Object Storage Migration Service

API Reference

Issue 04

Date 2021-05-28



HUAWEI

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1 Before You Start

1.1 Overview

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 public cloud of other cloud service providers 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 **Introduction**.

1.2 API Calling

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

1.3 Endpoints

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

The following table lists OMS endpoints. Select a desired one based on the service requirements.

Table 1-1 OMS endpoints

Region Name	Region	Endpoint
CN North-Beijing1	cn-north-1	oms.cn-north-1.myhuaweicloud.com

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Region Name	Region	Endpoint
CN North-Beijing4	cn-north-4	oms.cn-north-4.myhuaweicloud.com
CN East-Shanghai2	cn-east-2	oms.cn-east-2.myhuaweicloud.com
CN East-Shanghai1	cn-east-3	oms.cn-east-3.myhuaweicloud.com
CN South-Guangzhou	cn-south-1	oms.cn-south-1.myhuaweicloud.com
CN-Hong Kong	ap-southeast-1	oms.ap-southeast-1.myhuaweicloud.com
AP-Singapore	ap-southeast-3	oms.ap-southeast-3.myhuaweicloud.com

1.4 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).

  You can view the account ID and IAM user ID on the **My Credentials** page of the management console. 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. Computing,

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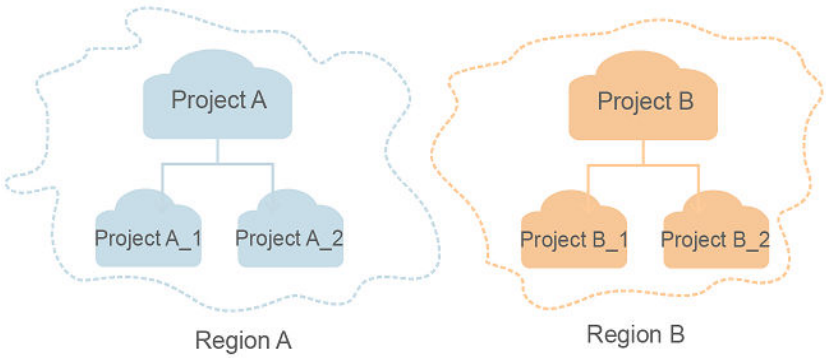
network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.

- 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

  To view a project ID, go to the **My Credentials** page.

- 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**.

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2 API Overview

OMS provides version query APIs and task management APIs.

Table 2-1 OMS APIs

Location	Description
Querying All API Versions	Query all API versions of OMS.
Querying a Specified API Version	Query a specified API version of OMS.
Querying the List of Migration Tasks	Query information about all tasks under a user account.
Querying a Migration Task by Task ID	Query details about a migration task based on its ID.
Creating a Migration Task	Create a migration task.
Starting a Migration Task	Start a migration task after the migration task has been paused or failed.
Pausing a Migration Task	Stop a migration task that is in the **Migrating** state.
Deleting a Migration Task	Delete a migration task based on its ID.
Updating the Traffic Limit Rule of a Migration Task	This API is used to update a traffic limit rule of a migration task before it is completed.

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3 Calling APIs

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**. For example, the endpoint of IAM in the **CN North-Beijing1** region is **iam.cn-north-1.myhuaweicloud.com**.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to obtain a user token is **/v3/auth/tokens**.

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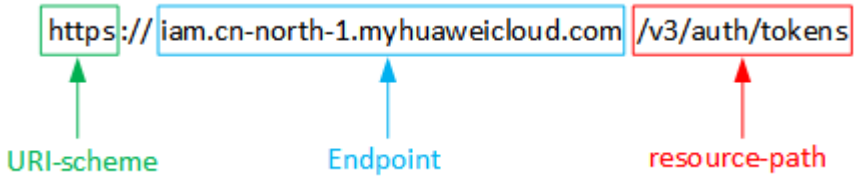
Parameter	Description
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "*Parameter name=Parameter value*". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN North-Beijing1** region, obtain the endpoint of IAM (**iam.cn-north-1.myhuaweicloud.com**) for this region and the **resource-path** (**/v3/auth/tokens**) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

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

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.

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Method	Description
PATCH	Requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

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

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname:Port number*. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value **application/json** is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495

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Parameter	Description	Mandatory	Example Value
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4
X-Auth-Token	Specifies the user token. It is a response to the API for **obtaining a user token** (only this API does not require authentication). After the request is processed, the value of **X-Subject-Token** in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

NOTE

In addition to supporting authentication using tokens, APIs support authentication using AK/SK, which uses SDKs to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added in the request.

For more details, see "Authentication Using AK/SK" in **Authentication**.

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

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

(Optional) Request Body

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

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

In the case of the API used to **obtain a user token**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*,

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domainname, ******** (login password), and *xxxxxxxxxxxxxxxxx* (project name) with the actual values. Obtain a project name from **Regions and Endpoints**.

NOTE

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

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

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

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

3.2 Authentication

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

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. AK/SK-based authentication is recommended because it is more secure than token-based authentication.

Token-based Authentication

NOTE

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

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

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You can obtain a token by calling the **Obtaining 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": "xxxxxxxx"
            }
        }
    }
}
```

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.cn-north-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

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

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

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

In AK/SK-based authentication, you can use an AK/SK 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.

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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 Code**.

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

Response Header

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

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

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



(Optional) Response Body

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

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

```
{
    "token": {
```

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```
        "expires_at": "2019-02-13T06:52:13.855000Z",
        "methods": [
            "password"
        ],
        "catalog": [
            {
                "endpoints": [
                    {
                        "region_id": "az-01",
.....
```

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.

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4 API v2 (Recommended)

4.1 API Version Query

4.1.1 Querying All API Versions

Function

This API is used to query all API versions of the Object Storage Migration Service (OMS).

Debugging

You can debug this API in **API Explorer**.

URI

GET /

Request

None

Response

Status code: 200

Table 4-1 Response body parameter

Parameter	Type	Description
versions	Array of **Version** objects	Specifies the API version list.

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Table 4-2 Version field description

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

Table 4-3 Link field description

Parameter	Type	Description
href	String	Specifies the link address.
rel	String	Its value is **self**, indicating that **href** is a local link.

Status code: 403

Table 4-4 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

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Example Request

Query the list of supported API versions.

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

{
  "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"
  } ]
}
```

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"
  } ]
}
```

Status Codes

Status Code	Description
200	OK
403	Forbidden

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Error Codes

See **Error Codes**.

4.1.2 Querying a Specified API Version

Function

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

Debugging

You can debug this API in **API Explorer**.

URI

GET /{version}

Table 4-5 Path parameter

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

Request

None

Response

Status code: 200

Table 4-6 Response body parameters

Parameter	Type	Description
id	String	Specifies the API version, for example, **v1**.
links	Array of **Link** objects	Specifies the link address.

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

Table 4-7 Link field description

Parameter	Type	Description
href	String	Specifies the link address.
rel	String	Its value is **self**, indicating that **href** is a local link.

Status code: 403

Table 4-8 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

Obtain version information.

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


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

Example Response

Status code: 200

Version information

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

Status Codes

Status Code	Description
200	Version information
403	Forbidden

Error Codes

See **Error Codes**.

4.2 Migration Task Management

4.2.1 Querying the List of Migration Tasks

Function

This API is used to query the information about all tasks under a user account.

Debugging

You can debug this API in **API Explorer**.

