

# Object Storage Migration Service

## API Reference

**Issue** 10  
**Date** 2024-02-22



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# 1 Before You Start

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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

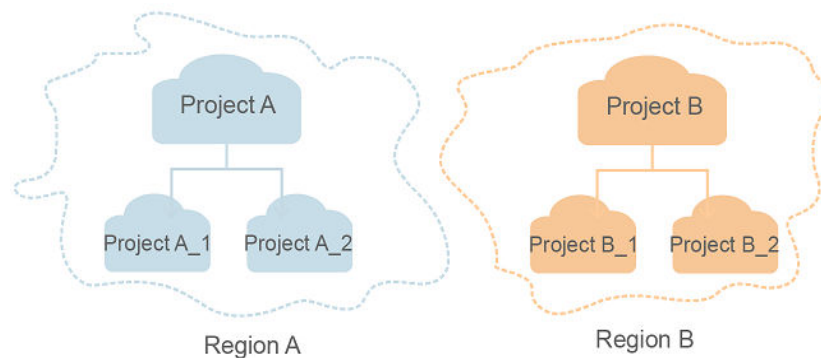
- Account  
An account is created upon successful registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine 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

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



# 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.

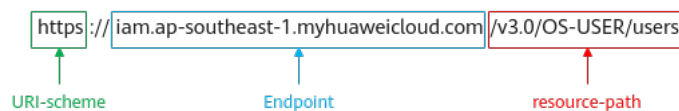
**Table 3-1** URI parameter description

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 <a href="#">Regions and Endpoints</a> . For example, the endpoint of IAM in region <b>CN-Hong Kong</b> is <b>iam.ap-southeast-1.myhuaweicloud.com</b> .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the <b>resource-path</b> of the API used by the <b>administrator to create an IAM user</b> is <b>/v3.0/OS-USER/u</b> .
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, <b>?limit=10</b> 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 <b>application/json</b> . 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 <a href="#">AK/SK-based Authentication</a> .
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 <a href="#">AK/SK-based Authentication</a> .
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 <a href="#">obtain a user token</a> . 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 <b>X-Project-ID</b> 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 <b>X-Domain-ID</b> 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": "xxxxxxxxx"
    }
  }
}
```

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 of the source platform account.
- You have obtained AK/SK of the destination platform account. For details about how to obtain AKs and SKs, 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:**MIIDkgYJKoZIhvcNAQcCoIIDgzCCA38CAQExDTALBglghkgBZQMEAgEwgXXXXX...

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

- API  
URI format: POST /v1/{project\_id}/objectstorage/task

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

- Example request

```
POST: https://oms.cn-north-1.myhuaweicloud.com/v1/0215ef11e49d4743be23dd97a1561e91/objectstorage/task
```

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

Header:

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

Body:

```
{  
  "src_node": {  
    "region": "cn-beijing",  
    "ak": "source_ak",  
    "sk": "source_sk",  
    "object_key": {  
      "path": "",  
      "keys": []  
    },  
    "bucket": "source_bucket",  
    "cloud_type": "{cloud_type}"  
  },  
  "thread_num": 50,  
  "enableKMS": false,  
  "description": "A migration task.",  
  "dst_node": {  
    "region": "cn-north-1",  
    "ak": "destination_ak",  
    "sk": "destination_sk",  
    "object_key": "/",  
    "bucket": "destination_bucket",  
    "cloud_type": "OBS"  
  },  
  "task_type": "object",  
  "enable_failed_object_recording": false  
}
```

- 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 /v1/{project_id}/objectstorage/task/{task_id}
```

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

- Example request

```
GET: https://oms.cn-north-1.myhuaweicloud.com/v1/0215ef11e49d4743be23dd97a1561e91/objectstorage/task/{task_id}
```

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

Header:

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

- Example response

```
{  
  "id": 180894011968184,  
  "name": "task_name",  
  "src_node": {  
    "region": "cn-beijing",
```

```
"bucket": "source_bucket",
"object_key": ["/"],
"list_file": "",
"cloud_type": "{cloud_type}"
},
"dst_node": {
  "region": "cn-north-1",
  "bucket": "destination_bucket",
  "object_key": "/",
  "cloud_type": "OBS"
},
"thread_num": 50,
"is_query_over": true,
"status": 5,
"progress": 1,
"total_num": 1001,
"success_num": 1001,
"fail_num": 0,
"skip_num": 0,
"description": "A migration task.",
"enableKMS": false,
"error_reason": "",
"total_size": 10240000,
"real_size": 10240000,
"complete_size": 10240000,
"migrate_speed": 577552,
"start_time": 1534762935868,
"left_time": 0,
"total_time": 17730,
"migrate_since": 0,
"task_type": "object",
"failed_object_record": {
  "result": false,
  "list_file_key": "",
  "reson": "S3M.0301"
}
}
```

**status** indicates the task execution status. The value **5** indicates that the task is successfully executed.

----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 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 5-2** Response body parameter

Parameter	Type	Description
versions	Array of <a href="#">Version</a> objects	The version list. Array length: 0 to 1,024

**Table 5-3** Version

Parameter	Type	Description
id	String	The API version, for example, <b>v1</b> .
links	Array of <a href="#">Link</a> objects	The link address. Array length: 0 to 100
status	String	The version status. <b>CURRENT</b> : indicates a widely used version. <b>SUPPORTED</b> : indicates an earlier version which is still supported. <b>DEPRECATED</b> : indicates a deprecated version which may be deleted later. The value can be: <ul style="list-style-type: none"> <li>● <b>CURRENT</b></li> <li>● <b>DEPRECATED</b></li> <li>● <b>SUPPORTED</b></li> </ul>
updated	String	The time when the version is updated. The format is yyyy-mm-ddThh:mm:ssZ. <b>T</b> is the separator between the calendar and the hourly notation of time. <b>Z</b> 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	Its value is <b>self</b> , indicating that <b>href</b> 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 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.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")

    credentials = BasicCredentials(ak, sk)

    client = OmsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(OmsRegion.valueOf("<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 more SDK sample code of 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 parameters

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

### Request

**Table 5-7** 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 5-8** Response body parameters

Parameter	Type	Description
id	String	The API version, for example, <b>v1</b> .
links	Array of <a href="#">Link</a> objects	The link address. Array length: 0 to 100

Parameter	Type	Description
status	String	The version status. <b>CURRENT</b> : indicates a widely used version. <b>SUPPORTED</b> : indicates an earlier version which is still supported. <b>DEPRECATED</b> : indicates a deprecated version which may be deleted later. The value can be: <ul style="list-style-type: none"> <li>● <b>CURRENT</b></li> <li>● <b>DEPRECATED</b></li> <li>● <b>SUPPORTED</b></li> </ul>
updated	String	The time when the version is updated. The format is yyyy-mm-ddThh:mm:ssZ. <b>T</b> is the separator between the calendar and the hourly notation of time. <b>Z</b> indicates the UTC. Minimum length: 0 characters Maximum length: 32 characters

**Table 5-9** Link field description

Parameter	Type	Description
href	String	The link address.
rel	String	Its value is <b>self</b> , indicating that <b>href</b> 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 is 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();
        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()  
        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{}  
response, err := client.ShowApiInfo(request)  
if err == nil {  
    fmt.Printf("%+v\n", response)  
} else {  
    fmt.Println(err)  
}  
}
```

## More

For more SDK sample code of 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 is 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 displayed. Minimum value: <b>1</b> Maximum value: <b>100</b> Default value: <b>10</b>
offset	No	Integer	The start serial number of migration tasks. The value must be greater than or equal to 0. If <b>offset</b> is set to 0, the query starts from the first record. Minimum value: <b>0</b> Maximum value: <b>2147483647</b> Default value: <b>0</b>
status	No	Integer	The migration task status. If this parameter is not specified, migration tasks in all statuses will be queried. The value can be <b>1</b> (Waiting), <b>2</b> (Migrating), <b>3</b> (Paused), <b>4</b> (Failed), <b>5</b> (Succeeded), or <b>7</b> (Paused). Minimum value: <b>1</b> Maximum value: <b>7</b>

## Request

**Table 5-13** 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 5-14** Response body parameters

Parameter	Type	Description
tasks	Array of <a href="#">TaskResp</a> objects	The details of queried migration tasks. Array length: 0 to 100
count	Long	The total number of the migration tasks that meet the search criteria. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

**Table 5-15** [TaskResp](#) field description

Parameter	Type	Description
bandwidth_policy	Array of <a href="#">BandwidthPolicyDto</a> 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 migrated in the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
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

Parameter	Type	Description
dst_node	<a href="#">DstNodeResp</a> object	The destination node information.
enable_failed_object_recording	Boolean	Indicates whether to record the objects that failed to be migrated. 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 to use KMS 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 <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration.
enable_restore	Boolean	Indicates whether to restore archive data in the source bucket. It takes a long time to restore archive data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archive objects before the migration. After this function is enabled, archive objects will be automatically restored and then migrated. By default, this function is disabled, archive objects will be ignored during the migration, and the information about these objects will be recorded in the list of failed objects.
error_reason	<a href="#">ErrorReasonResp</a> object	The task failure cause. The value is an empty string if the task is not in the <b>Migration failed</b> state.
failed_num	Long	The number of objects that failed to be migrated. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
failed_object_record	<a href="#">FailedObjectRecordDto</a> object	The records of the objects that failed to be migrated. If the record is successful, the path for storing the list of failed objects is displayed. If the record 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



Parameter	Type	Description
id	Long	The task ID. Minimum value: <b>0</b> Maximum value: <b>9999999999999999</b>
is_query_over	Boolean	Indicates whether the source object statistics are scanned for the migration task.
left_time	Long	The remaining time (in milliseconds) of the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
migrate_since	Long	The specified migration time (timestamp, in milliseconds). Only source objects that are modified after the specified time will be migrated. Default value <b>0</b> indicates that no time is specified. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
migrate_speed	Long	The migration speed (byte/s). Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
name	String	The task name. Minimum length: 0 characters Maximum length: 10,240 characters
progress	Double	The task progress. For example, <b>0.522</b> represents the progress is 52.2%, and <b>1</b> represents the progress is 100%. Minimum value: <b>0</b> Maximum value: <b>1</b>
real_size	Long	The total size (in bytes) of the migrated objects. The size of ignored objects is not counted. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
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 exist in the destination bucket. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

Parameter	Type	Description
src_node	<a href="#">SrcNodeResp</a> object	The source node information.
start_time	Long	The start time (UNIX timestamp, in milliseconds) of the migration task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
status	Integer	The task status. <b>1</b> : Waiting, <b>2</b> : Migrating, <b>3</b> : Paused, <b>4</b> : Failed, <b>5</b> : Succeeded, <b>7</b> : Pausing Minimum value: <b>1</b> Maximum value: <b>7</b>
successful_num	Long	The number of successfully migrated objects. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
task_type	String	The task type. <b>list</b> indicates migrating objects using an object list. <b>object</b> indicates migrating selected files or folders. <b>prefix</b> indicates migrating objects with specified prefixes. <b>url_list</b> indicates migrating objects using a URL object list. Default value: <b>object</b> The value can be: <ul style="list-style-type: none"> <li>• <b>list</b></li> <li>• <b>object</b></li> <li>• <b>prefix</b></li> <li>• <b>url_list</b></li> </ul>
group_type	String	The task group type. <b>NORMAL_TASK</b> indicates a general migration task. <b>SYNC_TASK</b> indicates a migration task to which a synchronization task belongs. <b>GROUP_TASK</b> indicates a subtask in a migration task group. Default value: <b>NORMAL_TASK</b> The value can be: <ul style="list-style-type: none"> <li>• <b>NORMAL_TASK</b></li> <li>• <b>SYNC_TASK</b></li> <li>• <b>GROUP_TASK</b></li> </ul>
total_num	Long	The total number of the objects that have been migrated in the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

Parameter	Type	Description
total_size	Long	The size (in bytes) of the objects that have been migrated in the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
total_time	Long	The total time used (in milliseconds). Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
smn_info	<b>SmnInfo</b> object	The SMN notification results.
source_cdn	<b>SourceCdnResp</b> 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 list is recorded successfully, 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 list is recorded successfully, this parameter is left blank. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Type	Description
object_overwrite_mode	String	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects.</p> <p><b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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.</p> <p><b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked.</p> <p><b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>NO_OVERWRITE</b></li> <li>● <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>● <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>● <b>FULL_OVERWRITE</b></li> </ul>

Parameter	Type	Description
dst_storage_policy	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>STANDARD</b></li> <li>● <b>IA</b></li> <li>● <b>ARCHIVE</b></li> <li>● <b>DEEP_ARCHIVE</b></li> <li>● <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Type	Description
consistency_check	String	<p>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 <b>size_last_modified</b>. <b>size_last_modified</b>: It 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. <b>crc64</b>: This option is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked. <b>no_check</b>: This option is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>size_last_modified</b></li> <li>● <b>crc64</b></li> <li>● <b>no_check</b></li> </ul>
enable_requester_pays	Boolean	<p>Indicates whether to let the requester make payment. After this function is enabled, the requester pays for the request and data transmission.</p>
task_priority	String	<p>The task priority. Default value: <b>MEDIUM</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>HIGH</b></li> <li>● <b>MEDIUM</b></li> <li>● <b>LOW</b></li> </ul>

**Table 5-16 BandwidthPolicyDto** field description

Parameter	Type	Description
end	String	The end time of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	String	The start time of 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
save_prefix	String	The path prefix 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

Parameter	Type	Description
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 to retransmit failed objects.
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



Parameter	Type	Description
cloud_type	String	<p>The source cloud service provider. The value can be <b>AWS</b>, <b>Azure</b>, <b>Aliyun</b>, <b>Tencent</b>, <b>HuaweiCloud</b>, <b>QingCloud</b>, <b>KingsoftCloud</b>, <b>Baidu</b>, <b>Google</b>, <b>Qiniu</b>, <b>URLSource</b>, or <b>UCloud</b>. The default value is <b>Aliyun</b>.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>AWS</b></li> <li>• <b>Azure</b></li> <li>• <b>Aliyun</b></li> <li>• <b>Tencent</b></li> <li>• <b>HuaweiCloud</b></li> <li>• <b>QingCloud</b></li> <li>• <b>KingsoftCloud</b></li> <li>• <b>Baidu</b></li> <li>• <b>Qiniu</b></li> <li>• <b>URLSource</b></li> <li>• <b>UCloud</b></li> <li>• <b>Google</b></li> </ul>
region	String	<p>The region where the source bucket is located.</p> <p>Minimum length: 0 characters Maximum length: 100 characters</p>
app_id	String	<p>This parameter is returned when <b>cloud_type</b> is <b>Tencent</b>.</p> <p>Minimum length: 0 characters Maximum length: 255 characters</p>
object_key	Array of strings	<p>If the <b>task_type</b> is <b>object</b>, this parameter indicates the names of the objects to be migrated. If the <b>task_type</b> is <b>prefix</b>, this parameter indicates the name prefixes of the objects to be migrated.</p> <p>Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500</p>
list_file	<b>ListFile</b> object	<p>The list file configuration. <b>list_file</b> is mandatory when <b>task_type</b> is set to <b>list</b> or <b>url_list</b>.</p>

**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 the OBS bucket is in the same region as the destination bucket, or the task will fail to be created. 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 the SMN messages are sent successfully after migration tasks are complete.
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if migration tasks are 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 from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
protocol	String	The protocol type. The value can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
authentication_type	String	The authentication type. The value can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• Qiniu_PRIVATE_AUTHENTICATION</li> <li>• ALIYUN_OSS_A</li> <li>• ALIYUN_OSS_B</li> <li>• ALIYUN_OSS_C</li> <li>• KSYUN_PRIVATE_AUTHENTICATION</li> <li>• AZURE_SAS_TOKEN</li> <li>• TENCENT_COS_A</li> <li>• TENCENT_COS_B</li> <li>• TENCENT_COS_C</li> <li>• TENCENT_COS_D</li> </ul>

**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 under 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");

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ListTasksRequest request = new ListTasksRequest();
        request.withGroupId("<group_id>");
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withStatus(<status>);
        try {
            ListTasksResponse response = client.listTasks(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 = ListTasksRequest()
    request.group_id = "<group_id>"
    request.limit = <limit>
    request.offset = <offset>
    request.status = <status>
    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")

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

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

    request := &model.ListTasksRequest{}
    groupIDRequest := "<group_id>"
    request.GroupID = &groupIDRequest
    limitRequest := int32(<limit>)
    request.Limit = &limitRequest
    offsetRequest := int32(<offset>)
    request.Offset = &offsetRequest
    statusRequest := int32(<status>)
    request.Status = &statusRequest
    response, err := client.ListTasks(request)
    if err == nil {
```

