Data Ingestion Service

API Reference

Issue 01

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Contents

1 Before You Start

1.1 Overview

Welcome to *Data Ingestion Service API Reference*. Data Ingestion Service (DIS) provides efficient collection, transmission, and distribution capabilities for real-time IoT and Internet data, supports multiple IoT protocols, and provides various APIs to help you quickly build real-time data applications.

This document describes how to use application programming interfaces (APIs) to perform operations on DIS, such as uploading or downloading data. For details about all supported operations, see **API Overview**.

If you plan to access DIS through an API, ensure that you are familiar with DIS concepts. For details, see **Service Overview**.

1.2 API Calling

DIS supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see **Calling APIs**.

1.3 Endpoints

An endpoint is the request address for calling an API. Endpoints vary depending on services and regions. The DIS endpoint is in the format of dis.{region_id}.{Domain name}. You can obtain the region and endpoint information from **Regions and Endpoints**.

1.4 Constraints

The number of streams and instances that you can create is determined by your quota. For details, see **Service Quota**.

For details, see the description of each API.

1.5 Concepts

- Account

  An account is created upon successful registration with HUAWEI CLOUD. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity and should not be used directly to perform routine management. For security purposes, create IAM users and grant them permissions for routine management.

- IAM User

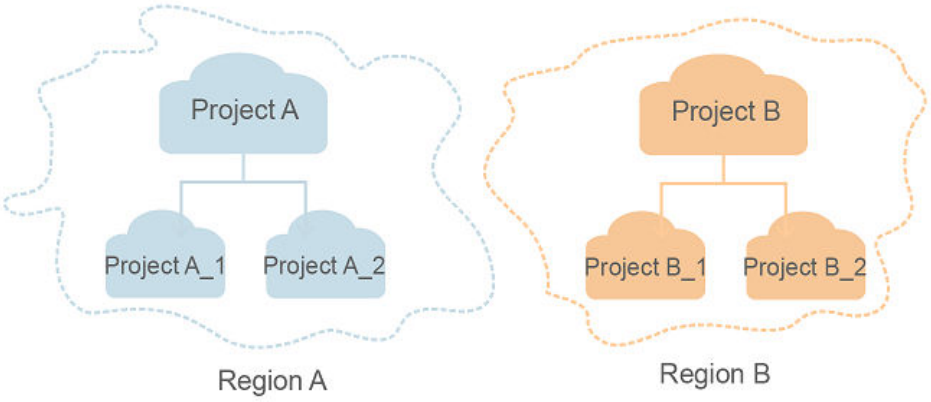
  An IAM User is created using an accounta domain to use cloud services. Each IAM user has its own identity credentials (password and access keys).

  The account, username, and password will be required for API authentication.

- Project

  Projects group and isolate resources (including compute, storage, and network resources) across physical regions. A default project is provided for each region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. For more refined access control, create subprojects under a project and create resources in the subprojects. Users can then be assigned permissions to access only specific resources in the subprojects.

  Figure 1-1 Project isolating model

- Checkpoint

  When an application consumes data, the latest SN of the consumed data is recorded as a checkpoint. When the data is reconsumed, the consumption can be continued based on this checkpoint.

- Application

  Multiple applications can consume data in the same stream. The consumed data in the stream by each application is recorded by checkpoints generated for each application.

2 API Overview

DIS provides self-developed APIs that comply with RESTful API design specifications. You can use DIS functions listed in **API Description** by calling these APIs.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **obtaining a user token** as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

Request URI

A request URI is in the following format:

{URI-scheme}://{Endpoint}/{resource-path}?{query-string}

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**. For example, the endpoint of IAM in the **CN Hong Kong** region is **iam.ap-southeast-1.myhuaweicloud.com**.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "*Parameter name=Parameter value*". For example, **? limit=10** indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN Hong Kong** region, obtain the endpoint of IAM **(iam.southeast-1.myhuaweicloud.com)** for this region and the **resource-path (/v3/auth/tokens)** in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

```
https://iam.southeast-1.myhuaweicloud.com/v3/auth/tokens
```

NOTE

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server:

Table 3-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Requests the server to delete specified resources, for example, an object.
HEAD	Same as GET except that the server must return only the response header.
PATCH	Requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API used to **obtain a user token**, the request method is **POST**, and the request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Table 3-3 lists common request headers.

Table 3-3 Common request headers

Parameter	Description	Mandatory	Example
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname:Port number*. If the port number is not specified, the default port is used. The default port number for HTTPS is 443.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the request body MIME type. Its default value is **application/json**. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No	e9993fc787d94b6c886cbaa340f9c0f4

Parameter	Description	Mandatory	Example
X-Auth-Token	Specifies the user token. It is a response to the API used to **obtain a user token**. This API is the only one that does not require authentication. After the request is processed, the value of **X-Subject-Token** in the header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQc-Co...ggg1BBIINPXsidG9rZ

NOTE

In addition to supporting token-based authentication, APIs also support authentication using access key ID/secret access key (AK/SK). During AK/SK-based authentication, an SDK is used to sign the request, and the **Authorization** (signature authentication) and **X-Sdk-Date** (time when the request is sent) header fields are automatically added to the request.

For more information, see "AK/SK-based Authentication" in **Authentication**.

The API used to **obtain a user token** does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

This part is optional. The body of a request is often sent in a structured format as specified in the **Content-Type** header field, such as JSON or XML. The request body transfers content except the request header.

The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to **obtain a user token**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*, *domainname*, ******** (login password), and *xxxxxxxxxxxxxxxxx* (project ID) with the actual values. To learn how to obtain a project ID, see **Obtaining a Project ID**.

> **NOTE**
>
> The **scope** parameter specifies where a token takes effect. In the following example, the token takes effect only for the resources in a specified project. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see **obtaining a user toke**.

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokensContent-Type: application/json
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxxxxxxxxxxxx"
            }
        }
    }
}
```

If all data required for the API request is available, you can send the request to call the API through **curl**, **Postman**, or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

3.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair.

> **NOTE**
>
> An IAM user can pass the authentication and access DataArts Studio through an API or SDK only if **Programmatic access** is selected for **Access Type** during the creation of the IAM user.

Token-based Authentication

> **NOTE**
>
> The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to a request to get permissions for calling the API.

When calling the API to **obtain a user token**, you must set **auth.scope** in the request body to **project**.

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "id": "xxxxxxxxxxxxxxxxxx"
            }
        }
    }
}
```

After a token is obtained, the X-Auth-Token header field must be added to requests to specify the token when calling other APIs, for example, the API used to query a connection list. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
GET https://iam.ap-southeast-1.myhuaweicloud.com/v1/{project_id}/connections
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

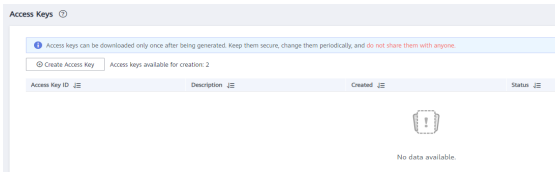
In AK/SK-based authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

To obtain an access key, perform the following steps:

1. Log in to the management console, move the cursor to the username in the upper right corner, and select **My Credentials** from the drop-down list.
2. On the **My Credentials** page, choose **Access Keys**, and click **Create Access Key**. See **Figure 3-1**.

Figure 3-1 Clicking Create Access Key



3. Click **OK** and save the access key file as prompted. The access key file will be saved to your browser's configured download location. Open the **credentials.csv** file to view **Access Key Id** and **Secret Access Key**.

   NOTE

   - Only two access keys can be added for each user.
   - To ensure access key security, the access key is automatically downloaded only when it is generated for the first time and cannot be obtained from the management console later. Keep them properly.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or use the signing SDK to sign requests. For details about how to sign requests and use the signature SDK, see **API Request Signing Guide**.

NOTICE

The signing SDKs are only used for signing requests and different from the SDKs provided by services.

3.3 Response

Status Code

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see **Status Codes**.

For example, if status code **201** is returned for calling the API used to **obtain a user token**, the request is successful.

Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

Figure 3-2 shows the response header fields for the API used to **obtain a user token**. The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

Figure 3-2 Header fields of the response to the request for obtaining a user token

(Optional) Response Body

The body of a response is often returned in structured format as specified in the **Content-Type** header field, such as JSON or XML. The response body transfers content except the response header.

The following is part of the response body for the API used to **obtain a user token**.

```
{
    "token": {
        "expires_at": "2019-02-13T06:52:13.855000Z",
        "methods": [
            "password"
        ],
        "catalog": [
            {
                "endpoints": [
                    {
                        "region_id": "******",
.....
```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```
{
    "error_msg": "The format of message is error",
    "error_code": "AS.0001"
}
```

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 Application Example

Scenarios

DIS provides efficient collection, transmission, and distribution capabilities for real-time data and provides a variety of APIs to help you quickly build real-time data applications.

The following describes how to create a DIS stream by calling the **Before You Start** API. For details, see **Calling APIs**.

NOTE

The token obtained on IAM is valid for only 24 hours. If you want to use one token for authentication, you can cache it to avoid frequent calling.

Involved APIs

If you use a token for authentication, you must obtain the token and add **X-Auth-Token** to the request header of the API request.

- API for obtaining a token from IAM
- API for creating a DIS stream

Prerequisites

You have planned the region where DIS is located and determined the endpoint for calling an API based on the region.

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. You can obtain endpoints of the service from **Endpoints**.

Creating a Stream

The following is an example of creating a stream with the simplest configuration.

1. Obtain the token by following the instructions in **Token-based Authentication**.
2. Send **POST https://Endpoint of DIS/v2/{project_id}/streams**.
3. Add **X-Auth-Token** to the request header.

4. Specify the following parameters in the request body:

```
{
"stream_name": "dis-DLpR",
"partition_count": 1,
"stream_type": "COMMON",
"data_duration": 24
}
```

   - **stream_name** indicates the stream name, which can be customized, for example, **newstream**.
   - **partition_count** indicates the number of partitions. A partition is the base throughput unit of a DIS stream. You can specify the number of partitions based on your service throughput requirements.
   - **stream_type** indicates the stream type. **COMMON** indicates a common partition. A single partition supports a maximum of 1 MB/s for data writing and a maximum of 2 MB/s for data reading.
   - **data_duration** indicates the lifecycle of a stream, that is, the duration for storing data in the stream partition.

   If the request is successful, 201 Created is returned.

   If the request fails, an error code and error information are returned. For details, see **Error Codes**.

Creating a Stream That Supports Auto Scaling

You can also create a stream that supports auto scaling. The number of partitions can be automatically increased or decreased based on the stream traffic. The following is an example configuration:

1. Obtain the token by following the instructions provided in **Token-based Authentication**.
2. Send **POST https://Endpoint of DIS/v2/{project_id}/streams**.
3. Add **X-Auth-Token** to the request header.
4. Specify the following parameters in the request body:

```
{
"stream_name": "dis-DLpR",
"partition_count": 1,
"stream_type": "COMMON",
"data_duration": 24
"auto_scale_enabled": true,
"auto_scale_min_partition_count": 2,
"auto_scale_max_partition_count": 10
}
```

   In this example, a stream that supports auto scaling is created. The number of partitions to scale ranges from 2 to 10. If the stream has 10 partitions, auto scaling-out will not be triggered.

   - **auto_scale_enabled** specifies whether to enable auto scaling. The value **true** indicates that auto scaling is enabled.
   - **auto_scale_min_partition_count** indicates the minimum number of partitions allowed when auto scale-in is enabled. In this example, as there are two partitions, automatic scale-in will not be triggered.
   - **auto_scale_max_partition_count** indicates the maximum number of partitions allowed when auto scale-out is enabled. In this example, as there are 10 partitions, automatic scale-out will not be triggered.

   If the request is successful, 201 Created is returned.

If the request fails, an error code and error information are returned. For details, see **Error Codes**.

Creating a Stream with Data Schemas

You can also configure a schema for the stream. When using DIS to dump data to other services, you can map data based on the schema configured for the stream. The following is an example configuration:

1. Obtain the token by following the instructions provided in **Token-based Authentication**.
2. Send **POST https://Endpoint of DIS/v2/{project_id}/streams**.
3. Add **X-Auth-Token** to the request header.
4. Specify the following parameters in the request body:

```
{
"stream_name": "dis-DLpR",
"partition_count": 1,
"stream_type": "COMMON",
"data_duration": 24
"auto_scale_enabled": true,
"auto_scale_min_partition_count": 1,
"auto_scale_max_partition_count": 10
"data_type": "BLOG",
}
```

In this example, a stream whose source data type is JSON and that contains the key1 and key2 attributes is created.

- **data_type** indicates the type of source data. The value **JSON** indicates that the data format in the partition is JSON.
- **data_schema** indicates the source data schema, which describes the source data structures in JSON and CSV formats using the Avro Schema syntax.

If the request is successful, 201 Created is returned.

If the request fails, an error code and error information are returned. For details, see **Error Codes**.

5 API Description

5.1 Stream Management

5.1.1 Creating a Stream

Function

This API is used to create a stream.

- When creating a stream, specify a stream type (common or advanced) and the number of partitions.
- A maximum of 10 advanced stream partitions and 50 common stream partitions can be created for an account by default. You can submit a work order to increase the quota.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams

Table 5-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 5-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-3 Request body parameters

Parameter	Mandatory	Type	Description
stream_name	Yes	String	Stream name. The stream name can contain 1 to 64 characters, including letters, digits, underscores (_), and hyphens (-). Maximum: **64**
partition_count	Yes	Integer	Number of partitions. Partitions are the base throughput unit of the DIS stream.
stream_type	No	String	Stream type. • **COMMON**: a common stream with a bandwidth of 1 Mbit/s • **ADVANCED**: an advanced stream with a bandwidth of 5 Mbit/s Enumeration values: • **COMMON** • **ADVANCED**

Parameter	Mandatory	Type	Description
data_type	No	String	Source data type. • **BLOB**: a collection of binary data stored as a single entity in a database management system • **JSON**: an open-standard file format that uses human-readable text to transmit data objects consisting of attribute-value pairs and array data types • **CSV**: a simple text format for storing tabular data in a plain text file. Commas are used as delimiters. Default value: **BLOB** Enumeration values: • **BLOB** • **JSON** • **CSV**
data_duration	No	Integer	Data retention period. Value range: 24–72 Unit: hour If this parameter is left unspecified, the default value will be used. Default: **24**
auto_scale_enabled	No	Boolean	Whether to enable auto scaling. • **true**: Auto scaling is enabled. • **false**: Auto scaling is disabled. By default, auto scaling is disabled. Default: **false**
auto_scale_min_partition_count	No	Long	Minimum number of partitions for automatic scale-down when auto scaling is enabled. Minimum: **1**

Parameter	Mandatory	Type	Description
auto_scale_max_partition_count	No	Integer	Maximum number of partitions for automatic scale-up when auto scaling is enabled.
data_schema	No	String	Source data structure that defines JSON and CSV formats. It is described in the syntax of the Avro schema.
csv_properties	No	**CSVProperties** object	Attributes of data in CSV format, such as delimiter
compression_format	No	String	Data compression type. Currently, the following compression types are supported: • snappy • gzip • zip By default, data is not compressed. Enumeration values: • **snappy** • **gzip** • **zip**
tags	No	Array of **Tag** objects	List of stream tags
sys_tags	No	Array of **SysTag** objects	Stream enterprise projects

Table 5-4 CSVProperties

Parameter	Mandatory	Type	Description
delimiter	No	String	Data separator

Table 5-5 Tag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Minimum: **1** Maximum: **36**
value	No	String	Value. • It can contain a maximum of 43 characters. • It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). • It can only contain digits, letters, hyphens (-), and underscores (_). Minimum: **0** Maximum: **43**

Table 5-6 SysTag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. • It cannot be left blank. • Its value must be **_sys_enterprise_project_id**.
status	No	String	Enumeration values: • **_sys_enterprise_project_id**

Parameter	Mandatory	Type	Description
value	No	String	Value. The value is the enterprise project ID, which needs to be obtained on the enterprise management page. ● It is a 36-digit UUID.

Response Parameters

None

Example Requests

Creating a Stream

```
POST https://{Endpoint}/v2/{project_id}/streams

{
  "stream_name" : "newstream",
  "partition_count" : 3,
  "data_duration" : 24
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Creating a Stream

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class CreateStreamSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
```



```
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateStreamRequest request = new CreateStreamRequest();
        CreateStreamReq body = new CreateStreamReq();
        body.withDataDuration(24);
        body.withPartitionCount(3);
        body.withStreamName("newstream");
        request.withBody(body);
        try {
            CreateStreamResponse response = client.createStream(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creating a Stream

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateStreamRequest()
        request.body = CreateStreamReq(
            data_duration=24,
            partition_count=3,
            stream_name="newstream"
        )
        response = client.create_stream(request)
```



```
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creating a Stream

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateStreamRequest{}
    dataDurationCreateStreamReq:= int32(24)
    request.Body = &model.CreateStreamReq{
        DataDuration: &dataDurationCreateStreamReq,
        PartitionCount: int32(3),
        StreamName: "newstream",
    }
    response, err := client.CreateStream(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Created

Error Codes

See **Error Codes**.

5.1.2 Querying Streams

Function

This API is used to query all the streams created by the current tenant.

During query, you need to specify the stream from which the stream list is returned and the maximum number of streams returned in a single request.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/streams

Table 5-7 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 5-8 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	The maximum number of DIS streams to list in a single API call Minimum: **1** Maximum: **100** Default: **10**

Parameter	Mandatory	Type	Description
start_stream_name	No	String	Name of the DIS stream to start the stream list with. The returned stream list does not contain this DIS stream name.If pagination query is required, this parameter is not transferred when you query data on the first page. If the value of **has_more_streams** is **true**, the query is performed on the next page. The value of **start_stream_name** is the name of the last stream in the query result of the first page.

Request Parameters

Table 5-9 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-10 Response body parameters

Parameter	Type	Description
total_number	Long	Total number of all the DIS streams created by the current tenant
stream_names	Array of strings	List of the streams meeting the current requests
has_more_streams	Boolean	Whether there are more matching DIS streams • **true**: The disk will be deleted. • **false**: The disk will not be deleted. Default: **false**

Parameter	Type	Description
stream_info_list	Array of **StreamInfo** objects	Stream details

Table 5-11 StreamInfo

Parameter	Type	Description
stream_name	String	Stream name
create_time	Long	Time when the stream is created. The value is a 13-bit timestamp.
retention_period	Integer	Period for storing data in units of hours
status	String	Current status of the stream. • **CREATING** • **RUNNING** • **TERMINATING** • **TERMINATED** Enumeration values: • **CREATING** • **RUNNING** • **TERMINATING** • **FROZEN**
stream_type	String	Stream type • **COMMON**: a common stream with a bandwidth of 1 Mbit/s • **ADVANCED**: an advanced stream with a bandwidth of 5 Mbit/s Enumeration values: • **COMMON** • **ADVANCED**

Parameter	Type	Description
data_type	String	Source data type. • **BLOB**: a collection of binary data stored as a single entity in a database management system • **JSON**: an open-standard file format that uses human-readable text to transmit data objects consisting of attribute-value pairs and array data types • **CSV**: a simple text format for storing tabular data in a plain text file. Commas are used as delimiters. Default value: **BLOB** Enumeration values: • **BLOB** • **JSON** • **CSV**
partition_count	Integer	Number of partitions. Partitions are the base throughput unit of the DIS stream.
auto_scale_enabled	Boolean	Whether to enable auto scaling. • **true**: Auto scaling is enabled. • **false**: Auto scaling is disabled. By default, auto scaling is disabled. Default: **false**
auto_scale_min_partition_count	Integer	Minimum number of partitions for automatic scale-down when auto scaling is enabled Minimum: **1**
auto_scale_max_partition_count	Integer	Maximum number of partitions for automatic scale-up when auto scaling is enabled
tags	Array of **Tag** objects	List of stream tags
sys_tags	Array of **SysTag** objects	Stream enterprise projects

Table 5-12 Tag

Parameter	Type	Description
key	String	Tag key. ● It cannot be left blank. ● It must be unique for each resource. ● It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Minimum: **1** Maximum: **36**
value	String	Value. ● It can contain a maximum of 43 characters. ● It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). ● It can only contain digits, letters, hyphens (-), and underscores (_). Minimum: **0** Maximum: **43**

Table 5-13 SysTag

Parameter	Type	Description
key	String	Tag key. ● It cannot be left blank. ● Its value must be **_sys_enterprise_project_id**.
status	String	Enumeration values: ● **_sys_enterprise_project_id**
value	String	Value. The value is the enterprise project ID, which needs to be obtained on the enterprise management page. ● It is a 36-digit UUID.