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URI

GET /v2/{project_id}/tasks

Table 4-9 Path parameter

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

Table 4-10 Query parameters

Parameter	Mandatory	Type	Description
group_id	No	String	Specifies the ID of a migration task group. Minimum length: 1 character Maximum length: 100 characters
limit	No	Integer	Specifies the maximum number of migration tasks displayed on one page. A maximum of 100 migration tasks can be displayed. Minimum value: **1** Maximum value: **100** Default value: **10**
offset	No	Integer	Specifies the start serial number of migration tasks. The value must be greater than or equal to 0. If **offset** is set to 0, the query starts from the first task record. Minimum value: **0** Maximum value: **10000** Default value: **0**

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Parameter	Mandatory	Type	Description
status	No	Integer	Specifies the migration task status. If this parameter is not specified, migration tasks in all statuses will be queried. The value can be **1** (Waiting to migrate), **2** (Migrating), **3** (Migration paused), **4** (Migration failed), or **5** (Migration succeeded). Minimum value: **1** Maximum value: **5**

Request

Table 4-11 Request header parameter

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

Response

Status code: 200

Table 4-12 Response body parameters

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

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Table 4-13 TaskResp field description

Parameter	Type	Description
bandwidth_policy	Array of **BandwidthPolicyDto** objects	Specifies the traffic limit rules. A maximum of five traffic limit rules can be set for each task.
complete_size	Long	Specifies the size (in bytes) of the objects that have been migrated in the task. Minimum value: **0** Maximum value: **9223372036854775807**
description	String	Describes the migration task. This field can be left blank. Minimum length: 0 characters Maximum length: 255 characters
dst_node	**DstNodeResp** object	Specifies the destination node information.
enable_failed_object_recording	Boolean	Specifies 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	Specifies whether to use KMS to encrypt the data to be stored in the destination OBS bucket.
enable_restore	Boolean	Specifies 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 the migration speed. You are advised to restore the archive objects before 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	**ErrorReasonResp** object	Specifies the task failure cause. This field is left blank when the task is not in the **Migration failed** state.
failed_num	Long	Specifies the number of objects that failed to be migrated. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
failed_object_record	FailedObjectRecordDto object	Specifies whether the failed objects are recorded successfully. If the record is successful, the storage path for the failed object list is provided. If the record fails, the failure cause is displayed.
group_id	String	Specifies 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	Specifies the task ID. Minimum value: **0** Maximum value: **999999999999999**
is_query_over	Boolean	Specifies whether the source object statistics are scanned for the migration task.
left_time	Long	Specifies the remaining time (in milliseconds) of the task. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_since	Long	Specifies the specified migration time (timestamp, in milliseconds). Only source objects that are modified after the specified time will be migrated. Default value **0** indicates that no time is specified. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_speed	Long	Specifies the migration speed (byte/s). Minimum value: **0** Maximum value: **9223372036854775807**
name	String	Specifies the task name. Minimum length: 0 characters Maximum length: 10,240 characters
progress	Double	Specifies the task progress. For example, **0.522** represents the progress is 52.2%, and **1** represents the progress is 100%. Minimum value: **0** Maximum value: **1**

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Parameter	Type	Description
real_size	Long	Specifies the total size (in bytes) of the migrated objects. The size of ignored objects is not counted. Minimum value: **0** Maximum value: **9223372036854775807**
skipped_num	Long	Specifies the number of objects that are ignored during the migration. The following objects will be ignored: objects whose last modification time is earlier than the specified migration time, and objects that exist in the destination bucket. Minimum value: **0** Maximum value: **9223372036854775807**
src_node	**SrcNodeResp** object	Specifies the source node information.
start_time	Long	Specifies the start time (UNIX timestamp, in milliseconds) of the migration task. Minimum value: **0** Maximum value: **9223372036854775807**
status	Integer	Specifies the task status. **1**: Waiting to migrate; **2**: Migrating; **3**: Migration paused; **4**: Migration failed; **5**: Migration succeeded. Minimum value: **1** Maximum value: **5**
successful_num	Long	Specifies the number of successfully migrated objects. Minimum value: **0** Maximum value: **9223372036854775807**
task_type	String	Specifies the task type. **list** indicates migrating objects using an object list. **object** indicates migrating selected files or folders. **prefix** indicates migrating objects with specified prefixes. **url_list** indicates migrating objects using a URL object list. Default value: **object** Value options are as follows: • **list** • **object** • **prefix** • **url_list**

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Parameter	Type	Description
group_type	String	Specifies the task group type. **NORMAL_TASK** indicates a general migration task. **SYNC_TASK** indicates a migration task to which a synchronization task belongs. **GROUP_TASK** indicates a subtask in a migration task group. Default value: **NORMAL_TASK** Value options are as follows: • **NORMAL_TASK** • **SYNC_TASK** • **GROUP_TASK**
total_num	Long	Specifies the total number of the objects that have been migrated in the task. Minimum value: **0** Maximum value: **9223372036854775807**
total_size	Long	Specifies the size (in bytes) of the objects that have been migrated in the task. Minimum value: **0** Maximum value: **9223372036854775807**
total_time	Long	Specifies the total time used (in milliseconds). Minimum value: **0** Maximum value: **9223372036854775807**
smn_info	**SmnInfo** object	Specifies the SMN notification results.
source_cdn	**SourceCdnResp** object	Specifies whether to enable CDN during the migration. 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.
success_record_error_reason	String	Specifies 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	Specifies 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

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Table 4-14 BandwidthPolicyDto field description

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

Table 4-15 DstNodeResp

Parameter	Type	Description
bucket	String	Specifies the name of the destination bucket. Maximum length: 1,024 characters
region	String	Specifies 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	Specifies the path prefix in the destination bucket. The prefix is added before the 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

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Table 4-16 ErrorReasonResp

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

Table 4-17 FailedObjectRecordDto field description

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

Table 4-18 SrcNodeResp field description

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

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Parameter	Type	Description
cloud_type	String	Specifies the source cloud service provider. The value can be **AWS**, **Azure**, **Aliyun**, **Tencent**, **HuaweiCloud**, **QingCloud**, **KingsoftCloud**, **Baidu**, **Qiniu**, **URLSource**, or **UCloud**. The default value is **Aliyun**. Value options are as follows: • **AWS** • **Azure** • **Aliyun** • **Tencent** • **HuaweiCloud** • **QingCloud** • **KingsoftCloud** • **Baidu** • **Qiniu** • **URLSource** • **UCloud**
region	String	Specifies the region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters
app_id	String	This parameter is returned when **cloud_type** is **Tencent**. Minimum length: 0 characters Maximum length: 255 characters
object_key	Array of strings	If the **task_type** is **object**, this parameter indicates the names of the objects to be migrated. If the **task_type** is **prefix**, this parameter indicates the name prefixes of the objects to be migrated.
list_file	**ListFile** object	Specifies the list file configuration. **list_file** is mandatory when **task_type** is set to **list** or **url_list**.

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Table 4-19 ListFile field description

Parameter	Type	Description
list_file_key	String	Specifies the object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	String	Specifies 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

Table 4-20 SmnInfo field description

Parameter	Type	Description
notify_result	Boolean	Specifies whether the SMN messages are sent successfully after migration tasks are complete.
notify_error_message	String	Specifies 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	Specifies the SMN topic name. The value is empty if SMN messages are sent successfully. Minimum length: 0 characters Maximum length: 5,120 characters

Table 4-21 SourceCdnResp field description

Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters

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Parameter	Type	Description
protocol	String	Specifies the protocol type. Value options are as follows: • **HTTP** • **HTTPS**
authentication_type	String	Specifies the authentication type. Value options are as follows: • **NONE** • **QINIU_PRIVATE_AUTHENTICATION** • **ALIYUN_OSS_A** • **ALIYUN_OSS_B** • **ALIYUN_OSS_C** • **KSYUN_PRIVATE_AUTHENTICATION** • **AZURE_SAS_TOKEN**

Status code: 400

Table 4-22 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

Query 10 failed tasks under the project whose ID is **2c0689c860ad4728a497c91ec0844383**.

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

```
{
  "count" : 2,
  "tasks" : [ {
    "bandwidth_policy" : [ {
      "start" : "00:00",
      "end" : "15:00",
      "max_bandwidth" : 5242880
    } ],
    "complete_size" : 102608606,
    "description" : "Aliyun_API_Sonar",
    "dst_node" : {
      "region" : "cn-north-1",
      "bucket" : "oms-sonar-north1"
    },
    "enable_failed_object_recording" : true,
    "enable_kms" : false,
    "enable_restore" : false,
    "error_reason" : {
```


