

Object Storage Migration Service

API Reference

Issue	10
Date	2025-09-08



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1 Before You Start

Welcome to *Object Storage Migration Service API Reference*. Object Storage Migration Service (OMS) is an online data migration service that helps you easily and smoothly migrate object storage data from the other public clouds to Huawei Cloud.

This document describes how to use application programming interfaces (APIs) to perform operations on OMS, such as creating, deleting, or querying migration tasks. For details about all supported operations, see [API Overview](#).

If you plan to access OMS through an API, ensure that you are familiar with OMS concepts. For details, see [What Is OMS?](#)

Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the OMS endpoints, see [Regions and Endpoints](#).

Concepts

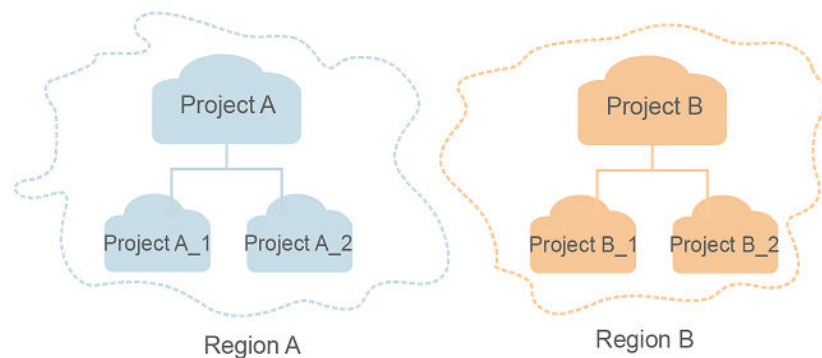
- Account
An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. To ensure account security, create Identity and Access Management (IAM) users and grant them permissions for routine management.
- User
An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).
API authentication requires information such as the account name, username, and password.
- Region
Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified into universal regions and dedicated regions. A

universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.

For details, see [Region and AZ](#).

- **AZ**
An AZ comprises of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Compute, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.
- **Project**
A project corresponds to a region. Default projects are defined to a group and have physically isolated resources (including computing, storage, and network resources) across regions. Users can be granted permissions in a default project to access all resources in the region under their accounts. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

Figure 1-1 Project isolation model



- **Enterprise project**
Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated. An enterprise project can contain resources of multiple regions, and resources can be added to or removed from enterprise projects.
For details about enterprise projects and about how to obtain enterprise project IDs, see [Enterprise Management User Guide](#).

2 API Overview

OMS provides version query APIs and task management APIs.

Table 2-1 OMS APIs

API	Description
Obtaining a Project ID and Task ID	Query a project ID and task ID.
Listing API Versions	Query all API versions of OMS.
Querying an API Version	Query a specified API version of OMS.
Listing Migration Tasks	Query information about all tasks under a user account.
Querying a Migration Task	Query details about a migration task based on its ID.
Creating a Migration Task	Create a migration task.
Starting a Migration Task	Start a migration task after the migration task has been paused or failed.
Pausing a Migration Task	Stop a migration task that is in the Migrating state.
Deleting a Migration Task	Delete a migration task based on its ID.
Updating the Traffic Limiting Rules of a Migration Task	Update the traffic limiting rules of a migration task before the task is complete.

API	Description
Updating Tasks in Batches	Update migration tasks in batches. You can update all migration tasks in a migration task group or specify IDs of migration tasks to update them in batches.
Creating a Synchronization Event	Create a synchronization event when objects in the source bucket need to be synchronized. Then OMS synchronizes the objects contained in the synchronization event. This API is available in regions CN North-Beijing4 and CN East-Shanghai1.
Listing Synchronization Tasks	List all synchronization tasks in an account.
Creating a Synchronization Task	Create a synchronization task. After the synchronization task is created, it will be automatically started.
Querying a Synchronization Task	Query details about a synchronization task with a specified ID.
Querying the Statistics About a Synchronization Task	Query the statistics of a synchronization task, which includes the number of objects that are covered in synchronization requests, the number of objects that are successfully synchronized, the number of objects that fail to be synchronized, the number of objects that are skipped during synchronization, and the size of objects that are successfully synchronized. Currently, this API is available only in CN North-Beijing4 and CN East-Shanghai1.
Deleting a Synchronization Task	Delete a synchronization task.
Pausing a Synchronization Task	This API is used to pause a synchronization task that is being synchronized. Currently, this API is only CN North-Beijing4 and CN East-Shanghai1.
Starting a Synchronization Task	Start a paused a synchronization task. Currently, this API is only available CN North-Beijing4 and CN East-Shanghai1.
Listing Migration Task Groups	List all migration task groups in an account.
Creating a Migration Task Group	Create a migration task group. After a migration task group is created, migration tasks are automatically created in the task group. You do not need to manually call APIs to create migration tasks.
Querying a Migration Task Group	Query the information about a migration task group with a specified ID.

API	Description
Deleting a Migration Task Group	Delete a migration task group.
Pausing a Migration Task Group	Pause a migration task group when it is in Creating or Monitoring status.
Resuming a Migration Task Group	Resume a paused migration task group with a specified ID.
Restarting a Migration Task Group	Restart a failed migration task group with a specified ID.
Modifying the Traffic Limiting Rules for a Migration Task Group	Update the traffic limiting rules for a migration task group before it is completed.
Listing Objects in a Bucket	List objects in a bucket.
Querying the CDN Information of a Bucket	Query the CDN information of a bucket.
Listing Buckets	List all buckets.
Querying the Region of a Bucket	Query the region of a bucket.
Checking Whether a Source Bucket Has Objects with a Specified Prefix	Check whether there are objects with a specified prefix in a source bucket.
Querying All Supported Cloud Vendors	Query supported cloud vendors.
Querying Regions Supported for a Cloud Vendor	Query regions supported for a cloud vendor.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a RESTful API request, and uses the IAM API for [creating an IAM user](#) as an example to demonstrate how to call an API.

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 region CN-Hong Kong 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 create an IAM user as the administrator is /v3.0/OS-USER/users .
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of " <i>Parameter name=Parameter value</i> ". For example, ?limit=10 indicates that a maximum of 10 data records will be displayed.

IAM is a global service. You can create an IAM user using the endpoint of IAM in any region. For example, to create an IAM user in the CN-Hong Kong region, obtain the endpoint of IAM (iam.ap-southeast-1.myhuaweicloud.com) for this region and the **resource-path** (/v3.0/OS-USER/users) in the URI of the API used to [create an IAM User as the administrator](#). Then, construct the URL as follows:

```
https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

Figure 3-1 Example URI



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 [create an IAM user](#), the request method is **POST**. The request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

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.

Common request header fields are as follows.

Table 3-3 Common request header fields

Parameter	Description
Content-Type	Type or format of the request body. This field is mandatory and its default value is application/json . Other values of this field will be provided for specific APIs if any.
Authorization	Signature authentication information. This field is optional. During AK/SK-based authentication, this field is automatically specified when SDKs are used to sign the request. For more information, see AK/SK-based Authentication .
X-Sdk-Date	Time when a request is sent. This field is optional. When AK/SK authentication is used, this field is automatically specified when SDKs are used to sign the request. For more information, see AK/SK-based Authentication .
X-Auth-Token	User token. This field is mandatory only for token-based authentication. The user token is a response to the API used to obtain a user token . This API is the only one that does not require authentication.
X-Project-ID	Subproject ID. This parameter is mandatory only in multi-project scenarios. The X-Project-ID field is mandatory in the request header for accessing resources in a sub-project through AK/SK-based authentication.
X-Domain-ID	Account ID. The X-Domain-ID field is mandatory for calling APIs of global services through AK/SK-based authentication.

The API used to [create an IAM user](#) 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/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,
Signature=*****
```

(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. 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 [create an IAM user](#), the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace the italic fields in bold with the actual values.

- **accountid**: account ID of an IAM user
- **username**: name of an IAM user
- **email**: email of an IAM user
- *********: login password of an IAM user

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

```
Content-Type: application/json
```

```
X-Sdk-Date: 20240416T095341Z
```

```
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,  
Signature=*****
```

```
{  
  "user": {  
    "domain_id": "accountid",  
    "name": "username",  
    "password": "*****",  
    "email": "email",  
    "description": "IAM User Description"  
  }  
}
```

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:

- AK/SK authentication: Requests are encrypted using AK/SK pairs. AK/SK authentication is recommended because it is more secure than token authentication.
- Token authentication: Requests are authenticated using Tokens.

AK/SK Authentication

NOTE

- AK/SK authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token authentication is recommended.
- The AK/SK can be either a permanent access key or a temporary access key. If it is a temporary access key, the **X-Security-Token** field must be added to the request. The value is the **security_token** of the temporary access key.

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, which is used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK authentication, you can use an AK/SK pair to sign requests based on the signature algorithm or using the signing SDK. For details about how to sign requests and use the signing SDK, see [API Request Signing Guide](#).

NOTE

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

Token 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 requests to get permissions for calling the API.

You can obtain a token by calling the [Obtaining a User Token](#) API. When you call the API, set **auth.scope** in the request body to **project**.

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

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, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

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 [create an IAM user](#), the request is successful.

Response Header

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

The following shows part of the response body for the API to [create an IAM user](#).

Figure 3-2 Header fields of the response to the request for creating an IAM user

```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fcec8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_ null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```

(Optional) Response Body

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

The following shows part of the response body for the API to [create an IAM user](#).

```
{
  "user": {
    "id": "c131886aec...",
    "name": "IAMUser",
    "description": "IAM User Description",
    "areacode": "",
    "phone": "",
    "email": "****@***.com",
    "status": null,
    "enabled": true,
    "pwd_status": false,
    "access_mode": "default",
    "is_domain_owner": false,
    "xuser_id": "",
    "xuser_type": "",
    "password_expires_at": null,
    "create_time": "2024-05-21T09:03:41.000000",
```



```
{  "domain_id": "d78cbac1.....",
  "xdomain_id": "30086000.....",
  "xdomain_type": "",
  "default_project_id": null
}
```

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 Getting Started

Scenarios

This section describes the basic procedure of calling OMS APIs by creating an object data migration task.

For details, see [Calling APIs](#).

Involved APIs

- **Obtaining a User Token Through Password Authentication:** This API is used to obtain the user token for authentication.
- **Creating a Migration Task:** used to create a migration task using the source and destination AK/SK pairs
- **Querying a Migration Task:** used to query the task details based on the migration task ID to check whether the migration task has been created successfully

Prerequisites

- You have obtained the AK/SK pair for accessing the source platform.
- You have obtained an AK/SK pair for accessing the destination platform. For details about how to obtain an AK/SK pair, see [Creating Access Keys \(AK and SK\)](#).
- You have obtained the endpoints of IAM and OMS. For details, see [Regions and Endpoints](#).
- You have obtained the region where the source bucket locates.
- The destination bucket has been created. For details, see [Creating a Bucket](#).
- You have obtained the region where the destination bucket locates. For details, see [Viewing Bucket Information](#).
- You have obtained the project ID. For details, see [Obtaining a Project ID and Task ID](#).

Creating an Application

Assume that you have obtained the required information shown as follows, which are examples. You need to replace them based on the actual situation.

- IAM endpoint: **iam_endpoint**
- OMS endpoint: **oms.cn-north-1.myhuaweicloud.com**
- Project ID: **0215ef11e49d4743be23dd97a156xxxx**
- Region where the source bucket locates: **cn-beijing**
- Region where the destination bucket locates: **cn-north-1**
- Source AK: **source_ak**
- Source SK: **source_sk**
- Destination AK: **destination_ak**
- Destination SK: **destination_sk**
- Source bucket name: **source_bucket**
- Destination bucket name: **destination_bucket**
- Source type: **cloud_type**

Procedure

Step 1 Obtain the token of the IAM user.

- API
URI format: POST /v3/auth/tokens
For details, see [Obtaining a User Token Through Password Authentication](#).

- Example request
POST: https://{iam_endpoint}/v3/auth/tokens

Obtain *{endpoint}* from [Regions and Endpoints](#).

Body:

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "testname",
          "domain": {
            "name": "testname"
          },
          "password": "Password"
        }
      }
    },
    "scope": {
      "project": {
        "id": "0215ef11e49d4743be23dd97a156xxxx"
      }
    }
  }
}
```

In the response header, the value of **X-Subject-Token** is the token.

X-Subject-Token:MIIDKgYJKoZIhvcNAQcCoIIDgzCCA38CAQExDTALBgIghkgBZQMEAgEwgXXXXX...

Step 2 Make a call to the API for creating a migration task to create a migration task.

- API
URI format: POST https://{endpoint}/v2/{project_id}/tasks

For details, see [Creating a Migration Task](#).

- Example request

POST: `https://{endpoint}/v2/0215ef11e49d4743be23dd97a1561e91/tasks`

Obtain *{endpoint}* from [Regions and Endpoints](#).

Header:

Content-Type: application/json
X-Auth-Token: "Token"

Body:

```
{
  "task_type": "prefix",
  "src_node": {
    "cloud_type": "HuaweiCloud",
    "region": "cn-north-1",
    "bucket": "src_bucket",
    "ak": "src_ak",
    "sk": "src_sk",
    "object_key": [ "abc", "123", "prefix3", "path/prefix4" ]
  },
  "dst_node": {
    "region": "cn-north-1",
    "ak": "dst_ak",
    "sk": "dst_sk",
    "bucket": "dst_bucket"
  },
  "enable_kms": false,
  "enable_failed_object_recording": true,
  "description": "xxx"
}
```

- Example response

```
{
  "id": 180890111968184,
  "task_name": "task_name"
}
```

Step 3 Make a call to the task viewing API to view the task status.

- API

URI format:

GET `/v2/{project_id}/tasks/{task_id}`

For details, see [Querying a Migration Task](#).

- Example request

GET: `https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/tasks/191297407830872`

Obtain *{endpoint}* from [Regions and Endpoints](#).

Header:

Content-Type: application/json
X-Auth-Token: "Token"

- Example response

```
{
  "bandwidth_policy": [ {
    "end": "23:59",
    "max_bandwidth": 0,
    "start": "00:00"
  } ],
  "complete_size": 0,
  "description": "test log",
  "dst_node": {
    "bucket": "dst_bucket",
    "region": "cn-north-1"
  },
  "enable_failed_object_recording": true,
}
```

```
"enable_kms" : true,
"enable_restore" : false,
"error_reason" : {
  "error_code" : "string",
  "error_msg" : "string"
},
"failed_num" : 0,
"failed_object_record" : {
  "result" : true,
  "list_file_key" : "string",
  "error_code" : "string"
},
"group_id" : "string",
"id" : 0,
"is_query_over" : true,
"left_time" : 0,
"migrate_since" : 0,
"migrate_speed" : 0,
"name" : "string",
"progress" : 0,
"real_size" : 0,
"skipped_num" : 0,
"src_node" : {
  "bucket" : "src_bucket",
  "cloud_type" : "AWS",
  "region" : "cn-north-1",
  "app_id" : "string",
  "object_key" : [ "string", "string" ],
  "list_file" : {
    "list_file_key" : "object_list_file.txt",
    "obs_bucket" : "obs_bucket"
  }
},
"start_time" : 0,
"status" : 0,
"successful_num" : 0,
"task_type" : "list",
"total_num" : 0,
"total_size" : 0,
"total_time" : 0,
"smn_info" : {
  "notify_result" : true,
  "notify_error_message" : "string",
  "topic_name" : "string"
},
"source_cdn" : {
  "domain" : "xxx.xxx.xxx",
  "protocol" : "http",
  "authentication_type" : "string"
}
}
```

----End

5 APIs V2 (Recommended)

5.1 API Version Query

5.1.1 Listing API Versions

Function

This API is used to list all OMS API versions.

Calling Method

For details, see [Calling APIs](#).

URI

GET /

Request

Table 5-1 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-2 Response body parameter

Parameter	Type	Description
versions	Array of Version objects	The version list. Array length: 0 to 1,024

Table 5-3 Version field description

Parameter	Type	Description
id	String	The API version, for example, v1 .
links	Array of Link objects	The link address. Array length: 0 to 100
status	String	The version status. CURRENT : indicates a widely used version. SUPPORTED : indicates an earlier version which is still supported. DEPRECATED : indicates a deprecated version which may be deleted later. The value can be: • CURRENT • DEPRECATED • SUPPORTED
updated	String	The time when the version was updated. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates Coordinated Universal Time (UTC). Minimum length: 0 characters Maximum length: 32 characters

Table 5-4 Link field description

Parameter	Type	Description
href	String	The link address.
rel	String	The value is self , indicating that href is a local link.

Status code: 403**Table 5-5** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the list of supported API versions.

```
GET https://{endpoint}/
```

Example Response

Status code: 200

OK

```
{
  "versions": [ {
    "links": [ {
      "rel": "self",
      "href": "https://oms.cn-north-1.myhuaweicloud.com/v1/"
    } ],
    "id": "v1",
    "updated": "2020-01-01T12:00:00Z",
    "status": "SUPPORTED"
  }, {
    "links": [ {
      "rel": "self",
      "href": "https://oms.cn-north-1.myhuaweicloud.com/v2/"
    } ],
    "id": "v1",
    "updated": "2020-01-01T12:00:00Z",
    "status": "SUPPORTED"
  } ]
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ListApiVersionsSolution {
```



```
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);

    OmsClient client = OmsClient.newBuilder()
        .withCredential(auth)
        .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
        .build();
    ListApiVersionsRequest request = new ListApiVersionsRequest();
    try {
        ListApiVersionsResponse response = client.listApiVersions(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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk)

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

    try:
        request = ListApiVersionsRequest()
        response = client.list_api_versions(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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 := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.1.2 Querying an API Version

Function

This API is used to query a specified API version of OMS.

Calling Method

For details, see [Calling APIs](#).

URI

GET /{version}

Table 5-6 Path parameter

Parameter	Mandatory	Type	Description
version	Yes	String	The version. Minimum length: 1 character Maximum length: 10 characters

Request

Table 5-7 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-8 Response body parameters

Parameter	Type	Description
id	String	The API version, for example, v1 .
links	Array of Link objects	The link address. Array length: 0 to 100

Parameter	Type	Description
status	String	The version status. CURRENT : indicates a widely used version. SUPPORTED : indicates an earlier version which is still supported. DEPRECATED : indicates a deprecated version which may be deleted later. The value can be: • CURRENT • DEPRECATED • SUPPORTED
updated	String	The time when the version was updated. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the UTC time. Minimum length: 0 characters Maximum length: 32 characters

Table 5-9 Link field description

Parameter	Type	Description
href	String	The link address.
rel	String	The value is self , indicating that href is a local link.

Status code: 403**Table 5-10** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries a specified OMS API version.

```
GET https://{endpoint}/v2
```

Example Response

Status code: 200

The version information was obtained.

```
{
  "links" : [ {
    "rel" : "self",
    "href" : "https://oms.cn-north-1.myhuaweicloud.com/v1/"
  } ],
  "id" : "v2",
  "updated" : "2020-04-01T12:00:00Z",
  "status" : "SUPPORTED"
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ShowApiInfoSolution {

    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);

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowApiInfoRequest request = new ShowApiInfoRequest();
        request.withVersion("{version}");
        try {
            ShowApiInfoResponse response = client.showApiInfo(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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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 = OmsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(OmsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowApiInfoRequest()
        request.version = "{version}"
        response = client.show_api_info(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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 := oms.NewOmsClient(  
    oms.OmsClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.ShowApiInfoRequest{}  
request.Version = "{version}"  
response, err := client.ShowApiInfo(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The version information was obtained.
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.2 Migration Task Management

5.2.1 Listing Migration Tasks

Function

This API is used to list all migration tasks in a user account.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/tasks

Table 5-11 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Table 5-12 Query parameters

Parameter	Mandatory	Type	Description
group_id	No	String	The migration task group ID. Minimum length: 1 character Maximum length: 100 characters
limit	No	Integer	The maximum number of migration tasks displayed on one page. By default, 10 migration tasks are displayed on one page. A maximum of 100 migration tasks can be returned. Minimum value: 1 Maximum value: 100 Default value: 10
offset	No	Integer	The start serial number of migration tasks. The default value is 0 . The value must be greater than or equal to 0 . If offset is set to 0 , the query starts from the first record. Minimum value: 0 Maximum value: 2147483647 Default value: 0

Parameter	Mandatory	Type	Description
status	No	Integer	The migration task status. If this parameter is not specified, migration tasks in all statuses are queried. 1: waiting 2: migrating 3: paused 4: failed 5: succeeded 7: pausing Minimum value: 1 Maximum value: 7

Request

Table 5-13 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-14 Response body parameters

Parameter	Type	Description
tasks	Array of TaskResp objects	The details of queried migration tasks. Array length: 0 to 100
count	Long	The total number of migration tasks that meet the search criteria. Minimum value: 0 Maximum value: 9223372036854775807

Table 5-15 TaskResp field description

Parameter	Type	Description
bandwidth_policy	Array of BandwidthPolicy Dto objects	The traffic limiting rules. A maximum of five traffic limiting rules can be set for a single task. Array length: 0 to 5
complete_size	Long	The size (in bytes) of the objects that have been processed in the task. Minimum value: 0 Maximum value: 9223372036854775807
description	String	The task description. If this parameter is not set, the value is an empty string. Minimum length: 0 characters Maximum length: 255 characters
dst_node	DstNodeResp object	The destination node information.
enable_failed_object_recording	Boolean	Indicates whether the function of recording failed objects is enabled. If this function is enabled, information about objects that fail to be migrated will be stored in the destination bucket.
enable_kms	Boolean	Indicates whether KMS is used to encrypt the data to be stored in the destination OBS bucket.
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration.

Parameter	Type	Description
enable_restore	Boolean	Indicates whether automatic restoration of archived data is enabled. It takes a long time to restore archived data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archived data before the migration. If this function is enabled, archived objects will be automatically restored and then migrated. If this function is disabled, archived objects will be ignored during the migration, and the information about these objects will be recorded in the list of failed objects.
error_reason	ErrorReasonResp object	The task failure cause. The value is an empty string if the task is not in a Failed state.
failed_num	Long	The number of objects that fail to be migrated. Minimum value: 0 Maximum value: 9223372036854775807
failed_object_record	FailedObjectRecordDto object	The record of the objects that fail to be migrated. If recording succeeds, the path for storing the list of failed objects is displayed. If recording fails, the failure cause is displayed.
group_id	String	The ID of migration task group to which the task belongs. If a task is created by a migration task group, the ID of the migration task group is included. Minimum length: 0 characters Maximum length: 36 characters
id	Long	The task ID. Minimum value: 0 Maximum value: 9999999999999999
is_query_over	Boolean	Indicates whether the statistics of source objects in the migration task have been scanned.

Parameter	Type	Description
left_time	Long	The remaining time (in milliseconds) of the task. Minimum value: 0 Maximum value: 9223372036854775807
migrate_since	Long	The specified time point (timestamp, in milliseconds) for filtering source data. Only source objects that are modified after the specified time will be migrated. Default value 0 indicates that no time is specified. Minimum value: 0 Maximum value: 9223372036854775807
migrate_speed	Long	The migration speed (byte/s). Minimum value: 0 Maximum value: 9223372036854775807
name	String	The task name. Minimum length: 0 characters Maximum length: 10,240 characters
progress	Double	The task progress. For example, 0.522 represents the progress is 52.2%, and 1 represents the progress is 100%. Minimum value: 0 Maximum value: 1
real_size	Long	The total size (in bytes) of the migrated objects. The size of ignored objects is not included. Minimum value: 0 Maximum value: 9223372036854775807
skipped_num	Long	The number of objects that are skipped during the migration. The following objects will be skipped: objects whose last modification time is earlier than the specified migration time, and objects that already exist in the destination bucket. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
src_node	SrcNodeResp object	The source node information.
start_time	Long	The start time (Unix timestamp, in milliseconds) of the migration task. Minimum value: 0 Maximum value: 9223372036854775807
status	Integer	The task status. 1 : waiting 2 : migrating 3 : paused 4 : failed 5 : succeeded 7 : waiting Minimum value: 1 Maximum value: 7
successful_num	Long	The number of successfully migrated objects. Minimum value: 0 Maximum value: 9223372036854775807
task_type	String	The task type. If this parameter is left empty, the default value object is used. list : migrates only the objects recorded in a predefined object list. object : migrates only the specified files and folders. prefix : migrates only the objects that match the specified prefixes. url_list : migrates only the objects recorded in a predefined URL list. Default value: object The value can be: • list • object • prefix • url_list

Parameter	Type	Description
group_type	String	The group type. NORMAL_TASK : general migration tasks SYNC_TASK : migration tasks generated for a synchronization task GROUP_TASK : migration tasks in a task group Default value: NORMAL_TASK The value can be: • NORMAL_TASK • SYNC_TASK • GROUP_TASK
total_num	Long	The total number of objects that need to be migrated in the task. Minimum value: 0 Maximum value: 9223372036854775807
total_size	Long	The size (in bytes) of objects that need to be migrated in the task. Minimum value: 0 Maximum value: 9223372036854775807
total_time	Long	The total time used (in milliseconds). Minimum value: 0 Maximum value: 9223372036854775807
smn_info	SmnInfo object	The SMN notification results.
source_cdn	SourceCdnResp object	Indicates whether migration from CDN is enabled. If it is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration. If this field is included, migration from CDN is supported. Otherwise, it is not supported.

Parameter	Type	Description
success_record_error_reason	String	The error code returned for the failure in recording the list of objects that are successfully migrated. If the recording is successful, this parameter is left blank. Minimum length: 0 characters Maximum length: 255 characters
skip_record_error_reason	String	The error code returned for the failure in recording the list of objects that are ignored. If the recording is successful, this parameter is left blank. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Type	Description
object_overwrite_mode	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object is not as large as or was last modified more recently than its paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE

Parameter	Type	Description
dst_storage_policy	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD. STANDARD: Huawei Cloud OBS Standard storage IA: Huawei Cloud OBS Infrequent Access storage ARCHIVE: Huawei Cloud OBS Archive storage DEEP_ARCHIVE: Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING: converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Type	Description
consistency_check	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object does not need to be migrated or has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects will overwrite their paired destination objects directly. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. The value can be: • size_last_modified • crc64 • no_check
enable_requester_pays	Boolean	Indicates whether Requester Pays is enabled. If this function is enabled, the requester pays for the request and data transmission.

Parameter	Type	Description
task_priority	String	HIGH : high priority MEDIUM : medium priority LOW : low priority Default value: MEDIUM The value can be: • HIGH • MEDIUM • LOW

Table 5-16 BandwidthPolicyDto field description

Parameter	Type	Description
end	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Table 5-17 DstNodeResp field description

Parameter	Type	Description
bucket	String	The name of the destination bucket. Maximum length: 1,024 characters
region	String	The region where the destination bucket is located. The value must be the same as that of the service endpoint. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Type	Description
save_prefix	String	The path prefix used to organize object locations in the destination bucket. The prefix is added before an object key to form a new key. The length of the new key cannot exceed 1,024 characters. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-18 ErrorReasonResp field description

Parameter	Type	Description
error_code	String	The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters
error_msg	String	The migration failure cause. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-19 FailedObjectRecordDto field description

Parameter	Type	Description
result	Boolean	Indicates whether retransmission of failed objects is supported.
list_file_key	String	The path for storing the list of failed objects. Minimum length: 0 characters Maximum length: 1,024 characters
error_code	String	The error code returned when the list of failed objects fails to be uploaded. Minimum length: 0 characters Maximum length: 10 characters

Table 5-20 SrcNodeResp field description

Parameter	Type	Description
bucket	String	The name of the source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
cloud_type	String	The source cloud service provider. The value can be AWS , Azure , Aliyun , Tencent , HuaweiCloud , QingCloud , KingsoftCloud , Baidu , Google , Qiniu , URLSource , or UCloud . The default value is Aliyun . The value can be: • AWS • Azure • Aliyun • Tencent • HuaweiCloud • QingCloud • KingsoftCloud • Baidu • Qiniu • URLSource • UCloud • Google
region	String	The region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters
app_id	String	This parameter is returned when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
object_key	Array of strings	If task_type is set to object , this parameter indicates the names of objects to be migrated. If task_type is set to prefix , this parameter indicates the name prefixes of objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500

Parameter	Type	Description
list_file	ListFile object	The list file configuration. list_file is mandatory when task_type is set to list or url_list .

Table 5-21 ListFile field description

Parameter	Type	Description
list_file_key	String	The object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	String	The name of the OBS bucket for storing the object list files. Ensure that this bucket is in the same region as the destination bucket, or the task creation will fail. Minimum length: 0 characters Maximum length: 1,024 characters
list_file_num	String	The number of stored object list files. Minimum length: 0 characters Maximum length: 65,535 characters

Table 5-22 SmnInfo field description

Parameter	Type	Description
notify_result	Boolean	Indicates whether SMN messages are sent successfully after a migration task is complete.
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if the migration task is successful. Minimum length: 0 characters Maximum length: 1,024 characters
topic_name	String	The SMN topic name. The value is empty if SMN messages are sent successfully. Minimum length: 0 characters Maximum length: 5,120 characters

Table 5-23 SourceCdnResp field description

Parameter	Type	Description
domain	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	String	The protocol type. HTTP and HTTPS are supported. The value can be: • http • https
authentication_type	String	The authentication type. NONE QINIU_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION AZURE_SAS_TOKEN TENCENT_COS_A TENCENT_COS_B TENCENT_COS_C TENCENT_COS_D The value can be: • NONE • QINIU_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • AZURE_SAS_TOKEN • TENCENT_COS_A • TENCENT_COS_B • TENCENT_COS_C • TENCENT_COS_D

Status code: 400

Table 5-24 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries 10 failed tasks in the project whose ID is **2c0689c860ad4728a497c91ec0844383**.

GET https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/tasks?offset=0&limit=10&status=4

Example Response

Status code: 200

OK

```
{
  "tasks": [ {
    "bandwidth_policy": [ {
      "end": "23:59",
      "max_bandwidth": 0,
      "start": "00:00"
    } ],
    "complete_size": 0,
    "description": "test log",
    "dst_node": {
      "bucket": "dst_bucket",
      "region": "cn-north-1"
    },
    "enable_failed_object_recording": true,
    "enable_kms": true,
    "enable_restore": false,
    "error_reason": {
      "error_code": "string",
      "error_msg": "string"
    },
    "failed_num": 0,
    "failed_object_record": {
      "result": true,
      "list_file_key": "string",
      "error_code": "string"
    },
    "group_id": "string",
    "id": 0,
    "is_query_over": true,
    "left_time": 0,
    "migrate_since": 0,
    "migrate_speed": 0,
    "name": "string",
    "progress": 0,
    "real_size": 0,
    "skipped_num": 0,
    "src_node": {
      "bucket": "src_bucket",
      "cloud_type": "AWS",
      "region": "cn-north-1",
      "app_id": "string",
      "object_key": [ "string", "string" ],
      "list_file": {
```



```
    "list_file_key" : "object_list_file.txt",
    "obs_bucket" : "obs_bucket"
  }
},
"start_time" : 0,
"status" : 0,
"successful_num" : 0,
"task_type" : "list",
"total_num" : 0,
"total_size" : 0,
"total_time" : 0,
"smn_info" : {
  "notify_result" : true,
  "notify_error_message" : "string",
  "topic_name" : "string"
},
"source_cdn" : {
  "domain" : "xxx.xxx.xxx",
  "protocol" : "http",
  "authentication_type" : "string"
}
},
"count" : 1
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ListTasksSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ListTasksRequest request = new ListTasksRequest();
        try {
            ListTasksResponse response = client.listTasks(request);
            System.out.println(response.toString());
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

```
    } 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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ListTasksRequest()
        response = client.list_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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
projectId := "{project_id}"

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

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

For details, see [Error Codes](#).

5.2.2 Querying a Migration Task

Function

This API is used to query details about a task with a specified ID.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/tasks/{task_id}

Table 5-25 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	String	The task ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-26 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-27 Response body parameters

Parameter	Type	Description
bandwidth_policy	Array of BandwidthPolicy Dto objects	The traffic limiting rules. A maximum of five traffic limiting rules can be set for a single task. Array length: 0 to 5
complete_size	Long	The size (in bytes) of the objects that have been processed in the task. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
description	String	The task description. If this parameter is not set, the value is an empty string. Minimum length: 0 characters Maximum length: 255 characters
dst_node	DstNodeResp object	The destination node information.
enable_failed_object_recording	Boolean	Indicates whether the function of recording failed objects is enabled. If this function is enabled, information about objects that fail to be migrated will be stored in the destination bucket.
enable_kms	Boolean	Indicates whether KMS is used to encrypt the data to be stored in the destination OBS bucket.
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration.
enable_restore	Boolean	Indicates whether automatic restoration of archived data is enabled. It takes a long time to restore archived data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archived data before the migration. If this function is enabled, archived objects will be automatically restored and then migrated. If this function is disabled, archived objects will be ignored during the migration, and the information about these objects will be recorded in the list of failed objects.
error_reason	ErrorReasonResp object	The task failure cause. The value is an empty string if the task is not in a Failed state.
failed_num	Long	The number of objects that fail to be migrated. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
failed_object_record	FailedObjectRecordDto object	The record of the objects that fail to be migrated. If recording succeeds, the path for storing the list of failed objects is displayed. If recording fails, the failure cause is displayed.
group_id	String	The ID of migration task group to which the task belongs. If a task is created by a migration task group, the ID of the migration task group is included. Minimum length: 0 characters Maximum length: 36 characters
id	Long	The task ID. Minimum value: 0 Maximum value: 9999999999999999
is_query_over	Boolean	Indicates whether the statistics of source objects in the migration task have been scanned.
left_time	Long	The remaining time (in milliseconds) of the task. Minimum value: 0 Maximum value: 9223372036854775807
migrate_since	Long	The specified time point (timestamp, in milliseconds) for filtering source data. Only source objects that are modified after the specified time will be migrated. Default value 0 indicates that no time is specified. Minimum value: 0 Maximum value: 9223372036854775807
migrate_speed	Long	The migration speed (byte/s). Minimum value: 0 Maximum value: 9223372036854775807
name	String	The task name. Minimum length: 0 characters Maximum length: 10,240 characters

Parameter	Type	Description
progress	Double	The task progress. For example, 0.522 represents the progress is 52.2%, and 1 represents the progress is 100%. Minimum value: 0 Maximum value: 1
real_size	Long	The total size (in bytes) of the migrated objects. The size of ignored objects is not included. Minimum value: 0 Maximum value: 9223372036854775807
skipped_num	Long	The number of objects that are skipped during the migration. The following objects will be skipped: objects whose last modification time is earlier than the specified migration time, and objects that already exist in the destination bucket. Minimum value: 0 Maximum value: 9223372036854775807
src_node	SrcNodeResp object	The source node information.
start_time	Long	The start time (Unix timestamp, in milliseconds) of the migration task. Minimum value: 0 Maximum value: 9223372036854775807
status	Integer	The task status. 1 : waiting 2 : migrating 3 : paused 4 : failed 5 : succeeded 7 : waiting Minimum value: 1 Maximum value: 7

Parameter	Type	Description
successful_num	Long	The number of successfully migrated objects. Minimum value: 0 Maximum value: 9223372036854775807
task_type	String	The task type. If this parameter is left empty, the default value object is used. list : migrates only the objects recorded in a predefined object list. object : migrates only the specified files and folders. prefix : migrates only the objects that match the specified prefixes. url_list : migrates only the objects recorded in a predefined URL list. Default value: object The value can be: • list • object • prefix • url_list
group_type	String	The group type. NORMAL_TASK : general migration tasks SYNC_TASK : migration tasks generated for a synchronization task GROUP_TASK : migration tasks in a task group Default value: NORMAL_TASK The value can be: • NORMAL_TASK • SYNC_TASK • GROUP_TASK
total_num	Long	The total number of objects that need to be migrated in the task. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
total_size	Long	The size (in bytes) of objects that need to be migrated in the task. Minimum value: 0 Maximum value: 9223372036854775807
total_time	Long	The total time used (in milliseconds). Minimum value: 0 Maximum value: 9223372036854775807
smn_info	SmnInfo object	The SMN notification results.
source_cdn	SourceCdnResp object	Indicates whether migration from CDN is enabled. If it is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration. If this field is included, migration from CDN is supported. Otherwise, it is not supported.
success_record_error_reason	String	The error code returned for the failure in recording the list of objects that are successfully migrated. If the recording is successful, this parameter is left blank. Minimum length: 0 characters Maximum length: 255 characters
skip_record_error_reason	String	The error code returned for the failure in recording the list of objects that are ignored. If the recording is successful, this parameter is left blank. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Type	Description
object_overwrite_mode	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE

Parameter	Type	Description
dst_storage_policy	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD. STANDARD: Huawei Cloud OBS Standard storage IA: Huawei Cloud OBS Infrequent Access storage ARCHIVE: Huawei Cloud OBS Archive storage DEEP_ARCHIVE: Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING: converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Type	Description
consistency_check	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object does not need to be migrated or has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects will overwrite their paired destination objects directly. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. The value can be: • size_last_modified • crc64 • no_check
enable_requester_pays	Boolean	Indicates whether Requester Pays is enabled. If this function is enabled, the requester pays for the request and data transmission.

Parameter	Type	Description
task_priority	String	HIGH : high priority MEDIUM : medium priority LOW : low priority Default value: MEDIUM The value can be: • HIGH • MEDIUM • LOW

Table 5-28 BandwidthPolicyDto field description

Parameter	Type	Description
end	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Table 5-29 DstNodeResp field description

Parameter	Type	Description
bucket	String	The name of the destination bucket. Maximum length: 1,024 characters
region	String	The region where the destination bucket is located. The value must be the same as that of the service endpoint. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Type	Description
save_prefix	String	The path prefix used to organize object locations in the destination bucket. The prefix is added before an object key to form a new key. The length of the new key cannot exceed 1,024 characters. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-30 ErrorReasonResp field description

Parameter	Type	Description
error_code	String	The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters
error_msg	String	The migration failure cause. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-31 FailedObjectRecordDto field description

Parameter	Type	Description
result	Boolean	Indicates whether retransmission of failed objects is supported.
list_file_key	String	The path for storing the list of failed objects. Minimum length: 0 characters Maximum length: 1,024 characters
error_code	String	The error code returned when the list of failed objects fails to be uploaded. Minimum length: 0 characters Maximum length: 10 characters

Table 5-32 SrcNodeResp field description

Parameter	Type	Description
bucket	String	The name of the source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
cloud_type	String	The source cloud service provider. The value can be AWS , Azure , Aliyun , Tencent , HuaweiCloud , QingCloud , KingsoftCloud , Baidu , Google , Qiniu , URLSource , or UCloud . The default value is Aliyun . The value can be: • AWS • Azure • Aliyun • Tencent • HuaweiCloud • QingCloud • KingsoftCloud • Baidu • Qiniu • URLSource • UCloud • Google
region	String	The region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters
app_id	String	This parameter is returned when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
object_key	Array of strings	If task_type is set to object , this parameter indicates the names of objects to be migrated. If task_type is set to prefix , this parameter indicates the name prefixes of objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500

Parameter	Type	Description
list_file	ListFile object	The list file configuration. list_file is mandatory when task_type is set to list or url_list .

Table 5-33 ListFile field description

Parameter	Type	Description
list_file_key	String	The object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	String	The name of the OBS bucket for storing the object list files. Ensure that this bucket is in the same region as the destination bucket, or the task creation will fail. Minimum length: 0 characters Maximum length: 1,024 characters
list_file_num	String	The number of stored object list files. Minimum length: 0 characters Maximum length: 65,535 characters

Table 5-34 SmnInfo field description

Parameter	Type	Description
notify_result	Boolean	Indicates whether SMN messages are sent successfully after a migration task is complete.
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if the migration task is successful. Minimum length: 0 characters Maximum length: 1,024 characters
topic_name	String	The SMN topic name. The value is empty if SMN messages are sent successfully. Minimum length: 0 characters Maximum length: 5,120 characters

Table 5-35 SourceCdnResp field description

Parameter	Type	Description
domain	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	String	The protocol type. HTTP and HTTPS are supported. The value can be: • HTTP • HTTPS
authentication_type	String	The authentication type. NONE QINIU_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION AZURE_SAS_TOKEN TENCENT_COS_A TENCENT_COS_B TENCENT_COS_C TENCENT_COS_D The value can be: • NONE • QINIU_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • AZURE_SAS_TOKEN • TENCENT_COS_A • TENCENT_COS_B • TENCENT_COS_C • TENCENT_COS_D

Status code: 404

Table 5-36 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the details of task **191297407830872** in project **2c0689c860ad4728a497c91ec0844383**.