Example Requests

Querying Streams

```
GET https://{Endpoint}/v2/{project_id}/streams
```


Example Responses

Status code: 200

Normal response

```
{
  "total_number" : 1,
  "stream_names" : [ "newstream" ],
  "stream_info_list" : [ {
    "stream_id" : "8QM3Nt9YTLOwtUVYJhO",
    "stream_name" : "newstream",
    "create_time" : 1593569685875,
    "retention_period" : 24,
    "status" : "RUNNING",
    "stream_type" : "COMMON",
    "data_type" : "BLOB",
    "partition_count" : 1,
    "tags" : [ ],
    "auto_scale_enabled" : false,
    "auto_scale_min_partition_count" : 0,
    "auto_scale_max_partition_count" : 0
  } ],
  "has_more_streams" : false
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ListStreamsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ListStreamsRequest request = new ListStreamsRequest();
        request.withLimit(<limit>);
        request.withStartStreamName("<start_stream_name>");
        try {
```



```
            ListStreamsResponse response = client.listStreams(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStreamsRequest()
        request.limit = <limit>
        request.start_stream_name = "<start_stream_name>"
        response = client.list_streams(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
```



```
variables and decrypted during use to ensure security.
   // In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
   ak := os.Getenv("CLOUD_SDK_AK")
   sk := os.Getenv("CLOUD_SDK_SK")

   auth := basic.NewCredentialsBuilder().
      WithAk(ak).
      WithSk(sk).
      Build()

   client := dis.NewDisClient(
      dis.DisClientBuilder().
         WithRegion(region.ValueOf("<YOUR REGION>")).
         WithCredential(auth).
         Build())

   request := &model.ListStreamsRequest{}
   limitRequest:= int32(<limit>)
   request.Limit = &limitRequest
   startStreamNameRequest:= "<start_stream_name>"
   request.StartStreamName = &startStreamNameRequest
   response, err := client.ListStreams(request)
   if err == nil {
      fmt.Printf("%+v\n", response)
   } else {
      fmt.Println(err)
   }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.1.3 Deleting a Stream

Function

This API is used to delete a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/streams/{stream_name}

Table 5-14 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream to be deleted Maximum: **60**

Request Parameters

Table 5-15 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

None

Example Requests

Deleting a Stream

```
DELETE https://{Endpoint}/v2/{project_id}/streams/{stream_name}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```



```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class DeleteStreamSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteStreamRequest request = new DeleteStreamRequest();
        try {
            DeleteStreamResponse response = client.deleteStream(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
```



```
        .build()

    try:
        request = DeleteStreamRequest()
        response = client.delete_stream(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteStreamRequest{}
    response, err := client.DeleteStream(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.1.4 Querying Details of a Stream

Function

This API is used to query details about a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/streams/{stream_name}

Table 5-16 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream to be queried Maximum: **60**

Table 5-17 Query Parameters

Parameter	Mandatory	Type	Description
start_partitionId	No	String	Name of the partition to start the partition list with. The returned partition list does not contain this partition.
limit_partitions	No	Integer	Max. number of partitions to list in a single API call. Minimum: **1** Maximum: **1000** Default: **100**

Request Parameters

Table 5-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-19 Response body parameters

Parameter	Type	Description
stream_name	String	Stream name
create_time	Long	Time when the stream is created. The value is a 13-bit timestamp.
last_modified_time	Long	Time when a stream is the most recently modified. The value is a 13-bit timestamp.
status	String	Current status of the stream. • **CREATING** • **RUNNING** • **TERMINATING** • **TERMINATED** Enumeration values: • **CREATING** • **RUNNING** • **TERMINATING** • **FROZEN**

Parameter	Type	Description
stream_type	String	Stream type • **COMMON**: a common stream with a bandwidth of 1 Mbit/s • **ADVANCED**: an advanced stream with a bandwidth of 5 Mbit/s Enumeration values: • **COMMON** • **ADVANCED**
partitions	Array of **PartitionResult** objects	Partition list of the stream
has_more_partitions	Boolean	Whether there are more matching partitions. • **true**: yes • **false**: no
retention_period	Integer	Period for storing data in units of hours
stream_id	String	Unique identifier of the stream
data_type	String	Source data type. • **BLOB**: a collection of binary data stored as a single entity in a database management system • **JSON**: an open-standard file format that uses human-readable text to transmit data objects consisting of attribute-value pairs and array data types • **CSV**: a simple text format for storing tabular data in a plain text file. Commas are used as delimiters. Default value: **BLOB** Enumeration values: • **BLOB** • **JSON** • **CSV**
data_schema	String	Source data structure that defines JSON and CSV formats. It is described in the syntax of the Avro schema. For details about Avro, go to http://avro.apache.org/docs/current/#schemas.

Parameter	Type	Description
compression_format	String	Data compression type. Currently, the following compression types are supported: • snappy • gzip • zip By default, data is not compressed. Enumeration values: • **snappy** • **gzip** • **zip**
csv_properties	**CSVProperties** object	Attributes of data in CSV format, such as delimiter
writable_partition_count	Integer	Total number of writable partitions (including partitions in ACTIVE state only)
readable_partition_count	Integer	Total number of readable partitions (including partitions in ACTIVE and DELETED state).
update_partition_counts	Array of **UpdatePartitionCount** objects	List of scaling operation records
tags	Array of **Tag** objects	List of stream tags
sys_tags	Array of **SysTag** objects	Enterprise project of a stream
auto_scale_enabled	Boolean	Whether to enable auto scaling. • **true**: Auto scaling is enabled. • **false**: Auto scaling is disabled. By default, auto scaling is disabled.
auto_scale_min_partition_count	Integer	Minimum number of partitions for automatic scale-down when auto scaling is enabled.
auto_scale_max_partition_count	Integer	Maximum number of partitions for automatic scale-up when auto scaling is enabled.

Table 5-20 PartitionResult

Parameter	Type	Description
status	String	Current status of the partition • **CREATING** • **ACTIVE** • **DELETED** • **EXPIRED** Enumeration values: • **CREATING** • **ACTIVE** • **DELETED** • **EXPIRED**
partition_id	String	Unique identifier of the partition
hash_range	String	Possible value range of the hash key used by the partition
sequence_number_range	String	Sequence number range of the partition
parent_partitions	String	Parent partition

Table 5-21 CSVProperties

Parameter	Type	Description
delimiter	String	Data separator

Table 5-22 UpdatePartitionCount

Parameter	Type	Description
create_timestamp	Long	Scaling execution timestamp, which is a 13-digit timestamp.
src_partition_count	Integer	Number of partitions before scaling
target_partition_count	Integer	Number of partitions after scaling
result_code	Integer	Response code of the scaling operation
result_msg	Integer	Response to the scaling operation

Parameter	Type	Description
auto_scale	Boolean	Whether the scaling operation is automatic • **true**: auto scaling • **false**: manual scaling

Table 5-23 Tag

Parameter	Type	Description
key	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Minimum: **1** Maximum: **36**
value	String	Value. • It can contain a maximum of 43 characters. • It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). • It can only contain digits, letters, hyphens (-), and underscores (_). Minimum: **0** Maximum: **43**

Table 5-24 SysTag

Parameter	Type	Description
key	String	Tag key. • It cannot be left blank. • Its value must be **_sys_enterprise_project_id**.
status	String	Enumeration values: • **_sys_enterprise_project_id**

Parameter	Type	Description
value	String	Value. The value is the enterprise project ID, which needs to be obtained on the enterprise management page. • It is a 36-digit UUID.

Example Requests

Querying Details of a Stream

```
GET https://{Endpoint}/v2/{project_id}/streams/{stream_name}
```

Example Responses

Status code: 200

Normal response

```
{
  "stream_id" : "8QM3Nt9YTLOwtUVYJhO",
  "stream_name" : "newstream",
  "create_time" : 1593569685875,
  "last_modified_time" : "1599050091026,",
  "retention_period" : 24,
  "status" : "RUNNING",
  "stream_type" : "COMMON",
  "data_type" : "BLOB",
  "writable_partition_count" : 1,
  "readable_partition_count" : 1,
  "tags" : [ ],
  "auto_scale_enabled" : false,
  "auto_scale_min_partition_count" : 0,
  "auto_scale_max_partition_count" : 0,
  "partitions" : [ {
    "status" : "ACTIVE",
    "partition_id" : "shardId-0000000000",
    "hash_range" : "[0 : 9223372036854775807]",
    "sequence_number_range" : "[289911 : 289927]"
  } ],
  "has_more_partitions" : false
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;
```



```
public class ShowStreamSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowStreamRequest request = new ShowStreamRequest();
        request.withStartPartitionId("<start_partitionId>");
        request.withLimitPartitions(<limit_partitions>);
        try {
            ShowStreamResponse response = client.showStream(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowStreamRequest()
```



```
        request.start_partition_id = "<start_partitionId>"
        request.limit_partitions = <limit_partitions>
        response = client.show_stream(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowStreamRequest{}
    startPartitionIdRequest:= "<start_partitionId>"
    request.StartPartitionId = &startPartitionIdRequest
    limitPartitionsRequest:= int32(<limit_partitions>)
    request.LimitPartitions = &limitPartitionsRequest
    response, err := client.ShowStream(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.1.5 Changing Partition Quantity

Function

This API is used to change the number of partitions in a specific stream.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/{project_id}/streams/{stream_name}

Table 5-25 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream whose partition quantity needs to be changed Maximum: **64**

Request Parameters

Table 5-26 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-27 Request body parameters

Parameter	Mandatory	Type	Description
stream_name	Yes	String	Name of the stream whose partition quantity needs to be changed Maximum: **64**
target_partition_count	Yes	Integer	Number of the target partitions. The value is an integer greater than 0. If the value is greater than the number of current partitions, scaling-up is required. If the value is less than the number of current partitions, scale-down is required. Notes: Each stream can be scaled up and down a total of five times within one hour. After the stream is successfully scaled up or down, it cannot be scaled up or down again within the next one hour. Minimum: **0**

Response Parameters

None

Example Requests

Changing Partition Quantity

```
PUT https://{Endpoint}/v2/{project_id}/streams/{stream_name}

{
  "stream_name" : "newstream",
  "target_partition_count" : 5
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Changing Partition Quantity

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class UpdatePartitionCountSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdatePartitionCountRequest request = new UpdatePartitionCountRequest();
        UpdatePartitionCountReq body = new UpdatePartitionCountReq();
        body.withTargetPartitionCount(5);
        body.withStreamName("newstream");
        request.withBody(body);
        try {
            UpdatePartitionCountResponse response = client.updatePartitionCount(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Changing Partition Quantity

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *
```



```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdatePartitionCountRequest()
        request.body = UpdatePartitionCountReq(
            target_partition_count=5,
            stream_name="newstream"
        )
        response = client.update_partition_count(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Changing Partition Quantity

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdatePartitionCountRequest{}
    request.Body = &model.UpdatePartitionCountReq{
        TargetPartitionCount: int32(5),
        StreamName: "newstream",
```



```
    }
    response, err := client.UpdatePartitionCount(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.1.6 Updating Stream Information

Function

This API is used to update the information about a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/{project_id}/streams/{stream_name}

Table 5-28 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream whose partition quantity needs to be changed

Request Parameters

Table 5-29 Request body parameters

Parameter	Mandatory	Type	Description
stream_name	Yes	String	Name of the stream to be updated Maximum: **64**
data_duration	No	Integer	Data retention period. Value range: 24–72 Unit: hour If this parameter is left unspecified, the default value will be used. Default: **24**
data_type	No	String	Source data type. • **BLOB**: a collection of binary data stored as a single entity in a database management system • **JSON**: an open-standard file format that uses human-readable text to transmit data objects consisting of attribute-value pairs and array data types • **CSV**: a simple text format for storing tabular data in a plain text file. Commas are used as delimiters. Default value: **BLOB** Enumeration values: • **BLOB** • **JSON** • **CSV**
data_schema	No	String	Source data structure that defines JSON and CSV formats. It is described in the syntax of the Avro schema.

Parameter	Mandatory	Type	Description
auto_scale_enabled	No	Boolean	Whether to enable auto scaling. • **true**: Auto scaling is enabled. • **false**: Auto scaling is disabled. By default, auto scaling is disabled. Default: **false** Enumeration values: • **true** • **false**
auto_scale_min_partition_count	No	Long	Minimum number of partitions for automatic scale-down when auto scaling is enabled Minimum: **1**
auto_scale_max_partition_count	No	Long	Maximum number of partitions for automatic scale-up when auto scaling is enabled

Response Parameters

None

Example Requests

- Updating the Stream Lifecycle

```
PUT https://{Endpoint}/v3/{project_id}/streams/{stream_name}

{
  "stream_name" : "stz_test",
  "data_duration" : 48
}
```

- Updating the Stream Type

```
PUT https://{Endpoint}/v3/{project_id}/streams/{stream_name}

{
  "stream_name" : "stz_test",
  "data_type" : "JSON"
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

- Updating the Stream Lifecycle

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class UpdateStreamSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateStreamRequest request = new UpdateStreamRequest();
        UpdateStreamReq body = new UpdateStreamReq();
        body.withDataDuration(48);
        body.withStreamName("stz_test");
        request.withBody(body);
        try {
            UpdateStreamResponse response = client.updateStream(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Updating the Stream Type

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
```



```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class UpdateStreamSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateStreamRequest request = new UpdateStreamRequest();
        UpdateStreamReq body = new UpdateStreamReq();
        body.withDataType(UpdateStreamReq.DataTypeEnum.fromValue("JSON"));
        body.withStreamName("stz_test");
        request.withBody(body);
        try {
            UpdateStreamResponse response = client.updateStream(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Updating the Stream Lifecycle

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
```



```
    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateStreamRequest()
        request.body = UpdateStreamReq(
            data_duration=48,
            stream_name="stz_test"
        )
        response = client.update_stream(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Updating the Stream Type

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateStreamRequest()
        request.body = UpdateStreamReq(
            data_type="JSON",
            stream_name="stz_test"
        )
        response = client.update_stream(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Updating the Stream Lifecycle

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateStreamRequest{}
    dataDurationUpdateStreamReq:= int32(48)
    request.Body = &model.UpdateStreamReq{
        DataDuration: &dataDurationUpdateStreamReq,
        StreamName: "stz_test",
    }
    response, err := client.UpdateStream(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Updating the Stream Type

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```



```
        Build())

    request := &model.UpdateStreamRequest{}
    dataTypeUpdateStreamReq:= model.GetUpdateStreamReqDataTypeEnum().JSON
    request.Body = &model.UpdateStreamReq{
        DataType: &dataTypeUpdateStreamReq,
        StreamName: "stz_test",
    }
    response, err := client.UpdateStream(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.1.7 Adding Permission Policies

Function

This API is used to add permission policies to a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/policies

Table 5-30 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Parameter	Mandatory	Type	Description
stream_name	Yes	String	Name of the stream for which you want to add an authorization policy Maximum: **64**

Request Parameters

Table 5-31 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-32 Request body parameters

Parameter	Mandatory	Type	Description
stream_id	Yes	String	Unique ID of the stream
principal_name	Yes	String	Authorized user. If the permission is granted to a specified tenant, the format is **domainName.***. If the permission is granted to a specified sub-user of a tenant, the format is **domainName.userName**. You can add multiple accounts and separate them by commas (,), for example, **domainName1.userName1,domainName2.userName2**.

Parameter	Mandatory	Type	Description
action_type	Yes	String	Authorization operation type. • **putRecords**: uploading data • **getRecords**: downloading data Enumeration values: • **putRecords** • **getRecords** • **getStreamInfo**
effect	Yes	String	Authorization impact type. • **accept**: The authorization operation is allowed. Enumeration values: • **accept**

Response Parameters

None

Example Requests

- Adding Permission Policies for Tenants

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/policies

{
  "stream_id" : "CiFdELMr0401K9GGZlp",
  "principal_name" : "domainname1",
  "action_type" : "putRecords",
  "effect" : "accept"
}
```

- Adding Permission Policies for Sub-users

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/policies

{
  "stream_id" : "CiFdELMr0401K9GGZlp",
  "principal_name" : "domainname1.username1",
  "action_type" : "putRecords",
  "effect" : "accept"
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.1.8 Querying Permission Policies

Function

This API is used to query permission policies of a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/streams/{stream_name}/policies

Table 5-33 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Stream name Maximum: **60**

Request Parameters

Table 5-34 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-35 Response body parameters

Parameter	Type	Description
stream_id	String	Unique ID of the stream
rules	Array of **PrincipalRule** objects	List of authorization information records

Table 5-36 PrincipalRule

Parameter	Type	Description
principal	String	ID of the authorized user
principal_name	String	Name of the authorized user.If the permission is granted to all sub-users of a tenant, the format is **domainName.***. If the permission is granted to a specified sub-user of a tenant, the format is **domainName.userName**.
action_type	String	Authorization operation type. • **putRecords**: uploading data • **getRecords**: downloading data Enumeration values: • **putRecords** • **getRecords**
effect	String	Authorization impact type. • **accept**: The authorization operation is allowed. Enumeration values: • **accept**

Example Requests

Querying Permission Policies

```
GET https://{Endpoint}/v2/{project_id}/streams/{stream_name}/policies
```

Example Responses

Status code: 200

Normal response


```
{
  "streamId" : "CiFdELMr0401K9GGZlp",
  "rules" : [ {
    "action_type" : "putRecords",
    "principal" : "3b3f237122574xxxxb74482ae11005ba.*",
    "principal_name" : "anotherusername",
    "effect" : "accept"
  } ]
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ListPoliciesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ListPoliciesRequest request = new ListPoliciesRequest();
        try {
            ListPoliciesResponse response = client.listPolicies(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```


Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListPoliciesRequest()
        response = client.list_policies(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListPoliciesRequest{}
```



```
    response, err := client.ListPolicies(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.2 App Management

5.2.1 Creating a Consumption App

Function

This API is used to create a consumption app.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/apps

Table 5-37 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 5-38 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-39 Request body parameters

Parameter	Mandatory	Type	Description
app_name	Yes	String	Name of the consumer application to be created. The application name contains 1 to 200 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. Minimum: **1** Maximum: **200**

Response Parameters

None

Example Requests

Creating a Consumption App

```
POST https://{Endpoint}/v2/{project_id}/apps

{
  "app_name" : "newapp"
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Creating a Consumption App

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class CreateAppSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateAppRequest request = new CreateAppRequest();
        CreateAppReq body = new CreateAppReq();
        body.withAppName("newapp");
        request.withBody(body);
        try {
            CreateAppResponse response = client.createApp(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creating a Consumption App

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *
```



```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateAppRequest()
        request.body = CreateAppReq(
            app_name="newapp"
        )
        response = client.create_app(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creating a Consumption App

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateAppRequest{}
    request.Body = &model.CreateAppReq{
        AppName: "newapp",
    }
    response, err := client.CreateApp(request)
    if err == nil {
```



```
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Normal response

Error Codes

See **Error Codes**.

5.2.2 Querying Apps

Function

This API is used to query apps.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/apps

Table 5-40 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 5-41 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Maximum number of apps to list in a single API call Minimum: **1** Maximum: **100** Default: **10**
start_app_name	No	String	Name of the app to start the list with. The returned app list does not contain this app name.
stream_name	No	String	Name of the stream whose apps will be returned

Request Parameters

Table 5-42 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-43 Response body parameters

Parameter	Type	Description
has_more_app	Boolean	Whether there are more matching consumer applications. • **true**: yes • **false**: no
apps	Array of **DescribeAppResult** objects	AppEntry list that meets the current request.
total_number	Integer	Total number of apps that meet criteria

Table 5-44 DescribeAppResult

Parameter	Type	Description
app_name	String	Name of the app
app_id	String	Unique identifier of the app
create_time	Long	Time when the app is created, in milliseconds
commit_checkpoint_stream_names	Array of strings	List of associated streams

Example Requests

Querying Apps

```
GET https://{Endpoint}/v2/{project_id}/apps
```

Example Responses

Status code: 200

Normal response

```
{
  "total_number" : 1,
  "apps" : [ {
    "app_id" : "bd6IPpvgiIflQPMpi9M",
    "app_name" : "newstream",
    "create_time" : 1593569685875
  } ],
  "has_more_app" : true
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ListAppSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```



```
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAppRequest request = new ListAppRequest();
        request.withLimit(<limit>);
        request.withStartAppName("<start_app_name>");
        request.withStreamName("<stream_name>");
        try {
            ListAppResponse response = client.listApp(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAppRequest()
        request.limit = <limit>
        request.start_app_name = "<start_app_name>"
        request.stream_name = "<stream_name>"
        response = client.list_app(request)
        print(response)
```



```
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAppRequest{}
    limitRequest:= int32(<limit>)
    request.Limit = &limitRequest
    startAppNameRequest:= "<start_app_name>"
    request.StartAppName = &startAppNameRequest
    streamNameRequest:= "<stream_name>"
    request.StreamName = &streamNameRequest
    response, err := client.ListApp(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Status Code	Description
400	Invalid Parameters
404	Application not found
500	Internal Server Error

Error Codes

See **Error Codes**.

