Server Migration Service

API Reference

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HUAWEI CLOUD COMPUTING TECHNOLOGIES CO., LTD.

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1 Before You Start

Welcome to *Server Migration Service API Reference*. Server Migration Service (SMS) helps you migrate applications and data from on-premises x86 physical servers or VMs on other private or public clouds to Elastic Cloud Servers (ECSs) on Huawei Cloud.

This document describes how to use SMS application programming interfaces (APIs) to perform operations such as creating, deleting, and querying migration tasks. For details about all supported operations, see **API Overview**.

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

Endpoints

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

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

Table 1-1 SMS endpoint

Region Name	Region Code	Endpoint
AP-Singapore	ap-southeast-3	sms.ap-southeast-3.myhuaweicloud.com

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. For security purposes, create Identity and Access Management (IAM) users and grant them permissions for routine management.

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- User

  An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).

  API authentication requires information such as the account name, username, and password.

- Region

  Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified into universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.

  For details, see **Region and AZ**.

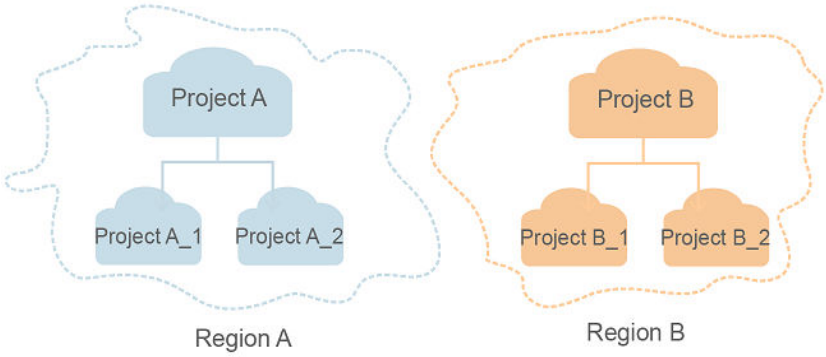
- AZ

  An AZ comprises of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Compute, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.

- Project

  A project corresponds to a region. Default projects are defined to a group and have physically isolated resources (including computing, storage, and network resources) across regions. Users can be granted permissions in a default project to access all resources in the region under their accounts. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can assign users the permissions required to access only the resources in the specific subprojects.

  Figure 1-1 Project isolation model

- Enterprise project

  Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated. An enterprise project can contain resources of multiple regions, and resources can be added to or removed from enterprise projects.

  For details about enterprise projects and about how to obtain enterprise project IDs, see **Enterprise Management User Guide**.

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2 API Overview

The APIs provided by the SMS service are the SMS APIs. By using the SMS APIs, you can use all the functions provided by the SMS service, including querying the source server list, creating migration tasks, and viewing the migration progress.

Table 2-1 SMS API list

Type	Description
Source server management	APIs used for reporting information about source servers, querying the source server list, and deleting the source servers
Task management	APIs used for managing migration tasks, including creating, starting, stopping, querying, and deleting a migration task.
Command management	APIs used for obtaining the commands from the service end and reporting the command execution results to the service end
Template management	APIs used for querying the template list and the information about a template with a specified ID, and adding, modifying, and deleting template information

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3 Calling APIs

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**. For example, the endpoint of IAM in region **CN-Hong Kong** is **iam.ap-southeast-1.myhuaweicloud.com**.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the **resource-path** of the API used to create an IAM user as the administrator is **/v3.0/OS-USER/u**.
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.

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

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

Figure 3-1 Example URI

NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

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

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Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

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

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

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date,
Signature=**********
```

(Optional) Request Body

The body of a request is often sent in a structured format (JSON or XML) as specified in the **Content-Type** header field. The request body transfers content except the request header. The request body can contain Chinese characters in the UTF-8 encoding format.

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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 the fields in bold with the actual values.

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

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date,
Signature=**********

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

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

3.2 Authentication

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

- AK/SK-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: Requests are authenticated using a token.

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.
- The AK/SK can be a permanent or temporary access key. If it is a temporary access key, the **X-Security-Token** field must be added to the request. The value is the **security_token** of the temporary access key.

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

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.

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- 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.

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.

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 **domain**.

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope":{
            "domain":{
                "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.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Auth-Token: ABCDEFG....
```

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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 1*xx* to 5*xx*. It indicates the status of a request. For more information, see **Status Codes**.

For example, if status code **201** is returned for calling the API used to **create an IAM user**, the request is successful.

Response Header

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

The following shows part of the response body for the API to **create an IAM user**.

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


```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fceac8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_[redacted]_null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```


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

connection → keep-alive

content-type → application/json

date → Tue, 12 Feb 2019 06:52:13 GMT

server → Web Server

strict-transport-security → max-age=31536000; includeSubdomains;

transfer-encoding → chunked

via → proxy A

x-content-type-options → nosniff

x-download-options → noopen

x-frame-options → SAMEORIGIN

x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5

x-subject-token
→ MIIYXQYJKoZIhvcNAQcCoIIYTjCCGEoCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOnsiZXhwaXJlc19hdCI6IjIwMTktMDItMTNUMDfj3KIs6YgKnpVNRbW2eZ5eb78SZOkqjACgkIqO1wi4JIGzrpd18LGXK5txldfq4IqHCVb8P4NaY0NYejcAgzJVeFIYtLWT1GSO0zxKZmIQHQj82HBqHdgIZO9fuEbL5dMhdavj+33wEIxHRCE9I87o+k9-j+CMZSEB7bUGd5Uj6eRASXI1jjpPEGA270g1FruooL6jqgIFkNPQuFSOU8+uSsttVwRtNfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUVhVpxk8pxiX1wTEboX-RzT6MUbpvGw-oPNFYxJECKnoH3HRozv0vN--n5d6Nbxg==

x-xss-protection → 1; mode=block;

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(Optional) Response Body

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

The following shows part of the response body for the API to **obtain a user token**. For the sake of space, only part of the content is displayed here.

```
{
    "user": {
        "id": "c131886aec...",
        "name": "IAMUser",
        "description": "IAM User Description",
        "areacode": "",
        "phone": "",
        "email": "***@***.com",
        "status": null,
        "enabled": true,
        "pwd_status": false,
        "access_mode": "default",
        "is_domain_owner": false,
        "xuser_id": "",
        "xuser_type": "",
        "password_expires_at": null,
        "create_time": "2024-05-21T09:03:41.000000",
        "domain_id": "d78cbac1.....",
        "xdomain_id": "30086000.....",
        "xdomain_type": "",
        "default_project_id": null
    }
}
```

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

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

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

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4 Application Examples

4.1 Creating a Migration Task

Scenarios

This section describes how to create a migration task by calling APIs. For details, see **Calling APIs**.

Involved APIs

- **Obtaining a User Token Through Password Authentication**: This API is used to obtain the user token for authentication.
- **Registering a Source Server with SMS**: This API is used to register a source server with SMS.
- **Creating a Migration Task**: This API is used to create a migration task using the source and destination AKs and SKs.
- **Querying Details About a Migration Task**: This API is used to query the details of a migration task based on the task ID to check whether the migration task is successfully created.

Prerequisites

- You have obtained the AK/SK for accessing the destination platform. For details about how to obtain AKs and SKs, see **Creating Access Keys (AK and SK)**.

Procedure

Step 1 Obtain the token of the IAM user.

- API

  URI format: POST /v3/auth/tokens

  For details, see **Obtaining a User Token Through Password Authentication**.

- Example request

  ```
  POST: https://{iam_endpoint}/v3/auth/tokens
  ```

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Obtain *{endpoint}* from **Regions and Endpoints**.

Body:

```
{
   "auth": {
      "identity": {
         "methods": [
            "password"
         ],
         "password": {
            "user": {
               "name": "username",
               "domain": {
                  "name": "domainname"
               },
               "password": "******"
            }
         }
      },
      "scope": {
         "project": {
            "id": "0215ef11e49d4743be23dd97a1561xxx"
         }
      }
   }
}
```

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

```
X-Subject-Token:MIIDkgYJKoZIhvcNAQcCoIIDgzCCA38CAQExDTALBglghkgBZQMEAgEwgXXXXX...
```

Step 2 Report the source server information and register the source server.

- API

  URI format:

  ```
  POST /v3/sources
  ```

  For details, see **Registering a Source Server with SMS**.

- Example request

  ```
  POST  https://sms.ap-southeast-1.myhuaweicloud.com/v3/sources
  ```

  Header:

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

  Body:

  ```
  {
     "os_type": "LINUX",
     "name": "bike-centos",
     "os_version": "CENTOS_7_4_64BIT",
     "linux_block_check": "{\"release_type\": \"CENTOS\", \"release_version\": \"7.4.1708\",
  \"kernel_simplification\": \"3.10.0\", \"architecture\": \"x86_64\", \"kernel_version\":
  \"3.10.0-1062.1.1.el7.x86_64\"}",
     "kernel_version": "3.10.0-1062.1.1.el7.x86_64",
     "virtualization_type": "HVM",
     "paravirtualization": true,
     "firmware": "BIOS",
     "has_rsync": true,
     "boot_loader": "GRUB",
     "disks": [{
        "name": "/dev/vda",
        "size": 42949672960,
        "device_use": "BOOT",
        "partition_style": "MBR",
        "physical_volumes": [{
           "name": "/dev/vda1",
           "size": 42948624384,
           "device_use": "OS",
  ```

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```
            "used_size": 2854862848,
            "inode_size": "256",
            "file_system": "ext4",
            "mount_point": "/"
        }]
    }],
    "volume_groups": [],
    "cpu_quantity": 1,
    "memory": 1038716928,
    "networks": [{
        "name": "eth0",
        "ip": "192.168.77.77",
        "mac": "ef05f3911eeccb12a0a8931dc198af84e848b0e9e3edd0812805429fc649xxxx"
    }],
    "ip": "192.168.77.77",
    "agent_version": "1.2.3-beta"
}
```

- Example response

```
{
        "id": "33b798a8-4f80-49ce-8b8a-18a85adfe13e"
}
```

Step 3 Create a migration task for the source server.

- API

  URI format:

  ```
  POST /v3/tasks
  ```

  For details, see **Creating a Migration Task**.