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```
    "error_code" : "TRF.0001",
    "error_msg" : "System error. Click the restart button to try to start the migration task."
  },
  "failed_num" : 7,
  "failed_object_record" : {
    "result" : true,
    "list_file_key" : "oms/failed_object_lists/oms-north1-20200407164335723_487.failed_list.txt"
  },
  "group_id" : "null",
  "id" : 191297407830872,
  "is_query_over" : true,
  "left_time" : 0,
  "migrate_since" : 0,
  "migrate_speed" : 780973,
  "name" : "oms-north1-20200407164335723_487",
  "progress" : 0.998,
  "real_size" : 102465246,
  "skipped_num" : 99,
  "src_node" : {
    "region" : "cn-beijing",
    "bucket" : "api-auto-test1",
    "object_key" : [ "10000" ],
    "list_file" : "",
    "cloud_type" : "Aliyun"
  },
  "start_time" : 1586249019394,
  "status" : 4,
  "successful_num" : 19895,
  "task_type" : "prefix",
  "thread_num" : 50,
  "total_num" : 20001,
  "total_size" : 102629086,
  "total_time" : 131202,
  "smn_info" : "smn",
  "source_cdn" : "source_cdn"
}, {
  "bandwidth_policy" : [ {
    "start" : "00:00",
    "end" : "15:00",
    "max_bandwidth" : 5242880
  } ],
  "complete_size" : 102608606,
  "description" : "Aliyun_API_Sonar",
  "dst_node" : {
    "region" : "cn-north-1",
    "bucket" : "oms-sonar-north1"
  },
  "enable_failed_object_recording" : true,
  "enable_kms" : false,
  "enable_restore" : false,
  "error_reason" : {
    "error_code" : "TRF.0001",
    "error_msg" : "System error. Click the restart button to try to start the migration task."
  },
  "failed_num" : 7,
  "failed_object_record" : {
    "result" : true,
    "list_file_key" : "oms/failed_object_lists/oms-north1-20200407164335723_487.failed_list.txt"
  },
  "group_id" : "null",
  "id" : 191297407830872,
  "is_query_over" : true,
  "left_time" : 0,
  "migrate_since" : 0,
  "migrate_speed" : 780973,
  "name" : "oms-north1-20200407164335723_487",
  "progress" : 0.998,
  "real_size" : 102465246,
  "skipped_num" : 99,
```


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```
  "src_node" : {
    "region" : "cn-beijing",
    "bucket" : "bucket_name",
    "object_key" : [ "10000" ],
    "list_file" : "",
    "cloud_type" : "Aliyun"
  },
  "start_time" : 1586249019394,
  "status" : 4,
  "successful_num" : 19895,
  "task_type" : "prefix",
  "thread_num" : 50,
  "total_num" : 20001,
  "total_size" : 102629086,
  "total_time" : 131202,
  "smn_info" : "smn",
  "source_cdn" : "source_cdn"
 } ]
}
```


Example Response

None

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See **Error Codes**.

4.2.2 Querying a Migration Task by Task ID

Function

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

Debugging

You can debug this API in **API Explorer**.

URI

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

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Table 4-23 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	Long	Specifies the task ID. Minimum value: **0** Maximum value: **999999999999999**

Request

Table 4-24 Request header parameter

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

Response

Status code: 200

Table 4-25 Response body parameters

Parameter	Type	Description
bandwidth_policy	Array of **BandwidthPolicyDto** objects	Specifies the traffic limit rules. A maximum of five traffic limit rules can be set for each task.
complete_size	Long	Specifies the size (in bytes) of the objects that have been migrated in the task. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
description	String	Describes the migration task. This field can be left blank. Minimum length: 0 characters Maximum length: 255 characters
dst_node	**DstNodeResp** object	Specifies the destination node information.
enable_failed_object_recording	Boolean	Specifies 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	Specifies whether to use KMS to encrypt the data to be stored in the destination OBS bucket.
enable_restore	Boolean	Specifies 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 the migration speed. You are advised to restore the archive objects before 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	**ErrorReasonResp** object	Specifies the task failure cause. This field is left blank when the task is not in the **Migration failed** state.
failed_num	Long	Specifies the number of objects that failed to be migrated. Minimum value: **0** Maximum value: **9223372036854775807**
failed_object_record	**FailedObjectRecordDto** object	Specifies whether the failed objects are recorded successfully. If the record is successful, the storage path for the failed object list is provided. If the record fails, the failure cause is displayed.

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Parameter	Type	Description
group_id	String	Specifies 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	Specifies the task ID. Minimum value: **0** Maximum value: **999999999999999**
is_query_over	Boolean	Specifies whether the source object statistics are scanned for the migration task.
left_time	Long	Specifies the remaining time (in milliseconds) of the task. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_since	Long	Specifies the specified migration time (timestamp, in milliseconds). Only source objects that are modified after the specified time will be migrated. Default value **0** indicates that no time is specified. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_speed	Long	Specifies the migration speed (byte/s). Minimum value: **0** Maximum value: **9223372036854775807**
name	String	Specifies the task name. Minimum length: 0 characters Maximum length: 10,240 characters
progress	Double	Specifies the task progress. For example, **0.522** represents the progress is 52.2%, and **1** represents the progress is 100%. Minimum value: **0** Maximum value: **1**
real_size	Long	Specifies the total size (in bytes) of the migrated objects. The size of ignored objects is not counted. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
skipped_num	Long	Specifies the number of objects that are ignored during the migration. The following objects will be ignored: objects whose last modification time is earlier than the specified migration time, and objects that exist in the destination bucket. Minimum value: **0** Maximum value: **9223372036854775807**
src_node	**SrcNodeResp** object	Specifies the source node information.
start_time	Long	Specifies the start time (UNIX timestamp, in milliseconds) of the migration task. Minimum value: **0** Maximum value: **9223372036854775807**
status	Integer	Specifies the task status. **1**: Waiting to migrate; **2**: Migrating; **3**: Migration paused; **4**: Migration failed; **5**: Migration succeeded. Minimum value: **1** Maximum value: **5**
successful_num	Long	Specifies the number of successfully migrated objects. Minimum value: **0** Maximum value: **9223372036854775807**
task_type	String	Specifies the task type. **list** indicates migrating objects using an object list. **object** indicates migrating selected files or folders. **prefix** indicates migrating objects with specified prefixes. **url_list** indicates migrating objects using a URL object list. Default value: **object** Value options are as follows: • **list** • **object** • **prefix** • **url_list**

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Parameter	Type	Description
group_type	String	Specifies the task group type. **NORMAL_TASK** indicates a general migration task. **SYNC_TASK** indicates a migration task to which a synchronization task belongs. **GROUP_TASK** indicates a subtask in a migration task group. Default value: **NORMAL_TASK** Value options are as follows: • **NORMAL_TASK** • **SYNC_TASK** • **GROUP_TASK**
total_num	Long	Specifies the total number of the objects that have been migrated in the task. Minimum value: **0** Maximum value: **9223372036854775807**
total_size	Long	Specifies the size (in bytes) of the objects that have been migrated in the task. Minimum value: **0** Maximum value: **9223372036854775807**
total_time	Long	Specifies the total time used (in milliseconds). Minimum value: **0** Maximum value: **9223372036854775807**
smn_info	**SmnInfo** object	Specifies the SMN notification results.
source_cdn	**SourceCdnResp** object	Specifies whether to enable CDN during the migration. 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.
success_record_error_reason	String	Specifies 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	Specifies 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

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Table 4-26 BandwidthPolicyDto field description

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

Table 4-27 DstNodeResp

Parameter	Type	Description
bucket	String	Specifies the name of the destination bucket. Maximum length: 1,024 characters
region	String	Specifies 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	Specifies the path prefix in the destination bucket. The prefix is added before the 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

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Table 4-28 ErrorReasonResp

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

Table 4-29 FailedObjectRecordDto field description

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

Table 4-30 SrcNodeResp field description

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

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Parameter	Type	Description
cloud_type	String	Specifies the source cloud service provider. The value can be **AWS**, **Azure**, **Aliyun**, **Tencent**, **HuaweiCloud**, **QingCloud**, **KingsoftCloud**, **Baidu**, **Qiniu**, **URLSource**, or **UCloud**. The default value is **Aliyun**. Value options are as follows: • **AWS** • **Azure** • **Aliyun** • **Tencent** • **HuaweiCloud** • **QingCloud** • **KingsoftCloud** • **Baidu** • **Qiniu** • **URLSource** • **UCloud**
region	String	Specifies the region where the source bucket is located. Minimum length: 0 characters Maximum length: 100 characters
app_id	String	This parameter is returned when **cloud_type** is **Tencent**. Minimum length: 0 characters Maximum length: 255 characters
object_key	Array of strings	If the **task_type** is **object**, this parameter indicates the names of the objects to be migrated. If the **task_type** is **prefix**, this parameter indicates the name prefixes of the objects to be migrated.
list_file	**ListFile** object	Specifies the list file configuration. **list_file** is mandatory when **task_type** is set to **list** or **url_list**.