5.2.3 Deleting an App

Function

This API is used to delete an app.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/apps/{app_name}

Table 5-45 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
app_name	Yes	String	Name of the app to be deleted

Request Parameters

Table 5-46 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

None

Example Requests

Deleting an App

```
DELETE https://{Endpoint}/v2/{project_id}/apps/{app_name}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class DeleteAppSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteAppRequest request = new DeleteAppRequest();
        try {
            DeleteAppResponse response = client.deleteApp(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
```



```
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteAppRequest()
        response = client.delete_app(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```



```
        WithCredential(auth).
        Build())

    request := &model.DeleteAppRequest{}
    response, err := client.DeleteApp(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.2.4 Querying App Details

Function

This API is used to query app details.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/apps/{app_name}

Table 5-47 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
app_name	Yes	String	Name of the app to be queried

Request Parameters

Table 5-48 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-49 Response body parameters

Parameter	Type	Description
app_name	String	Name of the app
app_id	String	Unique identifier of the app
create_time	Long	Time when the app is created, in milliseconds
commit_checkpoint_stream_names	Array of strings	List of associated streams

Example Requests

Querying App Details

```
GET https://{Endpoint}/v2/{project_id}/apps/{app_name}
```

Example Responses

Status code: 200

Normal response

```
{
  "app_id" : "bd6IPpvgiIflQPMpi9M",
  "app_name" : "newstream",
  "create_time" : 1593569685875,
  "commit_checkpoint_stream_names" : [ "newstream" ]
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ShowAppSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowAppRequest request = new ShowAppRequest();
        try {
            ShowAppResponse response = client.showApp(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
```



```
    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowAppRequest()
        response = client.show_app(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowAppRequest{}
    response, err := client.ShowApp(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.2.5 Querying App Consumption Status

Function

This API is used to query the consumption status of an app.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/apps/{app_name}/streams/{stream_name}

Table 5-50 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
app_name	Yes	String	Name of the app to be queried
stream_name	Yes	String	Name of the stream to be queried Maximum: **60**

Table 5-51 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Max. number of partitions to list in a single API call. The minimum value is 1 and the maximum value is 1,000. The default value is 100. Minimum: **1** Maximum: **1000** Default: **100**
start_partition_id	No	String	Name of the partition to start the partition list with. The returned partition list does not contain this partition.
checkpoint_type	Yes	String	Type of the checkpoint. • **LAST_READ**: Only sequence numbers are recorded in databases. Enumeration values: • **LAST_READ**

Request Parameters

Table 5-52 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-53 Response body parameters

Parameter	Type	Description
has_more	Boolean	Whether there are more matching consumer applications. • **true**: yes • **false**: no
stream_name	String	Name of the stream to be queried Maximum: **64**
app_name	String	Name of the consumer application to be queried
partition_consuming_states	Array of **PartitionConsumingStates** objects	Consumption status of the current partition

Table 5-54 PartitionConsumingStates

Parameter	Type	Description
partition_id	String	Partition identifier of the stream.Two partition ID formats are available:- shardId-0000000000-0For example, if a stream has three partitions, the partition IDs are **0**, **1**, and **2**, or **shardId-0000000000**, **shardId-0000000001**, and **shardId-0000000002**.
sequence_number	String	Sequence number to be submitted, which is used to record the consumption checkpoint of the stream. Ensure that the sequence number is within the valid range.
latest_offset	Long	Latest index position
earliest_offset	Long	Earliest index position
checkpoint_type	String	Type of the checkpoint. • **LAST_READ**: Only sequence numbers are recorded in databases. Enumeration values: • **LAST_READ**

Parameter	Type	Description
status	String	Current status of the partition • **CREATING** • **ACTIVE** • **DELETED** • **EXPIRED** Enumeration values: • **CREATING** • **ACTIVE** • **DELETED** • **EXPIRED**

Example Requests

Querying App Consumption Status

```
GET https://{Endpoint}/v2/{project_id}/apps/{app_name}/streams/{stream_name}
```

Example Responses

Status code: 200

Normal response

```
{
  "has_more" : false,
  "stream_name" : "disMonitorTest",
  "app_name" : "4aSiZ",
  "partition_consuming_states" : [ {
    "partition_id" : 0,
    "sequence_number" : -1,
    "latest_offset" : 1658297359,
    "earliest_offset" : 1653120573,
    "checkpoint_type" : "LAST_READ",
    "status" : "ACTIVE"
  } ]
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;
```



```
public class ShowConsumerStateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowConsumerStateRequest request = new ShowConsumerStateRequest();
        request.withLimit(<limit>);
        request.withStartPartitionId("<start_partition_id>");

request.withCheckpointType(ShowConsumerStateRequest.CheckpointTypeEnum.fromValue("<checkpoint_type>"));
        try {
            ShowConsumerStateResponse response = client.showConsumerState(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()
```



```
    try:
        request = ShowConsumerStateRequest()
        request.limit = <limit>
        request.start_partition_id = "<start_partition_id>"
        request.checkpoint_type = "<checkpoint_type>"
        response = client.show_consumer_state(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowConsumerStateRequest{}
    limitRequest:= int32(<limit>)
    request.Limit = &limitRequest
    startPartitionIdRequest:= "<start_partition_id>"
    request.StartPartitionId = &startPartitionIdRequest
    request.CheckpointType = model.GetShowConsumerStateRequestCheckpointTypeEnum().<CHECKPOINT_TYPE>
    response, err := client.ShowConsumerState(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.3 Checkpoint Management

5.3.1 Submitting Checkpoints

Function

This API is used to submit checkpoints.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/checkpoints

Table 5-55 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 5-56 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-57 Request body parameters

Parameter	Mandatory	Type	Description
app_name	Yes	String	Name of the app, which is the unique identifier of a user data consumption program.
checkpoint_type	Yes	String	Type of the checkpoint. • **LAST_READ**: Only sequence numbers are recorded in databases. Enumeration values: • **LAST_READ**
stream_name	Yes	String	Name of the stream
partition_id	Yes	String	Partition identifier of the stream.Two partition ID formats are available:- shardId-0000000000- 0For example, if a stream has three partitions, the partition IDs are **0**, **1**, and **2**, or **shardId-0000000000**, **shardId-0000000001**, and **shardId-0000000002**.
sequence_number	Yes	String	Sequence number to be submitted, which is used to record the consumption checkpoint of the stream. Ensure that the sequence number is within the valid range.
metadata	No	String	Metadata information of the consumer application. The metadata information can contain a maximum of 1,000 characters. Maximum: **1000**

Response Parameters

None

Example Requests

Submitting Checkpoints

```
POST https://{Endpoint}/v2/{project_id}/checkpoints
```



```
{
  "stream_name" : "newstream",
  "app_name" : "newapp",
  "partition_id" : "0",
  "sequence_number" : "2",
  "checkpoint_type" : "LAST_READ"
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Submitting Checkpoints

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class CommitCheckpointSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        CommitCheckpointRequest request = new CommitCheckpointRequest();
        CommitCheckpointReq body = new CommitCheckpointReq();
        body.withSequenceNumber("2");
        body.withPartitionId("0");
        body.withStreamName("newstream");
        body.withCheckpointType(CommitCheckpointReq.CheckpointTypeEnum.fromValue("LAST_READ"));
        body.withAppName("newapp");
        request.withBody(body);
        try {
            CommitCheckpointResponse response = client.commitCheckpoint(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
```



```
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Submitting Checkpoints

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CommitCheckpointRequest()
        request.body = CommitCheckpointReq(
            sequence_number="2",
            partition_id="0",
            stream_name="newstream",
            checkpoint_type="LAST_READ",
            app_name="newapp"
        )
        response = client.commit_checkpoint(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Submitting Checkpoints

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)
```



```
func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CommitCheckpointRequest{}
    request.Body = &model.CommitCheckpointReq{
        SequenceNumber: "2",
        PartitionId: "0",
        StreamName: "newstream",
        CheckpointType: model.GetCommitCheckpointReqCheckpointTypeEnum().LAST_READ,
        AppName: "newapp",
    }
    response, err := client.CommitCheckpoint(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Normal response

Error Codes

See **Error Codes**.

5.3.2 Querying Checkpoint Details

Function

This API is used to query checkpoint details.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/checkpoints

Table 5-58 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 5-59 Query Parameters

Parameter	Mandatory	Type	Description
stream_name	Yes	String	Name of the stream to which the checkpoint belongs
partition_id	Yes	String	Identifier of the stream partition to which the checkpoint belongs.Two partition ID formats are available:- shardId-0000000000- 0For example, if a stream has three partitions, the partition IDs are **0**, **1**, and **2**, or **shardId-0000000000**, **shardId-0000000001**, and **shardId-0000000002**.
app_name	Yes	String	Name of the app associated with the checkpoint
checkpoint_type	Yes	String	Type of the checkpoint. • **LAST_READ**: Only sequence numbers are recorded in databases. Enumeration values: • **LAST_READ**

Request Parameters

Table 5-60 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-61 Response body parameters

Parameter	Type	Description
sequence_number	String	Sequence number used to record the consumption checkpoint of the stream
metadata	String	Metadata information of the consumer application

Example Requests

Querying Checkpoint Details

```
GET https://{Endpoint}/v2/{project_id}/checkpoints
```

Example Responses

Status code: 200

Normal response

```
{
  "sequence_number" : "newstram",
  "metadata" : ""
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
```



```
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ShowCheckpointSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowCheckpointRequest request = new ShowCheckpointRequest();
        request.withStreamName("<stream_name>");
        request.withPartitionId("<partition_id>");
        request.withAppName("<app_name>");

request.withCheckpointType(ShowCheckpointRequest.CheckpointTypeEnum.fromValue("<checkpoint_type>"));
        try {
            ShowCheckpointResponse response = client.showCheckpoint(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
```



```
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowCheckpointRequest()
        request.stream_name = "<stream_name>"
        request.partition_id = "<partition_id>"
        request.app_name = "<app_name>"
        request.checkpoint_type = "<checkpoint_type>"
        response = client.show_checkpoint(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowCheckpointRequest{}
    request.StreamName = "<stream_name>"
    request.PartitionId = "<partition_id>"
    request.AppName = "<app_name>"
    request.CheckpointType = model.GetShowCheckpointRequestCheckpointTypeEnum().<CHECKPOINT_TYPE>
    response, err := client.ShowCheckpoint(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```


More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.3.3 Deleting a Checkpoint

Function

This API is used to delete a checkpoint.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/checkpoints

Table 5-62 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 5-63 Query Parameters

Parameter	Mandatory	Type	Description
stream_name	Yes	String	Name of the stream to which the checkpoint belongs
app_name	Yes	String	Name of the application associated with the checkpoint. Minimum: **1** Maximum: **50**

Parameter	Mandatory	Type	Description
checkpoint_type	Yes	String	Type of the checkpoint. • **LAST_READ**: Only sequence numbers are recorded in databases. Enumeration values: • **LAST_READ**
partition_id	No	String	Identifier of the stream partition to which the checkpoint belongs.Two partition ID formats are available:- shardId-0000000000- 0For example, if a stream has three partitions, the partition IDs are **0**, **1**, and **2**, or **shardId-0000000000**, **shardId-0000000001**, and **shardId-0000000002**.

Request Parameters

Table 5-64 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

None

Example Requests

Deleting a Checkpoint

```
DELETE https://{Endpoint}/v2/{project_id}/checkpoints
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class DeleteCheckpointSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteCheckpointRequest request = new DeleteCheckpointRequest();
        request.withStreamName("<stream_name>");
        request.withAppName("<app_name>");

request.withCheckpointType(DeleteCheckpointRequest.CheckpointTypeEnum.fromValue("<checkpoint_type>"));
        request.withPartitionId("<partition_id>");
        try {
            DeleteCheckpointResponse response = client.deleteCheckpoint(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
```



```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteCheckpointRequest()
        request.stream_name = "<stream_name>"
        request.app_name = "<app_name>"
        request.checkpoint_type = "<checkpoint_type>"
        request.partition_id = "<partition_id>"
        response = client.delete_checkpoint(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteCheckpointRequest{}
    request.StreamName = "<stream_name>"
    request.AppName = "<app_name>"
    request.CheckpointType =
```



```
model.GetDeleteCheckpointRequestCheckpointTypeEnum().<CHECKPOINT_TYPE>
    partitionIdRequest:= "<partition_id>"
    request.PartitionId = &partitionIdRequest
    response, err := client.DeleteCheckpoint(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.4 Data Management

5.4.1 Uploading Data

Function

This API is used to upload data to DIS streams.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/records

Table 5-65 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 5-66 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-67 Request body parameters

Parameter	Mandatory	Type	Description
stream_name	Yes	String	Name of the stream Maximum: **60**
stream_id	No	String	Unique ID of the stream. If no stream is found based on stream_name and stream_id is not empty, stream_id is used to search for the stream. Note: This parameter is mandatory when you upload data to a stream that has been authorized.
records	Yes	Array of **PutRecordsRequestEntry** objects	List of records to be uploaded

Table 5-68 PutRecordsRequestEntry

Parameter	Mandatory	Type	Description
data	Yes	String	Data to be uploaded. The uploaded data is the serialized binary data (character string encoded using Base64). For example, if the character string data needs to be uploaded, the character string after Base64 encoding is **ZGF0YQ==**.
explicit_hash_key	No	String	Hash value of the data to be written to the partition. The hash value overwrites the hash value of **partition_key**. Value range: 0 to long.max
partition_id	No	String	Partition identifier of the stream.Two partition ID formats are available:- shardId-0000000000- 0For example, if a stream has three partitions, the partition IDs are **0**, **1**, and **2**, or **shardId-0000000000**, **shardId-0000000001**, and **shardId-0000000002**.
partition_key	No	String	Partition to which data is written to.Note:If **partition_id** is transferred, it is preferentially used. If it is not transferred, **partition_key** is used.

Response Parameters

Status code: 200

Table 5-69 Response body parameters

Parameter	Type	Description
failed_record_count	Integer	Number of data records that fail to be uploaded

Parameter	Type	Description
records	Array of **PutRecordsResultEntry** objects	List of upload results

Table 5-70 PutRecordsResultEntry

Parameter	Type	Description
partition_id	String	ID of the partition to which data is uploaded
sequence_number	String	Sequence number of the data to be uploaded. A sequence number is the unique identifier of each record. DIS automatically allocates a sequence number when the data producer calls the PutRecords operation to add data to the DIS stream. The sequence number of the same partition key usually changes with time. A longer interval between PutRecords requests results in a larger sequence number.
error_code	String	Error code
error_message	String	Error message

Example Requests

Uploading Data

```
POST https://{Endpoint}/v2/{project_id}/records

{
  "stream_name" : "newstream",
  "records" : [ {
    "data" : "MTExMTExMTExMTExMTExMTExMTExMTExMTExMTExMTE="
  } ]
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Uploading Data


```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class SendRecordsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        SendRecordsRequest request = new SendRecordsRequest();
        PutRecordsRequest body = new PutRecordsRequest();
        List<PutRecordsRequestEntry> listbodyRecords = new ArrayList<>();
        listbodyRecords.add(
            new PutRecordsRequestEntry()
                .withData("MTExMTExMTExMTExMTExMTExMTExMTExMTExMTExMTE=")
        );
        body.withRecords(listbodyRecords);
        body.withStreamName("newstream");
        request.withBody(body);
        try {
            SendRecordsResponse response = client.sendRecords(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Uploading Data

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
```



```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = SendRecordsRequest()
        listRecordsbody = [
            PutRecordsRequestEntry(
                data="MTExMTExMTExMTExMTExMTExMTExMTExMTExMTExMTE="
            )
        ]
        request.body = PutRecordsRequest(
            records=listRecordsbody,
            stream_name="newstream"
        )
        response = client.send_records(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Uploading Data

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```



```
        WithCredential(auth).
        Build())

    request := &model.SendRecordsRequest{}
    var listRecordsbody = []model.PutRecordsRequestEntry{
        {
            Data: "MTExMTExMTExMTExMTExMTExMTExMTExMTExMTExMTE=",
        },
    }
    request.Body = &model.PutRecordsRequest{
        Records: listRecordsbody,
        StreamName: "newstream",
    }
    response, err := client.SendRecords(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.4.2 Downloading Data

Function

This API is used to download data from DIS streams.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/records

Table 5-71 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 5-72 Query Parameters

Parameter	Mandatory	Type	Description
partition-cursor	Yes	String	Data cursor, which needs to be obtained through the API for obtaining data cursors. Value: 1 to 512 characters. Note: The validity period of a cursor is 5 minutes.
max_fetch_bytes	No	Integer	Maximum number of bytes that can be obtained for each request. Note: If the value is less than the size of a single record in the partition, the record cannot be obtained.

Request Parameters

Table 5-73 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-74 Response body parameters

Parameter	Type	Description
records	Array of **Record** objects	List of downloaded records
next_partition_cursor	String	Next iterator. Note: The validity period of a cursor is 5 minutes.

Table 5-75 Record

Parameter	Type	Description
partition_key	String	Partition key set when data is being uploaded.Note:If **partition_key** is transferred when data is uploaded, **partition_key** is returned when data is downloaded. If **partition_id** instead of **partition_key** is transferred when data is uploaded, no **partition_key** is returned.
sequence_number	String	Sequence number of the data record
data	String	Downloaded data The downloaded data is the serialized binary data (Base64-encoded character string). For example, the data returned by the data download API is "ZGF0YQ==", which is "data" after Base64 decoding.
timestamp	Long	Timestamp when the record is written to DIS
timestamp_type	String	Timestamp type • **CreateTime**: creation time. Default: **CreateTime**

Example Requests

Downloading Data

```
GET https://{Endpoint}/v2/{project_id}/records
```

Example Responses

Status code: 200

Normal response


```
{
  "records" : [ {
    "partition_key" : "0",
    "sequence_number" : "485",
    "data" : "MTExMTExMTExMTExMTExMTExMTExMTExMTExMTExMTEx",
    "timestamp" : 1527577402541,
    "timestamp_type" : "CreateTime"
  } ],
  "next_partition_cursor" :
"eyJpdGVyR2VuVGltZSI6MTQ5MDk1MDE1Nzc0NywiU3RyZWFtTmFtZSI6IjY2MCIsIlNoYXJkSWQiOiIwIiwiU2hh
cmRJdGVyYXRvclR5cGUiOiJBVF9TRVFVRU5DRV9OVU1CRVIiLCJTdGFydGluZ1NlcXVlbmNlTnVtYmVyIjoiMjIiLCJ
UaW1lU3RhbXAiOjB9"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ConsumeRecordsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ConsumeRecordsRequest request = new ConsumeRecordsRequest();
        request.withPartitionCursor("<partition-cursor>");
        request.withMaxFetchBytes(<max_fetch_bytes>);
        try {
            ConsumeRecordsResponse response = client.consumeRecords(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
```



```
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ConsumeRecordsRequest()
        request.partition_cursor = "<partition-cursor>"
        request.max_fetch_bytes = <max_fetch_bytes>
        response = client.consume_records(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
```



```
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

    request := &model.ConsumeRecordsRequest{}
    request.PartitionCursor = "<partition-cursor>"
    maxFetchBytesRequest:= int32(<max_fetch_bytes>)
    request.MaxFetchBytes = &maxFetchBytesRequest
    response, err := client.ConsumeRecords(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.4.3 Obtaining Data Cursors

Function

This API is used to obtain data cursors.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/cursors

Table 5-76 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Table 5-77 Query Parameters

Parameter	Mandatory	Type	Description
stream-name	Yes	String	Name of the stream
partition-id	Yes	String	Partition identifier of the stream.Two partition ID formats are available:- shardId-0000000000- 0For example, if a stream has three partitions, the partition IDs are **0**, **1**, and **2**, or **shardId-0000000000**, **shardId-0000000001**, and **shardId-0000000002**.

Parameter	Mandatory	Type	Description
cursor-type	No	String	Cursor type.- **AT_SEQUENCE_NUMBER**: Data is read from the position denoted by a specific sequence number (that is defined by **starting-sequence-number**). This type is the default cursor type.- **AFTER_SEQUENCE_NUMBER**: Data is read right after the position denoted by a specific sequence number (that is defined by **starting-sequence-number**).- **TRIM_HORIZON**: Data is read from the earliest valid record stored in the partition. For example, a tenant used a DIS stream to upload three pieces of data A1, A2, and A3. Assuming that A1 expires but A2 and A3 are still valid after a period of time, if the tenant specifies **TRIM_HORIZON** for downloading data, only A2 and A3 can be downloaded.- **LATEST**: Data is read just after the most recent record in the partition. This setting ensures that you always read the most recent data in the partition.- **AT_TIMESTAMP**: Data is read from the position denoted by a specific timestamp. Enumeration values: • **AT_SEQUENCE_NUMBER** • **AFTER_SEQUENCE_NUMBER** • **TRIM_HORIZON** • **LATEST** • **AT_TIMESTAMP**

Parameter	Mandatory	Type	Description
starting-sequence-number	No	String	Sequence number. A sequence number is the unique identifier of each record. DIS automatically allocates a sequence number when the data producer calls the PutRecords operation to add data to the DIS stream. The sequence number of the same partition key usually changes with time. A longer interval between PutRecords requests results in a larger sequence number.The sequence number is closely related to cursor types **AT_SEQUENCE_NUMBER** and **AFTER_SEQUENCE_NUMBER**. The two parameters determine the location of the data to be accessed.Value range: 0 to 9223372036854775807
timestamp	No	Long	Timestamp when the data record starts to be read, which is closely related to cursor type **AT_TIMESTAMP**. The two parameters determine the position of the data to be read. Note: This timestamp is accurate to milliseconds.

Request Parameters

Table 5-78 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-79 Response body parameters

Parameter	Type	Description
partition_cursor	String	Data cursor Value: 1 to 512 characters. Note: The validity period of a cursor is 5 minutes. Minimum: **1** Maximum: **512**

Example Requests

Obtaining Data Cursors