- Example request

  Header:

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

  Body:

  ```
  {
    "auto_install_pvdriver" : true,
    "auto_start" : true,
        "syncing": false,
    "migration_ip" : "172.16.0.xxx",
    "name" : "MigrationTask",
    "os_type" : "WINDOWS",
    "project_id" : "05825205120026802xxxx01721bc1xxx",
    "project_name" : "project_name",
    "region_id" : "region_id",
    "region_name" : "region_name",
    "source_server" : {
        "id" : "9a01cb97-3eec-440e-xxxx-04016a8d7502"
    },
    "start_target_server" : true,
    "target_server" : {
        "name" : "name",
        "vm_id" : "6dac09d8-5835-4888-xxxx-787453c4e1d4",
        "disks" : [{
                "device_use" : "OS",
                "disk_id" : "354419d9-bd41-4b50-xxxx-e4f6f57c6xxx",
                "name" : "Disk 0",
                "physical_volumes" : [{
                        "device_use" : "BOOT",
                        "file_system" : "NTFS",
                        "index" : 1,
                        "name" : "(Reserved)",
                        "size" : 367001600,
                        "used_size" : 31244288,
                        "uuid" : "\\\\?\\Volume{b99b1c6f-75ef-xxxx-80b3-806e6f6e6963}\\"
                    }, {
  ```

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```
                    "device_use" : "OS",
                    "file_system" : "NTFS",
                    "index" : 2,
                    "name" : "C:\\",
                    "size" : 42580574208,
                    "used_size" : 16148279296,
                    "uuid" : "\\\\?\\Volume{b99b1c70-75ef-xxxx-80b3-806e6f6e6963}\\"
                }
            ],
            "size" : 42949672960,
            "used_size" : 42949672960
        }, {
            "device_use" : "NORMAL",
            "disk_id" : "ef409e5f-2321-49d1-xxxx-027fc93985ef",
            "name" : "Disk 1",
            "physical_volumes" : [{
                    "file_system" : "NTFS",
                    "index" : 1,
                    "name" : "D:\\",
                    "size" : 53684994048,
                    "used_size" : 3462647808,
                    "uuid" : "\\\\?\\Volume{9f817be3-2cea-xxxx-816f-e995816380e2}\\"
                }
            ],
            "size" : 53687091200,
            "used_size" : 53687091200
        }
      ],
      "btrfs_list" : null
   },
   "type" : "MIGRATE_BLOCK",
   "use_public_ip" : false
}
```

- Example response

```
{
       "id": "8abda8635e09d185015e09d188dd0001xx"
}
```

Step 4 View the migration task status.

- API

  URI format:

  ```
  GET /v3/tasks/{task_id}
  ```

  For details, see "Querying a Migration Task by Task ID."

- Example request

  ```
  GET  https://sms.ap-southeast-1.myhuaweicloud.com/v3/tasks/
  8abda8635e09d185015e09d188dd0001xx
  ```

  Header:

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

- Example response

```
{
 "id": "8abda8635e09d185015e09d188dd0001xx",
 "name": "MigrationTask",
 "type": "MIGRATE_FILE",
 "os_type": "LINUX",
 "state": "READY",
 "estimate_complete_time": 1600391014000,
 "create_date": 1600159831000,
 "start_date": 1600159831000,
 "finish_date": 1600343128000,
 "priority": 1,
 "speed_limit": 0,
 "migrate_speed": 0,
 "start_target_server": true,
```

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```
"error_json": "",
"total_time": 935000,
"float_ip": "192.168.0.xxx",
"migration_ip": "192.168.0.xxx",
"vm_template_id": null,
"region_name": "region_name",
"region_id": "region_id",
"project_name": "project_name",
"project_id": "05825205120026802ff0c01721bc1xxx",
"sub_tasks": [
 {
  "id": 3514,
  "name": "SSL_CONFIG",
  "progress": 100,
  "start_date": 1600159847000,
  "end_date": 1600159851000,
  "user_op": "REPLICATE"
 },
 {
  "id": 3515,
  "name": "ATTACH_AGENT_IMAGE",
  "progress": 100,
  "start_date": 1600159851000,
  "end_date": 1600160027000,
  "user_op": "REPLICATE"
 },
 {
  "id": 3516,
  "name": "FORMAT_DISK_LINUX_FILE",
  "progress": 100,
  "start_date": 1600160027000,
  "end_date": 1600160030000,
  "user_op": "REPLICATE"
 },
 {
  "id": 3517,
  "name": "MIGRATE_LINUX_FILE",
  "progress": 100,
  "start_date": 1600160080000,
  "end_date": 1600160088000,
  "user_op": "REPLICATE"
 },
 {
  "id": 3582,
  "name": "CONFIGURE_LINUX_FILE",
  "progress": 100,
  "start_date": 1600333914000,
  "end_date": 1600334025000,
  "user_op": "CUTOVER0"
 },
 {
  "id": 3583,
  "name": "DETTACH_AGENT_IMAGE",
  "progress": 100,
  "start_date": 1600334029000,
  "end_date": 1600334103000,
  "user_op": "CUTOVER0"
 },
 {
  "id": 3584,
  "name": "SSL_CONFIG",
  "progress": 100,
  "start_date": 1600334185000,
  "end_date": 1600334188000,
  "user_op": "RESYNC0"
 },
 {
  "id": 3585,
  "name": "ATTACH_AGENT_IMAGE",
```


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```
 "progress": 100,
 "start_date": 1600334189000,
 "end_date": 1600334375000,
 "user_op": "RESYNC0"
},
{
 "id": 3586,
 "name": "SYNC_LINUX_FILE",
 "progress": 100,
 "start_date": 1600334375000,
 "end_date": 1600334376000,
 "user_op": "RESYNC0"
},
{
 "id": 3587,
 "name": "CONFIGURE_LINUX_FILE",
 "progress": 100,
 "start_date": 1600342952000,
 "end_date": 1600343052000,
 "user_op": "CUTOVER1"
},
{
 "id": 3588,
 "name": "DETTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600343056000,
 "end_date": 1600343128000,
 "user_op": "CUTOVER1"
},
{
 "id": 3589,
 "name": "SSL_CONFIG",
 "progress": 100,
 "start_date": 1600390756000,
 "end_date": 1600390760000,
 "user_op": "RESYNC1"
},
{
 "id": 3590,
 "name": "ATTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600390760000,
 "end_date": 1600390953000,
 "user_op": "RESYNC1"
},
{
 "id": 3591,
 "name": "SYNC_LINUX_FILE",
 "progress": 100,
 "start_date": 1600390954000,
 "end_date": 1600390954000,
 "user_op": "RESYNC1"
 }
],
"source_server": {
 "id": "621f2cb5-ba4f-4819-b00d-ee48ca2c3xxx",
 "ip": "192.168.0.176",
 "name": "ecs-4bb4",
 "os_type": "LINUX",
 "os_version": "CENTOS_7_6_64BIT",
 "oem_system": false,
 "state": "syncing",
 "migration_cycle": "syncing"
},
"target_server": {
 "id": "de35f45d-b6d5-4769-9148-984c8fab4xxx",
 "vm_id": "6d51477f-0a02-4917-8d7d-b13969f4axxx",
 "name": "ecs-4bb4",
 "ip": null,
```


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```
 "os_type": "LINUX",
 "os_version": null,
 "system_dir": null,
 "disks": [
  {
   "id": 86364,
   "name": "/dev/sda",
   "relation_name": "/dev/vda",
   "disk_id": "ed3c78d0-3166-48d1-bee0-d29e7d834xxx",
   "partition_style": "MBR",
   "size": 42949672960,
   "used_size": 42948624384,
   "device_use": "BOOT",
   "os_disk": false,
   "physical_volumes": [
    {
     "id": 132594,
     "uuid": null,
     "index": 0,
     "name": "/dev/sda1",
     "relation_name": "/dev/vda1",
     "device_use": "OS",
     "file_system": "ext4",
     "mount_point": "/",
     "size": 42948624384,
     "used_size": 2467393536,
     "free_size": 40481230848
    }
   ],
   "disk_index": "z"
  }
 ],
 "volume_groups": [],
 "image_disk_id": "9700f5ce-02ae-4a71-a057-deffe9b69xxx",
 "rollback_snapshot_ids": null
},
"clone_server": null,
"target_snapshot_id": null,
"remain_seconds": 60000
}
```


state indicates the task execution status. **READY** indicates that the task has been created.

----End

4.2 Starting a Migration Task

Scenarios

This section describes how to start a migration task by calling APIs. For details, see **Calling APIs**.

Before starting a migration task, you need to obtain the user token. After starting the migration task, you need to query the task status, because the task can be started when it is failed or paused.

Involved APIs

- **Obtaining a User Token Through Password Authentication**: This API is used to obtain the user token for authentication.
- **Managing Migration Tasks (Start)**: This API is used to start a failed or paused migration task using the source and destination AKs and SKs.

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- **Querying Details About a Migration Task**: This API is used to query the details of a migration task based on the task ID to check whether the migration task is successfully started.

Procedure

Step 1 Obtain the token of the IAM user.

- API

  URI format: POST /v3/auth/tokens

  For details, see **Obtaining a User Token Through Password Authentication**.

- Example request

  ```
  POST: https://{iam_endpoint}/v3/auth/tokens
  ```

  Obtain *{endpoint}* from **Regions and Endpoints**.

  Body:

  ```
  {
      "auth": {
          "identity": {
              "methods": [
                  "password"
              ],
              "password": {
                  "user": {
                      "name": "testname",
                      "domain": {
                          "name": "testname"
                      },
                      "password": "Password"
                  }
              }
          },
          "scope": {
              "project": {
                  "id": "0215ef11e49d4743be23dd97a1561xxx"
              }
          }
      }
  }
  ```

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

  ```
  X-Subject-Token: MIIDkgYJKoZIhvcNAQcCoIIDgzCCA38CAQExDTALBglghkgBZQMEAgEwgXXXXX...
  ```

Step 2 Start the target migration task.

- API

  URI format:

  ```
  POST /v3/tasks/{task_id}/action
  ```

  For details, see **Managing Migration Tasks (Start)**.

- Example request

  ```
  POST  https://sms.ap-southeast-1.myhuaweicloud.com/v3/tasks/
  8abda8635e09d185015e09d188dd0001xx/action
  ```

  Header:

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

  Body:

  ```
  {
        "operation" : "start",
  }
  ```

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If the response code is 200, the API is successfully called.

Step 3 View the migration task status.

- API

  URI format:

  ```
  GET /v3/tasks/{task_id}
  ```

  For details, see **Querying Details About a Migration Task**.