GET https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/tasks/191297407830872

Example Response

Status code: 200

OK

```
{
  "bandwidth_policy": [ {
    "end": "23:59",
    "max_bandwidth": 0,
    "start": "00:00"
  } ],
  "complete_size": 0,
  "description": "test log",
  "dst_node": {
    "bucket": "dst_bucket",
    "region": "cn-north-1"
  },
  "enable_failed_object_recording": true,
  "enable_kms": true,
  "enable_restore": false,
  "error_reason": {
    "error_code": "string",
    "error_msg": "string"
  },
  "failed_num": 0,
  "failed_object_record": {
    "result": true,
    "list_file_key": "string",
    "error_code": "string"
  },
  "group_id": "string",
  "id": 0,
  "is_query_over": true,
  "left_time": 0,
  "migrate_since": 0,
  "migrate_speed": 0,
  "name": "string",
  "progress": 0,
  "real_size": 0,
  "skipped_num": 0,
  "src_node": {
    "bucket": "src_bucket",
    "cloud_type": "AWS",
    "region": "cn-north-1",
    "app_id": "string",
    "object_key": [ "string", "string" ],
    "list_file": {
      "list_file_key": "object_list_file.txt",
```

```
    "obs_bucket" : "obs_bucket"
  }
},
"start_time" : 0,
"status" : 0,
"successful_num" : 0,
"task_type" : "list",
"total_num" : 0,
"total_size" : 0,
"total_time" : 0,
"smn_info" : {
  "notify_result" : true,
  "notify_error_message" : "string",
  "topic_name" : "string"
},
"source_cdn" : {
  "domain" : "xxx.xxx.xxx",
  "protocol" : "http",
  "authentication_type" : "string"
}
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ShowTaskSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowTaskRequest request = new ShowTaskRequest();
        request.withTaskId("{task_id}");
        try {
            ShowTaskResponse response = client.showTask(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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkoms.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"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = OmsClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(OmsRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ShowTaskRequest()  
        request.task_id = "{task_id}"  
        response = client.show_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"  
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
projectId := "{project_id}"

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

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
404	Not found.

Error Codes

For details, see [Error Codes](#).

5.2.3 Creating a Migration Task

Function

This API is used to create a migration task. After the migration task is created, it will be automatically started.

Constraints

- A tenant can create a maximum of 1,500 migration tasks within 24 hours.
- A tenant cannot create more migration tasks if the tenant already has 1,500 migration tasks in a **Waiting** state.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/tasks

Table 5-37 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-38 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-39 Request body parameters

Parameter	Mandatory	Type	Description
task_type	No	String	The task type. The default value is object. list: migrates only the objects recorded in a predefined object list. url_list: migrates only the objects recorded in a predefined URL list. object: migrates only the specified files and folders. It is the default setting. prefix: migrates only the objects that match the specified prefixes. Default value: object The value can be: • list • url_list • object • prefix
src_node	Yes	SrcNodeReq object	The source information.
dst_node	Yes	DstNodeReq object	The destination information.
enable_kms	No	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default. Default value: false
description	No	String	The task description, which cannot exceed 255 characters. The following special characters are not allowed: ^<>&" Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
migrate_since	No	Long	A timestamp in seconds. The system migrates only the objects that are modified after the specified time. No time is specified by default. Minimum value: 0 Maximum value: 9223372036854775807 Default value: 0
bandwidth_policy	No	Array of BandwidthPolicyDto objects	The traffic limiting rules. Each element in the array corresponds to the maximum bandwidth in a time period. A maximum of five periods are allowed, and the periods cannot overlap. Array length: 0 to 5
source_cdn	No	SourceCdnReq object	Indicates whether migration from CDN is enabled. If this field is included, migration from CDN is supported. Otherwise, it is not supported. If migration from CDN is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration.
smn_config	No	SmnConfig object	The SMN message sending configuration.
enable_metadata_migration	No	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration. Default value: false
enable_restore	No	Boolean	Indicates whether automatic restoration of archived data is enabled. The default value is No . If this function is enabled, archived data is automatically restored and migrated. Default value: false

Parameter	Mandatory	Type	Description
enable_failed_object_recording	No	Boolean	Indicates whether the function of recording failed objects is enabled. This function is enabled by default. If this function is enabled, information about objects that fail to be migrated will be stored in the destination bucket. Default value: true

Parameter	Mandatory	Type	Description
object_overwrite_mode	No	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects

Parameter	Mandatory	Type	Description
			to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE
dst_storage_policy	No	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD . STANDARD : Huawei Cloud OBS Standard storage IA : Huawei Cloud OBS Infrequent Access storage ARCHIVE : Huawei Cloud OBS Archive storage DEEP_ARCHIVE : Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING : converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Mandatory	Type	Description
consistency_check	No	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object does not need to be migrated or has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects will overwrite their paired destination objects directly. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. Default value: size_last_modified The value can be: • size_last_modified

Parameter	Mandatory	Type	Description
			• crc64 • no_check
enable_requester_pays	No	Boolean	Indicates whether Requester Pays is enabled. If this function is enabled, the requester pays for the request and data transmission. Default value: false
task_priority	No	String	HIGH : high priority MEDIUM : medium priority LOW : low priority Default value: MEDIUM The value can be: • HIGH • MEDIUM • LOW

Table 5-40 SrcNodeReq

Parameter	Mandatory	Type	Description
cloud_type	No	String	The source cloud service provider. If task_type is not url_list , this parameter is mandatory and must be URLSource . The value can be AWS , Azure , Aliyun , Tencent , HuaweiCloud , QingCloud , KingsoftCloud , Baidu , Qiniu , Google , URLSource , or UCloud . The default value is Aliyun . Default value: Aliyun
region	No	String	The region where the source bucket is located. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters

Parameter	Mandatory	Type	Description
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters
security_token	No	String	The temporary token for accessing the source bucket. Minimum length: 0 characters Maximum length: 16,384 characters
app_id	No	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
bucket	No	String	The name of the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
object_key	No	Array of strings	If task-type is set to object, this parameter indicates the names of the objects to be migrated. The character strings ending with a slash (/) indicate the folders to be migrated, and the character strings not ending with a slash (/) indicate the files to be migrated. If task_type is set to prefix, this parameter indicates the name prefixes of objects to be migrated. If you want to migrate the entire bucket, set this parameter to [""]. Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500
list_file	No	ListFile object	The list file configuration. list_file is mandatory when task_type is set to list or url_list .

Table 5-41 ListFile field description

Parameter	Mandatory	Type	Description
list_file_key	Yes	String	The object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	Yes	String	The name of the OBS bucket for storing the object list files. Ensure that this bucket is in the same region as the destination bucket, or the task creation will fail. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
list_file_num	No	String	The number of stored object list files. Minimum length: 0 characters Maximum length: 65,535 characters

Table 5-42 DstNodeReq field description

Parameter	Mandatory	Type	Description
ak	Yes	String	The AK for accessing the destination bucket. Minimum length: 0 characters Maximum length: 100 characters
sk	Yes	String	The SK for accessing the destination bucket. Minimum length: 0 characters Maximum length: 100 characters
security_token	No	String	The temporary token for accessing the destination bucket. Minimum length: 0 characters Maximum length: 16,384 characters
bucket	Yes	String	The name of the destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters
save_prefix	No	String	The path prefix used to organize object locations in the destination bucket. The prefix is added before an object key to form a new key. The length of the new key cannot exceed 1,024 characters. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
region	Yes	String	The region where the destination bucket is located. The value must be the same as that of the service endpoint. Minimum length: 0 characters Maximum length: 100 characters

Table 5-43 BandwidthPolicyDto field description

Parameter	Mandatory	Type	Description
end	Yes	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Yes	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	Yes	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Table 5-44 SourceCdnReq field description

Parameter	Mandatory	Type	Description
authentication_key	No	String	The CDN authentication key. If the CDN authentication is required, this parameter is mandatory. If no authorization is required, do not set this parameter. Qiniu: You do not need to set this parameter. Aliyun: Set this parameter based on the value of authentication_type. KingsoftCloud: You do not need to set this parameter. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
authentication_type	Yes	String	The authentication type. NONE Qiniu_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION Azure_SAS_TOKEN Tencent_COS_A Tencent_COS_B Tencent_COS_C Tencent_COS_D Default value: NONE The value can be: • NONE • Qiniu_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • Azure_SAS_TOKEN • Tencent_COS_A • Tencent_COS_B • Tencent_COS_C • Tencent_COS_D
domain	Yes	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	Yes	String	The protocol type. HTTP and HTTPS are supported. The value can be: • HTTP • HTTPS

Table 5-45 SmnConfig field description

Parameter	Mandatory	Type	Description
language	No	String	The management console language chosen by you. The value can be zh-cn or en-us . Default value: en-us The value can be: • zh-cn • en-us
topic_urn	Yes	String	The URN of the SMN topic bound to the migration task. Minimum length: 0 characters Maximum length: 1,024 characters
trigger_conditions	Yes	Array of strings	The trigger conditions of sending messages using SMN. The trigger conditions are based on the migration task states. The migration task state can be SUCCESS or FAILURE . • FAILURE: indicates that an SMN message will be sent if the migration task fails. • SUCCESS: indicates that an SMN message will be sent if the migration task succeeds. Array length: 1 to 2

Parameter	Mandatory	Type	Description
message_template_name	No	String	If this parameter is specified, SMN messages are sent using the specified template. Template example: { "Task_Status": "", "Task_Name": "", "Start_Time": "", "Total_Time_Used": "", "Transferred_Data": "", "Average_Speed": "", "Source_Bucket": "", "Destination_Bucket": "", "List_File_Bucket": "", "List_File_Key": "", "Success_object_list_path": "", "Skip_object_list_path": "", "Failed_object_list_path": "" }

Response

Status code: 200

Table 5-46 Response body parameters

Parameter	Type	Description
id	Long	The task ID. Minimum value: 0 Maximum value: 9999999999999999
task_name	String	The task name. Minimum length: 0 characters Maximum length: 2,048 characters

Status code: 400

Table 5-47 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates the objects in **object_list_file.txt**, and enables migration result notifications.

POST https://{endpoint}/v2/{project_id}/tasks

```
{
  "task_type": "list",
  "src_node": {
    "cloud_type": "HuaweiCloud",
    "region": "cn-north-1",
    "bucket": "src_bucket",
    "ak": "src_ak",
    "sk": "src_sk",
    "list_file": {
      "obs_bucket": "list_file_bucket",
      "list_file_key": "object_list_file.txt"
    }
  },
  "dst_node": {
    "region": "cn-north-1",
    "ak": "dst_ak",
    "sk": "dst_sk",
    "bucket": "dst_bucket"
  },
  "enable_kms": false,
  "enable_failed_object_recording": true,
  "description": "xxx",
  "migrate_since": 123456789,
  "bandwidth_policy": [ {
    "start": "00:00",
    "end": "23:59",
    "max_bandwidth": 50000000
  } ],
  "source_cdn": {
    "protocol": "https",
    "domain": "xxx.xxx.xxx",
    "authentication_type": "ALIYUN_OSS_A",
    "authentication_key": "xxx"
  },
  "smn_config": {
    "topic_urn": "urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS",
    "trigger_conditions": [ "SUCCESS", "FAILURE" ],
    "language": "en-us"
  }
}
```

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates object **file1.xxx** and **file2.xxx** and objects prefixed with **path1/**, and enables migration result notifications.

POST https://{endpoint}/v2/{project_id}/tasks

```
{
  "task_type": "object",
  "src_node": {
    "cloud_type": "HuaweiCloud",
    "region": "cn-north-1",
    "bucket": "src_bucket",
    "ak": "src_ak",
    "sk": "src_sk",
    "object_key": [ "file1.xxx", "file2.xxx", "path1/" ]
  },
  "dst_node": {
    "region": "cn-north-1",
    "ak": "dst_ak",
    "sk": "dst_sk",
    "bucket": "dst_bucket"
  },
  "enable_kms": false,
  "enable_failed_object_recording": true,
  "description": "xxx",
  "migrate_since": 123456789,
  "bandwidth_policy": [ {
    "start": "00:00",
    "end": "23:59",
    "max_bandwidth": 50000000
  } ],
  "source_cdn": {
    "protocol": "https",
    "domain": "xxx.xxx.xxx",
    "authentication_type": "ALIYUN_OSS_A",
    "authentication_key": "xxx"
  },
  "smn_config": {
    "topic_urn": "urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS",
    "trigger_conditions": [ "SUCCESS", "FAILURE" ],
    "language": "en-us"
  }
}
```

- This example creates a URL list-based migration task to migrate the objects listed in the **object_list_file.txt** file.

POST https://{endpoint}/v2/{project_id}/tasks

```
{
  "task_type": "url_list",
  "src_node": {
    "cloud_type": "URLSource",
    "list_file": {
      "obs_bucket": "list_file_bucket",
      "list_file_key": "object_list_file.txt"
    }
  },
  "dst_node": {
    "region": "cn-north-1",
    "ak": "dst_ak",
    "sk": "dst_sk",
    "bucket": "dst_bucket"
  },
  "enable_kms": false,
  "enable_failed_object_recording": true,
  "description": "xxx"
}
```

- This example creates a prefix-based migration task to migrate objects prefixed with **abc**, **123**, **prefix3**, or **path/prefix4**.

POST https://{endpoint}/v2/{project_id}/tasks

```
{
  "task_type": "prefix",
  "src_node": {
```

```
"cloud_type": "HuaweiCloud",
"region": "cn-north-1",
"bucket": "src_bucket",
"ak": "src_ak",
"sk": "src_sk",
"object_key": [ "abc", "123", "prefix3", "path/prefix4" ]
},
"dst_node": {
  "region": "cn-north-1",
  "ak": "dst_ak",
  "sk": "dst_sk",
  "bucket": "dst_bucket"
},
"enable_kms": false,
"enable_failed_object_recording": true,
"description": "xxx"
}
```

Example Response

Status code: 200

Created

```
{
  "id": 200429548242937,
  "task_name": "task_name"
}
```

SDK Sample Code

The sample code is as follows.

Java

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates the objects in **object_list_file.txt**, and enables migration result notifications.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

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

public class CreateTaskSolution {

    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");
        String projectId = "{project_id}";
```



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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
CreateTaskRequest request = new CreateTaskRequest();
CreateTaskReq body = new CreateTaskReq();
List<String> listSmnConfigTriggerConditions = new ArrayList<>();
listSmnConfigTriggerConditions.add("SUCCESS");
listSmnConfigTriggerConditions.add("FAILURE");
SmnConfig smnConfigbody = new SmnConfig();
smnConfigbody.withLanguage(SmnConfig.LanguageEnum.fromValue("en-us"))
    .withTopicUrn("urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS")
    .withTriggerConditions(listSmnConfigTriggerConditions);
SourceCdnReq sourceCdnbody = new SourceCdnReq();
sourceCdnbody.withAuthenticationKey("xxx")
    .withAuthenticationType(SourceCdnReq.AuthenticationTypeEnum.fromValue("ALIYUN_OSS_A"
))
    .withDomain("xxx.xxx.xxx")
    .withProtocol(SourceCdnReq.ProtocolEnum.fromValue("https"));
List<BandwidthPolicyDto> listbodyBandwidthPolicy = new ArrayList<>();
listbodyBandwidthPolicy.add(
    new BandwidthPolicyDto()
        .withEnd("23:59")
        .withMaxBandwidth(50000000L)
        .withStart("00:00")
);
DstNodeReq dstNodebody = new DstNodeReq();
dstNodebody.withAk("dst_ak")
    .withSk("dst_sk")
    .withBucket("dst_bucket")
    .withRegion("cn-north-1");
ListFile listFileSrcNode = new ListFile();
listFileSrcNode.withListFileKey("object_list_file.txt")
    .withObsBucket("list_file_bucket");
SrcNodeReq srcNodebody = new SrcNodeReq();
srcNodebody.withCloudType("HuaweiCloud")
    .withRegion("cn-north-1")
    .withAk("src_ak")
    .withSk("src_sk")
    .withBucket("src_bucket")
    .withListFile(listFileSrcNode);
body.withEnableFailedObjectRecording(true);
body.withSmnConfig(smnConfigbody);
body.withSourceCdn(sourceCdnbody);
body.withBandwidthPolicy(listbodyBandwidthPolicy);
body.withMigrateSince(123456789L);
body.withDescription("xxx");
body.withEnableKms(false);
body.withDstNode(dstNodebody);
body.withSrcNode(srcNodebody);
body.withTaskType(CreateTaskReq.TaskTypeEnum.fromValue("list"));
request.withBody(body);
try {
    CreateTaskResponse response = client.createTask(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());  
    }  
}
```

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates object **file1.xxx** and **file2.xxx** and objects prefixed with **path1/**, and enables migration result notifications.

```
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.oms.v2.region.OmsRegion;  
import com.huaweicloud.sdk.oms.v2.*;  
import com.huaweicloud.sdk.oms.v2.model.*;
```

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

```
public class CreateTaskSolution {
```

```
    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");  
        String projectId = "{project_id}";
```

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

```
        OmsClient client = OmsClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))  
            .build();
```

```
        CreateTaskRequest request = new CreateTaskRequest();  
        CreateTaskReq body = new CreateTaskReq();  
        List<String> listSmnConfigTriggerConditions = new ArrayList<>();  
        listSmnConfigTriggerConditions.add("SUCCESS");  
        listSmnConfigTriggerConditions.add("FAILURE");  
        SmnConfig smnConfigbody = new SmnConfig();  
        smnConfigbody.withLanguage(SmnConfig.LanguageEnum.fromValue("en-us"))  
            .withTopicUrn("urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS")  
            .withTriggerConditions(listSmnConfigTriggerConditions);  
        SourceCdnReq sourceCdnbody = new SourceCdnReq();  
        sourceCdnbody.withAuthenticationKey("xxx")  
            .withAuthenticationType(SourceCdnReq.AuthenticationTypeEnum.fromValue("ALIYUN_OSS_A"
```

```
    ))  
        .withDomain("xxx.xxx.xxx")  
        .withProtocol(SourceCdnReq.ProtocolEnum.fromValue("https"));  
        List<BandwidthPolicyDto> listbodyBandwidthPolicy = new ArrayList<>();  
        listbodyBandwidthPolicy.add(  
            new BandwidthPolicyDto()  
                .withEnd("23:59")  
                .withMaxBandwidth(50000000L)  
                .withStart("00:00")  
        );  
        DstNodeReq dstNodebody = new DstNodeReq();
```

```
dstNodebody.withAk("dst_ak")
    .withSk("dst_sk")
    .withBucket("dst_bucket")
    .withRegion("cn-north-1");
List<String> listSrcNodeObjectKey = new ArrayList<>();
listSrcNodeObjectKey.add("file1.xxx");
listSrcNodeObjectKey.add("file2.xxx");
listSrcNodeObjectKey.add("path1/");
SrcNodeReq srcNodebody = new SrcNodeReq();
srcNodebody.withCloudType("HuaweiCloud")
    .withRegion("cn-north-1")
    .withAk("src_ak")
    .withSk("src_sk")
    .withBucket("src_bucket")
    .withObjectKey(listSrcNodeObjectKey);
body.withEnableFailedObjectRecording(true);
body.withSmnConfig(smnConfigbody);
body.withSourceCdn(sourceCdnbody);
body.withBandwidthPolicy(listbodyBandwidthPolicy);
body.withMigrateSince(123456789L);
body.withDescription("xxx");
body.withEnableKms(false);
body.withDstNode(dstNodebody);
body.withSrcNode(srcNodebody);
body.withTaskType(CreateTaskReq.TaskTypeEnum.fromValue("object"));
request.withBody(body);
try {
    CreateTaskResponse response = client.createTask(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());
}
}
```

- This example creates a URL list-based migration task to migrate the objects listed in the **object_list_file.txt** file.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class CreateTaskSolution {

    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");
        String projectId = "{project_id}";
```

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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
CreateTaskRequest request = new CreateTaskRequest();
CreateTaskReq body = new CreateTaskReq();
DstNodeReq dstNodebody = new DstNodeReq();
dstNodebody.withAk("dst_ak")
    .withSk("dst_sk")
    .withBucket("dst_bucket")
    .withRegion("cn-north-1");
ListFile listFileSrcNode = new ListFile();
listFileSrcNode.withListFileKey("object_list_file.txt")
    .withObsBucket("list_file_bucket");
SrcNodeReq srcNodebody = new SrcNodeReq();
srcNodebody.withCloudType("URLSource")
    .withListFile(listFileSrcNode);
body.withEnableFailedObjectRecording(true);
body.withDescription("xxx");
body.withEnableKms(false);
body.withDstNode(dstNodebody);
body.withSrcNode(srcNodebody);
body.withTaskType(CreateTaskReq.TaskTypeEnum.fromValue("url_list"));
request.withBody(body);
try {
    CreateTaskResponse response = client.createTask(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());
}
}
```

- This example creates a prefix-based migration task to migrate objects prefixed with **abc**, **123**, **prefix3**, or **path/prefix4**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

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

public class CreateTaskSolution {

    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");
String projectId = "{project_id}";

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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();

CreateTaskRequest request = new CreateTaskRequest();
CreateTaskReq body = new CreateTaskReq();
DstNodeReq dstNodebody = new DstNodeReq();
dstNodebody.withAk("dst_ak")
    .withSk("dst_sk")
    .withBucket("dst_bucket")
    .withRegion("cn-north-1");
List<String> listSrcNodeObjectKey = new ArrayList<>();
listSrcNodeObjectKey.add("abc");
listSrcNodeObjectKey.add("123");
listSrcNodeObjectKey.add("prefix3");
listSrcNodeObjectKey.add("path/prefix4");
SrcNodeReq srcNodebody = new SrcNodeReq();
srcNodebody.withCloudType("HuaweiCloud")
    .withRegion("cn-north-1")
    .withAk("src_ak")
    .withSk("src_sk")
    .withBucket("src_bucket")
    .withObjectKey(listSrcNodeObjectKey);
body.withEnableFailedObjectRecording(true);
body.withDescription("xxx");
body.withEnableKms(false);
body.withDstNode(dstNodebody);
body.withSrcNode(srcNodebody);
body.withTaskType(CreateTaskReq.TaskTypeEnum.fromValue("prefix"));
request.withBody(body);
try {
    CreateTaskResponse response = client.createTask(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

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates the objects in **object_list_file.txt**, and enables migration result notifications.

```
# coding: utf-8
import os
```

```
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateTaskRequest()
        listTriggerConditionsSmnConfig = [
            "SUCCESS",
            "FAILURE"
        ]
        smnConfigbody = SmnConfig(
            language="en-us",
            topic_urn="urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS",
            trigger_conditions=listTriggerConditionsSmnConfig
        )
        sourceCdnbody = SourceCdnReq(
            authentication_key="xxx",
            authentication_type="ALIYUN_OSS_A",
            domain="xxx.xxx.xxx",
            protocol="https"
        )
        listBandwidthPolicybody = [
            BandwidthPolicyDto(
                end="23:59",
                max_bandwidth=50000000,
                start="00:00"
            )
        ]
        dstNodebody = DstNodeReq(
            ak="dst_ak",
            sk="dst_sk",
            bucket="dst_bucket",
            region="cn-north-1"
        )
        listFileSrcNode = ListFile(
            list_file_key="object_list_file.txt",
            obs_bucket="list_file_bucket"
        )
        srcNodebody = SrcNodeReq(
            cloud_type="HuaweiCloud",
            region="cn-north-1",
            ak="src_ak",
            sk="src_sk",
            bucket="src_bucket",
            list_file=listFileSrcNode
        )
        request.body = CreateTaskReq(
            enable_failed_object_recording=True,
            smn_config=smnConfigbody,
            source_cdn=sourceCdnbody,
```

```
        bandwidth_policy=listBandwidthPolicybody,
        migrate_since=123456789,
        description="xxx",
        enable_kms=False,
        dst_node=dstNodebody,
        src_node=srcNodebody,
        task_type="list"
    )
    response = client.create_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)
```

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates object **file1.xxx** and **file2.xxx** and objects prefixed with **path1/**, and enables migration result notifications.

coding: utf-8

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateTaskRequest()
        listTriggerConditionsSmnConfig = [
            "SUCCESS",
            "FAILURE"
        ]
        smnConfigbody = SmnConfig(
            language="en-us",
            topic_urn="urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS",
            trigger_conditions=listTriggerConditionsSmnConfig
        )
        sourceCdnbody = SourceCdnReq(
            authentication_key="xxx",
            authentication_type="ALIYUN_OSS_A",
            domain="xxx.xxx.xxx",
            protocol="https"
        )
        listBandwidthPolicybody = [
            BandwidthPolicyDto(
                end="23:59",
                max_bandwidth=50000000,
                start="00:00"
            )
        ]
```

```
]
dstNodebody = DstNodeReq(
    ak="dst_ak",
    sk="dst_sk",
    bucket="dst_bucket",
    region="cn-north-1"
)
listObjectKeySrcNode = [
    "file1.xxx",
    "file2.xxx",
    "path1/"
]
srcNodebody = SrcNodeReq(
    cloud_type="HuaweiCloud",
    region="cn-north-1",
    ak="src_ak",
    sk="src_sk",
    bucket="src_bucket",
    object_key=listObjectKeySrcNode
)
request.body = CreateTaskReq(
    enable_failed_object_recording=True,
    smn_config=smnConfigbody,
    source_cdn=sourceCdnbody,
    bandwidth_policy=listBandwidthPolicybody,
    migrate_since=123456789,
    description="xxx",
    enable_kms=False,
    dst_node=dstNodebody,
    src_node=srcNodebody,
    task_type="object"
)
response = client.create_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)
```

- This example creates a URL list-based migration task to migrate the objects listed in the **object_list_file.txt** file.

coding: utf-8

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
```



```
request = CreateTaskRequest()
dstNodebody = DstNodeReq(
    ak="dst_ak",
    sk="dst_sk",
    bucket="dst_bucket",
    region="cn-north-1"
)
listFileSrcNode = ListFile(
    list_file_key="object_list_file.txt",
    obs_bucket="list_file_bucket"
)
srcNodebody = SrcNodeReq(
    cloud_type="URLSource",
    list_file=listFileSrcNode
)
request.body = CreateTaskReq(
    enable_failed_object_recording=True,
    description="xxx",
    enable_kms=False,
    dst_node=dstNodebody,
    src_node=srcNodebody,
    task_type="url_list"
)
response = client.create_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)
```

- This example creates a prefix-based migration task to migrate objects prefixed with **abc**, **123**, **prefix3**, or **path/prefix4**.

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

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateTaskRequest()
        dstNodebody = DstNodeReq(
            ak="dst_ak",
            sk="dst_sk",
            bucket="dst_bucket",
            region="cn-north-1"
        )
        listObjectKeySrcNode = [
            "abc",
```

```
        "123",
        "prefix3",
        "path/prefix4"
    ]
    srcNodebody = SrcNodeReq(
        cloud_type="HuaweiCloud",
        region="cn-north-1",
        ak="src_ak",
        sk="src_sk",
        bucket="src_bucket",
        object_key=listObjectKeySrcNode
    )
    request.body = CreateTaskReq(
        enable_failed_object_recording=True,
        description="xxx",
        enable_kms=False,
        dst_node=dstNodebody,
        src_node=srcNodebody,
        task_type="prefix"
    )
    response = client.create_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

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates the objects in **object_list_file.txt**, and enables migration result notifications.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

```
var listTriggerConditionsSmnConfig = []string{
    "SUCCESS",
    "FAILURE",
}
languageSmnConfig:= model.GetSmnConfigLanguageEnum().EN_US
smnConfigbody := &model.SmnConfig{
    Language: &languageSmnConfig,
    TopicUrn: "urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS",
    TriggerConditions: listTriggerConditionsSmnConfig,
}
authenticationKeySourceCdn:= "xxx"
sourceCdnbody := &model.SourceCdnReq{
    AuthenticationKey: &authenticationKeySourceCdn,
    AuthenticationType: model.GetSourceCdnReqAuthenticationTypeEnum().ALIYUN_OSS_A,
    Domain: "xxx.xxx.xxx",
    Protocol: model.GetSourceCdnReqProtocolEnum().HTTPS,
}
var listBandwidthPolicybody = []model.BandwidthPolicyDto{
    {
        End: "23:59",
        MaxBandwidth: int64(50000000),
        Start: "00:00",
    },
}
dstNodebody := &model.DstNodeReq{
    Ak: "dst_ak",
    Sk: "dst_sk",
    Bucket: "dst_bucket",
    Region: "cn-north-1",
}
listFileSrcNode := &model.ListFile{
    ListFileKey: "object_list_file.txt",
    ObsBucket: "list_file_bucket",
}
cloudTypeSrcNode:= "HuaweiCloud"
regionSrcNode:= "cn-north-1"
akSrcNode:= "src_ak"
skSrcNode:= "src_sk"
bucketSrcNode:= "src_bucket"
srcNodebody := &model.SrcNodeReq{
    CloudType: &cloudTypeSrcNode,
    Region: &regionSrcNode,
    Ak: &akSrcNode,
    Sk: &skSrcNode,
    Bucket: &bucketSrcNode,
    ListFile: listFileSrcNode,
}
enableFailedObjectRecordingCreateTaskReq:= true
migrateSinceCreateTaskReq:= int64(123456789)
descriptionCreateTaskReq:= "xxx"
enableKmsCreateTaskReq:= false
taskTypeCreateTaskReq:= model.GetCreateTaskReqTaskTypeEnum().LIST
request.Body = &model.CreateTaskReq{
    EnableFailedObjectRecording: &enableFailedObjectRecordingCreateTaskReq,
    SmnConfig: smnConfigbody,
    SourceCdn: sourceCdnbody,
    BandwidthPolicy: &listBandwidthPolicybody,
    MigrateSince: &migrateSinceCreateTaskReq,
    Description: &descriptionCreateTaskReq,
    EnableKms: &enableKmsCreateTaskReq,
    DstNode: dstNodebody,
    SrcNode: srcNodebody,
    TaskType: &taskTypeCreateTaskReq,
}
response, err := client.CreateTask(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
```

- This example migrates data from Alibaba Cloud over HTTPS using CDN. It uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates object **file1.xxx** and **file2.xxx** and objects prefixed with **path1/**, and enables migration result notifications.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTaskRequest{}
    var listTriggerConditionsSmnConfig = []string{
        "SUCCESS",
        "FAILURE",
    }
    languageSmnConfig := model.GetSmnConfigLanguageEnum().EN_US
    smnConfigbody := &model.SmnConfig{
        Language: &languageSmnConfig,
        TopicUrn: "urn:smn:region:4cf2090802d94440b4cdd72ef26857b2:OMS",
        TriggerConditions: listTriggerConditionsSmnConfig,
    }
    authenticationKeySourceCdn := "xxx"
    sourceCdnbody := &model.SourceCdnReq{
        AuthenticationKey: &authenticationKeySourceCdn,
        AuthenticationType: model.GetSourceCdnReqAuthenticationTypeEnum().ALIYUN_OSS_A,
        Domain: "xxx.xxx.xxx",
        Protocol: model.GetSourceCdnReqProtocolEnum().HTTPS,
    }
    var listBandwidthPolicybody = []model.BandwidthPolicyDto{
        {
            End: "23:59",
            MaxBandwidth: int64(50000000),
            Start: "00:00",
        },
    }
    dstNodebody := &model.DstNodeReq{
        Ak: "dst_ak",
        Sk: "dst_sk",
        Bucket: "dst_bucket",
    }
```

```
    Region: "cn-north-1",
  }
  var listObjectKeySrcNode = []string{
    "file1.xxx",
    "file2.xxx",
    "path1/",
  }
  cloudTypeSrcNode:= "HuaweiCloud"
  regionSrcNode:= "cn-north-1"
  akSrcNode:= "src_ak"
  skSrcNode:= "src_sk"
  bucketSrcNode:= "src_bucket"
  srcNodebody := &model.SrcNodeReq{
    CloudType: &cloudTypeSrcNode,
    Region: &regionSrcNode,
    Ak: &akSrcNode,
    Sk: &skSrcNode,
    Bucket: &bucketSrcNode,
    ObjectKey: &listObjectKeySrcNode,
  }
  enableFailedObjectRecordingCreateTaskReq:= true
  migrateSinceCreateTaskReq:= int64(123456789)
  descriptionCreateTaskReq:= "xxx"
  enableKmsCreateTaskReq:= false
  taskTypeCreateTaskReq:= model.GetCreateTaskReqTaskTypeEnum().OBJECT
  request.Body = &model.CreateTaskReq{
    EnableFailedObjectRecording: &enableFailedObjectRecordingCreateTaskReq,
    SmnConfig: smnConfigbody,
    SourceCdn: sourceCdnbody,
    BandwidthPolicy: &listBandwidthPolicybody,
    MigrateSince: &migrateSinceCreateTaskReq,
    Description: &descriptionCreateTaskReq,
    EnableKms: &enableKmsCreateTaskReq,
    DstNode: dstNodebody,
    SrcNode: srcNodebody,
    TaskType: &taskTypeCreateTaskReq,
  }
  response, err := client.CreateTask(request)
  if err == nil {
    fmt.Printf("%v\n", response)
  } else {
    fmt.Println(err)
  }
}
```

- This example creates a URL list-based migration task to migrate the objects listed in the **object_list_file.txt** file.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
```

```
WithAk(ak).
WithSk(sk).
WithProjectId(projectId).
Build()

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateTaskRequest{}
dstNodebody := &model.DstNodeReq{
    Ak: "dst_ak",
    Sk: "dst_sk",
    Bucket: "dst_bucket",
    Region: "cn-north-1",
}
listFileSrcNode := &model.ListFile{
    ListFileKey: "object_list_file.txt",
    ObsBucket: "list_file_bucket",
}
cloudTypeSrcNode := "URLSource"
srcNodebody := &model.SrcNodeReq{
    CloudType: &cloudTypeSrcNode,
    ListFile: listFileSrcNode,
}
enableFailedObjectRecordingCreateTaskReq := true
descriptionCreateTaskReq := "xxx"
enableKmsCreateTaskReq := false
taskTypeCreateTaskReq := model.GetCreateTaskReqTaskTypeEnum().URL_LIST
request.Body = &model.CreateTaskReq{
    EnableFailedObjectRecording: &enableFailedObjectRecordingCreateTaskReq,
    Description: &descriptionCreateTaskReq,
    EnableKms: &enableKmsCreateTaskReq,
    DstNode: dstNodebody,
    SrcNode: srcNodebody,
    TaskType: &taskTypeCreateTaskReq,
}
response, err := client.CreateTask(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
}
```

- This example creates a prefix-based migration task to migrate objects prefixed with **abc**, **123**, **prefix3**, or **path/prefix4**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"
```

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

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateTaskRequest{
dstNodebody := &model.DstNodeReq{
    Ak: "dst_ak",
    Sk: "dst_sk",
    Bucket: "dst_bucket",
    Region: "cn-north-1",
}
var listObjectKeySrcNode = []string{
    "abc",
    "123",
    "prefix3",
    "path/prefix4",
}
cloudTypeSrcNode:= "HuaweiCloud"
regionSrcNode:= "cn-north-1"
akSrcNode:= "src_ak"
skSrcNode:= "src_sk"
bucketSrcNode:= "src_bucket"
srcNodebody := &model.SrcNodeReq{
    CloudType: &cloudTypeSrcNode,
    Region: &regionSrcNode,
    Ak: &akSrcNode,
    Sk: &skSrcNode,
    Bucket: &bucketSrcNode,
    ObjectKey: &listObjectKeySrcNode,
}
enableFailedObjectRecordingCreateTaskReq:= true
descriptionCreateTaskReq:= "xxx"
enableKmsCreateTaskReq:= false
taskTypeCreateTaskReq:= model.GetCreateTaskReqTaskTypeEnum().PREFIX
request.Body = &model.CreateTaskReq{
    EnableFailedObjectRecording: &enableFailedObjectRecordingCreateTaskReq,
    Description: &descriptionCreateTaskReq,
    EnableKms: &enableKmsCreateTaskReq,
    DstNode: dstNodebody,
    SrcNode: srcNodebody,
    TaskType: &taskTypeCreateTaskReq,
}
response, err := client.CreateTask(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Created
400	Bad Request

Error Codes

For details, see [Error Codes](#).

5.2.4 Pausing a Migration Task

Function

This API is used to pause a migration task that is in the **Migrating** state.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/tasks/{task_id}/stop

Table 5-48 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	String	The migration task ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-49 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

OK

Status code: 400**Table 5-50** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403**Table 5-51** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example pauses the task **191297407830872** in the project **2c0689c860ad4728a497c91ec0844383**.

```
POST https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/tasks/191297407830872
```

Example Response

None

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class StopTaskSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        StopTaskRequest request = new StopTaskRequest();
        request.withTaskId("{task_id}");
        try {
            StopTaskResponse response = client.stopTask(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.getStatusCode());
            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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = StopTaskRequest()
        request.task_id = "{task_id}"
        response = client.stop_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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

```
}  
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.2.5 Starting a Migration Task

Function

This API is used to start a migration task when the migration task is paused or failed.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/tasks/{task_id}/start

Table 5-52 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
task_id	Yes	String	The migration task ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-53 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-54 Request body parameters

Parameter	Mandatory	Type	Description
src_ak	No	String	The AK for accessing the source node. Enter a maximum of 100 characters. This parameter is not required for URL list-based migration tasks. Minimum length: 1 character Maximum length: 100 characters
src_sk	No	String	The SK for accessing the source node. Enter a maximum of 100 characters. This parameter is not required for URL list-based migration tasks. Minimum length: 1 character Maximum length: 100 characters

Parameter	Mandatory	Type	Description
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters
src_security_token	No	String	The temporary token for accessing the source node. Minimum length: 0 characters Maximum length: 16,384 characters
dst_ak	Yes	String	The AK for accessing the destination node. Minimum length: 1 character Maximum length: 100 characters
dst_sk	Yes	String	The SK for accessing the destination node. Minimum length: 1 character Maximum length: 100 characters
dst_security_token	No	String	The temporary token for accessing the destination node. Minimum length: 0 characters Maximum length: 16,384 characters
source_cdn_authentication_key	No	String	The CDN authentication key. Minimum length: 0 characters Maximum length: 255 characters
migrate_failed_object	No	Boolean	Indicates whether to migrate all objects in the migration task. The default value is false (full migration). If the value is true , only failed objects will be migrated again. If the value is blank or false , all objects in the migration task will be migrated again. Default value: false

Response

Status code: 200

OK

Status code: 400

Table 5-55 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

- This example starts a paused task that does not use the URL list-based migration method using the AK/SK pairs of the source and destination accounts.

```
POST https://{endpoint}/v2/{project_id}/tasks/{task_id}/start
```

```
{
  "src_ak" : "src_ak",
  "src_sk" : "src_sk",
  "dst_ak" : "dst_ak",
  "dst_sk" : "dst_sk",
  "migrate_failed_object" : false
}
```

- This example starts a paused task that uses the URL list-based migration method using the AK/SK pair of the destination account.

```
POST https://{endpoint}/v2/{project_id}/tasks/{task_id}/start
```

```
{
  "dst_ak" : "dst_ak",
  "dst_sk" : "dst_sk",
  "migrate_failed_object" : false
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

- This example starts a paused task that does not use the URL list-based migration method using the AK/SK pairs of the source and destination accounts.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class StartTaskSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        StartTaskRequest request = new StartTaskRequest();
        request.withTaskId("{task_id}");
        StartTaskReq body = new StartTaskReq();
        body.withMigrateFailedObject(false);
        body.withDstSk("dst_sk");
        body.withDstAk("dst_ak");
        body.withSrcSk("src_sk");
        body.withSrcAk("src_ak");
        request.withBody(body);
        try {
            StartTaskResponse response = client.startTask(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.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example starts a paused task that uses the URL list-based migration method using the AK/SK pair of the destination account.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;
```



```
public class StartTaskSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        StartTaskRequest request = new StartTaskRequest();
        request.withTaskId("{task_id}");
        StartTaskReq body = new StartTaskReq();
        body.withMigrateFailedObject(false);
        body.withDstSk("dst_sk");
        body.withDstAk("dst_ak");
        request.withBody(body);
        try {
            StartTaskResponse response = client.startTask(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.getErrMsg());
        }
    }
}
```

Python

- This example starts a paused task that does not use the URL list-based migration method using the AK/SK pairs of the source and destination accounts.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

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

try:
    request = StartTaskRequest()
    request.task_id = "{task_id}"
    request.body = StartTaskReq(
        migrate_failed_object=False,
        dst_sk="dst_sk",
        dst_ak="dst_ak",
        src_sk="src_sk",
        src_ak="src_ak"
    )
    response = client.start_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)
```

- This example starts a paused task that uses the URL list-based migration method using the AK/SK pair of the destination account.

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

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = StartTaskRequest()
        request.task_id = "{task_id}"
        request.body = StartTaskReq(
            migrate_failed_object=False,
            dst_sk="dst_sk",
            dst_ak="dst_ak"
        )
        response = client.start_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

- This example starts a paused task that does not use the URL list-based migration method using the AK/SK pairs of the source and destination accounts.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.StartTaskRequest{}
    request.TaskId = "{task_id}"
    migrateFailedObjectStartTaskReq := false
    srcSkStartTaskReq := "src_sk"
    srcAkStartTaskReq := "src_ak"
    request.Body = &model.StartTaskReq{
        MigrateFailedObject: &migrateFailedObjectStartTaskReq,
        DstSk: "dst_sk",
        DstAk: "dst_ak",
        SrcSk: &srcSkStartTaskReq,
        SrcAk: &srcAkStartTaskReq,
    }
    response, err := client.StartTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example starts a paused task that uses the URL list-based migration method using the AK/SK pair of the destination account.

```
package main

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

```
oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.StartTaskRequest{
        request.TaskId = "{task_id}"
        migrateFailedObjectStartTaskReq:= false
        request.Body = &model.StartTaskReq{
            MigrateFailedObject: &migrateFailedObjectStartTaskReq,
            DstSk: "dst_sk",
            DstAk: "dst_ak",
        }
    }
    response, err := client.StartTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.

Error Codes

For details, see [Error Codes](#).

5.2.6 Deleting a Migration Task

Function

This API is used to delete a migration task.