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Table 4-31 ListFile field description

Parameter	Type	Description
list_file_key	String	Specifies the object names in the object list file or URL list file. Minimum length: 1 character Maximum length: 1,024 characters
obs_bucket	String	Specifies 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

Table 4-32 SmnInfo field description

Parameter	Type	Description
notify_result	Boolean	Specifies whether the SMN messages are sent successfully after migration tasks are complete.
notify_error_message	String	Specifies 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	Specifies the SMN topic name. The value is empty if SMN messages are sent successfully. Minimum length: 0 characters Maximum length: 5,120 characters

Table 4-33 SourceCdnResp field description

Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters

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Parameter	Type	Description
protocol	String	Specifies the protocol type. Value options are as follows: • **HTTP** • **HTTPS**
authentication_type	String	Specifies the authentication type. Value options are as follows: • **NONE** • **QINIU_PRIVATE_AUTHENTICATION** • **ALIYUN_OSS_A** • **ALIYUN_OSS_B** • **ALIYUN_OSS_C** • **KSYUN_PRIVATE_AUTHENTICATION** • **AZURE_SAS_TOKEN**

Status code: 404

Table 4-34 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

Query details of task **191297407830872** in project **2c0689c860ad4728a497c91ec0844383**.

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

{
  "bandwidth_policy" : [ {
    "start" : "00:00",
    "end" : "15:00",
    "max_bandwidth" : 5242880
  } ],
  "complete_size" : 102608606,
  "description" : "Aliyun_API_Sonar",
  "dst_node" : {
    "region" : "cn-north-1",
    "bucket" : "oms-sonar-north1"
  },
  "enable_failed_object_recording" : true,
  "enable_kms" : false,
  "enable_restore" : false,
  "error_reason" : {
    "error_code" : "TRF.0001",
    "error_msg" : "System error. Click the restart button to try to start the migration task."
```


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```
 },
 "failed_num" : 7,
 "failed_object_record" : {
   "result" : true,
   "list_file_key" : "oms/failed_object_lists/api-auto-test1-oms-sonar-
north1-20200407164335723_487.failed_list.txt"
 },
 "group_id" : "null",
 "id" : 191297407830872,
 "is_query_over" : true,
 "left_time" : 0,
 "migrate_since" : 0,
 "migrate_speed" : 780973,
 "name" : "api-auto-test1-oms-sonar-north1-20200407164335723_487",
 "progress" : 0.998,
 "real_size" : 102465246,
 "skipped_num" : 99,
 "src_node" : {
   "region" : "cn-beijing",
   "bucket" : "api-auto-test1",
   "object_key" : [ "10000" ],
   "list_file" : "",
   "cloud_type" : "Aliyun"
 },
 "start_time" : 1586249019394,
 "status" : 4,
 "successful_num" : 19895,
 "task_type" : "prefix",
 "thread_num" : 50,
 "total_num" : 20001,
 "total_size" : 102629086,
 "total_time" : 131202,
 "smn_info" : "smn",
 "source_cdn" : "source_cdn"
}
```


Example Response

None

Status Codes

Status Code	Description
200	OK
404	Not Found

Error Codes

See **Error Codes**.

4.2.3 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.

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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.

Debugging

You can debug this API in **API Explorer**.

URI

POST /v2/{project_id}/tasks

Table 4-35 Path parameters

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

Request

Table 4-36 Request header parameter

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

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Table 4-37 Request body parameters

Parameter	Mandatory	Type	Description
task_type	No	String	Specifies the task type. **list** indicates migrating objects using an object list. **url_list** indicates migrating objects using a URL object list. **object** indicates migrating selected files or folders. **prefix** indicates migrating objects with specified prefixes. Default value: **object** Value options are as follows: • **list** • **url_list** • **object** • **prefix**
src_node	Yes	**SrcNodeReq** object	Specifies the source information.
dst_node	Yes	**DstNodeReq** object	Specifies the destination information.
enable_kms	No	Boolean	Specifies whether to enable the KMS encryption function. This function is disabled by default. Default value: **false**
description	No	String	Provides supplementary information about the task, which cannot exceed 255 characters. The following special characters are not allowed: ^<>&'" Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
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. Minimum value: **0** Maximum value: **9223372036854775807** Default value: **0**
bandwidth_policy	No	Array of **BandwidthPolicyDto** objects	Specifies the traffic limit 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.
source_cdn	No	**SourceCdnReq** object	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.
smn_config	No	**SmnConfig** object	Specifies the SMN message sending configuration.
enable_restore	No	Boolean	Specifies whether to automatically restore the archive data. If this function is enabled, archive data is automatically restored and migrated. Default value: **false**

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Parameter	Mandatory	Type	Description
enable_failed_object_recording	No	Boolean	Specifies 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: **true**

Table 4-38 SrcNodeReq field description

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

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Parameter	Mandatory	Type	Description
sk	No	String	Specifies the SK for accessing the destination bucket. This parameter is mandatory when **task_type** is not **url_list**. Minimum length: 0 characters Maximum length: 100 characters
security_token	No	String	Specifies the temporary token for accessing the source bucket. Minimum length: 0 characters Maximum length: 16,384 characters
app_id	No	String	This parameter is mandatory when **cloud_type** is **Tencent**. Minimum length: 0 characters Maximum length: 255 characters
bucket	No	String	Specifies the name of the source bucket. **bucket** is mandatory when **task_type** is not **url_list**. Minimum length: 0 characters Maximum length: 1,024 characters
object_key	No	Array of strings	If **task-type** is set to **object**, 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. If **task_type** is set to **prefix**, this parameter indicates the name prefixes of the objects to be migrated. If you want to migrate the entire bucket, set this parameter to **[""]**. Minimum length: 0 characters Maximum length: 1,024 characters

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Parameter	Mandatory	Type	Description
list_file	No	**ListFile** object	Specifies the list file configuration. **list_file** is mandatory when **task_type** is set to **list** or **url_list**.

Table 4-39 ListFile field description

Parameter	Mandatory	Type	Description
list_file_key	Yes	String	Specifies 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	Specifies 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

Table 4-40 DstNodeReq field description

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

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Parameter	Mandatory	Type	Description
security_token	No	String	Specifies the temporary token for accessing the destination bucket. Minimum length: 0 characters Maximum length: 16,384 characters
bucket	Yes	String	Specifies the name of the destination bucket. Minimum length: 0 characters Maximum length: 1,024 characters
save_prefix	No	String	Specifies the path prefix in the destination bucket. The prefix is added before the 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
region	Yes	String	Specifies 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 4-41 BandwidthPolicyDto field description

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

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

Table 4-42 SourceCdnReq

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

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Parameter	Mandatory	Type	Description
authentication_type	Yes	String	Specifies the authentication type. Default value: **None** Value options are as follows: • **NONE** • **QINIU_PRIVATE_AUTHENTICATION** • **ALIYUN_OSS_A** • **ALIYUN_OSS_B** • **ALIYUN_OSS_C** • **KSYUN_PRIVATE_AUTHENTICATION**
domain	Yes	String	Specifies the domain name from which to obtain objects to be migrated. Minimum length: 0 characters Maximum length: 1,024 characters
protocol	Yes	String	Specifies the protocol type. Value options are as follows: • **HTTP** • **HTTPS**

Table 4-43 SmnConfig field description

Parameter	Mandatory	Type	Description
language	No	String	Specifies the management console language chosen by you. The value can be **zh-cn** or **en-us**. Default value: **en-us** Value options are as follows: • **zh-cn** • **en-us**

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Parameter	Mandatory	Type	Description
topic_urn	Yes	String	Specifies 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	Specifies 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 **SUCCESS** or **FAILURE**. • **FAILURE**: indicates that an SMN message will be sent after the migration task fails. • **SUCCESS**: indicates that an SMN message will be sent after the migration task succeeds.

Response

Status code: 201

Table 4-44 Response body parameters

Parameter	Type	Description
id	Long	Specifies the task ID. Minimum value: **0** Maximum value: **999999999999999**
task_name	String	Specifies the task name. Minimum length: 0 characters Maximum length: 2,048 characters

Status code: 400

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Table 4-45 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

- Create an object list migration task, use CDN to migrate data, enable traffic limit by time segment, and enable 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"
  }
}
```

- Create an object list migration task, use CDN to migrate data, enable traffic limit by time segment, and enable 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",
```

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```
  "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"
 }
}
```

- Create a URL list migration task.

```
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"
}
```

- Create a prefix migration task.

```
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",
```

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```
    "ak" : "dst_ak",
    "sk" : "dst_sk",
    "bucket" : "dst_bucket"
  },
  "enable_kms" : false,
  "enable_failed_object_recording" : true,
  "description" : "xxx"
}
```

Example Response

Status code: 201

Created

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

Status Codes

Status Code	Description
201	Created
400	Bad Request

Error Codes

See **Error Codes**.

4.2.4 Pausing a Migration Task

Function

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

Debugging

You can debug this API in **API Explorer**.