```
GET https://{Endpoint}/v2/{project_id}/cursors
```

Example Responses

Status code: 200

Normal response

```
{
  "partition_cursor" :
"eyJnZXRJdGVyYXRvclBhcmFtIjp7InN0cmVhbS1uYW1lIjoianpjIiwicGFydGl0aW9uLWlkIjoiMCIsImN1cnNvci10eXBlIjoiQVRfU0VRVUVOQ0VfTlVNQkVSIiwic3RhcnRpbmctc2VxdWVuY2UtbnVtYmVyIjoiMTAifSwiZ2VuZXJhdGVUaW1lc3RhbXAiOjE1MDYxNTk1NjM0MDV9"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ShowCursorSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```



```
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowCursorRequest request = new ShowCursorRequest();
        request.withStreamName("<stream-name>");
        request.withPartitionId("<partition-id>");
        request.withCursorType(ShowCursorRequest.CursorTypeEnum.fromValue("<cursor-type>"));
        request.withStartingSequenceNumber("<starting-sequence-number>");
        request.withTimestamp(<timestamp>L);
        try {
            ShowCursorResponse response = client.showCursor(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowCursorRequest()
        request.stream_name = "<stream-name>"
        request.partition_id = "<partition-id>"
        request.cursor_type = "<cursor-type>"
        request.starting_sequence_number = "<starting-sequence-number>"
```



```
        request.timestamp = <timestamp>
        response = client.show_cursor(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowCursorRequest{}
    request.StreamName = "<stream-name>"
    request.PartitionId = "<partition-id>"
    cursorTypeRequest:= model.GetShowCursorRequestCursorTypeEnum().<CURSOR_TYPE>
    request.CursorType = &cursorTypeRequest
    startingSequenceNumberRequest:= "<starting-sequence-number>"
    request.StartingSequenceNumber = &startingSequenceNumberRequest
    timestampRequest:= int64(<timestamp>)
    request.Timestamp = &timestampRequest
    response, err := client.ShowCursor(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.5 Dump Task Management

5.5.1 Adding OBS Dump Tasks

Function

This API is used to add OBS dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/transfer-tasks

Table 5-80 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream Maximum: **60**

Request Parameters

Table 5-81 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-82 Request body parameters

Parameter	Mandatory	Type	Description
destination_type	Yes	String	Type of the dump task. • **OBS**: Data is dumped to OBS. • **MRS**: Data is dumped to MRS. • **DLI**: Data is dumped to DLI. • **CLOUDTABLE**: Data is dumped to CloudTable. • **DWS**: Data is dumped to DWS. Default: **NOWHERE** Enumeration values: • **OBS**
obs_destination_descriptor	No	**OBSDestinationDescriptorRequest** object	Parameter list of OBS to which data in the DIS stream will be dumped

Table 5-83 OBSDestinationDescriptorRequest

Parameter	Mandatory	Type	Description
task_name	Yes	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.

Parameter	Mandatory	Type	Description
agency_name	Yes	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Yes	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**

Parameter	Mandatory	Type	Description
consumer_strategy	No	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
file_prefix	No	String	Directory to store files that will be dumped to OBS. Different directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default. Maximum: **50**

Parameter	Mandatory	Type	Description
partition_format	No	String	Directory structure of the object file written into OBS. The directory structure is in the format of yyyy/MM/dd/HH/mm (time at which the dump task was created).- **N/A**: If this parameter is left blank, the time directory format will not be used.- **yyyy**: year.- **yyyy/MM**: year and month.- **yyyy/MM/dd**: year, month, and day.- **yyyy/MM/dd/HH**: year, month, day, and hour.- **yyyy/MM/dd/HH/mm**: year, month, day, hour, and minute.For example, if the dump task was created at 14:49 on November 10, 2017, then the directory structure is **2017 > 11 > 10 > 14 > 49**.Default value: emptyNote:After the data is dumped successfully, the storage directory structure is **obs_bucket_path/file_prefix/partition_format**. Enumeration values: • **yyyy** • **yyyy/MM** • **yyyy/MM/dd** • **yyyy/MM/dd/HH** • **yyyy/MM/dd/HH/mm**
obs_bucket_path	Yes	String	Name of the OBS bucket used to store the stream data

Parameter	Mandatory	Type	Description
destination_file_type	No	String	Dump file format. • **text**: This is the default value. • **parquet** • **carbon** Note: The **parquet** or **carbon** format can be selected only when **Source Data Type** is set to **JSON** and **Dump Destination** is set to **OBS**. Default: **text** Enumeration values: • **text** • **parquet** • **carbon**
processing_schema	No	**ProcessingSchema** object	Dump time directory generated based on the timestamp of the source data and the configured partition_format. Directory structure of the object file written into OBS. The directory structure is in the format of yyyy/MM/dd/HH/mm.
record_delimiter	No	String	Delimiter for the dump file, which is used to separate the user data that is written into the dump file. Options: • **Comma (,)**: default value • **Semicolon (;)** • **Vertical bar (|)** • **Newline (\n)** Default: **\n**

Table 5-84 ProcessingSchema

Parameter	Mandatory	Type	Description
timestamp_name	Yes	String	Attribute name of the source data timestamp

Parameter	Mandatory	Type	Description
timestamp_type	Yes	String	Type of the source data timestamp. • String • **Timestamp**: 13-bit timestamp of the long type
timestamp_format	No	String	OBS directory generated based on the timestamp format. This parameter is mandatory when the timestamp type of the source data is **String**. Enumeration values: • **yyyy/MM/dd HH:mm:ss** • **MM/dd/yyyy HH:mm:ss** • **dd/MM/yyyy HH:mm:ss** • **yyyy-MM-dd HH:mm:ss** • **MM-dd-yyyy HH:mm:ss** • **dd-MM-yyyy HH:mm:ss**

Response Parameters

None

Example Requests

- Adding OBS Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks

{
  "destination_type" : "OBS",
  "obs_destination_descriptor" : {
    "task_name" : "newtask",
    "consumer_strategy" : "LATEST",
    "agency_name" : "dis_admin_agency",
    "destination_file_type" : "text",
    "obs_bucket_path" : "obsbucket",
    "file_prefix" : "",
    "partition_format" : "yyyy/MM/dd/HH/mm",
    "record_delimiter" : "|",
    "deliver_time_interval" : 30
  }
}
```

- Adding OBS Dump Tasks (The dump file format is Parquet.)

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks

{
  "destination_type" : "OBS",
  "obs_destination_descriptor" : {
    "task_name" : "newtask",
    "consumer_strategy" : "LATEST",
    "agency_name" : "dis_admin_agency",
    "destination_file_type" : "parquet",
```



```
  "obs_bucket_path" : "obsbucket",
  "file_prefix" : "",
  "partition_format" : "yyyy/MM/dd/HH/mm",
  "record_delimiter" : "|",
  "deliver_time_interval" : 30
 }
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

- Adding OBS Dump Tasks

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class CreateObsTransferTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateObsTransferTaskRequest request = new CreateObsTransferTaskRequest();
        CreateTransferTaskReq body = new CreateTransferTaskReq();
        OBSDestinationDescriptorRequest obsDestinationDescriptorbody = new OBSDestinationDescriptorRequest();
        obsDestinationDescriptorbody.withTaskName("newtask")
            .withObsBucketPath("obsbucket")
            .withAgencyName("dis_admin_agency")
            .withDestinationFileType(OBSDestinationDescriptorRequest.DestinationFileTypeEnum.fromValue("text"))
            .withRecordDelimiter("|")
            .withDeliverTimeInterval(30)
            .withFilePrefix("")
            .withPartitionFormat(OBSDestinationDescriptorRequest.PartitionFormatEnum.fromValue("yyyy/MM/dd/HH/mm"))
            .withConsumerStrategy(OBSDestinationDescriptorRequest.ConsumerStrategyEnum.fromValue(
```



```
"LATEST"));
        body.withObsDestinationDescriptor(obsDestinationDescriptorbody);
        body.withDestinationType(CreateTransferTaskReq.DestinationTypeEnum.fromValue("OBS"));
        request.withBody(body);
        try {
            CreateObsTransferTaskResponse response = client.createObsTransferTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Adding OBS Dump Tasks (The dump file format is Parquet.)

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class CreateObsTransferTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateObsTransferTaskRequest request = new CreateObsTransferTaskRequest();
        CreateTransferTaskReq body = new CreateTransferTaskReq();
        OBSDestinationDescriptorRequest obsDestinationDescriptorbody = new OBSDestinationDescriptorRequest();
        obsDestinationDescriptorbody.withTaskName("newtask")
            .withObsBucketPath("obsbucket")
            .withAgencyName("dis_admin_agency")
            .withDestinationFileType(OBSDestinationDescriptorRequest.DestinationFileTypeEnum.fromValue("parquet"))
            .withRecordDelimiter("|")
            .withDeliverTimeInterval(30)
            .withFilePrefix("")
            .withPartitionFormat(OBSDestinationDescriptorRequest.PartitionFormatEnum.fromValue("yyyy/MM/dd/HH/mm"))
            .withConsumerStrategy(OBSDestinationDescriptorRequest.ConsumerStrategyEnum.fromValue("LATEST"));
```



```
        body.withObsDestinationDescriptor(obsDestinationDescriptorbody);
        body.withDestinationType(CreateTransferTaskReq.DestinationTypeEnum.fromValue("OBS"));
        request.withBody(body);
        try {
            CreateObsTransferTaskResponse response = client.createObsTransferTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Adding OBS Dump Tasks

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateObsTransferTaskRequest()
        obsDestinationDescriptorbody = OBSDestinationDescriptorRequest(
            task_name="newtask",
            obs_bucket_path="obsbucket",
            agency_name="dis_admin_agency",
            destination_file_type="text",
            record_delimiter="|",
            deliver_time_interval=30,
            file_prefix="",
            partition_format="yyyy/MM/dd/HH/mm",
            consumer_strategy="LATEST"
        )
        request.body = CreateTransferTaskReq(
            obs_destination_descriptor=obsDestinationDescriptorbody,
            destination_type="OBS"
        )
        response = client.create_obs_transfer_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
```



```
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Adding OBS Dump Tasks (The dump file format is Parquet.)

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateObsTransferTaskRequest()
        obsDestinationDescriptorbody = OBSDestinationDescriptorRequest(
            task_name="newtask",
            obs_bucket_path="obsbucket",
            agency_name="dis_admin_agency",
            destination_file_type="parquet",
            record_delimiter="|",
            deliver_time_interval=30,
            file_prefix="",
            partition_format="yyyy/MM/dd/HH/mm",
            consumer_strategy="LATEST"
        )
        request.body = CreateTransferTaskReq(
            obs_destination_descriptor=obsDestinationDescriptorbody,
            destination_type="OBS"
        )
        response = client.create_obs_transfer_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Adding OBS Dump Tasks

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
```



```
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateObsTransferTaskRequest{}
    destinationFileTypeObsDestinationDescriptor:= model.GetObsDestinationDescriptorRequestDestinationFileTypeEnum().TEXT
    recordDelimiterObsDestinationDescriptor:= "|"
    filePrefixObsDestinationDescriptor:= ""
    partitionFormatObsDestinationDescriptor:= model.GetObsDestinationDescriptorRequestPartitionFormatEnum().YYYY_MM_DD_HH_MM
    consumerStrategyObsDestinationDescriptor:= model.GetObsDestinationDescriptorRequestConsumerStrategyEnum().LATEST
    obsDestinationDescriptorbody := &model.ObsDestinationDescriptorRequest{
        TaskName: "newtask",
        ObsBucketPath: "obsbucket",
        AgencyName: "dis_admin_agency",
        DestinationFileType: &destinationFileTypeObsDestinationDescriptor,
        RecordDelimiter: &recordDelimiterObsDestinationDescriptor,
        DeliverTimeInterval: int32(30),
        FilePrefix: &filePrefixObsDestinationDescriptor,
        PartitionFormat: &partitionFormatObsDestinationDescriptor,
        ConsumerStrategy: &consumerStrategyObsDestinationDescriptor,
    }
    request.Body = &model.CreateTransferTaskReq{
        ObsDestinationDescriptor: obsDestinationDescriptorbody,
        DestinationType: model.GetCreateTransferTaskReqDestinationTypeEnum().OBS,
    }
    response, err := client.CreateObsTransferTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Adding OBS Dump Tasks (The dump file format is Parquet.)

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
```



```
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateObsTransferTaskRequest{}
    destinationFileTypeObsDestinationDescriptor:=
model.GetObsDestinationDescriptorRequestDestinationFileTypeEnum().PARQUET
    recordDelimiterObsDestinationDescriptor:= "|"
    filePrefixObsDestinationDescriptor:= ""
    partitionFormatObsDestinationDescriptor:=
model.GetObsDestinationDescriptorRequestPartitionFormatEnum().YYYY_MM_DD_HH_MM
    consumerStrategyObsDestinationDescriptor:=
model.GetObsDestinationDescriptorRequestConsumerStrategyEnum().LATEST
    obsDestinationDescriptorbody := &model.ObsDestinationDescriptorRequest{
        TaskName: "newtask",
        ObsBucketPath: "obsbucket",
        AgencyName: "dis_admin_agency",
        DestinationFileType: &destinationFileTypeObsDestinationDescriptor,
        RecordDelimiter: &recordDelimiterObsDestinationDescriptor,
        DeliverTimeInterval: int32(30),
        FilePrefix: &filePrefixObsDestinationDescriptor,
        PartitionFormat: &partitionFormatObsDestinationDescriptor,
        ConsumerStrategy: &consumerStrategyObsDestinationDescriptor,
    }
    request.Body = &model.CreateTransferTaskReq{
        ObsDestinationDescriptor: obsDestinationDescriptorbody,
        DestinationType: model.GetCreateTransferTaskReqDestinationTypeEnum().OBS,
    }
    response, err := client.CreateObsTransferTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Normal response

Error Codes

See **Error Codes**.

5.5.2 Querying Dump Tasks

Function

This API is used to query dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/streams/{stream_name}/transfer-tasks

Table 5-85 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream to be queried Maximum: **60**

Request Parameters

Table 5-86 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-87 Response body parameters

Parameter	Type	Description
total_number	Integer	Total number of dump tasks

Parameter	Type	Description
quota	Integer	Maximum number of dump tasks that can be created
tasks	Array of **TransferTask** objects	List of dump tasks

Table 5-88 TransferTask

Parameter	Type	Description
task_name	String	Name of the dump task
state	String	Dump task status. • **ERROR**: An error occurs. • **STARTING**: The task is starting. • **PAUSED**: The task has been stopped. • RUNNING: The task is being executed. • **DELETE**: The task has been deleted. • **ABNORMAL**: The task is abnormal. Enumeration values: • **ERROR** • **STARTING** • **PAUSED** • **RUNNING** • **DELETE** • **ABNORMAL**
destination_type	String	Type of the dump task. • **OBS**: Data is dumped to OBS. • **MRS**: Data is dumped to MRS. • **DLI**: Data is dumped to DLI. • **CLOUDTABLE**: Data is dumped to CloudTable. • **DWS**: Data is dumped to DWS. Enumeration values: • **OBS** • **MRS** • **DLI** • **CLOUDTABLE** • **DWS**

Parameter	Type	Description
create_time	Long	Time when the dump task is created
last_transfer_timestamp	Long	Latest dump time of the dump task

Example Requests

Querying Dump Tasks

```
GET https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks
```

Example Responses

Status code: 200

Normal response

```
{
  "tasks" : [ {
    "task_id" : "As805BudhcH1lDs6gbn",
    "destination_type" : "OBS",
    "task_name" : "newtask",
    "create_time" : 1606554932552,
    "state" : "RUNNING",
    "last_transfer_timestamp" : 1606984428612
  } ],
  "total_number" : 1
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ListTransferTasksSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
```



```
            .withAk(ak)
            .withSk(sk);

        DisClient client = DisClient.newBuilder()
            .withCredential(auth)
            .withRegion(DisRegion.valueOf("<YOUR REGION>"))
            .build();
        ListTransferTasksRequest request = new ListTransferTasksRequest();
        try {
            ListTransferTasksResponse response = client.listTransferTasks(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListTransferTasksRequest()
        response = client.list_transfer_tasks(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
```



```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListTransferTasksRequest{}
    response, err := client.ListTransferTasks(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.5.3 Deleting a Dump Task

Function

This API is used to delete a dump task.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/streams/{stream_name}/transfer-tasks/{task_name}

Table 5-89 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream
task_name	Yes	String	Name of the dump task to be deleted

Request Parameters

Table 5-90 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

None

Example Requests

Deleting a Dump Task