In-progress tasks cannot be deleted. If you try to delete an in-progress task, the system will return a message indicating the deletion fails. To delete such a task, pause the task first.

Calling Method

For details, see [Calling APIs](#).

URI

DELETE /v2/{project_id}/tasks/{task_id}

Table 5-56 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	String	The migration task ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-57 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

OK

Status code: 400

Table 5-58 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-59 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example deletes the task **191297407830872** in the project **2c0689c860ad4728a497c91ec0844383**.

```
DELETE https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/tasks/191297407830872
```

Example Response

None

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class DeleteTaskSolution {

    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");
String projectId = "{project_id}";

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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
DeleteTaskRequest request = new DeleteTaskRequest();
request.withTaskId("{task_id}");
try {
    DeleteTaskResponse response = client.deleteTask(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.getStatusCode());
    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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = DeleteTaskRequest()
        request.task_id = "{task_id}"
        response = client.delete_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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.2.7 Updating the Traffic Limiting Rules of a Migration Task

Function

This API is used to update the traffic limiting rules for a migration task before it is completed.

Calling Method

For details, see [Calling APIs](#).

URI

PUT /v2/{project_id}/tasks/{task_id}/bandwidth-policy

Table 5-60 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	String	The task ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-61 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-62 Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_policy	Yes	Array of BandwidthPolicyDto objects	The traffic limiting rules. Each element in the array corresponds to the maximum bandwidth in a time period. A maximum of five periods are allowed, and the periods cannot overlap. Array length: 0 to 5

Table 5-63 BandwidthPolicyDto field description

Parameter	Mandatory	Type	Description
end	Yes	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Yes	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	Yes	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Response

Status code: 200

OK

Status code: 400

Table 5-64 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.

Parameter	Type	Description
error_code	String	The error code.

Example Request

This example sets the migration rate limit to 50 MB/s for the task whose ID is **xxxxxxx** from 00:01 to 23:59.

```
/v2/{project_id}/tasks/xxxxxxx/bandwidth-policy
{
  "bandwidth_policy": [ {
    "start": "00:01",
    "end": "23:59",
    "max_bandwidth": 50000000
  } ]
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

This example sets the migration rate limit to 50 MB/s for the task whose ID is **xxxxxxx** from 00:01 to 23:59.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

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

public class UpdateBandwidthPolicySolution {

    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");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
```

```
.withSk(sk);

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateBandwidthPolicyRequest request = new UpdateBandwidthPolicyRequest();
request.withTaskId("{task_id}");
UpdateBandwidthPolicyReq body = new UpdateBandwidthPolicyReq();
List<BandwidthPolicyDto> listbodyBandwidthPolicy = new ArrayList<>();
listbodyBandwidthPolicy.add(
    new BandwidthPolicyDto()
        .withEnd("23:59")
        .withMaxBandwidth(50000000L)
        .withStart("00:01")
);
body.withBandwidthPolicy(listbodyBandwidthPolicy);
request.withBody(body);
try {
    UpdateBandwidthPolicyResponse response = client.updateBandwidthPolicy(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.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

Python

This example sets the migration rate limit to 50 MB/s for the task whose ID is **xxxxxxx** from 00:01 to 23:59.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = OmsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(OmsRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateBandwidthPolicyRequest()
        request.task_id = "{task_id}"
        listBandwidthPolicybody = [
```

```
        BandwidthPolicyDto(  
            end="23:59",  
            max_bandwidth=50000000,  
            start="00:01"  
        )  
    ]  
    request.body = UpdateBandwidthPolicyReq(  
        bandwidth_policy=listBandwidthPolicybody  
    )  
    response = client.update_bandwidth_policy(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

This example sets the migration rate limit to 50 MB/s for the task whose ID is **xxxxxxx** from 00:01 to 23:59.

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := oms.NewOmsClient(  
        oms.OmsClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.UpdateBandwidthPolicyRequest{}  
    request.TaskId = "{task_id}"  
    var listBandwidthPolicybody = []model.BandwidthPolicyDto{  
        {  
            End: "23:59",  
            MaxBandwidth: int64(50000000),  
            Start: "00:01",  
        },  
    }  
    request.Body = &model.UpdateBandwidthPolicyReq{  
        BandwidthPolicy: listBandwidthPolicybody,  
    }  
    response, err := client.UpdateBandwidthPolicy(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)
```

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

For details, see [Error Codes](#).

5.2.8 Updating Tasks in Batches

Function

This API is used to update migration tasks in batches. You can update all migration tasks in a migration task group or update migration tasks with specified IDs.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/tasks/batch-update

Table 5-65 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-66 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-67 Request body parameters

Parameter	Mandatory	Type	Description
group_id	No	String	The ID of the migration task group. All tasks in the task group will be updated. Either group_id or ids must be specified. Minimum length: 1 character Maximum length: 36 characters
ids	No	Array of longs	The migration task ID array, including IDs of all tasks to be updated in batches. Either group_id or ids must be specified. Minimum value: 0 Maximum value: 9223372036854775807 Array length: 0 to 20
bandwidth_policy	Yes	Array of BandwidthPolicyDto objects	The traffic limiting rules. Each element in the array corresponds to the maximum bandwidth in a time period. A maximum of five periods are allowed, and the periods cannot overlap. Array length: 0 to 5

Parameter	Mandatory	Type	Description
task_priority	No	String	The task priority. There are three priority levels: high, medium, and low. This setting can only be modified for tasks that are waiting, suspended, and failed. HIGH: high priority MEDIUM: medium priority LOW: low priority The value can be: • HIGH • MEDIUM • LOW

Table 5-68 BandwidthPolicyDto field description

Parameter	Mandatory	Type	Description
end	Yes	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Yes	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	Yes	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Response

Status code: 200

OK. Batch update succeeded.

Status code: 400

Table 5-69 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

- This example updates the traffic limiting rules for tasks in the task group with ID **xxxxxxx** by setting **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000**.

```
/v2/{project_id}/tasks/batch-update
```

```
{
  "group_id": "xxxxxxx",
  "bandwidth_policy": [ {
    "start": "00:01",
    "end": "23:59",
    "max_bandwidth": 50000000
  } ]
}
```

- This example updates the traffic limiting rules for tasks with IDs **111** and **222** by setting **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000**.

```
/v2/{project_id}/tasks/batch-update
```

```
{
  "ids": [ 111, 222 ],
  "bandwidth_policy": [ {
    "start": "00:01",
    "end": "23:59",
    "max_bandwidth": 50000000
  } ]
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

- This example updates the traffic limiting rules for tasks in the task group with ID **xxxxxxx** by setting **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
```

```
import com.huaweicloud.sdk.oms.v2.model.*;

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

public class BatchUpdateTasksSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        BatchUpdateTasksRequest request = new BatchUpdateTasksRequest();
        BatchUpdateTasksReq body = new BatchUpdateTasksReq();
        List<BandwidthPolicyDto> listbodyBandwidthPolicy = new ArrayList<>();
        listbodyBandwidthPolicy.add(
            new BandwidthPolicyDto()
                .withEnd("23:59")
                .withMaxBandwidth(50000000L)
                .withStart("00:01")
        );
        body.withBandwidthPolicy(listbodyBandwidthPolicy);
        body.withGroupId("xxxxxxx");
        request.withBody(body);
        try {
            BatchUpdateTasksResponse response = client.batchUpdateTasks(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());
        }
    }
}
```

- This example updates the traffic limiting rules for tasks with IDs **111** and **222** by setting **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;
```

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

public class BatchUpdateTasksSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        BatchUpdateTasksRequest request = new BatchUpdateTasksRequest();
        BatchUpdateTasksReq body = new BatchUpdateTasksReq();
        List<BandwidthPolicyDto> listbodyBandwidthPolicy = new ArrayList<>();
        listbodyBandwidthPolicy.add(
            new BandwidthPolicyDto()
                .withEnd("23:59")
                .withMaxBandwidth(50000000L)
                .withStart("00:01")
        );
        List<Long> listbodyIds = new ArrayList<>();
        listbodyIds.add(111L);
        listbodyIds.add(222L);
        body.withBandwidthPolicy(listbodyBandwidthPolicy);
        body.withIds(listbodyIds);
        request.withBody(body);
        try {
            BatchUpdateTasksResponse response = client.batchUpdateTasks(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.getErrMsg());
        }
    }
}
```

Python

- This example updates the traffic limiting rules for tasks in the task group with ID xxxxxxxx by setting **start** to 00:01, **end** to 23:59, and **max_bandwidth** to 50000000.

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

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
```

```
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = BatchUpdateTasksRequest()
        listBandwidthPolicybody = [
            BandwidthPolicyDto(
                end="23:59",
                max_bandwidth=50000000,
                start="00:01"
            )
        ]
        request.body = BatchUpdateTasksReq(
            bandwidth_policy=listBandwidthPolicybody,
            group_id="xxxxxxx"
        )
        response = client.batch_update_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)
```

- This example updates the traffic limiting rules for tasks with IDs **111** and **222** by setting **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

```
try:
    request = BatchUpdateTasksRequest()
    listBandwidthPolicybody = [
        BandwidthPolicyDto(
            end="23:59",
            max_bandwidth=50000000,
            start="00:01"
        )
    ]
    listIdsbody = [
        111,
        222
    ]
    request.body = BatchUpdateTasksReq(
        bandwidth_policy=listBandwidthPolicybody,
        ids=listIdsbody
    )
    response = client.batch_update_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

- This example updates the traffic limiting rules for tasks in the task group with ID **xxxxxxx** by setting **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchUpdateTasksRequest{}
    var listBandwidthPolicybody = []model.BandwidthPolicyDto{
        {
            End: "23:59",
            MaxBandwidth: int64(50000000),
        }
    }
```

```
        Start: "00:01",
    },
}
}
groupIdBatchUpdateTasksReq := "xxxxxxx"
request.Body = &model.BatchUpdateTasksReq{
    BandwidthPolicy: listBandwidthPolicybody,
    GroupId: &groupIdBatchUpdateTasksReq,
}
response, err := client.BatchUpdateTasks(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- This example updates the traffic limiting rules for tasks with IDs **111** and **222** by setting **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.BatchUpdateTasksRequest{}
    var listBandwidthPolicybody = []model.BandwidthPolicyDto{
        {
            End: "23:59",
            MaxBandwidth: int64(50000000),
            Start: "00:01",
        },
    }
    var listIdsbody = []int64{
        int64(111),
        int64(222),
    }
    request.Body = &model.BatchUpdateTasksReq{
        BandwidthPolicy: listBandwidthPolicybody,
        Ids: &listIdsbody,
    }
    response, err := client.BatchUpdateTasks(request)
    if err == nil {
```

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK. Batch update succeeded.
400	Bad request. Invalid parameters.

Error Codes

For details, see [Error Codes](#).

5.3 Synchronization Task Management

5.3.1 Creating a Synchronization Event

Function

This API is used to create a synchronization event when objects in the source bucket need to be synchronized. Then OMS synchronizes the objects contained in the synchronization event. This API is available in regions CN North-Beijing4 and CN East-Shanghai1.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/sync-tasks/{sync_task_id}/events

Table 5-70 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
sync_task_id	Yes	String	The synchronization task ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-71 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for API authentication. It is recommended that you use signature authorization. For details, see "Authentication." Minimum length: 1 character Maximum length: 16,384 characters

Table 5-72 Request body parameters

Parameter	Mandatory	Type	Description
object_keys	Yes	Array of strings	The list of URL-encoded names of objects to be synchronized. A maximum of 10 objects can be included. Minimum length: 1 character Maximum length: 16,384 characters Array length: 1 to 100

Response

Status code: 200

OK. Synchronous event created successfully.

Status code: 400

Table 5-73 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 404

Table 5-74 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 503

Table 5-75 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the files **test%2F001.txt** and **test%2F002.txt**.

```
/v2/f697f813-554a-4f05-bac8-82a183b20878/sync-tasks/31e9b7e6-6ffb-452f-9842-6ce354d99d75/
events
{
  "object_keys" : [ "test%2F001.txt", "test%2F002.txt" ]
}
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test%2B001.txt**.

```
/v2/f697f813-554a-4f05-bac8-82a183b20878/sync-tasks/31e9b7e6-6ffb-452f-9842-6ce354d99d75/
events
{
  "object_keys" : [ "test%2B001.txt" ]
}
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test+001.txt**.

```
/v2/f697f813-554a-4f05-bac8-82a183b20878/sync-tasks/31e9b7e6-6ffb-452f-9842-6ce354d99d75/
events
{
  "object_keys" : [ "test+001.txt" ]
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the files **test%2F001.txt** and **test%2F002.txt**.

```
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 oms.v2.region.OmsRegion;
import com.huaweicloud.sdk oms.v2.*;
import com.huaweicloud.sdk oms.v2.model.*;

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

public class CreateSyncEventsSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateSyncEventsRequest request = new CreateSyncEventsRequest();
        request.withSyncTaskId("{sync_task_id}");
        SyncObjectReq body = new SyncObjectReq();
        List<String> listbodyObjectKeys = new ArrayList<>();
        listbodyObjectKeys.add("test%2F001.txt");
```

```
listbodyObjectKeys.add("test%2F002.txt");
body.withObjectKeys(listbodyObjectKeys);
request.withBody(body);
try {
    CreateSyncEventsResponse response = client.createSyncEvents(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());
}
}
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test%2B001.txt**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

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

public class CreateSyncEventsSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateSyncEventsRequest request = new CreateSyncEventsRequest();
        request.withSyncTaskId("{sync_task_id}");
        SyncObjectReq body = new SyncObjectReq();
        List<String> listbodyObjectKeys = new ArrayList<>();
        listbodyObjectKeys.add("test%2B001.txt");
        body.withObjectKeys(listbodyObjectKeys);
        request.withBody(body);
        try {
            CreateSyncEventsResponse response = client.createSyncEvents(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());  
    }  
}
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test+001.txt**.

```
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.oms.v2.region.OmsRegion;  
import com.huaweicloud.sdk.oms.v2.*;  
import com.huaweicloud.sdk.oms.v2.model.*;  
  
import java.util.List;  
import java.util.ArrayList;  
  
public class CreateSyncEventsSolution {  
  
    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");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        OmsClient client = OmsClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))  
            .build();  
        CreateSyncEventsRequest request = new CreateSyncEventsRequest();  
        request.withSyncTaskId("{sync_task_id}");  
        SyncObjectReq body = new SyncObjectReq();  
        List<String> listbodyObjectKeys = new ArrayList<>();  
        listbodyObjectKeys.add("test+001.txt");  
        body.withObjectKeys(listbodyObjectKeys);  
        request.withBody(body);  
        try {  
            CreateSyncEventsResponse response = client.createSyncEvents(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.getStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
}
}
```

Python

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the files **test%2F001.txt** and **test%2F002.txt**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateSyncEventsRequest()
        request.sync_task_id = "{sync_task_id}"
        listObjectKeysbody = [
            "test%2F001.txt",
            "test%2F002.txt"
        ]
        request.body = SyncObjectReq(
            object_keys=listObjectKeysbody
        )
        response = client.create_sync_events(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test%2B001.txt**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateSyncEventsRequest()
        request.sync_task_id = "{sync_task_id}"
        listObjectKeysbody = [
            "test%2B001.txt"
        ]
        request.body = SyncObjectReq(
            object_keys=listObjectKeysbody
        )
        response = client.create_sync_events(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test+001.txt**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateSyncEventsRequest()
        request.sync_task_id = "{sync_task_id}"
        listObjectKeysbody = [
```

```
        "test+001.txt"
    ]
    request.body = SyncObjectReq{
        object_keys=listObjectKeysbody
    }
    response = client.create_sync_events(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

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the files **test%2F001.txt** and **test%2F002.txt**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateSyncEventsRequest{}
    request.SyncTaskId = "{sync_task_id}"
    var listObjectKeysbody = []string{
        "test%2F001.txt",
        "test%2F002.txt",
    }
    request.Body = &model.SyncObjectReq{
        ObjectKeys: listObjectKeysbody,
    }
    response, err := client.CreateSyncEvents(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test%2B001.txt**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateSyncEventsRequest{}
    request.SyncTaskId = "{sync_task_id}"
    var listObjectKeysbody = []string{
        "test%2B001.txt",
    }
    request.Body = &model.SyncObjectReq{
        ObjectKeys: listObjectKeysbody,
    }
    response, err := client.CreateSyncEvents(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example creates a synchronization event for the task **31e9b7e6-6ffb-452f-9842-6ce354d99d75** to synchronize the file **test+001.txt**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
projectId := "{project_id}"

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

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateSyncEventsRequest{
    request.SyncTaskId = "{sync_task_id}"
    var listObjectKeysbody = []string{
        "test+001.txt",
    }
    request.Body = &model.SyncObjectReq{
        ObjectKeys: listObjectKeysbody,
    }
    response, err := client.CreateSyncEvents(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK. Synchronous event created successfully.
400	Bad request. Invalid parameters.
404	Not found. Synchronization task not found.
503	Service unavailable. Please try again later.

Error Codes

For details, see [Error Codes](#).

5.3.2 Listing Synchronization Tasks

Function

This API is used to list all synchronization tasks in an account.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/sync-tasks

Table 5-76 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Table 5-77 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	The maximum number of synchronization tasks displayed on one page. By default, 10 synchronization tasks are displayed on one page. A maximum of 100 synchronization tasks can be returned. Minimum value: 1 Maximum value: 100 Default value: 10

Parameter	Mandatory	Type	Description
offset	No	Integer	The start serial number of synchronization tasks. The default value is 0 . The value must be greater than or equal to 0 . If offset is set to 0 , the query starts from the first record. Minimum value: 0 Maximum value: 10000 Default value: 0
status	No	String	The synchronization task status. If this parameter is not specified, tasks in all statuses are queried. SYNCHRONIZING : a synchronizing status STOPPED : a stopped status Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-78 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-79 Response body parameters

Parameter	Type	Description
tasks	Array of SyncTaskInfo objects	The details of queried synchronization tasks. Array length: 0 to 100
count	Long	The total number of synchronization tasks that meet the query criteria. Minimum value: 0 Maximum value: 9223372036854775807

Table 5-80 SyncTaskInfo field description

Parameter	Type	Description
sync_task_id	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters
src_cloud_type	String	The source cloud service provider. The value can be AWS , Azure , Aliyun , Tencent , HuaweiCloud , QingCloud , KingsoftCloud , Baidu , Qiniu , or UCloud . The default value is Aliyun . The value can be: • AWS • Azure • Aliyun • Tencent • HuaweiCloud • QingCloud • KingsoftCloud • Baidu • Qiniu • UCloud
src_region	String	The region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Type	Description
src_bucket	String	The name of the source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
create_time	Long	The time (Unix timestamp, in milliseconds) when the synchronization task was created. Minimum value: 0 Maximum value: 9223372036854775807
last_start_time	Long	The last time (Unix timestamp, in milliseconds) when the synchronization task was started. Minimum value: 0 Maximum value: 9223372036854775807
dst_bucket	String	The name of the destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters
dst_region	String	The region where the destination bucket is located. Minimum length: 0 characters Maximum length: 100 characters
description	String	The task description, which cannot exceed 255 characters. The following special characters are not allowed: <>()"'& Minimum length: 0 characters Maximum length: 255 characters
status	String	The synchronization task status. SYNCHRONIZING : a synchronizing status STOPPED : a stopped status The value can be: • SYNCHRONIZING • STOPPED
enable_kms	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default.

Parameter	Type	Description
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration.
enable_restore	Boolean	Indicates whether automatic restoration of archived data is enabled. The default value is No . If this function is enabled, archived data is automatically restored and migrated.
app_id	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
source_cdn	SourceCdnResp object	Indicates whether migration from CDN is enabled. If it is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration. If this field is included, migration from CDN is supported. Otherwise, it is not supported.

Parameter	Type	Description
object_overwrite_mode	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object is not as large as or was last modified more recently than its paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE

Parameter	Type	Description
dst_storage_policy	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD. STANDARD: Huawei Cloud OBS Standard storage IA: Huawei Cloud OBS Infrequent Access storage ARCHIVE: Huawei Cloud OBS Archive storage DEEP_ARCHIVE: Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING: converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Type	Description
consistency_check	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects are marked as successfully migrated. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. The value can be: • size_last_modified • crc64 • no_check

Table 5-81 SourceCdnResp field description

Parameter	Type	Description
domain	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
protocol	String	The protocol type. HTTP and HTTPS are supported. The value can be: • http • https
authentication_type	String	The authentication type. The value can be: NONE QINIU_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION AZURE_SAS_TOKEN TENCENT_COS_A TENCENT_COS_B TENCENT_COS_C TENCENT_COS_D The value can be: • NONE • QINIU_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • AZURE_SAS_TOKEN • TENCENT_COS_A • TENCENT_COS_B • TENCENT_COS_C • TENCENT_COS_D

Status code: 400

Table 5-82 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.

Parameter	Type	Description
error_code	String	The error code.

Example Request

This example queries five synchronization tasks in the **2c0689c860ad4728a497c91ec0844383** project.

```
GET https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/sync-tasks?offset=0&limit=5&status=SYNCHRONIZING
```

Example Response

Status code: 200

OK

```
{
  "tasks": [ {
    "sync_task_id": "d18befdd-eb82-41f3-8019-bbb593d74a3e",
    "src_cloud_type": "HuaweiCloud",
    "src_region": "cn-north-7",
    "src_bucket": "oms-sdk-test-src",
    "create_time": 1700639560751,
    "last_start_time": 1700639560751,
    "dst_bucket": "oms-sdk-test-dst",
    "dst_region": "cn-north-7",
    "description": "sync task test",
    "status": "SYNCHRONIZING",
    "enable_kms": false,
    "enable_metadata_migration": false,
    "enable_restore": false,
    "app_id": null,
    "source_cdn": null,
    "object_overwrite_mode": "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
    "dst_storage_policy": null,
    "consistency_check": "size_last_modified"
  } ],
  "count": 1
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ListSyncTasksSolution {
```

```
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");
    String projectId = "{project_id}";

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

    OmsClient client = OmsClient.newBuilder()
        .withCredential(auth)
        .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
        .build();
    ListSyncTasksRequest request = new ListSyncTasksRequest();
    try {
        ListSyncTasksResponse response = client.listSyncTasks(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.getErrMsg());
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ListSyncTasksRequest()
        response = client.list_sync_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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.

Error Codes

For details, see [Error Codes](#).

5.3.3 Creating a Synchronization Task

Function

This API is used to create a synchronization task. After the synchronization task is created, it will be automatically started.

Constraints

- A tenant can create a maximum of five synchronization tasks.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/sync-tasks

Table 5-83 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-84 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-85 Request body parameters

Parameter	Mandatory	Type	Description
src_cloud_type	No	String	The source cloud service provider. The value can be AWS, Azure, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu, or UCloud . The default value is Aliyun . Default value: Aliyun
src_region	Yes	String	The region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters
src_bucket	Yes	String	The name of the source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
src_ak	Yes	String	The AK for accessing the source bucket. Minimum length: 0 characters Maximum length: 100 characters
src_sk	Yes	String	The SK for accessing the source bucket. Minimum length: 0 characters Maximum length: 100 characters
dst_ak	Yes	String	The AK for accessing the destination bucket. Minimum length: 0 characters Maximum length: 100 characters
dst_sk	Yes	String	The SK for accessing the destination bucket. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Mandatory	Type	Description
dst_region	Yes	String	The region where the destination bucket is located. Minimum length: 0 characters Maximum length: 100 characters
dst_bucket	Yes	String	The name of the destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters
description	No	String	The task description, which cannot exceed 255 characters. The following special characters are not allowed: <>()"'& Minimum length: 0 characters Maximum length: 255 characters
enable_metadata_migration	No	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration. Default value: false
enable_kms	No	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default. Default value: false
enable_restore	No	Boolean	Indicates whether automatic restoration of archived data is enabled. The default value is No . If this function is enabled, archived data is automatically restored and migrated. Default value: false

Parameter	Mandatory	Type	Description
dst_storage_policy	No	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD. STANDARD: Huawei Cloud OBS Standard storage IA: Huawei Cloud OBS Infrequent Access storage ARCHIVE: Huawei Cloud OBS Archive storage DEEP_ARCHIVE: Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING: converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING
app_id	No	String	This parameter is mandatory when cloud_type is Tencent. Minimum length: 0 characters Maximum length: 255 characters
source_cdn	No	SourceCdnReq object	Indicates whether migration from CDN is enabled. If this field is included, migration from CDN is supported. Otherwise, it is not supported. If migration from CDN is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration.

Parameter	Mandatory	Type	Description
consistency_check	No	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object does not need to be migrated or has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. transmission is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects will overwrite their paired destination objects directly. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. Default value: size_last_modified The value can be: • size_last_modified

Parameter	Mandatory	Type	Description
			• crc64 • transmission

Table 5-86 SourceCdnReq field description

Parameter	Mandatory	Type	Description
authentication_key	No	String	The CDN authentication key. If the CDN authentication is required, this parameter is mandatory. If no authorization is required, do not set this parameter. Qiniu: You do not need to set this parameter. Aliyun: Set this parameter based on the value of authentication_type. KingsoftCloud: You do not need to set this parameter. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
authentication_type	Yes	String	The authentication type. The value can be: NONE Qiniu_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION Azure_SAS_TOKEN Tencent_COS_A Tencent_COS_B Tencent_COS_C Tencent_COS_D Default value: NONE The value can be: • NONE • Qiniu_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • Azure_SAS_TOKEN • Tencent_COS_A • Tencent_COS_B • Tencent_COS_C • Tencent_COS_D
domain	Yes	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	Yes	String	The protocol type. HTTP and HTTPS are supported. The value can be: • http • https

Response

Status code: 200

Table 5-87 Response body parameters

Parameter	Type	Description
sync_task_id	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

Status code: 400

Table 5-88 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example creates a task for synchronizing data from the **api-auto-test1** bucket in the Alibaba Cloud's China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud's CN North-Beijing4 region.

POST https://v2/{project_id}/sync-tasks

```
{
  "src_cloud_type": "Aliyun",
  "src_region": "cn-beijing",
  "src_bucket": "api-auto-test1",
  "src_ak": "src_ak",
  "src_sk": "src_sk",
  "dst_ak": "dst_ak",
  "dst_sk": "dst_sk",
  "dst_region": "cn-north-4",
  "dst_bucket": "oms-sonar-north",
  "description": "XXXX",
  "enable_kms": false,
  "enable_restore": false,
  "enable_metadata_migration": false
}
```

Example Response

Status code: 200

Created

```
{  
  "sync_task_id" : "xxxxxxxxxxxxxxxx"  
}
```

SDK Sample Code

The sample code is as follows.

Java

This example creates a task for synchronizing data from the **api-auto-test1** bucket in the Alibaba Cloud's China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud's CN North-Beijing4 region.

```
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.oms.v2.region.OmsRegion;  
import com.huaweicloud.sdk.oms.v2.*;  
import com.huaweicloud.sdk.oms.v2.model.*;  
  
public class CreateSyncTaskSolution {  
  
    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");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        OmsClient client = OmsClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))  
            .build();  
        CreateSyncTaskRequest request = new CreateSyncTaskRequest();  
        CreateSyncTaskReq body = new CreateSyncTaskReq();  
        body.withEnableRestore(false);  
        body.withEnableKms(false);  
        body.withEnableMetadataMigration(false);  
        body.withDescription("XXXX");  
        body.withDstBucket("oms-sonar-north");  
        body.withDstRegion("cn-north-4");  
        body.withDstSk("dst_sk");  
        body.withDstAk("dst_ak");  
        body.withSrcSk("src_sk");  
        body.withSrcAk("src_ak");  
        body.withSrcBucket("api-auto-test1");  
        body.withSrcRegion("cn-beijing");  
        body.withSrcCloudType("Aliyun");  
        request.withBody(body);  
        try {  
            CreateSyncTaskResponse response = client.createSyncTask(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

This example creates a task for synchronizing data from the **api-auto-test1** bucket in the Alibaba Cloud's China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud's CN North-Beijing4 region.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateSyncTaskRequest()
        request.body = CreateSyncTaskReq(
            enable_restore=False,
            enable_kms=False,
            enable_metadata_migration=False,
            description="XXXX",
            dst_bucket="oms-sonar-north",
            dst_region="cn-north-4",
            dst_sk="dst_sk",
            dst_ak="dst_ak",
            src_sk="src_sk",
            src_ak="src_ak",
            src_bucket="api-auto-test1",
            src_region="cn-beijing",
            src_cloud_type="Aliyun"
        )
        response = client.create_sync_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

This example creates a task for synchronizing data from the **api-auto-test1** bucket in the Alibaba Cloud's China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud's CN North-Beijing4 region.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateSyncTaskRequest{
        enableRestoreCreateSyncTaskReq:= false
        enableKmsCreateSyncTaskReq:= false
        enableMetadataMigrationCreateSyncTaskReq:= false
        descriptionCreateSyncTaskReq:= "XXXX"
        srcCloudTypeCreateSyncTaskReq:= "Aliyun"
        request.Body = &model.CreateSyncTaskReq{
            EnableRestore: &enableRestoreCreateSyncTaskReq,
            EnableKms: &enableKmsCreateSyncTaskReq,
            EnableMetadataMigration: &enableMetadataMigrationCreateSyncTaskReq,
            Description: &descriptionCreateSyncTaskReq,
            DstBucket: "oms-sonar-north",
            DstRegion: "cn-north-4",
            DstSk: "dst_sk",
            DstAk: "dst_ak",
            SrcSk: "src_sk",
            SrcAk: "src_ak",
            SrcBucket: "api-auto-test1",
            SrcRegion: "cn-beijing",
            SrcCloudType: &srcCloudTypeCreateSyncTaskReq,
        }
    }
    response, err := client.CreateSyncTask(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```


More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Created
400	Bad request.

Error Codes

For details, see [Error Codes](#).

5.3.4 Querying a Synchronization Task

Function

This API is used to query details about a synchronization task with a specified ID.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/sync-tasks/{sync_task_id}

Table 5-89 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
sync_task_id	Yes	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

Table 5-90 Query parameters

Parameter	Mandatory	Type	Description
query_time	Yes	String	The time (in milliseconds) when the synchronization task details are queried. The statistics of the current month are returned based on the value of this parameter. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-91 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-92 Response body parameters

Parameter	Type	Description
sync_task_id	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Type	Description
src_cloud_type	String	The source cloud service provider. The value can be AWS , Azure , Aliyun , Tencent , HuaweiCloud , QingCloud , KingsoftCloud , Baidu , Qiniu , or UCloud . The default value is Aliyun . The value can be: • AWS • Azure • Aliyun • Tencent • HuaweiCloud • QingCloud • KingsoftCloud • Baidu • Qiniu • UCloud
src_region	String	The region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters
src_bucket	String	The name of the source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
create_time	Long	The time (Unix timestamp, in milliseconds) when the synchronization task was created. Minimum value: 0 Maximum value: 9223372036854775807
last_start_time	Long	The last time (Unix timestamp, in milliseconds) when the synchronization task was started. Minimum value: 0 Maximum value: 9223372036854775807
dst_bucket	String	The name of the destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
dst_region	String	The region where the destination bucket is located. Minimum length: 0 characters Maximum length: 100 characters
description	String	The task description, which cannot exceed 255 characters. The following special characters are not allowed: <>()'"& Minimum length: 0 characters Maximum length: 255 characters
status	String	The synchronization task status. SYNCHRONIZING : a synchronizing status STOPPED : a stopped status The value can be: • SYNCHRONIZING • STOPPED
enable_kms	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default.
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration.
enable_restore	Boolean	Indicates whether automatic restoration of archived data is enabled. The default value is No . If this function is enabled, archived data is automatically restored and migrated.
app_id	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
monthly_acceptance_request	Long	The number of objects requested for synchronization in the current month. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
monthly_success_object	Long	The number of objects that were successfully synchronized in the current month. Minimum value: 0 Maximum value: 9223372036854775807
monthly_failure_object	Long	The number of objects that failed to be synchronized in the current month. Minimum value: 0 Maximum value: 9223372036854775807
monthly_skip_object	Long	The number of objects that were ignored in the current month. Minimum value: 0 Maximum value: 9223372036854775807
monthly_size	Long	The total size of synchronized objects in the current month, in bytes. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
object_overwrite_mode	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object is not as large as or was last modified more recently than its paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE

Parameter	Type	Description
dst_storage_policy	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD. STANDARD: Huawei Cloud OBS Standard storage IA: Huawei Cloud OBS Infrequent Access storage ARCHIVE: Huawei Cloud OBS Archive storage DEEP_ARCHIVE: Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING: converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Type	Description
consistency_check	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects are marked as successfully migrated. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. The value can be: • size_last_modified • crc64 • no_check

Status code: 404**Table 5-93** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the details of task **0d146099-8cf4-437d-b6ef-88e043771c8b** in project **2c0689c860ad4728a497c91ec0844383**.

```
GET https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/sync-tasks/0d146099-8cf4-437d-b6ef-88e043771c8b
```

Example Response

Status code: 200

OK

```
{
  "sync_task_id" : "d18befdd-eb82-41f3-8019-bbb593d74a3e",
  "src_cloud_type" : "HuaweiCloud",
  "src_region" : "cn-north-7",
  "src_bucket" : "oms-sdk-test-src",
  "create_time" : 1700639560751,
  "last_start_time" : 1700639560751,
  "dst_bucket" : "oms-sdk-test-dst",
  "dst_region" : "cn-north-7",
  "description" : "sync task test",
  "status" : "SYNCHRONIZING",
  "enable_kms" : false,
  "enable_metadata_migration" : false,
  "enable_restore" : false,
  "app_id" : null,
  "monthly_acceptance_request" : 11,
  "monthly_success_object" : 0,
  "monthly_failure_object" : 11,
  "monthly_skip_object" : 0,
  "monthly_size" : 0,
  "object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
  "dst_storage_policy" : null,
  "consistency_check" : "size_last_modified"
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ShowSyncTaskSolution {

    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");
String projectId = "{project_id}";

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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
ShowSyncTaskRequest request = new ShowSyncTaskRequest();
request.withSyncTaskId("{sync_task_id}");
try {
    ShowSyncTaskResponse response = client.showSyncTask(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.getStatusCode());
    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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ShowSyncTaskRequest()
        request.sync_task_id = "{sync_task_id}"
        response = client.show_sync_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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
404	Not Found

Error Codes

For details, see [Error Codes](#).

5.3.5 Querying the Statistics About a Synchronization Task

Function

This API is used to query the statistics of a synchronization task, which includes the number of objects that are included in synchronization requests, the number of objects that are successfully synchronized, the number of objects that fail to be synchronized, the number of objects that are skipped during synchronization, and the size of objects that are successfully synchronized. Currently, this API is available only in CN North-Beijing4 and CN East-Shanghai1.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/sync-tasks/{sync_task_id}/statistics

Table 5-94 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
sync_task_id	Yes	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

Table 5-95 Query parameters

Parameter	Mandatory	Type	Description
data_type	Yes	String	The statistical data type. Use commas (,) to separate multiple data types. REQUEST: The number of objects requested for synchronization. SUCCESS: The number of objects successfully synchronized. FAILURE: The number of objects failed to be synchronized. SKIP: The number of objects skipped during synchronization. SIZE: The size of objects successfully synchronized, in bytes. Minimum length: 1 character Maximum length: 255 characters The value can be: • REQUEST • SUCCESS • FAILURE • SKIP • SIZE
start_time	Yes	String	The start time for the query. Minimum length: 1 character Maximum length: 1,024 characters
end_time	Yes	String	The start time for the query. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-96 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200**Table 5-97** Response body parameters

Parameter	Type	Description
sync_task_id	String	The synchronization task ID. Minimum length: 1 character Maximum length: 255 characters
statistic_time_type	String	The interval for collecting statistics. FIVE_MINUTES : 5 minutes ONE_HOUR : 1 hour Minimum length: 1 character Maximum length: 255 characters The value can be: • FIVE_MINUTES • ONE_HOUR
statistic_datas	Array of StatisticTypeData objects	The statistics of the queried synchronization task. Array length: 0 to 1,000

Table 5-98 StatisticTypeData field description

Parameter	Type	Description
data_type	String	The statistical data type. REQUEST : The number of objects requested for synchronization. SUCCESS : The number of objects successfully synchronized. FAILURE : The number of objects failed to be synchronized. SKIP : The number of objects skipped during synchronization. SIZE : The size of synchronized objects, in bytes. Minimum length: 1 character Maximum length: 255 characters The value can be: • REQUEST • SUCCESS • FAILURE • SKIP • SIZE
data	Array of StatisticData objects	The statistics of the queried synchronization task. Array length: 0 to 1,000

Table 5-99 StatisticData field description

Parameter	Type	Description
time_stamp	Long	The timestamp. Minimum value: 0 Maximum value: 9223372036854775807
statistic_num	Long	The statistics. Minimum value: 0 Maximum value: 9223372036854775807

Status code: 404

Table 5-100 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the statistics of task **0d146099-8cf4-437d-b6ef-88e043771c8b** in project **2c0689c860ad4728a497c91ec0844383**.

