

The request accepts the following data in JSON format.

CognitoStreams (p. 44)

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

   Type: CognitoStreams (p. 59) object

   Required: No

PushSync (p. 44)

   Options to apply to this identity pool for push synchronization.

   Type: PushSync (p. 66) 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. 45)

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

Type: CognitoStreams (p. 59) object

IdentityPoolId (p. 45)

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

Type: String


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

PushSync (p. 45)

Options to apply to this identity pool for push synchronization.

Type: PushSync (p. 66) 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

Examples

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>

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

Sample Response
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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses the following URI parameters.

**DatasetName (p. 48)**

The name of the dataset to subscribe to.


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

Required: Yes

**DeviceId (p. 48)**

The unique ID generated for this device by Cognito.

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

Required: Yes

**IdentityId (p. 48)**

Unique ID for this identity.


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

Required: Yes

**IdentityPoolId (p. 48)**

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.


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

Required: Yes

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

Examples

**SubscribeToDataset**

The following examples have been edited for readability.

Sample Request

POST / HTTP/1.1
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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses the following URI parameters.

**DatasetName (p. 51)**

The name of the dataset from which to unsubscribe.


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

Required: Yes

**DeviceId (p. 51)**

The unique ID generated for this device by Cognito.

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

Required: Yes

**IdentityId (p. 51)**

Unique ID for this identity.


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

Required: Yes

**IdentityPoolId (p. 51)**

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.


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

Required: Yes

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

Examples

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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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 uses the following URI parameters.

ClientContext (p. 54)

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. 54)

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


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

Required: Yes

IdentityId (p. 54)

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.
IdentityPoolId (p. 54)

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.

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

DeviceId (p. 54)

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. 54)

A list of patch operations.
Type: Array of RecordPatch (p. 69) objects
Required: No

SyncSessionToken (p. 54)

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,
```
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. 55)**

A list of records that have been updated.

Type: Array of [Record (p. 67)] 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 Java V2
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
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. 59)
- Dataset (p. 61)
- IdentityPoolUsage (p. 63)
- IdentityUsage (p. 64)
- PushSync (p. 66)
- Record (p. 67)
- RecordPatch (p. 69)
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
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
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 Java V2
• AWS SDK for Ruby V3
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
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
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 Java V2
- AWS SDK for Ruby V3
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


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 Java V2
- AWS SDK for Ruby V3
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


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


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++
See Also

- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3
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
Required: No

RoleArn

A role configured to allow Cognito to call SNS on behalf of the developer.
Type: String
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 Java V2
- AWS SDK for Ruby V3
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
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 Java V2
• AWS SDK for Ruby V3
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


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 Java V2
- AWS SDK for Ruby V3
Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see 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'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is
not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see 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

NotAuthorized

You do not have permission to perform this action.

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