- Example request

  ```
  GET  https://sms.ap-southeast-1.myhuaweicloud.com/v3/tasks/
  8abda8635e09d185015e09d188dd0001xx
  ```

  Header:

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

- Example response

  ```
  {
   "id": "8abda8635e09d185015e09d188dd0001xx",
   "name": "MigrationTask",
   "type": "MIGRATE_FILE",
   "os_type": "LINUX",
   "state": "RUNNING",
   "estimate_complete_time": 1600391014000,
   "create_date": 1600159831000,
   "start_date": 1600159831000,
   "finish_date": 1600343128000,
   "priority": 1,
   "speed_limit": 0,
   "migrate_speed": 0,
   "start_target_server": true,
   "error_json": "",
   "total_time": 935000,
   "float_ip": "192.168.0.xxx",
   "migration_ip": "192.168.0.xxx",
   "vm_template_id": null,
   "region_name": "region_name",
   "region_id": "region_id",
   "project_name": "project_name",
   "project_id": "05825205120026802ff0c01721bc1xxx",
   "sub_tasks": [
    {
     "id": 3514,
     "name": "SSL_CONFIG",
     "progress": 100,
     "start_date": 1600159847000,
     "end_date": 1600159851000,
     "user_op": "REPLICATE"
    },
    {
     "id": 3515,
     "name": "ATTACH_AGENT_IMAGE",
     "progress": 100,
     "start_date": 1600159851000,
     "end_date": 1600160027000,
     "user_op": "REPLICATE"
    },
    {
     "id": 3516,
     "name": "FORMAT_DISK_LINUX_FILE",
     "progress": 100,
     "start_date": 1600160027000,
     "end_date": 1600160030000,
     "user_op": "REPLICATE"
    },
    {
     "id": 3517,
  ```

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```
 "name": "MIGRATE_LINUX_FILE",
 "progress": 100,
 "start_date": 1600160080000,
 "end_date": 1600160088000,
 "user_op": "REPLICATE"
},
{
 "id": 3582,
 "name": "CONFIGURE_LINUX_FILE",
 "progress": 100,
 "start_date": 1600333914000,
 "end_date": 1600334025000,
 "user_op": "CUTOVER0"
},
{
 "id": 3583,
 "name": "DETTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600334029000,
 "end_date": 1600334103000,
 "user_op": "CUTOVER0"
},
{
 "id": 3584,
 "name": "SSL_CONFIG",
 "progress": 100,
 "start_date": 1600334185000,
 "end_date": 1600334188000,
 "user_op": "RESYNC0"
},
{
 "id": 3585,
 "name": "ATTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600334189000,
 "end_date": 1600334375000,
 "user_op": "RESYNC0"
},
{
 "id": 3586,
 "name": "SYNC_LINUX_FILE",
 "progress": 100,
 "start_date": 1600334375000,
 "end_date": 1600334376000,
 "user_op": "RESYNC0"
},
{
 "id": 3587,
 "name": "CONFIGURE_LINUX_FILE",
 "progress": 100,
 "start_date": 1600342952000,
 "end_date": 1600343052000,
 "user_op": "CUTOVER1"
},
{
 "id": 3588,
 "name": "DETTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600343056000,
 "end_date": 1600343128000,
 "user_op": "CUTOVER1"
},
{
 "id": 3589,
 "name": "SSL_CONFIG",
 "progress": 100,
 "start_date": 1600390756000,
 "end_date": 1600390760000,
 "user_op": "RESYNC1"
```


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```
 },
 {
  "id": 3590,
  "name": "ATTACH_AGENT_IMAGE",
  "progress": 100,
  "start_date": 1600390760000,
  "end_date": 1600390953000,
  "user_op": "RESYNC1"
 },
 {
  "id": 3591,
  "name": "SYNC_LINUX_FILE",
  "progress": 100,
  "start_date": 1600390954000,
  "end_date": 1600390954000,
  "user_op": "RESYNC1"
 }
],
"source_server": {
 "id": "621f2cb5-ba4f-4819-b00d-ee48ca2c3xxx",
 "ip": "192.168.0.xxx",
 "name": "ecs-4bb4",
 "os_type": "LINUX",
 "os_version": "CENTOS_7_6_64BIT",
 "oem_system": false,
 "state": "syncing",
 "migration_cycle": "syncing"
},
"target_server": {
 "id": "de35f45d-b6d5-4769-9148-984c8fab4xxx",
 "vm_id": "6d51477f-0a02-4917-8d7d-b13969f4axxx",
 "name": "ecs-4bb4",
 "ip": null,
 "os_type": "LINUX",
 "os_version": null,
 "system_dir": null,
 "disks": [
  {
   "id": 86364,
   "name": "/dev/sda",
   "relation_name": "/dev/vda",
   "disk_id": "ed3c78d0-3166-48d1-bee0-d29e7d834xxx",
   "partition_style": "MBR",
   "size": 42949672960,
   "used_size": 42948624384,
   "device_use": "BOOT",
   "os_disk": false,
   "physical_volumes": [
    {
     "id": 132594,
     "uuid": null,
     "index": 0,
     "name": "/dev/sda1",
     "relation_name": "/dev/vda1",
     "device_use": "OS",
     "file_system": "ext4",
     "mount_point": "/",
     "size": 42948624384,
     "used_size": 2467393536,
     "free_size": 40481230848
    }
   ],
   "disk_index": "z"
  }
 ],
 "volume_groups": [],
 "image_disk_id": "9700f5ce-02ae-4a71-a057-deffe9b69xxx",
 "rollback_snapshot_ids": null
},
```


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```
"clone_server": null,
"target_snapshot_id": null,
"remain_seconds": 60000
}
```

state indicates the task execution status. **RUNNING** indicates that the task is being executed, and **MIGRATE_SUCCESS** indicates that the task has been executed successfully.

----End

4.3 Pausing and Deleting a Migration Task

Scenarios

This section describes how to pause and delete a migration task by calling APIs. For details, see **Calling APIs**.

Before deleting a migration task, you need to obtain the user token. After pausing the migration task, you need to query the task status. The migration task can be deleted only after it is paused.

Involved APIs

- **Obtaining a User Token Through Password Authentication**: This API is used to obtain the user token for authentication.
- **Managing Migration Tasks (Pause)**: This API is used to pause a migration task with a specified ID.
- **Querying Details About a Migration Task**: This API is used to query the details of a migration task with a specified ID to check whether the migration task is successfully paused.
- **Deleting a Migration Task**: This API is used to delete a migration task with a specified ID.

Procedure

Step 1 Obtain the token of the IAM user.

- API

  URI format: POST /v3/auth/tokens

  For details, see **Obtaining a User Token Through Password Authentication**.

- Example request

  ```
  POST: https://{iam_endpoint}/v3/auth/tokens
  ```

  Obtain *{endpoint}* from **Regions and Endpoints**.

  Body:

  ```
  {
      "auth": {
          "identity": {
              "methods": [
                  "password"
              ],
              "password": {
                  "user": {
                      "name": "testname",
                      "domain": {
  ```

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```
                    "name": "testname"
                },
                "password": "Password"
            }
        }
    },
    "scope": {
        "project": {
            "id": "0215ef11e49d4743be23dd97a1561xxx"
        }
    }
  }
}
```

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

```
X-Subject-Token: MIIDkgYJKoZIhvcNAQcCoIIDgzCCA38CAQExDTALBglghkgBZQMEAgEwgXXXXX...
```

Step 2 Make a call to the API for pausing a migration task to pause a migration task.

- API

  URI format:

  ```
  POST /v3/tasks/{task_id}/action
  ```

  For details, see **Managing Migration Tasks (Pause)**.

- Example request

  ```
  POST  https://sms.ap-southeast-1.myhuaweicloud.com/v3/tasks/
  8abda8635e09d185015e09d188dd0001xx/action
  ```

  Header:

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

  Body:

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

  If the response code is 200, the API is successfully called.

Step 3 View the migration task status.

- API

  URI format:

  ```
  GET /v3/tasks/{task_id}
  ```

  For details, see **Querying Details About a Migration Task**.

- Example request

  ```
  GET  https://sms.ap-southeast-1.myhuaweicloud.com/v3/tasks/
  8abda8635e09d185015e09d188dd0001xx
  ```

  Header:

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

- Example response

  ```
  {
   "id": "8abda8635e09d185015e09d188dd0001xx",
   "name": "MigrationTask",
   "type": "MIGRATE_FILE",
   "os_type": "LINUX",
   "state": "ABORT",
   "estimate_complete_time": 1600391014000,
   "create_date": 1600159831000,
   "start_date": 1600159831000,
   "finish_date": 1600343128000,
   "priority": 1,
  ```

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```
"speed_limit": 0,
"migrate_speed": 0,
"start_target_server": true,
"error_json": "",
"total_time": 935000,
"float_ip": "192.168.0.xxx",
"migration_ip": "192.168.0.xxx",
"vm_template_id": null,
"region_name": "region_name",
"region_id": "region_id",
"project_name": ""project_name",
"project_id": "05825205120026802ff0c01721bc1xxx",
"sub_tasks": [
{
 "id": 3514,
 "name": "SSL_CONFIG",
 "progress": 100,
 "start_date": 1600159847000,
 "end_date": 1600159851000,
 "user_op": "REPLICATE"
},
{
 "id": 3515,
 "name": "ATTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600159851000,
 "end_date": 1600160027000,
 "user_op": "REPLICATE"
},
{
 "id": 3516,
 "name": "FORMAT_DISK_LINUX_FILE",
 "progress": 100,
 "start_date": 1600160027000,
 "end_date": 1600160030000,
 "user_op": "REPLICATE"
},
{
 "id": 3517,
 "name": "MIGRATE_LINUX_FILE",
 "progress": 100,
 "start_date": 1600160080000,
 "end_date": 1600160088000,
 "user_op": "REPLICATE"
},
{
 "id": 3582,
 "name": "CONFIGURE_LINUX_FILE",
 "progress": 100,
 "start_date": 1600333914000,
 "end_date": 1600334025000,
 "user_op": "CUTOVER0"
},
{
 "id": 3583,
 "name": "DETTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600334029000,
 "end_date": 1600334103000,
 "user_op": "CUTOVER0"
},
{
 "id": 3584,
 "name": "SSL_CONFIG",
 "progress": 100,
 "start_date": 1600334185000,
 "end_date": 1600334188000,
 "user_op": "RESYNC0"
},
```


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```
{
 "id": 3585,
 "name": "ATTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600334189000,
 "end_date": 1600334375000,
 "user_op": "RESYNC0"
},
{
 "id": 3586,
 "name": "SYNC_LINUX_FILE",
 "progress": 100,
 "start_date": 1600334375000,
 "end_date": 1600334376000,
 "user_op": "RESYNC0"
},
{
 "id": 3587,
 "name": "CONFIGURE_LINUX_FILE",
 "progress": 100,
 "start_date": 1600342952000,
 "end_date": 1600343052000,
 "user_op": "CUTOVER1"
},
{
 "id": 3588,
 "name": "DETTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600343056000,
 "end_date": 1600343128000,
 "user_op": "CUTOVER1"
},
{
 "id": 3589,
 "name": "SSL_CONFIG",
 "progress": 100,
 "start_date": 1600390756000,
 "end_date": 1600390760000,
 "user_op": "RESYNC1"
},
{
 "id": 3590,
 "name": "ATTACH_AGENT_IMAGE",
 "progress": 100,
 "start_date": 1600390760000,
 "end_date": 1600390953000,
 "user_op": "RESYNC1"
},
{
 "id": 3591,
 "name": "SYNC_LINUX_FILE",
 "progress": 100,
 "start_date": 1600390954000,
 "end_date": 1600390954000,
 "user_op": "RESYNC1"
 }
],
"source_server": {
 "id": "621f2cb5-ba4f-4819-b00d-ee48ca2c35ea",
 "ip": "192.168.0.176",
 "name": "ecs-4bb4",
 "os_type": "LINUX",
 "os_version": "CENTOS_7_6_64BIT",
 "oem_system": false,
 "state": "syncing",
 "migration_cycle": "syncing"
},
"target_server": {
 "id": "de35f45d-b6d5-4769-9148-984c8fab4xxx",
```