GET https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/sync-tasks/0d146099-8cf4-437d-b6ef-88e043771c8b/statistics?data_type=REQUEST

```
{
  "sync_task_id" : "4fb05cd2-c94e-44e4-a07f-e65a2f01ebcb",
  "statistic_time_type" : "FIVE_MINUTES",
  "statistic_datas" : [ {
    "data_type" : "REQUEST",
    "data" : [ {
      "time_stamp" : 1700150400000,
      "statistic_num" : 1
    }, {
      "time_stamp" : 1700151000000,
      "statistic_num" : 20
    }, {
      "time_stamp" : 1700184000000,
      "statistic_num" : 8
    }, {
      "time_stamp" : 1700188200000,
      "statistic_num" : 2
    }
  ]
} ]
}
```

Example Response

Status code: 200

OK

```
{
  "sync_task_id" : "4fb05cd2-c94e-44e4-a07f-e65a2f01ebcb",
  "statistic_time_type" : "FIVE_MINUTES",
  "statistic_datas" : [ {
    "data_type" : "REQUEST",
    "data" : [ {
      "time_stamp" : 1700150400000,
      "statistic_num" : 1
    }, {
      "time_stamp" : 1700151000000,
      "statistic_num" : 20
    }, {
      "time_stamp" : 1700151300000,
      "statistic_num" : 13
    }, {
      "time_stamp" : 1700151600000,
      "statistic_num" : 12
    }, {
      "time_stamp" : 1700151900000,
      "statistic_num" : 10
    }
  ]
} ]
}
```



```
[{"time_stamp": 1700152200000, "statistic_num": 11}, {"time_stamp": 1700152500000, "statistic_num": 9}, {"time_stamp": 1700152800000, "statistic_num": 12}, {"time_stamp": 1700153100000, "statistic_num": 9}, {"time_stamp": 1700153400000, "statistic_num": 10}, {"time_stamp": 1700153700000, "statistic_num": 7}, {"time_stamp": 1700154000000, "statistic_num": 13}, {"time_stamp": 1700154300000, "statistic_num": 9}, {"time_stamp": 1700154600000, "statistic_num": 9}, {"time_stamp": 1700154900000, "statistic_num": 9}, {"time_stamp": 1700155200000, "statistic_num": 10}, {"time_stamp": 1700155500000, "statistic_num": 11}, {"time_stamp": 1700155800000, "statistic_num": 9}, {"time_stamp": 1700156100000, "statistic_num": 8}, {"time_stamp": 1700156400000, "statistic_num": 11}, {"time_stamp": 1700156700000, "statistic_num": 10}, {"time_stamp": 1700157000000, "statistic_num": 8}, {"time_stamp": 1700157300000, "statistic_num": 10}, {"time_stamp": 1700157600000, "statistic_num": 11}, {"time_stamp": 1700157900000, "statistic_num": 9}, {"time_stamp": 1700158200000, "statistic_num": 11}, {"time_stamp": 1700158500000, "statistic_num": 9}, {"time_stamp": 1700158800000, "statistic_num": 10}
```

```
"time_stamp" : 1700159100000,
"statistic_num" : 11
}, {
  "time_stamp" : 1700159400000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700159700000,
  "statistic_num" : 11
}, {
  "time_stamp" : 1700160000000,
  "statistic_num" : 10
}, {
  "time_stamp" : 1700160300000,
  "statistic_num" : 10
}, {
  "time_stamp" : 1700160600000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700160900000,
  "statistic_num" : 8
}, {
  "time_stamp" : 1700161200000,
  "statistic_num" : 11
}, {
  "time_stamp" : 1700161500000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700161800000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700162100000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700162400000,
  "statistic_num" : 10
}, {
  "time_stamp" : 1700162700000,
  "statistic_num" : 11
}, {
  "time_stamp" : 1700163000000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700163300000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700163600000,
  "statistic_num" : 11
}, {
  "time_stamp" : 1700163900000,
  "statistic_num" : 10
}, {
  "time_stamp" : 1700164200000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700164500000,
  "statistic_num" : 10
}, {
  "time_stamp" : 1700164800000,
  "statistic_num" : 9
}, {
  "time_stamp" : 1700165100000,
  "statistic_num" : 11
}, {
  "time_stamp" : 1700165400000,
  "statistic_num" : 10
}, {
  "time_stamp" : 1700165700000,
  "statistic_num" : 10
}, {
```

```
[{"time_stamp": 170016600000, "statistic_num": 11}, {"time_stamp": 1700166300000, "statistic_num": 10}, {"time_stamp": 1700166600000, "statistic_num": 9}, {"time_stamp": 1700166900000, "statistic_num": 9}, {"time_stamp": 1700167200000, "statistic_num": 11}, {"time_stamp": 1700167500000, "statistic_num": 10}, {"time_stamp": 1700167800000, "statistic_num": 8}, {"time_stamp": 1700168100000, "statistic_num": 11}, {"time_stamp": 1700168400000, "statistic_num": 8}, {"time_stamp": 1700168700000, "statistic_num": 10}, {"time_stamp": 1700169000000, "statistic_num": 10}, {"time_stamp": 1700169300000, "statistic_num": 9}, {"time_stamp": 1700169600000, "statistic_num": 10}, {"time_stamp": 1700169900000, "statistic_num": 8}, {"time_stamp": 1700170200000, "statistic_num": 11}, {"time_stamp": 1700170500000, "statistic_num": 9}, {"time_stamp": 1700170800000, "statistic_num": 13}, {"time_stamp": 1700171100000, "statistic_num": 10}, {"time_stamp": 1700171400000, "statistic_num": 8}, {"time_stamp": 1700171700000, "statistic_num": 10}, {"time_stamp": 1700172000000, "statistic_num": 11}, {"time_stamp": 1700172300000, "statistic_num": 11}, {"time_stamp": 1700172600000, "statistic_num": 10}
```

```

"time_stamp" : 1700172900000,
"statistic_num" : 11
}, {
"time_stamp" : 1700173200000,
"statistic_num" : 9
}, {
"time_stamp" : 1700173500000,
"statistic_num" : 9
}, {
"time_stamp" : 1700173800000,
"statistic_num" : 12
}, {
"time_stamp" : 1700174100000,
"statistic_num" : 9
}, {
"time_stamp" : 1700174400000,
"statistic_num" : 11
}, {
"time_stamp" : 1700174700000,
"statistic_num" : 10
}, {
"time_stamp" : 1700175000000,
"statistic_num" : 10
}, {
"time_stamp" : 1700175300000,
"statistic_num" : 11
}, {
"time_stamp" : 1700175600000,
"statistic_num" : 9
}, {
"time_stamp" : 1700175900000,
"statistic_num" : 11
}, {
"time_stamp" : 1700176200000,
"statistic_num" : 10
}, {
"time_stamp" : 1700176500000,
"statistic_num" : 9
}, {
"time_stamp" : 1700176800000,
"statistic_num" : 11
}, {
"time_stamp" : 1700177100000,
"statistic_num" : 9
}, {
"time_stamp" : 1700177400000,
"statistic_num" : 11
}, {
"time_stamp" : 1700177700000,
"statistic_num" : 9
}, {
"time_stamp" : 1700178000000,
"statistic_num" : 12
}, {
"time_stamp" : 1700178300000,
"statistic_num" : 10
}, {
"time_stamp" : 1700178600000,
"statistic_num" : 9
}, {
"time_stamp" : 1700178900000,
"statistic_num" : 11
}, {
"time_stamp" : 1700179200000,
"statistic_num" : 9
}, {
"time_stamp" : 1700179500000,
"statistic_num" : 10
}, {

```

```
    "time_stamp" : 1700179800000,
    "statistic_num" : 10
  }, {
    "time_stamp" : 1700180100000,
    "statistic_num" : 11
  }, {
    "time_stamp" : 1700180400000,
    "statistic_num" : 10
  }, {
    "time_stamp" : 1700180700000,
    "statistic_num" : 9
  }, {
    "time_stamp" : 1700181000000,
    "statistic_num" : 12
  }, {
    "time_stamp" : 1700181300000,
    "statistic_num" : 9
  }, {
    "time_stamp" : 1700181600000,
    "statistic_num" : 12
  }, {
    "time_stamp" : 1700181900000,
    "statistic_num" : 9
  }, {
    "time_stamp" : 1700182200000,
    "statistic_num" : 11
  }, {
    "time_stamp" : 1700182500000,
    "statistic_num" : 9
  }, {
    "time_stamp" : 1700182800000,
    "statistic_num" : 10
  }, {
    "time_stamp" : 1700183100000,
    "statistic_num" : 11
  }, {
    "time_stamp" : 1700183400000,
    "statistic_num" : 10
  }, {
    "time_stamp" : 1700183700000,
    "statistic_num" : 9
  }, {
    "time_stamp" : 1700184000000,
    "statistic_num" : 8
  }, {
    "time_stamp" : 1700188200000,
    "statistic_num" : 1
  }
}
```

SDK Sample Code

The sample code is as follows.

Java

This example queries the statistics of task **0d146099-8cf4-437d-b6ef-88e043771c8b** in project **2c0689c860ad4728a497c91ec0844383**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ListSyncTaskStatisticSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ListSyncTaskStatisticRequest request = new ListSyncTaskStatisticRequest();
        request.withSyncTaskId("{sync_task_id}");
        try {
            ListSyncTaskStatisticResponse response = client.listSyncTaskStatistic(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

This example queries the statistics of task **0d146099-8cf4-437d-b6ef-88e043771c8b** in project **2c0689c860ad4728a497c91ec0844383**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

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

try:
    request = ListSyncTaskStatisticRequest()
    request.sync_task_id = "{sync_task_id}"
    response = client.list_sync_task_statistic(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

This example queries the statistics of task **0d146099-8cf4-437d-b6ef-88e043771c8b** in project **2c0689c860ad4728a497c91ec0844383**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
404	Not Found

Error Codes

For details, see [Error Codes](#).

5.3.6 Deleting a Synchronization Task

Function

This API is used to delete a synchronization task.

In-progress tasks cannot be deleted. If you try to delete an in-progress task, the system will return a message indicating the deletion fails. To delete such a task, pause the task first.

Calling Method

For details, see [Calling APIs](#).

URI

DELETE /v2/{project_id}/sync-tasks/{sync_task_id}

Table 5-101 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
sync_task_id	Yes	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-102 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

OK

Status code: 400

Table 5-103 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-104 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example deletes synchronization task **0d146099-8cf4-437d-b6ef-88e043771c8b** in the **2c0689c860ad4728a497c91ec0844383** project.

DELETE https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/sync-tasks/0d146099-8cf4-437d-b6ef-88e043771c8b

Example Response

None

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class DeleteSyncTaskSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteSyncTaskRequest request = new DeleteSyncTaskRequest();
        request.withSyncTaskId("{sync_task_id}");
        try {
            DeleteSyncTaskResponse response = client.deleteSyncTask(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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = DeleteSyncTaskRequest()
        request.sync_task_id = "{sync_task_id}"
        response = client.delete_sync_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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

```
}  
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Forbidden.

Error Codes

For details, see [Error Codes](#).

5.3.7 Pausing a Synchronization Task

Function

This API is used to pause a synchronization task that is in a synchronizing state. Currently, this API is only available in CN North-Beijing4 and CN East-Shanghai1.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/sync-tasks/{sync_task_id}/stop

Table 5-105 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
sync_task_id	Yes	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-106 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

OK

Status code: 400

Table 5-107 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-108 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example pauses synchronization task **0d146099-8cf4-437d-b6ef-88e043771c8b** in the **2c0689c860ad4728a497c91ec0844383** project.

```
POST https://{endpoint}/v2/2c0689c860ad4728a497c91ec0844383/sync-tasks/0d146099-8cf4-437d-b6ef-88e043771c8b
```

Example Response

None

SDK Sample Code

The 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 oms.v2.region.OmsRegion;
import com.huaweicloud.sdk oms.v2.*;
import com.huaweicloud.sdk oms.v2.model.*;

public class StopSyncTaskSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        StopSyncTaskRequest request = new StopSyncTaskRequest();
        request.withSyncTaskId("{sync_task_id}");
        try {
            StopSyncTaskResponse response = client.stopSyncTask(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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkoms.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"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = OmsClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(OmsRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = StopSyncTaskRequest()  
        request.sync_task_id = "{sync_task_id}"  
        response = client.stop_sync_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"  
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()
```

```
client := oms.NewOmsClient(  
    oms.OmsClientBuilder().  
        WithRegion(region.ValueOf("<YOUR REGION>")).  
        WithCredential(auth).  
        Build())  
  
request := &model.StopSyncTaskRequest{  
    request.SyncTaskId = "{sync_task_id}"  
}  
response, err := client.StopSyncTask(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Forbidden.

Error Codes

For details, see [Error Codes](#).

5.3.8 Starting a Synchronization Task

Function

This API is used to start a paused a synchronization task. Currently, this API is only available in CN North-Beijing4 and CN East-Shanghai1.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/sync-tasks/{sync_task_id}/start

Table 5-109 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
sync_task_id	Yes	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-110 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-111 Request body parameters

Parameter	Mandatory	Type	Description
src_ak	Yes	String	The AK for accessing the source node. Enter a maximum of 100 characters. This parameter is not required for URL list-based tasks. Minimum length: 1 character Maximum length: 100 characters
src_sk	Yes	String	The SK for accessing the source node. Enter a maximum of 100 characters. This parameter is not required for URL list-based tasks. Minimum length: 1 character Maximum length: 100 characters

Parameter	Mandatory	Type	Description
dst_ak	Yes	String	The AK for accessing the destination node. Enter a maximum of 100 characters. Minimum length: 1 character Maximum length: 100 characters
dst_sk	Yes	String	The SK for accessing the destination node. Enter a maximum of 100 characters. Minimum length: 1 character Maximum length: 100 characters
source_cdn_authentication_key	No	String	The CDN authentication key. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

OK

Status code: 400

Table 5-112 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example starts a synchronization task.

```
POST https://{endpoint}/v2/{project_id}/sync-tasks/{sync_task_id}/start
{
  "src_ak": "src_ak",
  "src_sk": "src_sk",
  "dst_ak": "dst_ak",
  "dst_sk": "dst_sk"
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

This example starts a synchronization task.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class StartSyncTaskSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        StartSyncTaskRequest request = new StartSyncTaskRequest();
        request.withSyncTaskId("{sync_task_id}");
        StartSyncTaskReq body = new StartSyncTaskReq();
        body.withDstSk("dst_sk");
        body.withDstAk("dst_ak");
        body.withSrcSk("src_sk");
        body.withSrcAk("src_ak");
        request.withBody(body);
        try {
            StartSyncTaskResponse response = client.startSyncTask(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.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

```
}  
}
```

Python

This example starts a synchronization task.

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkoms.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"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = OmsClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(OmsRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = StartSyncTaskRequest()  
        request.sync_task_id = "{sync_task_id}"  
        request.body = StartSyncTaskReq(  
            dst_sk="dst_sk",  
            dst_ak="dst_ak",  
            src_sk="src_sk",  
            src_ak="src_ak"  
        )  
        response = client.start_sync_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

This example starts a synchronization task.

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
projectId := "{project_id}"

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

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.StartSyncTaskRequest{}
request.SyncTaskId = "{sync_task_id}"
request.Body = &model.StartSyncTaskReq{
    DstSk: "dst_sk",
    DstAk: "dst_ak",
    SrcSk: "src_sk",
    SrcAk: "src_ak",
}
response, err := client.StartSyncTask(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.

Error Codes

For details, see [Error Codes](#).

5.4 Migration Task Group Management

5.4.1 Listing Migration Task Groups

Function

This API is used to list all migration task groups in an account.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/taskgroups

Table 5-113 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Table 5-114 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	The maximum number of migration task groups displayed on one page. The default value is 10 . A maximum of 100 migration task groups can be returned. Minimum value: 1 Maximum value: 100 Default value: 10
offset	No	Integer	The start serial number of migration task groups. The default value is 0 . The value must be greater than or equal to 0. If offset is set to 0 , the query starts from the first record. Minimum value: 0 Maximum value: 2147483647 Default value: 0

Parameter	Mandatory	Type	Description
status	No	Integer	The migration task group status. If this parameter is not specified, groups in all statuses are queried. 0: waiting 1: executing/creating 2: executing 3: paused 4: creation failed 5: migration failed 6: migration completed 7: pausing 8: waiting for deletion 9: deleting Minimum value: 0 Maximum value: 9

Request

Table 5-115 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-116 Response body parameters

Parameter	Type	Description
count	Long	The total number of the migration task groups that meet the search criteria. Minimum value: 0 Maximum value: 9223372036854775807
taskgroups	Array of TaskGroupResp objects	The details of queried migration task groups. Array length: 0 to 100

Table 5-117 TaskGroupResp field description

Parameter	Type	Description
group_id	String	The task group ID. Minimum length: 1 character Maximum length: 100 characters
status	Integer	The migration task group status. 0 : waiting 1 : executing/creating 2 : executing 3 : paused 4 : creation failed 5 : migration failed 6 : migration completed 7 : pausing 8 : waiting for deletion 9 : deleting Minimum value: 0 Maximum value: 9
error_reason	ErrorReasonResp object	The task group failure cause. The value is an empty string if the task is not in the Migration failed state.
src_node	TaskGroupSrcNodeResp object	The source information.

Parameter	Type	Description
description	String	The task group description, which cannot exceed 255 characters. The following special characters are not allowed: ^<>&" Minimum length: 0 characters Maximum length: 255 characters
dst_node	TaskGroupDstNodeResp object	The destination information.
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration. Default value: false
enable_failed_object_recording	Boolean	Indicates whether the function of recording failed objects is enabled.
enable_restore	Boolean	Indicates whether automatic restoration of archived data is enabled. It takes a long time to restore archived data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archived data before the migration. If this function is enabled, archived objects will be automatically restored and then migrated. If this function is disabled, archived objects will be ignored during the migration, and the information about these objects will be recorded in the list of failed objects.
enable_kms	Boolean	Indicates whether KMS is used to encrypt the data to be stored in the destination OBS bucket.

Parameter	Type	Description
task_type	String	The task type. The default value is PREFIX. LIST: migrates only the objects recorded in a predefined object list. URL_LIST: migrates only the objects recorded in a predefined URL list. PREFIX: migrates only the objects that match the specified prefixes. The value can be: • LIST • URL_LIST • PREFIX
bandwidth_policy	Array of BandwidthPolicy Dto objects	The traffic limiting rules. Each element in the array corresponds to the maximum bandwidth in a time period. A maximum of five periods are allowed, and the periods cannot overlap. Array length: 0 to 5
smn_config	SmnInfo object	The SMN message sending configuration.
source_cdn	SourceCdnResp object	Indicates whether migration from CDN is enabled. If this field is included, migration from CDN is supported. Otherwise, it is not supported. If migration from CDN is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration.
migrate_since	Long	The specified time point (timestamp, in milliseconds) for filtering source data. Only source objects that are modified after the specified time will be migrated. Default value 0 indicates that no time is specified. Minimum value: 0 Maximum value: 9223372036854775807 Default value: 0
migrate_speed	Long	The migration speed (byte/s). Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
total_time	Long	The total time used by the migration task group, in ms. Minimum value: 0 Maximum value: 9223372036854775807
start_time	Long	The start time (Unix timestamp, in milliseconds) of the migration task group. Minimum value: 0 Maximum value: 9223372036854775807
total_task_num	Long	The total number of migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
create_task_num	Long	The number of created migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
failed_task_num	Long	The number of failed migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
complete_task_num	Long	The number of completed migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
paused_task_num	Long	The number of paused migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
executing_task_num	Long	The number of executing migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
waiting_task_num	Long	The number of waiting migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
total_num	Long	The total number of objects to be migrated in the migration task group. Minimum value: 0 Maximum value: 9223372036854775807
create_complete_num	Long	The total number of objects included in created migration tasks. Minimum value: 0 Maximum value: 9223372036854775807
success_num	Long	The number of migrated objects. Minimum value: 0 Maximum value: 9223372036854775807
fail_num	Long	The number of failed objects. Minimum value: 0 Maximum value: 9223372036854775807
skip_num	Long	The number of skipped objects. Minimum value: 0 Maximum value: 9223372036854775807
total_size	Long	The size (in bytes) of the objects that have been migrated. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
create_complete_size	Long	The total size (in bytes) of objects migrated in created migration tasks. Minimum value: 0 Maximum value: 9223372036854775807
complete_size	Long	The total size of migrated objects, in bytes. Minimum value: 0 Maximum value: 9223372036854775807
failed_object_record	FailedObjectRecord object	The record of failed objects.

Parameter	Type	Description
object_overwrite_mode	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object is not as large as or was last modified more recently than its paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE

Parameter	Type	Description
dst_storage_policy	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD. STANDARD: Huawei Cloud OBS Standard storage IA: Huawei Cloud OBS Infrequent Access storage ARCHIVE: Huawei Cloud OBS Archive storage DEEP_ARCHIVE: Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING: converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Type	Description
consistency_check	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object does not need to be migrated or has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects will overwrite their paired destination objects directly. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. The value can be: • size_last_modified • crc64 • no_check
enable_requester_pays	Boolean	Indicates whether Requester Pays is enabled. If this function is enabled, the requester pays for the request and data transmission.

Table 5-118 ErrorReasonResp field description

Parameter	Type	Description
error_code	String	The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters
error_msg	String	The migration failure cause. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-119 TaskGroupSrcNodeResp field description

Parameter	Type	Description
bucket	String	The name of the source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
cloud_type	String	The source cloud service provider. The value can be AWS , AZURE , ALIYUN , TENCENT , HUAWEICLOUD , QINGCLOUD , KINGSOFTCLOUD , BAIDU , QINIU , GOOGLE , URLSOURCE , or ULOUD . The default value is ALIYUN . The value can be: • AWS • AZURE • ALIYUN • TENCENT • HUAWEICLOUD • QINGCLOUD • KINGSOFTCLOUD • BAIDU • QINIU • URLSOURCE • ULOUD • GOOGLE
region	String	The region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Type	Description
app_id	String	This parameter is returned when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
object_key	Array of strings	If task_type is set to PREFIX , this parameter indicates the name prefixes of objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500
list_file	ListFile object	The list file configuration. list_file is mandatory when task_type is set to LIST or URL_LIST .

Table 5-120 ListFile field description

Parameter	Type	Description
list_file_key	String	The object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	String	The name of the OBS bucket for storing the object list files. Ensure that this bucket is in the same region as the destination bucket, or the task creation will fail. Minimum length: 0 characters Maximum length: 1,024 characters
list_file_num	String	The number of stored object list files. Minimum length: 0 characters Maximum length: 65,535 characters

Table 5-121 TaskGroupDstNodeResp field description

Parameter	Type	Description
bucket	String	The name of the destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
region	String	The region where the destination bucket is located. Minimum length: 0 characters Maximum length: 100 characters
save_prefix	String	The path prefix used to organize object locations in the destination bucket. The prefix is added before an object key to form a new key. The length of the new key cannot exceed 1,024 characters. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-122 BandwidthPolicyDto field description

Parameter	Type	Description
end	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Table 5-123 SmnInfo field description

Parameter	Type	Description
notify_result	Boolean	Indicates whether SMN messages are sent successfully after a migration task is complete.

Parameter	Type	Description
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if the migration task is successful. Minimum length: 0 characters Maximum length: 1,024 characters
topic_name	String	The SMN topic name. The value is empty if SMN messages are sent successfully. Minimum length: 0 characters Maximum length: 5,120 characters

Table 5-124 SourceCdnResp field description

Parameter	Type	Description
domain	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	String	The protocol type. HTTP and HTTPS are supported. The value can be: • http • https

Parameter	Type	Description
authentication_type	String	The authentication type. The value can be: NONE Qiniu_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION AZURE_SAS_TOKEN TENCENT_COS_A TENCENT_COS_B TENCENT_COS_C TENCENT_COS_D The value can be: • NONE • Qiniu_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • AZURE_SAS_TOKEN • TENCENT_COS_A • TENCENT_COS_B • TENCENT_COS_C • TENCENT_COS_D

Table 5-125 FailedObjectRecordDto field description

Parameter	Type	Description
result	Boolean	Indicates whether retransmission of failed objects is supported.
list_file_key	String	The path for storing the list of failed objects. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
error_code	String	The error code returned when the list of failed objects fails to be uploaded. Minimum length: 0 characters Maximum length: 10 characters

Status code: 400**Table 5-126** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403**Table 5-127** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 500**Table 5-128** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries 10 migration task groups in project **f4e146cac1de45669c3fed73dc3b9c6f**.

Get `https://{endpoint}/v2/f4e146cac1de45669c3fed73dc3b9c6f/taskgroups?offset=0&limit=10`

Example Response

Status code: 200

OK

```
{
  "count" : 353,
  "taskgroups" : [ {
    "group_id" : "9dd98a5e-7ea3-4d80-abff-4c23914313e4",
    "status" : 6,
    "error_reason" : null,
    "src_node" : {
      "bucket" : "api-auto-test",
      "cloud_type" : "TENCENT",
      "region" : "ap-beijing",
      "app_id" : "1254563210",
      "object_key" : [ "test" ],
      "list_file" : null
    },
    "description" : "",
    "dst_node" : {
      "bucket" : "test-l30022277",
      "region" : "cn-north-7",
      "save_prefix" : ""
    },
    "enable_metadata_migration" : false,
    "enable_failed_object_recording" : true,
    "enable_restore" : false,
    "enable_kms" : false,
    "task_type" : "PREFIX",
    "bandwidth_policy" : [ ],
    "smn_config" : null,
    "source_cdn" : null,
    "migrate_since" : 0,
    "migrate_speed" : 0,
    "total_time" : 973657,
    "start_time" : 1663654062461,
    "total_task_num" : null,
    "create_task_num" : null,
    "failed_task_num" : null,
    "complete_task_num" : null,
    "paused_task_num" : null,
    "executing_task_num" : null,
    "waiting_task_num" : null,
    "total_num" : 6,
    "create_complete_num" : null,
    "success_num" : 6,
    "fail_num" : 0,
    "skip_num" : 0,
    "total_size" : 2469022100,
    "create_complete_size" : null,
    "complete_size" : 2469022100,
    "failed_object_record" : {
      "result" : null,
      "list_file_key" : null,
      "error_code" : null
    },
    "object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
    "consistency_check" : "size_last_modified",
    "enable_requester_pays" : false
  }, {
    "group_id" : "2597fc69-af30-4411-b59d-b37857b69792",
    "status" : 6,
    "error_reason" : null,
    "src_node" : {
      "bucket" : "test-retry",
      "cloud_type" : "HUAWEICLOUD",
      "region" : "cn-north-7",
      "app_id" : "",
      "object_key" : [ "%21" ],
      "list_file" : null
    },
    "description" : ""
  }
]
```

```
"dst_node" : {
  "bucket" : "assess-bucket-1",
  "region" : "cn-north-7",
  "save_prefix" : ""
},
"enable_metadata_migration" : false,
"enable_failed_object_recording" : true,
"enable_restore" : false,
"enable_kms" : false,
"task_type" : "PREFIX",
"bandwidth_policy" : [ ],
"smn_config" : null,
"source_cdn" : null,
"migrate_since" : 0,
"migrate_speed" : 0,
"total_time" : 43440,
"start_time" : 1663340552910,
"total_task_num" : null,
"create_task_num" : null,
"failed_task_num" : null,
"complete_task_num" : null,
"paused_task_num" : null,
"executing_task_num" : null,
"waiting_task_num" : null,
"total_num" : 1,
"create_complete_num" : null,
"success_num" : 0,
"fail_num" : 0,
"skip_num" : 1,
"total_size" : 1205,
"create_complete_size" : null,
"complete_size" : 1205,
"failed_object_record" : {
  "result" : null,
  "list_file_key" : null,
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
}, {
  "group_id" : "d85ed5a8-61a1-492f-a146-2fd092dc37cf",
  "status" : 5,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "assess-bucket-1",
    "cloud_type" : "HUAWEICLOUD",
    "region" : "cn-north-7",
    "app_id" : "",
    "object_key" : [ "" ],
    "list_file" : null
  },
  "description" : "",
  "dst_node" : {
    "bucket" : "assess-bucket-1",
    "region" : "cn-north-7",
    "save_prefix" : ""
  },
  "enable_metadata_migration" : false,
  "enable_failed_object_recording" : true,
  "enable_restore" : false,
  "enable_kms" : false,
  "task_type" : "PREFIX",
  "bandwidth_policy" : [ ],
  "smn_config" : null,
  "source_cdn" : null,
  "migrate_since" : 0,
  "migrate_speed" : 0,
  "total_time" : 4047612,
```



```
"start_time" : 1663070894867,
"total_task_num" : null,
"create_task_num" : null,
"failed_task_num" : null,
"complete_task_num" : null,
"paused_task_num" : null,
"executing_task_num" : null,
"waiting_task_num" : null,
"total_num" : 99020,
"create_complete_num" : null,
"success_num" : 0,
"fail_num" : 99020,
"skip_num" : 0,
"total_size" : 954329692,
"create_complete_size" : null,
"complete_size" : 954329692,
"failed_object_record" : {
  "result" : true,
  "list_file_key" : "oms/task_group/d85ed5a8-61a1-492f-a146-2fd092dc37cf/failed_object_lists/",
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
}, {
  "group_id" : "2a84320a-eddb-4413-9b12-a0251aae0f3e",
  "status" : 6,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "api-test",
    "cloud_type" : "U CLOUD",
    "region" : "cn-bj",
    "app_id" : "",
    "object_key" : [ "test" ],
    "list_file" : null
  },
  "description" : "",
  "dst_node" : {
    "bucket" : "test-l30022277",
    "region" : "cn-north-7",
    "save_prefix" : ""
  },
  "enable_metadata_migration" : false,
  "enable_failed_object_recording" : true,
  "enable_restore" : false,
  "enable_kms" : false,
  "task_type" : "PREFIX",
  "bandwidth_policy" : [ ],
  "smn_config" : null,
  "source_cdn" : null,
  "migrate_since" : 0,
  "migrate_speed" : 0,
  "total_time" : 63228,
  "start_time" : 1662725286648,
  "total_task_num" : null,
  "create_task_num" : null,
  "failed_task_num" : null,
  "complete_task_num" : null,
  "paused_task_num" : null,
  "executing_task_num" : null,
  "waiting_task_num" : null,
  "total_num" : 6,
  "create_complete_num" : null,
  "success_num" : 5,
  "fail_num" : 0,
  "skip_num" : 1,
  "total_size" : 0,
  "create_complete_size" : null,
  "complete_size" : 0,
```

```
"failed_object_record" : {
  "result" : null,
  "list_file_key" : null,
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
}, {
  "group_id" : "64bca3b2-6ccc-4ca4-8394-17d3c7bdf871",
  "status" : 6,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "api-auto-test",
    "cloud_type" : "TENCENT",
    "region" : "ap-beijing",
    "app_id" : "1254563210",
    "object_key" : [ "test" ],
    "list_file" : null
  },
  "description" : "",
  "dst_node" : {
    "bucket" : "test-l30022277",
    "region" : "cn-north-7",
    "save_prefix" : ""
  },
  "enable_metadata_migration" : false,
  "enable_failed_object_recording" : true,
  "enable_restore" : false,
  "enable_kms" : false,
  "task_type" : "PREFIX",
  "bandwidth_policy" : [ ],
  "smn_config" : null,
  "source_cdn" : null,
  "migrate_since" : 0,
  "migrate_speed" : 0,
  "total_time" : 553999,
  "start_time" : 1662725057215,
  "total_task_num" : null,
  "create_task_num" : null,
  "failed_task_num" : null,
  "complete_task_num" : null,
  "paused_task_num" : null,
  "executing_task_num" : null,
  "waiting_task_num" : null,
  "total_num" : 6,
  "create_complete_num" : null,
  "success_num" : 6,
  "fail_num" : 0,
  "skip_num" : 0,
  "total_size" : 2469022100,
  "create_complete_size" : null,
  "complete_size" : 2469022100,
  "failed_object_record" : {
    "result" : null,
    "list_file_key" : null,
    "error_code" : null
  },
  "object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
  "consistency_check" : "size_last_modified",
  "enable_requester_pays" : false
}, {
  "group_id" : "4c019e94-9ac1-4cd6-b404-982816b20c2f",
  "status" : 6,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "api-auto-hangzhou",
    "cloud_type" : "ALIYUN",
    "region" : "cn-hangzhou",
```

```
"app_id" : "",
"object_key" : [ "test" ],
"list_file" : null
},
"description" : "",
"dst_node" : {
  "bucket" : "test-l30022277",
  "region" : "cn-north-7",
  "save_prefix" : ""
},
"enable_metadata_migration" : false,
"enable_failed_object_recording" : true,
"enable_restore" : false,
"enable_kms" : false,
"task_type" : "PREFIX",
"bandwidth_policy" : [ ],
"smn_config" : null,
"source_cdn" : null,
"migrate_since" : 0,
"migrate_speed" : 0,
"total_time" : 33279,
"start_time" : 1662723650469,
"total_task_num" : null,
"create_task_num" : null,
"failed_task_num" : null,
"complete_task_num" : null,
"paused_task_num" : null,
"executing_task_num" : null,
"waiting_task_num" : null,
"total_num" : 3,
"create_complete_num" : null,
"success_num" : 3,
"fail_num" : 0,
"skip_num" : 0,
"total_size" : 31840,
"create_complete_size" : null,
"complete_size" : 31840,
"failed_object_record" : {
  "result" : null,
  "list_file_key" : null,
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
}, {
  "group_id" : "5f5dd578-a3a6-4324-ad64-647a38ffb395",
  "status" : 6,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "api-auto-test",
    "cloud_type" : "BAIDU",
    "region" : "bj",
    "app_id" : "",
    "object_key" : [ "test" ],
    "list_file" : null
  },
  "description" : "",
  "dst_node" : {
    "bucket" : "assess-bucket-1",
    "region" : "cn-north-7",
    "save_prefix" : ""
  },
  "enable_metadata_migration" : false,
  "enable_failed_object_recording" : true,
  "enable_restore" : false,
  "enable_kms" : false,
  "task_type" : "PREFIX",
  "bandwidth_policy" : [ ],
```

```
"smn_config" : null,
"source_cdn" : null,
"migrate_since" : 0,
"migrate_speed" : 0,
"total_time" : 53427,
"start_time" : 1662722500472,
"total_task_num" : null,
"create_task_num" : null,
"failed_task_num" : null,
"complete_task_num" : null,
"paused_task_num" : null,
"executing_task_num" : null,
"waiting_task_num" : null,
"total_num" : 15,
"create_complete_num" : null,
"success_num" : 15,
"fail_num" : 0,
"skip_num" : 0,
"total_size" : 94864941,
"create_complete_size" : null,
"complete_size" : 94864941,
"failed_object_record" : {
  "result" : null,
  "list_file_key" : null,
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
}, {
  "group_id" : "912e951b-ae19-4f65-bb94-c889601d8a43",
  "status" : 6,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "assess-bucket-1",
    "cloud_type" : "HUAWEICLOUD",
    "region" : "cn-north-7",
    "app_id" : "",
    "object_key" : [ "" ],
    "list_file" : null
  },
  "description" : "",
  "dst_node" : {
    "bucket" : "oms-onebox-lqm",
    "region" : "cn-north-7",
    "save_prefix" : ""
  },
  "enable_metadata_migration" : false,
  "enable_failed_object_recording" : true,
  "enable_restore" : false,
  "enable_kms" : false,
  "task_type" : "PREFIX",
  "bandwidth_policy" : [ ],
  "smn_config" : null,
  "source_cdn" : null,
  "migrate_since" : 0,
  "migrate_speed" : 0,
  "total_time" : 590588,
  "start_time" : 1662640213374,
  "total_task_num" : null,
  "create_task_num" : null,
  "failed_task_num" : null,
  "complete_task_num" : null,
  "paused_task_num" : null,
  "executing_task_num" : null,
  "waiting_task_num" : null,
  "total_num" : 99052,
  "create_complete_num" : null,
  "success_num" : 99052,
```

```
"fail_num" : 0,
"skip_num" : 0,
"total_size" : 1847919442,
"create_complete_size" : null,
"complete_size" : 1847919442,
"failed_object_record" : {
  "result" : null,
  "list_file_key" : null,
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
}, {
  "group_id" : "398b5845-b180-47a1-a7c9-56f051ed3f34",
  "status" : 5,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "hw-src",
    "cloud_type" : "HUAWEICLOUD",
    "region" : "cn-north-7",
    "app_id" : "",
    "object_key" : [ "gd.jpg" ],
    "list_file" : null
  },
  "description" : "",
  "dst_node" : {
    "bucket" : "zzww",
    "region" : "cn-north-7",
    "save_prefix" : ""
  },
  "enable_metadata_migration" : false,
  "enable_failed_object_recording" : true,
  "enable_restore" : false,
  "enable_kms" : false,
  "task_type" : "PREFIX",
  "bandwidth_policy" : [ ],
  "smn_config" : null,
  "source_cdn" : null,
  "migrate_since" : 0,
  "migrate_speed" : 0,
  "total_time" : 709891300,
  "start_time" : 1662369530210,
  "total_task_num" : null,
  "create_task_num" : null,
  "failed_task_num" : null,
  "complete_task_num" : null,
  "paused_task_num" : null,
  "executing_task_num" : null,
  "waiting_task_num" : null,
  "total_num" : 1,
  "create_complete_num" : null,
  "success_num" : 0,
  "fail_num" : 1,
  "skip_num" : 0,
  "total_size" : 3528,
  "create_complete_size" : null,
  "complete_size" : 0,
  "failed_object_record" : {
    "result" : true,
    "list_file_key" : "oms/task_group/398b5845-b180-47a1-a7c9-56f051ed3f34/failed_object_lists/",
    "error_code" : null
  },
  "object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
  "consistency_check" : "size_last_modified",
  "enable_requester_pays" : false
}, {
  "group_id" : "494cad85-cbe5-4d62-8e70-e4f0e847e39c",
  "status" : 6,
```

```
"error_reason" : null,
"src_node" : {
  "bucket" : "test-l30022277-src",
  "cloud_type" : "HUAWEICLOUD",
  "region" : "cn-north-7",
  "app_id" : "",
  "object_key" : [ "test" ],
  "list_file" : null
},
"description" : "",
"dst_node" : {
  "bucket" : "test-l30022277",
  "region" : "cn-north-7",
  "save_prefix" : ""
},
"enable_metadata_migration" : false,
"enable_failed_object_recording" : true,
"enable_restore" : false,
"enable_kms" : false,
"task_type" : "PREFIX",
"bandwidth_policy" : [ ],
"smn_config" : null,
"source_cdn" : null,
"migrate_since" : 0,
"migrate_speed" : 0,
"total_time" : 33513,
"start_time" : 1661928705453,
"total_task_num" : null,
"create_task_num" : null,
"failed_task_num" : null,
"complete_task_num" : null,
"paused_task_num" : null,
"executing_task_num" : null,
"waiting_task_num" : null,
"total_num" : 2,
"create_complete_num" : null,
"success_num" : 0,
"fail_num" : 0,
"skip_num" : 2,
"total_size" : 155,
"create_complete_size" : null,
"complete_size" : 155,
"failed_object_record" : {
  "result" : null,
  "list_file_key" : null,
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
} ]
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
```

```
import com.huaweicloud.sdk.oms.v2.model.*;

public class ListTaskGroupSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ListTaskGroupRequest request = new ListTaskGroupRequest();
        try {
            ListTaskGroupResponse response = client.listTaskGroup(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.getErrMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

```
try:
    request = ListTaskGroupRequest()
    response = client.list_task_group(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK

Status Code	Description
400	Bad request.
403	Forbidden
500	Server error.

Error Codes

For details, see [Error Codes](#).

5.4.2 Creating a Migration Task Group

Function

This API is used to create a migration task group. After a migration task group is created, migration tasks are automatically created in the task group. You do not need to make API calls to create migration tasks.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/taskgroups

Table 5-129 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-130 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-131 Request body parameters

Parameter	Mandatory	Type	Description
src_node	Yes	TaskGroupSrcNode object	The source information.
description	No	String	The task group description, which cannot exceed 255 characters. The following special characters are not allowed: ^<>&"' Minimum length: 0 characters Maximum length: 255 characters
dst_node	Yes	TaskGroupDstNode object	The destination information.
enable_metadata_migration	No	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration. Default value: false
enable_failed_object_recording	No	Boolean	Indicates whether the function of recording failed objects is enabled. Default value: true
enable_restore	No	Boolean	Indicates whether automatic restoration of archived data is enabled. The default value is No . If this function is enabled, archived data is automatically restored and migrated.

Parameter	Mandatory	Type	Description
enable_kms	Yes	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default. Default value: false
task_type	No	String	The task type. The default value is PREFIX . LIST : migrates only the objects recorded in a predefined object list. URL_LIST : migrates only the objects recorded in a predefined URL list. PREFIX : migrates only the objects that match the specified prefixes. The value can be: • LIST • URL_LIST • PREFIX
bandwidth_policy	No	Array of BandwidthPolicyDto objects	The traffic limiting rules. Each element in the array corresponds to the maximum bandwidth in a time period. A maximum of five periods are allowed, and the periods cannot overlap. Array length: 0 to 5
smn_config	No	SmnConfig object	The SMN message sending configuration.
source_cdn	No	SourceCdnReq object	Indicates whether migration from CDN is enabled. If this field is included, migration from CDN is supported. Otherwise, it is not supported. If migration from CDN is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration.

Parameter	Mandatory	Type	Description
migrate_since	No	Long	A timestamp in seconds. The system migrates only the objects that are modified after the specified time. No time is specified by default. Minimum value: 0 Maximum value: 9223372036854775807 Default value: 0

Parameter	Mandatory	Type	Description
object_overwrite_mode	No	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object is not as large as or was last modified more recently than its paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects

Parameter	Mandatory	Type	Description
			to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE
dst_storage_policy	No	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD . STANDARD : Huawei Cloud OBS Standard storage IA : Huawei Cloud OBS Infrequent Access storage ARCHIVE : Huawei Cloud OBS Archive storage DEEP_ARCHIVE : Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING : converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Mandatory	Type	Description
consistency_check	No	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object does not need to be migrated or has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects will overwrite their paired destination objects directly. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. Default value: size_last_modified The value can be: • size_last_modified

Parameter	Mandatory	Type	Description
			• crc64 • no_check
enable_requester_pays	No	Boolean	Indicates whether Requester Pays is enabled. If this function is enabled, the requester pays for the request and data transmission. Default value: false

Table 5-132 TaskGroupSrcNode field description

Parameter	Mandatory	Type	Description
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters
app_id	No	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
region	No	String	The region where the source bucket is located. region is mandatory when task_type is not URL_LIST . Minimum length: 0 characters Maximum length: 100 characters
object_key	No	Array of strings	If task_type is set to prefix , this parameter indicates the name prefixes of objects to be migrated. If you want to migrate the entire bucket, set this parameter to [""] . Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500
bucket	No	String	The source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
cloud_type	No	String	The source cloud service provider. If task_type is URL_LIST , this parameter is mandatory and must be URLSource . The value can be AWS , Azure , Aliyun , Tencent , HuaweiCloud , QingCloud , KingsoftCloud , Baidu , Qiniu , URLSource , Google , or UCloud . The default value is Aliyun . Default value: Aliyun Minimum length: 0 characters Maximum length: 100 characters
list_file	No	ListFile object	The list file configuration. list_file is mandatory when task_type is set to LIST or URL_LIST .

Table 5-133 ListFile field description

Parameter	Mandatory	Type	Description
list_file_key	Yes	String	The object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	Yes	String	The name of the OBS bucket for storing the object list files. Ensure that this bucket is in the same region as the destination bucket, or the task creation will fail. Minimum length: 0 characters Maximum length: 1,024 characters
list_file_num	No	String	The number of stored object list files. Minimum length: 0 characters Maximum length: 65,535 characters

Table 5-134 TaskGroupDstNode field description

Parameter	Mandatory	Type	Description
ak	Yes	String	The AK for accessing the destination bucket. Minimum length: 0 characters Maximum length: 100 characters
sk	Yes	String	The SK for accessing the destination bucket. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Mandatory	Type	Description
region	Yes	String	The region where the destination bucket is located. The value must be the same as that of the service endpoint. Minimum length: 0 characters Maximum length: 100 characters
bucket	Yes	String	The destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters
cloud_type	No	String	The destination cloud. Huawei Cloud is the destination by default, which is represented by HEC . Default value: HEC Minimum length: 0 characters Maximum length: 100 characters
save_prefix	No	String	The path prefix used to organize object locations in the destination bucket. The prefix is added before an object key to form a new key. The length of the new key cannot exceed 1,024 characters. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-135 BandwidthPolicyDto field description

Parameter	Mandatory	Type	Description
end	Yes	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Parameter	Mandatory	Type	Description
max_bandwidth	Yes	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	Yes	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Table 5-136 SmnConfig field description

Parameter	Mandatory	Type	Description
language	No	String	The management console language chosen by you. The value can be zh-cn or en-us . Default value: en-us The value can be: • zh-cn • en-us
topic_urn	Yes	String	The URN of the SMN topic bound to the migration task. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
trigger_conditions	Yes	Array of strings	The trigger conditions of sending messages using SMN. The trigger conditions are based on the migration task states. The migration task state can be SUCCESS or FAILURE. ● FAILURE: indicates that an SMN message will be sent if the migration task fails. ● SUCCESS: indicates that an SMN message will be sent if the migration task succeeds. Array length: 1 to 2
message_template_name	No	String	If this parameter is specified, SMN messages are sent using the specified template. Template example: <pre>{ "Task_Status": "", "Task_Name": "", "Start_Time": "", "Total_Time_Used": "", "Transferred_Data": "", "Average_Speed": "", "Source_Bucket": "", "Destination_Bucket": "", "List_File_Bucket": "", "List_File_Key": "", "Success_object_list_path": "", "Skip_object_list_path": "", "Failed_object_list_path": "" }</pre>

Table 5-137 SourceCdnReq

Parameter	Mandatory	Type	Description
authentication_key	No	String	The CDN authentication key. If the CDN authentication is required, this parameter is mandatory. If no authorization is required, do not set this parameter. Qiniu: You do not need to set this parameter. Aliyun: Set this parameter based on the value of authentication_type. KingsoftCloud: You do not need to set this parameter. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
authentication_type	Yes	String	The authentication type. The value can be: NONE Qiniu_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION Azure_SAS_TOKEN Tencent_COS_A Tencent_COS_B Tencent_COS_C Tencent_COS_D Default value: NONE The value can be: • NONE • Qiniu_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • Azure_SAS_TOKEN • Tencent_COS_A • Tencent_COS_B • Tencent_COS_C • Tencent_COS_D
domain	Yes	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	Yes	String	The protocol type. HTTP and HTTPS are supported. The value can be: • http • https

Response

Status code: 200

Table 5-138 Response body parameters

Parameter	Type	Description
group_id	String	The ID of the created migration task group. Minimum length: 1 character Maximum length: 100 characters

Status code: 400

Table 5-139 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-140 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 500

Table 5-141 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

- This example creates a migration task group to migrate objects recorded in the TXT object list files stored in the **hw/** directory to the destination bucket **zzww**.