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

## More

For more SDK sample code of 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 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 5-27** Response body parameters

Parameter	Type	Description
bandwidth_policy	Array of <a href="#">BandwidthPolicyDto</a> 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 migrated in the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
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	<a href="#">DstNodeResp</a> object	The destination node information.
enable_failed_object_recording	Boolean	Indicates whether to record the objects that failed to be migrated. 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 to use KMS to encrypt the data to be stored in the destination OBS bucket.



Parameter	Type	Description
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration.
enable_restore	Boolean	Indicates whether to restore archive data in the source bucket. It takes a long time to restore archive data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archive objects before the migration. After this function is enabled, archive objects will be automatically restored and then migrated. By default, this function is disabled, archive objects will be ignored during the migration, and the information about these objects will be recorded in the list of failed objects.
error_reason	<a href="#">ErrorReasonResp</a> object	The task failure cause. The value is an empty string if the task is not in the <b>Migration failed</b> state.
failed_num	Long	The number of objects that failed to be migrated. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
failed_object_record	<a href="#">FailedObjectRecordDto</a> object	The records of the objects that failed to be migrated. If the record is successful, the path for storing the list of failed objects is displayed. If the record 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: <b>0</b> Maximum value: <b>9999999999999999</b>
is_query_over	Boolean	Indicates whether the source object statistics are scanned for the migration task.

Parameter	Type	Description
left_time	Long	The remaining time (in milliseconds) of the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
migrate_since	Long	The specified migration time (timestamp, in milliseconds). Only source objects that are modified after the specified time will be migrated. Default value <b>0</b> indicates that no time is specified. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
migrate_speed	Long	The migration speed (byte/s). Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
name	String	The task name. Minimum length: 0 characters Maximum length: 10,240 characters
progress	Double	The task progress. For example, <b>0.522</b> represents the progress is 52.2%, and <b>1</b> represents the progress is 100%. Minimum value: <b>0</b> Maximum value: <b>1</b>
real_size	Long	The total size (in bytes) of the migrated objects. The size of ignored objects is not counted. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
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 exist in the destination bucket. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
src_node	<a href="#">SrcNodeResp</a> object	The source node information.
start_time	Long	The start time (UNIX timestamp, in milliseconds) of the migration task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

Parameter	Type	Description
status	Integer	The task status. <b>1</b> : Waiting, <b>2</b> : Migrating, <b>3</b> : Paused, <b>4</b> : Failed, <b>5</b> : Succeeded, <b>7</b> : Pausing Minimum value: <b>1</b> Maximum value: <b>7</b>
successful_num	Long	The number of successfully migrated objects. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
task_type	String	The task type. <b>list</b> indicates migrating objects using an object list. <b>object</b> indicates migrating selected files or folders. <b>prefix</b> indicates migrating objects with specified prefixes. <b>url_list</b> indicates migrating objects using a URL object list. Default value: <b>object</b> The value can be: <ul style="list-style-type: none"> <li>• <b>list</b></li> <li>• <b>object</b></li> <li>• <b>prefix</b></li> <li>• <b>url_list</b></li> </ul>
group_type	String	The task group type. <b>NORMAL_TASK</b> indicates a general migration task. <b>SYNC_TASK</b> indicates a migration task to which a synchronization task belongs. <b>GROUP_TASK</b> indicates a subtask in a migration task group. Default value: <b>NORMAL_TASK</b> The value can be: <ul style="list-style-type: none"> <li>• <b>NORMAL_TASK</b></li> <li>• <b>SYNC_TASK</b></li> <li>• <b>GROUP_TASK</b></li> </ul>
total_num	Long	The total number of the objects that have been migrated in the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
total_size	Long	The size (in bytes) of the objects that have been migrated in the task. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
total_time	Long	The total time used (in milliseconds). Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

Parameter	Type	Description
smn_info	<b>SmnInfo</b> object	The SMN notification results.
source_cdn	<b>SourceCdnResp</b> 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 list is recorded successfully, 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 list is recorded successfully, this parameter is left blank. Minimum length: 0 characters Maximum length: 255 characters

Parameter	Type	Description
object_overwrite_mode	String	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects.</p> <p><b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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.</p> <p><b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked.</p> <p><b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>NO_OVERWRITE</b></li> <li>● <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>● <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>● <b>FULL_OVERWRITE</b></li> </ul>

Parameter	Type	Description
dst_storage_policy	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>STANDARD</b></li> <li>● <b>IA</b></li> <li>● <b>ARCHIVE</b></li> <li>● <b>DEEP_ARCHIVE</b></li> <li>● <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Type	Description
consistency_check	String	<p>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 <b>size_last_modified</b>. <b>size_last_modified</b>: It 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. <b>crc64</b>: This option is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked. <b>no_check</b>: This option is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>size_last_modified</b></li> <li>● <b>crc64</b></li> <li>● <b>no_check</b></li> </ul>
enable_requester_pays	Boolean	<p>Indicates whether to let the requester make payment. After this function is enabled, the requester pays for the request and data transmission.</p>
task_priority	String	<p>The task priority. Default value: <b>MEDIUM</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>HIGH</b></li> <li>● <b>MEDIUM</b></li> <li>● <b>LOW</b></li> </ul>

**Table 5-28 BandwidthPolicyDto** field description

Parameter	Type	Description
end	String	The end time of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	String	The start time of 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
save_prefix	String	The path prefix 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



Parameter	Type	Description
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 to retransmit failed objects.
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

Parameter	Type	Description
cloud_type	String	The source cloud service provider. The value can be <b>AWS</b> , <b>Azure</b> , <b>Aliyun</b> , <b>Tencent</b> , <b>HuaweiCloud</b> , <b>QingCloud</b> , <b>KingsoftCloud</b> , <b>Baidu</b> , <b>Google</b> , <b>Qiniu</b> , <b>URLSource</b> , or <b>UCloud</b> . The default value is <b>Aliyun</b> . The value can be: <ul style="list-style-type: none"><li>• <b>AWS</b></li><li>• <b>Azure</b></li><li>• <b>Aliyun</b></li><li>• <b>Tencent</b></li><li>• <b>HuaweiCloud</b></li><li>• <b>QingCloud</b></li><li>• <b>KingsoftCloud</b></li><li>• <b>Baidu</b></li><li>• <b>Qiniu</b></li><li>• <b>URLSource</b></li><li>• <b>UCloud</b></li><li>• <b>Google</b></li></ul>
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 <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters
object_key	Array of strings	If the <b>task_type</b> is <b>object</b> , this parameter indicates the names of the objects to be migrated. If the <b>task_type</b> is <b>prefix</b> , this parameter indicates the name prefixes of the objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500
list_file	<b>ListFile</b> object	The list file configuration. <b>list_file</b> is mandatory when <b>task_type</b> is set to <b>list</b> or <b>url_list</b> .

**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 the OBS bucket is in the same region as the destination bucket, or the task will fail to be created. 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 the SMN messages are sent successfully after migration tasks are complete.
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if migration tasks are 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 from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Type	Description
protocol	String	The protocol type. The value can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
authentication_type	String	The authentication type. The value can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• Qiniu_PRIVATE_AUTHENTICATION</li> <li>• ALIYUN_OSS_A</li> <li>• ALIYUN_OSS_B</li> <li>• ALIYUN_OSS_C</li> <li>• KSYUN_PRIVATE_AUTHENTICATION</li> <li>• AZURE_SAS_TOKEN</li> <li>• TENCENT_COS_A</li> <li>• TENCENT_COS_B</li> <li>• TENCENT_COS_C</li> <li>• TENCENT_COS_D</li> </ul>

**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"
}
}
```

## 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 the **Waiting to migrate** 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 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 5-39** Request body parameters

Parameter	Mandatory	Type	Description
task_type	No	String	The task type. <b>list</b> indicates migrating objects using an object list. <b>url_list</b> indicates migrating objects using a URL object list. <b>object</b> indicates migrating selected files or folders. <b>prefix</b> indicates migrating objects with specified prefixes. Default value: <b>object</b> The value can be: <ul style="list-style-type: none"> <li>• <b>list</b></li> <li>• <b>url_list</b></li> <li>• <b>object</b></li> <li>• <b>prefix</b></li> </ul>
src_node	Yes	<a href="#">SrcNodeReq</a> object	The source information.
dst_node	Yes	<a href="#">DstNodeReq</a> object	The destination information.
enable_kms	No	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default. Default value: <b>false</b>

Parameter	Mandatory	Type	Description
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
migrate_since	No	Long	A timestamp in second. The system migrates only the objects that are modified after the specified time. No time is specified by default. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b> Default value: <b>0</b>
bandwidth_policy	No	Array of <b>BandwidthPolicyDto</b> 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	<b>SourceCdnReq</b> object	Indicates whether migration from CDN is enabled. If this field is contained, 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	<b>SmnConfig</b> object	The SMN message sending configuration.
enable_metadata_migration	No	Boolean	Indicates whether metadata migration is enabled. The default value is <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration. Default value: <b>false</b>



Parameter	Mandatory	Type	Description
enable_restore	No	Boolean	Indicates whether archive data restoration is enabled. If this function is enabled, archive data is automatically restored and migrated. Default value: <b>false</b>
enable_failed_object_recording	No	Boolean	Indicates whether to record failed objects. 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: <b>true</b>

Parameter	Mandatory	Type	Description
object_overwrite_mode	No	String	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects. <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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. <b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked. <b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects</p>

Parameter	Mandatory	Type	Description
			<p>to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>NO_OVERWRITE</b></li> <li>• <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>• <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>• <b>FULL_OVERWRITE</b></li> </ul>
dst_storage_policy	No	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>STANDARD</b></li> <li>• <b>IA</b></li> <li>• <b>ARCHIVE</b></li> <li>• <b>DEEP_ARCHIVE</b></li> <li>• <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Mandatory	Type	Description
consistency_check	No	String	<p>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 <b>size_last_modified</b>.</p> <p><b>size_last_modified</b>: It 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.</p> <p><b>crc64</b>: This option is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked.</p> <p><b>no_check</b>: This option is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>Default value: <b>size_last_modified</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>size_last_modified</b></li> </ul>

Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• <b>crc64</b></li> <li>• <b>no_check</b></li> </ul>
enable_requester_pays	No	Boolean	Indicates whether to let the requester make payment. After this function is enabled, the requester pays for the request and data transmission. Default value: <b>false</b>
task_priority	No	String	The task priority. Default value: <b>MEDIUM</b> The value can be: <ul style="list-style-type: none"> <li>• <b>HIGH</b></li> <li>• <b>MEDIUM</b></li> <li>• <b>LOW</b></li> </ul>

**Table 5-40** SrcNodeReq

Parameter	Mandatory	Type	Description
cloud_type	No	String	The source cloud service provider. If <b>task_type</b> is not <b>url_list</b> , this parameter is mandatory and must be <b>URLSource</b> . The value can be <b>AWS, Azure, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu, Google, URLSource</b> , or <b>UCloud</b> . The default value is <b>Aliyun</b> . Default value: <b>Aliyun</b>
region	No	String	The region where the source bucket is located. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . 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 <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . 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 <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters
bucket	No	String	The name of the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
object_key	No	Array of strings	If <b>task-type</b> is set to <b>object</b> , this parameter specifies 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. The name prefixes of objects to be migrated if <b>task_type</b> is set to <b>prefix</b> . 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. <b>list_file</b> is mandatory when <b>task_type</b> is set to <b>list</b> or <b>url_list</b> .

**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 the OBS bucket is in the same region as the destination bucket, or the task will fail to be created. 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 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 of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	Yes	String	The start time of 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	<p>The CDN authentication key. If the CDN authentication is required, this parameter is mandatory.</p> <p>If no authorization is required, do not set this parameter.</p> <p>Qiniu: You do not need to set this parameter. Aliyun: Set this parameter based on the value of <b>authentication_type</b>. KingsoftCloud: You do not need to set this parameter.</p> <p>Minimum length: 0 characters Maximum length: 255 characters</p>
authentication_type	Yes	String	<p>The authentication type.</p> <p>Default value: <b>NONE</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>QINIU_PRIVATE_AUTHENTICATION</b></li> <li>• <b>ALIYUN_OSS_A</b></li> <li>• <b>ALIYUN_OSS_B</b></li> <li>• <b>ALIYUN_OSS_C</b></li> <li>• <b>KSYUN_PRIVATE_AUTHENTICATION</b></li> <li>• <b>AZURE_SAS_TOKEN</b></li> <li>• <b>TENCENT_COS_A</b></li> <li>• <b>TENCENT_COS_B</b></li> <li>• <b>TENCENT_COS_C</b></li> <li>• <b>TENCENT_COS_D</b></li> </ul>
domain	Yes	String	<p>The domain name from which to obtain objects to be migrated.</p> <p>Minimum length: 0 characters Maximum length: 1,024 characters</p>

Parameter	Mandatory	Type	Description
protocol	Yes	String	The protocol type. The value can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>

**Table 5-45 SmnConfig** field description

Parameter	Mandatory	Type	Description
language	No	String	The management console language chosen by you. The value can be <b>zh-cn</b> or <b>en-us</b> . Default value: <b>en-us</b> The value can be: <ul style="list-style-type: none"> <li>• <b>zh-cn</b></li> <li>• <b>en-us</b></li> </ul>
topic_urn	Yes	String	The SMN message topic URN bound to a 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 message varies depending on the status of the migration task. The migration task state can be <b>SUCCESS</b> or <b>FAILURE</b> . <ul style="list-style-type: none"> <li>• <b>FAILURE</b>: indicates that an SMN message will be sent after the migration task fails.</li> <li>• <b>SUCCESS</b>: indicates that an SMN message will be sent after the migration task succeeds.</li> </ul> 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: <b>0</b> Maximum value: <b>9999999999999999</b>
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 HTTPS data from Alibaba Cloud CDN, uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates objects in **object\_list\_file.txt**, and enables migration result notification.