URI

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

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Table 4-46 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	Long	Specifies the migration task ID. Minimum value: **0** Maximum value: **999999999999999**

Request

Table 4-47 Request header parameters

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

Response

Status code: 400

Table 4-48 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Status code: 403

Table 4-49 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.

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Parameter	Type	Description
error_code	String	Specifies the error code.

Example Request

None

Example Response

None

Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden

Error Codes

See **Error Codes**.

4.2.5 Starting a Migration Task

Function

This API is used to start a migration task after the migration task has been paused or failed.

Debugging

You can debug this API in **API Explorer**.

URI

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

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Table 4-50 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	Long	Specifies the migration task ID. Minimum value: **0** Maximum value: **999999999999999**

Request

Table 4-51 Request header parameter

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

Table 4-52 Request body parameters

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

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Parameter	Mandatory	Type	Description
src_sk	No	String	Specifies the SK for accessing the source node. Enter a maximum of 100 characters. This parameter is not required for URL list migration tasks. Minimum length: 1 character Maximum length: 100 characters
src_security_token	No	String	Specifies the temporary token for accessing the source node. Minimum length: 0 characters Maximum length: 16,384 characters
dst_ak	Yes	String	Specifies the AK for accessing the destination node. Minimum length: 1 character Maximum length: 100 characters
dst_sk	Yes	String	Specifies the SK for accessing the destination node. Minimum length: 1 character Maximum length: 100 characters
dst_security_token	No	String	Specifies the temporary token for accessing the destination node. Minimum length: 0 characters Maximum length: 16,384 characters
source_cdn_authentication_key	No	String	Specifies the CDN authentication key.
migrate_failed_object	No	Boolean	Specifies whether to migrate all objects in the migration task. The default value is **false** (full migration). If the value is **true**, only failed objects will be migrated again. If the value is blank or **false**, all objects in the migration task will be migrated again. Default value: **false**

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Response

Status code: 400

Table 4-53 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

- Start a non-URL list migration task.

```
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",
  "src_cdn_authentication_key" : "xxxxxx",
  "migrate_failed_object" : false
}
```

- Start a URL list migration task.

```
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

See **Error Codes**.

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4.2.6 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.

Debugging

You can debug this API in **API Explorer**.

URI

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

Table 4-54 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	Long	Specifies the migration task ID. Minimum value: **0** Maximum value: **999999999999999**

Request

Table 4-55 Request header parameter

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

Response

Status code: 400

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Table 4-56 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Status code: 403

Table 4-57 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

None

Example Response

None

Status Codes

Status Code	Description
200	OK
400	Bad Request
403	Forbidden

Error Codes

See **Error Codes**.

4.2.7 Updating the Traffic Limit Rule of a Migration Task

Function

This API is used to update the traffic limit rules of a migration task before it is complete.

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Debugging

You can debug this API in **API Explorer**.

URI

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

Table 4-58 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Specifies the project ID. Minimum length: 1 character Maximum length: 1,024 characters
task_id	Yes	Long	Specifies the task ID. Minimum value: **0** Maximum value: **999999999999999**

Request

Table 4-59 Request header parameters

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

Table 4-60 Request body parameters

Parameter	Mandatory	Type	Description
bandwidth_policy	Yes	Array of **BandwidthPolicyDto** objects	Specifies the traffic limit 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.

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Table 4-61 BandwidthPolicyDto field description

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

Response

Status code: 400

Table 4-62 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

For the task whose ID is **xxxxxxxx**, set **start** to **00:01**, **end** to **23:59**, and **max_bandwidth** to **50000000** byte/s.

```
/v2/{project_id}/tasks/xxxxxxxx/bandwidth-policy

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

Example Response

None

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Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See **Error Codes**.

4.3 SyncApi

4.3.1 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 the system synchronizes the objects contained in the synchronization event.

Debugging

You can debug this API in **API Explorer**.

URI

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

Table 4-63 Path Parameters

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

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Request

Table 4-64 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Specifies 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 4-65 Request body parameter

Parameter	Mandatory	Type	Description
object_keys	Yes	Array of strings	Specifies the list of URL-encoded names of objects to be synchronized. A maximum of 10 objects can be included.

Response

When the status code is **400**, the response parameters are as follows.

Table 4-66 Response body parameters

Parameter	Type	Description
error_msg	String	Specifies the error message.
error_code	String	Specifies the error code.

Example Request

- /v2/f697f813-554a-4f05-bac8-82a183b20878/sync-tasks/31e9b7e6-6ffb-452f-9842-6ce354d99d75/events

```
{
  "object_keys" : [ "test%2F001.txt", "test%2F002.txt" ]
}
```

- /v2/f697f813-554a-4f05-bac8-82a183b20878/sync-tasks/31e9b7e6-6ffb-452f-9842-6ce354d99d75/events

```
{
```


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```
 "object_keys" : [ "test%2B001.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. No synchronization tasks found.
503	Service unavailable. Please try again later.

Error Codes

See **Error Codes**.

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5 Out-of-Date APIs

5.1 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 5-1 describes the parameters in the URI.

Table 5-1 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 5-2 describes the response parameters.