POST https://{endpoint}/v2/{project_id}/taskgroups

```
{
  "enable_failed_object_recording" : true,
  "src_node" : {
    "bucket" : "hw-src",
    "cloud_type" : "HuaweiCloud",
    "ak" : "*****",
    "sk" : "*****",
    "region" : "cn-north-7",
    "list_file" : {
      "obs_bucket" : "list-file-bucket",
      "list_file_key" : "hw/"
    }
  },
  "enable_kms" : false,
  "task_type" : "LIST",
  "enable_restore" : false,
  "dst_node" : {
    "bucket" : "zzww",
    "cloud_type" : "HEC",
    "ak" : "*****",
    "sk" : "*****",
    "region" : "cn-north-7"
  },
  "enable_metadata_migration" : true
}
```

- This example creates a migration task group to migrate objects prefixed with **Objectlist** from the source bucket **src-bucket** to the destination bucket **dst-bucket**.

POST https://{endpoint}/v2/{project_id}/taskgroups

```
{
  "src_node" : {
    "region" : "cn-north-4",
    "ak" : "*****",
    "sk" : "*****",
    "bucket" : "src-bucket",
    "cloud_type" : "HuaweiCloud",
    "object_key" : [ "Objectlist" ]
  },
  "dst_node" : {
    "region" : "cn-north-4",
    "ak" : "*****",
    "sk" : "*****",
    "bucket" : "dst-bucket"
  },
  "task_type" : "PREFIX",
  "enable_failed_object_recording" : true,
  "enable_kms" : false,
  "bandwidth_policy" : [ {
    "max_bandwidth" : 1048576,
    "start" : "00:01",
    "end" : "23:59"
  } ]
}
```

- This example creates a migration task group to migrate objects recorded in the TXT URL list files stored in the **test01/** directory to the destination bucket **jjyy**.

POST https://{endpoint}/v2/{project_id}/taskgroups

```
{
  "src_node": {
    "cloud_type": "URLSource",
    "list_file": {
      "obs_bucket": "url-file-bucket",
      "list_file_key": "test01/"
    }
  },
  "description": "",
  "dst_node": {
    "region": "cn-north-4",
    "ak": "*****",
    "sk": "*****",
    "bucket": "jjyy",
    "cloud_type": "HEC"
  },
  "enable_failed_object_recording": true,
  "enable_restore": false,
  "enable_metadata_migration": false,
  "enable_kms": false,
  "task_type": "URL_LIST"
}
```

Example Response

Status code: 200

Created

```
{
  "group_id": "9ad15f51-778f-4684-b47b-4c5109c0e105"
}
```

SDK Sample Code

The sample code is as follows.

Java

- This example creates a migration task group to migrate objects recorded in the **TXT** object list files stored in the **hw/** directory to the destination bucket **zzww**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class CreateTaskGroupSolution {

    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");
String projectId = "{project_id}";

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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
CreateTaskGroupRequest request = new CreateTaskGroupRequest();
CreateTaskGroupReq body = new CreateTaskGroupReq();
TaskGroupDstNode dstNodebody = new TaskGroupDstNode();
dstNodebody.withAk("*****")
    .withSk("*****")
    .withRegion("cn-north-7")
    .withBucket("zzww")
    .withCloudType("HEC");
ListFile listFileSrcNode = new ListFile();
listFileSrcNode.withListFileKey("hw/")
    .withObsBucket("list-file-bucket");
TaskGroupSrcNode srcNodebody = new TaskGroupSrcNode();
srcNodebody.withAk("*****")
    .withSk("*****")
    .withRegion("cn-north-7")
    .withBucket("hw-src")
    .withCloudType("HuaweiCloud")
    .withListFile(listFileSrcNode);
body.withTaskType(CreateTaskGroupReq.TaskTypeEnum.fromValue("LIST"));
body.withEnableKms(false);
body.withEnableRestore(false);
body.withEnableFailedObjectRecording(true);
body.withEnableMetadataMigration(true);
body.withDstNode(dstNodebody);
body.withSrcNode(srcNodebody);
request.withBody(body);
try {
    CreateTaskGroupResponse response = client.createTaskGroup(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.getStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

- This example creates a migration task group to migrate objects prefixed with **Objectlist** from the source bucket **src-bucket** to the destination bucket **dst-bucket**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;
```

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

public class CreateTaskGroupSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();

        CreateTaskGroupRequest request = new CreateTaskGroupRequest();
        CreateTaskGroupReq body = new CreateTaskGroupReq();
        List<BandwidthPolicyDto> listbodyBandwidthPolicy = new ArrayList<>();
        listbodyBandwidthPolicy.add(
            new BandwidthPolicyDto()
                .withEnd("23:59")
                .withMaxBandwidth(1048576L)
                .withStart("00:01")
        );
        TaskGroupDstNode dstNodebody = new TaskGroupDstNode();
        dstNodebody.withAk("*****")
            .withSk("*****")
            .withRegion("cn-north-4")
            .withBucket("dst-bucket");
        List<String> listSrcNodeObjectKey = new ArrayList<>();
        listSrcNodeObjectKey.add("Objectlist");
        TaskGroupSrcNode srcNodebody = new TaskGroupSrcNode();
        srcNodebody.withAk("*****")
            .withSk("*****")
            .withRegion("cn-north-4")
            .withObjectKey(listSrcNodeObjectKey)
            .withBucket("src-bucket")
            .withCloudType("HuaweiCloud");
        body.withBandwidthPolicy(listbodyBandwidthPolicy);
        body.withTaskType(CreateTaskGroupReq.TaskTypeEnum.fromValue("PREFIX"));
        body.withEnableKms(false);
        body.withEnableFailedObjectRecording(true);
        body.withDstNode(dstNodebody);
        body.withSrcNode(srcNodebody);
        request.withBody(body);
        try {
            CreateTaskGroupResponse response = client.createTaskGroup(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());
        }
    }
}
```

- This example creates a migration task group to migrate objects recorded in the TXT URL list files stored in the **test01/** directory to the destination bucket **jjyy**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class CreateTaskGroupSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateTaskGroupRequest request = new CreateTaskGroupRequest();
        CreateTaskGroupReq body = new CreateTaskGroupReq();
        TaskGroupDstNode dstNodebody = new TaskGroupDstNode();
        dstNodebody.withAk("*****")
            .withSk("***** ")
            .withRegion("cn-north-4")
            .withBucket("jjyy")
            .withCloudType("HEC");
        ListFile listFileSrcNode = new ListFile();
        listFileSrcNode.withListFileKey("test01/")
            .withObsBucket("url-file-bucket");
        TaskGroupSrcNode srcNodebody = new TaskGroupSrcNode();
        srcNodebody.withCloudType("URLSource")
            .withListFile(listFileSrcNode);
        body.withTaskType(CreateTaskGroupReq.TaskTypeEnum.fromValue("URL_LIST"));
        body.withEnableKms(false);
        body.withEnableRestore(false);
        body.withEnableFailedObjectRecording(true);
        body.withEnableMetadataMigration(false);
        body.withDstNode(dstNodebody);
        body.withDescription("");
        body.withSrcNode(srcNodebody);
        request.withBody(body);
        try {
            CreateTaskGroupResponse response = client.createTaskGroup(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

- This example creates a migration task group to migrate objects recorded in the TXT object list files stored in the **hw/** directory to the destination bucket **zzww**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateTaskGroupRequest()
        dstNodebody = TaskGroupDstNode(
            ak="*****",
            sk="*****",
            region="cn-north-7",
            bucket="zzww",
            cloud_type="HEC"
        )
        listFileSrcNode = ListFile(
            list_file_key="hw/",
            obs_bucket="list-file-bucket"
        )
        srcNodebody = TaskGroupSrcNode(
            ak="*****",
            sk="*****",
            region="cn-north-7",
            bucket="hw-src",
            cloud_type="HuaweiCloud",
            list_file=listFileSrcNode
        )
        request.body = CreateTaskGroupReq(
            task_type="LIST",
            enable_kms=False,
            enable_restore=False,
```

```
        enable_failed_object_recording=True,  
        enable_metadata_migration=True,  
        dst_node=dstNodebody,  
        src_node=srcNodebody  
    )  
    response = client.create_task_group(request)  
    print(response)  
except exceptions.ClientRequestException as e:  
    print(e.status_code)  
    print(e.request_id)  
    print(e.error_code)  
    print(e.error_msg)
```

- This example creates a migration task group to migrate objects prefixed with **Objectlist** from the source bucket **src-bucket** to the destination bucket **dst-bucket**.

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudskoms.v2.region.oms_region import OmsRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudskoms.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"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = OmsClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(OmsRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = CreateTaskGroupRequest()  
        listBandwidthPolicybody = [  
            BandwidthPolicyDto(  
                end="23:59",  
                max_bandwidth=1048576,  
                start="00:01"  
            )  
        ]  
        dstNodebody = TaskGroupDstNode(  
            ak="*****",  
            sk="*****",  
            region="cn-north-4",  
            bucket="dst-bucket"  
        )  
        listObjectKeySrcNode = [  
            "Objectlist"  
        ]  
        srcNodebody = TaskGroupSrcNode(  
            ak="*****",  
            sk="*****",  
            region="cn-north-4",  
            object_key=listObjectKeySrcNode,  
            bucket="src-bucket",  
            cloud_type="HuaweiCloud"  
        )  
        request.body = CreateTaskGroupReq(  
            listBandwidthPolicybody=listBandwidthPolicybody,  
            dstNodebody=dstNodebody,  
            listObjectKeySrcNode=listObjectKeySrcNode,  
            srcNodebody=srcNodebody
```

```
        bandwidth_policy=listBandwidthPolicybody,
        task_type="PREFIX",
        enable_kms=False,
        enable_failed_object_recording=True,
        dst_node=dstNodebody,
        src_node=srcNodebody
    )
    response = client.create_task_group(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- This example creates a migration task group to migrate objects recorded in the TXT URL list files stored in the **test01/** directory to the destination bucket **jyy**.

coding: utf-8

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = CreateTaskGroupRequest()
        dstNodebody = TaskGroupDstNode(
            ak="*****",
            sk="*****",
            region="cn-north-4",
            bucket="jyy",
            cloud_type="HEC"
        )
        listFileSrcNode = ListFile(
            list_file_key="test01/",
            obs_bucket="url-file-bucket"
        )
        srcNodebody = TaskGroupSrcNode(
            cloud_type="URLSource",
            list_file=listFileSrcNode
        )
        request.body = CreateTaskGroupReq(
            task_type="URL_LIST",
            enable_kms=False,
            enable_restore=False,
            enable_failed_object_recording=True,
            enable_metadata_migration=False,
            dst_node=dstNodebody,
            description=""
        )
```



```
        src_node=srcNodebody
    )
    response = client.create_task_group(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

- This example creates a migration task group to migrate objects recorded in the TXT object list files stored in the **hw/** directory to the destination bucket **zzww**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTaskGroupRequest{}
    cloudTypeDstNode := "HEC"
    dstNodebody := &model.TaskGroupDstNode{
        Ak: "*****",
        Sk: "*****",
        Region: "cn-north-7",
        Bucket: "zzww",
        CloudType: &cloudTypeDstNode,
    }
    listFileSrcNode := &model.ListFile{
        ListFileKey: "hw/",
        ObsBucket: "list-file-bucket",
    }
    akSrcNode := "*****"
    skSrcNode := "*****"
    regionSrcNode := "cn-north-7"
    bucketSrcNode := "hw-src"
    cloudTypeSrcNode := "HuaweiCloud"
    srcNodebody := &model.TaskGroupSrcNode{
        Ak: &akSrcNode,
```

```
        Sk: &skSrcNode,
        Region: &regionSrcNode,
        Bucket: &bucketSrcNode,
        CloudType: &cloudTypeSrcNode,
        ListFile: listFileSrcNode,
    }
    taskTypeCreateTaskGroupReq := model.GetCreateTaskGroupReqTaskTypeEnum().LIST
    enableRestoreCreateTaskGroupReq := false
    enableFailedObjectRecordingCreateTaskGroupReq := true
    enableMetadataMigrationCreateTaskGroupReq := true
    request.Body = &model.CreateTaskGroupReq{
        TaskType: &taskTypeCreateTaskGroupReq,
        EnableKms: false,
        EnableRestore: &enableRestoreCreateTaskGroupReq,
        EnableFailedObjectRecording: &enableFailedObjectRecordingCreateTaskGroupReq,
        EnableMetadataMigration: &enableMetadataMigrationCreateTaskGroupReq,
        DstNode: dstNodebody,
        SrcNode: srcNodebody,
    }
    response, err := client.CreateTaskGroup(request)
    if err == nil {
        fmt.Printf("%v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example creates a migration task group to migrate objects prefixed with **Objectlist** from the source bucket **src-bucket** to the destination bucket **dst-bucket**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTaskGroupRequest{}
    var listBandwidthPolicybody = []model.BandwidthPolicyDto{
        {
            End: "23:59",
            MaxBandwidth: int64(1048576),
            Start: "00:01",
        }
    }
```

```
    },
  }
  dstNodebody := &model.TaskGroupDstNode{
    Ak: "*****",
    Sk: "*****",
    Region: "cn-north-4",
    Bucket: "dst-bucket",
  }
  var listObjectKeySrcNode = []string{
    "Objectlist",
  }
  akSrcNode := "*****"
  skSrcNode := "*****"
  regionSrcNode := "cn-north-4"
  bucketSrcNode := "src-bucket"
  cloudTypeSrcNode := "HuaweiCloud"
  srcNodebody := &model.TaskGroupSrcNode{
    Ak: &akSrcNode,
    Sk: &skSrcNode,
    Region: &regionSrcNode,
    ObjectKey: &listObjectKeySrcNode,
    Bucket: &bucketSrcNode,
    CloudType: &cloudTypeSrcNode,
  }
  taskTypeCreateTaskGroupReq := model.GetCreateTaskGroupReqTaskTypeEnum().PREFIX
  enableFailedObjectRecordingCreateTaskGroupReq := true
  request.Body = &model.CreateTaskGroupReq{
    BandwidthPolicy: &listBandwidthPolicybody,
    TaskType: &taskTypeCreateTaskGroupReq,
    EnableKms: false,
    EnableFailedObjectRecording: &enableFailedObjectRecordingCreateTaskGroupReq,
    DstNode: dstNodebody,
    SrcNode: srcNodebody,
  }
  response, err := client.CreateTaskGroup(request)
  if err == nil {
    fmt.Printf("%+v\n", response)
  } else {
    fmt.Println(err)
  }
}
```

- This example creates a migration task group to migrate objects recorded in the TXT URL list files stored in the **test01/** directory to the destination bucket **jiyy**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

```
WithProjectId(projectId).
Build()

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateTaskGroupRequest{
    cloudTypeDstNode:= "HEC"
    dstNodebody := &model.TaskGroupDstNode{
        Ak: "*****",
        Sk: "*****",
        Region: "cn-north-4",
        Bucket: "jjyy",
        CloudType: &cloudTypeDstNode,
    }
    listFileSrcNode := &model.ListFile{
        ListFileKey: "test01/",
        ObsBucket: "url-file-bucket",
    }
    cloudTypeSrcNode:= "URLSource"
    srcNodebody := &model.TaskGroupSrcNode{
        CloudType: &cloudTypeSrcNode,
        ListFile: listFileSrcNode,
    }
    taskTypeCreateTaskGroupReq:= model.GetCreateTaskGroupReqTaskTypeEnum().URL_LIST
    enableRestoreCreateTaskGroupReq:= false
    enableFailedObjectRecordingCreateTaskGroupReq:= true
    enableMetadataMigrationCreateTaskGroupReq:= false
    descriptionCreateTaskGroupReq:= ""
    request.Body = &model.CreateTaskGroupReq{
        TaskType: &taskTypeCreateTaskGroupReq,
        EnableKms: false,
        EnableRestore: &enableRestoreCreateTaskGroupReq,
        EnableFailedObjectRecording: &enableFailedObjectRecordingCreateTaskGroupReq,
        EnableMetadataMigration: &enableMetadataMigrationCreateTaskGroupReq,
        DstNode: dstNodebody,
        Description: &descriptionCreateTaskGroupReq,
        SrcNode: srcNodebody,
    }
    response, err := client.CreateTaskGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Created
400	Bad request.
403	Forbidden

Status Code	Description
500	Server error.

Error Codes

For details, see [Error Codes](#).

5.4.3 Querying a Migration Task Group

Function

This API is used to query the information about a migration task group with a specified ID.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/taskgroups/{group_id}

Table 5-142 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
group_id	Yes	String	The task group ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-143 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200**Table 5-144** Response body parameters

Parameter	Type	Description
group_id	String	The task group ID. Minimum length: 1 character Maximum length: 100 characters
status	Integer	The migration task group status. 0 : waiting 1 : executing/creating 2 : executing 3 : paused 4 : creation failed 5 : migration failed 6 : migration completed 7 : pausing 8 : waiting for deletion 9 : deleting Minimum value: 0 Maximum value: 9
error_reason	ErrorReasonResp object	The task group failure cause. The value is an empty string if the task is not in the Migration failed state.
src_node	TaskGroupSrcNodeResp object	The source information.

Parameter	Type	Description
description	String	The task group description, which cannot exceed 255 characters. The following special characters are not allowed: ^<>&"" Minimum length: 0 characters Maximum length: 255 characters
dst_node	TaskGroupDstNodeResp object	The destination information.
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is false . Even if this function is disabled, the Content-Type metadata will still be migrated to ensure a successful migration. Default value: false
enable_failed_object_recording	Boolean	Indicates whether the function of recording failed objects is enabled.
enable_restore	Boolean	Indicates whether automatic restoration of archived data is enabled. It takes a long time to restore archived data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archived data before the migration. If this function is enabled, archived objects will be automatically restored and then migrated. If this function is disabled, archived objects will be ignored during the migration, and the information about these objects will be recorded in the list of failed objects.
enable_kms	Boolean	Indicates whether KMS is used to encrypt the data to be stored in the destination OBS bucket.

Parameter	Type	Description
task_type	String	The task type. The default value is PREFIX. LIST: migrates only the objects recorded in a predefined object list. URL_LIST: migrates only the objects recorded in a predefined URL list. PREFIX: migrates only the objects that match the specified prefixes. The value can be: • LIST • URL_LIST • PREFIX
bandwidth_policy	Array of BandwidthPolicy Dto objects	The traffic limiting rules. Each element in the array corresponds to the maximum bandwidth in a time period. A maximum of five periods are allowed, and the periods cannot overlap. Array length: 0 to 5
smn_config	SmnInfo object	The SMN message sending configuration.
source_cdn	SourceCdnResp object	Indicates whether migration from CDN is enabled. If this field is included, migration from CDN is supported. Otherwise, it is not supported. If migration from CDN is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration.
migrate_since	Long	The specified time point (timestamp, in milliseconds) for filtering source data. Only source objects that are modified after the specified time will be migrated. Default value 0 indicates that no time is specified. Minimum value: 0 Maximum value: 9223372036854775807 Default value: 0
migrate_speed	Long	The migration speed (byte/s). Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
total_time	Long	The total time used by the migration task group, in ms. Minimum value: 0 Maximum value: 9223372036854775807
start_time	Long	The start time (Unix timestamp, in milliseconds) of the migration task group. Minimum value: 0 Maximum value: 9223372036854775807
total_task_num	Long	The total number of migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
create_task_num	Long	The number of created migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
failed_task_num	Long	The number of failed migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
complete_task_num	Long	The number of completed migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
paused_task_num	Long	The number of paused migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
executing_task_num	Long	The number of executing migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
waiting_task_num	Long	The number of waiting migration tasks in the task group. Minimum value: 0 Maximum value: 9223372036854775807
total_num	Long	The total number of objects to be migrated in the migration task group. Minimum value: 0 Maximum value: 9223372036854775807
create_complete_num	Long	The total number of objects included in created migration tasks. Minimum value: 0 Maximum value: 9223372036854775807
success_num	Long	The number of migrated objects. Minimum value: 0 Maximum value: 9223372036854775807
fail_num	Long	The number of failed objects. Minimum value: 0 Maximum value: 9223372036854775807
skip_num	Long	The number of skipped objects. Minimum value: 0 Maximum value: 9223372036854775807
total_size	Long	The size (in bytes) of the objects that have been migrated. Minimum value: 0 Maximum value: 9223372036854775807

Parameter	Type	Description
create_complete_size	Long	The total size (in bytes) of objects migrated in created migration tasks. Minimum value: 0 Maximum value: 9223372036854775807
complete_size	Long	The total size of migrated objects, in bytes. Minimum value: 0 Maximum value: 9223372036854775807
failed_object_record	FailedObjectRecord object	The record of failed objects.

Parameter	Type	Description
object_overwrite_mode	String	Indicates whether a source object is allowed to overwrite its paired destination object. The default value is SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE. NO_OVERWRITE indicates the system never allows overwriting. The system always skips source objects and keeps their paired destination objects. SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE indicates the system allows overwriting based on the results of size or modification time checks. It is the default setting. If a source object is not as large as or was last modified more recently than its paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. CRC64_COMPARISON_OVERWRITE indicates the system allows overwriting if the source and destination objects have different CRC64 checksums. This option is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object has a CRC64 checksum different from the paired destination object, the source object will overwrite the destination object. Otherwise, the source object will be skipped. If either of them lacks a CRC64 checksum in the metadata, their sizes and last modification times are checked. FULL_OVERWRITE indicates the system always allows overwriting. The system always allows source objects to overwrite their paired destination objects. The value can be: • NO_OVERWRITE • SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE • CRC64_COMPARISON_OVERWRITE • FULL_OVERWRITE

Parameter	Type	Description
dst_storage_policy	String	The destination storage class. This parameter is required only when the destination is Huawei Cloud OBS. The default value is STANDARD. STANDARD: Huawei Cloud OBS Standard storage IA: Huawei Cloud OBS Infrequent Access storage ARCHIVE: Huawei Cloud OBS Archive storage DEEP_ARCHIVE: Huawei Cloud OBS Deep Archive storage SRC_STORAGE_MAPPING: converts the source storage class into an OBS storage class based on the predefined rules. Default value: STANDARD Minimum length: 0 characters Maximum length: 128 characters The value can be: • STANDARD • IA • ARCHIVE • DEEP_ARCHIVE • SRC_STORAGE_MAPPING

Parameter	Type	Description
consistency_check	String	The consistency check method, which is used to check whether objects are consistent before and after migration. The selected check method and results will be recorded in the object list. The default value is size_last_modified. size_last_modified is the default setting. The system checks object consistency with object size and last modification time. If a source object is as large as but was last modified earlier than its paired destination object, the system considers the source object does not need to be migrated or has been already migrated successfully. crc64 is only available for migration within Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums in the metadata, the checksums are checked. Otherwise, their sizes and last modification times are checked. no_check is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained from the Content-Length field in the standard HTTP protocol. These source objects will overwrite their paired destination objects directly. If the size of a source object can be obtained from the Content-Length field in the standard HTTP protocol, its size and last modification time will be checked. The value can be: • size_last_modified • crc64 • no_check
enable_requester_pays	Boolean	Indicates whether Requester Pays is enabled. If this function is enabled, the requester pays for the request and data transmission.

Table 5-145 ErrorReasonResp field description

Parameter	Type	Description
error_code	String	The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters
error_msg	String	The migration failure cause. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-146 TaskGroupSrcNodeResp field description

Parameter	Type	Description
bucket	String	The name of the source bucket. Minimum length: 0 characters Maximum length: 1,024 characters
cloud_type	String	The source cloud service provider. The value can be AWS , AZURE , ALIYUN , TENCENT , HUAWEICLOUD , QINGCLOUD , KINGSOFTCLOUD , BAIDU , QINIU , GOOGLE , URLSOURCE , or ULOUD . The default value is ALIYUN . The value can be: • AWS • AZURE • ALIYUN • TENCENT • HUAWEICLOUD • QINGCLOUD • KINGSOFTCLOUD • BAIDU • QINIU • URLSOURCE • ULOUD • GOOGLE
region	String	The region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Type	Description
app_id	String	This parameter is returned when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
object_key	Array of strings	If task_type is set to PREFIX , this parameter indicates the name prefixes of objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500
list_file	ListFile object	The list file configuration. list_file is mandatory when task_type is set to LIST or URL_LIST .

Table 5-147 ListFile field description

Parameter	Type	Description
list_file_key	String	The object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	String	The name of the OBS bucket for storing the object list files. Ensure that this bucket is in the same region as the destination bucket, or the task creation will fail. Minimum length: 0 characters Maximum length: 1,024 characters
list_file_num	String	The number of stored object list files. Minimum length: 0 characters Maximum length: 65,535 characters

Table 5-148 TaskGroupDstNodeResp field description

Parameter	Type	Description
bucket	String	The name of the destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
region	String	The region where the destination bucket is located. Minimum length: 0 characters Maximum length: 100 characters
save_prefix	String	The path prefix used to organize object locations in the destination bucket. The prefix is added before an object key to form a new key. The length of the new key cannot exceed 1,024 characters. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-149 BandwidthPolicyDto field description

Parameter	Type	Description
end	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Table 5-150 SmnInfo field description

Parameter	Type	Description
notify_result	Boolean	Indicates whether SMN messages are sent successfully after a migration task is complete.

Parameter	Type	Description
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if the migration task is successful. Minimum length: 0 characters Maximum length: 1,024 characters
topic_name	String	The SMN topic name. The value is empty if SMN messages are sent successfully. Minimum length: 0 characters Maximum length: 5,120 characters

Table 5-151 SourceCdnResp field description

Parameter	Type	Description
domain	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	String	The protocol type. HTTP and HTTPS are supported. The value can be: • http • https

Parameter	Type	Description
authentication_type	String	The authentication type. The value can be: NONE QINIU_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION AZURE_SAS_TOKEN TENCENT_COS_A TENCENT_COS_B TENCENT_COS_C TENCENT_COS_D The value can be: • NONE • QINIU_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • AZURE_SAS_TOKEN • TENCENT_COS_A • TENCENT_COS_B • TENCENT_COS_C • TENCENT_COS_D

Table 5-152 FailedObjectRecordDto field description

Parameter	Type	Description
result	Boolean	Indicates whether retransmission of failed objects is supported.
list_file_key	String	The path for storing the list of failed objects. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
error_code	String	The error code returned when the list of failed objects fails to be uploaded. Minimum length: 0 characters Maximum length: 10 characters

Status code: 404

Table 5-153 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the information about migration task group **157ece42-3270-4824-a3d2-f0187a03ca01** in project **f4e146cac1de45669c3fed73dc3b9c6f**.

Get `https://{endpoint}/v2/f4e146cac1de45669c3fed73dc3b9c6f/taskgroups/157ece42-3270-4824-a3d2-f0187a03ca01`

Example Response

Status code: 200

OK

```
{
  "group_id" : "9522a7e5-b4fc-44b9-93e1-4dbadb86e67",
  "status" : 3,
  "error_reason" : null,
  "src_node" : {
    "bucket" : "dst-test-001",
    "cloud_type" : "HUAWEICLOUD",
    "region" : "cn-north-7",
    "app_id" : "",
    "object_key" : [ "" ],
    "list_file" : null
  },
  "description" : "",
  "dst_node" : {
    "bucket" : "assess-bucket-1",
    "region" : "cn-north-7",
    "save_prefix" : ""
  },
  "enable_metadata_migration" : false,
  "enable_failed_object_recording" : true,
  "enable_restore" : false,
  "enable_kms" : false,
  "task_type" : "PREFIX",
  "bandwidth_policy" : [ ],
}
```

```
"smn_config" : null,
"source_cdn" : null,
"migrate_since" : 0,
"migrate_speed" : 0,
"total_time" : 7907369,
"start_time" : 1659937788779,
"total_task_num" : null,
"create_task_num" : null,
"failed_task_num" : null,
"complete_task_num" : null,
"paused_task_num" : null,
"executing_task_num" : null,
"waiting_task_num" : null,
"total_num" : 4128588,
"create_complete_num" : null,
"success_num" : 0,
"fail_num" : 0,
"skip_num" : 0,
"total_size" : 27814708666,
"create_complete_size" : null,
"complete_size" : 0,
"failed_object_record" : {
  "result" : null,
  "list_file_key" : null,
  "error_code" : null
},
"object_overwrite_mode" : "SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE",
"consistency_check" : "size_last_modified",
"enable_requester_pays" : false
}
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ShowTaskGroupSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
```

```
        .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
        .build();
ShowTaskGroupRequest request = new ShowTaskGroupRequest();
request.withGroupId("{group_id}");
try {
    ShowTaskGroupResponse response = client.showTaskGroup(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.getStatusCode());
    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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = OmsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(OmsRegion.valueOf("<YOUR REGION>")) \
        .build()

    try:
        request = ShowTaskGroupRequest()
        request.group_id = "{group_id}"
        response = client.show_task_group(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()  
  
    client := oms.NewOmsClient(  
        oms.OmsClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).  
            Build())  
  
    request := &model.ShowTaskGroupRequest{}  
    request.GroupId = "{group_id}"  
    response, err := client.ShowTaskGroup(request)  
    if err == nil {  
        fmt.Printf("%+v\n", response)  
    } else {  
        fmt.Println(err)  
    }  
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
404	Not found.

Error Codes

For details, see [Error Codes](#).

5.4.4 Deleting a Migration Task Group

Function

This API is used to delete a migration task group.

Task groups in **Creating**, **Executing**, or **Paused** status cannot be deleted. If you try to delete such a task group, the system will return a message indicating the deletion fails. To delete the task group, pause it first.

Calling Method

For details, see [Calling APIs](#).

URI

DELETE /v2/{project_id}/taskgroups/{group_id}

Table 5-154 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
group_id	Yes	String	The task group ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-155 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

OK

Status code: 400

Table 5-156 Response body parameters

Parameter	Type	Description
error_code	String	The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters
error_msg	String	The migration failure cause. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403**Table 5-157** Response body parameters

Parameter	Type	Description
error_code	String	The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters
error_msg	String	The migration failure cause. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example deletes the migration task group **157ece42-3270-4824-a3d2-f0187a03ca01** in the project **f4e146cac1de45669c3fed73dc3b9c6f**.

```
DELETE https://{endpoint}/v2/f4e146cac1de45669c3fed73dc3b9c6f/taskgroups/157ece42-3270-4824-a3d2-f0187a03ca01
```

Example Response

None

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class DeleteTaskGroupSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        DeleteTaskGroupRequest request = new DeleteTaskGroupRequest();
        request.withGroupId("{group_id}");
        try {
            DeleteTaskGroupResponse response = client.deleteTaskGroup(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.getStatusCode());
            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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

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

try:
    request = DeleteTaskGroupRequest()
    request.group_id = "{group_id}"
    response = client.delete_task_group(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.4.5 Pausing a Migration Task Group

Function

This API is used to pause a migration task group when it is in **Creating** or **Executing** status.

Calling Method

For details, see [Calling APIs](#).

URI

PUT /v2/{project_id}/taskgroups/{group_id}/stop

Table 5-158 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
group_id	Yes	String	The task group ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-159 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

OK

Status code: 400

Table 5-160 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-161 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example pauses the migration task group **157ece42-3270-4824-a3d2-f0187a03ca01** in the project **f4e146cac1de45669c3fed73dc3b9c6f**.

```
PUT https://{endpoint}/v2/f4e146cac1de45669c3fed73dc3b9c6f/taskgroups/157ece42-3270-4824-a3d2-f0187a03ca01
```

Example Response

None

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class StopTaskGroupSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        StopTaskGroupRequest request = new StopTaskGroupRequest();
        request.withGroupId("{group_id}");
        try {
            StopTaskGroupResponse response = client.stopTaskGroup(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.getStatusCode());
            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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = StopTaskGroupRequest()
        request.group_id = "{group_id}"
        response = client.stop_task_group(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

```
}  
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.4.6 Resuming a Migration Task Group

Function

This API is used to resume a paused migration task group with a specified ID.

Calling Method

For details, see [Calling APIs](#).

URI

PUT /v2/{project_id}/taskgroups/{group_id}/start

Table 5-162 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
group_id	Yes	String	The task group ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-163 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-164 Request body parameters

Parameter	Mandatory	Type	Description
src_ak	No	String	The AK for accessing the source node. Enter a maximum of 100 characters. This parameter is not required for URL list-based migration task groups. Minimum length: 1 character Maximum length: 100 characters
src_sk	No	String	The SK for accessing the source node. Enter a maximum of 100 characters. This parameter is not required for URL list-based migration task groups. Minimum length: 1 character Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters
dst_ak	Yes	String	The AK for accessing the destination node. Enter a maximum of 100 characters. Minimum length: 1 character Maximum length: 100 characters

Parameter	Mandatory	Type	Description
dst_sk	Yes	String	The SK for accessing the destination node. Enter a maximum of 100 characters. Minimum length: 1 character Maximum length: 100 characters
source_cdn_authentication_key	No	String	The CDN authentication key. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

OK

Status code: 400

Table 5-165 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-166 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example resumes the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
PUT https://{endpoint}/v2/{project_id}/taskgroups/2c11d99a-9596-4bc6-a6ad-2336455b149c/start
{
```

```
"src_ak" : "src_AK",  
"src_sk" : "src_SK",  
"dst_ak" : "dst_AK",  
"dst_sk" : "dst_AK"  
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

This example retries the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
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.oms.v2.region.OmsRegion;  
import com.huaweicloud.sdk.oms.v2.*;  
import com.huaweicloud.sdk.oms.v2.model.*;  
  
public class StartTaskGroupSolution {  
  
    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");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        OmsClient client = OmsClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))  
            .build();  
        StartTaskGroupRequest request = new StartTaskGroupRequest();  
        request.withGroupId("{group_id}");  
        StartTaskGroupReq body = new StartTaskGroupReq();  
        body.withDstSk("dst_AK");  
        body.withDstAk("dst_AK");  
        body.withSrcSk("src_SK");  
        body.withSrcAk("src_AK");  
        request.withBody(body);  
        try {  
            StartTaskGroupResponse response = client.startTaskGroup(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

This example retries the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkoms.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"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = OmsClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(OmsRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = StartTaskGroupRequest()  
        request.group_id = "{group_id}"  
        request.body = StartTaskGroupReq(  
            dst_sk="dst_AK",  
            dst_ak="dst_AK",  
            src_sk="src_SK",  
            src_ak="src_AK"  
        )  
        response = client.start_task_group(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

This example retries the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.StartTaskGroupRequest{}
    request.GroupId = "{group_id}"
    srcSkStartTaskGroupReq := "src_SK"
    srcAkStartTaskGroupReq := "src_AK"
    request.Body = &model.StartTaskGroupReq{
        DstSk: "dst_AK",
        DstAk: "dst_AK",
        SrcSk: &srcSkStartTaskGroupReq,
        SrcAk: &srcAkStartTaskGroupReq,
    }
    response, err := client.StartTaskGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.4.7 Restarting a Migration Task Group

Function

This API is used to restart a failed migration task group.

Calling Method

For details, see [Calling APIs](#).

URI

PUT /v2/{project_id}/taskgroups/{group_id}/retry

Table 5-167 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
group_id	Yes	String	The task group ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-168 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-169 Request body parameters

Parameter	Mandatory	Type	Description
src_ak	No	String	The AK for accessing the source. Enter a maximum of 100 characters. Minimum length: 0 characters Maximum length: 100 characters
src_sk	No	String	The SK for accessing the source. Enter a maximum of 100 characters. Minimum length: 0 characters Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters
dst_ak	No	String	The AK for accessing the destination. Enter a maximum of 100 characters. Minimum length: 0 characters Maximum length: 100 characters
dst_sk	No	String	The SK for accessing the destination. Enter a maximum of 100 characters. Minimum length: 0 characters Maximum length: 100 characters
source_cdn_authentication_key	No	String	The CDN authentication key. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
migrate_failed_object	No	Boolean	The retry mode of failed tasks. It indicates whether to migrate all objects in the failed tasks again. If the value is true , only failed objects will be migrated again. If the value is false or not specified, all objects will be migrated again. By default, the objects that have been migrated to the destination are skipped. Default value: false

Response

Status code: 200

OK

Status code: 400

Table 5-170 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-171 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example retries the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
PUT https://{endpoint}/v2/{project_id}/taskgroups/2c11d99a-9596-4bc6-a6ad-2336455b149c/retry
{
```



```
"src_ak" : "src_AK",  
"src_sk" : "src_SK",  
"dst_ak" : "dst_AK",  
"dst_sk" : "dst_SK",  
"migrate_failed_object" : false  
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

This example retries the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
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.oms.v2.region.OmsRegion;  
import com.huaweicloud.sdk.oms.v2.*;  
import com.huaweicloud.sdk.oms.v2.model.*;  
  
public class RetryTaskGroupSolution {  
  
    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");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        OmsClient client = OmsClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))  
            .build();  
        RetryTaskGroupRequest request = new RetryTaskGroupRequest();  
        request.withGroupId("{group_id}");  
        RetryTaskGroupReq body = new RetryTaskGroupReq();  
        body.withMigrateFailedObject(false);  
        body.withDstSk("dst_SK");  
        body.withDstAk("dst_AK");  
        body.withSrcSk("src_SK");  
        body.withSrcAk("src_AK");  
        request.withBody(body);  
        try {  
            RetryTaskGroupResponse response = client.retryTaskGroup(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

This example retries the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = RetryTaskGroupRequest()
        request.group_id = "{group_id}"
        request.body = RetryTaskGroupReq(
            migrate_failed_object=False,
            dst_sk="dst_SK",
            dst_ak="dst_AK",
            src_sk="src_SK",
            src_ak="src_AK"
        )
        response = client.retry_task_group(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

This example retrieves the migration task group whose ID is **2c11d99a-9596-4bc6-a6ad-2336455b149c** using the AK/SK pairs of the source and destination accounts.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RetryTaskGroupRequest{}
    request.GroupId = "{group_id}"
    migrateFailedObjectRetryTaskGroupReq := false
    dstSkRetryTaskGroupReq := "dst_SK"
    dstAkRetryTaskGroupReq := "dst_AK"
    srcSkRetryTaskGroupReq := "src_SK"
    srcAkRetryTaskGroupReq := "src_AK"
    request.Body = &model.RetryTaskGroupReq{
        MigrateFailedObject: &migrateFailedObjectRetryTaskGroupReq,
        DstSk: &dstSkRetryTaskGroupReq,
        DstAk: &dstAkRetryTaskGroupReq,
        SrcSk: &srcSkRetryTaskGroupReq,
        SrcAk: &srcAkRetryTaskGroupReq,
    }
    response, err := client.RetryTaskGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Forbidden

Error Codes

For details, see [Error Codes](#).

5.4.8 Modifying the Traffic Limiting Rules for a Migration Task Group

Function

This API is used to update the traffic limiting rules for a migration task group before it is completed.

Calling Method

For details, see [Calling APIs](#).

URI

PUT /v2/{project_id}/taskgroups/{group_id}/update

Table 5-172 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters
group_id	Yes	String	The task group ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-173 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The token used for IAM authentication. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-174 Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_policy	Yes	Array of BandwidthPolicyDto objects	The traffic limiting rules. Each element in the array corresponds to the maximum bandwidth in a time period. A maximum of five periods are allowed, and the periods cannot overlap. Array length: 0 to 5

Table 5-175 [BandwidthPolicyDto](#) field description

Parameter	Mandatory	Type	Description
end	Yes	String	The end time in the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Yes	Long	The maximum traffic bandwidth allowed in the specified time period. The unit is byte/s. The value ranges from 1,048,576 bytes/s (equivalent to 1 MB/s) to 209,715,200 bytes/s (equivalent to 200 MB/s). Minimum value: 1048576 Maximum value: 209715200
start	Yes	String	The start time in the traffic limiting rule. The format is hh:mm, for example, 12:03.

Response

Status code: 200

OK

Status code: 400

Table 5-176 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Status code: 403

Table 5-177 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example updates the migration rate limit to **50 MB/s** for the task whose ID is **xxxxxxx** from **00:01** to **23:59**.