```
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 HTTPS data from Alibaba Cloud CDN, 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 notification.

```
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 migration task to migrate 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 HTTPS data from Alibaba Cloud CDN, uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates objects in **object\_list\_file.txt**, and enables migration result notification.

```
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");

        ICredential auth = new BasicCredentials()
            .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 HTTPS data from Alibaba Cloud CDN, 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 notification.

```
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");

        ICredential auth = new BasicCredentials()
            .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 migration task to migrate 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");

        ICredential auth = new BasicCredentials()
            .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");

        ICredential auth = new BasicCredentials()
            .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 HTTPS data from Alibaba Cloud CDN, uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates objects in **object\_list\_file.txt**, and enables migration result notification.

```
# 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"]

    credentials = BasicCredentials(ak, sk)

    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 HTTPS data from Alibaba Cloud CDN, 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 notification.

```
# 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"]

    credentials = BasicCredentials(ak, sk)

    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 migration task to migrate objects listed in the **object\_list\_file.txt** file.

```
# 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 = 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"]  
  
    credentials = BasicCredentials(ak, sk)  
  
    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 HTTPS data from Alibaba Cloud CDN, uses the type A authentication mode, enables time period-based rate limiting, sets the rate limit to 50 MB/s, migrates objects in **object\_list\_file.txt**, and enables migration result notification.

```
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.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 HTTPS data from Alibaba Cloud CDN, 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 notification.

```
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.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 migration task to migrate 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")

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

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        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 more SDK sample code of 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 stop 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: 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");

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

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

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

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

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

## More

For more SDK sample code of 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
task_id	Yes	String	The migration task ID. Minimum length: 1 character Maximum length: 1,024 characters

## Request

**Table 5-53** 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 5-54** 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

Parameter	Mandatory	Type	Description
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
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

Parameter	Mandatory	Type	Description
migrate_failed_object	No	Boolean	Indicates whether to migrate all objects in the migration task. The default value is <b>false</b> (full migration). If the value is <b>true</b> , only failed objects will be migrated again. If the value is blank or <b>false</b> , all objects in the migration task will be migrated again. Default value: <b>false</b>

## Response

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 suspended non-URL list migration task 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 suspended URL list migration task 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

## 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 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: 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");

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

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

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

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

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

## More

For more SDK sample code of 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 <a href="#">BandwidthPolicyDto</a> 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 of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	Yes	String	The start time of the traffic limiting rule. The format is hh:mm, for example, 12:03.

## Response

**Status code: 400**

**Table 5-64** Response body parameters

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

## Example Request

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

```
/v2/{project_id}/tasks/xxxxxxxx/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 for the task whose ID is **xxxxxxxx** during the time period from 00:01 to 23:59 to 50 MB/s.

```
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");

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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateBandwidthPolicyRequest request = new UpdateBandwidthPolicyRequest();
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.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

## Python

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

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudskdkoms.v2.region.oms_region import OmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudskdkoms.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.valueOf("<YOUR REGION>")) \
```

```
.build()

try:
    request = UpdateBandwidthPolicyRequest()
    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 for the task whose ID is **xxxxxxxx** during the time period from 00:01 to 23:59 to 50 MB/s.

```
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.UpdateBandwidthPolicyRequest{}
    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 more SDK sample code of 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 <b>group_id</b> or <b>ids</b> 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 <b>group_id</b> or <b>ids</b> must be specified. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b> Array length: 0 to 20
bandwidth_policy	Yes	Array of <b>BandwidthPolicyDto</b> 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	<p>The task priority. There are three priority levels: high, medium, and low. This parameter takes effects only for tasks in waiting, paused, and failed statuses.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>HIGH</b></li> <li>• <b>MEDIUM</b></li> <li>• <b>LOW</b></li> </ul>

**Table 5-68** BandwidthPolicyDto field description

Parameter	Mandatory	Type	Description
end	Yes	String	The end time of the traffic limiting rule. The format is hh:mm, for example, 12:03.
max_bandwidth	Yes	Long	<p>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).</p> <p>Minimum value: <b>1048576</b></p> <p>Maximum value: <b>209715200</b></p>
start	Yes	String	The start time of the traffic limiting rule. The format is hh:mm, for example, 12:03.

## Response

**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

## 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 parameters

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 "API 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: 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

## 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 displayed. Minimum value: <b>1</b> Maximum value: <b>100</b> Default value: <b>10</b>
offset	No	Integer	The start serial number of synchronization tasks. The value must be greater than or equal to 0. If <b>offset</b> is set to 0, the query starts from the first record. Minimum value: <b>0</b> Maximum value: <b>10000</b> Default value: <b>0</b>

Parameter	Mandatory	Type	Description
status	No	String	The synchronization task status. If this parameter is not specified, tasks in all statuses are queried. <b>SYNCHRONIZING:</b> The task is being synchronized. <b>STOPPED:</b> The task was stopped. Minimum length: 0 characters Maximum length: 255 characters

## Request

**Table 5-78** 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 5-79** Response body parameters

Parameter	Type	Description
tasks	Array of <a href="#">SyncTaskInfo</a> objects	The details of queried synchronization tasks. Array length: 0 to 100
count	Long	The total number of the synchronization tasks that meet the query criteria. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

**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 <b>AWS, Azure, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu, or UCloud</b> . The default value is <b>Aliyun</b> . The value can be: <ul style="list-style-type: none"><li>• <b>AWS</b></li><li>• <b>Azure</b></li><li>• <b>Aliyun</b></li><li>• <b>Tencent</b></li><li>• <b>HuaweiCloud</b></li><li>• <b>QingCloud</b></li><li>• <b>KingsoftCloud</b></li><li>• <b>Baidu</b></li><li>• <b>Qiniu</b></li><li>• <b>UCloud</b></li></ul>
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: <b>0</b> Maximum value: <b>9223372036854775807</b>
last_start_time	Long	The last time (Unix timestamp, in milliseconds) when the synchronization task was started. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
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 status of the synchronization task. The value can be: <ul style="list-style-type: none"><li>• <b>SYNCHRONIZING</b></li><li>• <b>STOPPED</b></li></ul>
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 <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration.
enable_restore	Boolean	Indicates whether archive data restoration is enabled. If this function is enabled, archive data is automatically restored and migrated.
app_id	String	This parameter is mandatory when <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters
source_cdn	<a href="#">SourceCdnResp</a> 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	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects.</p> <p><b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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.</p> <p><b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked.</p> <p><b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>NO_OVERWRITE</b></li> <li>● <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>● <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>● <b>FULL_OVERWRITE</b></li> </ul>

Parameter	Type	Description
dst_storage_policy	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>STANDARD</b></li> <li>● <b>IA</b></li> <li>● <b>ARCHIVE</b></li> <li>● <b>DEEP_ARCHIVE</b></li> <li>● <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Type	Description
consistency_check	String	<p>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 <b>size_last_modified</b>. <b>size_last_modified</b>: It 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. <b>crc64</b>: This option is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked. <b>no_check</b>: This option 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.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>size_last_modified</b></li> <li>• <b>crc64</b></li> <li>• <b>no_check</b></li> </ul>

**Table 5-81 SourceCdnResp field description**

Parameter	Type	Description
domain	String	<p>The domain name from which to obtain objects to be migrated.</p> <p>Minimum length: 0 characters Maximum length: 1,024 characters</p>
protocol	String	<p>The protocol type.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>http</b></li> <li>• <b>https</b></li> </ul>

Parameter	Type	Description
authentication_type	String	The authentication type. The value can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• Qiniu_PRIVATE_AUTHENTICATION</li> <li>• ALIYUN_OSS_A</li> <li>• ALIYUN_OSS_B</li> <li>• ALIYUN_OSS_C</li> <li>• KSYUN_PRIVATE_AUTHENTICATION</li> <li>• AZURE_SAS_TOKEN</li> <li>• TENCENT_COS_A</li> <li>• TENCENT_COS_B</li> <li>• TENCENT_COS_C</li> <li>• TENCENT_COS_D</li> </ul>

**Status code: 400**

**Table 5-82** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
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");

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ListSyncTasksRequest request = new ListSyncTasksRequest();
        request.withLimit(<limit>);
        request.withOffset(<offset>);
        request.withStatus("<status>");
        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.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"]  
  
    credentials = BasicCredentials(ak, sk)  
  
    client = OmsClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(OmsRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ListSyncTasksRequest()  
        request.limit = <limit>  
        request.offset = <offset>  
        request.status = "<status>"  
        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")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()
```

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

request := &model.ListSyncTasksRequest{}
limitRequest:= int32(<limit>)
request.Limit = &limitRequest
offsetRequest:= int32(<offset>)
request.Offset = &offsetRequest
statusRequest:= "<status>"
request.Status = &statusRequest
response, err := client.ListSyncTasks(request)
if err == nil {
    fmt.Printf("%v\n", response)
} else {
    fmt.Println(err)
}
```

## More

For more SDK sample code of 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 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 5-85** Request body parameters

Parameter	Mandatory	Type	Description
src_cloud_type	No	String	The source cloud service provider. The value can be <b>AWS, Azure, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu,</b> or <b>Cloud</b> . The default value is <b>Aliyun</b> . Default value: <b>Aliyun</b>
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

Parameter	Mandatory	Type	Description
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
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

Parameter	Mandatory	Type	Description
enable_metadata_migration	No	Boolean	Indicates whether metadata migration is enabled. The default value is <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration. Default value: <b>false</b>
enable_kms	No	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default. Default value: <b>false</b>
enable_restore	No	Boolean	Indicates whether archive data restoration is enabled. If this function is enabled, archive data is automatically restored and migrated. Default value: <b>false</b>
dst_storage_policy	No	String	The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules. Default value: <b>STANDARD</b> Minimum length: 0 characters Maximum length: 128 characters The value can be: <ul style="list-style-type: none"> <li>• <b>STANDARD</b></li> <li>• <b>IA</b></li> <li>• <b>ARCHIVE</b></li> <li>• <b>DEEP_ARCHIVE</b></li> <li>• <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Mandatory	Type	Description
app_id	No	String	This parameter is mandatory when <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters
source_cdn	No	<a href="#">SourceCdnReq</a> object	Indicates whether migration from CDN is enabled. If this field is contained, 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	<p>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 <b>size_last_modified</b>.</p> <p><b>size_last_modified</b>: It 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.</p> <p><b>crc64</b>: This option is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked.</p> <p><b>transmission</b>: This option is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>Default value: <b>size_last_modified</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>size_last_modified</b></li> </ul>

Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• <b>crc64</b></li> <li>• <b>transmission</b></li> </ul>

**Table 5-86 SourceCdnReq** field description

Parameter	Mandatory	Type	Description
authentication_key	No	String	<p>The CDN authentication key. If the CDN authentication is required, this parameter is mandatory.</p> <p>If no authorization is required, do not set this parameter.</p> <p>Qiniu: You do not need to set this parameter. Aliyun: Set this parameter based on the value of <b>authentication_type</b>. KingsoftCloud: You do not need to set this parameter.</p> <p>Minimum length: 0 characters Maximum length: 255 characters</p>
authentication_type	Yes	String	<p>The authentication type.</p> <p>Default value: <b>NONE</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>Qiniu_PRIVATE_AUTHENTICATION</b></li> <li>• <b>ALIYUN_OSS_A</b></li> <li>• <b>ALIYUN_OSS_B</b></li> <li>• <b>ALIYUN_OSS_C</b></li> <li>• <b>KSYUN_PRIVATE_AUTHENTICATION</b></li> <li>• <b>AZURE_SAS_TOKEN</b></li> <li>• <b>TENCENT_COS_A</b></li> <li>• <b>TENCENT_COS_B</b></li> <li>• <b>TENCENT_COS_C</b></li> <li>• <b>TENCENT_COS_D</b></li> </ul>

Parameter	Mandatory	Type	Description
domain	Yes	String	The domain name from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	Yes	String	The protocol type. The value can be: <ul style="list-style-type: none"> <li>• <b>http</b></li> <li>• <b>https</b></li> </ul>

## 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 China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud 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" : "xxxxxxxxxxxxxxxxxxxx"
}
```

## 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 China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud 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");

        ICredential auth = new BasicCredentials()
            .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 China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud 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"]

    credentials = BasicCredentials(ak, sk)

    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 China (Beijing) region to the **oms-sonar-north** bucket in the Huawei Cloud 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")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        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 more SDK sample code of 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 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 5-92** Response body parameters