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Table 5-2 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.cn-north-1.myhuaweicloud.com/v1/",
               "rel": "self"
            }
         ],
         "min_version": "",
         "status": "SUPPORTED",
         "updated": "2016-12-09T00:00:00Z",
         "version": "",
      },
      {
         "id": "v2.0",
         "links": [
            {
               "href": "https://oms.cn-north-1.myhuaweicloud.com/v1/",
               "rel": "self"
            }
         ],
         "min_version": "",
         "status": "CURRENT",
         "updated": "2016-12-09T00:00:00Z",
         "version": "",
      }
   ]
}
```

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Status Code

For details about the status code, see **Status Code**.

5.2 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 5-3 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.

Request

Request parameters

Table 5-4 Parameter description

Parameter	Mandatory	Type	Description
src_node	Yes	JSONObject	Specifies the source node information. For details, see **Table 5-5**.
dst_node	Yes	JSONObject	Specifies the destination node information. For details, see **Table 5-8**.
enableKMS	Yes	boolean	Specifies whether to use KMS encryption.

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Parameter	Mandatory	Type	Description
thread_num	Yes	int	Specifies the number of threads used by the migration task. The value cannot exceed 50.
description	No	String	Describes the task, which cannot exceed 255 characters. The following special characters are not allowed: <>()'"&
smnInfo	No	JSONObject	Specifies the field used for sending messages using the SMN service. For details, see **Table 5-9**.
migrate_since	No	long	Specifies a timestamp in second. The system migrates only the objects that are modified after the specified time. No time is specified by default.
source_cdn	No	JSONObject	Specifies whether to enable CDN support. If this parameter is contained, using CDN to download source data is supported. Otherwise, CDN is not supported. If CDN is enabled, the source objects to be migrated are obtained from the CDN domain name during migration. For details, see **Table 5-10**.

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Parameter	Mandatory	Type	Description
auto_restore	No	boolean	Specifies whether to automatically restore the archived data. The default value is **No**. If this function is enabled, archived data is automatically restored and migrated.
bandwidth_policy	No	JSONArray	Specifies the traffic limit rule. Each element in the array corresponds to the maximum bandwidth of a time segment. A maximum of five time segments are allowed, and the time segments must not overlap. For details, see **Table 5-11**.

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Parameter	Mandatory	Type	Description
task_type	No	String	Specifies the task type. The default value is **object**. • **list**: indicates that the system will migrate the objects in the object list file. • **object**: indicates that the system will migrate the selected objects and folders. • **prefix**: indicates that the system will migrate the objects with a specified prefix. • **url_list**: indicates that the system will migrate the objects in the URL list file. **NOTE** When **task_type** is set to **list** or **url_list**, **list_file** in **Table 5-5** is mandatory. When **task_type** is set to **object** or **prefix**, **object_key** in **Table 5-5** is mandatory.
enable_failed_object_recording	No	Boolean	Specifies whether to record the failed objects. This function is enabled by default. If this function is enabled, information about the objects that failed to be migrated will be stored in the destination bucket.

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Table 5-5 src_node field description

Parameter	Mandatory	Type	Description
region	Yes	String	Specifies the region where the source bucket locates.
ak	Yes	String	Specifies the source bucket AK. Enter a maximum of 100 characters. **NOTE** If **task_type** in **Table 5-4** is set to **url_list**, **ak** is optional. For other task types, **ak** is mandatory.
sk	Yes	String	Specifies the source bucket SK. Enter a maximum of 100 characters. **NOTE** If **task_type** in **Table 5-4** is set to **url_list**, **sk** is optional. For other task types, **sk** is mandatory.
list_file	No	JSONObject	Specifies the object list file configuration. For details, see **Table 5-6**. **NOTE** When **task_type** in **Table 5-4** is set to **list** or **url_list**, **list_file** is mandatory.

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Parameter	Mandatory	Type	Description
object_key	No	String/JSONObject	Specifies the name of the object to be selected in the source bucket. The object name can be in the JSONObject format or a string. If multiple source objects are selected, use JSONObject. For details, see **Table 5-7**. **NOTE** When **task_type** in **Table 5-4** is set to **object** or **prefix**, **object_key** is mandatory.
bucket	Yes	String	Specifies the name of the source bucket. **NOTE** If **task_type** in **Table 5-4** is set to **url_list**, **bucket** is optional. For other task types, **bucket** is mandatory.
app_id	No	String	**app_id** is mandatory only when the account of another cloud service provider has the appID identifier.

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Parameter	Mandatory	Type	Description
cloud_type	No	String	Specifies the source cloud service provider. The value can be **AWS**, **Aliyun**, **Tencent**, **HuaweiCloud**, **QingCloud**, **KingsoftCloud**, **Baidu**, **Qiniu**, or **URLSource** (**HTTP/HTTPS data source**). The default value is **Aliyun**. The default value is used if this parameter is not set or is left blank. **NOTE** If **task_type** in **Table 5-4** is set to **url_list**, **cloud_type** must be set to **URLSource**.

Table 5-6 list_file field description

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

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Table 5-7 object_key field description

Parameter	Mandatory	Type	Description
path	No	String	Specifies the root path of the cloud service provider, which is represented by an empty character string "". If this parameter is used, set this parameter to "". Otherwise, an error is reported.
keys	Yes	JSONArray	Specifies the source object parameter. The meaning of **keys** depends on the value of **task_type**. • When **task_type** is set to **prefix**, the character string in **keys** indicates the prefix of the object to be migrated. • When **task_type** is set to **object**, the character string ending with a slash (/) in **keys** indicates the folder to be migrated, and the character string not ending with a slash (/) indicates the file to be migrated.

Table 5-8 dst_node field description

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

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Parameter	Mandatory	Type	Description
ak	Yes	String	Specifies the destination bucket AK. Enter a maximum of 100 characters.
sk	Yes	String	Specifies the destination bucket SK. Enter a maximum of 100 characters.
object_key	Yes	String	Specifies the name of the object selected in the destination bucket. The value contains a maximum of 1024 characters.
bucket	Yes	String	Specifies the name of the destination bucket.
cloud_type	No	String	Specifies the destination cloud service provider. The default value is **HUAWEI CLOUD**. The default value is used if this parameter is not set or is left blank.

Table 5-9 smnInfo field description

Parameter	Mandatory	Type	Description
topicUrn	Yes	String	Specifies the SMN message topic URN bound to a migration task. **NOTE** The region to which **topicUrn** belongs must be the same as the region corresponding to the endpoint.

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Parameter	Mandatory	Type	Description
language	No	String	Specifies the management console language used by the current users. Users can select **zh-cn** or **en-us**.
triggerConditions	Yes	JSONArray	Specifies the trigger conditions of sending messages using SMN, which varies depending on the status of the migration task. The migration task state can be **SUCCESS** or **FAIL**. • **FAIL**: indicates that an SMN message will be sent after the migration task fails. • **SUCCESS**: indicates that an SMN message will be sent after the migration task succeeds.

Table 5-10 source_cdn field structure

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

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Parameter	Mandatory	Type	Description
authentication_type	Yes	String	Specifies the authentication method. • If no authentication is required, set it to **NONE**. • Qiniu: **QINIU_PRIVATE_AUTHENTICATION** • Aliyun: **ALIYUN_OSS_A**, **ALIYUN_OSS_B**, and **ALIYUN_OSS_C** • KingsoftCloud: **KSYUN_PRIVATE_AUTHENTICATION**
authentication_key	No	String	Specifies the CDN authentication key. • If no authorization is required, do not set this parameter. • Qiniu: You do not need to set this parameter. • Aliyun: Set this parameter based on the value of **authentication_type**. • KingsoftCloud: You do not need to set this parameter.

Table 5-11 bandwidth_policy field description

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

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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 5-12 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",
```

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```
        "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,
```

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```
  "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 Code**.

5.3 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 5-13 describes the parameters in the URI.

Table 5-13 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

None.

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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 Code**.

5.4 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 5-14 describes the parameters in the URI.

Table 5-14 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

Table 5-15 describes the request parameters.

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Table 5-15 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	Specifies the operation type, which is **start** for this API.
source_ak	Yes	String	Specifies the AK of the source node. Enter a maximum of 100 characters.
source_sk	Yes	String	Specifies the SK of the source node. Enter a maximum of 100 characters.
target_ak	Yes	String	Specifies the AK of the destination node. Enter a maximum of 100 characters.
target_sk	Yes	String	Specifies the SK of the destination node. Enter a maximum of 100 characters.
source_cdn_authentication_key	No	String	Specifies the CDN authentication key.
migration_failed_object	No	Boolean	Specifies whether to perform a full migration. The value can be **true**, **null**, or **false**. • If the value is **true**, the objects fail to be migrated in the migration task will be retransmitted. • If the value is blank or **false**, all objects in the migration task will be migrated.

Response

Response Parameters

None.

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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 Code**.

5.5 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 5-16 describes the parameters in the URI.

Table 5-16 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

Request

Request Parameters

Table 5-17 describes the request parameters.

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Table 5-17 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	Specifies the operation type, which is **stop** for this API.

Response

Response Parameters

None.

Examples

Request example

PUT /v1/{project_id}/objectstorage/task/{task_id}

```
{
   "operation": "stop"
}
```

Response example

None.

Status Code

For details about the status code, see **Status Code**.

5.6 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 5-18 describes the parameters in the URI.

Table 5-18 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
task_id	Yes	Specifies the task ID.

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Request

Request Parameters

Table 5-19 describes the request parameters.

Table 5-19 Request parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	Specifies the operation type, which is **change_bandwidthpolicy** for this API.
bandwidth_policy	No	JSONArray	Specifies the traffic limiting rules. Each element in the array corresponds to the maximum bandwidth of a time segment. A maximum of five time segments are allowed, and the time segments must not overlap. For details, see Table 5-20.

Table 5-20 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.

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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 Code**.

5.7 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 5-21 describes the parameters in the URI.

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Table 5-21 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
start	Yes	Specifies the start serial number of migration tasks.
limit	Yes	Specifies the maximum number of returned tasks, which cannot exceed 100. Otherwise, the query fails.
state	No	Specifies the task status as follows: • **0**: Not started • **1**: Waiting to migrate • **2**: Migrating • **3**: Migration paused • **4**: Migration failed • **5**: Migration succeeded

Request

Request Parameters

None.

Response

Response Parameters

Table 5-22 describes the response parameters.

Table 5-22 Response parameters

Parameter	Type	Description
id	long	Specifies the task ID.
name	String	Specifies a task name.
src_node	JSONObject	Specifies the source node information. For details, see **Table 5-23**.

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Parameter	Type	Description
dst_node	JSONObject	Specifies the destination node information. For details, see **Table 5-25**.
thread_num	int	Specifies the number of threads used by a migration task.
status	int	Specifies the task status as follows: • **0**: Not started • **1**: Waiting to migrate • **2**: Migrating • **3**: Migration paused • **4**: Migration failed • **5**: Migration succeeded
progress	double	Specifies the task progress. For example, **0.522** represents the progress is 52.2%, and **1** represents the progress is 100%.
migrate_speed	long	Specifies the migration speed (byte/s).
enableKMS	boolean	Specifies whether to use KMS encryption.
description	String	Describes the migration task. This field can be left blank.
error_reason	JSONObject	Specifies the migration task failure cause. For details, see **Table 5-28**. This field is left blank when the task is not in the **Migration failed** state.
total_size	long	Specifies the total amount of a task.
complete_size	long	Specifies the size of a task that has been completed.
start_time	long	Specifies the start time of a task.

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Parameter	Type	Description
left_time	long	Specifies the remaining time of a task.
total_time	long	Specifies the total time used of a task.
success_num	long	Specifies the number of successfully migrated objects.
fail_num	long	Specifies the number of objects failed to be migrated.
total_num	long	Specifies the total number of migrated objects.
smnInfo	JSONObject	Specifies SMN messages. For details, see **Table 5-26**. **NOTE** You can determine whether to enable SMN to send messages. This parameter is available only after a migration task is complete.
migrate_since	long	Specifies whether to migrate only object data that is modified after a specified time. If this function is enabled, only objects that are modified after the specified time at the source end will be migrated. The default value is **0**, indicating that no time is specified.

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Parameter	Type	Description
task_type	String	Specifies the task type. The default value is **object**. • **list**: indicates that the system will migrate objects in an object list file. • **object**: indicates that the system will migrate the selected objects and folders. • **prefix**: indicates that the system will migrate objects with a specified prefix.
source_cdn	JSONObject	Specifies whether to enable CDN during the migration. For details, see **Table 5-27**. If CDN is enabled, the source objects to be migrated are obtained from the CDN domain name during migration. If this field is included, CDN is supported. Otherwise, CDN is not supported.
auto_restore	Boolean	Specifies whether to automatically restore archive data. IF this function is enabled, archive data is automatically restored and migrated.
enable_failed_object_recording	Boolean	Specifies whether to record objects failed to be migrated. With this function, information about the objects that fail to be migrated will be stored in the destination bucket.
failed_object_record	String	Specifies the failed data record format. The data format is JSON. For details about the value, see **Table 5-29**.

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Parameter	Type	Description
bandwidth_policy	JSONArray	Specifies traffic limiting rules. For details, see **Table 5-30**.

Table 5-23 src_node data structure

Parameter	Type	Description
region	String	Specifies the region where the source bucket locates.
list_file	JSONObject	Specifies the failed data record format. The data format is JSON. For details about the value, see **Table 5-24**.
object_key	JSONArray	Specifies the name of the object to be selected in the source bucket, which is in JSONArray format. Each element is the absolute path of an object.
bucket	String	Specifies the name of the source bucket.
cloud_type	String	Specifies source cloud providers.

Table 5-24 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.

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Table 5-25 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 5-26 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 5-27 source_cdn data structure

Parameter	Type	Description
protocol	String	Specifies the protocol type. The value can be **HTTPS** or **HTTP**.

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Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated.
authentication_type	String	Specifies the authentication method. • If no authentication is required, set it to **NONE**. • Qiniu: **QINIU_PRIVATE_AUTHENTICATION** • Alibaba Cloud: **ALIYUN_OSS_A**, **ALIYUN_OSS_B**, and **ALIYUN_OSS_C** • KingsoftCloud: **KSYUN_PRIVATE_AUTHENTICATION**

Table 5-28 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 5-29 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.

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Parameter	Type	Description
errorCode	String	Specifies the error codes configured for failed objects that cannot be retransmitted.

Table 5-30 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": "ZXCZCZXCDVXVC",
    "error_reason": "",
```