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```
"vm_id": "6d51477f-0a02-4917-8d7d-b13969f4axxx",
"name": "ecs-4bb4",
"ip": null,
"os_type": "LINUX",
"os_version": null,
"system_dir": null,
"disks": [
 {
  "id": 86364,
  "name": "/dev/sda",
  "relation_name": "/dev/vda",
  "disk_id": "ed3c78d0-3166-48d1-bee0-d29e7d834xxx",
  "partition_style": "MBR",
  "size": 42949672960,
  "used_size": 42948624384,
  "device_use": "BOOT",
  "os_disk": false,
  "physical_volumes": [
   {
    "id": 132594,
    "uuid": null,
    "index": 0,
    "name": "/dev/sda1",
    "relation_name": "/dev/vda1",
    "device_use": "OS",
    "file_system": "ext4",
    "mount_point": "/",
    "size": 42948624384,
    "used_size": 2467393536,
    "free_size": 40481230848
   }
  ],
  "disk_index": "z"
 }
],
"volume_groups": [],
"image_disk_id": "9700f5ce-02ae-4a71-a057-deffe9b69xxx",
"rollback_snapshot_ids": null
},
"clone_server": null,
"target_snapshot_id": null,
"remain_seconds": 60000
}
```


state indicates the task execution status. **ABORT** indicates that the task has been paused.

Step 4 Make a call to the API for deleting a migration task to delete the migration task.

- API

  URI format:

  ```
  DELETE /v3/tasks/{task_id}
  ```

  For details, see **Deleting a Migration Task**.

- Example request

  ```
  https://sms.ap-southeast-1.myhuaweicloud.com/v3/tasks/8abda8635e09d185015e09d188dd0001xx
  ```

  Header:

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

  If the response code is 200, the migration task has been deleted successfully.

----End

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5 APIs V3.0

5.1 API Version Query

5.1.1 Listing API Versions

Function

This API is used to list all SMS API versions.

Calling Method

For details, see **Calling APIs**.

URI

GET /

Request

Table 5-1 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Response

Status code: 200

Table 5-2 Response body parameters

Parameter	Type	Description
versions	Array of **Version** objects	The list of all SMS API versions. Array length: 0 to 1,024 characters

Table 5-3 Version

Parameter	Type	Description
id	String	The API version. Minimum length: 0 characters Maximum length: 255 characters
links	Array of **Link** objects	The API link address. Array length: 0 to 1,024 characters
status	String	The version status. **SUPPORTED** indicates that the version is supported. Minimum length: 0 characters Maximum length: 255 characters
updated	String	The time when the version was updated. The format is yyyy-mm-ddThh:mm:ssZ. **T** is the separator between the calendar and the hourly notation of time. **Z** indicates the UTC time. For example, 2018-09-30T00:00:00Z Minimum length: 0 characters Maximum length: 255 characters

Table 5-4 Link field description

Parameter	Type	Description
href	String	The API URL. Minimum length: 0 characters Maximum length: 1,024 characters

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Parameter	Type	Description
rel	String	Its value is **self**, indicating that **href** is a local link. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example queries the list of supported API versions.

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

{
  "versions" : [ {
    "links" : [ {
      "rel" : "self",
      "href" : "https://sms.ap-southeast-1.myhuaweicloud.com/"
    } ],
    "id" : "v3",
    "updated" : "2020-09-02T17:50:00Z",
    "status" : "SUPPORTED"
  } ]
}
```

Example Response

Status code: 200

The list of supported API versions was obtained.

```
{
  "versions" : [ {
    "links" : [ {
      "rel" : "self",
      "href" : "https://sms.ap-southeast-1.myhuaweicloud.com/"
    } ],
    "id" : "v3",
    "updated" : "2020-09-02T17:50:00Z",
    "status" : "SUPPORTED"
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example queries the list of supported API versions.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
```

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```
import com.huaweicloud.sdk.sms.v3.model.*;


public class ListApiVersionSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListApiVersionRequest request = new ListApiVersionRequest();
        try {
            ListApiVersionResponse response = client.listApiVersion(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example queries the list of supported API versions.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
```

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```
        request = ListApiVersionRequest()
        response = client.list_api_version(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example queries the list of supported API versions.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The list of supported API versions was obtained.

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Error Codes

For details, see **Error Codes**.

5.1.2 Querying an API Version

Function

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

Calling Method

For details, see **Calling APIs**.

URI

GET /{version}

Table 5-5 Path parameter

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

Request

None

Response

Status code: 200

Table 5-6 Response body parameters

Parameter	Type	Description
id	String	The API version. Minimum length: 0 characters Maximum length: 255 characters
links	Array of **Link** objects	The API link address. Array length: 0 to 1,024 characters

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Parameter	Type	Description
status	String	The version status. **SUPPORTED** indicates that the version is supported. Minimum length: 0 characters Maximum length: 255 characters
updated	String	The time when the version was updated. The format is yyyy-mm-ddThh:mm:ssZ. **T** is the separator between the calendar and the hourly notation of time. **Z** indicates the UTC time. For example, 2018-09-30T00:00:00Z Minimum length: 0 characters Maximum length: 255 characters

Table 5-7 Link field description

Parameter	Type	Description
href	String	The API URL. Minimum length: 0 characters Maximum length: 1,024 characters
rel	String	Its value is **self**, indicating that **href** is a local link. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example queries a specified SMS API version.

```
GET https://{endpoint}/v3

{
  "links" : [ {
    "rel" : "self",
    "href" : "https://sms.ap-southeast-1.myhuaweicloud.com/v3"
  } ],
  "id" : "v3",
  "updated" : "2020-09-02T17:50:00Z",
  "status" : "SUPPORTED"
}
```

Example Response

Status code: 200

The information about the specified API version was obtained.

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```
{
  "links" : [ {
    "rel" : "self",
    "href" : "https://sms.ap-southeast-1.myhuaweicloud.com/v3"
  } ],
  "id" : "v3",
  "updated" : "2020-09-02T17:50:00Z",
  "status" : "SUPPORTED"
}
```

SDK Sample Code

The sample code is as follows.

Java

This example queries a specified SMS API version.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowApiVersionSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowApiVersionRequest request = new ShowApiVersionRequest();
        request.withVersion("{version}");
        try {
            ShowApiVersionResponse response = client.showApiVersion(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

This example queries a specified SMS API version.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowApiVersionRequest()
        request.version = "{version}"
        response = client.show_api_version(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example queries a specified SMS API version.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
```

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

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The information about the specified API version was obtained.

Error Codes

For details, see **Error Codes**.

5.2 Agent Running

5.2.1 Obtaining the Agent Configuration Information

Function

After the Agent installed on a source server is started, it calls this API to obtain configuration information.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/config

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Request

Table 5-8 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-9 Response body parameters

Parameter	Type	Description
config	Map<String,String>	mainRegion, obs_domain, disktype, process_and_it, and information added.
regions	Array of Map<String,Object> objects	The region array. Array length: 1 to 100

Status code: 400

Table 5-10 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

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Status code: 403

Table 5-11 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-12 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example obtains the Agent configuration information under the current endpoint.

```
GET https://{endpoint}/v3/config
```

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Example Response

Status code: 200

The configuration information was obtained.

```
{
  "config" : {
    "mainRegion" : "ap-southeast-1",
    "disktype" : "SATA"
  },
  "regions" : [ {
    "region_name" : "cn-north-1",
    "project_name" : "cn-north-1"
  }, {
    "region_name" : "cn-north-4",
    "project_name" : "cn-north-4"
  } ]
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowConfigSolution {

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

        ICredential auth = new GlobalCredentials()
                .withAk(ak)
```

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```
            .withSk(sk);

    SmsClient client = SmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
            .build();
    ShowConfigRequest request = new ShowConfigRequest();
    try {
        ShowConfigResponse response = client.showConfig(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
  }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
```

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```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The configuration information was obtained.
400	Obtaining the configuration information failed.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.3 Source Server Management

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5.3.1 Listing Failed Source Servers

Function

This API is used to query the list of source servers that failed to be migrated and the reported error messages.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/errors

Table 5-13 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	The number of failed source servers recorded on each page. Minimum value: **0** Maximum value: **100** Default value: **50**
offset	Yes	Integer	The offset. Minimum value: **0** Maximum value: **65535** Default value: **0**
migproject	No	String	The ID of the migration project within which the failed source servers will be queried. If this parameter is specified, only the failed source servers in migration tasks under the project are queried. Minimum length: 0 characters Maximum length: 255 characters
enterprise_project_id	No	String	The ID of the enterprise project to be queried. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-14 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-15 Response body parameters

Parameter	Type	Description
count	Integer	The number of source servers that failed to be migrated due to errors. Minimum value: **0** Maximum value: **2147483647**
migration_errors	Array of **MigrationErrors** objects	The details of failed source servers. Array length: 0 to 65,535

Table 5-16 MigrationErrors field description

Parameter	Type	Description
error_json	String	The error message in JSON format. Minimum length: 0 characters Maximum length: 255 characters
host_name	String	The hostname of the source server, which is obtained from the user system and may be empty. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
name	String	The source server name in SMS. Minimum length: 0 characters Maximum length: 255 characters
source_id	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters
source_ip	String	The IP address of the source server. Minimum length: 0 characters Maximum length: 255 characters
target_ip	String	The IP address of the target server. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

Table 5-17 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

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Table 5-18 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example lists all failed source servers with 10 records on one page and navigates to page 0.

```
GET https://{endpoint}/v3/errors?limit=10&offset=0
```

Example Response

Status code: 200

The list of failed source servers was obtained.

```
{
  "count" : 4,
  "migration_errors" : [ {
    "source_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "source_ip" : "192.168.0.235",
    "target_ip" : null,
    "name" : "sms-ubuntu",
    "host_name" : null,
    "error_json" : "{\"error_code\":\"SMS.1302\",\"error_param\":\"[\\\"/\\\", \\\"/mnt/vdb1\\\"]\"}"
  }, {
    "source_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "source_ip" : "192.168.0.163",
    "target_ip" : null,
    "name" : "sms-win08",
    "host_name" : "sms-win08",
    "error_json" : "{\"error_param\":\"[\\\"192.168.0.1\\\"]\",\"error_code\":\"SMS.2802\"}"
  }, {
    "source_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "source_ip" : "192.168.0.154",
    "target_ip" : null,
    "name" : "sms-win16",
    "host_name" : "sms-win16",
    "error_json" : "{\"error_code\":\"SMS.1114\",\"error_param\":\"[]\"}"
  }, {
    "source_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "source_ip" : "192.168.77.77",
    "target_ip" : null,
    "name" : "sms-centos",
    "host_name" : null,
    "error_json" : "{\"error_code\":\"SMS.3805\",\"error_param\":\"[]\"}"
  } ]
}
```

Status code: 403

Authentication failed.

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```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ListErrorServersSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListErrorServersRequest request = new ListErrorServersRequest();
        try {
            ListErrorServersResponse response = client.listErrorServers(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The list of failed source servers was obtained.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.3.2 Registering a Source Server with SMS

Function

This API is automatically called by the Agent to report the basic information about a source server to SMS. After the source server is registered successfully, you can view the source server information on the SMS console.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/sources

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Request

Table 5-19 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-20 Request body parameters

Parameter	Mandatory	Type	Description
id	No	String	The ID of the source server in the SMS database. Minimum length: 0 characters Maximum length: 255 characters
ip	No	String	The IP address of the source server. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The source server name in SMS. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
hostname	No	String	The hostname of the source server. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
os_type	No	String	The OS type of the source server, which can be Windows or Linux. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **Windows** • **Linux**
os_version	No	String	The OS version. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
virtualization_type	No	String	The OS virtualization type. Minimum length: 0 characters Maximum length: 255 characters
linux_block_check	No	String	The Linux block-level check. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
firmware	No	String	The boot mode. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **BIOS** • **UEFI**
cpu_quantity	No	Integer	The number of vCPUs. Minimum value: **0** Maximum value: **65535**
memory	No	Long	The memory size, in MB. Minimum value: **0** Maximum value: **9223372036854775807**
disks	No	Array of **ServerDisk** objects	The disk information of the source server. Array length: 0 to 65,535
btrfs_list	No	Array of **BtrfsFileSystem** objects	The information about Btrfs file systems on the source server. This parameter is mandatory for Linux. If there are no Btrfs file systems on the source server, the value is an empty array [] Array length: 0 to 65,535
networks	No	Array of **NetWork** objects	The information about NICs on the source server. Array length: 0 to 65,535
domain_id	No	String	The tenant domain ID. Minimum length: 0 characters Maximum length: 255 characters
has_rsync	No	Boolean	Indicates whether rsync is installed. This parameter is mandatory for Linux.
paravirtualization	No	Boolean	Indicates whether the source server is paravirtualized. This parameter is mandatory for Linux.