```
DELETE https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks/{task_name}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```



```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class DeleteTransferTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteTransferTaskRequest request = new DeleteTransferTaskRequest();
        try {
            DeleteTransferTaskResponse response = client.deleteTransferTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
```



```
        .build()

    try:
        request = DeleteTransferTaskRequest()
        response = client.delete_transfer_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteTransferTaskRequest{}
    response, err := client.DeleteTransferTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.5.4 Querying Dump Task Details

Function

This API is used to query details of a dump task.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/streams/{stream_name}/transfer-tasks/{task_name}

Table 5-91 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream
task_name	Yes	String	Name of the dump task to be queried

Request Parameters

Table 5-92 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-93 Response body parameters

Parameter	Type	Description
stream_name	String	Name of the stream to which the dump task belongs
task_name	String	Name of the dump task
state	String	Dump task status. • **ERROR**: An error occurs. • **STARTING**: The task is starting. • **PAUSED**: The task has been stopped. • **RUNNING**: The task is running. • **DELETE**: The task has been deleted. • **ABNORMAL**: The task is abnormal. Enumeration values: • **ERROR** • **STARTING** • **PAUSED** • **RUNNING** • **DELETE** • **ABNORMAL**
destination_type	String	Type of the dump task. • **OBS**: Data is dumped to OBS. • **MRS**: Data is dumped to MRS. • **DLI**: Data is dumped to DLI. • **CLOUDTABLE**: Data is dumped to CloudTable. • **DWS**: Data is dumped to DWS. Enumeration values: • **OBS** • **MRS** • **DLI** • **CLOUDTABLE** • **DWS**
create_time	Long	Time when the dump task is created
last_transfer_timestamp	Long	Latest dump time of the dump task
partitions	Array of **PartitionResult** objects	List of partition dump details

Parameter	Type	Description
obs_destination_description	**OBSDestinationDescriptorRequest** object	Parameter list of OBS to which data in the DIS stream will be dumped
dws_destination_descripton	**DWSDestinationDescriptorRequest** object	Parameter list of the DWS to which data in the DIS stream will be dumped
mrs_destination_description	**MRSDestinationDescriptorRequest** object	Parameter list of the MRS to which data in the DIS stream will be dumped
dli_destination_description	**DliDestinationDescriptorRequest** object	Parameter list of the DLI to which data in the DIS stream will be dumped
cloudtable_destination_descripton	**CloudtableDestinationDescriptorRequest** object	Parameter list of the CloudTable to which data in the DIS stream will be dumped

Table 5-94 PartitionResult

Parameter	Type	Description
status	String	Current status of the partition • **CREATING** • **ACTIVE** • **DELETED** • **EXPIRED** Enumeration values: • **CREATING** • **ACTIVE** • **DELETED** • **EXPIRED**
partition_id	String	Unique identifier of the partition
hash_range	String	Possible value range of the hash key used by the partition
sequence_number_range	String	Sequence number range of the partition

Parameter	Type	Description
parent_partitions	String	Parent partition

Table 5-95 OBSDestinationDescriptorRequest

Parameter	Type	Description
task_name	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.
agency_name	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**

Parameter	Type	Description
consumer_strategy	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
file_prefix	String	Directory to store files that will be dumped to OBS. Different directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default. Maximum: **50**
partition_format	String	Directory structure of the object file written into OBS. The directory structure is in the format of yyyy/MM/dd/HH/mm (time at which the dump task was created).- **N/A**: If this parameter is left blank, the time directory format will not be used.- **yyyy**: year.- **yyyy/MM**: year and month.- **yyyy/MM/dd**: year, month, and day.- **yyyy/MM/dd/HH**: year, month, day, and hour.- **yyyy/MM/dd/HH/mm**: year, month, day, hour, and minute.For example, if the dump task was created at 14:49 on November 10, 2017, then the directory structure is **2017 > 11 > 10 > 14 > 49**.Default value: emptyNote:After the data is dumped successfully, the storage directory structure is **obs_bucket_path/file_prefix/partition_format**. Enumeration values: • **yyyy** • **yyyy/MM** • **yyyy/MM/dd** • **yyyy/MM/dd/HH** • **yyyy/MM/dd/HH/mm**
obs_bucket_path	String	Name of the OBS bucket used to store the stream data

Parameter	Type	Description
destination_file_type	String	Dump file format. • **text**: This is the default value. • **parquet** • **carbon** Note: The **parquet** or **carbon** format can be selected only when **Source Data Type** is set to **JSON** and **Dump Destination** is set to **OBS**. Default: **text** Enumeration values: • **text** • **parquet** • **carbon**
processing_schema	**ProcessingSchema** object	Dump time directory generated based on the timestamp of the source data and the configured partition_format. Directory structure of the object file written into OBS. The directory structure is in the format of yyyy/MM/dd/HH/mm.
record_delimiter	String	Delimiter for the dump file, which is used to separate the user data that is written into the dump file. Options: • **Comma (,)**: default value • **Semicolon (;)** • **Vertical bar (|)** • **Newline (\n)** Default: **\n**

Table 5-96 ProcessingSchema

Parameter	Type	Description
timestamp_name	String	Attribute name of the source data timestamp
timestamp_type	String	Type of the source data timestamp. • String • **Timestamp**: 13-bit timestamp of the long type

Parameter	Type	Description
timestamp_format	String	OBS directory generated based on the timestamp format. This parameter is mandatory when the timestamp type of the source data is **String**. Enumeration values: • **yyyy/MM/dd HH:mm:ss** • **MM/dd/yyyy HH:mm:ss** • **dd/MM/yyyy HH:mm:ss** • **yyyy-MM-dd HH:mm:ss** • **MM-dd-yyyy HH:mm:ss** • **dd-MM-yyyy HH:mm:ss**

Table 5-97 DWSDestinationDescriptorRequest

Parameter	Type	Description
task_name	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.
agency_name	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**

Parameter	Type	Description
consumer_strategy	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
dws_cluster_name	String	Name of the DWS cluster that stores the data in the stream
dws_cluster_id	String	ID of the DWS cluster to which will be dumped
dws_database_name	String	Name of the DWS database that stores the data in the stream
dws_schema	String	Schema of the DWS database to which data will be dumped
dws_table_name	String	Name of the DWS table that stores the data in the stream
dws_delimiter	String	Delimiter used to separate the columns in the DWS tables into which user data is inserted. The delimiter can be a comma (,), semicolon (;), or vertical bar (|).
user_name	String	Username of the DWS database to which data will be dumped
user_password	String	Password of the DWS database to which data will be dumped
kms_user_key_name	String	Name of the key created in KMS and used to encrypt the password of the DWS database
kms_user_key_id	String	ID of the key created in KMS and used to encrypt the password of the DWS database
obs_bucket_path	String	Name of the OBS bucket used to temporarily store data in the DIS stream

Parameter	Type	Description
file_prefix	String	Self-defined directory created in the OBS bucket and used to temporarily store data in the DIS stream. Directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default.
retry_duration	String	Duration when you can constantly retry dumping data to DWS after the dump fails. If the duration expires but the dump still fails, the data will be backed up to the **OBS bucket name/file_prefix/dws_error** directory.Value range: 0–7200Unit: secondDefault value: **1800**
dws_table_columns	String	Column to be dumped to the DWS table. If the value is null or empty, all columns are dumped by default. For example, c1,c2 indicates that columns c1 and c2 in the schema are dumped to DWS. This parameter is left blank by default.
options	**Options** object	DWS fault tolerance option (used to specify various parameters of foreign table data).

Table 5-98 Options

Parameter	Type	Description
fill_missing_fields	String	Whether to set the field to **Null** or enable an error message to be displayed in the error table when the last field in a row of the data source file is missing during database import Options: • true/on • false/off Default value: **false** or **off** Enumeration values: • **true/on** • **false/off**

Parameter	Type	Description
ignore_extra_data	String	Whether to ignore the extra columns when the number of fields in the data source file is greater than the number of columns defined in the external table. This parameter is used only during data import. Options: • true/on • false/off Default value: **false** or **off** Enumeration values: • **true/on** • **false/off**
compatible_illegal_chars	String	Specifies whether to tolerate invalid characters during data import. Specifies whether to convert invalid characters based on the conversion rule and import them to the database, or to report an error and stop the import. Options: • true/on • false/off Default value: **false** or **off** Enumeration values: • **true/on** • **false/off**
reject_limit	String	Maximum number of data format errors allowed during the data import. If the number of data format errors does not reach the maximum, the data import is successful. Options: • Integer value • **unlimited** Default value: 0, indicating that an error message is returned immediately a data format error occurs.
error_table_name	String	Name of the error table that records data format errors. After the parallel import is complete, you can query the error information table to obtain the detailed error information.

Table 5-99 MRSDestinationDescriptorRequest

Parameter	Type	Description
task_name	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.
agency_name	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**
consumer_strategy	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**

Parameter	Type	Description
mrs_cluster_name	String	Name of the MRS cluster to which data in the DIS stream will be dumped. Note: Only MRS clusters with non-Kerberos authentication are supported.
mrs_cluster_id	String	ID of the MRS cluster to which data in the DIS stream will be dumped
mrs_hdfs_path	String	Hadoop Distributed File System (HDFS) path of the MRS cluster to which data in the DIS stream will be dumped
file_prefix	String	Self-defined directory created in the OBS bucket and used to temporarily store data in the DIS stream. Directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default.
hdfs_prefix_folder	String	Directory to store files that will be dumped to the chosen MRS cluster. Different directory levels are separated by slash (/). The directory name contains 0 to 50 characters. This parameter is left blank by default.
obs_bucket_path	String	Name of the OBS bucket used to temporarily store data in the DIS stream
retry_duration	String	Time duration for DIS to retry if data fails to be dumped. If the retry time exceeds the value of this parameter, the data that fails to be dumped is backed up to the **OBS bucket/file_prefix/mrs_error** directory. Value range: 0–7200 Unit: second Default value: **1800** If the value is set to **0**, no retry is allowed.

Table 5-100 DliDestinationDescriptorRequest

Parameter	Type	Description
task_name	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.
agency_name	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**
consumer_strategy	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
dli_database_name	String	Name of the DLI database to which data in the DIS stream will be dumped

Parameter	Type	Description
dli_table_name	String	Name of the DLI table to which data in the DIS stream will be dumped. Note: Only tables whose data location is DLI are supported, and you must have the permission to insert data into the tables.
obs_bucket_path	String	Name of the OBS bucket used to temporarily store data in the DIS stream
file_prefix	String	Self-defined directory created in the OBS bucket and used to temporarily store data in the DIS stream. Directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default.
retry_duration	String	Time duration for DIS to retry if data fails to be dumped to DLI. If the retry time exceeds the value of this parameter, the data that fails to be dumped is backed up to the **OBS bucket/file_prefix/dli_error** directory.Value range: 0–7200Unit: secondDefault value: **1800**If the value is set to **0**, no retry is allowed.

Table 5-101 CloudtableDestinationDescriptorRequest

Parameter	Type	Description
task_name	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.

Parameter	Type	Description
agency_name	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**
consumer_strategy	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
cloudtable_cluster_name	String	Name of the CloudTable cluster to which data will be dumped. If you choose to dump data to OpenTSDB, OpenTSDB must be enabled for the cluster.
cloudtable_cluster_id	String	ID of the CloudTable cluster to which data will be dumped. If you choose to dump data to OpenTSDB, OpenTSDB must be enabled for the cluster.

Parameter	Type	Description
cloudtable_table_name	String	HBase table name of the CloudTable cluster to which data will be dumped. The parameter is mandatory when data is dumped to the CloudTable HBase.
cloudtable_schema	**CloudtableSchema** object	Schema configuration of the CloudTable HBase data. You can set either this parameter or **opentsdb_schema**, but this parameter is mandatory when data will be dumped to HBase. After this parameter is set, the JSON data in the stream can be converted to another format and then be imported to the CloudTable HBase.
opentsdb_schema	Array of **OpenTSDBSchema** objects	Schema configuration of the CloudTable OpenTSDB data. You can set either this parameter or **cloudtable_schema**, but this parameter is mandatory when data will be dumped to OpenTSDB. After this parameter is set, the JSON data in the stream can be converted to another format and then be imported to the CloudTable OpenTSDB.
cloudtable_row_key_delimiter	String	Delimiter used to separate the user data that generates HBase row keys. Value range: ,. |;-_~Default value: .
obs_backup_bucket_path	String	Name of the OBS bucket used to back up data that failed to be dumped to CloudTable
backup_file_prefix	String	Self-defined directory created in the OBS bucket and used to back up data that failed to be dumped to CloudTable. Directory levels are separated by slashes (/) and cannot start with slashes.Value range: a string of letters, digits, and underscores (_)Maximum length: 50 charactersThis parameter is left blank by default.
retry_duration	String	Time duration for DIS to retry if data fails to be dumped to CloudTable. If the duration is exceeded but the dump still fails, the data will be backed up to *OBS bucket name*/*backup_file_prefix*/**cloudtable_error** or *OBS bucket name*/*backup_file_prefix*/**opentsdb_error**.Value range: 0–7200Unit: secondDefault value: **1800**

Table 5-102 CloudtableSchema

Parameter	Type	Description
row_key	Array of **RowKey** objects	HBase rowkey schema used by the CloudTable cluster to convert JSON data into HBase rowkeys. Value range:1–64
columns	Array of **Column** objects	HBase column schema used by the CloudTable cluster to convert JSON data into HBase columns. Value range: 1–4096

Table 5-103 RowKey

Parameter	Type	Description
value	String	JSON attribute name, which is used to generate HBase rowkeys for JSON data in the DIS stream.
type	String	JSON attribute type of JSON data in the DIS stream Enumeration values: • **Bigint** • **Double** • **Boolean** • **Timestamp** • **String** • **Decimal**

Table 5-104 Column

Parameter	Type	Description
column_family_name	String	Name of the HBase column family to which data will be dumped
column_name	String	Name of the HBase column to which data will be dumped. Value range: 1–32. The value can contain only letters, digits, and underscores (_).
value	String	JSON attribute name, which is used to generate HBase column values for JSON data in the DIS stream.

Parameter	Type	Description
type	String	JSON attribute type of JSON data in the DIS stream Enumeration values: • **Bigint** • **Double** • **Boolean** • **Timestamp** • **String** • **Decimal**

Table 5-105 OpenTSDBSchema

Parameter	Type	Description
metric	Array of **OpenTSDBMetric** objects	Schema configuration of the OpenTSDB data metric in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the metric of the OpenTSDB data.
timestamp	**OpenTSDBTimestamp** object	Schema configuration of the OpenTSDB data timestamp in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the timestamp of the OpenTSDB data.
value	**OpenTSDBValue** object	Schema configuration of the OpenTSDB data value in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the value of the OpenTSDB data.
tags	Array of **OpenTSDBTags** objects	Schema configuration of the OpenTSDB data tags in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the tags of the OpenTSDB data.

Table 5-106 OpenTSDBMetric

Parameter	Type	Description
type	String	• **Constant**: The value of **metric** is the value of **Value**. • **String**: The value of **metric** is the value of the JSON attribute of the user data in the stream. Enumeration values: • **Constant** • **String**
value	String	Constant or JSON attribute name of the user data in the stream The value contains 1 to 32 characters. Only letters, digits, and periods (.) are allowed.

Table 5-107 OpenTSDBTimestamp

Parameter	Type	Description
type	String	• **Timestamp**: The value type of the JSON attribute of the user data in the stream is **Timestamp**, and the timestamp of OpenTSDB can be generated without converting the data format.- **String**: The value type of the JSON attribute of the user data in the stream is **Date**, and the timestamp of OpenTSDB can be generated only after the data format is converted.
value	String	JSON attribute name of the user data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).

Parameter	Type	Description
format	String	This parameter is mandatory when **type** is set to **String**. When the value type of the JSON attribute of the user data in the stream is **Date**, **format** is required to convert the data format to generate the timestamp of OpenTSDB.Options:- yyyy/MM/dd HH:mm:ss- MM/dd/yyyy HH:mm:ss- dd/MM/yyyy HH:mm:ss- yyyy-MM-dd HH:mm:ss- MM-dd-yyyy HH:mm:ss- dd-MM-yyyy HH:mm:ss Enumeration values: • **yyyy/MM/dd HH:mm:ss** • **MM/dd/yyyy HH:mm:ss** • **dd/MM/yyyy HH:mm:ss** • **yyyy-MM-dd HH:mm:ss** • **MM-dd-yyyy HH:mm:ss** • **dd-MM-yyyy HH:mm:ss**

Table 5-108 OpenTSDBValue

Parameter	Type	Description
type	String	Type name of the JSON attribute of the user data in the stream Options: • Bigint • Double • Boolean • Timestamp • String • Decimal
value	String	Constant or JSON attribute name of the user data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).

Table 5-109 OpenTSDBTags

Parameter	Type	Description
name	String	Tag name of the OpenTSDB data that stores the data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).
type	String	Type name of the JSON attribute of the user data in the stream Options: • Bigint • Double • Boolean • Timestamp • String • Decimal
value	String	Constant or JSON attribute name of the user data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).

Example Requests

Querying Dump Task Details

```
GET https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks/{task_name}
```

Example Responses

Status code: 200

Normal response

```
{
  "stream_id" : "RdMFID6edQdf8eDzc9e",
  "stream_name" : "newstream",
  "task_name" : "newtask",
  "task_id" : "As805BudhcH1lDs6gbn",
  "destination_type" : "OBS",
  "state" : "RUNNING",
  "create_time" : 1606554932552,
  "last_transfer_timestamp" : 1606984428612,
  "obs_destination_description" : {
    "agency_name" : "dis_admin_agency",
    "file_prefix\"" : "",
    "partition_format" : "yyyy/MM/dd",
    "obs_bucket_path" : "obsbucket",
    "deliver_time_interval" : 60,
    "consumer_strategy" : "LATEST",
    "retry_duration" : 0,
    "destination_file_type" : "text",
    "record_delimiter" : ""
  },
```



```
 "partitions" : [ {
  "partitionId" : "shardId-0000000000",
  "discard" : 0,
  "state" : "RUNNING",
  "last_transfer_timestamp" : 1606984428612,
  "last_transfer_offset" : 289897
 } ]
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ShowTransferTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowTransferTaskRequest request = new ShowTransferTaskRequest();
        try {
            ShowTransferTaskResponse response = client.showTransferTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8
```



```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowTransferTaskRequest()
        response = client.show_transfer_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowTransferTaskRequest{}
    response, err := client.ShowTransferTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
```



```
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.5.5 Starting Dump Tasks

Function

This API is used to start dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/transfer-tasks/action

Table 5-110 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream to be queried Maximum: **60**

Request Parameters

Table 5-111 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Dump task operation. Currently, the following operation is supported: • **start**: starting dump tasks Enumeration values: • **start**
tasks	Yes	Array of **BatchTransferTask** objects	List of dump tasks to be operated

Table 5-112 BatchTransferTask

Parameter	Mandatory	Type	Description
id	Yes	String	Dump task ID

Response Parameters

None

Example Requests

Starting Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks/action

{
  "action" : "start",
  "tasks" : [ {
    "id" : "9dSu1wfCytSk1aOLxvF"
  } ]
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Starting Dump Tasks


```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class BatchStartTransferTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchStartTransferTaskRequest request = new BatchStartTransferTaskRequest();
        BatchStartTransferTaskReq body = new BatchStartTransferTaskReq();
        List<BatchTransferTask> listbodyTasks = new ArrayList<>();
        listbodyTasks.add(
            new BatchTransferTask()
                .withId("9dSu1wfCytSk1aOLxvF")
        );
        body.withTasks(listbodyTasks);
        body.withAction(BatchStartTransferTaskReq.ActionEnum.fromValue("start"));
        request.withBody(body);
        try {
            BatchStartTransferTaskResponse response = client.batchStartTransferTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Starting Dump Tasks

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
```



```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchStartTransferTaskRequest()
        listTasksbody = [
            BatchTransferTask(
                id="9dSu1wfCytSk1aOLxvF"
            )
        ]
        request.body = BatchStartTransferTaskReq(
            tasks=listTasksbody,
            action="start"
        )
        response = client.batch_start_transfer_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Starting Dump Tasks

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```



```
        WithCredential(auth).
        Build())

    request := &model.BatchStartTransferTaskRequest{}
    var listTasksbody = []model.BatchTransferTask{
        {
            Id: "9dSu1wfCytSk1aOLxvF",
        },
    }
    request.Body = &model.BatchStartTransferTaskReq{
        Tasks: listTasksbody,
        Action: model.GetBatchStartTransferTaskReqActionEnum().START,
    }
    response, err := client.BatchStartTransferTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.5.6 Pausing Dump Tasks

Function

This API is used to pause dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/transfer-tasks/action

Table 5-113 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream to be queried Maximum: **60**

Request Parameters

Table 5-114 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Dump task operation. Currently, the following operation is supported: • **stop**: stopping dump tasks Enumeration values: • **stop**
tasks	Yes	Array of **BatchTransferTask** objects	List of dump tasks to be paused

Table 5-115 BatchTransferTask

Parameter	Mandatory	Type	Description
id	Yes	String	Dump task ID

Response Parameters

None

Example Requests

Pausing Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks/action

{
  "action" : "stop",
  "tasks" : [ {
    "id" : "9dSu1wfCytSk1aOLxvF"
  } ]
}
```


Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Pausing Dump Tasks

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class BatchStopTransferTaskSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchStopTransferTaskRequest request = new BatchStopTransferTaskRequest();
        BatchStopTransferTaskReq body = new BatchStopTransferTaskReq();
        List<BatchTransferTask> listbodyTasks = new ArrayList<>();
        listbodyTasks.add(
            new BatchTransferTask()
                .withId("9dSu1wfCytSk1aOLxvF")
        );
        body.withTasks(listbodyTasks);
        body.withAction(BatchStopTransferTaskReq.ActionEnum.fromValue("stop"));
        request.withBody(body);
        try {
            BatchStopTransferTaskResponse response = client.batchStopTransferTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
```



```
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Pausing Dump Tasks

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchStopTransferTaskRequest()
        listTasksbody = [
            BatchTransferTask(
                id="9dSu1wfCytSk1aOLxvF"
            )
        ]
        request.body = BatchStopTransferTaskReq(
            tasks=listTasksbody,
            action="stop"
        )
        response = client.batch_stop_transfer_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Pausing Dump Tasks

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```



```
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchStopTransferTaskRequest{}
    var listTasksbody = []model.BatchTransferTask{
        {
            Id: "9dSu1wfCytSk1aOLxvF",
        },
    }
    request.Body = &model.BatchStopTransferTaskReq{
        Tasks: listTasksbody,
        Action: model.GetBatchStopTransferTaskReqActionEnum().STOP,
    }
    response, err := client.BatchStopTransferTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.5.7 Adding DWS Dump Tasks

Function

This API is used to add DWS dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/transfer-tasks

Table 5-116 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream Maximum: **60**

Request Parameters

Table 5-117 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-118 Request body parameters

Parameter	Mandatory	Type	Description
destination_type	Yes	String	Type of the dump task. • **OBS**: Data is dumped to OBS. • **MRS**: Data is dumped to MRS. • **DLI**: Data is dumped to DLI. • **CLOUDTABLE**: Data is dumped to CloudTable. • **DWS**: Data is dumped to DWS. Default: **NOWHERE** Enumeration values: • **DWS**
dws_destination_descriptor	No	**DWSDestinationDescriptorRequest** object	Parameter list of the DWS to which data in the DIS stream will be dumped

Table 5-119 DWSDestinationDescriptorRequest

Parameter	Mandatory	Type	Description
task_name	Yes	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.