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 <b>AWS, Azure, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu, or UCloud</b> . The default value is <b>Aliyun</b> . The value can be: <ul style="list-style-type: none"><li>• <b>AWS</b></li><li>• <b>Azure</b></li><li>• <b>Aliyun</b></li><li>• <b>Tencent</b></li><li>• <b>HuaweiCloud</b></li><li>• <b>QingCloud</b></li><li>• <b>KingsoftCloud</b></li><li>• <b>Baidu</b></li><li>• <b>Qiniu</b></li><li>• <b>UCloud</b></li></ul>
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: <b>0</b> Maximum value: <b>9223372036854775807</b>
last_start_time	Long	The last time (Unix timestamp, in milliseconds) when the synchronization task was started. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
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 status of the synchronization task. The value can be: <ul style="list-style-type: none"> <li>• <b>SYNCHRONIZING</b></li> <li>• <b>STOPPED</b></li> </ul>
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 <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration.
enable_restore	Boolean	Indicates whether archive data restoration is enabled. If this function is enabled, archive data is automatically restored and migrated.
app_id	String	This parameter is mandatory when <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters
monthly_acceptance_request	Long	The number of objects requested to be synchronized in the current month. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
monthly_success_object	Long	The number of objects that were successfully synchronized in the current month. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
monthly_failed_object	Long	The number of objects that failed to be synchronized in the current month. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

Parameter	Type	Description
monthly_skip_object	Long	The number of objects that were ignored in the current month. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
monthly_size	Long	The total size of synchronized objects in the current month, in bytes. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

Parameter	Type	Description
object_overwrite_mode	String	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects.</p> <p><b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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.</p> <p><b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked.</p> <p><b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>NO_OVERWRITE</b></li> <li>● <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>● <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>● <b>FULL_OVERWRITE</b></li> </ul>



Parameter	Type	Description
dst_storage_policy	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>STANDARD</b></li> <li>● <b>IA</b></li> <li>● <b>ARCHIVE</b></li> <li>● <b>DEEP_ARCHIVE</b></li> <li>● <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Type	Description
consistency_check	String	<p>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 <b>size_last_modified</b>. <b>size_last_modified</b>: It 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. <b>crc64</b>: This option is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked. <b>no_check</b>: This option is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>size_last_modified</b></li> <li>• <b>crc64</b></li> <li>• <b>no_check</b></li> </ul>

**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");

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

```
OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
ShowSyncTaskRequest request = new ShowSyncTaskRequest();
request.withQueryTime("<query_time>");
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.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 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"]

    credentials = BasicCredentials(ak, sk)

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

    try:
        request = ShowSyncTaskRequest()
        request.query_time = "<query_time>"
        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")

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

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

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

## More

For more SDK sample code of 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 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.

## 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	<p>Statistical data types. Multiple types of data must be separated by commas (,).</p> <p><b>REQUEST</b>: indicates the number of objects covered in synchronization requests.</p> <p><b>SUCCESS</b>: indicates the number of objects synchronized. <b>FAILURE</b>: indicates the number of objects failed to be synchronized. <b>SKIP</b>: indicates the number of objects skipped during synchronization. <b>SIZE</b>: indicates the size of objects synchronized (in bytes).</p> <p>Minimum length: 1 character Maximum length: 255 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>REQUEST</b></li> <li>• <b>SUCCESS</b></li> <li>• <b>FAILURE</b></li> <li>• <b>SKIP</b></li> <li>• <b>SIZE</b></li> </ul>
start_time	Yes	String	<p>The start time for the query.</p> <p>Minimum length: 1 character Maximum length: 1,024 characters</p>
end_time	Yes	String	<p>The start time for the query.</p> <p>Minimum length: 1 character Maximum length: 1,024 characters</p>

## Request

**Table 5-96** 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 5-97** 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 statistics collection interval. Minimum length: 1 character Maximum length: 255 characters The value can be: <ul style="list-style-type: none"> <li><b>FIVE_MINUTES</b></li> <li><b>ONE_HOUR</b></li> </ul>
statistic_datas	Array of <b>StatisticType Data</b> objects	The statistical result set of the queried synchronization task. Array length: 0 to 1,000



**Table 5-98 StatisticTypeData** field description

Parameter	Type	Description
data_type	String	Statistical data types. <b>REQUEST</b> : indicates the number of objects requested to be synchronized. <b>SUCCESS</b> : indicates the number of objects synchronized. <b>FAILURE</b> : indicates the number of objects failed to be synchronized. <b>SKIP</b> : indicates the number of objects skipped during synchronization. <b>SIZE</b> : indicates the size of objects synchronized (in bytes). Minimum length: 1 character Maximum length: 255 characters The value can be: <ul style="list-style-type: none"> <li>• <b>REQUEST</b></li> <li>• <b>SUCCESS</b></li> <li>• <b>FAILURE</b></li> <li>• <b>SKIP</b></li> <li>• <b>SIZE</b></li> </ul>
data	Array of <a href="#">StatisticData</a> objects	The statistical result set 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: <b>0</b> Maximum value: <b>9223372036854775807</b>
statistic_num	Long	The statistics. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

**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" : 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,
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}
```

## Example Response

**Status code: 200**

OK

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}
```

## 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");

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ListSyncTaskStatisticRequest request = new ListSyncTaskStatisticRequest();
        request.withDataType(ListSyncTaskStatisticRequest.DataTypeEnum.fromValue("<data_type>"));
        request.withStartTime("<start_time>");
        request.withEndTime("<end_time>");
        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.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 = ListSyncTaskStatisticRequest()
        request.data_type = "<data_type>"
        request.start_time = "<start_time>"
        request.end_time = "<end_time>"
        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")

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

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

    request := &model.ListSyncTaskStatisticRequest{}
    request.DataType = model.GetListSyncTaskStatisticRequestDataTypeEnum().<DATA_TYPE>
    request.StartTime = "<start_time>"
    request.EndTime = "<end_time>"
    response, err := client.ListSyncTaskStatistic(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

## More

For more SDK sample code of 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 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: 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

## 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 being synchronized. Currently, this API is only 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
sync_task_id	Yes	String	The synchronization task ID. Minimum length: 0 characters Maximum length: 255 characters

### Request

**Table 5-106** 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: 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");

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

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

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

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

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

```

## More

For more SDK sample code of 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 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 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 5-111** 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 migration 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 migration tasks. Minimum length: 1 character Maximum length: 100 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
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: 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");

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

        OmsClient client = OmsClient.newBuilder()
```

```
        .withCredential(auth)
        .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
        .build();
    StartSyncTaskRequest request = new StartSyncTaskRequest();
    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.getHttpStatusCode());
        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 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"]

    credentials = BasicCredentials(ak, sk)

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

    try:
        request = StartSyncTaskRequest()
        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")

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

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

    request := &model.StartSyncTaskRequest{}
    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 more SDK sample code of 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

## 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 parameters

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. A maximum of 100 migration task groups can be displayed. Minimum value: <b>1</b> Maximum value: <b>100</b> Default value: <b>10</b>
offset	No	Integer	The start serial number of migration task groups. The value must be greater than or equal to 0. If <b>offset</b> is set to 0, the query starts from the first record. Minimum value: <b>0</b> Maximum value: <b>2147483647</b> Default value: <b>0</b>
status	No	Integer	The status of the migration task group. If this parameter is not specified, task groups in all states are queried. <b>0</b> : Waiting, <b>1</b> : Executing/Creating, <b>2</b> : Monitoring, <b>3</b> : Paused, <b>4</b> : Creation failed, <b>5</b> : Migration failed, <b>6</b> : Migration completed, <b>7</b> : Pausing, <b>8</b> : Waiting for deletion, <b>9</b> : Deleted Minimum value: <b>0</b> Maximum value: <b>9</b>

## Request

**Table 5-115** 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 5-116** Response body parameters

Parameter	Type	Description
count	Long	The total number of the migration task groups that meet the search criteria. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
taskgroups	Array of <b>TaskGroupResp</b> 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. <b>0</b> : Waiting, <b>1</b> : Executing/Creating, <b>2</b> : Monitoring, <b>3</b> : Paused, <b>4</b> : Creation failed, <b>5</b> : Migration failed, <b>6</b> : Migration completed, <b>7</b> : Pausing, <b>8</b> : Waiting for deletion, <b>9</b> : Deleted Minimum value: <b>0</b> Maximum value: <b>9</b>
error_reason	<b>ErrorReasonResp</b> object	The task group failure cause. The value is an empty string if the task is not in the <b>Migration failed</b> state.
src_node	<b>TaskGroupSrcNodeResp</b> object	The source information.
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	<b>TaskGroupDstNodeResp</b> object	The destination information.

Parameter	Type	Description
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration. Default value: <b>false</b>
enable_failed_object_recording	Boolean	Indicates whether to record the objects that failed to be migrated.
enable_restore	Boolean	Indicates whether to restore archive data in the source bucket. It takes a long time to restore archive data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archive objects before the migration. After this function is enabled, archive objects will be automatically restored and then migrated. By default, this function is disabled, archive 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 to use KMS to encrypt the data to be stored in the destination OBS bucket.
task_type	String	The task type. The default value is <b>PREFIX</b> . <b>LIST</b> indicates that the system will migrate the objects specified in the object list. <b>URL_LIST</b> indicates that the system will migrate the objects specified in the URL list. <b>PREFIX</b> indicates that the system will migrate the objects with a specific prefix. The value can be: <ul style="list-style-type: none"><li>• <b>LIST</b></li><li>• <b>URL_LIST</b></li><li>• <b>PREFIX</b></li></ul>
bandwidth_policy	Array of <a href="#">BandwidthPolicyDto</a> 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	<a href="#">SmnInfo</a> object	The SMN message sending configuration.

Parameter	Type	Description
source_cdn	<a href="#">SourceCdnResp</a> object	Indicates whether migration from CDN is enabled. If this field is contained, 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 migration time (timestamp, in milliseconds). Only source objects that are modified after the specified time will be migrated. Default value <b>0</b> indicates that no time is specified. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b> Default value: <b>0</b>
migrate_speed	Long	The migration speed (byte/s). Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
total_time	Long	The total amount of time used by the migration task group, in ms. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
start_time	Long	The start time (Unix timestamp, in millisecond) of the migration task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
total_task_num	Long	The total number of migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
create_task_num	Long	The number of created migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
failed_task_num	Long	The number of failed migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>

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

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



Parameter	Type	Description
object_overwrite_mode	String	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects.</p> <p><b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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.</p> <p><b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked.</p> <p><b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>NO_OVERWRITE</b></li> <li>● <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>● <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>● <b>FULL_OVERWRITE</b></li> </ul>

Parameter	Type	Description
dst_storage_policy	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>STANDARD</b></li> <li>● <b>IA</b></li> <li>● <b>ARCHIVE</b></li> <li>● <b>DEEP_ARCHIVE</b></li> <li>● <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Type	Description
consistency_check	String	<p>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 <b>size_last_modified</b>. <b>size_last_modified</b> 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. <b>crc64</b> is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked. <b>no_check</b> is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>size_last_modified</b></li> <li>● <b>crc64</b></li> <li>● <b>no_check</b></li> </ul>
enable_requester_pays	Boolean	Indicates whether to let the requester make payment. After 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	<p>The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters</p>

Parameter	Type	Description
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 <b>AWS, AZURE, ALIYUN, TENCENT, HUAWEICLOUD, QINGCLOUD, KINGSOFTCLOUD, BAIDU, QINIU, GOOGLE, URLSOURCE, or UCLOUD</b> . The default value is <b>ALIYUN</b> . The value can be: <ul style="list-style-type: none"> <li>• <b>AWS</b></li> <li>• <b>AZURE</b></li> <li>• <b>ALIYUN</b></li> <li>• <b>TENCENT</b></li> <li>• <b>HUAWEICLOUD</b></li> <li>• <b>QINGCLOUD</b></li> <li>• <b>KINGSOFTCLOUD</b></li> <li>• <b>BAIDU</b></li> <li>• <b>QINIU</b></li> <li>• <b>URLSOURCE</b></li> <li>• <b>UCLOUD</b></li> <li>• <b>GOOGLE</b></li> </ul>
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 <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters

Parameter	Type	Description
object_key	Array of strings	The name prefixes of objects to be migrated if <b>task_type</b> is set to <b>prefix</b> . Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500
list_file	ListFile object	The list file configuration. <b>list_file</b> is mandatory when <b>task_type</b> is set to <b>list</b> or <b>url_list</b> .

**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 the OBS bucket is in the same region as the destination bucket, or the task will fail to be created. 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
region	String	The region where the destination bucket is located. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Type	Description
save_prefix	String	The path prefix 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 of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	String	The start time of 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 the SMN messages are sent successfully after migration tasks are complete.
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if migration tasks are 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 from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	String	The protocol type. The value can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
authentication_type	String	The authentication type. The value can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• Qiniu_PRIVATE_AUTHENTICATION</li> <li>• ALIYUN_OSS_A</li> <li>• ALIYUN_OSS_B</li> <li>• ALIYUN_OSS_C</li> <li>• KSYUN_PRIVATE_AUTHENTICATION</li> <li>• AZURE_SAS_TOKEN</li> <li>• TENCENT_COS_A</li> <li>• TENCENT_COS_B</li> <li>• TENCENT_COS_C</li> <li>• TENCENT_COS_D</li> </ul>

**Table 5-125 FailedObjectRecordDto** field description

Parameter	Type	Description
result	Boolean	Indicates whether to retransmit failed objects.
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

**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" : "ULOUD",
    "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");
    }
}
```



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

OmsClient client = OmsClient.newBuilder()
    .withCredential(auth)
    .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
    .build();
ListTaskGroupRequest request = new ListTaskGroupRequest();
request.withLimit(<limit>);
request.withOffset(<offset>);
request.withStatus(<status>);
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.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 = ListTaskGroupRequest()
        request.limit = <limit>
        request.offset = <offset>
        request.status = <status>
        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")

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

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

    request := &model.ListTaskGroupRequest{}
    limitRequest:= int32(<limit>)
    request.Limit = &limitRequest
    offsetRequest:= int32(<offset>)
    request.Offset = &offsetRequest
    statusRequest:= int32(<status>)
    request.Status = &statusRequest
    response, err := client.ListTaskGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}

```

## More

For more SDK sample code of 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
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 manually call APIs to create migration tasks.