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Parameter	Mandatory	Type	Description
raw_devices	No	String	The list of raw devices. This parameter is mandatory for Linux. Minimum length: 0 characters Maximum length: 255 characters
driver_files	No	Boolean	Indicates whether any driver files are missing. This parameter is mandatory for Windows.
system_services	No	Boolean	Indicates whether there are abnormal services. This parameter is mandatory for Windows.
account_rights	No	Boolean	Indicates whether the account has the required permissions. This parameter is mandatory for Windows.
boot_loader	No	String	The system boot loader. This parameter is mandatory for Linux. The value can be: • **GRUB** • **LILO**
system_dir	No	String	The system directory. This parameter is mandatory for Windows. Minimum length: 0 characters Maximum length: 255 characters
volume_groups	No	Array of **VolumeGroups** objects	This parameter is mandatory for Linux. If there are no volume groups, the value is an empty array []. Array length: 0 to 65,535
agent_version	No	String	The Agent version. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
kernel_version	No	String	The kernel version. Minimum length: 0 characters Maximum length: 255 characters
migration_cycle	No	String	The current migration stage of the source server. **cutovering**: The target server for the source server is being launched. **cutovered**: The target server for the source server is launched. **checking**: The check is in progress. **setting**: The configuration is in progress. **replicating**: The data is being replicated. **syncing**: The incremental data is being synchronized. The value can be: • **cutovering** • **cutovered** • **checking** • **setting** • **replicating** • **syncing**

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Parameter	Mandatory	Type	Description
state	No	String	The source server status. **unavailable**: The source server fails the environment check. **waiting**: The source server is waiting for migration. **initialize**: The migration of the source server is being initialized. **replicate**: The source server is being replicated. **syncing**: The source server is being synchronized. **stopping**: The migration of the source server is being stopped. **stopped**: The migration of the source server is stopped. **skipping**: The operation is being skipped. **deleting**: The source server record is being deleted. **error**: An error occurs during the migration of the source server. **cloning**: The target server for the source server is being cloned. **cutovering**: The target server for the source server is being launched. **finished**: The target server for the source server is launched. **clearing**: The snapshot resources are being cleared. **cleared**: The snapshot resources have been cleared. **clearfailed**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready. **premiging**: The migration drill is in progress. **premiged**: The migration drill has been completed.

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Parameter	Mandatory	Type	Description
			premigfailed: The migration drill fails. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **unavailable** • **waiting** • **initialize** • **replicate** • **syncing** • **stopping** • **stopped** • **skipping** • **deleting** • **error** • **cloning** • **cutovering** • **finished** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**
oem_system	No	Boolean	Indicates whether the OS is an OEM version (Windows).
start_type	No	String	The startup mode. The value can be **MANUAL**, **MGC**, or an empty string ("""). The value can be: • **MANUAL** • **MGC**
io_read_wait	No	Double	The disk read latency, in ms. Minimum value: **0.0** Maximum value: **10000.0**

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Parameter	Mandatory	Type	Description
has_tc	No	Boolean	Indicates whether TC is installed. This parameter is mandatory for Linux.
platform	No	String	The platform. **hw**: Huawei Cloud **ali**: Alibaba Cloud **aws**: AWS **azure**: Microsoft Azure **gcp**: Google Cloud **tencent**: Tencent Cloud **vmware**: VMware **hyperv**: Hyper-V **other**: other providers The value can be: • **hw** • **ali** • **aws** • **azure** • **gcp** • **tencent** • **vmware**: VMware • **hyperv**: Hyper-V • **other**: other providers

Table 5-21 ServerDisk field description

Parameter	Mandatory	Type	Description
name	Yes	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
partition_style	No	String	The disk partition type. This parameter is mandatory for source server registration. **MBR**: Master Boot Record (MBR) **GPT**: GUID Partition Table (GPT) The value can be: • **MBR** • **GPT**
device_use	Yes	String	The disk function. **BOOT**: boot device **OS**: system device The value can be: • **BOOT** • **OS**
size	Yes	Long	The disk size, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Yes	Long	The used disk space, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
physical_volumes	Yes	Array of **PhysicalVolume** objects	The information about physical partitions on the disk. Array length: 0 to 65,535
os_disk	No	Boolean	Indicates whether the disk is the system disk.
relation_name	No	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters
inode_size	No	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

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Table 5-22 PhysicalVolume field description

Parameter	Mandatory	Type	Description
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
file_system	No	String	The file system type. Minimum length: 0 characters Maximum length: 255 characters
index	No	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**
mount_point	No	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The volume name. In Windows, it indicates the drive letter, and in Linux, it indicates the device ID. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	No	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
inode_size	No	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

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Parameter	Mandatory	Type	Description
inode_nums	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	No	String	The GUID, which can be obtained from the source server. Minimum length: 0 characters Maximum length: 255 characters
size_per_cluster	No	Integer	The size of each cluster. Minimum value: **0** Maximum value: **2147483647**

Table 5-23 BtrfsFileSystem field description

Parameter	Mandatory	Type	Description
name	Yes	String	The file system name. Minimum length: 0 characters Maximum length: 255 characters
label	Yes	String	The file system tag. If no tag exists, the value is an empty string. Minimum length: 0 characters Maximum length: 255 characters
uuid	Yes	String	The UUID of the file system. Minimum length: 0 characters Maximum length: 255 characters
device	Yes	String	The device names of the Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
size	Yes	Long	The space occupied by the file system. Minimum value: **0** Maximum value: **9223372036854775807**
nodesize	Yes	Long	The Btrfs node size. Minimum value: **0** Maximum value: **9223372036854775807**
sectorsize	Yes	Integer	The sector size. Minimum value: **0** Maximum value: **2147483647**
data_profile	Yes	String	The data profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
system_profile	Yes	String	The file system profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
metadata_profile	Yes	String	The metadata profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
global_reserve1	Yes	String	The Btrfs file system information. Minimum length: 0 characters Maximum length: 255 characters
g_vol_used_size	Yes	Long	The used space of the Btrfs volume. Minimum value: **0** Maximum value: **9223372036854775807**
default_subvolid	Yes	String	The ID of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
default_subvol_name	Yes	String	The name of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_mountpath	Yes	String	The mount path of the default subvolume or Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
subvolume	Yes	Array of **BtrfsSubvolumn** objects	The subvolume information. Array length: 0 to 65,535

Table 5-24 BtrfsSubvolumn field description

Parameter	Mandatory	Type	Description
uuid	Yes	String	The UUID of the parent volume. Minimum length: 0 characters Maximum length: 255 characters
is_snapshot	Yes	String	Indicates whether the subvolume is a snapshot. Minimum length: 0 characters Maximum length: 255 characters
subvol_id	Yes	String	The subvolume ID. Minimum length: 0 characters Maximum length: 255 characters
parent_id	Yes	String	The parent volume ID. Minimum length: 0 characters Maximum length: 255 characters
subvol_name	Yes	String	The subvolume name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
subvol_mount_path	Yes	String	The mount path of the subvolume. Minimum length: 0 characters Maximum length: 255 characters

Table 5-25 NetWork field description

Parameter	Mandatory	Type	Description
name	Yes	String	The NIC name. Minimum length: 0 characters Maximum length: 255 characters
ip	Yes	String	The IP address bound to the NIC. Minimum length: 0 characters Maximum length: 255 characters
ipv6	No	String	The IPv6 address. Minimum length: 0 characters Maximum length: 255 characters
netmask	Yes	String	The subnet mask. Minimum length: 0 characters Maximum length: 255 characters
gateway	Yes	String	The gateway. Minimum length: 0 characters Maximum length: 255 characters
mtu	No	Integer	The NIC MTU. This parameter is mandatory for Linux. Minimum value: **0** Maximum value: **2147483647**
mac	Yes	String	The MAC address. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
id	No	String	The database record ID. Minimum length: 0 characters Maximum length: 255 characters

Table 5-26 VolumeGroups field description

Parameter	Mandatory	Type	Description
components	No	String	The physical volume information. Minimum length: 0 characters Maximum length: 255 characters
free_size	No	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**
logical_volumes	No	Array of **LogicalVolumes** objects	The logical volume information. Array length: 0 to 255
name	No	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-27 LogicalVolumes field description

Parameter	Mandatory	Type	Description
block_count	No	Integer	The number of blocks. Minimum value: **0** Maximum value: **2147483647** Default value: **0**

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Parameter	Mandatory	Type	Description
block_size	No	Long	The block size. Minimum value: **0** Maximum value: **1048576** Default value: **0**
file_system	Yes	String	The file system. Minimum length: 0 characters Maximum length: 255 characters
inode_size	Yes	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**
inode_nums	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
mount_point	Yes	String	The mount point. Minimum length: 0 characters Maximum length: 256 characters
name	Yes	String	The name. Minimum length: 0 characters Maximum length: 1,024 characters
size	Yes	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Yes	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Mandatory	Type	Description
free_size	Yes	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

Response

Status code: 200

Table 5-28 Response body parameters

Parameter	Type	Description
id	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

Table 5-29 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

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Table 5-30 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example reports the information about a source server to SMS. The source server runs Linux SUSE12_64BIT_SP2, with the name of host-192-168-136-xxx, the IP address of 192.168.136.xxx, the BOOT system disk named /dev/vda, and the system disk size of 42,949,672,960 bytes. After the source server is reported, you can view the source server information on the SMS console.

```
POST https://{endpoint}/v3/sources

{
  "os_type" : "LINUX",
  "name" : "host-192-168-136-xxx",
  "os_version" : "SUSE12_64BIT_SP2",
  "linux_block_check" : "{\"release_type\": \"SUSE\", \"release_version\": \"12.2\", \"kernel_simplification\":
\"4.4.21\", \"architecture\": \"x86_64\", \"kernel_version\": \"4.4.21-69-default\"}",
  "kernel_version" : "4.4.21-69-default",
  "virtualization_type" : "HVM",
  "paravirtualization" : true,
  "firmware" : "BIOS",
  "has_rsync" : true,
  "io_read_wait" : 3.4,
  "boot_loader" : "GRUB",
  "disks" : [ {
    "name" : "/dev/vda",
    "device_use" : "BOOT",
    "size" : 42949672960,
    "partition_style" : "MBR",
    "used_size" : 42948624384,
    "physical_volumes" : [ {
      "name" : "/dev/vda1",
      "size" : 2153775104,
      "device_use" : "NORMAL",
      "used_size" : 2153775104,
      "inode_size" : 0,
      "inode_nums" : 0,
      "file_system" : "swap",
      "mount_point" : ""
    }, {
      "name" : "/dev/vda2",
      "size" : 16862150656,
      "device_use" : "BTRFS",
      "used_size" : 16862150656,
      "inode_size" : 0,
      "inode_nums" : 0,
      "file_system" : "btrfs",
      "mount_point" : ""
    }, {
      "name" : "/dev/vda3",
```