```
PUT /v2/{project_id}/taskgroup/xxxxxxx/update
{
  "bandwidth_policy": [ {
    "start": "00:01",
    "end": "23:59",
    "max_bandwidth": 50000000
  } ]
}
```

Example Response

None

SDK Sample Code

The sample code is as follows.

Java

This example updates the migration rate limit to **50 MB/s** for the task whose ID is **xxxxxxx** from **00:01** to **23:59**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

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

public class UpdateTaskGroupSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateTaskGroupRequest request = new UpdateTaskGroupRequest();
        request.withGroupId("{group_id}");
        UpdateBandwidthPolicyReq body = new UpdateBandwidthPolicyReq();
        List<BandwidthPolicyDto> listbodyBandwidthPolicy = new ArrayList<>();
        listbodyBandwidthPolicy.add(
            new BandwidthPolicyDto()
                .withEnd("23:59")
                .withMaxBandwidth(50000000L)
                .withStart("00:01")
        );
        body.withBandwidthPolicy(listbodyBandwidthPolicy);
        request.withBody(body);
        try {
            UpdateTaskGroupResponse response = client.updateTaskGroup(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

This example updates the migration rate limit to **50 MB/s** for the task whose ID is **xxxxxxx** from **00:01** to **23:59**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = UpdateTaskGroupRequest()
        request.group_id = "{group_id}"
        listBandwidthPolicybody = [
            BandwidthPolicyDto(
                end="23:59",
                max_bandwidth=50000000,
                start="00:01"
            )
        ]
        request.body = UpdateBandwidthPolicyReq(
            bandwidth_policy=listBandwidthPolicybody
        )
        response = client.update_task_group(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

This example updates the migration rate limit to **50 MB/s** for the task whose ID is **xxxxxxx** from **00:01** to **23:59**.

```
package main

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



```
projectId := "{project_id}"

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

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateTaskGroupRequest{}
request.GroupId = "{group_id}"
var listBandwidthPolicybody = []model.BandwidthPolicyDto{
    {
        End: "23:59",
        MaxBandwidth: int64(50000000),
        Start: "00:01",
    },
}
request.Body = &model.UpdateBandwidthPolicyReq{
    BandwidthPolicy: listBandwidthPolicybody,
}
response, err := client.UpdateTaskGroup(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Forbidden.

Error Codes

For details, see [Error Codes](#).

5.5 Operations on Buckets

5.5.1 Listing Objects in a Bucket

Function

This API is used to list objects in a bucket.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/objectstorage/buckets/objects

Table 5-178 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-179 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-180 Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be: AWS Aliyun : Alibaba Cloud Qiniu : Qiniu Cloud QingCloud Tencent : Tencent Cloud Baidu : Baidu Cloud KingsoftCloud Azure : Microsoft Azure UCloud HuaweiCloud : Huawei Cloud Google : Google Cloud URLSource : URL data sources HEC : HEC Minimum length: 0 characters Maximum length: 100 characters
file_path	Yes	String	The path to be queried in the bucket, which must end with a slash (/). Minimum length: 0 characters Maximum length: 1,023 characters
ak	No	String	The AK for accessing the source bucket. Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. Minimum length: 0 characters Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters

Parameter	Mandatory	Type	Description
data_center	Yes	String	The region. Minimum length: 0 characters Maximum length: 100 characters
page_size	Yes	Integer	The page size. Minimum value: 0 Maximum value: 100
behind_filename	Yes	String	The name of the last object on the current page (offset). Minimum length: 0 characters Maximum length: 1,024 characters
app_id	No	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
bucket_name	Yes	String	The bucket name. Minimum length: 0 characters Maximum length: 100 characters

Response

Status code: 200

Table 5-181 Response body parameters

Parameter	Type	Description
next_page	Boolean	Indicates whether there is a next page.
next_marker	String	The marker required for querying the next page (object name at the end of the current page, offset) Minimum length: 0 characters Maximum length: 1,024 characters
records	Array of ShowBucketRecord objects	The queried object information. Array length: 0 to 100

Table 5-182 ShowBucketRecord field description

Parameter	Type	Description
name	String	The object name. Minimum length: 0 characters Maximum length: 1,024 characters
size	String	The object size. If the object does not have the size attribute, "--" is returned. Minimum length: 0 characters Maximum length: 100 characters

Status code: 400**Table 5-183** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example lists objects in a specified bucket and returns the object information on multiple pages.

```
POST https://{endpoint}/v2/{project_id}/objectstorage/buckets/objects
```

```
{
  "page_size": 100,
  "behind_filename": "",
  "file_path": "A/",
  "cloud_type": "HuaweiCloud",
  "bucket_name": "xxx",
  "ak": "xxxxxak",
  "sk": "xxxxxsk",
  "data_center": "cn-north-x"
}
```

Example Response

Status code: 200

The object information was obtained.

```
{
  "next_page": false,
  "next_marker": null,
  "records": [ {
    "name": "xxxx",
    "size": "--"
  }, {
    "name": "xxxx",
```

```
"size" : "73.59 MB"  
} ]  
}
```

SDK Sample Code

The sample code is as follows.

Java

This example lists objects in a specified bucket and returns the object information on multiple pages.

```
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.oms.v2.region.OmsRegion;  
import com.huaweicloud.sdk.oms.v2.*;  
import com.huaweicloud.sdk.oms.v2.model.*;  
  
public class ShowBucketObjectsSolution {  
  
    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");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        OmsClient client = OmsClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowBucketObjectsRequest request = new ShowBucketObjectsRequest();  
        ShowBucketReq body = new ShowBucketReq();  
        body.withBucketName("xxx");  
        body.withBehindFilename("");  
        body.withPageSize(100);  
        body.withDataCenter("cn-north-x");  
        body.withSk("xxxxxsk");  
        body.withAk("xxxxxak");  
        body.withFilePath("A/");  
        body.withCloudType("HuaweiCloud");  
        request.withBody(body);  
        try {  
            ShowBucketObjectsResponse response = client.showBucketObjects(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

This example lists objects in a specified bucket and returns the object information on multiple pages.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ShowBucketObjectsRequest()
        request.body = ShowBucketReq(
            bucket_name="xxx",
            behind_filename="",
            page_size=100,
            data_center="cn-north-x",
            sk="xxxxxsk",
            ak="xxxxxak",
            file_path="A/",
            cloud_type="HuaweiCloud"
        )
        response = client.show_bucket_objects(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

This example lists objects in a specified bucket and returns the object information on multiple pages.

```
package main

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

```
oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
"github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowBucketObjectsRequest{}
    skShowBucketReq:= "xxxxxsk"
    akShowBucketReq:= "xxxxxak"
    request.Body = &model.ShowBucketReq{
        BucketName: "xxx",
        BehindFilename: "",
        PageSize: int32(100),
        DataCenter: "cn-north-x",
        Sk: &skShowBucketReq,
        Ak: &akShowBucketReq,
        FilePath: "A/",
        CloudType: "HuaweiCloud",
    }
    response, err := client.ShowBucketObjects(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The object information was obtained.
400	Standard error response.

Error Codes

For details, see [Error Codes](#).

5.5.2 Querying the CDN Information of a Bucket

Function

This API is used to query the CDN information of a bucket.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/objectstorage/buckets/cdn-info

Table 5-184 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-185 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-186 Request body parameters

Parameter	Mandatory	Type	Description
ak	Yes	String	The AK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
sk	Yes	String	The SK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
cloud_type	Yes	String	The cloud service provider. The value can be: AWS Aliyun : Alibaba Cloud Qiniu : Qiniu Cloud QingCloud Tencent : Tencent Cloud Baidu : Baidu Cloud KingsoftCloud Azure : Microsoft Azure UCloud HuaweiCloud : Huawei Cloud URLSource : URL data sources HEC : HEC Minimum length: 0 characters Maximum length: 100 characters
region	Yes	String	The region. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Mandatory	Type	Description
app_id	No	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
bucket	Yes	String	The bucket name. Minimum length: 0 characters Maximum length: 100 characters
prefix	No	PrefixKeyInfo object	The prefix.
source_cdn	Yes	SourceCdnReq object	Indicates whether migration from CDN is enabled. If this field is included, migration from CDN is supported. Otherwise, it is not supported. If migration from CDN is enabled, the source objects to be migrated are obtained from the specified CDN domain name during migration.

Table 5-187 PrefixKeyInfo field description

Parameter	Mandatory	Type	Description
keys	Yes	Array of strings	The object names. Minimum length: 0 characters Maximum length: 2,048 characters Array length: 0 to 100

Table 5-188 SourceCdnReq field description

Parameter	Mandatory	Type	Description
authentication_key	No	String	The CDN authentication key. If the CDN authentication is required, this parameter is mandatory. If no authorization is required, do not set this parameter. Qiniu: You do not need to set this parameter. Aliyun: Set this parameter based on the value of authentication_type. KingsoftCloud: You do not need to set this parameter. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
authentication_type	Yes	String	The authentication type. The value can be: NONE Qiniu_PRIVATE_AUTHENTICATION ALIYUN_OSS_A ALIYUN_OSS_B ALIYUN_OSS_C KSYUN_PRIVATE_AUTHENTICATION AZURE_SAS_TOKEN TENCENT_COS_A TENCENT_COS_B TENCENT_COS_C TENCENT_COS_D Default value: NONE The value can be: • NONE • Qiniu_PRIVATE_AUTHENTICATION • ALIYUN_OSS_A • ALIYUN_OSS_B • ALIYUN_OSS_C • KSYUN_PRIVATE_AUTHENTICATION • AZURE_SAS_TOKEN • TENCENT_COS_A • TENCENT_COS_B • TENCENT_COS_C • TENCENT_COS_D
domain	Yes	String	The domain name used to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	Yes	String	The protocol type. HTTP and HTTPS are supported. The value can be: • http • https

Response

Status code: 200

Table 5-189 Response body parameters

Parameter	Type	Description
is_same_cloud_type	Boolean	Whether the CDN is provided by the source cloud vendor.
is_download_available	Boolean	Whether source data can be downloaded from the CDN.
checked_keys	Array of CheckedKey objects	The returned array of checked objects Array length: 0 to 1,000

Table 5-190 [CheckedKey](#) field description

Parameter	Type	Description
key	String	The object name. Minimum length: 0 characters Maximum length: 2,048 characters
is_etag_matching	Boolean	Whether the etag is matched.
is_object_existing	Boolean	Whether the object is found.

Status code: 400

Table 5-191 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the CDN information of the **xxx** bucket using the **xcsad** key in **ALIYUN_OSS_B** authentication type.

```
POST https://{endpoint}/v2/{project_id}/objectstorage/buckets/cdn-info
{
```

```
"ak" : "xxx",
"sk" : "xxx",
"cloud_type" : "Aliyun",
"region" : "cn-hangzhou",
"bucket" : "xxx",
"source_cdn" : {
  "protocol" : "https",
  "domain" : "xxx",
  "authentication_type" : "ALIYUN_OSS_B",
  "authentication_key" : "xcsad"
}
}
```

Example Response

Status code: 200

The CDN information was returned.

```
{
  "is_same_cloud_type" : false,
  "is_download_available" : false,
  "checked_keys" : [ {
    "key" : "xxx",
    "is_etag_matching" : false,
    "is_object_existing" : false
  }, {
    "key" : "yyy",
    "is_etag_matching" : false,
    "is_object_existing" : false
  }, {
    "key" : "ccc",
    "is_etag_matching" : false,
    "is_object_existing" : false
  }, {
    "key" : "bbb",
    "is_etag_matching" : false,
    "is_object_existing" : false
  }, {
    "key" : "nnnn",
    "is_etag_matching" : false,
    "is_object_existing" : false
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example queries the CDN information of the **xxx** bucket using the **xcsad** key in **ALIYUN_OSS_B** authentication 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;
```

```
public class ShowCdnInfoSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR_REGION>"))
            .build();

        ShowCdnInfoRequest request = new ShowCdnInfoRequest();
        ShowCdnInfoReq body = new ShowCdnInfoReq();
        SourceCdnReq sourceCdnbody = new SourceCdnReq();
        sourceCdnbody.withAuthenticationKey("xcsad")
            .withAuthenticationType(SourceCdnReq.AuthenticationTypeEnum.fromValue("ALIYUN_OSS_B"))
            .withDomain("xxx")
            .withProtocol(SourceCdnReq.ProtocolEnum.fromValue("https"));
        body.withSourceCdn(sourceCdnbody);
        body.withBucket("xxx");
        body.withRegion("cn-hangzhou");
        body.withCloudType("Aliyun");
        body.withSk("xxx");
        body.withAk("xxx");
        request.withBody(body);
        try {
            ShowCdnInfoResponse response = client.showCdnInfo(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.getErrMsg());
        }
    }
}
```

Python

This example queries the CDN information of the **xxx** bucket using the **xcsad** key in **ALIYUN_OSS_B** authentication type.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskoms.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"]
projectId = "{project_id}"

credentials = BasicCredentials(ak, sk, projectId)

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

try:
    request = ShowCdnInfoRequest()
    sourceCdnbody = SourceCdnReq(
        authentication_key="xcsad",
        authentication_type="ALIYUN_OSS_B",
        domain="xxx",
        protocol="https"
    )
    request.body = ShowCdnInfoReq(
        source_cdn=sourceCdnbody,
        bucket="xxx",
        region="cn-hangzhou",
        cloud_type="Aliyun",
        sk="xxx",
        ak="xxx"
    )
    response = client.show_cdn_info(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

This example queries the CDN information of the **xxx** bucket using the **xcsad** key in **ALIYUN_OSS_B** authentication type.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
```

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

request := &model.ShowCdnInfoRequest{}
authenticationKeySourceCdn:= "xcsad"
sourceCdnbody := &model.SourceCdnReq{
    AuthenticationKey: &authenticationKeySourceCdn,
    AuthenticationType: model.GetSourceCdnReqAuthenticationTypeEnum().ALIYUN_OSS_B,
    Domain: "xxx",
    Protocol: model.GetSourceCdnReqProtocolEnum().HTTPS,
}
request.Body = &model.ShowCdnInfoReq{
    SourceCdn: sourceCdnbody,
    Bucket: "xxx",
    Region: "cn-hangzhou",
    CloudType: "Aliyun",
    Sk: "xxx",
    Ak: "xxx",
}
response, err := client.ShowCdnInfo(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The CDN information was returned.
400	Standard error response.

Error Codes

For details, see [Error Codes](#).

5.5.3 Listing Buckets

Function

This API is used to list buckets.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/objectstorage/buckets

Table 5-192 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-193 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-194 Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be: AWS Aliyun : Alibaba Cloud Qiniu : Qiniu Cloud QingCloud Tencent : Tencent Cloud Baidu : Baidu Cloud KingsoftCloud Azure : Microsoft Azure UCloud HuaweiCloud : Huawei Cloud Google : Google Cloud URLSource : URL data sources HEC : HEC Default value: Aliyun Minimum length: 0 characters Maximum length: 100 characters
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters

Parameter	Mandatory	Type	Description
app_id	No	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

Table 5-195 Response body parameter

Parameter	Type	Description
[Array elements]	Array of strings	The bucket name list.

Status code: 400

Table 5-196 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the list of all buckets in an account using an AK/SK pair.

```
POST https://{endpoint}/v2/{project_id}/objectstorage/buckets
```

```
{
  "cloud_type": "HuaweiCloud",
  "ak": "xxxxak",
  "sk": "xxxxsk",
  "app_id": "apptest123"
}
```

Example Response

Status code: 200

The bucket list was returned.

```
[ "xxxx" ]
```

SDK Sample Code

The sample code is as follows.

Java

This example queries the list of all buckets in an account using an AK/SK pair.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ShowBucketListSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowBucketListRequest request = new ShowBucketListRequest();
        ListBucketsReq body = new ListBucketsReq();
        body.withAppId("apptest123");
        body.withSk("xxxxsk");
        body.withAk("xxxxak");
        body.withCloudType("HuaweiCloud");
        request.withBody(body);
        try {
            ShowBucketListResponse response = client.showBucketList(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

This example queries the list of all buckets in an account using an AK/SK pair.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ShowBucketListRequest()
        request.body = ListBucketsReq(
            app_id="apptest123",
            sk="xxxxsk",
            ak="xxxak",
            cloud_type="HuaweiCloud"
        )
        response = client.show_bucket_list(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

This example queries the list of all buckets in an account using an AK/SK pair.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
```

```
Build()

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowBucketListRequest{}
appldListBucketsReq:= "apptest123"
skListBucketsReq:= "xxxxsk"
akListBucketsReq:= "xxxak"
request.Body = &model.ListBucketsReq{
    AppId: &appldListBucketsReq,
    Sk: &skListBucketsReq,
    Ak: &akListBucketsReq,
    CloudType: "HuaweiCloud",
}
response, err := client.ShowBucketList(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The bucket list was returned.
400	Standard error response.

Error Codes

For details, see [Error Codes](#).

5.5.4 Querying the Region of a Bucket

Function

This API is used to query the region of a bucket.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/objectstorage/buckets/regions

Table 5-197 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-198 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-199 Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be: AWS Aliyun : Alibaba Cloud Qiniu : Qiniu Cloud QingCloud Tencent : Tencent Cloud Baidu : Baidu Cloud KingsoftCloud Azure : Microsoft Azure UCloud HuaweiCloud : Huawei Cloud Google : Google Cloud URLSource : URL data sources HEC : HEC Default value: Aliyun Minimum length: 0 characters Maximum length: 100 characters
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters

Parameter	Mandatory	Type	Description
app_id	No	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
bucket_name	Yes	String	The bucket name. Minimum length: 0 characters Maximum length: 100 characters

Response

Status code: 200

Table 5-200 Response body parameters

Parameter	Type	Description
id	String	The region ID. Minimum length: 0 characters Maximum length: 1,024 characters
name	String	The region name. Minimum length: 0 characters Maximum length: 1,024 characters
support	Boolean	Whether the region is supported for migration.

Status code: 400

Table 5-201 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

This example queries the region of a bucket.

```
POST https://{endpoint}/v2/{project_id}/objectstorage/buckets/regions
```

```
{
  "cloud_type": "HuaweiCloud",
  "ak": "xxxxak",
  "sk": "xxxxsk",
  "app_id": "apptest123",
  "bucket_name": "xxx"
}
```

Example Response

Status code: 200

Response to the query of a bucket's region.

```
{
  "id": "string",
  "name": "string"
}
```

SDK Sample Code

The sample code is as follows.

Java

This example queries the region of a bucket.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ShowBucketRegionSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();

        ShowBucketRegionRequest request = new ShowBucketRegionRequest();
        ShowBucketRegionReq body = new ShowBucketRegionReq();
        body.withBucketName("xxx");
        body.withAppId("apptest123");
        body.withCloudType("HuaweiCloud");
        body.withAk("xxxxak");
```

```
body.withSk("xxxxsk");
request.withBody(body);
try {
    ShowBucketRegionResponse response = client.showBucketRegion(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

This example queries the region of a bucket.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ShowBucketRegionRequest()
        request.body = ShowBucketRegionReq(
            bucket_name="xxx",
            app_id="apptest123",
            cloud_type="HuaweiCloud",
            ak="xxxxak",
            sk="xxxxsk"
        )
        response = client.show_bucket_region(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

This example queries the region of a bucket.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowBucketRegionRequest{}
    appldShowBucketRegionReq:= "apptest123"
    akShowBucketRegionReq:= "xxxak"
    skShowBucketRegionReq:= "xxxsk"
    request.Body = &model.ShowBucketRegionReq{
        BucketName: "xxx",
        Appld: &appldShowBucketRegionReq,
        CloudType: "HuaweiCloud",
        Ak: &akShowBucketRegionReq,
        Sk: &skShowBucketRegionReq,
    }
    response, err := client.ShowBucketRegion(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the query of a bucket's region.
400	Standard error response.

Error Codes

For details, see [Error Codes](#).

5.5.5 Checking Whether a Source Bucket Has Objects with a Specified Prefix

Function

This API is used to check whether there are objects with a specified prefix in a source bucket.

Calling Method

For details, see [Calling APIs](#).

URI

POST /v2/{project_id}/objectstorage/buckets/prefix

Table 5-202 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-203 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-204 Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be: AWS Aliyun : Alibaba Cloud Qiniu : Qiniu Cloud QingCloud Tencent : Tencent Cloud Baidu : Baidu Cloud KingsoftCloud Azure : Microsoft Azure UCloud HuaweiCloud : Huawei Cloud Google : Google Cloud URLSource : URL data sources HEC : HEC Default value: Aliyun Minimum length: 0 characters Maximum length: 100 characters
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when task_type is not url_list . Minimum length: 0 characters Maximum length: 100 characters
json_auth_file	No	String	The file used for Google Cloud Storage authentication. Minimum length: 0 characters Maximum length: 65,535 characters

Parameter	Mandatory	Type	Description
app_id	No	String	This parameter is mandatory when cloud_type is Tencent . Minimum length: 0 characters Maximum length: 255 characters
bucket_name	Yes	String	The bucket name. Minimum length: 0 characters Maximum length: 100 characters
file_name	Yes	String	The prefix. Minimum length: 0 characters Maximum length: 1,024 characters
data_center	Yes	String	The region. Minimum length: 0 characters Maximum length: 100 characters
security_token	No	String	The security token. Minimum length: 0 characters Maximum length: 16,384 characters

Response

Status code: 200

Table 5-205 Response body parameters

Parameter	Type	Description
exist	Boolean	Whether the prefix is found. Default value: false

Status code: 400

Table 5-206 Response body parameters

Parameter	Type	Description
error_msg	String	The error message.

Parameter	Type	Description
error_code	String	The error code.

Example Request

This example checks whether bucket **xxx** has objects with prefix **xxxx**.

```
POST https://{endpoint}/v2/{project_id}/objectstorage/buckets/prefix
{
  "cloud_type": "HuaweiCloud",
  "ak": "xxxxak",
  "sk": "xxxxsk",
  "app_id": "apptest123",
  "bucket_name": "xxx",
  "file_name": "xxx",
  "data_center": "cn-north-x",
  "security_token": "string"
}
```

Example Response

Status code: 200

The prefix was found.

```
{
  "exist": true
}
```

SDK Sample Code

The sample code is as follows.

Java

This example checks whether bucket **xxx** has objects with prefix **xxxx**.

```
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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class CheckPrefixSolution {

    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");
    }
}
```

```
String projectId = "{project_id}";

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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();

CheckPrefixRequest request = new CheckPrefixRequest();
CheckPrefixReq body = new CheckPrefixReq();
body.withAppId("apptest123");
body.withDataCenter("cn-north-x");
body.withAk("xxxak");
body.withSk("xxxsk");
body.withBucketName("xxx");
body.withFileName("xxx");
body.withSecurityToken("string");
body.withCloudType("HuaweiCloud");
request.withBody(body);
try {
    CheckPrefixResponse response = client.checkPrefix(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

This example checks whether bucket **xxx** has objects with prefix **xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
```

```
request = CheckPrefixRequest()
request.body = CheckPrefixReq(
    app_id="apptest123",
    data_center="cn-north-x",
    ak="xxxxak",
    sk="xxxxsk",
    bucket_name="xxx",
    file_name="xxxx",
    security_token="string",
    cloud_type="HuaweiCloud"
)
response = client.check_prefix(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

This example checks whether bucket **xxx** has objects with prefix **xxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckPrefixRequest{
        appIdCheckPrefixReq: "apptest123"
        akCheckPrefixReq: "xxxxak"
        skCheckPrefixReq: "xxxxsk"
        securityTokenCheckPrefixReq: "string"
        request.Body = &model.CheckPrefixReq{
            AppId: &appIdCheckPrefixReq,
            DataCenter: "cn-north-x",
            Ak: &akCheckPrefixReq,
            Sk: &skCheckPrefixReq,
            BucketName: "xxx",
            FileName: "xxxx",
            SecurityToken: &securityTokenCheckPrefixReq,
            CloudType: "HuaweiCloud",
```

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The prefix was found.
400	Standard error response.

Error Codes

For details, see [Error Codes](#).

5.6 Querying Supported Source Clouds

5.6.1 Querying All Supported Cloud Vendors

Function

This API is used to query supported cloud vendors.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/objectstorage/cloud-type

Table 5-207 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Table 5-208 Query parameter

Parameter	Mandatory	Type	Description
type	Yes	String	The connection end type. The value can be src (source) or dst (destination). Minimum length: 1 character Maximum length: 25 characters

Request

Table 5-209 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-210 Response body parameter

Parameter	Type	Description
[Array elements]	Array of strings	The supported cloud vendors.

Status code: 400**Table 5-211** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
error_code	String	The error code.

Example Request

None

Example Response

Status code: 200

Supported cloud vendors were returned.

```
[ "AWS", "Aliyun", "Qiniu", "QingCloud", "Tencent", "Baidu", "KingsoftCloud", "Azure", "UCloud",  
  "HuaweiCloud", "Google", "URLSource" ]
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;

public class ShowCloudTypeSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
```

```
        .build();
        ShowCloudTypeRequest request = new ShowCloudTypeRequest();
        try {
            ShowCloudTypeResponse response = client.showCloudType(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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ShowCloudTypeRequest()
        response = client.show_cloud_type(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
projectId := "{project_id}"

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

client := oms.NewOmsClient(
    oms.OmsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Supported cloud vendors were returned.
400	Standard error response.

Error Codes

For details, see [Error Codes](#).

5.7 Querying Supported Regions

5.7.1 Querying Regions Supported for a Cloud Vendor

Function

This API is used to query regions supported for a cloud vendor.

Calling Method

For details, see [Calling APIs](#).

URI

GET /v2/{project_id}/objectstorage/data-center

Table 5-212 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	The project ID. Minimum length: 1 character Maximum length: 1,024 characters

Request

Table 5-213 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The IAM token authentication. Ensure that the project ID contained in the token matches the project ID in the request URI. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-214 Response body parameter

Parameter	Type	Description
[Array elements]	Array of ShowRegionInfo Resp objects	The region information.

Table 5-215 ShowRegionInfoResp field description

Parameter	Type	Description
service_name	String	The cloud vendor name. Minimum length: 0 characters Maximum length: 255 characters
region_list	Array of RegionInfo objects	The region list. Array length: 0 to 1,024

Table 5-216 RegionInfo field description

Parameter	Type	Description
cloud_type	String	The cloud service name. Minimum length: 1 character Maximum length: 255 characters
value	String	The region name. Minimum length: 1 character Maximum length: 255 characters
description	String	The region description. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

None

Example Response

Status code: 200

The region information was returned.

```
[ {
  "service_name" : "AWS",
  "region_list" : [ {
    "cloud_type" : "AWS",
    "value" : "us-east-1",
    "description" : "US Standard (N. Virginia)"
  }, {
    "cloud_type" : "AWS",
    "value" : "us-west-1",
    "description" : "US West (N. California)"
  }, {
    "cloud_type" : "AWS",
    "value" : "us-west-2",
    "description" : "US West (Oregon)"
  }, {
```

```
"cloud_type" : "AWS",
"value" : "eu-west-1",
"description" : "EU (Ireland)"
}, {
  "cloud_type" : "AWS",
"value" : "eu-central-1",
"description" : "EU (Frankfurt)"
}, {
  "cloud_type" : "AWS",
"value" : "ap-northeast-1",
"description" : "Asia Pacific (Tokyo)"
}, {
  "cloud_type" : "AWS",
"value" : "ap-northeast-2",
"description" : "Asia Pacific (Seoul)"
}, {
  "cloud_type" : "AWS",
"value" : "ap-southeast-1",
"description" : "Asia Pacific (Singapore)"
}, {
  "cloud_type" : "AWS",
"value" : "ap-southeast-2",
"description" : "Asia Pacific (Sydney)"
}, {
  "cloud_type" : "AWS",
"value" : "ap-south-1",
"description" : "Asia Pacific (Mumbai)"
}, {
  "cloud_type" : "AWS",
"value" : "sa-east-1",
"description" : "South America (Sao Paulo)"
}, {
  "cloud_type" : "AWS",
"value" : "us-east-2",
"description" : "US East (Ohio)"
}, {
  "cloud_type" : "AWS",
"value" : "eu-west-2",
"description" : "EU (London)"
}, {
  "cloud_type" : "AWS",
"value" : "ca-central-1",
"description" : "Canada (Central)"
}, {
  "cloud_type" : "AWS",
"value" : "ap-east-1",
"description" : "Asia Pacific (Hong Kong)"
}
}]
}]
```

SDK Sample Code

The 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.oms.v2.region.OmsRegion;
import com.huaweicloud.sdk.oms.v2.*;
import com.huaweicloud.sdk.oms.v2.model.*;
```

```
public class ShowRegionInfoSolution {

    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");
        String projectId = "{project_id}";

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowRegionInfoRequest request = new ShowRegionInfoRequest();
        try {
            ShowRegionInfoResponse response = client.showRegionInfo(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 huaweicloudsdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkoms.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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

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

    try:
        request = ShowRegionInfoRequest()
        response = client.show_region_info(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"
    oms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/oms/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")
    projectId := "{project_id}"

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

    client := oms.NewOmsClient(
        oms.OmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The region list was returned.

Error Codes

For details, see [Error Codes](#).

6 Out-of-Date APIs

6.1 Querying the API Version

Function

This API is used to query the API version of the Object Storage Migration Service.

URI

GET /v1/{project_id}/objectstorage/version

[Table 6-1](#) describes the parameters in the URI.

Table 6-1 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
version	No	Specifies the API version.

Request

Request Parameters
None.

Response

Response Parameters
[Table 6-2](#) describes the response parameters.

Table 6-2 Response parameters

Parameter	Type	Description
id	String	Specifies the API version.
links	String	Specifies the API Uniform Resource Locator (URL).
version	String	Specifies the latest supported API version number.
status	String	Specifies the version status.
updated	String	Specifies the version update time.
min_version	String	Specifies the earliest supported API version number.

Examples

Request example

GET /v1/{project_id}/objectstorage/version

Response example

```
{
  "versions": [
    {
      "id": "v1.0",
      "links": [
        {
          "href": "https://oms.ap-southeast-2.myhuaweicloud.com/v1/",
          "rel": "self"
        }
      ]
    },
    {
      "id": "v2.0",
      "links": [
        {
          "href": "https://oms.ap-southeast-2.myhuaweicloud.com/v1/",
          "rel": "self"
        }
      ]
    }
  ],
  "min_version": "",
  "status": "SUPPORTED",
  "updated": "2016-12-09T00:00:00Z",
  "version": ""
}
```

Status Code

For details about the status code, see [Status Codes](#).

6.2 Creating a Migration Task

Function

This API is used to create a migration task. After a migration task is created, it automatically starts.

Precautions:

- A tenant can create a maximum of 200 migration tasks within 24 hours.
- A tenant cannot create more migration tasks if the tenant already has 50 migration tasks in the **Waiting to migrate** state.

URI

POST /v1/{project_id}/objectstorage/task

Table 6-3 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.

Request

Request parameters

Table 6-4 Request parameters

Parameter	Mandatory	Type	Description
src_node	Yes	JSONObject	Specifies the source node information. For details, see Table 6-5 .
dst_node	Yes	JSONObject	Specifies the destination node information. For details, see Table 6-8 .
enableKMS	Yes	boolean	Specifies whether KMS encryption is enabled.

Parameter	Mandatory	Type	Description
thread_num	Yes	int	Specifies the number of threads used by the migration task. The value cannot exceed 50.
description	No	String	Describes the task, which cannot exceed 255 characters. The following special characters are not allowed: <>()'"&
smnInfo	No	JSONObject	Specifies the field used for sending messages using the SMN service. For details, see Table 6-9 .
migrate_since	No	long	Specifies a timestamp in second. The system migrates only the objects that are modified after the specified time. No time is specified by default.
source_cdn	No	JSONObject	Specifies whether to enable CDN support. If this parameter is contained, using CDN to download source data is supported. Otherwise, CDN is not supported. If CDN is enabled, the source objects to be migrated are obtained from the CDN domain name during migration. For details, see Table 6-10 .

Parameter	Mandatory	Type	Description
auto_restore	No	boolean	Indicates whether automatic restoration of archived data is enabled. The default value is No . If this function is enabled, archived data is automatically restored and migrated.
bandwidth_policy	No	JSONArray	Specifies the traffic limit rule. Each element in the array corresponds to the maximum bandwidth of a time segment. A maximum of five time segments are allowed, and the time segments must not overlap. For details, see Table 6-11 .

Parameter	Mandatory	Type	Description
task_type	No	String	Specifies the task type. The default value is object. • list: indicates that the system will migrate the objects in the object list file. • object: indicates that the system will migrate the selected objects and folders. • prefix: indicates that the system will migrate the objects with a specified prefix. • url_list: indicates that the system will migrate the objects in the URL list file. NOTE When task_type is set to list or url_list, list_file in Table 6-5 is mandatory. When task_type is set to object or prefix, object_key in Table 6-5 is mandatory.
enable_failed_object_recording	No	Boolean	Indicates whether the function of recording failed objects is enabled. This function is enabled by default. If this function is enabled, information about the objects that failed to be migrated will be stored in the destination bucket.

Table 6-5 src_node field description

Parameter	Mandatory	Type	Description
region	Yes	String	Specifies the region where the source bucket locates.
ak	Yes	String	Specifies the source bucket AK. Enter a maximum of 100 characters. NOTE If task_type in Table 6-4 is set to url_list, ak is optional. For other task types, ak is mandatory.
sk	Yes	String	Specifies the source bucket SK. Enter a maximum of 100 characters. NOTE If task_type in Table 6-4 is set to url_list, sk is optional. For other task types, sk is mandatory.
list_file	No	JSONObject	Specifies the object list file configuration. For details, see Table 6-6. NOTE When task_type in Table 6-4 is set to list or url_list, list_file is mandatory.

Parameter	Mandatory	Type	Description
object_key	No	String/JSONObject	Specifies the name of the object to be selected in the source bucket. The object name can be in the JSONObject format or a string. If multiple source objects are selected, use JSONObject. For details, see Table 6-7. NOTE When task_type in Table 6-4 is set to object or prefix, object_key is mandatory.
bucket	Yes	String	Specifies the name of the source bucket. NOTE If task_type in Table 6-4 is set to url_list, bucket is optional. For other task types, bucket is mandatory.
app_id	No	String	app_id is mandatory only when the account of another cloud service provider has the appID identifier.

Parameter	Mandatory	Type	Description
cloud_type	No	String	Specifies the source cloud service provider. The value can be AWS, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu, or URLSource (HTTP/HTTPS data source). The default value is Aliyun. The default value is used if this parameter is not set or is left blank. NOTE If task_type in Table 6-4 is set to url_list, cloud_type must be set to URLSource.

Table 6-6 list_file field description

Parameter	Mandatory	Type	Description
obs_bucket	Yes	String	Specifies the name of the OBS bucket for storing the object list files. NOTE Ensure that the selected list file is in the same region as the destination bucket. Otherwise, the task will fail to be created.
list_file_key	Yes	String	Specifies the object name in the object list file or URL list file.

Table 6-7 object_key field description

Parameter	Mandatory	Type	Description
path	No	String	Specifies the root path of the cloud service provider, which is represented by an empty character string "". If this parameter is used, set this parameter to "". Otherwise, an error is reported.
keys	Yes	JSONArray	Specifies the source object parameter. The meaning of keys depends on the value of task_type. - When task_type is set to prefix, the character string in keys indicates the prefix of the object to be migrated. - When task_type is set to object, the character string ending with a slash (/) in keys indicates the folder to be migrated, and the character string not ending with a slash (/) indicates the file to be migrated.

Table 6-8 dst_node field description

Parameter	Mandatory	Type	Description
region	Yes	String	Specifies the region where the destination bucket locates. NOTE The value must be the same as that of the service endpoint.

Parameter	Mandatory	Type	Description
ak	Yes	String	Specifies the destination bucket AK. Enter a maximum of 100 characters.
sk	Yes	String	Specifies the destination bucket SK. Enter a maximum of 100 characters.
object_key	Yes	String	Specifies the name of the object selected in the destination bucket. The value contains a maximum of 1024 characters.
bucket	Yes	String	Specifies the name of the destination bucket.
cloud_type	No	String	Specifies the destination cloud service provider. The default value is HUAWEI CLOUD . The default value is used if this parameter is not set or is left blank.

Table 6-9 smnInfo field description

Parameter	Mandatory	Type	Description
topicUrn	Yes	String	Specifies the SMN message topic URN bound to a migration task. NOTE The region to which topicUrn belongs must be the same as the region corresponding to the endpoint.

Parameter	Mandatory	Type	Description
language	No	String	Specifies the management console language used by the current users. The value can be zh-cn or en-us .
triggerConditions	Yes	JSONArray	Specifies the trigger conditions of sending messages using SMN, which varies depending on the status of the migration task. The migration task state can be SUCCESS or FAIL . • FAIL: indicates that an SMN message will be sent after the migration task fails. • SUCCESS: indicates that an SMN message will be sent after the migration task succeeds.

Table 6-10 source_cdn field structure

Parameter	Mandatory	Type	Description
protocol	Yes	String	Specifies the protocol type. The value can be HTTPS or HTTP .
domain	Yes	String	Specifies the domain name used to obtain the objects to be migrated.

Parameter	Mandatory	Type	Description
authentication_type	Yes	String	Specifies the authentication method. • If no authentication is required, set it to NONE. • Qiniu: QINIU_PRIVATE_AUTHENTICATION • Aliyun: ALIYUN_OSS_A, ALIYUN_OSS_B, and ALIYUN_OSS_C • KingsoftCloud: KSYUN_PRIVATE_AUTHENTICATION
authentication_key	No	String	Specifies the CDN authentication key. • If no authorization is required, do not set this parameter. • Qiniu: You do not need to set this parameter. • Aliyun: Set this parameter based on the value of authentication_type. • KingsoftCloud: You do not need to set this parameter.

Table 6-11 bandwidth_policy field description

Parameter	Mandatory	Type	Description
start	Yes	String	Specifies the start time of traffic limit. Format: hh:mm Example: 10:03

Parameter	Mandatory	Type	Description
end	Yes	String	Specifies the end time of a traffic limit rule. Format: hh:mm
max_bandwidth	Yes	int	Specifies the maximum bandwidth (byte/s) allowed in a time segment. The value range is from 5 MB/s to 10 GB/s.

Response

Response parameters

Table 6-12 Response parameters

Parameter	Type	Description
id	long	Specifies the migration task ID.
task_name	String	Specifies the migration task name.

Examples

Example request

POST /v1/{project_id}/objectstorage/task

```
{
  "src_node": {
    "region": "source_region",
    "ak": "source_ak",
    "sk": "source_sk",
    "list_file": {
      "obs_bucket": "oms-file",
      "list_file_key": "object-keys.txt"
    },
    "bucket": "source_bucket",
    "cloud_type": "XXX"
  },
  "thread_num": 50,
  "enableKMS": true,
  "description": "xxx",
  "dst_node": {
    "region": "target_region",
    "ak": "target_ak",
    "sk": "target_sk",
    "object_key": "targetkey",
    "bucket": "targetbucket",
  }
}
```

```
    "cloud_type": "XXX",
  },
  "smnInfo": {
    "topicUrn": "urn:smn:region:3cfb09080bd944d0b4cdd72ef26857bd:OMS",
    "triggerConditions": ["SUCCESS", "FAIL"],
    "language": "en-us"
  },
  "task_type": "list",
  "migrate_since": 123456789
}
```

Or

POST /v1/{project_id}/objectstorage/task

```
{
  "src_node": {
    "region": "source_region",
    "ak": "source_ak",
    "sk": "source_sk",
    "object_key": {
      "path": "",
      "keys": ["object1", "object2"]
    },
    "bucket": "source_bucket",
    "cloud_type": "XXX"
  },
  "thread_num": 50,
  "enableKMS": true,
  "description": "xxx",
  "dst_node": {
    "region": "target_region",
    "ak": "target_ak",
    "sk": "target_sk",
    "object_key": "targetkey",
    "bucket": "targetbucket",
    "cloud_type": "XXX"
  },
  "smnInfo": {
    "topicUrn": "urn:smn:region:3cfb09080bd944d0b4cdd72ef26857bd:OMS",
    "triggerConditions": ["SUCCESS", "FAIL"],
    "language": "en-us"
  },
  "source_cdn": {
    "protocol": "https",
    "domain": "xxx.xxx.xxx",
    "authentication_type": "NONE"
  },
  "bandwidth_policy": [
    {
      "start": "00:00",
      "end": "23:59",
      "max_bandwidth": 50000000
    }
  ]
}
```

or (Specified URL list migration method)

POST /v1/{project_id}/objectstorage/task

```
{
  "src_node": {
    "list_file": {
      "obs_bucket": "oms-file",
      "list_file_key": "url-list.txt"
    },
    "cloud_type": "URLSource"
  },
  "thread_num": 50,
  "enableKMS": true,
}
```

```
"description": "xxx",
"dst_node": {
  "region": "target_region",
  "ak": "target_ak",
  "sk": "target_sk",
  "object_key": "targetkey",
  "bucket": "targetbucket"
},
"smnInfo": {
  "topicUrn": "urn:smn:region:3cfb09080bd944d0b4cdd72ef26857bd:OMS",
  "triggerConditions": ["SUCCESS", "FAIL"],
  "language": "en-us"
},
"task_type": "url_list",
"migrate_since": 123456789
}
```

Example response

```
{
  "id": 16,
  "task_name": "task_name"
}
```

Status Codes

See [Status Codes](#).