### Calling Method

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

### URI

POST /v2/{project\_id}/taskgroups

**Table 5-129** Path parameters

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

### Request

**Table 5-130** 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 5-131** Request body parameters

Parameter	Mandatory	Type	Description
src_node	Yes	<a href="#">TaskGroupSrc Node</a> object	The source information.

Parameter	Mandatory	Type	Description
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	<a href="#">TaskGroupDstNode</a> object	The destination information.
enable_metadata_migration	No	Boolean	Indicates whether metadata migration is enabled. The default value is <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration. Default value: <b>false</b>
enable_failed_object_recording	No	Boolean	Indicates whether to record the objects that failed to be migrated. Default value: <b>true</b>
enable_restore	No	Boolean	Indicates whether archive data restoration is enabled. If this function is enabled, archive data is automatically restored and migrated.
enable_kms	Yes	Boolean	Indicates whether KMS encryption is enabled. This function is disabled by default. Default value: <b>false</b>

Parameter	Mandatory	Type	Description
task_type	No	String	The task type. The default value is <b>PREFIX_LIST</b> indicates that the system will migrate the objects specified in the object list. <b>URL_LIST</b> indicates that the system will migrate the objects specified in the URL list. <b>PREFIX</b> indicates that the system will migrate the objects with a specific prefix. The value can be: <ul style="list-style-type: none"> <li>• <b>LIST</b></li> <li>• <b>URL_LIST</b></li> <li>• <b>PREFIX</b></li> </ul>
bandwidth_policy	No	Array of <b>BandwidthPolicyDto</b> 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	<b>SmnConfig</b> object	The SMN message sending configuration.
source_cdn	No	<b>SourceCdnReq</b> object	Indicates whether migration from CDN is enabled. If this field is contained, 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	No	Long	A timestamp in second. The system migrates only the objects that are modified after the specified time. No time is specified by default. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b> Default value: <b>0</b>

Parameter	Mandatory	Type	Description
object_overwrite_mode	No	String	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects. <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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. <b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked. <b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects</p>

Parameter	Mandatory	Type	Description
			<p>to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>NO_OVERWRITE</b></li> <li>• <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>• <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>• <b>FULL_OVERWRITE</b></li> </ul>
dst_storage_policy	No	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>STANDARD</b></li> <li>• <b>IA</b></li> <li>• <b>ARCHIVE</b></li> <li>• <b>DEEP_ARCHIVE</b></li> <li>• <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Mandatory	Type	Description
consistency_check	No	String	<p>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 <b>size_last_modified</b>. <b>size_last_modified</b> 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. <b>crc64</b> is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked. <b>no_check</b> is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>Default value: <b>size_last_modified</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>size_last_modified</b></li> <li>● <b>crc64</b></li> </ul>



Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> <li>• <b>no_check</b></li> </ul>
enable_requester_pays	No	Boolean	<p>Indicates whether to let the requester make payment. After this function is enabled, the requester pays for the request and data transmission. Default value: <b>false</b></p>

**Table 5-132 TaskGroupSrcNode** field description

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

Parameter	Mandatory	Type	Description
region	No	String	The region where the source bucket is located. <b>region</b> is mandatory when <b>task_type</b> is not <b>URL_LIST</b> . Minimum length: 0 characters Maximum length: 100 characters
object_key	No	Array of strings	The name prefixes of objects to be migrated if <b>task_type</b> is set to <b>prefix</b> . 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 <b>task_type</b> is <b>URL_LIST</b> , this parameter is mandatory and must be <b>URLSource</b> . The value can be <b>AWS, Azure, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu, URLSource, Google,</b> or <b>UCloud</b> . The default value is <b>Aliyun</b> . Default value: <b>Aliyun</b> Minimum length: 0 characters Maximum length: 100 characters
list_file	No	<b>ListFile</b> object	The list file configuration. <b>list_file</b> is mandatory when <b>task_type</b> is set to <b>LIST</b> or <b>URL_LIST</b> .

**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 the OBS bucket is in the same region as the destination bucket, or the task will fail to be created. 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. The default value is <b>HEC</b> . Default value: <b>HEC</b> Minimum length: 0 characters Maximum length: 100 characters
save_prefix	No	String	The path prefix 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 of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	Yes	String	The start time of 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 <b>zh-cn</b> or <b>en-us</b> . Default value: <b>en-us</b> The value can be: <ul style="list-style-type: none"> <li>• <b>zh-cn</b></li> <li>• <b>en-us</b></li> </ul>
topic_urn	Yes	String	The SMN message topic URN bound to a migration task. Minimum length: 0 characters Maximum length: 1,024 characters

Parameter	Mandatory	Type	Description
trigger_conditions	Yes	Array of strings	<p>The trigger conditions of sending messages using SMN. The message varies depending on the status of the migration task.</p> <p>The migration task state can be <b>SUCCESS</b> or <b>FAILURE</b>.</p> <ul style="list-style-type: none"> <li>● <b>FAILURE</b>: indicates that an SMN message will be sent after the migration task fails.</li> <li>● <b>SUCCESS</b>: indicates that an SMN message will be sent after the migration task succeeds.</li> </ul> <p>Array length: 1 to 2</p>
message_template_name	No	String	<p>If this parameter is specified, SMN messages are sent using the specified template.</p> <p>Template example:</p> <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 field description**

Parameter	Mandatory	Type	Description
authentication_key	No	String	<p>The CDN authentication key. If the CDN authentication is required, this parameter is mandatory.</p> <p>If no authorization is required, do not set this parameter.</p> <p>Qiniu: You do not need to set this parameter. Aliyun: Set this parameter based on the value of <b>authentication_type</b>. KingsoftCloud: You do not need to set this parameter.</p> <p>Minimum length: 0 characters Maximum length: 255 characters</p>
authentication_type	Yes	String	<p>The authentication type.</p> <p>Default value: <b>NONE</b></p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>Qiniu_PRIVATE_AUTHENTICATION</b></li> <li>• <b>ALIYUN_OSS_A</b></li> <li>• <b>ALIYUN_OSS_B</b></li> <li>• <b>ALIYUN_OSS_C</b></li> <li>• <b>KSYUN_PRIVATE_AUTHENTICATION</b></li> <li>• <b>AZURE_SAS_TOKEN</b></li> <li>• <b>TENCENT_COS_A</b></li> <li>• <b>TENCENT_COS_B</b></li> <li>• <b>TENCENT_COS_C</b></li> <li>• <b>TENCENT_COS_D</b></li> </ul>
domain	Yes	String	<p>The domain name from which to obtain objects to be migrated.</p> <p>Minimum length: 0 characters Maximum length: 1,024 characters</p>

Parameter	Mandatory	Type	Description
protocol	Yes	String	The protocol type. The value can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>

## 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 listed in 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 listed in the TXT URL list files stored in the **test01/** directory to the destination bucket **jjyy**.

POST [https://{endpoint}/v2/{project\\_id}/taskgroups](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 listed in 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");

    ICredential auth = new BasicCredentials()
        .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.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 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");

        ICredential auth = new BasicCredentials()
            .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 listed 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");

        ICredential auth = new BasicCredentials()
            .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 listed in 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 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"]

    credentials = BasicCredentials(ak, sk)

    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"]

    credentials = BasicCredentials(ak, sk)

    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(
            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 listed in the TXT URL list files stored in the **test01/** directory to the destination bucket **jjyy**.

```
# 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"]

    credentials = BasicCredentials(ak, sk)

    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="jjyy",
            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 listed in 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")

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

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        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 listed in the TXT URL list files stored in the **test01/** directory to the destination bucket **jjyy**.

```
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.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 more SDK sample code of 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
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 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 5-144** 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. <b>0</b> : Waiting, <b>1</b> : Executing/Creating, <b>2</b> : Monitoring, <b>3</b> : Paused, <b>4</b> : Creation failed, <b>5</b> : Migration failed, <b>6</b> : Migration completed, <b>7</b> : Pausing, <b>8</b> : Waiting for deletion, <b>9</b> : Deleted Minimum value: <b>0</b> Maximum value: <b>9</b>
error_reason	<a href="#">ErrorReasonResp</a> object	The task group failure cause. The value is an empty string if the task is not in the <b>Migration failed</b> state.
src_node	<a href="#">TaskGroupSrcNodeResp</a> object	The source information.
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	<a href="#">TaskGroupDstNodeResp</a> object	The destination information.
enable_metadata_migration	Boolean	Indicates whether metadata migration is enabled. The default value is <b>false</b> . Even if this function is disabled, the ContentType metadata will still be migrated to ensure a successful migration. Default value: <b>false</b>
enable_failed_object_recording	Boolean	Indicates whether to record the objects that failed to be migrated.

Parameter	Type	Description
enable_restore	Boolean	Indicates whether to restore archive data in the source bucket. It takes a long time to restore archive data in the source bucket, which will greatly slow down the migration speed. You are advised to restore the archive objects before the migration. After this function is enabled, archive objects will be automatically restored and then migrated. By default, this function is disabled, archive 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 to use KMS to encrypt the data to be stored in the destination OBS bucket.
task_type	String	The task type. The default value is <b>PREFIX</b> . <b>LIST</b> indicates that the system will migrate the objects specified in the object list. <b>URL_LIST</b> indicates that the system will migrate the objects specified in the URL list. <b>PREFIX</b> indicates that the system will migrate the objects with a specific prefix. The value can be: <ul style="list-style-type: none"> <li>• <b>LIST</b></li> <li>• <b>URL_LIST</b></li> <li>• <b>PREFIX</b></li> </ul>
bandwidth_policy	Array of <b>BandwidthPolicyDto</b> 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	<b>SmnInfo</b> object	The SMN message sending configuration.
source_cdn	<b>SourceCdnResp</b> object	Indicates whether migration from CDN is enabled. If this field is contained, 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	Type	Description
migrate_since	Long	The specified migration time (timestamp, in milliseconds). Only source objects that are modified after the specified time will be migrated. Default value <b>0</b> indicates that no time is specified. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b> Default value: <b>0</b>
migrate_speed	Long	The migration speed (byte/s). Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
total_time	Long	The total amount of time used by the migration task group, in ms. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
start_time	Long	The start time (Unix timestamp, in millisecond) of the migration task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
total_task_num	Long	The total number of migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
create_task_num	Long	The number of created migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
failed_task_num	Long	The number of failed migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
complete_task_num	Long	The number of completed migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>
paused_task_num	Long	The number of paused migration tasks in the task group. Minimum value: <b>0</b> Maximum value: <b>9223372036854775807</b>



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

Parameter	Type	Description
failed_object_record	<a href="#">FailedObjectRecordDto</a> object	The record of failed objects.
object_overwrite_mode	String	<p>Indicates whether to skip a source object or allow the source object to overwrite its paired destination object. The default value is <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b>. <b>NO_OVERWRITE</b> indicates the system never allows overwrite. The system always skips source objects and keeps their paired destination objects.</p> <p><b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b> indicates the system allows overwrite 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.</p> <p><b>CRC64_COMPARISON_OVERWRITE</b> indicates the system allows overwrite if the source and destination objects have different CRC64 checksums. This option is only available for migration on 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 one of them does not have a CRC64 checksum, their sizes and last modification times are checked.</p> <p><b>FULL_OVERWRITE</b> indicates the system always allows overwrite. The system always allows source objects to overwrite their paired destination objects.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>NO_OVERWRITE</b></li> <li>• <b>SIZE_LAST_MODIFIED_COMPARISON_OVERWRITE</b></li> <li>• <b>CRC64_COMPARISON_OVERWRITE</b></li> <li>• <b>FULL_OVERWRITE</b></li> </ul>

Parameter	Type	Description
dst_storage_policy	String	<p>The destination storage class. <b>STANDARD</b> indicates the Huawei Cloud OBS Standard. <b>IA</b> indicates the Huawei Cloud OBS Infrequent Access. <b>ARCHIVE</b> indicates the Huawei Cloud OBS Archive. <b>DEEP_ARCHIVE</b> indicates the Huawei Cloud OBS Deep Archive. <b>SRC_STORAGE_MAPPING</b> converts the source storage class into an OBS storage class based on the predefined rules.</p> <p>Default value: <b>STANDARD</b></p> <p>Minimum length: 0 characters</p> <p>Maximum length: 128 characters</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>• <b>STANDARD</b></li> <li>• <b>IA</b></li> <li>• <b>ARCHIVE</b></li> <li>• <b>DEEP_ARCHIVE</b></li> <li>• <b>SRC_STORAGE_MAPPING</b></li> </ul>

Parameter	Type	Description
consistency_check	String	<p>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 <b>size_last_modified</b>. <b>size_last_modified</b> 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. <b>crc64</b> is only available for migration on Huawei Cloud or from Alibaba Cloud or Tencent Cloud. If a source object and its paired destination object have CRC64 checksums, the checksums are checked. Otherwise, their sizes and last modification times are checked. <b>no_check</b> is only available for migration of HTTP/HTTPS data. This option takes effect for source objects whose sizes cannot be obtained using 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.</p> <p>The value can be:</p> <ul style="list-style-type: none"> <li>● <b>size_last_modified</b></li> <li>● <b>crc64</b></li> <li>● <b>no_check</b></li> </ul>
enable_requester_pays	Boolean	Indicates whether to let the requester make payment. After 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	<p>The error code returned for a migration failure. Minimum length: 0 characters Maximum length: 10 characters</p>

Parameter	Type	Description
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 <b>AWS</b> , <b>AZURE</b> , <b>ALIYUN</b> , <b>TENCENT</b> , <b>HUAWEICLOUD</b> , <b>QINGCLOUD</b> , <b>KINGSOFTCLOUD</b> , <b>BAIDU</b> , <b>QINIU</b> , <b>GOOGLE</b> , <b>URLSOURCE</b> , or <b>UCCLOUD</b> . The default value is <b>ALIYUN</b> . The value can be: <ul style="list-style-type: none"> <li>• <b>AWS</b></li> <li>• <b>AZURE</b></li> <li>• <b>ALIYUN</b></li> <li>• <b>TENCENT</b></li> <li>• <b>HUAWEICLOUD</b></li> <li>• <b>QINGCLOUD</b></li> <li>• <b>KINGSOFTCLOUD</b></li> <li>• <b>BAIDU</b></li> <li>• <b>QINIU</b></li> <li>• <b>URLSOURCE</b></li> <li>• <b>UCCLOUD</b></li> <li>• <b>GOOGLE</b></li> </ul>
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 <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters

Parameter	Type	Description
object_key	Array of strings	The name prefixes of objects to be migrated if <b>task_type</b> is set to <b>prefix</b> . Minimum length: 0 characters Maximum length: 1,024 characters Array length: 0 to 500
list_file	ListFile object	The list file configuration. <b>list_file</b> is mandatory when <b>task_type</b> is set to <b>list</b> or <b>url_list</b> .