Parameter	Mandatory	Type	Description
agency_name	Yes	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Yes	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**

Parameter	Mandatory	Type	Description
consumer_strategy	No	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
dws_cluster_name	Yes	String	Name of the DWS cluster that stores the data in the stream
dws_cluster_id	Yes	String	ID of the DWS cluster to which will be dumped
dws_database_name	Yes	String	Name of the DWS database that stores the data in the stream
dws_schema	Yes	String	Schema of the DWS database to which data will be dumped
dws_table_name	Yes	String	Name of the DWS table that stores the data in the stream
dws_delimiter	Yes	String	Delimiter used to separate the columns in the DWS tables into which user data is inserted. The delimiter can be a comma (,), semicolon (;), or vertical bar (|).
user_name	Yes	String	Username of the DWS database to which data will be dumped
user_password	Yes	String	Password of the DWS database to which data will be dumped
kms_user_key_name	Yes	String	Name of the key created in KMS and used to encrypt the password of the DWS database

Parameter	Mandatory	Type	Description
kms_user_key_id	Yes	String	ID of the key created in KMS and used to encrypt the password of the DWS database
obs_bucket_path	Yes	String	Name of the OBS bucket used to temporarily store data in the DIS stream
file_prefix	No	String	Self-defined directory created in the OBS bucket and used to temporarily store data in the DIS stream. Directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default.
retry_duration	No	String	Duration when you can constantly retry dumping data to DWS after the dump fails. If the duration expires but the dump still fails, the data will be backed up to the **OBS bucket name/file_prefix/dws_error** directory.Value range: 0–7200Unit: secondDefault value: **1800**
dws_table_columns	No	String	Column to be dumped to the DWS table. If the value is null or empty, all columns are dumped by default. For example, c1,c2 indicates that columns c1 and c2 in the schema are dumped to DWS. This parameter is left blank by default.
options	No	**Options** object	DWS fault tolerance option (used to specify various parameters of foreign table data).

Table 5-120 Options

Parameter	Mandatory	Type	Description
fill_missing_fields	No	String	Whether to set the field to **Null** or enable an error message to be displayed in the error table when the last field in a row of the data source file is missing during database import Options: • true/on • false/off Default value: **false** or **off** Enumeration values: • **true/on** • **false/off**
ignore_extra_data	No	String	Whether to ignore the extra columns when the number of fields in the data source file is greater than the number of columns defined in the external table. This parameter is used only during data import. Options: • true/on • false/off Default value: **false** or **off** Enumeration values: • **true/on** • **false/off**

Parameter	Mandatory	Type	Description
compatible_illegal_chars	No	String	Specifies whether to tolerate invalid characters during data import. Specifies whether to convert invalid characters based on the conversion rule and import them to the database, or to report an error and stop the import. Options: • true/on • false/off Default value: **false** or **off** Enumeration values: • **true/on** • **false/off**
reject_limit	No	String	Maximum number of data format errors allowed during the data import. If the number of data format errors does not reach the maximum, the data import is successful. Options: • Integer value • **unlimited** Default value: 0, indicating that an error message is returned immediately a data format error occurs.
error_table_name	No	String	Name of the error table that records data format errors. After the parallel import is complete, you can query the error information table to obtain the detailed error information.

Response Parameters

None

Example Requests

Adding DWS Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks
```



```
{
  "destination_type" : "DWS",
  "dws_destination_descriptor" : {
    "task_name" : "dwstask",
    "consumer_strategy" : "LATEST",
    "agency_name" : "dis_admin_agency",
    "dws_cluster_name" : "dwscluster",
    "dws_cluster_id" : "f82dc227-3691-47eb-bca7-e7851f509b2a",
    "dws_database_name" : "postgres",
    "dws_schema" : "dbadmin",
    "dws_table_name" : "dwstablename",
    "dws_delimiter" : "",
    "user_name" : "dbadmin",
    "user_password" : "userpassword",
    "kms_user_key_name" : "kmskey",
    "kms_user_key_id" : "1e759f06-9188-4d21-afab-a75e57c04d2b",
    "obs_bucket_path" : "obsbucket",
    "file_prefix" : "",
    "deliver_time_interval" : 60,
    "retry_duration" : 1800,
    "options" : {
      "fill_missing_fields" : "false",
      "ignore_extra_data" : "false",
      "compatible_illegal_chars" : "false"
    }
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
201	Normal response

Error Codes

See **Error Codes**.

5.5.8 Adding MRS Dump Tasks

Function

This API is used to add MRS dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/transfer-tasks

Table 5-121 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream Maximum: **60**

Request Parameters

Table 5-122 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-123 Request body parameters

Parameter	Mandatory	Type	Description
destination_type	Yes	String	Type of the dump task. • **OBS**: Data is dumped to OBS. • **MRS**: Data is dumped to MRS. • **DLI**: Data is dumped to DLI. • **CLOUDTABLE**: Data is dumped to CloudTable. • **DWS**: Data is dumped to DWS. Default: **NOWHERE** Enumeration values: • **MRS**
mrs_destination_descriptor	No	**MRSDestinationDescriptorRequest** object	Parameter list of the MRS to which data in the DIS stream will be dumped

Table 5-124 MRSDestinationDescriptorRequest

Parameter	Mandatory	Type	Description
task_name	Yes	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.
agency_name	Yes	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Yes	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**

Parameter	Mandatory	Type	Description
consumer_strategy	No	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
mrs_cluster_name	Yes	String	Name of the MRS cluster to which data in the DIS stream will be dumped. Note: Only MRS clusters with non-Kerberos authentication are supported.
mrs_cluster_id	Yes	String	ID of the MRS cluster to which data in the DIS stream will be dumped
mrs_hdfs_path	Yes	String	Hadoop Distributed File System (HDFS) path of the MRS cluster to which data in the DIS stream will be dumped
file_prefix	No	String	Self-defined directory created in the OBS bucket and used to temporarily store data in the DIS stream. Directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default.

Parameter	Mandatory	Type	Description
hdfs_prefix_folder	No	String	Directory to store files that will be dumped to the chosen MRS cluster. Different directory levels are separated by slash (/). The directory name contains 0 to 50 characters. This parameter is left blank by default.
obs_bucket_path	Yes	String	Name of the OBS bucket used to temporarily store data in the DIS stream
retry_duration	No	String	Time duration for DIS to retry if data fails to be dumped. If the retry time exceeds the value of this parameter, the data that fails to be dumped is backed up to the **OBS bucket/file_prefix/mrs_error** directory. Value range: 0–7200 Unit: second Default value: **1800** If the value is set to **0**, no retry is allowed.

Response Parameters

None

Example Requests

Adding MRS Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks

{
  "destination_type" : "MRS",
  "mrs_destination_descriptor" : {
    "task_name" : "mrstask",
    "consumer_strategy" : "LATEST",
    "agency_name" : "dis_admin_agency",
    "destination_file_type" : "text",
    "mrs_cluster_id" : "f8123fa6-99f1-4ed9-83f4-c827c7277d41",
    "mrs_cluster_name" : "mrscluster",
    "mrs_hdfs_path" : "/user",
    "obs_bucket_path" : "obsbucket",
    "file_prefix" : "",
    "hdfs_prefix_folder" : "",
    "deliver_time_interval" : 30,
```



```
    "retry_duration" : 1800
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
201	Normal response

Error Codes

See **Error Codes**.

5.5.9 Adding DLI Dump Tasks

Function

This API is used to add DLI dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/transfer-tasks

Table 5-125 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream Maximum: **60**

Request Parameters

Table 5-126 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-127 Request body parameters

Parameter	Mandatory	Type	Description
destination_type	Yes	String	Type of the dump task. • **OBS**: Data is dumped to OBS. • **MRS**: Data is dumped to MRS. • **DLI**: Data is dumped to DLI. • **CLOUDTABLE**: Data is dumped to CloudTable. • **DWS**: Data is dumped to DWS. Default: **NOWHERE** Enumeration values: • **DLI**
dli_destination_descriptor	No	**DliDestinationDescriptorRequest** object	Parameter list of the DLI to which data in the DIS stream will be dumped

Table 5-128 DliDestinationDescriptorRequest

Parameter	Mandatory	Type	Description
task_name	Yes	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.

Parameter	Mandatory	Type	Description
agency_name	Yes	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Yes	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**

Parameter	Mandatory	Type	Description
consumer_strategy	No	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
dli_database_name	Yes	String	Name of the DLI database to which data in the DIS stream will be dumped
dli_table_name	Yes	String	Name of the DLI table to which data in the DIS stream will be dumped. Note: Only tables whose data location is DLI are supported, and you must have the permission to insert data into the tables.
obs_bucket_path	Yes	String	Name of the OBS bucket used to temporarily store data in the DIS stream
file_prefix	No	String	Self-defined directory created in the OBS bucket and used to temporarily store data in the DIS stream. Directory levels are separated by slashes (/) and cannot start with slashes. The value can contain a maximum of 50 characters, including letters, digits, underscores (_), and slashes (/). This parameter is left blank by default.

Parameter	Mandatory	Type	Description
retry_duration	No	String	Time duration for DIS to retry if data fails to be dumped to DLI. If the retry time exceeds the value of this parameter, the data that fails to be dumped is backed up to the **OBS bucket/file_prefix/dli_error** directory.Value range: 0–7200Unit: secondDefault value: **1800**If the value is set to **0**, no retry is allowed.

Response Parameters

None

Example Requests

Adding DLI Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks

{
  "destination_type" : "DLI",
  "dli_destination_descriptor" : {
    "task_name" : "dlitask",
    "consumer_strategy" : "LATEST",
    "agency_name" : "dis_admin_agency",
    "dli_database_name" : "dlidatabasename",
    "dli_table_name" : "dlitablename",
    "obs_bucket_path" : "obsbucket",
    "file_prefix" : "",
    "deliver_time_interval" : 300,
    "retry_duration " : 300
  }
}
```

Example Responses

None

Status Codes

Status Code	Description
201	Normal response

Error Codes

See **Error Codes**.

5.5.10 Adding CloudTable Dump Tasks

Function

This API is used to add CloudTable dump tasks.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{stream_name}/transfer-tasks

Table 5-129 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Name of the stream Maximum: **60**

Request Parameters

Table 5-130 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-131 Request body parameters

Parameter	Mandatory	Type	Description
destination_type	Yes	String	Type of the dump task. • **OBS**: Data is dumped to OBS. • **MRS**: Data is dumped to MRS. • **DLI**: Data is dumped to DLI. • **CLOUDTABLE**: Data is dumped to CloudTable. • **DWS**: Data is dumped to DWS. Default: **NOWHERE** Enumeration values: • **CLOUDTABLE**
cloudtable_destination_descriptor	No	**CloudtableDestinationDescriptorRequest** object	Parameter list of the CloudTable to which data in the DIS stream will be dumped

Table 5-132 CloudtableDestinationDescriptorRequest

Parameter	Mandatory	Type	Description
task_name	Yes	String	Name of the dump task. The task name consists of letters, digits, hyphens (-), and underscores (_). It contains 1 to 64 characters.

Parameter	Mandatory	Type	Description
agency_name	Yes	String	Name of the agency created on IAM. DIS uses an agency to access your specified resources. Agency parameter settings:- **Agency Type**: **Cloud service**- **Cloud Service**: **DIS**- **Validity Period**: **Unlimited**- Set **Policy** to **Tenant Administrator** on the OBS project in the **Global service** region.If agencies are available, you can use an IAM API to obtain the available agencies.This parameter cannot be left unspecified and the parameter value cannot exceed 64 characters.If there are dump tasks on the console, the system displays a message indicating that an agency will be automatically created. The name of the automatically created agency is **dis_admin_agency**. Maximum: **64**
deliver_time_interval	Yes	Integer	User-defined interval at which data is imported from the current DIS stream into OBS. If no data is pushed to the DIS stream during the current interval, no dump file package will be generated. Unit: second Minimum: **30** Maximum: **900** Default: **300**

Parameter	Mandatory	Type	Description
consumer_strategy	No	String	Offset. • **LATEST**: maximum offset, indicating that the latest data will be extracted. • **TRIM_HORIZON**: minimum offset, indicating that the earliest data will be extracted. Default: **LATEST** Enumeration values: • **LATEST** • **TRIM_HORIZON**
cloudtable_cluster_name	Yes	String	Name of the CloudTable cluster to which data will be dumped. If you choose to dump data to OpenTSDB, OpenTSDB must be enabled for the cluster.
cloudtable_cluster_id	Yes	String	ID of the CloudTable cluster to which data will be dumped. If you choose to dump data to OpenTSDB, OpenTSDB must be enabled for the cluster.
cloudtable_table_name	No	String	HBase table name of the CloudTable cluster to which data will be dumped. The parameter is mandatory when data is dumped to the CloudTable HBase.
cloudtable_schema	No	**CloudtableSchema** object	Schema configuration of the CloudTable HBase data. You can set either this parameter or **opentsdb_schema**, but this parameter is mandatory when data will be dumped to HBase. After this parameter is set, the JSON data in the stream can be converted to another format and then be imported to the CloudTable HBase.

Parameter	Mandatory	Type	Description
opentsdb_schema	No	Array of **OpenTSDBSchema** objects	Schema configuration of the CloudTable OpenTSDB data. You can set either this parameter or **cloudtable_schema**, but this parameter is mandatory when data will be dumped to OpenTSDB. After this parameter is set, the JSON data in the stream can be converted to another format and then be imported to the CloudTable OpenTSDB.
cloudtable_row_key_delimiter	No	String	Delimiter used to separate the user data that generates HBase row keys. Value range: ,. |;-_~Default value: .
obs_backup_bucket_path	No	String	Name of the OBS bucket used to back up data that failed to be dumped to CloudTable
backup_file_prefix	No	String	Self-defined directory created in the OBS bucket and used to back up data that failed to be dumped to CloudTable. Directory levels are separated by slashes (/) and cannot start with slashes.Value range: a string of letters, digits, and underscores (_)Maximum length: 50 charactersThis parameter is left blank by default.
retry_duration	No	String	Time duration for DIS to retry if data fails to be dumped to CloudTable. If the duration is exceeded but the dump still fails, the data will be backed up to *OBS bucket name*/*backup_file_prefix*/**cloudtable_error** or *OBS bucket name*/*backup_file_prefix*/**opentsdb_error**.Value range: 0–7200Unit: secondDefault value: **1800**

Table 5-133 CloudtableSchema

Parameter	Mandatory	Type	Description
row_key	Yes	Array of **RowKey** objects	HBase rowkey schema used by the CloudTable cluster to convert JSON data into HBase rowkeys. Value range:1–64
columns	Yes	Array of **Column** objects	HBase column schema used by the CloudTable cluster to convert JSON data into HBase columns. Value range: 1–4096

Table 5-134 RowKey

Parameter	Mandatory	Type	Description
value	Yes	String	JSON attribute name, which is used to generate HBase rowkeys for JSON data in the DIS stream.
type	Yes	String	JSON attribute type of JSON data in the DIS stream Enumeration values: • **Bigint** • **Double** • **Boolean** • **Timestamp** • **String** • **Decimal**

Table 5-135 Column

Parameter	Mandatory	Type	Description
column_family_name	Yes	String	Name of the HBase column family to which data will be dumped
column_name	Yes	String	Name of the HBase column to which data will be dumped. Value range: 1–32. The value can contain only letters, digits, and underscores (_).

Parameter	Mandatory	Type	Description
value	Yes	String	JSON attribute name, which is used to generate HBase column values for JSON data in the DIS stream.
type	Yes	String	JSON attribute type of JSON data in the DIS stream Enumeration values: • **Bigint** • **Double** • **Boolean** • **Timestamp** • **String** • **Decimal**

Table 5-136 OpenTSDBSchema

Parameter	Mandatory	Type	Description
metric	Yes	Array of **OpenTSDBMetric** objects	Schema configuration of the OpenTSDB data metric in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the metric of the OpenTSDB data.
timestamp	Yes	**OpenTSDBTimestamp** object	Schema configuration of the OpenTSDB data timestamp in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the timestamp of the OpenTSDB data.
value	Yes	**OpenTSDBValue** object	Schema configuration of the OpenTSDB data value in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the value of the OpenTSDB data.

Parameter	Mandatory	Type	Description
tags	Yes	Array of **OpenTSDBTags** objects	Schema configuration of the OpenTSDB data tags in the CloudTable cluster. After this parameter is set, the JSON data in the stream can be converted to the tags of the OpenTSDB data.

Table 5-137 OpenTSDBMetric

Parameter	Mandatory	Type	Description
type	Yes	String	• **Constant**: The value of **metric** is the value of **Value**. • **String**: The value of **metric** is the value of the JSON attribute of the user data in the stream. Enumeration values: • **Constant** • **String**
value	Yes	String	Constant or JSON attribute name of the user data in the stream The value contains 1 to 32 characters. Only letters, digits, and periods (.) are allowed.

Table 5-138 OpenTSDBTimestamp

Parameter	Mandatory	Type	Description
type	Yes	String	• **Timestamp**: The value type of the JSON attribute of the user data in the stream is **Timestamp**, and the timestamp of OpenTSDB can be generated without converting the data format.- **String**: The value type of the JSON attribute of the user data in the stream is **Date**, and the timestamp of OpenTSDB can be generated only after the data format is converted.
value	Yes	String	JSON attribute name of the user data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).
format	Yes	String	This parameter is mandatory when **type** is set to **String**. When the value type of the JSON attribute of the user data in the stream is **Date**, **format** is required to convert the data format to generate the timestamp of OpenTSDB.Options:- yyyy/MM/dd HH:mm:ss- MM/dd/yyyy HH:mm:ss- dd/MM/yyyy HH:mm:ss- yyyy-MM-dd HH:mm:ss- MM-dd-yyyy HH:mm:ss- dd-MM-yyyy HH:mm:ss Enumeration values: • **yyyy/MM/dd HH:mm:ss** • **MM/dd/yyyy HH:mm:ss** • **dd/MM/yyyy HH:mm:ss** • **yyyy-MM-dd HH:mm:ss** • **MM-dd-yyyy HH:mm:ss** • **dd-MM-yyyy HH:mm:ss**

Table 5-139 OpenTSDBValue

Parameter	Mandatory	Type	Description
type	Yes	String	Type name of the JSON attribute of the user data in the stream Options: • Bigint • Double • Boolean • Timestamp • String • Decimal
value	Yes	String	Constant or JSON attribute name of the user data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).

Table 5-140 OpenTSDBTags

Parameter	Mandatory	Type	Description
name	Yes	String	Tag name of the OpenTSDB data that stores the data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).
type	Yes	String	Type name of the JSON attribute of the user data in the stream Options: • Bigint • Double • Boolean • Timestamp • String • Decimal

Parameter	Mandatory	Type	Description
value	Yes	String	Constant or JSON attribute name of the user data in the stream Value range: 1–32. The value can contain only letters, digits, and underscores (_).

Response Parameters

None

Example Requests

- Adding CloudTable HBase Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks

{
  "destination_type" : "CLOUDTABLE",
  "cloudtable_destination_descriptor" : {
    "task_name" : "hbasetask",
    "consumer_strategy" : "TRIM_HORIZON",
    "agency_name" : "dis_admin_agency",
    "cloudtable_cluster_name" : "cloudtablecluster",
    "cloudtable_cluster_id" : "b8c095e2-db5f-4732-8a1d-eacd662e35dc",
    "cloudtable_table_name" : "cloudtabletable",
    "cloudtable_row_key_delimiter" : "|",
    "retry_duration" : 1800,
    "obs_backup_bucket_path" : "obsbackupbucket",
    "backup_file_prefix" : "",
    "cloudtable_schema" : {
      "row_key" : [ {
        "value" : "datavalue",
        "type" : "String"
      } ],
      "columns" : [ {
        "column_family_name" : "cfname1",
        "column_name" : "ID",
        "value" : "datavalue1",
        "type" : "String"
      }, {
        "column_family_name" : "cfname2",
        "column_name" : "VALUE",
        "value" : "datavalue2",
        "type" : "String"
      } ]
    }
  }
}
```

- Adding CloudTable OpenTSDB Dump Tasks

```
POST https://{Endpoint}/v2/{project_id}/streams/{stream_name}/transfer-tasks

{
  "destination_type" : "CLOUDTABLE",
  "cloudtable_destination_descriptor" : {
    "task_name" : "opentsdbtask",
    "consumer_strategy" : "LATEST",
    "agency_name" : "dis_admin_agency",
    "cloudtable_cluster_name" : "cloudtablecluster",
    "cloudtable_cluster_id" : "b8c095e2-db5f-4732-8a1d-eacd662e35dc",
```



```
  "retry_duration" : 1800,
  "obs_backup_bucket_path" : "obsbackupbucket",
  "backup_file_prefix" : "",
  "opentsdb_schema" : [ {
    "metric" : [ {
      "type" : "Constant",
      "value" : "age"
    } ],
    "timestamp" : {
      "value" : "date",
      "type" : "String",
      "format" : "yyyy/MM/dd HH:mm:ss"
    },
    "value" : {
      "value" : "value",
      "type" : "Bigint"
    },
    "tags" : [ {
      "name" : "name",
      "value" : "name",
      "type" : "Bigint"
    } ]
  } ]
 }
}
```

Example Responses

None

Status Codes

Status Code	Description
201	Normal response

Error Codes

See **Error Codes**.