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```
    "size" : 23932698624,
    "device_use" : "NORMAL",
    "used_size" : 33988608,
    "inode_size" : 0,
    "inode_nums" : 12345,
    "file_system" : "xfs",
    "mount_point" : "/home"
  } ]
}, {
  "name" : "/dev/vdb",
  "device_use" : "NORMAL",
  "size" : 21474836480,
  "partition_style" : "MBR",
  "used_size" : 21473787904,
  "physical_volumes" : [ {
    "name" : "/dev/vdb1",
    "size" : 21473787904,
    "device_use" : "VOLUME_GROUP",
    "used_size" : 21473787904,
    "inode_size" : 0,
    "inode_nums" : 0,
    "file_system" : "LVM2_member",
    "mount_point" : ""
  } ]
}, {
  "name" : "/dev/vdc",
  "device_use" : "VOLUME_GROUP",
  "size" : 21474836480,
  "partition_style" : "MBR",
  "used_size" : 0,
  "physical_volumes" : [ ]
} ],
"volume_groups" : [ {
  "name" : "vg1",
  "size" : 42948624384,
  "components" : "/dev/vdb1;/dev/vdc",
  "logical_volumes" : [ {
    "name" : "/dev/mapper/vg1-lv1",
    "device_use" : "NORMAL",
    "size" : 10737418240,
    "free_size" : 10713837568,
    "used_size" : 23580672,
    "file_system" : "ext4",
    "mount_point" : "/mnt/lv1",
    "inode_nums" : 12345,
    "inode_size" : "256"
  } ]
} ],
"btrfs_list" : [ {
  "name" : "/dev/vda2",
  "label" : "none",
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "device" : "/dev/vda2",
  "size" : "3.30GiB",
  "nodesize" : "16384",
  "sectorsize" : "4096",
  "data_profile" : "single",
  "system_profile" : "single",
  "metadata_profile" : "single",
  "global_reserve1" : "single",
  "g_vol_used_size" : "3894038528",
  "default_subvolid" : "259",
  "default_subvol_name" : "@/.snapshots/1/snapshot",
  "default_subvol_mountpath" : "/",
  "subvolumn" : [ {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "257",
    "parent_id" : "5",
```


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```
    "subvol_name" : "@",
    "subvol_mount_path" : "null"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "258",
    "parent_id" : "257",
    "subvol_name" : "@/.snapshots",
    "subvol_mount_path" : "/.snapshots"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "true",
    "subvol_id" : "259",
    "parent_id" : "258",
    "subvol_name" : "@/.snapshots/1/snapshot",
    "subvol_mount_path" : "/"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "260",
    "parent_id" : "257",
    "subvol_name" : "@/boot/grub2/i386-pc",
    "subvol_mount_path" : "/boot/grub2/i386-pc"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "261",
    "parent_id" : "257",
    "subvol_name" : "@/boot/grub2/x86_64-efi",
    "subvol_mount_path" : "/boot/grub2/x86_64-efi"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "262",
    "parent_id" : "257",
    "subvol_name" : "@/opt",
    "subvol_mount_path" : "/opt"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "263",
    "parent_id" : "257",
    "subvol_name" : "@/srv",
    "subvol_mount_path" : "/srv"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "264",
    "parent_id" : "257",
    "subvol_name" : "@/tmp",
    "subvol_mount_path" : "/tmp"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "265",
    "parent_id" : "257",
    "subvol_name" : "@/usr/local",
    "subvol_mount_path" : "/usr/local"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "266",
    "parent_id" : "257",
    "subvol_name" : "@/var/cache",
    "subvol_mount_path" : "/var/cache"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "267",
```


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```
    "parent_id" : "257",
    "subvol_name" : "@/var/crash",
    "subvol_mount_path" : "/var/crash"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "268",
    "parent_id" : "257",
    "subvol_name" : "@/var/lib/libvirt/images",
    "subvol_mount_path" : "/var/lib/libvirt/images"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "269",
    "parent_id" : "257",
    "subvol_name" : "@/var/lib/machines",
    "subvol_mount_path" : "/var/lib/machines"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "270",
    "parent_id" : "257",
    "subvol_name" : "@/var/lib/mailman",
    "subvol_mount_path" : "/var/lib/mailman"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "271",
    "parent_id" : "257",
    "subvol_name" : "@/var/lib/mariadb",
    "subvol_mount_path" : "/var/lib/mariadb"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "272",
    "parent_id" : "257",
    "subvol_name" : "@/var/lib/mysql",
    "subvol_mount_path" : "/var/lib/mysql"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "273",
    "parent_id" : "257",
    "subvol_name" : "@/var/lib/named",
    "subvol_mount_path" : "/var/lib/named"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "274",
    "parent_id" : "257",
    "subvol_name" : "@/var/lib/pgsql",
    "subvol_mount_path" : "/var/lib/pgsql"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "275",
    "parent_id" : "257",
    "subvol_name" : "@/var/log",
    "subvol_mount_path" : "/var/log"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "276",
    "parent_id" : "257",
    "subvol_name" : "@/var/opt",
    "subvol_mount_path" : "/var/opt"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
```


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```
    "subvol_id" : "277",
    "parent_id" : "257",
    "subvol_name" : "@/var/spool",
    "subvol_mount_path" : "/var/spool"
   }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "false",
    "subvol_id" : "278",
    "parent_id" : "257",
    "subvol_name" : "@/var/tmp",
    "subvol_mount_path" : "/var/tmp"
   }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : "true",
    "subvol_id" : "282",
    "parent_id" : "258",
    "subvol_name" : "@/.snapshots/2/snapshot",
    "subvol_mount_path" : "null"
   } ]
  } ],
  "cpu_quantity" : 1,
  "memory" : 934752256,
  "networks" : [ {
   "name" : "eth0",
   "ip" : "192.168.136.xxx",
   "netmask" : "netmask",
   "gateway" : "gateway",
   "mac" : "1a9660eb8a3ffcf4df6d7865b52eb54f7b0cd194029e0eadd8e2c7f1267d80c0"
  } ],
  "ip" : "192.168.136.xxx",
  "agent_version" : "2.2.1",
  "platform" : "hw"
}
```

Example Response

Status code: 200

The source server was registered with SMS.

```
{
  "id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example reports the information about a source server to SMS. The source server runs Linux SUSE12_64BIT_SP2, with the name of host-192-168-136-xxx, the

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IP address of 192.168.136.xxx, the BOOT system disk named /dev/vda, and the system disk size of 42,949,672,960 bytes. After the source server is reported, you can view the source server information on the SMS console.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class RegisterServerSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        RegisterServerRequest request = new RegisterServerRequest();
        PostSourceServerBody body = new PostSourceServerBody();
        List<LogicalVolumes> listVolumeGroupsLogicalVolumes = new ArrayList<>();
        listVolumeGroupsLogicalVolumes.add(
            new LogicalVolumes()
                .withFileSystem("ext4")
                .withInodeSize(256)
                .withInodeNums(12345L)
                .withDeviceUse("NORMAL")
                .withMountPoint("/mnt/lv1")
                .withName("/dev/mapper/vg1-lv1")
                .withSize(10737418240L)
                .withUsedSize(23580672L)
                .withFreeSize(10713837568L)
        );
        List<VolumeGroups> listbodyVolumeGroups = new ArrayList<>();
        listbodyVolumeGroups.add(
            new VolumeGroups()
                .withComponents("/dev/vdb1;/dev/vdc")
                .withLogicalVolumes(listVolumeGroupsLogicalVolumes)
                .withName("vg1")
                .withSize(42948624384L)
        );
        List<NetWork> listbodyNetworks = new ArrayList<>();
        listbodyNetworks.add(
            new NetWork()
                .withName("eth0")
                .withIp("192.168.136.xxx")
                .withNetmask("netmask")
                .withGateway("gateway")
                .withMac("1a9660eb8a3ffcf4df6d7865b52eb54f7b0cd194029e0eadd8e2c7f1267d80c0")
        );
```

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```
List<BtrfsSubvolumn> listBtrfsListSubvolumn = new ArrayList<>();
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("false")
        .withSubvolId("257")
        .withParentId("5")
        .withSubvolName("@")
        .withSubvolMountPath("null")
);
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("false")
        .withSubvolId("258")
        .withParentId("257")
        .withSubvolName("@/.snapshots")
        .withSubvolMountPath("/.snapshots")
);
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("true")
        .withSubvolId("259")
        .withParentId("258")
        .withSubvolName("@/.snapshots/1/snapshot")
        .withSubvolMountPath("/")
);
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("false")
        .withSubvolId("260")
        .withParentId("257")
        .withSubvolName("@/boot/grub2/i386-pc")
        .withSubvolMountPath("/boot/grub2/i386-pc")
);
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("false")
        .withSubvolId("261")
        .withParentId("257")
        .withSubvolName("@/boot/grub2/x86_64-efi")
        .withSubvolMountPath("/boot/grub2/x86_64-efi")
);
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("false")
        .withSubvolId("262")
        .withParentId("257")
        .withSubvolName("@/opt")
        .withSubvolMountPath("/opt")
);
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("false")
        .withSubvolId("263")
        .withParentId("257")
        .withSubvolName("@/srv")
        .withSubvolMountPath("/srv")
);
listBtrfsListSubvolumn.add(
    new BtrfsSubvolumn()
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withIsSnapshot("false")
        .withSubvolId("264")
```

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```
            .withParentId("257")
            .withSubvolName("@/tmp")
            .withSubvolMountPath("/tmp")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("265")
            .withParentId("257")
            .withSubvolName("@/usr/local")
            .withSubvolMountPath("/usr/local")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("266")
            .withParentId("257")
            .withSubvolName("@/var/cache")
            .withSubvolMountPath("/var/cache")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("267")
            .withParentId("257")
            .withSubvolName("@/var/crash")
            .withSubvolMountPath("/var/crash")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("268")
            .withParentId("257")
            .withSubvolName("@/var/lib/libvirt/images")
            .withSubvolMountPath("/var/lib/libvirt/images")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("269")
            .withParentId("257")
            .withSubvolName("@/var/lib/machines")
            .withSubvolMountPath("/var/lib/machines")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("270")
            .withParentId("257")
            .withSubvolName("@/var/lib/mailman")
            .withSubvolMountPath("/var/lib/mailman")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("271")
            .withParentId("257")
            .withSubvolName("@/var/lib/mariadb")
            .withSubvolMountPath("/var/lib/mariadb")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
```