**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 the OBS bucket is in the same region as the destination bucket, or the task will fail to be created. 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
region	String	The region where the destination bucket is located. Minimum length: 0 characters Maximum length: 100 characters

Parameter	Type	Description
save_prefix	String	The path prefix 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 of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	String	The start time of 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 the SMN messages are sent successfully after migration tasks are complete.
notify_error_message	String	The error codes that record why the SMN messages failed to be sent. The value is empty if migration tasks are 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 from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	String	The protocol type. The value can be: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul>
authentication_type	String	The authentication type. The value can be: <ul style="list-style-type: none"> <li>• NONE</li> <li>• Qiniu_PRIVATE_AUTHENTICATION</li> <li>• ALIYUN_OSS_A</li> <li>• ALIYUN_OSS_B</li> <li>• ALIYUN_OSS_C</li> <li>• KSYUN_PRIVATE_AUTHENTICATION</li> <li>• AZURE_SAS_TOKEN</li> <li>• TENCENT_COS_A</li> <li>• TENCENT_COS_B</li> <li>• TENCENT_COS_C</li> <li>• TENCENT_COS_D</li> </ul>

**Table 5-152 FailedObjectRecordDto** field description

Parameter	Type	Description
result	Boolean	Indicates whether to retransmit failed objects.
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

**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-44b9-93e1-4dbadbd86e67",
  "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");

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowTaskGroupRequest request = new ShowTaskGroupRequest();
        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.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 = ShowTaskGroupRequest()  
        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")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        Build()  
  
    client := oms.NewOmsClient(  
        oms.OmsClientBuilder().  
            WithRegion(region.ValueOf("<YOUR REGION>")).  
            WithCredential(auth).
```

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

## More

For more SDK sample code of 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**, **Monitoring**, 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 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: 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

## 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 the migration task group is in **Creating** or **Monitoring** 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 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: 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");

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

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

    credentials = BasicCredentials(ak, sk)

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

    try:
        request = StopTaskGroupRequest()
        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")
```

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

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

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

## More

For more SDK sample code of 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 the 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 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 5-164** 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

Parameter	Mandatory	Type	Description
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
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: 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/00878453-3402-4a86-9e2a-5d5217cd35b2/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");

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

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

StartTaskGroupRequest request = new StartTaskGroupRequest();
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 retrieves 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.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 = StartTaskGroupRequest()
        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")

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

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

    request := &model.StartTaskGroupRequest{}
    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 more SDK sample code of 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 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 5-169** 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

Parameter	Mandatory	Type	Description
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
migrate_failed_object	No	Boolean	The retry mode of failed tasks. It specifies whether to migrate all objects in the failed tasks again. If the value is <b>true</b> , only failed objects will be migrated again. If the value is <b>false</b> or not specified, all objects will be migrated again. By default, the objects that have been migrated to the destination are skipped. Default value: <b>false</b>

## Response

**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");

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

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

    credentials = BasicCredentials(ak, sk)

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

    try:
        request = RetryTaskGroupRequest()
        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 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")

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

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

    request := &model.RetryTaskGroupRequest{
        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 more SDK sample code of 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 of 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 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 5-174** Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_policy	Yes	Array of <a href="#">BandwidthPolicyDto</a> 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 of 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: <b>1048576</b> Maximum value: <b>209715200</b>
start	Yes	String	The start time of the traffic limiting rule. The format is hh:mm, for example, 12:03.

## Response

**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 for the task whose ID is **xxxxxxx** from 00:01 to 23:59 to 50 MB/s.

```
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 for the task with ID **xxxxxxx** from 00:01 to 23:59 to 50 MB/s.

```
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");

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateTaskGroupRequest request = new UpdateTaskGroupRequest();
        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 for the task with ID `xxxxxxxx` from 00:01 to 23:59 to 50 MB/s.

```
# 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 = UpdateTaskGroupRequest()
        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 for the task with ID **xxxxxxxxx** from 00:01 to 23:59 to 50 MB/s.

```
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.UpdateTaskGroupRequest{}
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 more SDK sample code of 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 parameters

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 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 5-180** Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be <b>AWS, Aliyun, Qiniu, QingCloud, Tencent, Baidu, KingsoftCloud, Azure, UCloud, HuaweiCloud, Google, URLSource, or HEC.</b> Minimum length: 0 characters Maximum length: 100 characters

Parameter	Mandatory	Type	Description
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
data_center	Yes	String	The region. Minimum length: 0 characters Maximum length: 100 characters
page_size	Yes	Integer	The page size. Minimum value: <b>0</b> Maximum value: <b>100</b>
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 <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters

Parameter	Mandatory	Type	Description
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	Whether there is a next page.
next_marker	String	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 <a href="#">ShowBucketRecord</a> 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 is obtained.

```
{
  "next_page": false,
  "next_marker": null,
  "records": [ {
    "name": "xxx",
    "size": "--"
  }, {
    "name": "xxx",
    "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");

        ICredential auth = new BasicCredentials()
            .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("xxxxsk");
        body.withAk("xxxxak");
        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 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 = 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")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        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 more SDK sample code of 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 is 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 parameters

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 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 5-186** Request body parameters

Parameter	Mandatory	Type	Description
ak	Yes	String	The AK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters Maximum length: 100 characters
sk	Yes	String	The SK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters Maximum length: 100 characters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be <b>AWS, Aliyun, Qiniu, QingCloud, Tencent, Baidu, KingsoftCloud, Azure, UCloud, HuaweiCloud, URLSource</b> , or <b>HEC</b> . Minimum length: 0 characters Maximum length: 100 characters
region	Yes	String	The region. Minimum length: 0 characters Maximum length: 100 characters
app_id	No	String	This parameter is mandatory when <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters
bucket	Yes	String	The bucket name. Minimum length: 0 characters Maximum length: 100 characters
prefix	No	<b>PrefixKeyInfo</b> object	The prefix.
source_cdn	Yes	<b>SourceCdnReq</b> object	Indicates whether migration from CDN is enabled. If this field is contained, 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 <b>authentication_type</b> . KingsoftCloud: You do not need to set this parameter. Minimum length: 0 characters Maximum length: 255 characters
authentication_type	Yes	String	The authentication type. Default value: <b>NONE</b> The value can be: <ul style="list-style-type: none"> <li>• <b>NONE</b></li> <li>• <b>QINIU_PRIVATE_AUTHENTICATION</b></li> <li>• <b>ALIYUN_OSS_A</b></li> <li>• <b>ALIYUN_OSS_B</b></li> <li>• <b>ALIYUN_OSS_C</b></li> <li>• <b>KSYUN_PRIVATE_AUTHENTICATION</b></li> <li>• <b>AZURE_SAS_TOKEN</b></li> <li>• <b>TENCENT_COS_A</b></li> <li>• <b>TENCENT_COS_B</b></li> <li>• <b>TENCENT_COS_C</b></li> <li>• <b>TENCENT_COS_D</b></li> </ul>

Parameter	Mandatory	Type	Description
domain	Yes	String	The domain name from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	Yes	String	The protocol type. The value can be: <ul style="list-style-type: none"><li>• <b>http</b></li><li>• <b>https</b></li></ul>

## 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 <b>CheckedKey</b> objects	Returned array of checked objects Array length: 0 to 1,000

**Table 5-190** CheckedKey

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");

        ICredential auth = new BasicCredentials()
            .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.getStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```



```
}  
}
```

## 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 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 = 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")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        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 more SDK sample code of 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 parameters

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 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 5-194** Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be <b>AWS, Aliyun, Qiniu, QingCloud, Tencent, Baidu, KingsoftCloud, Azure, UCloud, HuaweiCloud, Google, URLSource</b> , or <b>HEC</b> . Default value: <b>Aliyun</b> Minimum length: 0 characters Maximum length: 100 characters
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . 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 <b>cloud_type</b> is <b>Tencent</b> . Minimum length: 0 characters Maximum length: 255 characters

## Response

Status code: 200

**Table 5-195** Response body parameters

Parameter	Type	Description
[Array element]	Array of strings	The bucket 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" : "xxxak",
  "sk" : "xxxsk",
  "app_id" : "apptest123"
}
```

## Example Response

**Status code: 200**

The bucket list was returned.

```
[ "xxx" ]
```

## 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");

        ICredential auth = new BasicCredentials()
            .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("xxxak");
        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 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.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 = 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")  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        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 more SDK sample code of 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 parameters

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 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 5-199** Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be <b>AWS, Aliyun, Qiniu, QingCloud, Tencent, Baidu, KingsoftCloud, Azure, UCloud, HuaweiCloud, Google, URLSource</b> , or <b>HEC</b> . Default value: <b>Aliyun</b> Minimum length: 0 characters Maximum length: 100 characters
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters 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
app_id	No	String	This parameter is mandatory when <b>cloud_type</b> is <b>Tencent</b> . 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	Specifies 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");

        ICredential auth = new BasicCredentials()
            .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 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"]

    credentials = BasicCredentials(ak, sk)

    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")

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

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

    request := &model.ShowBucketRegionRequest{}
    appldShowBucketRegionReq:= "apptest123"
    akShowBucketRegionReq:= "xxxxak"
    skShowBucketRegionReq:= "xxxxsk"
    request.Body = &model.ShowBucketRegionReq{
        BucketName: "xxx",
        AppId: &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 more SDK sample code of 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.

Status Code	Description
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 parameters

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 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 5-204** Request body parameters

Parameter	Mandatory	Type	Description
cloud_type	Yes	String	The cloud service provider. The value can be <b>AWS, Aliyun, Qiniu, QingCloud, Tencent, Baidu, KingsoftCloud, Azure, UCloud, HuaweiCloud, Google, URLSource</b> , or <b>HEC</b> . Default value: <b>Aliyun</b> Minimum length: 0 characters Maximum length: 100 characters
ak	No	String	The AK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters Maximum length: 100 characters
sk	No	String	The SK for accessing the source bucket. This parameter is mandatory when <b>task_type</b> is not <b>url_list</b> . Minimum length: 0 characters 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
app_id	No	String	This parameter is mandatory when <b>cloud_type</b> is <b>Tencent</b> . 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: <b>false</b>

**Status code: 400**



**Table 5-206** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.
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": "xxxx",
  "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");

ICredential auth = new BasicCredentials()
    .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.withAppld("apptest123");
body.withDataCenter("cn-north-x");
body.withAk("xxxxak");
body.withSk("xxxxsk");
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 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.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 = 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")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        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 more SDK sample code of 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 parameters

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

**Table 5-208** Query parameters

Parameter	Mandatory	Type	Description
type	Yes	String	The connection end type. The value can be <b>src</b> (source) or <b>dst</b> (destination). Minimum length: 1 character Maximum length: 25 characters

## Request

**Table 5-209** 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

## Response

**Status code: 200**

**Table 5-210** Response body parameters

Parameter	Type	Description
[Array element]	Array of strings	Supported cloud vendors.

**Status code: 400**

**Table 5-211** Response body parameters

Parameter	Type	Description
error_msg	String	The error message.

Parameter	Type	Description
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", "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");

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

        OmsClient client = OmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(OmsRegion.valueOf("<YOUR REGION>"))
            .build();
        ShowCloudTypeRequest request = new ShowCloudTypeRequest();
        request.withType("<type>");
        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"]

    credentials = BasicCredentials(ak, sk)

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

    try:
        request = ShowCloudTypeRequest()
        request.type = "<type>"
        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")
```

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

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

request := &model.ShowCloudTypeRequest{}
request.Type = "<type>"
response, err := client.ShowCloudType(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

## More

For more SDK sample code of 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 parameters

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 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

## Response

Status code: 200

**Table 5-214** Response body parameters

Parameter	Type	Description
[Array element]	Array of <a href="#">ShowRegionInfoResp</a> objects	The queried 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

Parameter	Type	Description
region_list	Array of <a href="#">RegionInfo</a> 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 list 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)"  
}  
}]
```

## 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": ""
},
{
  "id": "v2.0",
  "links": [
    {
      "href": "https://oms.ap-southeast-2.myhuaweicloud.com/v1/",
      "rel": "self"
    }
  ],
  "min_version": "",
  "status": "CURRENT",
  "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** Parameter description

Parameter	Mandatory	Type	Description
src_node	Yes	JSONObject	Specifies the source node information. For details, see <a href="#">Table 6-5</a> .
dst_node	Yes	JSONObject	Specifies the destination node information. For details, see <a href="#">Table 6-8</a> .
enableKMS	Yes	boolean	Specifies whether to use KMS encryption.

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 <a href="#">Table 6-9</a> .
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 <a href="#">Table 6-10</a> .

Parameter	Mandatory	Type	Description
auto_restore	No	boolean	Specifies whether to automatically restore the archived data. The default value is <b>No</b> . 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 <a href="#">Table 6-11</a> .



Parameter	Mandatory	Type	Description
task_type	No	String	<p>Specifies the task type. The default value is <b>object</b>.</p> <ul style="list-style-type: none"> <li>• <b>list</b>: indicates that the system will migrate the objects in the object list file.</li> <li>• <b>object</b>: indicates that the system will migrate the selected objects and folders.</li> <li>• <b>prefix</b>: indicates that the system will migrate the objects with a specified prefix.</li> <li>• <b>url_list</b>: indicates that the system will migrate the objects in the URL list file.</li> </ul> <p><b>NOTE</b> When <b>task_type</b> is set to <b>list</b> or <b>url_list</b>, <b>list_file</b> in <a href="#">Table 6-5</a> is mandatory. When <b>task_type</b> is set to <b>object</b> or <b>prefix</b>, <b>object_key</b> in <a href="#">Table 6-5</a> is mandatory.</p>
enable_failed_object_recording	No	Boolean	<p>Specifies whether to record the failed objects. This function is enabled by default.</p> <p>If this function is enabled, information about the objects that failed to be migrated will be stored in the destination bucket.</p>

**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. <b>NOTE</b> If <b>task_type</b> in <a href="#">Table 6-4</a> is set to <b>url_list</b> , <b>ak</b> is optional. For other task types, <b>ak</b> is mandatory.
sk	Yes	String	Specifies the source bucket SK. Enter a maximum of 100 characters. <b>NOTE</b> If <b>task_type</b> in <a href="#">Table 6-4</a> is set to <b>url_list</b> , <b>sk</b> is optional. For other task types, <b>sk</b> is mandatory.
list_file	No	JSONObject	Specifies the object list file configuration. For details, see <a href="#">Table 6-6</a> . <b>NOTE</b> When <b>task_type</b> in <a href="#">Table 6-4</a> is set to <b>list</b> or <b>url_list</b> , <b>list_file</b> is mandatory.