5.6 Monitoring Management

5.6.1 Querying Stream Monitoring Data

Function

This API is used to query the monitoring data of a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/streams/{stream_name}/metrics

Table 5-141 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Stream name Maximum: **60**

Table 5-142 Query Parameters

Parameter	Mandatory	Type	Description
label	No	String	Stream monitoring metric (Either **label** or **label_list** must be specified. If both **label_list** and **label** exist, **label_list** is used.) • **total_put_bytes_per_stream**: total input traffic (byte) • **total_get_bytes_per_stream**: total output traffic (byte) • **total_put_records_per_stream**: total input records • **total_get_records_per_stream**: total output records • **total_put_req_latency**: average processing time (milliseconds) of upload requests • **total_get_req_latency**: average processing time (milliseconds) of download requests • **total_put_req_suc_per_stream**: number of successful upload requests • **total_get_req_suc_per_stream**: number of successful download requests • **traffic_controll_put**: number of rejected upload requests due to flow control • **traffic_controll_get**: number of rejected download requests due to flow control Enumeration values: • **total_put_bytes_per_stream** • **total_get_bytes_per_stream** • **total_put_records_per_stream** • **total_get_records_per_stream**

Parameter	Mandatory	Type	Description
			• **total_put_req_latency** • **total_get_req_latency** • **total_put_req_suc_per_stream** • **total_get_req_suc_per_stream** • **traffic_control_put** • **traffic_control_get**
label_list	No	String	List of labels separated by commas (,) to query multiple labels in batches. (Either **label** or **label_list** must be specified. If both **label_list** and **label** exist, **label_list** is used.)
start_time	Yes	Long	Monitoring start time, which is a 10-digit timestamp
end_time	Yes	Long	Monitoring end time, which is a 10-digit timestamp

Request Parameters

Table 5-143 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-144 Response body parameters

Parameter	Type	Description
metrics	**Metrics** object	Data object

Parameter	Type	Description
metrics_list	Array of **Metrics** objects	List of monitored data objects

Table 5-145 Metrics

Parameter	Type	Description
dataPoints	Array of **DataPoint** objects	Monitoring data
label	String	Monitoring metric

Table 5-146 DataPoint

Parameter	Type	Description
timestamp	Long	Timestamp
value	Long	Monitoring value corresponding to the timestamp

Example Requests

Querying Stream Monitoring Data

```
GET https://{Endpoint}/v2/{project_id}/streams/{stream_name}/metrics
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;
```



```
public class ShowStreamMetricsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowStreamMetricsRequest request = new ShowStreamMetricsRequest();
        request.withLabel(ShowStreamMetricsRequest.LabelEnum.fromValue("<label>"));
        request.withLabelList("<label_list>");
        request.withStartTime(<start_time>L);
        request.withEndTime(<end_time>L);
        try {
            ShowStreamMetricsResponse response = client.showStreamMetrics(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```



```
        request = ShowStreamMetricsRequest()
        request.label = "<label>"
        request.label_list = "<label_list>"
        request.start_time = <start_time>
        request.end_time = <end_time>
        response = client.show_stream_metrics(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowStreamMetricsRequest{}
    labelRequest:= model.GetShowStreamMetricsRequestLabelEnum().<LABEL>
    request.Label = &labelRequest
    labelListRequest:= "<label_list>"
    request.LabelList = &labelListRequest
    request.StartTime = int64(<start_time>)
    request.EndTime = int64(<end_time>)
    response, err := client.ShowStreamMetrics(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.6.2 Querying Partition Monitoring Data

Function

This API is used to query the monitoring data of a specified partition of a stream.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/streams/{stream_name}/partitions/{partition_id}/metrics

Table 5-147 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_name	Yes	String	Stream name Maximum: **60**
partition_id	Yes	String	Partition ID.Two partition ID formats are available:- shardId-0000000000- 0For example, if a stream has three partitions, the partition IDs are **0**, **1**, and **2**, or **shardId-0000000000**, **shardId-0000000001**, and **shardId-0000000002**.

Table 5-148 Query Parameters

Parameter	Mandatory	Type	Description
label	No	String	Partition monitoring metric. (Either **label** or **label_list** must be specified. If both **label_list** and **label** exist, **label_list** is used.) • **total_put_bytes_per_partition**: total input traffic in a partition (byte) • **total_get_bytes_per_partition**: total output traffic in a partition (byte) • **total_put_records_per_partition**: total number of input records in a partition • **total_get_records_per_partition**: total number of output records in a partition Enumeration values: • **total_put_bytes_per_partition** • **total_get_bytes_per_partition** • **total_put_records_per_partition** • **total_get_records_per_partition**
label_list	No	String	List of labels separated by commas (,) to query multiple labels in batches. (Either **label** or **label_list** must be specified. If both **label_list** and **label** exist, **label_list** is used.)
start_time	Yes	Long	Monitoring start time, which is a 10-digit timestamp
end_time	Yes	Long	Monitoring end time, which is a 10-digit timestamp

Request Parameters

Table 5-149 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-150 Response body parameters

Parameter	Type	Description
metrics	**Metrics** object	Data object

Table 5-151 Metrics

Parameter	Type	Description
dataPoints	Array of **DataPoint** objects	Monitoring data
label	String	Monitoring metric

Table 5-152 DataPoint

Parameter	Type	Description
timestamp	Long	Timestamp
value	Long	Monitoring value corresponding to the timestamp

Example Requests

Querying Partition Monitoring Data

```
GET https://{Endpoint}/v2/{project_id}/streams/{stream_name}/partitions/{partition_id}/metrics
```


Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class ShowPartitionMetricsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowPartitionMetricsRequest request = new ShowPartitionMetricsRequest();
        request.withLabel(ShowPartitionMetricsRequest.LabelEnum.fromValue("<label>"));
        request.withLabelList("<label_list>");
        request.withStartTime(<start_time>L);
        request.withEndTime("<end_time>");
        try {
            ShowPartitionMetricsResponse response = client.showPartitionMetrics(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8
```



```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowPartitionMetricsRequest()
        request.label = "<label>"
        request.label_list = "<label_list>"
        request.start_time = <start_time>
        request.end_time = "<end_time>"
        response = client.show_partition_metrics(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowPartitionMetricsRequest{}
```



```
    labelRequest:= model.GetShowPartitionMetricsRequestLabelEnum().<LABEL>
    request.Label = &labelRequest
    labelListRequest:= "<label_list>"
    request.LabelList = &labelListRequest
    request.StartTime = int64(<start_time>)
    request.EndTime = "<end_time>"
    response, err := client.ShowPartitionMetrics(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Normal response

Error Codes

See **Error Codes**.

5.7 Tag Management

5.7.1 Adding Tags to a Specified Stream

Function

This API is used to add tags to a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/stream/{stream_id}/tags

Table 5-153 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Parameter	Mandatory	Type	Description
stream_id	Yes	String	Stream ID Maximum: **60**

Request Parameters

Table 5-154 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-155 Request body parameters

Parameter	Mandatory	Type	Description
tag	Yes	**Tag** object	Tag object

Table 5-156 Tag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Minimum: **1** Maximum: **36**

Parameter	Mandatory	Type	Description
value	No	String	Value. • It can contain a maximum of 43 characters. • It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). • It can only contain digits, letters, hyphens (-), and underscores (_). Minimum: **0** Maximum: **43**

Response Parameters

None

Example Requests

Adding Tags to a Specified Stream

```
POST https://{Endpoint}/v2/{project_id}/stream/{stream_id}/tags

{
  "tag" : {
    "key" : "key",
    "value" : "value"
  }
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Adding Tags to a Specified Stream

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
```



```
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;


public class CreateTagSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateTagRequest request = new CreateTagRequest();
        CreateTagReq body = new CreateTagReq();
        Tag tagbody = new Tag();
        tagbody.withKey("key")
            .withValue("value");
        body.withTag(tagbody);
        request.withBody(body);
        try {
            CreateTagResponse response = client.createTag(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Adding Tags to a Specified Stream

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)
```



```
client = DisClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(DisRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateTagRequest()
    tagbody = Tag(
        key="key",
        value="value"
    )
    request.body = CreateTagReq(
        tag=tagbody
    )
    response = client.create_tag(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

Go

Adding Tags to a Specified Stream

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTagRequest{}
    keyTag:= "key"
    valueTag:= "value"
    tagbody := &model.Tag{
        Key: &keyTag,
        Value: &valueTag,
    }
    request.Body = &model.CreateTagReq{
        Tag: tagbody,
    }
    response, err := client.CreateTag(request)
    if err == nil {
```



```
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.7.2 Querying Tags of a Specified Stream

Function

This API is used to query tags of a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/stream/{stream_id}/tags

Table 5-157 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_id	Yes	String	Stream ID

Request Parameters

Table 5-158 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-159 Response body parameters

Parameter	Type	Description
tags	Array of **Tag** objects	Tags

Table 5-160 Tag

Parameter	Type	Description
key	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Minimum: **1** Maximum: **36**

Parameter	Type	Description
value	String	Value. • It can contain a maximum of 43 characters. • It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). • It can only contain digits, letters, hyphens (-), and underscores (_). Minimum: **0** Maximum: **43**

Example Requests

Querying Tags of a Specified Stream

```
GET https://{Endpoint}/v2/{project_id}/stream/{stream_id}/tags
```

Example Responses

Status code: 200

Response body of the stream tag information.

```
{
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value3"
  } ]
}
```

Status Codes

Status Code	Description
200	Response body of the stream tag information.

Error Codes

See **Error Codes**.

5.7.3 Deleting Tags of a Specified Stream

Function

This API is used to delete tags of a specified stream.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/stream/{stream_id}/tags/{key}

Table 5-161 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_id	Yes	String	Stream ID
key	Yes	String	Tag key

Request Parameters

Table 5-162 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

None

Example Requests

Deleting Tags of a Specified Stream

```
DELETE https://{Endpoint}/v2/{project_id}/stream/{stream_id}/tags/{key}
```

Example Responses

None

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.7.4 Adding Resource Tags

Function

This API is used to add resource tags (such as stream tags) in batches. This API is idempotent. When you are creating tags, if there are duplicate keys in the request body, an error is reported. During tag creation, duplicate keys are not allowed. If a key already exists in the database, its value will be overwritten by the new duplicate key.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/stream/{stream_id}/tags/action

Table 5-163 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_id	Yes	String	Stream ID

Request Parameters

Table 5-164 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-165 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Operation to be performed. The value can be **create** only. • **create**: batch creation Enumeration values: • **create**
tags	Yes	Array of **Tag** objects	Tags

Table 5-166 Tag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Minimum: **1** Maximum: **36**

Parameter	Mandatory	Type	Description
value	No	String	Value. • It can contain a maximum of 43 characters. • It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). • It can only contain digits, letters, hyphens (-), and underscores (_). Minimum: **0** Maximum: **43**

Response Parameters

None

Example Requests

Adding Resource Tags

```
POST https://{Endpoint}/v2/{project_id}/stream/{stream_id}/tags/action

{
  "action" : "create",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value3"
  } ]
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Adding Resource Tags

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```



```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class BatchCreateTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchCreateTagsRequest request = new BatchCreateTagsRequest();
        BatchCreateTagsReq body = new BatchCreateTagsReq();
        List<Tag> listbodyTags = new ArrayList<>();
        listbodyTags.add(
            new Tag()
                .withKey("key1")
                .withValue("value1")
        );
        listbodyTags.add(
            new Tag()
                .withKey("key2")
                .withValue("value3")
        );
        body.withTags(listbodyTags);
        body.withAction(BatchCreateTagsReq.ActionEnum.fromValue("create"));
        request.withBody(body);
        try {
            BatchCreateTagsResponse response = client.batchCreateTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Adding Resource Tags

```
# coding: utf-8

import os
```



```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchCreateTagsRequest()
        listTagsbody = [
            Tag(
                key="key1",
                value="value1"
            ),
            Tag(
                key="key2",
                value="value3"
            )
        ]
        request.body = BatchCreateTagsReq(
            tags=listTagsbody,
            action="create"
        )
        response = client.batch_create_tags(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Adding Resource Tags

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
```



```
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchCreateTagsRequest{}
    keyTags:= "key1"
    valueTags:= "value1"
    keyTags1:= "key2"
    valueTags1:= "value3"
    var listTagsbody = []model.Tag{
        {
            Key: &keyTags,
            Value: &valueTags,
        },
        {
            Key: &keyTags1,
            Value: &valueTags1,
        },
    }
    request.Body = &model.BatchCreateTagsReq{
        Tags: listTagsbody,
        Action: model.GetBatchCreateTagsReqActionEnum().CREATE,
    }
    response, err := client.BatchCreateTags(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

5.7.5 Querying All Tags of a Specified Region

Function

This API is used to query all tags of a specified region.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/stream/tags

Table 5-167 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 5-168 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 5-169 Response body parameters

Parameter	Type	Description
tags	Array of **Tags** objects	Tags

Table 5-170 Tags

Parameter	Type	Description
key	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Maximum: **36**
values	Array of strings	Tag values. If the value list is empty, this parameter indicates **any_value**. The values are in the OR relationship.

Example Requests

Querying All Tags of a Specified Region

```
GET https://{Endpoint}/v2/{project_id}/stream/tags
```

Example Responses

Status code: 200

Response body of the tag set

```
{
  "tags" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  }, {
    "key" : "key2",
    "values" : [ "value1", "value2" ]
  } ]
}
```

Status Codes

Status Code	Description
200	Response body of the tag set

Error Codes

See **Error Codes**.

5.7.6 Using Tags to Filter Resources (Streams)

Function

This API is used to filter resources (streams) by tag.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/stream/resource_instances/action

Table 5-171 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID

Request Parameters

Table 5-172 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-173 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Operation to be performed. The value can be **filter** or **count**. • **filter**: pagination query • **count**: total number of returned records that meet the query criteria. Enumeration values: • **filter** • **count**
limit	No	String	Number of records to be queried. This parameter is not available when **action** is set to **count**. The default value is **1000** when **action** is set to **filter**. The maximum value is **1000**, and the minimum value is **1**. The value cannot be a negative number. Default: **1000**
offset	No	String	Index position. The query starts from the next data record indexed by this parameter. This parameter is not required when you query data on the first page. The value in the response returned for querying data on the previous page will be included in this parameter for querying data on subsequent pages. This parameter is not available when **action** is set to **count**. If **action** is set to **filter**, the value must be a number, and the default value is **0**. The value cannot be a negative number.

Parameter	Mandatory	Type	Description
tags	No	Array of **Tags** objects	The return result contains resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string.
tags_any	No	Array of **Tags** objects	The return result contains resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string. Each tag key must be unique, and each value of the same key must be unique.
not_tags	No	Array of **Tags** objects	The return result does not contain resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string. Each tag key must be unique, and each value of the same key must be unique.

Parameter	Mandatory	Type	Description
not_tags_any	No	Array of **Tags** objects	The return result does not contain resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string. Each tag key must be unique, and each value of the same key must be unique.
matches	No	String	Search criteria. The tag key is the field to match. Currently, only **resource_name** is supported. The tag value indicates the value to be matched. This field is a fixed dictionary value.

Table 5-174 Tags

Parameter	Mandatory	Type	Description
key	No	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Maximum: **36**
values	No	Array of strings	Tag values. If the value list is empty, this parameter indicates **any_value**. The values are in the OR relationship.

Response Parameters

Status code: 200

Table 5-175 Response body parameters

Parameter	Type	Description
action	String	Operation to be performed. The value can be **filter** or **count**. • **filter**: pagination query • **count**: total number of returned records that meet the query criteria. Enumeration values: • **filter** • **count**
limit	String	Number of records to be queried. This parameter is not available when **action** is set to **count**. The default value is **1000** when **action** is set to **filter**. The maximum value is **1000**, and the minimum value is **1**. The value cannot be a negative number. Default: **1000**
offset	String	Index position. The query starts from the next data record indexed by this parameter. This parameter is not required when you query data on the first page. The value in the response returned for querying data on the previous page will be included in this parameter for querying data on subsequent pages. This parameter is not available when **action** is set to **count**. If **action** is set to **filter**, the value must be a number, and the default value is **0**. The value cannot be a negative number.
tags	Array of **Tags** objects	The return result contains resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string.
tags_any	Array of **Tags** objects	The return result contains resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string. Each tag key must be unique, and each value of the same key must be unique.

Parameter	Type	Description
not_tags	Array of **Tags** objects	The return result does not contain resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string. Each tag key must be unique, and each value of the same key must be unique.
not_tags_any	Array of **Tags** objects	The return result does not contain resources corresponding to any tag in this parameter. This parameter contains a maximum of 10 keys, and each key contains a maximum of 10 values. The structure body cannot be missing, and the key cannot be left blank or an empty string. Each tag key must be unique, and each value of the same key must be unique.
matches	String	Search criteria. The tag key is the field to match. Currently, only **resource_name** is supported. The tag value indicates the value to be matched. This field is a fixed dictionary value.

Table 5-176 Tags

Parameter	Type	Description
key	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Maximum: **36**
values	Array of strings	Tag values. If the value list is empty, this parameter indicates **any_value**. The values are in the OR relationship.