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```
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("272")
            .withParentId("257")
            .withSubvolName("@/var/lib/mysql")
            .withSubvolMountPath("/var/lib/mysql")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("273")
            .withParentId("257")
            .withSubvolName("@/var/lib/named")
            .withSubvolMountPath("/var/lib/named")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("274")
            .withParentId("257")
            .withSubvolName("@/var/lib/pgsql")
            .withSubvolMountPath("/var/lib/pgsql")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("275")
            .withParentId("257")
            .withSubvolName("@/var/log")
            .withSubvolMountPath("/var/log")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("276")
            .withParentId("257")
            .withSubvolName("@/var/opt")
            .withSubvolMountPath("/var/opt")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("277")
            .withParentId("257")
            .withSubvolName("@/var/spool")
            .withSubvolMountPath("/var/spool")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("278")
            .withParentId("257")
            .withSubvolName("@/var/tmp")
            .withSubvolMountPath("/var/tmp")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("true")
            .withSubvolId("282")
            .withParentId("258")
            .withSubvolName("@/.snapshots/2/snapshot")
            .withSubvolMountPath("null")
```

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```
);
List<BtrfsFileSystem> listbodyBtrfsList = new ArrayList<>();
listbodyBtrfsList.add(
    new BtrfsFileSystem()
        .withName("/dev/vda2")
        .withLabel("none")
        .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
        .withDevice("/dev/vda2")
        .withSize(3.30GiBL)
        .withNodesize(16384L)
        .withSectorsize(4096)
        .withDataProfile("single")
        .withSystemProfile("single")
        .withMetadataProfile("single")
        .withGlobalReserve1("single")
        .withGVolUsedSize(3894038528L)
        .withDefaultSubvolid("259")
        .withDefaultSubvolName("@/.snapshots/1/snapshot")
        .withDefaultSubvolMountpath("/")
        .withSubvolumn(listBtrfsListSubvolumn)
);
List<PhysicalVolume> listDisksPhysicalVolumes = new ArrayList<>();
listDisksPhysicalVolumes.add(
    new PhysicalVolume()
        .withDeviceUse("VOLUME_GROUP")
        .withFileSystem("LVM2_member")
        .withMountPoint("")
        .withName("/dev/vdb1")
        .withSize(21473787904L)
        .withUsedSize(21473787904L)
        .withInodeSize(0)
        .withInodeNums(0L)
);
List<PhysicalVolume> listDisksPhysicalVolumes1 = new ArrayList<>();
listDisksPhysicalVolumes1.add(
    new PhysicalVolume()
        .withDeviceUse("NORMAL")
        .withFileSystem("swap")
        .withMountPoint("")
        .withName("/dev/vda1")
        .withSize(2153775104L)
        .withUsedSize(2153775104L)
        .withInodeSize(0)
        .withInodeNums(0L)
);
listDisksPhysicalVolumes1.add(
    new PhysicalVolume()
        .withDeviceUse("BTRFS")
        .withFileSystem("btrfs")
        .withMountPoint("")
        .withName("/dev/vda2")
        .withSize(16862150656L)
        .withUsedSize(16862150656L)
        .withInodeSize(0)
        .withInodeNums(0L)
);
listDisksPhysicalVolumes1.add(
    new PhysicalVolume()
        .withDeviceUse("NORMAL")
        .withFileSystem("xfs")
        .withMountPoint("/home")
        .withName("/dev/vda3")
        .withSize(23932698624L)
        .withUsedSize(33988608L)
        .withInodeSize(0)
        .withInodeNums(12345L)
);
List<ServerDisk> listbodyDisks = new ArrayList<>();
listbodyDisks.add(
```

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```
            new ServerDisk()
                .withName("/dev/vda")
                .withPartitionStyle(ServerDisk.PartitionStyleEnum.fromValue("MBR"))
                .withDeviceUse(ServerDisk.DeviceUseEnum.fromValue("BOOT"))
                .withSize(42949672960L)
                .withUsedSize(42948624384L)
                .withPhysicalVolumes(listDisksPhysicalVolumes1)
        );
        listbodyDisks.add(
            new ServerDisk()
                .withName("/dev/vdb")
                .withPartitionStyle(ServerDisk.PartitionStyleEnum.fromValue("MBR"))
                .withDeviceUse(ServerDisk.DeviceUseEnum.fromValue("NORMAL"))
                .withSize(21474836480L)
                .withUsedSize(21473787904L)
                .withPhysicalVolumes(listDisksPhysicalVolumes)
        );
        listbodyDisks.add(
            new ServerDisk()
                .withName("/dev/vdc")
                .withPartitionStyle(ServerDisk.PartitionStyleEnum.fromValue("MBR"))
                .withDeviceUse(ServerDisk.DeviceUseEnum.fromValue("VOLUME_GROUP"))
                .withSize(21474836480L)
                .withUsedSize(0L)
                .withPhysicalVolumes()
        );
        body.withPlatform(PostSourceServerBody.PlatformEnum.fromValue("hw"));
        body.withIoReadWait((double)3.4);
        body.withKernelVersion("4.4.21-69-default");
        body.withAgentVersion("2.2.1");
        body.withVolumeGroups(listbodyVolumeGroups);
        body.withBootLoader(PostSourceServerBody.BootLoaderEnum.fromValue("GRUB"));
        body.withParavirtualization(true);
        body.withHasRsync(true);
        body.withNetworks(listbodyNetworks);
        body.withBtrfsList(listbodyBtrfsList);
        body.withDisks(listbodyDisks);
        body.withMemory(934752256L);
        body.withCpuQuantity(1);
        body.withFirmware(PostSourceServerBody.FirmwareEnum.fromValue("BIOS"));
        body.withLinuxBlockCheck("{"release_type": "SUSE", "release_version": "12.2", "kernel_simplification":
"4.4.21", "architecture": "x86_64", "kernel_version": "4.4.21-69-default"}");
        body.withVirtualizationType("HVM");
        body.withOsVersion("SUSE12_64BIT_SP2");
        body.withOsType(PostSourceServerBody.OsTypeEnum.fromValue("LINUX"));
        body.withName("host-192-168-136-xxx");
        body.withIp("192.168.136.xxx");
        request.withBody(body);
        try {
            RegisterServerResponse response = client.registerServer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

This example reports the information about a source server to SMS. The source server runs Linux SUSE12_64BIT_SP2, with the name of host-192-168-136-xxx, the IP address of 192.168.136.xxx, the BOOT system disk named /dev/vda, and the system disk size of 42,949,672,960 bytes. After the source server is reported, you can view the source server information on the SMS console.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = RegisterServerRequest()
        listLogicalVolumesVolumeGroups = [
            LogicalVolumes(
                file_system="ext4",
                inode_size=256,
                inode_nums=12345,
                device_use="NORMAL",
                mount_point="/mnt/lv1",
                name="/dev/mapper/vg1-lv1",
                size=10737418240,
                used_size=23580672,
                free_size=10713837568
            )
        ]
        listVolumeGroupsbody = [
            VolumeGroups(
                components="/dev/vdb1;/dev/vdc",
                logical_volumes=listLogicalVolumesVolumeGroups,
                name="vg1",
                size=42948624384
            )
        ]
        listNetworksbody = [
            NetWork(
                name="eth0",
                ip="192.168.136.xxx",
                netmask="netmask",
                gateway="gateway",
                mac="1a9660eb8a3ffcf4df6d7865b52eb54f7b0cd194029e0eadd8e2c7f1267d80c0"
            )
        ]
        listSubvolumnBtrfsList = [
            BtrfsSubvolumn(
                uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
                is_snapshot="false",
```

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```
        subvol_id="257",
        parent_id="5",
        subvol_name="@",
        subvol_mount_path="null"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="258",
        parent_id="257",
        subvol_name="@/.snapshots",
        subvol_mount_path="/.snapshots"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="true",
        subvol_id="259",
        parent_id="258",
        subvol_name="@/.snapshots/1/snapshot",
        subvol_mount_path="/"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="260",
        parent_id="257",
        subvol_name="@/boot/grub2/i386-pc",
        subvol_mount_path="/boot/grub2/i386-pc"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="261",
        parent_id="257",
        subvol_name="@/boot/grub2/x86_64-efi",
        subvol_mount_path="/boot/grub2/x86_64-efi"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="262",
        parent_id="257",
        subvol_name="@/opt",
        subvol_mount_path="/opt"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="263",
        parent_id="257",
        subvol_name="@/srv",
        subvol_mount_path="/srv"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="264",
        parent_id="257",
        subvol_name="@/tmp",
        subvol_mount_path="/tmp"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="265",
        parent_id="257",
        subvol_name="@/usr/local",
        subvol_mount_path="/usr/local"
    ),
```

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```
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="266",
            parent_id="257",
            subvol_name="@/var/cache",
            subvol_mount_path="/var/cache"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="267",
            parent_id="257",
            subvol_name="@/var/crash",
            subvol_mount_path="/var/crash"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="268",
            parent_id="257",
            subvol_name="@/var/lib/libvirt/images",
            subvol_mount_path="/var/lib/libvirt/images"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="269",
            parent_id="257",
            subvol_name="@/var/lib/machines",
            subvol_mount_path="/var/lib/machines"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="270",
            parent_id="257",
            subvol_name="@/var/lib/mailman",
            subvol_mount_path="/var/lib/mailman"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="271",
            parent_id="257",
            subvol_name="@/var/lib/mariadb",
            subvol_mount_path="/var/lib/mariadb"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="272",
            parent_id="257",
            subvol_name="@/var/lib/mysql",
            subvol_mount_path="/var/lib/mysql"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="273",
            parent_id="257",
            subvol_name="@/var/lib/named",
            subvol_mount_path="/var/lib/named"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="274",
            parent_id="257",
```

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```
            subvol_name="@/var/lib/pgsql",
            subvol_mount_path="/var/lib/pgsql"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="275",
            parent_id="257",
            subvol_name="@/var/log",
            subvol_mount_path="/var/log"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="276",
            parent_id="257",
            subvol_name="@/var/opt",
            subvol_mount_path="/var/opt"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="277",
            parent_id="257",
            subvol_name="@/var/spool",
            subvol_mount_path="/var/spool"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="278",
            parent_id="257",
            subvol_name="@/var/tmp",
            subvol_mount_path="/var/tmp"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="true",
            subvol_id="282",
            parent_id="258",
            subvol_name="@/.snapshots/2/snapshot",
            subvol_mount_path="null"
        )
    ]
    listBtrfsListbody = [
        BtrfsFileSystem(
            name="/dev/vda2",
            label="none",
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            device="/dev/vda2",
            size=3.30GiB,
            nodesize=16384,
            sectorsize=4096,
            data_profile="single",
            system_profile="single",
            metadata_profile="single",
            global_reserve1="single",
            g_vol_used_size=3894038528,
            default_subvolid="259",
            default_subvol_name="@/.snapshots/1/snapshot",
            default_subvol_mountpath="/",
            subvolumn=listSubvolumnBtrfsList
        )
    ]
    listPhysicalVolumesDisks = [
        PhysicalVolume(
            device_use="VOLUME_GROUP",
            file_system="LVM2_member",
            mount_point="",
```