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```
    "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": "ZXCZCZXCDVXVC",
    "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 Code**.

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5.8 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 5-31 describes the parameters in the URI.

Table 5-31 Parameter description

Parameter	Mandatory	Description
project_id	Yes	Specifies the project ID.
totalcount	Yes	Specifies the total number of tasks to be returned by the API. **true** indicates that the number of tasks that meet the criteria will be returned by the API.
state	No	Specifies the task status as follows: • **0**: Not started • **1**: Waiting to migrate • **2**: Migrating • **3**: Migration paused • **4**: Migration failed • **5**: Migration succeeded

Request

Request Parameters

None.

Response

Response Parameters

Table 5-32 describes the response parameters.

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Table 5-32 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 Code**.

5.9 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 5-33 describes the parameters in the URI.

Table 5-33 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

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Table 5-34 describes the response parameters.

Table 5-34 Response parameters

Parameter	Type	Description
id	long	Specifies the task ID.
name	String	Specifies a task name.
src_node	JSONObject	Specifies the source node information. For details, see Table 5-35.
dst_node	JSONObject	Specifies the destination node information. For details, see Table 5-37.
thread_num	int	Specifies the number of threads used by a migration task.
status	int	Specifies the task status as follows: • **0**: Not started • **1**: Waiting to migrate • **2**: Migrating • **3**: Migration paused • **4**: Migration failed • **5**: Migration succeeded
progress	double	Specifies the task progress. For example, **0.522** represents the progress is 52.2%, and **1** represents the progress is 100%.
migrate_speed	long	Specifies the migration speed (byte/s).
enableKMS	boolean	Specifies whether to use KMS encryption.
description	String	Describes the migration task. This field can be left blank.
error_reason	JSONObject	Specifies the migration task failure cause. For details, see Table 5-40.

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Parameter	Type	Description
total_size	long	Specifies the total amount of a task.
complete_size	long	Specifies the size of a task that has been completed.
start_time	long	Specifies the start time of a task.
left_time	long	Specifies the remaining time of a task.
total_time	long	Specifies the total time used of a task.
success_num	long	Specifies the number of successfully migrated objects.
fail_num	long	Specifies the number of objects failed to be migrated.
total_num	long	Specifies the total number of migrated objects.
smnInfo	JSONObject	Specifies SMN messages. For details, see **Table 5-38**. **NOTE** You can determine whether to enable SMN to send messages. This parameter is available only after a migration task is complete.
migrate_since	long	Specifies whether to migrate only object data that is modified after a specified time. If this function is enabled, only objects that are modified after the specified time at the source end will be migrated. The default value is **0**, indicating that no time is specified.

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Parameter	Type	Description
task_type	String	Specifies the task type. The default value is **object**. • **list**: indicates that the system will migrate objects in an object list file. • **object**: indicates that the system will migrate the selected objects and folders. • **prefix**: indicates that the system will migrate objects with a specified prefix.
source_cdn	JSONObject	Specifies whether to enable CDN during the migration. For details, see **Table 5-39**. If this field is included, CDN is supported. Otherwise, CDN is not supported. If CDN is enabled, the source objects to be migrated are obtained from the CDN domain name during migration.
auto_restore	Boolean	Specifies whether to automatically restore archive data. IF this function is enabled, archive data is automatically restored and migrated.
enable_failed_object_recording	Boolean	Specifies whether to record objects failed to be migrated. With this function, information about the objects that fail to be migrated will be stored in the destination bucket.
failed_object_record	String	Specifies the failed data record format. The data format is JSON. For details about the value, see **Table 5-41**.

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Parameter	Type	Description
bandwidth_policy	JSONArray	Specifies traffic limiting rules. For details, see **Table 5-42**.

Table 5-35 src_node data structure

Parameter	Type	Description
region	String	Specifies the region where the source bucket locates.
list_file	JSONObject	Specifies the failed data record format. The data format is JSON. For details about the value, see **Table 5-36**.
object_key	JSONArray	Specifies the name of the object to be selected in the source bucket. Each element is the absolute path of an object.
bucket	String	Specifies the name of the source bucket.
cloud_type	String	Specifies source cloud service providers.

Table 5-36 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.

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Table 5-37 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 5-38 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 5-39 source_cdn data structure

Parameter	Type	Description
protocol	String	Specifies the protocol type. The value can be **HTTPS** or **HTTP**.

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Parameter	Type	Description
domain	String	Specifies the domain name from which to obtain objects to be migrated.
authentication_type	String	Specifies the authentication method. • If no authentication is required, set it to **NONE**. • Qiniu: QINIU_PRIVATE_AUTHENTICATION

Table 5-40 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 5-41 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.