Example Requests

- Resource (stream) filtering by tag and record querying

```
POST https://{Endpoint}/v2/{project_id}/stream/resource_instances/action

{
  "action" : "count",
```



```
 "tags" : [ {
   "key" : "key1",
   "values" : [ "value1", "value2" ]
 }, {
   "key" : "key2",
   "values" : [ "value1", "value2" ]
 } ],
 "matches" : [ {
   "key" : "resource_name",
   "value" : "resource1"
 } ]
}
```

- Resource (stream) filtering by tag and querying by page

```
POST https://{Endpoint}/v2/{project_id}/stream/resource_instances/action

{
  "offset" : "0",
  "limit" : "100",
  "action" : "filter",
  "matches" : [ {
    "key" : "resource_name",
    "value" : "resource1"
  } ],
  "tags" : [ {
    "key" : "key1",
    "values" : [ "*value1", "value2" ]
  } ]
}
```

Example Responses

Status code: 200

Request body for filtering resources (streams) by tag

```
{
  "resources" : [ {
    "resource_detail" : null,
    "resource_id" : "cdfs_cefs_wesas_12_dsad",
    "resource_name" : "resouece1",
    "tags" : [ {
      "key" : "key1",
      "value" : "value1"
    }, {
      "key" : "key2",
      "value" : "value1"
    } ]
  } ],
  "total_count" : 1000
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- Resource (stream) filtering by tag and record querying

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
```



```
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class ListResourcesByTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ListResourcesByTagsRequest request = new ListResourcesByTagsRequest();
        ListResourceInstancesReq body = new ListResourceInstancesReq();
        List<String> listTagsValues = new ArrayList<>();
        listTagsValues.add("value1");
        listTagsValues.add("value2");
        List<String> listTagsValues1 = new ArrayList<>();
        listTagsValues1.add("value1");
        listTagsValues1.add("value2");
        List<Tags> listbodyTags = new ArrayList<>();
        listbodyTags.add(
            new Tags()
                .withKey("key1")
                .withValues(listTagsValues1)
        );
        listbodyTags.add(
            new Tags()
                .withKey("key2")
                .withValues(listTagsValues)
        );
        body.withMatches("[{key=resource_name, value=resource1}]");
        body.withTags(listbodyTags);
        body.withAction(ListResourceInstancesReq.ActionEnum.fromValue("count"));
        request.withBody(body);
        try {
            ListResourcesByTagsResponse response = client.listResourcesByTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Resource (stream) filtering by tag and querying by page

```
package com.huaweicloud.sdk.test;
```



```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class ListResourcesByTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        ListResourcesByTagsRequest request = new ListResourcesByTagsRequest();
        ListResourceInstancesReq body = new ListResourceInstancesReq();
        List<String> listTagsValues = new ArrayList<>();
        listTagsValues.add("*value1");
        listTagsValues.add("value2");
        List<Tags> listbodyTags = new ArrayList<>();
        listbodyTags.add(
            new Tags()
                .withKey("key1")
                .withValues(listTagsValues)
        );
        body.withMatches("[{key=resource_name, value=resource1}]");
        body.withTags(listbodyTags);
        body.withOffset("0");
        body.withLimit("100");
        body.withAction(ListResourceInstancesReq.ActionEnum.fromValue("filter"));
        request.withBody(body);
        try {
            ListResourcesByTagsResponse response = client.listResourcesByTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Resource (stream) filtering by tag and record querying

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListResourcesByTagsRequest()
        listValuesTags = [
            "value1",
            "value2"
        ]
        listValuesTags1 = [
            "value1",
            "value2"
        ]
        listTagsbody = [
            Tags(
                key="key1",
                values=listValuesTags1
            ),
            Tags(
                key="key2",
                values=listValuesTags
            )
        ]
        request.body = ListResourceInstancesReq(
            matches="[{key=resource_name, value=resource1}]",
            tags=listTagsbody,
            action="count"
        )
        response = client.list_resources_by_tags(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Resource (stream) filtering by tag and querying by page

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

```
environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListResourcesByTagsRequest()
        listValuesTags = [
            "*value1",
            "value2"
        ]
        listTagsbody = [
            Tags(
                key="key1",
                values=listValuesTags
            )
        ]
        request.body = ListResourceInstancesReq(
            matches="[{key=resource_name, value=resource1}]",
            tags=listTagsbody,
            offset="0",
            limit="100",
            action="filter"
        )
        response = client.list_resources_by_tags(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Resource (stream) filtering by tag and record querying

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()
```



```
    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListResourcesByTagsRequest{}
    var listValuesTags = List<String>{
        "value1",
        "value2",
    }
    var listValuesTags1 = List<String>{
        "value1",
        "value2",
    }
    keyTags:= "key1"
    keyTags1:= "key2"
    var listTagsbody = []model.Tags{
        {
            Key: &keyTags,
            Values: &listValuesTags1,
        },
        {
            Key: &keyTags1,
            Values: &listValuesTags,
        },
    }
    matchesListResourceInstancesReq:= "[{key=resource_name, value=resource1}]"
    request.Body = &model.ListResourceInstancesReq{
        Matches: &matchesListResourceInstancesReq,
        Tags: &listTagsbody,
        Action: model.GetListResourceInstancesReqActionEnum().COUNT,
    }
    response, err := client.ListResourcesByTags(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Resource (stream) filtering by tag and querying by page

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
```



```
        WithCredential(auth).
        Build())

    request := &model.ListResourcesByTagsRequest{}
    var listValuesTags = []string{
        "*value1",
        "value2",
    }
    keyTags:= "key1"
    var listTagsbody = []model.Tags{
        {
            Key: &keyTags,
            Values: &listValuesTags,
        },
    }
    matchesListResourceInstancesReq:= "[{key=resource_name, value=resource1}]"
    offsetListResourceInstancesReq:= "0"
    limitListResourceInstancesReq:= "100"
    request.Body = &model.ListResourceInstancesReq{
        Matches: &matchesListResourceInstancesReq,
        Tags: &listTagsbody,
        Offset: &offsetListResourceInstancesReq,
        Limit: &limitListResourceInstancesReq,
        Action: model.GetListResourceInstancesReqActionEnum().FILTER,
    }
    response, err := client.ListResourcesByTags(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Request body for filtering resources (streams) by tag

Error Codes

See **Error Codes**.

5.7.7 Deleting Resource Tags

Function

This API is used to delete resource tags (stream tags). This API is idempotent. If the deleted tag does not exist, the deletion is considered successful by default. The tag character set range is not verified during tag deletion. When you delete tags, the tags structure cannot be missing, and the key cannot be left blank or be an empty string.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/stream/{stream_id}/tags/action

Table 5-177 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID
stream_id	Yes	String	Stream ID

Request Parameters

Table 5-178 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 5-179 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Operation to be performed. The value can be **delete** only. • **delete**: batch deletion Enumeration values: • **delete**
tags	Yes	Array of **Tag** objects	Tags

Table 5-180 Tag

Parameter	Mandatory	Type	Description
key	No	String	Tag key. • It cannot be left blank. • It must be unique for each resource. • It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). Minimum: **1** Maximum: **36**
value	No	String	Value. • It can contain a maximum of 43 characters. • It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF). • It can only contain digits, letters, hyphens (-), and underscores (_). Minimum: **0** Maximum: **43**

Response Parameters

None

Example Requests

Deleting Resource Tags

```
POST https://{Endpoint}/v2/{project_id}/stream/{stream_id}/tags/action

{
  "action" : "delete",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value3"
  } ]
}
```


Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Deleting Resource Tags

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.dis.v2.region.DisRegion;
import com.huaweicloud.sdk.dis.v2.*;
import com.huaweicloud.sdk.dis.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class BatchDeleteTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        DisClient client = DisClient.newBuilder()
                .withCredential(auth)
                .withRegion(DisRegion.valueOf("<YOUR REGION>"))
                .build();
        BatchDeleteTagsRequest request = new BatchDeleteTagsRequest();
        BatchDeleteTagsReq body = new BatchDeleteTagsReq();
        List<Tag> listbodyTags = new ArrayList<>();
        listbodyTags.add(
            new Tag()
                .withKey("key1")
                .withValue("value1")
        );
        listbodyTags.add(
            new Tag()
                .withKey("key2")
                .withValue("value3")
        );
        body.withTags(listbodyTags);
        body.withAction(BatchDeleteTagsReq.ActionEnum.fromValue("delete"));
        request.withBody(body);
        try {
            BatchDeleteTagsResponse response = client.batchDeleteTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
```



```
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Deleting Resource Tags

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkdis.v2.region.dis_region import DisRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkdis.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = DisClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(DisRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = BatchDeleteTagsRequest()
        listTagsbody = [
            Tag(
                key="key1",
                value="value1"
            ),
            Tag(
                key="key2",
                value="value3"
            )
        ]
        request.body = BatchDeleteTagsReq(
            tags=listTagsbody,
            action="delete"
        )
        response = client.batch_delete_tags(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Deleting Resource Tags

```
package main
```



```
import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    dis "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/dis/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := dis.NewDisClient(
        dis.DisClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchDeleteTagsRequest{}
    keyTags:= "key1"
    valueTags:= "value1"
    keyTags1:= "key2"
    valueTags1:= "value3"
    var listTagsbody = []model.Tag{
        {
            Key: &keyTags,
            Value: &valueTags,
        },
        {
            Key: &keyTags1,
            Value: &valueTags1,
        },
    }
    request.Body = &model.BatchDeleteTagsReq{
        Tags: listTagsbody,
        Action: model.GetBatchDeleteTagsReqActionEnum().DELETE,
    }
    response, err := client.BatchDeleteTags(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	Normal response

Error Codes

See **Error Codes**.

6 Appendix

6.1 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in **API Gateway Error Codes**.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4117	Invalid Project Id. %s	Invalid project ID.	Ensure that the project ID is valid.
400	DIS.4200	Invalid request. %s	Invalid request.	Ensure that the request is invalid by referring to API Reference
400	DIS.4201	Invalid partition_id. %s	Invalid partition ID.	Ensure that the partition ID is valid.
400	DIS.4202	Empty request.	The request is empty.	Enter a valid request.
400	DIS.4203	Invalid monitoring period. %s	The start time for querying the monitoring information is invalid.	Enter a valid timestamp.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4204	The monitoring period cannot be longer than 7 days.	Only the monitoring information generated in the recent seven days can be queried.	Query the monitoring information generated in the recent seven days.
400	DIS.4205	Stream is not running.	The stream is not in the running state.	Check the stream status.
400	DIS.4208	Mrs cluster is invalid. %s	The MRS cluster entered during MRS dump task creation is invalid.	Ensure that the MRS cluster name and ID are correct and the cluster is running in security mode.
400	DIS.4209	Invalid metrics label. %s	The monitoring metric entered during monitoring information query is invalid.	Check and modify the monitoring metric by referring to API Reference.
400	DIS.4215	Invalid cursor type. %s	The cursor type entered during data cursor acquisition is invalid.	Check and modify the cursor type by referring to API Reference.
400	DIS.4216	Invalid sequence_number. %s	The starting sequence number entered during data cursor acquisition is invalid.	Enter a valid starting sequence number.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4217	Invalid partition cursor. %s	The partition cursor entered during data download from DIS is invalid.	Obtain the partition cursor again and download the data.
400	DIS.4224	Sequence_number out of range. %s	The starting sequence number entered during data cursor acquisition is not in a valid range.	Enter a valid starting sequence number.
400	DIS.4225	Expired partition cursor. %s	The partition cursor entered during data download from DIS has expired.	Obtain the partition cursor again and download the data.
400	DIS.4226	A partition iterator error occurred or a record to which the SN corresponds has expired. Try to obtain the partition iterator again.	The starting sequence number of the partition cursor entered during data acquisition has expired.	Obtain the data cursor again and use the new cursor to obtain data.
400	DIS.4300	Request error.	Incorrect request body.	Modify the request body by referring to API Reference.
400	DIS.4301	The stream does not exist. %s	The stream does not exist.	Ensure that the stream exists.
400	DIS.4302	Partition does not exist. %s	The partition does not exist.	Ensure that the partition ID exists.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4303	Exceeded traffic control limit.	The flow control limit is exceeded.	Add the stream or reduce the upload rate.
400	DIS.4305	Too many stream requests.	An excessive number of user requests are generated at the same time.	Reduce the requesting frequency and try again.
400	DIS.4306	Bucket does not exist. %s	The OBS bucket does not exist.	Ensure that the OBS bucket exists.
400	DIS.4307	The stream already exists.	The stream already exists.	Enter a new stream name.
400	DIS.4308	Insufficient quota.	Insufficient stream or partition quotas.	Release the resources that will not be used to ensure that the quota limit is not exceeded or submit a service ticket to increase the quota limit.
400	DIS.4309	Too many request failures. Please try again later.	The IP address is added to the blacklist.	Ensure that the authentication information and request are valid and try again later.
400	DIS.4310	OBS access error.	OBS fails to be accessed.	Ensure that the user has permissions to access OBS.
400	DIS.4319	Partition is expired. %s	The partition has expired.	Use a correct and valid partition.
400	DIS.4329	app quota exceeded.	The application quota exceeds the limit.	Release the applications that are not used.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4330	app already exist.	An application with the same name already exists.	Enter a new application name.
400	DIS.4331	app is using.	The application fails to be deleted.	Ensure that the application that you want to delete is not being used.
400	DIS.4332	app not found.	The application does not exist.	Ensure that the application name is correct.
400	DIS.4335	Invalid IAM agency.	The IAM agency used during dump task creation is invalid.	Ensure that dis_admin_agency created by DIS or the user-defined IAM agency exists and permission is complete.
400	DIS.4336	Invalid HDFS path.	The MRS HDFS path entered during MRS dump task creation is invalid.	Ensure that the MRS HDFS path exists.
400	DIS.4337	The DLI database does not exist.	The DLI database entered during DLI dump task creation does not exist.	Ensure that the DLI database exists.
400	DIS.4338	The DLI table does not exist.	The DLI table entered during DLI dump task creation does not exist.	Ensure that the DLI table exists and is an internal table.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4339	Consumer quota exceeded.	The consumer quota of the consumer group is insufficient.	Allocate consumers properly or create a consumer group to meet the requirement.
400	DIS.4341	The CloudTable cluster does not exist.	The CloudTable cluster entered during CloudTable dump task creation does not exist.	Ensure that the CloudTable cluster exists and is running properly.
400	DIS.4342	The CloudTable table does not exist	The CloudTable table entered during CloudTable dump task creation does not exist.	Ensure that the CloudTable table exists.
400	DIS.4343	The CloudTable table family does not exist.	The CloudTable column family entered during CloudTable dump task creation does not exist.	Ensure that the CloudTable column family exists.
400	DIS.4345	Invalid CloudTable schema.	The schema entered during CloudTable dump task creation is invalid.	Check the schema based on the returned details to ensure that the configured JSON attribute name exists and the parameters are valid.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4348	Invalid CloudTable openTSDB schema.	The schema entered during CloudTable OpenTSDB dump task creation is invalid.	Check the schema based on the returned details to ensure that the configured JSON attribute name exists and the parameters are valid.
400	DIS.4350	Invalid DWS cluster.	The DWS cluster entered during DWS dump task creation does not exist.	Ensure that the DWS cluster exists and is running properly.
400	DIS.4351	Invalid KMS userKey.	The KMS key entered during DWS dump task creation is invalid.	Ensure that the KMS key exists.
400	DIS.4354	The transfer task does not exist.	The dump task to be deleted or updated does not exist.	Ensure that the dump task exists.
400	DIS.4355	The transfer task already exists.	A dump task with the same name already exists.	Enter a new dump task name.
400	DIS.4357	Exceeded transfer task quota.	A maximum of five dump tasks can be created for one stream at the same time.	Delete the discarded dump tasks and then add dump tasks again.
400	DIS.4360	Invalid data schema.	The data schema entered during stream creation or update is invalid.	Ensure that the data schema format is correct and try again.

Status Code	Error Codes	Error Message	Description	Solution
400	DIS.4375	The app does not commit checkpoint	The application does not submit the checkpoint operation in the stream.	Check whether the application has submitted the checkpoint operation in the consumption stream.
400	DIS.4601	The number of resource tags has reached the maximum.	A maximum of 10 tags can be added to a resource.	Delete the discarded tags and then add tags again.
400	DIS.4602	Invalid resource type.	Invalid resource type.	Ensure that the resource type is valid.
400	DIS.4603	The resource does not exist.	The resource does not exist.	Ensure that the resource exists.
400	DIS.4604	The key does not exist.	The tag key does not exist.	Ensure that the tag key exists.
400	DIS.4605	The action is not supported.	The current tag operation is not supported.	Ensure that the current tag operation is valid. Currently, only the create and delete operations are supported.
403	DIS.4116	Invalid RBAC. %s	User operations are restricted.	Ensure that the account is not in arrears, or has permissions to operate DIS.
500	DIS.5000	System error.	System error.	Contact customer service or technical support to handle system errors.

6.2 Status Codes

A status code is an HTTPS response issued by DIS to indicate whether an API request has been successfully completed.

Status Code	Status	Description
100	Continue	The server has received the initial part of the request and the client should continue to send the remaining part. It is issued on a provisional basis while request processing continues. It alerts the client to wait for a final response.
101	Switching Protocols	The requester has asked the server to switch protocols and the server has agreed to do so. The target protocol must be more advanced than the source protocol. For example, the current HTTP protocol is switched to a later version of HTTP.
200	OK	The server has successfully processed the request.
201	Created	The request has been fulfilled, resulting in the creation of a new resource.
202	Accepted	The request has been accepted for processing, but the processing has not been completed.
203	Non-Authoritative Information	The server successfully processed the request, but is returning information that may be from another source.
204	NoContent	The server has successfully processed the request, but does not return any content. The status code is returned in response to an HTTPS OPTIONS request.
205	Reset Content	The server has successfully processed the request, but does not return any content. Unlike a 204 response, this response requires that the requester reset the content.
206	Partial Content	The server has successfully processed a part of the GET request.
300	Multiple Choices	There are multiple options for the requested resource. For example, this code could be used to present a list of resource characteristics and addresses from which the client such as a browser may choose.
301	Moved Permanently	This and all future requests should be permanently directed to the given URI indicated in this response.
302	Found	The requested resource was temporarily moved.

Status Code	Status	Description
303	See Other	The response to the request can be found under another URI using a GET or POST method.
304	Not Modified	The requested resource has not been modified. In such a case, there is no need to retransmit the resource since the client still has a previously-downloaded copy.
305	Use Proxy	The requested resource is available only through a proxy.
306	Unused	This HTTP status code is no longer used.
400	BadRequest	The request is invalid. The client should modify the request instead of re-initiating it.
401	Unauthorized	The authentication information provided by the client is incorrect or invalid.
402	Payment Required	Reserved for future use.
403	Forbidden	The server has received the request and understood it, but the server is refusing to respond to it. The client should modify the request instead of re-initiating it.
404	NotFound	The requested resource could not be found. The client should modify the request instead of re-initiating it.
405	MethodNotAllowed	A request method is not supported for the requested resource. The client should modify the request instead of re-initiating it.
406	Not Acceptable	The server could not fulfill the request according to the content characteristics of the request.
407	Proxy Authentication Required	This code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The server timed out waiting for the request. The client may re-initiate the request without modifications at any later time.

Status Code	Status	Description
409	Conflict	The request could not be processed due to a conflict in the request. For example, an edit conflict between multiple simultaneous updates or the resource that the client attempts to create already exists.
410	Gone	The requested resource has been deleted permanently and will not be available again. The status code indicates that the requested resource has been deleted permanently.
411	Length Required	The server refused to process the request because the request does not specify the length of its content.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The request is larger than the server is willing or able to process. The server may close the connection to prevent the client from continuing the request. If the server temporarily cannot process the request, the response will contain a Retry-After header field.
414	Request-URI Too Large	The URI provided was too long for the server to process.
415	Unsupported Media Type	The server does not support the media type in the request.
416	Requested range not satisfiable	The requested range is invalid.
417	Expectation Failed	The server fails to meet the requirements of the Expect request-header field.
422	UnprocessableEntity	The request was well-formed but was unable to be followed due to semantic errors.
429	TooManyRequests	The client has sent more requests than its rate limit is allowed within a given amount of time, or the server has received more requests than it is able to process within a given amount of time. In this case, it is advisable for the client to re-initiate requests after the time specified in the Retry-After header of the response expires.

Status Code	Status	Description
441	Authentication Error	Authentication fails.
500	InternalServerError	The server is able to receive the request but it could not understand the request.
501	Not Implemented	The server does not support the requested function.
502	Bad Gateway	The server was acting as a gateway or proxy and received an invalid request from a remote server.
503	ServiceUnavailable	The requested service is invalid. The client should modify the request instead of re-initiating it.
504	ServerTimeout	The server could not return a timely response. The response will reach the client only if the request carries a timeout parameter.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

6.3 Obtaining a Project ID

This section describes how to obtain a project ID on the console or by calling an API.

Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API **used to query project information**.

The API used to obtain a project ID is GET **https://{Endpoint}/v3/projects**. **{Endpoint}** is the IAM endpoint and can be obtained from **Regions and Endpoints**. For details about API authentication, see **Authentication**.

The following is an example response. The value of **id** is the project ID. If multiple IDs are returned, obtain the desired project ID based on the actual region (name).

```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e684b",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e684b",
            "name": "region_name",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
```



```
            },
            "id": "a4a5d4098fb4474fa22cd05f897d6b99",
            "enabled": true
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

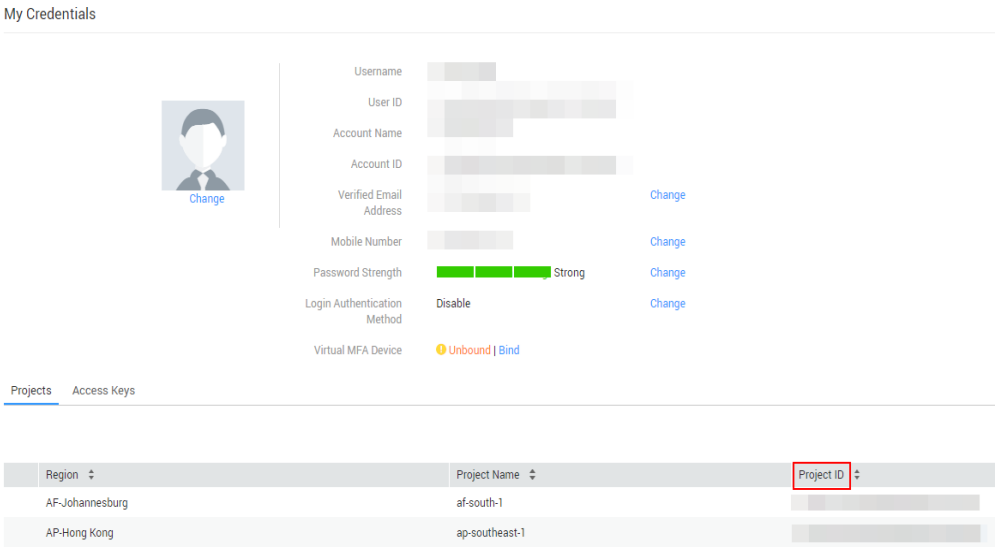
Obtaining a Project ID from the Console

A project ID is required for some URLs when an API is called. To obtain a project ID, perform the following operations:

1. Log in to the management console.
2. Hover the mouse over the username and select **Basic Information**.
3. On the displayed page, click **Manage** in **Security Credentials**.

   On the **My Credentials** page, view project IDs in the project list.

Figure 6-1 Viewing project IDs



A Change History

Released On	Description
2020-07-03	This issue is the second official release. Added error codes and modified error code descriptions.
2019-05-08	This issue is the first official release.