Parameter	Mandatory	Type	Description
object_key	No	String/JSONObject	<p>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.</p> <p>If multiple source objects are selected, use JSONObject. For details, see <a href="#">Table 6-7</a>.</p> <p><b>NOTE</b> When <b>task_type</b> in <a href="#">Table 6-4</a> is set to <b>object</b> or <b>prefix</b>, <b>object_key</b> is mandatory.</p>
bucket	Yes	String	<p>Specifies the name of the source bucket.</p> <p><b>NOTE</b> If <b>task_type</b> in <a href="#">Table 6-4</a> is set to <b>url_list</b>, <b>bucket</b> is optional. For other task types, <b>bucket</b> is mandatory.</p>
app_id	No	String	<p><b>app_id</b> is mandatory only when the account of another cloud service provider has the appID identifier.</p>

Parameter	Mandatory	Type	Description
cloud_type	No	String	<p>Specifies the source cloud service provider. The value can be <b>AWS, Aliyun, Tencent, HuaweiCloud, QingCloud, KingsoftCloud, Baidu, Qiniu</b>, or <b>URLSource (HTTP/HTTPS data source)</b>. The default value is <b>Aliyun</b>.</p> <p>The default value is used if this parameter is not set or is left blank.</p> <p><b>NOTE</b> If <b>task_type</b> in <a href="#">Table 6-4</a> is set to <b>url_list</b>, <b>cloud_type</b> must be set to <b>URLSource</b>.</p>

**Table 6-6 list\_file** field description

Parameter	Mandatory	Type	Description
obs_bucket	Yes	String	<p>Specifies the name of the OBS bucket for storing the object list files.</p> <p><b>NOTE</b> Ensure that the selected list file is in the same region as the destination bucket. Otherwise, the task will fail to be created.</p>
list_file_key	Yes	String	<p>Specifies the object name in the object list file or URL list file.</p>

**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	<p>Specifies the source object parameter. The meaning of <b>keys</b> depends on the value of <b>task_type</b>.</p> <ul style="list-style-type: none"> <li>When <b>task_type</b> is set to <b>prefix</b>, the character string in <b>keys</b> indicates the prefix of the object to be migrated.</li> <li>When <b>task_type</b> is set to <b>object</b>, the character string ending with a slash (/) in <b>keys</b> indicates the folder to be migrated, and the character string not ending with a slash (/) indicates the file to be migrated.</li> </ul>

**Table 6-8 dst\_node** field description

Parameter	Mandatory	Type	Description
region	Yes	String	<p>Specifies the region where the destination bucket locates.</p> <p><b>NOTE</b> The value must be the same as that of the service endpoint.</p>

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 <b>HUAWEI CLOUD</b> . 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.  <b>NOTE</b> The region to which <b>topicUrn</b> 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. Users can select <b>zh-cn</b> or <b>en-us</b> .
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 <b>SUCCESS</b> or <b>FAIL</b> . <ul style="list-style-type: none"> <li>● <b>FAIL</b>: indicates that an SMN message will be sent after the migration task fails.</li> <li>● <b>SUCCESS</b>: indicates that an SMN message will be sent after the migration task succeeds.</li> </ul>

**Table 6-10** source\_cdn field structure

Parameter	Mandatory	Type	Description
protocol	Yes	String	Specifies the protocol type. The value can be <b>HTTPS</b> or <b>HTTP</b> .
domain	Yes	String	Specifies the domain name from which to obtain the objects to be migrated.

Parameter	Mandatory	Type	Description
authentication_type	Yes	String	<p>Specifies the authentication method.</p> <ul style="list-style-type: none"> <li>If no authentication is required, set it to <b>NONE</b>.</li> <li>Qiniu: <b>QINIU_PRIVATE_AUTHENTICATION</b></li> <li>Aliyun: <b>ALIYUN_OSS_A</b>, <b>ALIYUN_OSS_B</b>, and <b>ALIYUN_OSS_C</b></li> <li>KingsoftCloud: <b>KSYUN_PRIVATE_AUTHENTICATION</b></li> </ul>
authentication_key	No	String	<p>Specifies the CDN authentication key.</p> <ul style="list-style-type: none"> <li>If no authorization is required, do not set this parameter.</li> <li>Qiniu: You do not need to set this parameter.</li> <li>Aliyun: Set this parameter based on the value of <b>authentication_type</b>.</li> <li>KingsoftCloud: You do not need to set this parameter.</li> </ul>

**Table 6-11 bandwidth\_policy** field description

Parameter	Mandatory	Type	Description
start	Yes	String	<p>Specifies the start time of traffic limit. Format: hh:mm Example: 10:03</p>



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 <b>start</b> 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 <b>true</b> , <b>null</b> , or <b>false</b> . <ul style="list-style-type: none"><li>• If the value is <b>true</b>, the objects fail to be migrated in the migration task will be retransmitted.</li><li>• If the value is blank or <b>false</b>, all objects in the migration task will be migrated.</li></ul>

## 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

For details about the 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 <b>stop</b> 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	Mandatory	Type	Description
operation	Yes	String	Specifies the operation type, which is <b>change_bandwidthpolicy</b> 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 <a href="#">Table 6-20</a> .

**Table 6-20** bandwidth\_policy data structure

Parameter	Mandatory	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: <ul style="list-style-type: none"><li>● <b>0</b>: Not started</li><li>● <b>1</b>: Waiting to migrate</li><li>● <b>2</b>: Migrating</li><li>● <b>3</b>: Migration paused</li><li>● <b>4</b>: Migration failed</li><li>● <b>5</b>: Migration succeeded</li></ul>

## 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 <a href="#">Table 6-23</a> .

Parameter	Type	Description
dst_node	JSONObject	Specifies the destination node information. For details, see <a href="#">Table 6-25</a> .
thread_num	int	Specifies the number of threads used by a migration task.
status	int	Specifies the task status as follows: <ul style="list-style-type: none"><li>● <b>0</b>: Not started</li><li>● <b>1</b>: Waiting to migrate</li><li>● <b>2</b>: Migrating</li><li>● <b>3</b>: Migration paused</li><li>● <b>4</b>: Migration failed</li><li>● <b>5</b>: Migration succeeded</li></ul>
progress	double	Specifies the task progress. For example, <b>0.522</b> represents the progress is 52.2%, and <b>1</b> 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 <a href="#">Table 6-28</a> . This field is left blank when the task is not in the <b>Migration failed</b> 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 <a href="#">Table 6-26</a> . <b>NOTE</b> 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 <b>0</b> , indicating that no time is specified.

Parameter	Type	Description
task_type	String	Specifies the task type. The default value is <b>object</b> . <ul style="list-style-type: none"><li>• <b>list</b>: indicates that the system will migrate objects in an object list file.</li><li>• <b>object</b>: indicates that the system will migrate the selected objects and folders.</li><li>• <b>prefix</b>: indicates that the system will migrate objects with a specified prefix.</li></ul>
source_cdn	JSONObject	Specifies whether to enable CDN during the migration. For details, see <a href="#">Table 6-27</a> . 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 <a href="#">Table 6-29</a> .

Parameter	Type	Description
bandwidth_policy	JSONArray	Specifies traffic limiting rules. For details, see <a href="#">Table 6-30</a> .

**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 <a href="#">Table 6-24</a> .
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 <b>HTTPS</b> or <b>HTTP</b> .

Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated.
authentication_type	String	Specifies the authentication method. <ul style="list-style-type: none"> <li>If no authentication is required, set it to <b>NONE</b>.</li> <li>Qiniu: <b>QINIU_PRIVATE_AUTHENTICATION</b></li> <li>Alibaba Cloud: <b>ALIYUN_OSS_A</b>, <b>ALIYUN_OSS_B</b>, and <b>ALIYUN_OSS_C</b></li> <li>KingsoftCloud: <b>KSYUN_PRIVATE_AUTHENTICATION</b></li> </ul>

**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": "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"
},
"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": "ZXCZCXCDVXVC",
  "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. <b>true</b> indicates that the number of tasks that meet the criteria will be returned by the API.
state	No	Specifies the task status as follows: <ul style="list-style-type: none"><li>● <b>0</b>: Not started</li><li>● <b>1</b>: Waiting to migrate</li><li>● <b>2</b>: Migrating</li><li>● <b>3</b>: Migration paused</li><li>● <b>4</b>: Migration failed</li><li>● <b>5</b>: Migration succeeded</li></ul>

### 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 <a href="#">Table 6-35</a> .
dst_node	JSONObject	Specifies the destination node information. For details, see <a href="#">Table 6-37</a> .
thread_num	int	Specifies the number of threads used by a migration task.
status	int	Specifies the task status as follows: <ul style="list-style-type: none"><li>• <b>0</b>: Not started</li><li>• <b>1</b>: Waiting to migrate</li><li>• <b>2</b>: Migrating</li><li>• <b>3</b>: Migration paused</li><li>• <b>4</b>: Migration failed</li><li>• <b>5</b>: Migration succeeded</li></ul>
progress	double	Specifies the task progress. For example, <b>0.522</b> represents the progress is 52.2%, and <b>1</b> 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 <a href="#">Table 6-40</a> .

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 <a href="#">Table 6-38</a> . <b>NOTE</b> 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 <b>0</b> , indicating that no time is specified.

Parameter	Type	Description
task_type	String	<p>Specifies the task type. The default value is <b>object</b>.</p> <ul style="list-style-type: none"> <li>• <b>list</b>: indicates that the system will migrate objects in an object list file.</li> <li>• <b>object</b>: indicates that the system will migrate the selected objects and folders.</li> <li>• <b>prefix</b>: indicates that the system will migrate objects with a specified prefix.</li> </ul>
source_cdn	JSONObject	<p>Specifies whether to enable CDN during the migration. For details, see <a href="#">Table 6-39</a>. 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.</p>
auto_restore	Boolean	<p>Specifies whether to automatically restore archive data. IF this function is enabled, archive data is automatically restored and migrated.</p>
enable_failed_object_recording	Boolean	<p>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.</p>
failed_object_record	String	<p>Specifies the failed data record format. The data format is JSON. For details about the value, see <a href="#">Table 6-41</a>.</p>

Parameter	Type	Description
bandwidth_policy	JSONArray	Specifies traffic limiting rules. For details, see <a href="#">Table 6-42</a> .

**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 <a href="#">Table 6-36</a> .
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 <b>HTTPS</b> or <b>HTTP</b> .

Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated.
authentication_type	String	Specifies the authentication method. <ul style="list-style-type: none"> <li>If no authentication is required, set it to <b>NONE</b>.</li> <li>Qiniu: QINIU_PRIVATE_AUTHENTICATION</li> </ul>

**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 <b>MaxParallelTaskNum</b> .
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 request fails to be processed because of the update of the conflict request.
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	Handling Measure
200	TRF.0001	System error. Click Restart to restart the migration task.	System error.	Click Restart to restart the migration task.
200	TRF.0003	Waiting for task execution timed out. Click Restart to restart the migration task.	Waiting for task execution timed out.	Click Restart to restart the migration task.
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.



Status Code	Error Code	Error Message	Description	Handling Measure
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 the current AK and SK have read and write permissions for the file.
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, and is no larger than 100 MB.
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 AK and SK are invalid because the Azure storage account does not use Blob storage.	Enter a valid AK and SK.
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 <i>OMS User Guide</i> or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
200	TRF.0017	No URL found in the specified list file. Check the list file.	No URL found in the specified list file.	Check the list file.
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 does not have the permissions to access the destination bucket or objects.	Ensure that the account has the required permissions and try again.
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 does not have the permissions to access the destination bucket or objects.	Ensure that the account has the required permissions and try again.

Status Code	Error Code	Error Message	Description	Handling Measure
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 HUAWEI CLOUD account is expired or frozen.	Contact customer service.
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 does not have the permissions to access the destination bucket or objects.	Ensure that the account has the required permissions and try again.
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 OBS bucket does not have enough space.	Ensure that the destination bucket has enough space and try again.
200	TRF.0056	Your HUAWEI CLOUD account is frozen. Try again after your account is unfrozen.	Your HUAWEI CLOUD account is frozen.	Try again after your account is unfrozen.

Status Code	Error Code	Error Message	Description	Handling Measure
200	TRF.0057	Invalid AK or SK. Enter the correct AK and SK and try again.	Invalid AK or SK.	Enter the correct AK and SK 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 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.
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 names of the destination bucket and objects are correct and try again.

Status Code	Error Code	Error Message	Description	Handling Measure
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.	There is a problem with the destination object storage service.	Try again later or contact technical support.
200	TRF.0062	Some objects cannot be migrated. Ensure that there are no tasks to migrate those objects and try again later.	Some objects cannot be migrated.	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. Data cannot be migrated to the destination OBS bucket because your account balance is insufficient.	Top up your account or contact customer service.

Status Code	Error Code	Error Message	Description	Handling Measure
200	TRF.0151	The source AK/SK is invalid. Enter the correct AK and SK and try again.	The source AK or SK is invalid.	Enter the correct AK and SK and try again.
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 does not have the permissions to access the source bucket or objects.	Ensure that the account 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 does not have the permissions to access the source bucket or objects.	Ensure that the account has the required permissions and try again.

Status Code	Error Code	Error Message	Description	Handling Measure
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 does not have the permissions to access the source bucket or objects.	Ensure that the account has the required permissions and try again.
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 object during the migration).	Ensure that the source 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 names of the destination bucket and objects are correct and try again.

Status Code	Error Code	Error Message	Description	Handling Measure
200	TRF.0157	There is a problem with the source object storage service. Try again later or contact technical support.	There is a problem with the source object storage service.	Try again later or contact technical support.
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 unencrypted.	Check whether the region where the destination bucket is located 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 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.
200	TRF.0160	Failed to read archived data. Restore archived data and restart the task.	Failed to read archived data.	Restore archived data and restart the task.