6.3 Deleting a Migration Task

Function

This API is used to delete a migration task.

In-progress tasks cannot be deleted. If the deletion is performed, the system will return a message indicating the deletion failure.

URI

DELETE /v1/{project_id}/objectstorage/task/{task_id}

[Table 6-13](#) describes the parameters in the URI.

Table 6-13 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

None.

Response

Response Parameters

None.

Examples

Request example

DELETE /v1/{project_id}/objectstorage/task/{task_id}

Response example

None.

Status Code

For details about the status code, see [Status Codes](#).

6.4 Restarting a Migration Task

Function

This API is used to restart a migration task after the task failed or has been paused.

URI

PUT /v1/{project_id}/objectstorage/task/{task_id}

[Table 6-14](#) describes the parameters in the URI.

Table 6-14 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

[Table 6-15](#) describes the request parameters.

Table 6-15 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	Specifies the operation type, which is start for this API.
source_ak	Yes	String	Specifies the AK of the source node. Enter a maximum of 100 characters.
source_sk	Yes	String	Specifies the SK of the source node. Enter a maximum of 100 characters.
target_ak	Yes	String	Specifies the AK of the destination node. Enter a maximum of 100 characters.
target_sk	Yes	String	Specifies the SK of the destination node. Enter a maximum of 100 characters.
source_cdn_authentication_key	No	String	Specifies the CDN authentication key.
migration_failed_object	No	Boolean	Specifies whether to perform a full migration. The value can be true, null, or false. • If the value is true, the objects fail to be migrated in the migration task will be retransmitted. • If the value is blank or false, all objects in the migration task will be migrated.

Response

Response Parameters

None.

Examples

Request example

PUT /v1/{project_id}/objectstorage/task/{task_id}

```
{
  "operation": "start",
  "source_ak": "source_ak",
  "source_sk": "source_sk",
  "target_ak": "target_ak",
  "target_sk": "target_sk",
  "source_cdn_authentication_key": "xxxxxx",
  "migration_failed_object": false
}
```

Response example

None.

Status Code

See [Status Codes](#).

6.5 Stopping a Migration Task

Function

This API is used to stop a migration task that is in progress.

URI

PUT /v1/{project_id}/objectstorage/task/{task_id}

[Table 6-16](#) describes the parameters in the URI.

Table 6-16 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

[Table 6-17](#) describes the request parameters.

Table 6-17 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	Specifies the operation type, which is stop for this API.

Response

Response Parameters
None.

Examples

Request example
PUT /v1/{project_id}/objectstorage/task/{task_id}

```
{
  "operation": "stop"
}
```

Response example
None.

Status Code

For details about the status code, see [Status Codes](#).

6.6 Modifying a Traffic Limiting Rule

Function

This API is used to modify a traffic limiting rule of a migration task before it is completed.

URI

PUT /v1/{project_id}/objectstorage/task/{task_id}
[Table 6-18](#) describes the parameters in the URI.

Table 6-18 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

[Table 6-19](#) describes the request parameters.

Table 6-19 Request parameters

Parameter	Man dato ry	Type	Description
operation	Yes	String	Specifies the operation type, which is change_bandwidthpolicy for this API.
bandwidth_policy	No	JSONArray	Specifies the traffic limiting rules. Each element in the array corresponds to the maximum bandwidth of a time segment. A maximum of five time segments are allowed, and the time segments must not overlap. For details, see Table 6-20 .

Table 6-20 bandwidth_policy data structure

Parameter	Man dato ry	Type	Description
start	Yes	String	Specifies the start time of a traffic limiting rule. The format is hh:mm. For example, 10:03
end	Yes	String	Specifies the end time of a traffic limiting rule. The format is the same as that of the start time.

Parameter	Mandatory	Type	Description
max_bandwidth	Yes	int	Specifies the maximum bandwidth (byte/s) allowed in a time segment. The value range is from 5 Mbyte/s to 10 Gbyte/s.

Response

Response Parameters

None.

Examples

Request example

PUT /v1/{project_id}/objectstorage/task/{task_id}

```
{
  "operation": "change_bandwidthpolicy",
  "bandwidth_policy": [
    {
      "start": "00:00",
      "end": "23:59",
      "max_bandwidth": 50000000
    }
  ]
}
```

Response example

None

Status Code

For details about the status code, see [Status Codes](#).

6.7 Querying All Migration Tasks of a Tenant

Function

This API is used to query information about all migration tasks of a tenant.

URI

GET /v1/{project_id}/objectstorage/task?start={start}&limit={limit}&state={state}

[Table 6-21](#) describes the parameters in the URI.

Table 6-21 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
start	Yes	Specifies the start serial number of migration tasks.
limit	Yes	Specifies the maximum number of returned tasks, which cannot exceed 100. Otherwise, the query fails.
state	No	Specifies the task status as follows: • 0: Not started • 1: Waiting to migrate • 2: Migrating • 3: Migration paused • 4: Migration failed • 5: Migration succeeded

Request

Request Parameters

None.

Response

Response Parameters

[Table 6-22](#) describes the response parameters.

Table 6-22 Response parameters

Parameter	Type	Description
id	long	Specifies the task ID.
name	String	Specifies a task name.
src_node	JSONObject	Specifies the source node information. For details, see Table 6-23 .

Parameter	Type	Description
dst_node	JSONObject	Specifies the destination node information. For details, see Table 6-25 .
thread_num	int	Specifies the number of threads used by a migration task.
status	int	Specifies the task status as follows: • 0: Not started • 1: Waiting to migrate • 2: Migrating • 3: Migration paused • 4: Migration failed • 5: Migration succeeded
progress	double	Specifies the task progress. For example, 0.522 represents the progress is 52.2%, and 1 represents the progress is 100%.
migrate_speed	long	Specifies the migration speed (byte/s).
enableKMS	boolean	Specifies whether to use KMS encryption.
description	String	Describes the migration task. This field can be left blank.
error_reason	JSONObject	Specifies the migration task failure cause. For details, see Table 6-28 . This field is left blank when the task is not in the Migration failed state.
total_size	long	Specifies the total amount of a task.
complete_size	long	Specifies the size of a task that has been completed.
start_time	long	Specifies the start time of a task.

Parameter	Type	Description
left_time	long	Specifies the remaining time of a task.
total_time	long	Specifies the total time used of a task.
success_num	long	Specifies the number of successfully migrated objects.
fail_num	long	Specifies the number of objects failed to be migrated.
total_num	long	Specifies the total number of migrated objects.
smnInfo	JSONObject	Specifies SMN messages. For details, see Table 6-26. NOTE You can determine whether to enable SMN to send messages. This parameter is available only after a migration task is complete.
migrate_since	long	Specifies whether to migrate only object data that is modified after a specified time. If this function is enabled, only objects that are modified after the specified time at the source end will be migrated. The default value is 0 , indicating that no time is specified.

Parameter	Type	Description
task_type	String	Specifies the task type. The default value is object. • list: indicates that the system will migrate objects in an object list file. • object: indicates that the system will migrate the selected objects and folders. • prefix: indicates that the system will migrate objects with a specified prefix.
source_cdn	JSONObject	Specifies whether to enable CDN during the migration. For details, see Table 6-27. If CDN is enabled, the source objects to be migrated are obtained from the CDN domain name during migration. If this field is included, CDN is supported. Otherwise, CDN is not supported.
auto_restore	Boolean	Specifies whether to automatically restore archive data. IF this function is enabled, archive data is automatically restored and migrated.
enable_failed_object_recording	Boolean	Specifies whether to record objects failed to be migrated. With this function, information about the objects that fail to be migrated will be stored in the destination bucket.
failed_object_record	String	Specifies the failed data record format. The data format is JSON. For details about the value, see Table 6-29.

Parameter	Type	Description
bandwidth_policy	JSONArray	Specifies traffic limiting rules. For details, see Table 6-30 .

Table 6-23 src_node data structure

Parameter	Type	Description
region	String	Specifies the region where the source bucket locates.
list_file	JSONObject	Specifies the failed data record format. The data format is JSON. For details about the value, see Table 6-24 .
object_key	JSONArray	Specifies the name of the object to be selected in the source bucket, which is in JSONArray format. Each element is the absolute path of an object.
bucket	String	Specifies the name of the source bucket.
cloud_type	String	Specifies source cloud providers.

Table 6-24 list_file data structure

Parameter	Type	Description
obs_bucket	String	Specifies the name of the OBS bucket for storing object list files.
list_file_key	String	Specifies the object name of the object list file.

Table 6-25 dst_node data structure

Parameter	Type	Description
region	String	Specifies the region where the destination bucket locates.
object_key	String	Specifies the name of the object selected in the destination bucket.
bucket	String	Specifies the name of the destination bucket.
cloud_type	String	Specifies the destination cloud service provider.

Table 6-26 smnInfo field description

Parameter	Type	Description
notifyResult	Boolean	Records whether messages are sent using SMN after migration tasks are complete.
notifyErrorMessage	String	Records the error code of the failure cause in sending messages using SMN. This parameter value is empty if migration tasks are successful.
topicName	String	Specifies the SMN topic name. This parameter value is empty if SMN messages are successfully sent.

Table 6-27 source_cdn data structure

Parameter	Type	Description
protocol	String	Specifies the protocol type. The value can be HTTPS or HTTP .

Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated.
authentication_type	String	Specifies the authentication method. • If no authentication is required, set it to NONE. • Qiniu: QINIU_PRIVATE_AUTHENTICATION • Alibaba Cloud: ALIYUN_OSS_A, ALIYUN_OSS_B, and ALIYUN_OSS_C • KingsoftCloud: KSYUN_PRIVATE_AUTHENTICATION

Table 6-28 error_reason data structure

Parameter	Type	Description
error_code	String	Specifies the returned error code for a failed migration task.
error_msg	String	Specifies why the migration fails.

Table 6-29 failed_object_record field description

Parameter	Type	Description
result	Boolean	Specifies whether to support retransmission of failed objects.
list_file_key	String	Specifies the path for storing the failed object list file.

Parameter	Type	Description
errorCode	String	Specifies the error codes configured for failed objects that cannot be retransmitted.

Table 6-30 bandwidth_policy data structure

Parameter	Type	Description
start	String	Specifies the start time of a traffic limiting rule. The format is hh:mm. For example, 10:03
end	String	Specifies the end time of a traffic limiting rule. The format is the same as that of the start time.
max_bandwidth	int	Specifies the maximum bandwidth allowed (byte/s) in a time segment.

Examples

Request example

GET /v1/{project_id}/objectstorage/task?start=0&limit=10&state=0

Response example

```
{
  "id": 1,
  "name": "bucket3-bucket3-20161027211637786_544",
  "src_node": {
    "region": "us-east-1",
    "bucket": "bucket3",
    "object_key": ["log/object1", "log/object2"]
  },
  "dst_node": {
    "region": "xxx",
    "bucket": "bucket3",
    "object_key": "/"
  },
  "thread_num": 50,
  "status": 5,
  "progress": 1,
  "total_num": 2000,
  "success_num": 200,
  "fail_num": 0,
  "migrate_speed": 7213154,
  "enableKMS": true,
  "description": "ZXCZCZXCXVC",
  "error_reason": ""
}
```

```
"total_size": 2000000000,
"complete_size": 2000000000,
"start_time": 1477574224062,
"left_time": 0,
"total_time": 88124,
"smnInfo": {
  "notifyResult": false,
  "notifyErrorMessage": "S3M.0156",
  "topicName": "Test"
},
"enable_failed_object_recording": true,
"failed_object_record": "{
  result ": true, "
  list_file_key ": "
  oms / failed_object_lists / 180840792025063 / failed - objects - list.txt "}"
}, {
  "id": 2,
  "name": "bucket3-bucket3-20161027211637786_545",
  "src_node": {
    "region": "us-east-1",
    "bucket": "bucket3",
    "object_key": ["log/object1", "log/object2"],
    "cloud_type": "xxx"
  },
  "dst_node": {
    "region": "xxx",
    "bucket": "bucket3",
    "object_key": "/",
    "cloud_type": "HEC"
  },
  "thread_num": 50,
  "status": 5,
  "progress": 1,
  "total_num": 2000,
  "success_num": 200,
  "fail_num": 0,
  "migrate_speed": 7213154,
  "enableKMS": true,
  "description": "ZXCZCZXCXCDVXVC",
  "error_reason": "",
  "total_size": 2000000000,
  "complete_size": 2000000000,
  "start_time": 1477574224062,
  "left_time": 0,
  "total_time": 88124,
  "smnInfo": {
    "notifyResult": false,
    "notifyErrorMessage": "S3M.0156",
    "topicName": "Test"
  },
  "migrate_since": 123456789,
  "source_cdn": {
    "protocol": "https",
    "domain": "xxx.xxx.xxx",
    "authentication_type": "NONE"
  },
  "bandwidth_policy": [
    {
      "start": "00:00",
      "end": "23:59",
      "max_bandwidth": 50000000
    }
  ]
}
```

Status Code

For details about the status code, see [Status Codes](#).

6.8 Querying the Total Number of Migration Tasks of a Tenant

Function

This API is used to query the total number of migration tasks of a tenant.

URI

GET /v1/{project_id}/objectstorage/task?totalcount={true}&state={state}

[Table 6-31](#) describes the parameters in the URI.

Table 6-31 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
totalcount	Yes	Specifies the total number of tasks to be returned by the API. true indicates that the number of tasks that meet the criteria will be returned by the API.
state	No	Specifies the task status as follows: • 0: Not started • 1: Waiting to migrate • 2: Migrating • 3: Migration paused • 4: Migration failed • 5: Migration succeeded

Request

Request Parameters
None.

Response

Response Parameters
[Table 6-32](#) describes the response parameters.

Table 6-32 Response parameters

Parameter	Type	Description
taskcount	long	Specifies the number of tasks.

Examples

Request example

GET /v1/{project_id}/objectstorage/task?totalcount=true&state=0

Response example

```
{
  "taskcount": 35
}
```

Status Code

For details about the status code, see [Status Codes](#).

6.9 Querying Migration Tasks by Task IDs

Function

This API is used to query migration tasks by task IDs.

URI

GET /v1/{project_id}/objectstorage/task/{task_id}

[Table 6-33](#) describes the parameters in the URI.

Table 6-33 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

None.

Response

Response Parameters

Table 6-34 describes the response parameters.

Table 6-34 Response parameters

Parameter	Type	Description
id	long	Specifies the task ID.
name	String	Specifies a task name.
src_node	JSONObject	Specifies the source node information. For details, see Table 6-35 .
dst_node	JSONObject	Specifies the destination node information. For details, see Table 6-37 .
thread_num	int	Specifies the number of threads used by a migration task.
status	int	Specifies the task status as follows: • 0: Not started • 1: Waiting to migrate • 2: Migrating • 3: Migration paused • 4: Migration failed • 5: Migration succeeded
progress	double	Specifies the task progress. For example, 0.522 represents the progress is 52.2%, and 1 represents the progress is 100%.
migrate_speed	long	Specifies the migration speed (byte/s).
enableKMS	boolean	Specifies whether to use KMS encryption.
description	String	Describes the migration task. This field can be left blank.
error_reason	JSONObject	Specifies the migration task failure cause. For details, see Table 6-40 .

Parameter	Type	Description
total_size	long	Specifies the total amount of a task.
complete_size	long	Specifies the size of a task that has been completed.
start_time	long	Specifies the start time of a task.
left_time	long	Specifies the remaining time of a task.
total_time	long	Specifies the total time used of a task.
success_num	long	Specifies the number of successfully migrated objects.
fail_num	long	Specifies the number of objects failed to be migrated.
total_num	long	Specifies the total number of migrated objects.
smnInfo	JSONObject	Specifies SMN messages. For details, see Table 6-38. NOTE You can determine whether to enable SMN to send messages. This parameter is available only after a migration task is complete.
migrate_since	long	Specifies whether to migrate only object data that is modified after a specified time. If this function is enabled, only objects that are modified after the specified time at the source end will be migrated. The default value is 0 , indicating that no time is specified.

Parameter	Type	Description
task_type	String	Specifies the task type. The default value is object. • list: indicates that the system will migrate objects in an object list file. • object: indicates that the system will migrate the selected objects and folders. • prefix: indicates that the system will migrate objects with a specified prefix.
source_cdn	JSONObject	Specifies whether to enable CDN during the migration. For details, see Table 6-39. If this field is included, CDN is supported. Otherwise, CDN is not supported. If CDN is enabled, the source objects to be migrated are obtained from the CDN domain name during migration.
auto_restore	Boolean	Specifies whether to automatically restore archive data. IF this function is enabled, archive data is automatically restored and migrated.
enable_failed_object_recording	Boolean	Specifies whether to record objects failed to be migrated. With this function, information about the objects that fail to be migrated will be stored in the destination bucket.
failed_object_record	String	Specifies the failed data record format. The data format is JSON. For details about the value, see Table 6-41.

Parameter	Type	Description
bandwidth_policy	JSONArray	Specifies traffic limiting rules. For details, see Table 6-42 .

Table 6-35 src_node data structure

Parameter	Type	Description
region	String	Specifies the region where the source bucket locates.
list_file	JSONObject	Specifies the failed data record format. The data format is JSON. For details about the value, see Table 6-36 .
object_key	JSONArray	Specifies the name of the object to be selected in the source bucket. Each element is the absolute path of an object.
bucket	String	Specifies the name of the source bucket.
cloud_type	String	Specifies source cloud service providers.

Table 6-36 list_file data structure

Parameter	Type	Description
obs_bucket	String	Specifies the name of the OBS bucket for storing object list files.
list_file_key	String	Specifies the object name of the object list file.

Table 6-37 dst_node data structure

Parameter	Type	Description
region	String	Specifies the region where the destination bucket locates.
object_key	String	Specifies the name of the object selected in the destination bucket.
bucket	String	Specifies the name of the destination bucket.
cloud_type	String	Specifies the destination cloud service provider.

Table 6-38 smnInfo field description

Parameter	Type	Description
notifyResult	Boolean	Records whether messages are sent using SMN after migration tasks are complete.
notifyErrorMessage	String	Records the error code of the failure cause in sending messages using SMN. This parameter value is empty if migration tasks are successful.
topicName	String	Specifies the SMN topic name. This parameter value is empty if SMN messages are successfully sent.

Table 6-39 source_cdn data structure

Parameter	Type	Description
protocol	String	Specifies the protocol type. The value can be HTTPS or HTTP .

Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated.
authentication_type	String	Specifies the authentication method. - If no authentication is required, set it to NONE. - Qiniu: QINIU_PRIVATE_AUTHENTICATION

Table 6-40 error_reason data structure

Parameter	Type	Description
error_code	String	Specifies the returned error code for a failed migration task.
error_msg	String	Specifies why the migration fails.

Table 6-41 failed_object_record field description

Parameter	Type	Description
result	Boolean	Specifies whether to support retransmission of failed objects.
list_file_key	String	Specifies the path for storing the failed object list file.
errorCode	String	Specifies the error codes configured for failed objects that cannot be retransmitted.

Table 6-42 bandwidth_policy data structure

Parameter	Type	Description
start	String	Specifies the start time of a traffic limiting rule. The format is hh:mm. For example, 10:03
end	String	Specifies the end time of a traffic limiting rule. The format is the same as that of the start time.
max_bandwidth	int	Specifies the maximum bandwidth allowed (byte/s) in a time segment.

Examples

Request example

GET /v1/{project_id}/objectstorage/task/{task_id}

Response example

```
{
  "id": 1,
  "name": "bucket3-bucket3-20161027211637786_544",
  "src_node": {
    "region": "us-east-1",
    "bucket": "bucket3",
    "object_key": "/",
    "cloud_type": "xxx"
  },
  "dst_node": {
    "region": "xxx",
    "bucket": "bucket3",
    "object_key": ["log/object1", "log/object2"],
    "cloud_type": "HEC"
  },
  "thread_num": 50,
  "status": 5,
  "progress": 1,
  "total_num": 2000,
  "success_num": 200,
  "fail_num": 0,
  "migrate_speed": 7213154,
  "enableKMS": true,
  "description": "ZXCZCZCZCDVXVC",
  "error_reason": "",
  "total_size": 2000000000,
  "complete_size": 2000000000,
  "start_time": 1477574224062,
  "left_time": 0,
  "total_time": 88124,
  "smnInfo": {
    "notifyResult": false,
    "notifyErrorMessage": "S3M.0156",
    "topicName": "Test"
  }
}
```

```
"migrate_since": 123456789,
"source_cdn": {
  "protocol": "https",
  "domain": "xxx.xxx.xxx",
  "authentication_type": "NONE"
},
"bandwidth_policy": [
  {
    "start": "00:00",
    "end": "23:59",
    "max_bandwidth": 50000000
  }
]
```

Status Code

For details about the status code, see [Status Codes](#).

6.10 Querying Quotas of a Tenant

Function

This API is used to query the quotas of a specified tenant.

URI

GET /v1/{domain_id}/objectstorage/quotas

[Table 6-43](#) describes the parameters in the URI.

Table 6-43 Parameter description

Parameter	Mandatory	Description
domain_id	Yes	Specifies the tenant ID.

Request

Request Parameters

None.

Response

Response Parameters

[Table 6-44](#) describes the response parameters.

Table 6-44 Response parameters

Parameter	Type	Description
type	String	Specifies the tenant quota item. You can query the maximum number of concurrent migration tasks of a tenant. This parameter value is MaxParallelTaskNum .
quota	int	Specifies the number of quotas of a domain.

Examples

Request example

GET /v1/{domain_id}/objectstorage/quotas

Response example

```
{
  "quotas": {
    "resource": {
      "type": "MaxParallelTaskNum",
      "quota": 5
    }
  }
}
```

Status Code

For details about the status code, see [Status Codes](#).

7 Appendix

7.1 Status Codes

Table 7-1 describes the status codes.

Table 7-1 Status codes

Status Code	Description	Description
200	OK	The request is successfully processed.
201	Created	The request for creating a resource or task has been fulfilled.
202	Accepted	The request has been accepted, but the processing has not been completed.
204	No Content	The server has successfully processed the request, but has not returned any content. The status code is returned in response to an HTTP OPTIONS request.
400	Bad Request	Invalid request. The client should not repeat the request without modifications.
401	Unauthorized	The status code is returned after the client provides the authentication information, indicating that the authentication information is incorrect or invalid.

Status Code	Description	Description
403	Forbidden	The server understood the request, but is refusing to fulfill it. The client should not repeat the request without modifications.
404	Not Found	The requested resource cannot be found. The client should not repeat the request without modifications.
405	Method Not Allowed	The method specified in the request is not supported for the requested resource. The client should not repeat the request without modifications.
406	Not Acceptable	The server cannot fulfill the request according to the content characteristics of the request.
409	Conflict	The request could not be processed due to a conflict. This status code indicates that the resource that the client attempts to create already exists, or the requested update failed due to a conflict.
413	Request Entity Too Large	The request is larger than that a server is able to process. The server may close the connection to prevent the client from continuing the request. If the server cannot process the request temporarily, the response will contain a Retry-After header field.
415	Unsupported Media Type	The server is unable to process the media format in the request.
429	Too Many Requests	Too many requests. Try again later.
500	Internal Server Error	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.

Status Code	Description	Description
503	Service Unavailable	The requested service is invalid. The client should not repeat the request without modifications.

7.2 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 [Error Codes](#).

Status Code	Error Code	Error Message	Description	Solution
200	S3M.1012	The number of object assessments that can be created each time cannot exceed 50.	You can create a maximum of 50 object assessments at a time.	Modify the number of objects to be assessed and try again.
200	S3M.1015	The number of object assessments that can be created each day cannot exceed 500.	You can create a maximum of 500 object assessments per day.	Modify the number of objects to be assessed and try again.
200	S3M.1017	The number of buckets that can be selected each time cannot exceed 50.	You can select a maximum of 50 buckets at a time.	Modify the number of buckets and try again.
200	TRF.0001	System error. Click Restart to restart the migration task.	System error.	Click "Restart" to restart the migration task.
200	TRF.0002	The task fails due to unknown reasons.	The task failed due to an unknown reason.	Check the failed object list or contact customer service.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0003	Waiting for task execution timed out. Click Restart to restart the migration task.	A timeout occurred while the system waits for task execution.	Click "Restart" to restart the migration task.
200	TRF.0004	Some objects failed to be migrated.	Some objects failed to be migrated.	View the list of failed objects in task details. Rectify the fault by referring to the OMS documentation.
200	TRF.0012	Failed to verify the task parameters. Ensure that there are objects for the selected migration method.	Failed to verify the task parameters.	Ensure that there are objects for the selected migration method.
200	TRF.0013	The object list file does not exist or cannot be obtained. Ensure that the object list file exists, and the current AK and SK have read and write permissions for the file.	The object list file does not exist or cannot be obtained.	Ensure that the object list file exists and can be obtained (with the read and write permissions).
200	TRF.0014	Invalid object list file. Ensure the object list file is a .txt file, and is no larger than 100 MB.	Invalid object list file.	Ensure the object list file is a .txt file no larger than 100 MB.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0015	The source AK and SK are invalid because the Azure storage account does not use Blob storage. Enter a valid AK and SK.	The source account does not use Blob Storage, and the migration cannot be implemented.	Enter a valid source account.
200	TRF.0016	The format of the URL list file is incorrect. Check the format of the URL list file by referring to OMS User Guide or contact technical support.	The format of the URL list file is incorrect.	Check the format of the URL list file by referring to the OMS documentation or contact technical support.
200	TRF.0017	No URL found in the specified list file. Check the list file.	The specified list file is empty.	Check the list file.
200	TRF.0020	In the target OBS bucket, data failed to be written to the path for recording the migration progress.	Data cannot be written to the path that records the migration progress in the destination OBS bucket.	Check whether the AK/SK pair for accessing the destination bucket has the write permission for the oms/ path.
200	TRF.0021	In the target OBS bucket, the list of unmigrated objects failed to be downloaded	The list of objects that have not been migrated cannot be downloaded from the destination OBS bucket.	Create a new migration task.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0022	In the target OBS bucket, ensure that the list of failed objects exists and can be downloaded.	Ensure that the list of failed objects exists and can be downloaded from the destination OBS bucket.	Check whether objects in the destination bucket can be downloaded.
200	TRF.0023	The object list file cannot be read. Please manually restore it and restart the task.	The object list file cannot be read.	Manually restore it and restart the task.
200	TRF.0024	Failed to obtain metadata of the specified files or folders.	Failed to obtain the metadata of the specified files or folders.	Ensure that the files or folders exist and the source account has the permission to obtain objects.
200	TRF.0025	Failed to list objects with the specified name prefixes.	Failed to list objects with the specified name prefix.	Ensure that the objects exist and the source account has the permission to list objects.
200	TRF.0026	Failed to obtain metadata of the first object in the specified object list.	Failed to obtain the metadata of the first object in the specified object list.	Ensure that the object exists and the source account has the permission to obtain objects.
200	TRF.0028	Failed to obtain metadata of the specified files or folders.	Failed to obtain the metadata of the specified files or folders.	Ensure that the files or folders exist and the source account has the permission to obtain objects.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0029	Failed to list objects with the specified name prefixes.	Failed to list objects with the specified name prefix.	Ensure that the objects exist and the source account has the permission to list objects.
200	TRF.0030	Failed to obtain metadata of the first object in the specified object list.	Failed to obtain the metadata of the first object in the specified object list.	Ensure that the object exists and the source account has the permission to obtain objects.
200	TRF.0031	Failed to list objects. Please check whether the source bucket contains objects containing special characters and the source account has the list Object permission.	Objects could not be listed. Check whether the source bucket contains objects with special characters and whether the source account has the permission to list objects.	Check whether the source bucket contains objects with special characters and whether you have the permission to list objects in the source bucket.
200	TRF.0051	The account corresponding to the entered AK/SK does not have the permissions to access the destination bucket or objects. Ensure that the account has the required permissions and try again.	The account corresponding to the entered AK/SK pair does not have the permissions to access the destination bucket or objects.	Ensure that the account corresponding to the AK/SK pair has the required permissions and try again.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0052	The account corresponding to the entered AK/SK does not have the permissions to access the destination bucket or objects. Ensure that the account has the required permissions and try again.	The account corresponding to the entered AK/SK pair does not have the permissions to access the destination bucket or objects.	Ensure that the account corresponding to the AK/SK pair has the required permissions and try again.
200	TRF.0053	The migration cannot be completed because your HUAWEI CLOUD account is expired or frozen. Contact customer service.	The migration cannot be completed because your account is expired or frozen.	Contact customer service to check the account status.
200	TRF.0054	The account corresponding to the entered AK/SK does not have the permissions to access the destination bucket or objects. Ensure that the account has the required permissions and try again.	The account corresponding to the entered AK/SK pair does not have the permissions to access the destination bucket or objects.	Ensure that the account corresponding to the AK/SK pair has the required permissions and try again.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0055	The destination OBS bucket does not have enough space. Ensure that the destination bucket has enough space and try again.	The destination bucket does not have enough space.	Ensure that the bucket has sufficient space and try again.
200	TRF.0056	Your HUAWEI CLOUD account is frozen. Try again after your account is unfrozen.	Your migration account has been frozen.	Unfreeze your account and try again.
200	TRF.0057	Invalid AK or SK. Enter the correct AK and SK and try again.	Invalid AK/SK.	Enter a correct AK/SK pair and try again.
200	TRF.0058	The destination OBS bucket does not exist (do not modify permissions to access the destination bucket or objects during the migration). Ensure that the destination bucket name is correct and try again.	The destination bucket does not exist. (Do not modify permissions to access the destination bucket or objects during the migration.)	Ensure that the bucket name is correct and try again.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0059	The destination objects do not exist (do not modify permissions to access the destination bucket or objects during the migration). Ensure that the names of the destination bucket and objects are correct and try again.	The destination objects do not exist. (Do not modify permissions to access the destination bucket or objects during the migration.)	Ensure that the bucket name or object names are correct and try again.
200	TRF.0060	The path for storing the migrated objects is too long. Change the object names or the path for storing them.	The path for storing the migrated objects is too long.	Change the object names or the path for storing them.
200	TRF.0061	There is a problem with the destination object storage service. Try again later or contact technical support.	The destination object storage service is abnormal.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0062	Some objects cannot be migrated. Ensure that there are no tasks to migrate those objects and try again later.	Some objects fail to be uploaded.	Ensure that there are no tasks to migrate those objects and try again later.
200	TRF.0063	The migration task failed. Data cannot be migrated to the destination OBS bucket because your account balance is insufficient. Top up your account or contact customer service.	The migration task failed because data could not be uploaded to OBS due to an insufficient account balance.	Check your account balance or contact customer service.
200	TRF.0064	The migration task is completed, but the object data in the destination bucket is unencrypted.	The migration task is complete, but object data in the destination is not encrypted.	Check whether the destination region supports KMS encryption.
200	TRF.0065	Failed to read the target archived data.	Failed to read archived data.	Restore the data before the migration.
200	TRF.0151	The source AK/SK is invalid. Enter the correct AK and SK and try again.	The source AK/SK pair is invalid.	Enter a valid AK/SK pair and try again.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0152	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.	The account corresponding to the entered AK/SK pair does not have the permissions to access the source bucket or objects.	Ensure that the account corresponding to the AK/SK pair has the required permissions and try again.
200	TRF.0153	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.	The account corresponding to the entered AK/SK pair does not have the permissions to access the source bucket or objects.	Ensure that the account corresponding to the AK/SK pair has the required permissions and try again.
200	TRF.0154	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.	The account corresponding to the entered AK/SK pair does not have the permissions to access the source bucket or objects.	Ensure that the account corresponding to the AK/SK pair has the required permissions and try again.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0155	The source bucket does not exist (do not modify permissions to access the source bucket or objects during the migration). Ensure that the source bucket name is correct and try again.	The source bucket does not exist. (Do not modify permissions to access the source bucket or objects during the migration.)	Ensure that the bucket name is correct and try again.
200	TRF.0156	The source objects do not exist (do not modify permissions to access the source bucket or objects during the migration). Ensure that the names of the source bucket and objects are correct and try again.	The source objects do not exist. (Do not modify permissions to access the source bucket or objects during the migration.)	Ensure that the bucket name or object names are correct and try again.
200	TRF.0157	There is a problem with the source object storage service. Try again later or contact technical support.	The source object storage service is abnormal.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0158	The migration task is completed, but the object data in the destination bucket is unencrypted. Check whether the region where the destination bucket is located supports KMS encryption.	The migration task is completed, but the object data in the destination bucket is not encrypted.	Check whether the destination region supports KMS encryption.
200	TRF.0159	The task failed because the frequency of access to the source object storage exceeded the allowed limit. For details, see the returned error message or contact technical support.	The task failed due to too frequent access to the source object storage.	Rectify the fault based on the returned error message or contact technical support.
200	TRF.0160	Failed to read archived data. Restore archived data and restart the task.	Failed to read archived data.	Restore the data before migration.
200	TRF.0161	The source connection string is invalid.	The source connection string is invalid.	Enter a valid connection string and try again.

Status Code	Error Code	Error Message	Description	Solution
200	TRF.0201	Failed to restore archived data. Restore archived data on the source server and restart the task.	Failed to restore archived data.	Manually restore archived data at the source and then perform migration again.
200	TRF.0202	Failed to migrate the data because there is archived data that has not been restored. Restore archived data and restart the task.	There is archived data that has not been restored.	Restore the archived data and then perform migration again.
200	TRF.0401	Failed to upload the object operation logs. Please try again.	Failed to upload object operation logs.	Check whether you have the permission to upload objects to the /etc/oms/logs/oper directory.
400	CMM.0101	Invalid parameter	Invalid parameters.	Check parameters.
400	CMM.0151	No authority	No permissions.	Check your permissions.
400	CMM.0154	Illegal token	Invalid token.	Check the authorization information.
400	OMS.0001	Invalid parameter settings. Modify the request parameters.	Invalid parameters.	Modify the request parameters.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0002	Invalid parameter format. Modify the parameter format.	Invalid parameter format.	Modify the parameter format.
400	OMS.0004	Invalid HTTP request. Modify the parameter format.	Invalid HTTP request.	Modify the parameter format.
400	OMS.0005	The HTTP request method does not exist. Ensure that the request method is correct.	The HTTP request method does not exist.	Check the request method.
400	OMS.0051	Invalid value for parameter range. Enter a valid value for range.	The value of "range" is invalid.	Modify the "range" parameter.
400	OMS.0052	Invalid value for parameter state. Enter a value from 0 to 5 (whole numbers only).	The value of "state" is invalid.	Enter an integer from 0 to 5.
400	OMS.0053	Task query failed due to invalid parameters or insufficient permissions. Check whether the parameters are correct and whether you have the required permissions.	The task query failed or you do not have the required permissions.	Check whether the parameter settings or account permissions are correct.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0054	Invalid task ID. Enter a valid task ID.	Invalid task ID.	Check parameters.
400	OMS.0057	Invalid values for source parameters. Modify the source parameters.	Invalid source parameters.	Modify the source parameters.
400	OMS.0058	Invalid values for destination parameters. Modify the destination parameters.	Invalid destination parameters.	Modify the destination parameters.
400	OMS.0059	Invalid value for the number of threads specified for migration. Enter a value from 0 to 50 (whole numbers only).	Invalid number of migration threads.	Enter an integer from 0 to 50.
400	OMS.0060	Migration to the current region is not supported. For details, see the returned error message or contact technical support.	Migration to the current region is not supported.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0061	Invalid format for task parameters. Modify the parameter format.	The task parameter format is incorrect.	Modify the parameter format.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0062	Failed to save the task. For details, see the returned error message or contact technical support.	Failed to save the task.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0063	The task is in progress. Pause the task and then delete it.	The task is in progress. It cannot be deleted.	Pause the task and then delete it.
400	OMS.0064	Invalid request parameters. Enter valid parameter values.	Invalid request parameters.	Modify the request parameters.
400	OMS.0065	The task has already started.	The task has already started. You cannot start the task again.	Do not perform the operation repeatedly.
400	OMS.0066	Failed to pause the task. The task is not in progress. Check the task status.	Failed to pause the task. The task is not in progress.	Check the task status.
400	OMS.0067	The parameters are not in JSON format. Modify the parameter format.	The parameters are not in JSON format.	Modify the request parameter format.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0068	Token authentication failed. For details, see the returned error message or contact technical support.	Authentication failed.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0070	The task is complete. You cannot start or stop it.	The task is complete. You cannot start or stop it.	Create a task again.
400	OMS.0072	You do not have the required permissions. For details, see the returned error message or contact technical support.	You do not have the required permissions.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0073	Failed to delete the task. For details, see the returned error message or contact technical support.	Failed to delete the task.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0074	The parameters must be the same as those in the OMS API Reference. Modify the parameter format by referring to OMS API Reference.	The request parameters must be the same as those provided in the <i>OMS API Reference</i> .	Modify the parameter format.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0077	The number of created migration tasks has exceeded the limit. Try again later or contact customer service.	The number of created migration tasks has exceeded the limit.	Try again later or contact technical support.
400	OMS.0078	The description cannot contain the following special characters: <>()'"& Delete the special characters that are not allowed.	The description cannot contain the following special characters: <>()'"&	Delete the special characters that are not allowed.
400	OMS.0079	Migration from the region where the source bucket is located is not supported. Modify the source bucket parameter.	Migration from the region where the source bucket is located is not supported.	Modify the source bucket parameters.
400	OMS.0080	Migration to the region where the selected destination bucket is located is not supported. Modify the destination bucket parameter.	Migration to the region where the selected destination bucket is located is not supported.	Modify the destination bucket parameters.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0081	Failed to pass the custom domain name check. Enter a valid custom domain name.	Failed to pass the custom domain name check.	Enter a valid custom domain name.
400	OMS.0083	The number of traffic limit rules exceeds the maximum. Change the number of traffic limit rules. Refer to OMS API Reference for details.	The number of traffic limiting rules exceeds the upper limit.	Change the number of traffic limiting rules by referring to the <i>OMS API Reference</i> .
400	OMS.0084	The maximum traffic value is out of the range. Change the maximum traffic value. Refer to OMS API Reference for details.	The maximum traffic of the traffic limiting rule is out of range.	Change the value in the traffic limiting rule by referring to the <i>OMS API Reference</i> .
400	OMS.0085	The time segments are overlapped. Ensure that time segments do not overlap.	The time segments of the traffic limiting rules overlap.	Modify the time segments of the traffic limiting rules.
400	OMS.0086	Failed to update the bandwidth policy. Try again later or contact technical support.	Failed to modify the traffic limiting rule.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0087	Invalid values for time segments. Modify the time segments.	The time ranges of the traffic limiting rules are incorrect.	Modify the time ranges of the traffic limiting rules.
400	OMS.0089	The source objects do not exist (do not modify permissions to access the source bucket or objects during the migration). Ensure that the names of the source bucket and objects are correct and try again.	The source objects do not exist. (Do not modify permissions to access the source bucket or objects during the migration.)	Ensure that the bucket name or object names are correct and try again.
400	OMS.0090	The maximum number of failures has been reached. Please try again later	The maximum number of failures has been reached. Try again later.	Try again later.
400	OMS.0092	Agree to the privacy agreements on the OMS console to continue.	Agree to the privacy agreement on the OMS console and try again.	Agree to the privacy agreement on the OMS console and try again.
400	OMS.0093	The synchronization task has been deleted.	The synchronization task has been deleted.	Create a synchronization task and try again.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0094	The synchronization task is in the non-synchronizing state. Start the synchronization task and try again.	The synchronization task is not in the synchronizing state.	Start the synchronization task and try again.
400	OMS.0095	You do not have permission to access the task or the task does not exist.	You do not have the permission to access the task or the task does not exist.	Check the access permissions.
400	OMS.0151	Invalid parameters. For details, see the returned error message or contact technical support.	Invalid parameters.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0152	Failed to query regions. For details, see the returned error message or contact technical support.	Failed to query the region information.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0153	Failed to query the bucket information. For details, see the returned error message or contact technical support.	Failed to query the bucket information.	Rectify the fault based on the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0155	Failed to get the bucket region. For details, see the returned error message or contact technical support.	Failed to query the region where the bucket is located.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0156	Failed to send the notification using SMN. Internal SMN service errors. Try again later or contact customer service.	Failed to send the notification using the SMN service due to SMN internal errors.	Try again later or contact technical support.
400	OMS.0157	Failed to send the notification using SMN. The SMN topic does not exist. For details, see the returned error message or contact technical support.	Failed to send the notification using SMN. The SMN topic does not exist.	Rectify the fault based on the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0158	Failed to send the notification using SMN. OMS has not been authorized to access the SMN topic. For details, see the returned error message or contact technical support.	Failed to send the notification using SMN. OMS has not been authorized to access the SMN topic.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0159	System error. Failed to send the SMN notification. Try again later or contact customer service.	Failed to send the notification using SMN due to OMS internal errors.	Try again later or contact technical support.
400	OMS.0160	System busy. Failed to send the SMN notification. Try again later or contact customer service.	Failed to send the notification using SMN due to OMS internal errors.	Try again later or contact technical support.
400	OMS.0161	Network error. Failed to send the SMN notification. Try again later or contact customer service.	Failed to send the notification using the SMN service due to network exceptions.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0167	Failed to find the list of failed objects. For details, see the returned error message or contact technical support.	Failed to find the list of failed objects.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0168	Failed to send the SMN notification. The selected topic is not in the same region as the current service. For details, see the returned error message or contact technical support.	Failed to send the SMN notification. The selected topic is not in the same region as the current service.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0169	The SMN topic does not exist or you do not have the permissions needed to use the current topic. Select another topic or obtain the required permissions.	The SMN topic does not exist or you do not have the permission to use the topic.	Select another topic or obtain the required permissions.
400	OMS.0170	The migration tasks update failed.	The migration task failed to be updated.	Try again later.
400	OMS.0182	The source bucket region does not match the input region.	The source bucket region does not match the input region.	Check whether the region of the source bucket matches that of the login account.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0183	The destination bucket region does not match the input region.	The destination bucket region does not match the input region.	Check whether the region of the destination bucket matches that of the login account.
400	OMS.0184	API processing times out. Please try again later.	The API call timed out.	Try again later.
400	OMS.0201	Your account has been restricted. Check your account balance or contact customer service.	Your account has been restricted.	Check your account balance or contact customer service.
400	OMS.0202	Sorry, your account has been frozen. Contact customer service.	Your account has been frozen.	Contact customer service to check the account status.
400	OMS.0203	Validate your personal information before continuing using OMS. For details, see the returned error message or contact technical support.	Verify your personal information before using the migration service.	Rectify the fault based on the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0204	Real-name authentication is required for this operation. Complete real-name authentication.	This operation requires real-name authentication.	Complete real-name authentication.
400	OMS.0302	Failed to list source objects. For details, see the returned error message or contact technical support.	Failed to list source objects.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0303	Failed to record objects failed to be migrated. For details, see the returned error message or contact technical support.	Failed to record the objects that fail to be migrated.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0304	Failed to store the list of objects failed to be migrated. For details, see the returned error message or contact technical support.	Failed to save the list of objects that fail to be migrated.	Rectify the fault based on the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.0305	Object list file has reached the maximum allowed size. Check the size of the object list. Refer to OMS API Reference for details.	The size of the list of objects that fail to be migrated exceeds the upper limit.	Check the size of the failed object list by referring to the <i>OMS API Reference</i> .
400	OMS.0306	No source objects found. Ensure that there are objects in the source bucket.	No source objects found.	Ensure that the source bucket contains objects.
400	OMS.0307	Failed to add the information about failed objects to the OBS bucket. For details, see the returned error message or contact technical support.	Failed to add the information about failed objects to the OBS bucket.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.0308	Incomplete list of failed objects. Contact technical support.	The list of failed objects is incomplete.	Contact technical support.
400	OMS.1001	Internal service error. For details, see the returned error message or contact technical support.	An internal service error occurred.	Rectify the fault based on the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1002	Invalid parameter type. Use a valid parameter type as described in OMS API Reference.	The parameter type is invalid.	Check the request parameters according to the API reference.
400	OMS.1003	Incorrect parameter constraints. Modify the parameter constraints. Refer to OMS API Reference for details.	The parameter constraints are inconsistent with those described in the API reference.	Check the request parameters.
400	OMS.1004	Some required parameters are missing. Ensure that all required parameters are included.	Mandatory parameters are missing.	Check the request parameters.
400	OMS.1005	Authentication failed. For details, see the returned error message or contact technical support.	Authentication failed.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.1006	The parameter is not in JSON format. Ensure that the parameter format is in JSON format.	The parameters are not in JSON format.	Ensure that the parameter format is correct.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1007	Some required parameters are missing. Ensure that all required parameters are included.	Mandatory parameters are missing.	Check the request parameters.
400	OMS.1008	Invalid request method. Use the request method described in OMS API Reference.	The request method is not supported.	Check the request method by referring to the <i>OMS API Reference</i> .
400	OMS.1009	No resources found. Ensure that the resources exist and resource parameters are correct.	The requested resource was not found.	Ensure that the resource parameters are correct and the resource exists.
400	OMS.1010	Agree to the privacy agreements on the OMS console to continue.	Agree to the privacy agreement on the OMS console to continue.	Agree to the privacy agreement on the OMS console.
400	OMS.1011	The synchronization task has been deleted.	The synchronization task has been deleted.	Create a synchronization task again.
400	OMS.1012	The synchronization task is in the non-synchronizing state. Start the synchronization task and try again.	The synchronization task is not in the synchronizing state. Start the synchronization task and try again.	Start the synchronization task and try again.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1013	Invalid bucket ID. Enter a valid bucket ID.	Invalid bucket ID.	Check the request parameters.
400	OMS.1014	You do not have permission to access the task or the task does not exist.	You do not have the permission to access the task, or the task does not exist.	Check the account permissions or create the task again.
400	OMS.1015	The maximum number of failures has been reached. Please try again later.	The number of failures has reached the maximum allowed. Try again later.	Try again later or contact technical support.
400	OMS.1016	Failed to obtain the source bucket details because the authentication failed or no bucket ID was found in the list. Ensure that the AK and SK are correct and you have the permissions to access the bucket.	The source bucket information cannot be obtained due to authentication failure or an empty bucket list.	Ensure that the entered AK/SK pair is correct and you have the permission to access the bucket.
400	OMS.1017	A maximum of 50 buckets can be selected at a time. Try again later or contact technical support.	A maximum of 50 buckets can be selected at a time.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1018	Invalid source bucket. Check the source bucket parameter.	Invalid source bucket.	Check the source bucket parameters.
400	OMS.1019	You can create a migration task only after the source bucket evaluation succeeds. Try again later.	You can create a task only after the source bucket evaluation is successful.	Try again later.
400	OMS.1020	Failed to access the destination bucket. Ensure that the AK and SK are correct and you have the permissions to access the bucket.	The destination bucket could not be accessed.	Ensure that the entered AK/SK pair is correct and you have the permissions to access the bucket.
400	OMS.1021	The number of created migration tasks exceeded the quota. Please try again in 24 hours.	The number of created migration tasks has exceeded the limit.	Try again 24 hours later.
400	OMS.1022	A migration task is being created for the source bucket. Select another bucket. If the error persists, contact technical support.	A migration task is being created for the source bucket. Select another bucket.	If the error persists, contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1023	No bucket selected.	No bucket is selected.	Select a bucket.
400	OMS.1026	Failed to create the migration task due a service error. For details, see the returned error message or contact technical support.	The migration task failed to be created due to an internal service error.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.1027	The failed objects record is empty. Select another one.	The selected failed object record is empty. Select another one.	Try again later or contact technical support.
400	OMS.1028	A maximum of 50 tasks can be retried at a time.	A maximum of 50 tasks can be retried at a time.	Select less than 50 tasks and try again.
400	OMS.1030	Invalid record status. For details, see the returned error message or contact technical support.	The recording of failed objects is abnormal.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.1031	Failed to recreate the migration task because only the tasks under the same cloud service provider can be recreated. Select one cloud service provider during retry.	You cannot select two different cloud vendors at the same time when retrying.	Ensure that the correct cloud vendor is selected during the retry.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1032	CDN authentication key required. Enter the correct CDN authentication key.	The CDN authentication key is missing.	Enter a correct CDN authentication key.
400	OMS.1033	Only tasks in Evaluating state can be stopped. Check the task status.	Only tasks in the "Evaluating" state can be stopped.	Check the task status.
400	OMS.1035	Failed to upload the object list file. For details, see the returned error message or contact technical support.	Uploading the object list failed.	Rectify the fault based on the returned error message or contact technical support.
400	OMS.1036	Operations cannot be performed on task groups in current state. Check the task group status.	This operation cannot be performed when the task group is in the current state.	Check the task group status.
400	OMS.1037	A maximum of 100 task groups can be created within 24 hours. Try again later or contact customer service.	A maximum of 100 task groups can be created per day.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1038	Only tasks in Executing state can be paused. Check the task status.	Only tasks in the "Executing" state can be paused.	Check the task status.
400	OMS.1039	Only tasks in Paused state can be resumed. Check the task status.	Only tasks in the "Paused" state can be resumed.	Check the task status.
400	OMS.1040	Only tasks in Creation failed or Failed state can be restarted. Check the task status.	Only tasks in the "Creation failed" or "Failed" state can be restarted.	Check the task status.
400	OMS.1041	Authentication failed because the migration task contains buckets that do not belong to the logged-in user account. Ensure that all selected buckets belong to the logged-in user.	Authentication failed: The migration task contains buckets that do not belong to the tenant.	Ensure that all selected buckets belong to the tenant.