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Table 5-42 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": "ZXCZCZXCDVXVC",
    "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"
    },
```


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```
  "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 Code**.

5.10 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 5-43 describes the parameters in the URI.

Table 5-43 Parameter description

Parameter	Mandatory	Description
domain_id	Yes	Specifies the tenant ID.

Request

Request Parameters

None.

Response

Response Parameters

Table 5-44 describes the response parameters.

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Table 5-44 Response parameters

Parameter	Type	Description
type	String	Specifies the tenant quota item. You can query the maximum number of concurrent migration tasks of a tenant. This parameter value is **MaxParallelTaskNum**.
quota	int	Specifies the number of quotas of a domain.

Examples

Request example

GET /v1/{domain_id}/objectstorage/quotas

Response example

```
{
  "quotas": {
    "resource": {
      "type": "MaxParallelTaskNum",
      "quota": 5
    }
  }
}
```

Status Code

For details about the status code, see **Status Code**.

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6 Appendix

6.1 Status Code

Table 6-1 describes the status code.

Table 6-1 Status code

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.

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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 exits, 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.
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.
503	Service Unavailable	The requested service is invalid. The client should not repeat the request without modifications.

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6.2 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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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 *OMS User Guide* or contact technical support.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
400	OMS.0058	Invalid values for destination parameters. Modify the destination parameters.	Invalid values for destination parameters.	Modify the destination parameters.

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Status Code	Error Code	Error Message	Description	Handling Measure
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.
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.

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Status Code	Error Code	Error Message	Description	Handling Measure
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

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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 *OMS API Reference*.	Modify the parameter format by referring to *OMS API Reference*.
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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	OMS.1016	Failed to obtain the source bucket details because the authenticatio n 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 authenticatio n 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.

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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.

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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.

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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.

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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.

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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.

6.3 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 4*xx* or 5*xx* 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.

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```
{
   "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 6-2 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.

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Error Code	Description
S3M.0067	The parameter is not in JSON format.
S3M.0068	Authentication failed.
S3M.0069	Setting **enableKMS** to **true** is not allowed because the KMS service is not available now.
S3M.0070	The task is complete. You cannot start or stop it.
S3M.0072	You do not have the required permission.
S3M.0073	Failed to delete the task.
S3M.0074	The parameters must be the same as those in the *Object Storage Migration Service API Reference*.
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.

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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 6-3 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.

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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 parameter. 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.

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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 object are correct and try again.
TRF.0060	The path for storing the migrated object 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 archive data. Please manually restore archive data on the source platform and perform migration again.
TRF.0064	Failed to migrate the data because there is archive data that has not been restored. Please restore it and restart the task again.
TRF.0151	The source AK/SK is invalid. Enter a valid AK/SK and try again.
TRF.0152	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0153	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.
TRF.0154	The account corresponding to the entered AK/SK does not have the permissions to access the source bucket or objects. Ensure that the account has the required permissions and try again.

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Error Code	Description
TRF.0155	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.
TRF.0156	The source object does not exist (do not modify permissions to access the source bucket or object during the migration). Ensure that names of the source bucket and object are correct and try again.
TRF.0157	An exception occurs in the source object storage service. Try again later.
TRF.0158	The migration task is completed, but the object data in the destination bucket is unencrypted. Check whether the destination region supports KMS encryption.
TRF.0159	Failed to migrate the source objects because the access frequency of the source object storage has reached the upper limit. For details about how to solve the problem, see **What Can I Do If the Migration Fails Because the Frequency of Accessing the Source Object Storage Exceeded the Upper Limit?**
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.

6.4 Obtaining a Project ID

Scenarios

A project ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID in advance. Two methods are available:

- **Obtain the Project ID by Calling an API**
- **Obtain the Project ID from the Console**

Obtain the Project ID by Calling an API

You can obtain the project ID by calling the API used to **query for 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": [
```

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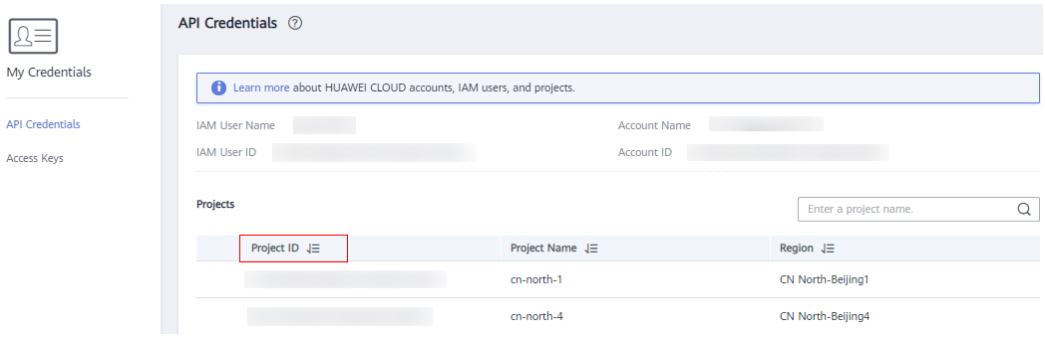
```
    {
        "domain_id": "65382450e8f64ac0870cd180d14e684b",
        "is_domain": false,
        "parent_id": "65382450e8f64ac0870cd180d14e684b",
        "name": "project_name",
        "description": "",
        "links": {
            "next": null,
            "previous": null,
            "self":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


Obtain 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 6-1 Viewing the project ID



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A Change History

Released On	Description
2021-05-28	This issue is the seventeenth official release. Updated **Error Codes**.
2021-02-25	This issue is the sixteenth official release. Optimized **Error Codes**. Optimized **API v2 (Recommended)**.
2020-12-28	This issue is the fifteenth official release. Optimized **API v2 (Recommended)** and **Error Codes**.
2020-09-15	This issue is the fourteenth official release. Added **API v2 (Recommended)**.
2019-11-30	This issue is the thirteenth official release. • Optimized the description of the mapping between **object_key**, **list_file**, and **task_type** in **Creating a Migration Task**. • Added error code **S3M.0088** to **Out-of-Date Error Codes**.
2019-10-30	This issue is the twelfth official release. Updated the OMS endpoints in **Endpoints**.

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Released On	Description
2019-08-31	This is the eleventh official release. • Added the **bandwidth_policy** parameter to the request parameters in **Creating a Migration Task**. • Added section **Modifying a Traffic Limiting Rule**. • Added the **bandwidth_policy** parameter to the response parameters in **Querying All Migration Tasks of a Tenant**. • Added the **bandwidth_policy** parameter to the response parameters in **Querying Migration Tasks by Task IDs**. • Added error codes **TRF.0013**, **TRF.0014**, **TRF.0301**, and **S3M.0083** to **S3M.0087** to **Out-of-Date Error Codes**.
2019-04-29	This issue is the tenth official release. • Added the **auto_restore** parameter to the request parameters in **Creating a Migration Task**. • Added the **auto_restore** parameter to the response parameters in **Querying All Migration Tasks of a Tenant**. • Added the **auto_restore** parameter to the response parameters in **Querying Migration Tasks by Task IDs**. • Added error codes **S3M.0082**, **TRF.0063**, and **TRF.0064** in **Out-of-Date Error Codes**.

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Released On	Description
2019-04-17	This issue is the ninth official release. • Updated the content of token authentication in **Authentication**. • Updated the OMS endpoints in **Endpoints**. • Updated the value of parameter **thread_num** in API examples. • Added description of parameters **region** and **topicUrn** in **Creating a Migration Task**. • Added the value **HuaweiCloud** to the **cloud_type** parameter for the source platform in **Creating a Migration Task**. • Changed the requirements for **object_key** parameter in the **dst_node** field description to mandatory in **Creating a Migration Task**. • Modified the description of parameters **authentication_type** and **authentication_key** in **Creating a Migration Task**. • Modified the description of parameter **enable_failed_object_recording** in **Creating a Migration Task**. • Modified the description of parameter **authentication_type** in **Querying All Migration Tasks of a Tenant**. • Added error codes **S3M.0168**, **S3M.0169**, and **TRF.0160** to **Out-of-Date Error Codes**.
2019-01-22	This issue is the eighth official release. Modified the description of parameter **path** in **Creating a Migration Task**.
2018-12-21	This issue is the seventh official release. • Added description of the **obs_bucket** parameter in **Creating a Migration Task**. • Added HTTP to values of the **Protocol** parameter in **Creating a Migration Task**. • Modified the description of parameter **migrate_since** in **Creating a Migration Task**. • Updated error message of error code **S3M.0081** in **Out-of-Date Error Codes**.

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Released On	Description
2018-09-30	This issue is the sixth official release. ● Optimized the document structure. ● Added API version query API. ● Added KingsoftCloud to the **cloud_type** parameter at the source end. ● Added **prefix** to values of the **task_type** parameter. ● Added the description for the **object_key** parameter. ● Added the parameters for retransmitting failed objects in API description. ● Added the following error codes: **S3M.0079**, **S3M.0080**, **S3M.0081**, **S3M.0162**, **S3M.0163**, **S3M.0167**, **S3M.0256**, **TRF.0012**, and **TRF.0159**.
2018-08-09	This issue is the fifth official release. ● Added parameters **migrate_since**, **source_cdn**, and **task_type** to the task creation API. ● Added response parameter **source_cdn** and **task_type** the task query API.
2018-06-06	This issue is the fourth official release. ● Added error code **406**. ● Changed parameter name **Keys** in the **object_key** field description to **keys**.
2018-03-02	This issue is the third official release. ● Added error code **TRF.0158**. ● Added an API for querying quota information.
2018-01-15	This issue is the second official release. Modified the description of the **cloud_type** parameter on the source end.
2017-09-15	This issue is the first official release.

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