Status Code	Error Code	Error Message	Description	Handling Measure
200	TRF.0201	Failed to restore archived data. Restore archived data on the source server and restart the task.	Failed to restore archived data.	Restore archived data on the source server and restart the task.
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.	Failed to migrate the data because there is archived data that has not been restored.	Restore archived data and restart the task.
200	TRF.0301	The object list file cannot be read. Restore the object list file and restart the task.	The object list file cannot be read.	Restore the object list file and restart the task.
400	OMS.0001	Invalid parameter settings. Modify the request parameters.	Invalid parameter settings.	Modify the request parameters.
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.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.0005	The HTTP request method does not exist. Ensure that the request method is correct.	The HTTP request method does not exist.	Ensure that the request method is correct.
400	OMS.0051	Invalid value for parameter range. Enter a valid value for range.	Invalid value for parameter range.	Enter a valid value for range.
400	OMS.0052	Invalid value for parameter state. Enter a value from 0 to 5 (whole numbers only).	Invalid value for parameter state.	Enter a value from 0 to 5 (whole numbers only).
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.	Task query failed due to invalid parameters or insufficient permissions.	Check whether the parameters are correct and whether you have the required permissions.
400	OMS.0054	Invalid task ID. Enter a valid task ID.	Invalid task ID.	Enter a valid task ID.
400	OMS.0057	Invalid values for source parameters. Modify the source parameters.	Invalid values for source parameters.	Modify the source parameters.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.0058	Invalid values for destination parameters. Modify the destination parameters.	Invalid values for 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 value for the number of threads specified for migration.	Enter a value from 0 to 50 (whole numbers only).
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.	For details, see the returned error message or contact technical support.
400	OMS.0061	Invalid format for task parameters. Modify the parameter format.	Invalid format for task parameters.	Modify the parameter format.
400	OMS.0062	Failed to save the task. For details, see the returned error message or contact technical support.	Failed to save the task.	For details, see the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.0063	The task is in progress. Pause the task and then delete it.	The task is in progress.	Pause the task and then delete it.
400	OMS.0064	Invalid request parameters. Enter valid parameter values.	Invalid request parameters.	Enter valid parameter values.
400	OMS.0065	The task has already started.	The task has already started.	None
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 parameter is not in JSON format.	Modify the parameter format.
400	OMS.0068	Token authentication failed. For details, see the returned error message or contact technical support.	Authentication failed.	For details, see 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.	None

Status Code	Error Code	Error Message	Description	Handling Measure
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.	For details, see 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.	For details, see 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 parameters must be the same as those in the <i>OMS API Reference</i> .	Modify the parameter format by referring to <i>OMS API Reference</i> .
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.

Status Code	Error Code	Error Message	Description	Handling Measure
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 parameter.
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 parameter.
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.

Status Code	Error Code	Error Message	Description	Handling Measure
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 limit rules exceeds the maximum.	Change the number of traffic limit rules. Refer to OMS API Reference for details.
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 value is out of the range.	Change the maximum traffic value. Refer to OMS API Reference for details.
400	OMS.0085	The time segments are overlapped. Ensure that time segments do not overlap.	The time segments are overlapped.	Ensure that time segments do not overlap.
400	OMS.0086	Failed to update the bandwidth policy. Try again later or contact technical support.	Failed to update the bandwidth policy.	Try again later or contact technical support.
400	OMS.0087	Invalid values for time segments. Modify the time segments.	Invalid values for time segments.	Modify the time segments.

Status Code	Error Code	Error Message	Description	Handling Measure
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 names of the destination bucket and objects are correct and try again.
400	OMS.0151	Invalid parameters. For details, see the returned error message or contact technical support.	Invalid parameters.	For details, see 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 regions.	For details, see 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.	For details, see the returned error message or contact technical support.



Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.0155	Failed to get the bucket region. For details, see the returned error message or contact technical support.	Failed to get bucket region.	For details, see 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 SMN. Internal SMN service 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.	For details, see the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
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.	For details, see 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.	System busy. Failed to send the SMN notification.	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.	System busy. Failed to send the SMN notification.	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.	Network error. Failed to send the SMN notification.	Try again later or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
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.	For details, see 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.	For details, see 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 permissions needed to use the current topic.	Select another topic or obtain the required permissions.
400	OMS.0201	Your account has been restricted. Check your account balance or contact customer service.	Your account has been restricted.	Top up your account or contact customer service.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.0202	Sorry, your account has been frozen. Contact customer service.	Sorry, your account has been frozen.	Contact customer service.
400	OMS.0203	Validate your personal information before continuing using OMS. For details, see the returned error message or contact technical support.	Validate your personal information before continuing using OMS.	For details, see the returned error message or contact technical support.
400	OMS.0204	Real-name authentication is required for this operation. Complete real-name authentication.	Real-name authentication is required for this operation.	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.	For details, see 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 objects failed to be migrated.	For details, see the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
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 store the list of objects failed to be migrated.	For details, see the returned error message or contact technical support.
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.	Object list file has reached the maximum allowed size.	Check the size of the object list. Refer to OMS API Reference for details.
400	OMS.0306	No source objects found. Ensure that there are objects in the source bucket.	No source objects found.	Ensure that there are objects in the source bucket.
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.	For details, see the returned error message or contact technical support.
400	OMS.0308	Incomplete list of failed objects. Contact technical support.	Incomplete list of failed objects.	Contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.1001	Internal service error. For details, see the returned error message or contact technical support.	Internal service error.	For details, see the returned error message or contact technical support.
400	OMS.1002	Invalid parameter type. Use a valid parameter type as described in OMS API Reference.	Invalid parameter type.	Use a valid parameter type as described in OMS API Reference.
400	OMS.1003	Incorrect parameter constraints. Modify the parameter constraints. Refer to OMS API Reference for details.	Incorrect parameter constraints.	Modify the parameter constraints. Refer to OMS API Reference for details.
400	OMS.1004	Some required parameters are missing. Ensure that all required parameters are included.	Some required parameters are missing.	Ensure that all required parameters are included.
400	OMS.1005	Authentication failed. For details, see the returned error message or contact technical support.	Authentication failed.	For details, see the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.1006	The parameter is not in JSON format. Ensure that the parameter format is in JSON format.	The parameter is not in JSON format.	Ensure that the parameter format is in JSON format.
400	OMS.1007	Some required parameters are missing. Ensure that all required parameters are included.	Some required parameters are missing.	Ensure that all required parameters are included.
400	OMS.1008	Invalid request method. Use the request method described in OMS API Reference.	Invalid request method.	Use the request method described in OMS API Reference.
400	OMS.1009	No resources found. Ensure that the resources exist and resource parameters are correct.	No resources found.	Ensure that the resources exist and resource parameters are correct.
400	OMS.1010	Incorrect parameter type. Use the correct parameter type.	Incorrect parameter type.	Use the correct parameter type.
400	OMS.1011	No bucket ID found in the list. Ensure that bucket list contains bucket IDs.	No bucket ID found in the list.	Ensure that bucket list contains bucket IDs.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.1012	You can create a maximum of 50 evaluation tasks at a time. Try again later or contact technical support.	You can create a maximum of 50 evaluation tasks at a time.	Try again later or contact technical support.
400	OMS.1013	Invalid bucket ID. Enter a valid bucket ID.	Invalid bucket ID.	Enter a valid bucket ID.
400	OMS.1014	Failed to obtain source bucket details. Ensure that the AK and SK are correct and you have the permissions to access the bucket.	Failed to obtain source bucket details.	Ensure that the AK and SK are correct and you have the permissions to access the bucket.
400	OMS.1015	A maximum of 500 buckets can be evaluated per day. Try again later or contact technical support.	A maximum of 500 buckets can be evaluated per day.	Try again later or contact technical support.



Status Code	Error Code	Error Message	Description	Handling Measure
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.	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.
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.
400	OMS.1018	Invalid source bucket. Check the source bucket parameter.	Invalid source bucket.	Check the source bucket parameter.
400	OMS.1019	You can create a migration task only after the source bucket evaluation succeeds. Try again later.	You can create a migration task only after the source bucket evaluation succeeds.	Try again later.

Status Code	Error Code	Error Message	Description	Handling Measure
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.	Failed to access the destination bucket.	Ensure that the AK and SK are 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 exceeded the quota.	Please try again in 24 hours.
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.
400	OMS.1023	No bucket selected.	No bucket selected.	None
400	OMS.1026	Failed to create the migration task due a service error. For details, see the returned error message or contact technical support.	Failed to create the migration task due a service error.	For details, see the returned error message or contact technical support.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.1027	The failed objects record is empty. Select another one.	The failed objects record is empty. Select another one.	None
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.	None
400	OMS.1030	Invalid record status. For details, see the returned error message or contact technical support.	Invalid record status.	For details, see 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.	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.
400	OMS.1032	CDN authentication key required. Enter the correct CDN authentication key.	CDN authentication key required.	Enter the correct CDN authentication key.
400	OMS.1033	Only tasks in Evaluating state can be stopped. Check the task status.	Only tasks in Evaluating state can be stopped.	Check the task status.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.1035	Failed to upload the object list file. For details, see the returned error message or contact technical support.	Failed to upload the object list file.	For details, see 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.	Operations cannot be performed on task groups in current state.	Check the task group status.
400	OMS.1037	The number of task group that can be create each day cannot exceed 100. 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.
400	OMS.1038	Only tasks in Executing state can be paused. Check the task status.	Only tasks in 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 Paused state can be resumed.	Check the task status.

Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.1040	Only tasks in Creation failed or Failed state can be restarted. Check the task status.	Only tasks in 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 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.
400	OMS.2002	The synchronization task is not found or not started.	The synchronization task is not found or not started.	None
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 the length of each line in the object list file does not exceed 65,535 characters.

Status Code	Error Code	Error Message	Description	Handling Measure
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 contentType in the metadata of the object list file is set to text/plain and contentEncoding is not set.
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.	You do not have the OMS operation permissions.	Check the permission configuration.
503	OMS.2004	Service busy. Try again later.	Service busy.	Try again later.

## 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.
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.

Error Code	Description
S3M.0067	The parameter is not in JSON format.
S3M.0068	Authentication failed.
S3M.0069	Setting <b>enableKMS</b> to <b>true</b> 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: <>()'"&
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.



Error Code	Description
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.
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.

Error Code	Description
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.
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.

Error Code	Description
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.
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.

Error Code	Description
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 <a href="#">What Can I Do If the Migration Fails Because the Frequency of Accessing the Source Object Storage Exceeded the Upper Limit?</a>
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.

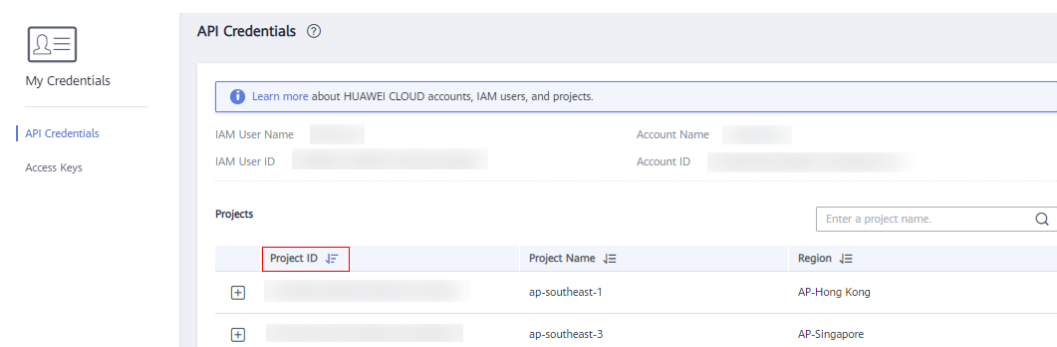
```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "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.

The screenshot displays the 'Migration Tasks' interface. At the top, there are instructions and a progress indicator. Below, a table lists migration tasks. The table has the following columns: Task Name, Task ID, Status, Progress, Start Time, and Operation. The task with ID 241224 is highlighted with a red box. All tasks shown are in a 'Succeeded' state with 100% progress.

Task Name	Task ID	Status	Progress	Start Time	Operation
[Blurred]	241224	Succeeded	100%	[Blurred]	Refresh More
[Blurred]	241226	Succeeded	100%	[Blurred]	Refresh More
[Blurred]	241225	Succeeded	100%	[Blurred]	Refresh More
[Blurred]	241220	Succeeded	100%	[Blurred]	Refresh More

# A Change History

Released On	Description
2023-11-15	This issue is the ninth official release. Added V2 APIs <a href="#">Operations on Buckets</a> , <a href="#">Querying Supported Source Clouds</a> , and <a href="#">Querying Supported Regions</a> .
2023-04-14	This issue is the eighth official release, Updated <a href="#">Creating a Migration Task Group</a> .
2022-09-16	This issue is the seventh official release. Added <a href="#">Migration Task Group Management</a> .
2022-07-28	This issue is the sixth official release. Updated <a href="#">Endpoints</a> .
2022-06-23	This issue is the fifth official release. Updated <a href="#">Creating a Synchronization Event</a> .
2021-05-28	This issue is the fourth official release. <ul style="list-style-type: none"><li>• Added <a href="#">APIs V2 (Recommended)</a>.</li><li>• Added <a href="#">Error Codes</a>.</li></ul>
2021-03-01	This issue is the third official release. Optimized <a href="#">Out-of-Date Error Codes</a> .

Released On	Description
2019-08-31	<p>This issue is the second official release.</p> <ul style="list-style-type: none"><li>• Added the <b>bandwidth_policy</b> parameter to the request parameters in <a href="#">Creating a Migration Task</a>.</li><li>• Added section <a href="#">Modifying a Traffic Limiting Rule</a>.</li><li>• Added the <b>bandwidth_policy</b> parameter to the response parameters in <a href="#">Querying All Migration Tasks of a Tenant</a>.</li><li>• Added the <b>bandwidth_policy</b> parameter to the response parameters in <a href="#">Querying Migration Tasks by Task IDs</a>.</li><li>• Added error codes <b>S3M.0083</b> to <b>S3M.0087</b> to <a href="#">Out-of-Date Error Codes</a>.</li></ul>
2019-07-25	<p>This issue is the first official release.</p>