Status Code	Error Code	Error Message	Description	Solution
400	OMS.1046	Evaluation tasks that are being evaluated or terminated cannot be deleted. Please try again after terminating the evaluation task.	Evaluation tasks that are being evaluated or terminated cannot be deleted.	Terminate the evaluation task and try again.
400	OMS.1047	Task groups in current state cannot be deleted.	The task group in the current state cannot be deleted.	The task group cannot be deleted if it is in the "Creating", "Executing", "Paused", or "Deleting" state.
400	OMS.1048	Archive Data Restoration is not supported for the selected source cloud vendor.	The source cloud vendor does not support archived data restoration.	Contact the source cloud vendor to check whether archived data restoration is supported.
400	OMS.2002	The synchronization task is not found or not started.	The synchronization task was not found or not started.	Create or start the synchronization task and try again.
400	OMS.2051	All graphs are based on raw data. Period: 5 minutes, Statistic: Sum	All charts are based on the raw data. Period: 5 minutes; statistics: Sum	Try other operations.
400	OMS.2052	Rollup algorithm parameters: Period: 1 hour, Statistic: Sum	Rollup algorithm parameters: period: 1 hour; statistics: Sum	Try other operations.

Status Code	Error Code	Error Message	Description	Solution
400	OMS_INTERN AL.002000	Failed to upload the file.	File upload failed.	Try again later or contact technical support.
400	OMS_INTERN AL.002001	Failed to execute the script.	Script execution failed.	Try again later or contact technical support.
400	S3M.0001	Invalid parameter values.	Invalid parameter values.	Modify the parameters and try again.
400	S3M.0002	Invalid parameter format.	Invalid parameter format.	Modify the parameters and try again.
400	S3M.0004	Invalid HTTP request method.	Invalid HTTP request method.	Modify the request method and try again.
400	S3M.0051	Invalid value for parameter range.	The value of the parameter "range" is invalid.	Modify the parameter "range" and try again.
400	S3M.0052	Invalid value for parameter state. Enter an integer from 0 to 5.	The value of the parameter "state" is invalid. Enter an integer from 0 to 5.	Modify the parameter "state" and try again.
400	S3M.0059	Invalid value for the number of threads specified for migration. Enter an integer from 0 to 50.	The number of threads specified for migration is invalid. Enter an integer from 0 to 50.	Enter an integer from 0 to 50.
400	S3M.0062	Failed to save the task.	Failed to save the task.	Try again later or contact technical support.
400	S3M.0063	The task is in progress. You must pause the task before deleting it.	The task is in progress. You must pause the task before deleting it.	Pause the task and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0064	Invalid request parameters.	Invalid request parameters.	Modify the parameters and try again.
400	S3M.0065	The task already starts.	The task has already started.	Do not perform the operation repeatedly.
400	S3M.0066	Failed to pause the task. The task is not in progress.	Failed to pause the task. The task is not in progress.	Check whether the task is running.
400	S3M.0068	Token authentication failed.	Token authentication failed.	Obtain a new token and try again.
400	S3M.0070	The task is complete. You cannot start or stop it.	The task is complete. You cannot start or stop it.	Create a task again and execute it.
400	S3M.0071	The task is complete. You cannot update bandwidth_policy.	The task is complete.	You cannot update the traffic limiting rule.
400	S3M.0072	You do not have the required permission.	You do not have the required permissions.	Obtain the required permissions and try again.
400	S3M.0073	Failed to delete the task.	Failed to delete the task.	Try again later or contact technical support.
400	S3M.0074	The parameters must be the same as those in the OMS API Reference.	The parameters must be the same as those in the <i>OMS API Reference</i> .	Modify the parameters and try again.
400	S3M.0077	The number of created migration tasks has exceeded the limit.	The number of created migration tasks has exceeded the limit.	Apply for a larger quota and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0078	The description cannot contain the following special characters: <>()'"&	The description cannot contain the following special characters: <>()'"&	Exclude the special characters that are not allowed and try again.
400	S3M.0079	The region where the source bucket locates is not supported.	The source bucket region is not supported.	Select a bucket in another region.
400	S3M.0080	The bucket region must be the same as the OMS endpoint region.	The bucket region must be the same as the OMS endpoint region.	Modify the OMS endpoint or bucket to ensure region consistency.
400	S3M.0081	Failed to pass the custom domain name check.	The custom domain name failed the check.	Check the network connection and the entered domain name.
400	S3M.0082	Values for destination parameters are incorrect or the object list file and the destination bucket are in different regions.	The values of the destination parameters are incorrect, or the object list file and the destination bucket are in different regions.	Modify the destination parameters and try again.
400	S3M.0083	The number of traffic limit rules exceeds the maximum.	The number of traffic limiting rules exceeds the limit.	Modify the traffic limiting rules and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0084	The maximum traffic value is out of the range.	The maximum traffic is out of range.	Modify the value and try again.
400	S3M.0085	The time segments are overlapped.	The time segments overlap.	Modify the time ranges.
400	S3M.0086	Failed to update bandwidth_policy.	Failed to update the bandwidth policy.	Try again later or contact technical support.
400	S3M.0087	Invalid values for time segments.	The time ranges are invalid.	Modify the time ranges.
400	S3M.0088	The list_file or object_key value is invalid because it does not match with the value of task_type.	The parameters are incorrect. They do not match the migration mode.	Modify the parameters to match the migration mode.
400	S3M.0089	The source object does not exist (do not modify permissions to access the source bucket or objects during the migration).	The source objects do not exist. (Do not modify the permission to access the source bucket or objects during migration.)	Ensure that the names of the source bucket and objects are correct and try again.
400	S3M.0090	The migration tasks in the Failed, Paused, or Succeeded state cannot be authorized.	Migration tasks in the "Failed", "Paused", or "Succeeded" state cannot be authorized.	Create a new task and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0091	The number of synchronizing tasks has exceeded the limit.	The number of synchronization tasks has reached the limit.	By default, five synchronization tasks can run at the same time.
400	S3M.0092	Invalid request parameters dstNode Prefix, check Prefix if it starts with /.	Invalid "Prefix" in the destination request.	Check the "Prefix" parameter.
400	S3M.0093	Unsupported overwriteMode	The overwrite mode is not supported.	Select a supported overwrite mode and try again.
400	S3M.0094	Unsupported migrationPolicy	The migration policy is not supported.	Select a supported migration policy and try again.
400	S3M.0095	CloudType and TaskType not match	The data source type does not match the task type.	Modify the data source type and try again.
400	S3M.0096	Not agreeing to the privacy agreement.	You have not agreed to the privacy agreement.	Agree to the privacy agreement first.
400	S3M.0151	Invalid parameters.	Invalid parameters.	Modify the parameters and try again.
400	S3M.0152	Failed to query regions. Ensure that the account has the required permissions and try again.	Failed to query the region. Ensure that the account has the required permissions and try again.	Obtain the required permissions and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0153	Failed to query the bucket information. Ensure that the account has the required permissions and try again.	Failed to query the bucket information. Ensure that the account has the required permissions and try again.	Ensure that the account has the required permissions and try again.
400	S3M.0155	Failed to get the bucket region. Ensure that the account has the required permissions and try again.	Failed to obtain the bucket region. Ensure that the account has the required permissions and try again.	Ensure that the account has the required permissions and try again.
400	S3M.0156	Failed to send the notification using SMN. Internal SMN service errors.	Failed to send SMN notifications. Internal SMN service error.	Check whether the SMN configuration is correct.
400	S3M.0157	Failed to send the notification using SMN. The SMN topic does not exist.	Failed to send SMN notifications. The SMN topic does not exist.	Add an SMN topic and try again.
400	S3M.0161	Network error. Failed to send the SMN notification.	Network error. Failed to send SMN notifications.	Check whether the network is functional.
400	S3M.0164	Failed to delete the SDR data.	Failed to delete the SDR data.	Try again later or contact technical support.
400	S3M.0165	Failed to freeze resource.	Failed to freeze resources.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0166	Failed to thaw resource.	Failed to unfreeze resources.	Try again later or contact technical support.
400	S3M.0167	Failed to find the list of failed objects.	The list of failed objects could not be found.	Try again later or contact technical support.
400	S3M.0168	Failed to send the SMN notification. The selected topic is not in the same region as the current service.	Failed to send SMN notifications. The selected topic is not in the same region as the current service.	Select an SMN topic in the same region and try again.
400	S3M.0169	The SMN topic does not exist or you do not have the permissions needed to use the current topic. Select another topic or obtain the required permissions.	The SMN topic does not exist or you do not have the permission to use the current topic. Select another topic or obtain the required permissions.	Select another topic or obtain the required permissions.
400	S3M.0171	Failed to get the bucket region. Ensure that the account has the required permissions and try again.	Failed to obtain the OBS bucket region.	Ensure that the account has the required permissions and try again.
400	S3M.0172	Request content too large.	The request content is too large.	Modify the content and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0201	Your account has been restricted. Check your account balance or contact the customer service.	Your account has been restricted.	Check your account balance or contact customer service.
400	S3M.0202	Sorry, your account has been frozen. Contact customer service to learn why.	Sorry, your account has been frozen. Contact customer service to find out the reason.	Check whether your account is normal.
400	S3M.0203	Validate your personal information before continuing using OMS.	Before using OMS, verify your personal information.	Complete real-name authentication and try again.
400	S3M.0301	Do not enable failed object retransmission.	Do not restart a migration task that contains failed objects.	Enable the failed object recording function and try again.
400	S3M.0302	Failed to list source objects.	Failed to list source objects.	Check whether you have the permission to list objects in the source bucket.
400	S3M.0303	Failed to record objects failed to be migrated.	Failed to record objects. The migration failed.	Try again later or contact technical support.
400	S3M.0304	Failed to store the list of objects failed to be migrated.	Failed to store the list of objects that failed to be migrated.	Check whether you have the write permission for the destination bucket.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.0305	This operation cannot be performed because the maximum size of the object list file has been reached.	The operation cannot be performed because the maximum size of the object list file has been reached.	Modify the maximum size of the object list file and try again.
400	S3M.0306	No source objects found.	Source objects could not be found.	Check whether you have the permission to list objects in the source bucket.
400	S3M.0309	Failed to record objects successful to be migrated.	Failed to record the objects that are successfully migrated.	Check whether you have the write permission for the destination bucket.
400	S3M.0310	Failed to store the list of objects successful to be migrated.	Failed to store the list of objects that are successfully migrated.	Check whether you have the write permission for the destination bucket.
400	S3M.0311	Failed to record objects skipped to be migrated.	Failed to record the objects that are skipped.	Check whether you have the write permission for the destination bucket.
400	S3M.0312	Failed to store the list of objects skipped to be migrated.	Failed to store the list of objects that are skipped.	Check whether you have the write permission for the destination bucket.
400	S3M.1002	The parameter key[{0}] type must be {1}.	The type of the parameter key [{0}] must be {1}.	Check parameters.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.1003	The parameter key[{0}] constraints must be consistent with that given in the Cloud Migration Center API Reference.	The constraint of the parameter key [{0}] must be the same as that given in the Migration Center API Reference.	Check parameters.
400	S3M.1004	Lack of necessary parameters key[{0}] required in the Cloud Migration Center API Reference.	The required parameter key [{0}] in the Migration Center API Reference is missing.	Check parameters.
400	S3M.1005	Token authentication failed.	Token authentication failed.	Check the authorization information.
400	S3M.1006	The parameter format must be JSON.	The parameter format must be JSON.	Check the parameter format.
400	S3M.1007	Lack of required parameters.	Mandatory parameters are missing.	Add mandatory parameters and try again.
400	S3M.1009	Resources are not found.	The requested resource was not found.	Check the resource.
400	S3M.1010	The parameter type must be the same as that given in the Cloud Migration Center API Reference.	The parameter type must be the same as that specified in the Migration Center API Reference.	Check parameters.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.1011	The parameter "bucket_ids" is empty.	The "bucket_id" parameter is empty.	Add the parameter and try again.
400	S3M.1013	Invalid bucket id.	The bucket ID is invalid.	Use a valid bucket ID.
400	S3M.1014	Can't get source bucket [{0}]. Ensure that the AK and SK are correct and you have the permission to access the bucket.	The source bucket [{0}] could not be accessed.	Ensure that the AK/SK pair is correct and you have the permission to access the bucket.
400	S3M.1016	Can't access to source bucket. Ensure that the AK and SK are correct and you have the permission to access the bucket.	The source bucket could not be accessed.	Ensure that the AK/SK pair is correct and you have the permission to access the bucket.
400	S3M.1018	The parameter "bucket_pairs" contains invalid source bucket id.	The "bucket_pairs" parameter contains invalid source bucket IDs.	Modify the parameter and try again.
400	S3M.1019	Selected source buckets must assess successfully.	The selected source buckets must be successfully assessed.	Check the assessment results and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.1020	Can't get dest bucket [{0}]. Ensure that the AK and SK are correct and you have the permission to access the bucket.	The target bucket [{0}] could not be accessed.	Ensure that the AK/SK pair is correct and you have the permission to access the bucket.
400	S3M.1021	Task quota is not enough to create {0} tasks this time. There are {1} tasks have been created in 24 hours.	The task quota is insufficient for creating {0} tasks. {1} tasks have been created within 24 hours.	Check your permissions for the destination bucket.
400	S3M.1022	Selected source bucket [{0}] is already in creating status. Do not repeat operations.	A task is being created for the selected source bucket [{0}]. Do not perform the operation repeatedly.	Do not perform the operation repeatedly.
400	S3M.1023	Bucket pairs cannot be empty.	The associated bucket cannot be empty.	Check the associated bucket.
400	S3M.1024	Create OMS task failed. Response http code is [{0}].	Failed to create the OMS task. The HTTP response code is [{0}].	Try again later.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.1025	Create OMS task failed. Response http code is [{0}], error code is [{1}], error msg is[{2}].	Failed to create the OMS task. The HTTP response code is [{0}], the error code is [{1}], and the error message is [{2}].	Try again later.
400	S3M.1027	The failed objects record is empty. Select another one.	The failed object record is empty.	Select another one.
400	S3M.1028	A maximum of 50 tasks can be retried at a time.	A maximum of 50 tasks can be retried at a time.	Select less than 50 tasks and try again.
400	S3M.1030	Invalid record status.	The record status is invalid.	Check the status.
400	S3M.1031	Can't create two cloud types in once operation.	Two cloud vendors cannot be included in one operation.	Modify the configuration and try again.
400	S3M.1032	Lack of required parameter cdn authentication key.	The required CDN authentication key is missing.	Check the CDN authentication key.
400	S3M.1033	Only running task can be stopped.	Only running tasks can be stopped.	Check the task status and try again.
400	S3M.1034	The number of created migration tasks has exceeded the limit.	The number of created migration tasks has exceeded the limit.	Increase the quota and try again.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.1035	TaskGroup status value is invalid	Invalid task group status.	Check the status.
400	S3M.1036	Task group not support the action in current status.	This operation cannot be performed for the task group when it is in the current state.	Check the task group status.
400	S3M.1037	project task group exceed maxTaskGroupOneDayOneProject.	The number of task groups in a project exceeds the limit specified by "maxTaskGroupOneDayOneProject".	Adjust the limit for task groups and create task groups again.
400	S3M.1038	Only tasks in the Running or Monitoring state can be paused.	Only tasks in the running or monitoring state can be paused.	Check the task status.
400	S3M.1039	Only tasks in the Paused state can be resumed.	Only tasks in the paused state can be resumed.	Check the task status.
400	S3M.1040	Only tasks in the Creation failed or Failed state can be restarted.	Only tasks in the "Creation failed" or "Failed" state can be restarted.	Check the task status.
400	S3M.1041	Authentication failed because the buckets selected for the task do not belong to the logged-in user account.	Authentication failed. The bucket selected for the task does not belong to the logged-in user account.	Check your permissions.

Status Code	Error Code	Error Message	Description	Solution
400	S3M.1042	No list file found in the directory for this migration task group.	The list file specified for the migration task group could not be found in the directory.	Check whether the list file exists in the directory.
400	S3M.1043	The size of a list file has reached the maximum size allowed.	The list file size has reached the maximum allowed size.	Modify the file size configuration and try again.
400	S3M.1044	The list file must be in .txt format.	The list file must be in .txt format.	Check the file format.
400	S3M.1045	The maximum number of list files has been reached.	The number of list files has reached the maximum allowed.	Modify the file size configuration and try again.
400	S3M.1047	Task groups in current state cannot be deleted.	The task group in the current state cannot be deleted.	The task group cannot be deleted if it is in the "Creating", "Executing", "Paused", or "Deleting" state.
400	S3M.1048	Source cloud is not support restore	The source cloud vendor does not support archived data restoration.	Contact the source cloud vendor to check whether archived data restoration is supported.
400	TRF.0018	Failed to verify the task parameters. Ensure that the length of each line in the object list file does not exceed 65,535 characters.	Failed to verify the task parameters.	Ensure that each line in the object list file does not exceed 65,535 characters.

Status Code	Error Code	Error Message	Description	Solution
400	TRF.0019	Failed to verify the task parameters. Ensure that contentType in the metadata of the object list file is set to text/plain and contentEncoding is not set.	Failed to verify the task parameters.	Ensure that in the metadata of the object list file, Content-Type is set to text/plain and Content-Encoding is not set.
401	OMS.9999	no auth	Authentication failed.	Complete authentication first.
401	S3M.0053	Task query failed due to invalid parameters or insufficient permissions.	Failed to query the task due to invalid parameters or insufficient permissions.	Check whether the parameters are correct and whether you have the required permissions.
401	S3M.0205	Insufficient permission. Read-only users do not have the permissions to create, modify, or delete resources. Check the permission configuration.	Insufficient permissions. Read-only users cannot create, modify, or delete resources.	Check the permission configuration.
403	OMS.0095	You do not have permission to access the task or the task does not exist.	You do not have the permission to access the task or the task does not exist.	Check whether you have the required permissions.

Status Code	Error Code	Error Message	Description	Solution
403	OMS.0205	Insufficient permission. Read-only users do not have the permissions to create, modify, or delete resources.	Read-only users do not have the permissions to create, modify, or delete resources.	Check the permission configuration.
403	OMS.0206	Insufficient permissions. You do not have the OMS operation permissions.	Insufficient permissions. You do not have the OMS operation permissions.	Check the permission configuration.
403	OMS.0207	Admission check failed.	Authorization verification failed.	Perform authorization again.
403	OMS.2001	project verify fail.	Project verification failed.	Check whether the project information is correct.
403	S3M.0054	Invalid task ID.	Invalid task ID.	Modify it and try again.
403	S3M.0057	Invalid values for source parameters.	Invalid values for source parameters.	Modify the source parameters and try again.
403	S3M.0058	Invalid values for destination parameters.	Invalid values for destination parameters.	Modify the destination parameters and try again.
403	S3M.0061	Invalid task parameter type.	Invalid task parameter type.	Modify the task parameter type and try again.
403	S3M.0067	The parameters are not in JSON format.	The parameters are not in JSON format.	Modify the parameter type to JSON and try again.

Status Code	Error Code	Error Message	Description	Solution
403	S3M.0158	Failed to send the notification using SMN. OMS has not been authorized to access the SMN topic.	Failed to send SMN notifications. OMS was not authorized to access the SMN topic.	Obtain the SMN authorization first.
403	S3M.0162	Request header fields too large.	Request header fields too large.	Modify it and try again.
403	S3M.0163	Request token too large.	Request token too large.	Modify it and try again.
403	S3M.0204	Real-name authentication is required for this operation.	Real-name authentication is required for this operation.	Complete real-name authentication and try again.
403	S3M.0206	Insufficient permissions. You do not have the OMS operation permissions. Check the permission configuration.	Insufficient permissions. You do not have the OMS operation permissions. Check the permission configuration.	Check the OMS operation permissions.
403	S3M.0207	The agency does not exist. Check whether the agency is correct.	Proxy not found.	Check whether the proxy is correct.

Status Code	Error Code	Error Message	Description	Solution
403	TRF.0027	Failed to list objects. Please check whether the source bucket contains objects containing special characters and the source account has the list Object permission.	Failed to list objects	Check whether the source bucket contains objects with special characters and whether you have the permission to list objects in the source bucket.
404	S3M.0005	The HTTP request method does not exist.	The HTTP request method does not exist.	Modify the request method and try again.
404	S3M.0256	The current API version does not exist.	The API version does not exist.	Select another version or contact technical support.
405	S3M.1008	The request method is not supported.	Invalid request method.	Modify the request method and try again.
500	S3M.0159	Failed to send the SMN notification due to internal system errors.	Failed to send SMN notifications. An internal system error occurred.	Try again later or contact technical support.
500	S3M.1001	Internal server error.	Internal service error.	Try again later or contact technical support.
500	S3M.1026	Create OMS task failed. Internal error.	Failed to create the OMS task. Internal error.	Try again later or contact technical support.
503	OMS.2004	Service busy. Try again later.	Service busy.	Try again later.

Status Code	Error Code	Error Message	Description	Solution
503	S3M.0160	System busy, failed to send the SMN notification. Please try again later.	System busy. Failed to send SMN notifications. Try again later.	Try again later or contact technical support.

7.3 Out-of-Date Error Codes

If an error occurs in API calling, no result is returned. Identify the cause of error based on the error codes of each API. If an error occurs in API calling, HTTP status code 4xx or 5xx is returned. The response body contains the specific error code and information. If you are unable to identify the cause of an error, contact customer service and provide the error code so that we can help you solve the problem as soon as possible.

Error Response Body Format

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

```
{
  "error_code": "OMS.0064",
  "error_msg": "Invalid request parameters."
}
```

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

Error Code

Table 7-2 Error codes of the request APIs

Error Code	Description
S3M.0001	Invalid parameter values.
S3M.0002	Invalid parameter format.
S3M.0004	Invalid HTTP request.
S3M.0005	The HTTP request method does not exist.
S3M.0014	The entered parameters are vulnerable to XSS attacks.
S3M.0051	Invalid value for parameter range.
S3M.0052	Invalid value for parameter state. Enter an integer from 0 to 5.

Error Code	Description
S3M.0053	Failed to query the tasks or you do not have the required permissions.
S3M.0054	Invalid task ID.
S3M.0055	The selected source files or folders are invalid.
S3M.0056	Unauthorized user ID.
S3M.0057	Invalid values for source parameters.
S3M.0058	Invalid values for destination parameters.
S3M.0059	Invalid value for the number of threads specified for migration. Enter an integer from 0 to 50.
S3M.0060	Migration to the current region is not supported.
S3M.0061	Invalid task parameter type.
S3M.0062	Failed to save the task.
S3M.0063	The task is in progress. You must suspend the task before deleting it.
S3M.0064	Invalid request parameters.
S3M.0065	The task already starts.
S3M.0066	Failed to pause the task. The task is not in progress.
S3M.0067	The parameter is not in JSON format.
S3M.0068	Authentication failed.
S3M.0069	Setting enableKMS to true is not allowed because the KMS service is not available now.
S3M.0070	The task is complete. You cannot start or stop it.
S3M.0072	You do not have the required permission.
S3M.0073	Failed to delete the task.
S3M.0074	The parameters must be the same as those in the <i>Object Storage Migration Service API Reference</i> .
S3M.0075	The number of migration tasks created during the past 24 hours has reached the maximum allowed. Try again later.
S3M.0076	The number of queued migration tasks has reached the maximum allowed. Try again later.
S3M.0077	The user has created too many tasks.
S3M.0078	The description cannot contain the following special characters: <>()'"&

Error Code	Description
S3M.0079	Unsupported source regions.
S3M.0080	Unsupported destination region.
S3M.0081	Failed to pass the custom domain name check. Ensure that the entered custom domain name is correct.
S3M.0082	Restoring archive data of this cloud service provider is not supported.
S3M.0083	The number of traffic limit rules exceeds the upper limit.
S3M.0084	The maximum bandwidth is out of the range.
S3M.0085	The time segments overlap.
S3M.0086	Failed to modify traffic limit parameters.
S3M.0087	The traffic limit parameter is invalid.
S3M.0088	The selected task type does not match the input parameter.
S3M.0151	Invalid parameters.
S3M.0152	Failed to query the OBS region.
S3M.0153	Failed to query the bucket information.
S3M.0154	Failed to connect to OBS.
S3M.0155	Failed to get the bucket region.
S3M.0156	Failed to send the notification using the SMN service due to SMN internal errors.
S3M.0157	Failed to send the notification using the SMN service because the SMN topic does not exist.
S3M.0158	Failed to send the notification using the SMN service because OMS has no permission to access the SMN topic.
S3M.0159	Failed to send the notification using the SMN service due to a failure in authenticating OMS using IAM.
S3M.0160	Failed to send the notification using the SMN service due to OMS internal errors.
S3M.0161	Failed to send the notification using the SMN service due to network exceptions.
S3M.0162	The request header length exceeds the upper limit.
S3M.0163	The request token length exceeds the upper limit.
S3M.0167	Failed to find the list of failed objects.
S3M.0168	Failed to send the SMN notification message because your SMN topic is not in the same region as the current service.

Error Code	Description
S3M.0169	The SMN message topic does not exist or you do not have the permission to use the current topic. Select another topic or obtain the permission required for the current topic and try again.
S3M.0256	The API version does not exist.
S3M.0307	Failed to add the information about the objects that failed to be migrated to OBS.
S3M.0308	Incomplete list of failed objects. Contact the OMS technical support for troubleshooting.

Table 7-3 Error codes of query tasks

Error Code	Description
TRF.0001	System error. Click the restart button to restart the migration task.
TRF.0002	The server is not responding. Click the restart button to restart the migration task.
TRF.0003	Waiting for task execution timed out. Click the restart button to restart the migration task.
TRF.0004	An error occurred on the server. Click the restart button to restart the migration task.
TRF.0005	An error occurred on the server. Click the restart button to restart the migration task.
TRF.0006	The migration is complete, but some files on the source and destination systems are inconsistent. Click the restart button to restart the migration task.
TRF.0007	The network is interrupted or the OBS service is unresponsive. Try again later.
TRF.0008	The migration task failed. Check whether the AK/SK is correct. Click the restart button to restart the migration task.
TRF.0009	Failed to query the source bucket. Check the network or AK/SK. Click the restart button to restart the migration task.
TRF.0010	Failed to query the destination bucket. Check the network or AK/SK. Click the restart button to restart the migration task.
TRF.0011	This task does not contain files or folders to be migrated. Create another migration task to migrate target files and folders.

Error Code	Description
TRF.0012	Failed to verify the task parameters. Ensure that the object exists in the selected migration method.
TRF.0013	The object list file does not exist or cannot be obtained. Please ensure the file exists, and the current AK/SK has read and write permissions of the file.
TRF.0014	The object list file is invalid. Please ensure it is a .txt file, and the size does not exceed 100 MB.
TRF.0018	Failed to verify the task parameters. Ensure that the length of each line in the object list file does not exceed 65535.
TRF.0019	Failed to verify the task parameters. Ensure that contentType in metadata is set to text/plain and contentEncoding is not set.
TRF.0051	The account corresponding to the entered AK/SK does not have the permissions to access the destination bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0052	The account corresponding to the entered AK/SK does not have the permissions to access the destination bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0053	The migration operation cannot be completed because your OBS account status is expired or frozen.
TRF.0054	The account corresponding to the entered AK/SK does not have the permissions to access the destination bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0055	The target OBS bucket does not have enough space. Ensure that the bucket has enough space and try again.
TRF.0056	Your OBS account is frozen. Unfreeze your account and try again.
TRF.0057	Invalid AK/SK. Enter a valid AK/SK and try again.
TRF.0058	The destination OBS bucket does not exist (do not modify permissions to access the destination bucket or object during the migration). Ensure that the destination bucket name is correct and try again.
TRF.0059	The destination object does not exist (do not modify permissions to access the destination bucket or object during the migration). Ensure that names of the destination bucket and objects are correct and try again.
TRF.0060	The path for storing the migrated objects is too long. Change the name of the object to be migrated or the path.

Error Code	Description
TRF.0061	An exception occurs in the destination object storage service. Try again later.
TRF.0062	Some objects cannot be migrated. Confirm that there are no other tasks to migrate those failed objects and try again later.
TRF.0063	Failed to restore archived data. Please manually restore archive data on the source platform and perform migration again.
TRF.0064	Failed to migrate the data because there is archived data that has not been restored. Please restore it and restart the task again.
TRF.0151	The source AK/SK is invalid. Enter a valid AK/SK and try again.
TRF.0152	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0153	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0154	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0155	The source bucket does not exist (do not modify permissions to access the source bucket or the source objects during the migration). Ensure that the source bucket name is correct and try again.
TRF.0156	The source object does not exist (do not modify permissions to access the source bucket or the source objects during the migration). Ensure that names of the source bucket and object are correct and try again.
TRF.0157	An exception occurs in the source object storage service. Try again later.
TRF.0158	The migration task is completed, but the object data in the destination bucket is unencrypted. Check whether the destination region supports KMS encryption.
TRF.0159	Failed to migrate the source objects because the access frequency of the source object storage has reached the upper limit. For details about how to solve the problem, see What Can I Do If the Migration Fails Because the Frequency of Accessing the Source Object Storage Exceeded the Upper Limit?

Error Code	Description
TRF.0160	Failed to read the archived data. Please restore the data before the migration.
TRF.0301	The selected object list file is archived data and cannot be obtained. Please restore the data before the migration.

7.4 Obtaining a Project ID and Task ID

Scenarios

A project ID or task ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID or a task ID in advance. You can obtain the information in the following ways:

- [Obtaining a Project ID by Calling an API](#)
- [Obtaining a Project ID from the Console](#)
- [Obtaining a Task ID from the Console](#)

Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API used to [query projects based on specified criteria](#).

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.

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "project_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"
  }
}
```

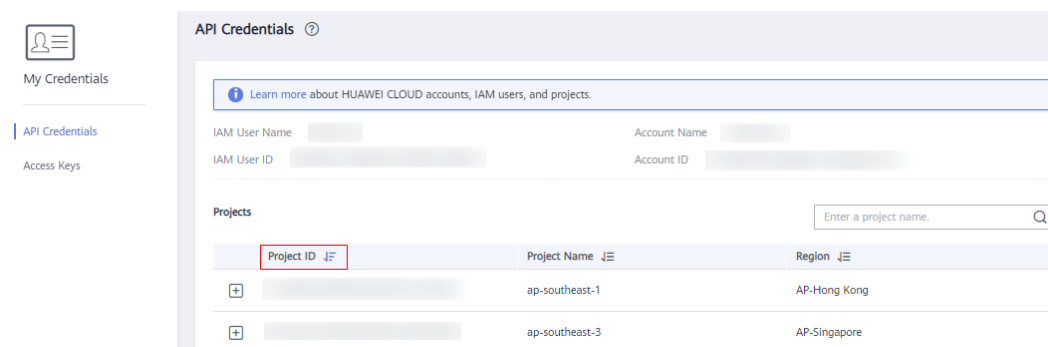

Obtaining a Project ID from the Console

To obtain a project ID from the console, perform the following operations:

1. Log in to the management console.
2. Click the username and select **My Credentials** from the drop-down list.

On the **API Credentials** page, view the project ID in the project list.

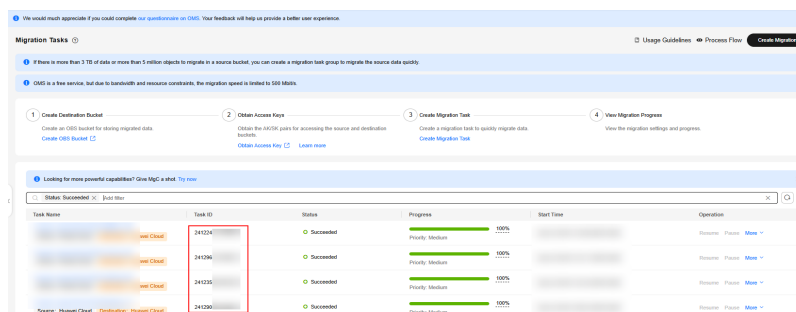
Figure 7-1 Viewing the project ID



Obtaining a Task ID from the Console

To obtain a task ID from the console, perform the following operations:

1. Sign in to the OMS console.
2. In the navigation pane, choose **Migration Tasks**. In the task list, view the task ID.



A Change History

Released On	Description
2023-11-15	This issue is the ninth official release. Added V2 APIs Operations on Buckets , Querying Supported Source Clouds , and Querying Supported Regions .
2023-04-14	This issue is the eighth official release, Updated Creating a Migration Task Group .
2022-09-16	This issue is the seventh official release. Added Migration Task Group Management .
2022-07-28	This issue is the sixth official release. Updated Endpoints .
2022-06-23	This issue is the fifth official release. Updated Creating a Synchronization Event .
2021-05-28	This issue is the fourth official release. - Added APIs V2 (Recommended). - Added Error Codes.
2021-03-01	This issue is the third official release. Optimized Out-of-Date Error Codes .

Released On	Description
2019-08-31	This issue is the second official release. • Added the bandwidth_policy parameter to the request parameters in Creating a Migration Task. • Added section Modifying a Traffic Limiting Rule. • Added the bandwidth_policy parameter to the response parameters in Querying All Migration Tasks of a Tenant. • Added the bandwidth_policy parameter to the response parameters in Querying Migration Tasks by Task IDs. • Added error codes S3M.0083 to S3M.0087 to Out-of-Date Error Codes.
2019-07-25	This issue is the first official release.