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```
            name="/dev/vdb1",
            size=21473787904,
            used_size=21473787904,
            inode_size=0,
            inode_nums=0
        )
    ]
    listPhysicalVolumesDisks1 = [
        PhysicalVolume(
            device_use="NORMAL",
            file_system="swap",
            mount_point="",
            name="/dev/vda1",
            size=2153775104,
            used_size=2153775104,
            inode_size=0,
            inode_nums=0
        ),
        PhysicalVolume(
            device_use="BTRFS",
            file_system="btrfs",
            mount_point="",
            name="/dev/vda2",
            size=16862150656,
            used_size=16862150656,
            inode_size=0,
            inode_nums=0
        ),
        PhysicalVolume(
            device_use="NORMAL",
            file_system="xfs",
            mount_point="/home",
            name="/dev/vda3",
            size=23932698624,
            used_size=33988608,
            inode_size=0,
            inode_nums=12345
        )
    ]
    listDisksbody = [
        ServerDisk(
            name="/dev/vda",
            partition_style="MBR",
            device_use="BOOT",
            size=42949672960,
            used_size=42948624384,
            physical_volumes=listPhysicalVolumesDisks1
        ),
        ServerDisk(
            name="/dev/vdb",
            partition_style="MBR",
            device_use="NORMAL",
            size=21474836480,
            used_size=21473787904,
            physical_volumes=listPhysicalVolumesDisks
        ),
        ServerDisk(
            name="/dev/vdc",
            partition_style="MBR",
            device_use="VOLUME_GROUP",
            size=21474836480,
            used_size=0,
        )
    ]
    request.body = PostSourceServerBody(
        platform="hw",
        io_read_wait=3.4,
        kernel_version="4.4.21-69-default",
        agent_version="2.2.1",
```

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```
            volume_groups=listVolumeGroupsbody,
            boot_loader="GRUB",
            paravirtualization=True,
            has_rsync=True,
            networks=listNetworksbody,
            btrfs_list=listBtrfsListbody,
            disks=listDisksbody,
            memory=934752256,
            cpu_quantity=1,
            firmware="BIOS",
            linux_block_check="{"release_type": "SUSE", "release_version": "12.2", "kernel_simplification":
"4.4.21", "architecture": "x86_64", "kernel_version": "4.4.21-69-default"}",
            virtualization_type="HVM",
            os_version="SUSE12_64BIT_SP2",
            os_type="LINUX",
            name="host-192-168-136-xxx",
            ip="192.168.136.xxx"
        )
        response = client.register_server(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example reports the information about a source server to SMS. The source server runs Linux SUSE12_64BIT_SP2, with the name of host-192-168-136-xxx, the IP address of 192.168.136.xxx, the BOOT system disk named /dev/vda, and the system disk size of 42,949,672,960 bytes. After the source server is reported, you can view the source server information on the SMS console.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RegisterServerRequest{}
    inodeNumsLogicalVolumes:= int64(12345)
    deviceUseLogicalVolumes:= "NORMAL"
    var listLogicalVolumesVolumeGroups = []model.LogicalVolumes{
```

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```
    {
        FileSystem: "ext4",
        InodeSize: int32(256),
        InodeNums: &inodeNumsLogicalVolumes,
        DeviceUse: &deviceUseLogicalVolumes,
        MountPoint: "/mnt/lv1",
        Name: "/dev/mapper/vg1-lv1",
        Size: int64(10737418240),
        UsedSize: int64(23580672),
        FreeSize: int64(10713837568),
    },
}
componentsVolumeGroups:= "/dev/vdb1;/dev/vdc"
nameVolumeGroups:= "vg1"
sizeVolumeGroups:= int64(42948624384)
var listVolumeGroupsbody = []model.VolumeGroups{
    {
        Components: &componentsVolumeGroups,
        LogicalVolumes: &listLogicalVolumesVolumeGroups,
        Name: &nameVolumeGroups,
        Size: &sizeVolumeGroups,
    },
}
var listNetworksbody = []model.NetWork{
    {
        Name: "eth0",
        Ip: "192.168.136.xxx",
        Netmask: "netmask",
        Gateway: "gateway",
        Mac: "1a9660eb8a3ffcf4df6d7865b52eb54f7b0cd194029e0eadd8e2c7f1267d80c0",
    },
}
var listSubvolumnBtrfsList = []model.BtrfsSubvolumn{
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "257",
        ParentId: "5",
        SubvolName: "@",
        SubvolMountPath: "null",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "258",
        ParentId: "257",
        SubvolName: "@/.snapshots",
        SubvolMountPath: "/.snapshots",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "true",
        SubvolId: "259",
        ParentId: "258",
        SubvolName: "@/.snapshots/1/snapshot",
        SubvolMountPath: "/",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "260",
        ParentId: "257",
        SubvolName: "@/boot/grub2/i386-pc",
        SubvolMountPath: "/boot/grub2/i386-pc",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "261",
```

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```
        ParentId: "257",
        SubvolName: "@/boot/grub2/x86_64-efi",
        SubvolMountPath: "/boot/grub2/x86_64-efi",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "262",
        ParentId: "257",
        SubvolName: "@/opt",
        SubvolMountPath: "/opt",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "263",
        ParentId: "257",
        SubvolName: "@/srv",
        SubvolMountPath: "/srv",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "264",
        ParentId: "257",
        SubvolName: "@/tmp",
        SubvolMountPath: "/tmp",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "265",
        ParentId: "257",
        SubvolName: "@/usr/local",
        SubvolMountPath: "/usr/local",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "266",
        ParentId: "257",
        SubvolName: "@/var/cache",
        SubvolMountPath: "/var/cache",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "267",
        ParentId: "257",
        SubvolName: "@/var/crash",
        SubvolMountPath: "/var/crash",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "268",
        ParentId: "257",
        SubvolName: "@/var/lib/libvirt/images",
        SubvolMountPath: "/var/lib/libvirt/images",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "269",
        ParentId: "257",
        SubvolName: "@/var/lib/machines",
        SubvolMountPath: "/var/lib/machines",
    },
    {
```


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```
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "270",
        ParentId: "257",
        SubvolName: "@/var/lib/mailman",
        SubvolMountPath: "/var/lib/mailman",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "271",
        ParentId: "257",
        SubvolName: "@/var/lib/mariadb",
        SubvolMountPath: "/var/lib/mariadb",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "272",
        ParentId: "257",
        SubvolName: "@/var/lib/mysql",
        SubvolMountPath: "/var/lib/mysql",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "273",
        ParentId: "257",
        SubvolName: "@/var/lib/named",
        SubvolMountPath: "/var/lib/named",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "274",
        ParentId: "257",
        SubvolName: "@/var/lib/pgsql",
        SubvolMountPath: "/var/lib/pgsql",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "275",
        ParentId: "257",
        SubvolName: "@/var/log",
        SubvolMountPath: "/var/log",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "276",
        ParentId: "257",
        SubvolName: "@/var/opt",
        SubvolMountPath: "/var/opt",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "277",
        ParentId: "257",
        SubvolName: "@/var/spool",
        SubvolMountPath: "/var/spool",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "278",
        ParentId: "257",
        SubvolName: "@/var/tmp",
```


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```
        SubvolMountPath: "/var/tmp",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "true",
        SubvolId: "282",
        ParentId: "258",
        SubvolName: "@/.snapshots/2/snapshot",
        SubvolMountPath: "null",
    },
}
var listBtrfsListbody = []model.BtrfsFileSystem{
    {
        Name: "/dev/vda2",
        Label: "none",
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        Device: "/dev/vda2",
        Size: int64(3.30GiB),
        Nodesize: int64(16384),
        Sectorsize: int32(4096),
        DataProfile: "single",
        SystemProfile: "single",
        MetadataProfile: "single",
        GlobalReserve1: "single",
        GVolUsedSize: int64(3894038528),
        DefaultSubvolid: "259",
        DefaultSubvolName: "@/.snapshots/1/snapshot",
        DefaultSubvolMountpath: "/",
        Subvolumn: listSubvolumnBtrfsList,
    },
}
deviceUsePhysicalVolumes:= "VOLUME_GROUP"
fileSystemPhysicalVolumes:= "LVM2_member"
mountPointPhysicalVolumes:= ""
namePhysicalVolumes:= "/dev/vdb1"
sizePhysicalVolumes:= int64(21473787904)
usedSizePhysicalVolumes:= int64(21473787904)
inodeSizePhysicalVolumes:= int32(0)
inodeNumsPhysicalVolumes:= int64(0)
var listPhysicalVolumesDisks = []model.PhysicalVolume{
    {
        DeviceUse: &deviceUsePhysicalVolumes,
        FileSystem: &fileSystemPhysicalVolumes,
        MountPoint: &mountPointPhysicalVolumes,
        Name: &namePhysicalVolumes,
        Size: &sizePhysicalVolumes,
        UsedSize: &usedSizePhysicalVolumes,
        InodeSize: &inodeSizePhysicalVolumes,
        InodeNums: &inodeNumsPhysicalVolumes,
    },
}
deviceUsePhysicalVolumes1:= "NORMAL"
fileSystemPhysicalVolumes1:= "swap"
mountPointPhysicalVolumes1:= ""
namePhysicalVolumes1:= "/dev/vda1"
sizePhysicalVolumes1:= int64(2153775104)
usedSizePhysicalVolumes1:= int64(2153775104)
inodeSizePhysicalVolumes1:= int32(0)
inodeNumsPhysicalVolumes1:= int64(0)
deviceUsePhysicalVolumes2:= "BTRFS"
fileSystemPhysicalVolumes2:= "btrfs"
mountPointPhysicalVolumes2:= ""
namePhysicalVolumes2:= "/dev/vda2"
sizePhysicalVolumes2:= int64(16862150656)
usedSizePhysicalVolumes2:= int64(16862150656)
inodeSizePhysicalVolumes2:= int32(0)
inodeNumsPhysicalVolumes2:= int64(0)
deviceUsePhysicalVolumes3:= "NORMAL"
fileSystemPhysicalVolumes3:= "xfs"
```

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```
mountPointPhysicalVolumes3:= "/home"
namePhysicalVolumes3:= "/dev/vda3"
sizePhysicalVolumes3:= int64(23932698624)
usedSizePhysicalVolumes3:= int64(33988608)
inodeSizePhysicalVolumes3:= int32(0)
inodeNumsPhysicalVolumes3:= int64(12345)
var listPhysicalVolumesDisks1 = []model.PhysicalVolume{
    {
        DeviceUse: &deviceUsePhysicalVolumes1,
        FileSystem: &fileSystemPhysicalVolumes1,
        MountPoint: &mountPointPhysicalVolumes1,
        Name: &namePhysicalVolumes1,
        Size: &sizePhysicalVolumes1,
        UsedSize: &usedSizePhysicalVolumes1,
        InodeSize: &inodeSizePhysicalVolumes1,
        InodeNums: &inodeNumsPhysicalVolumes1,
    },
    {
        DeviceUse: &deviceUsePhysicalVolumes2,
        FileSystem: &fileSystemPhysicalVolumes2,
        MountPoint: &mountPointPhysicalVolumes2,
        Name: &namePhysicalVolumes2,
        Size: &sizePhysicalVolumes2,
        UsedSize: &usedSizePhysicalVolumes2,
        InodeSize: &inodeSizePhysicalVolumes2,
        InodeNums: &inodeNumsPhysicalVolumes2,
    },
    {
        DeviceUse: &deviceUsePhysicalVolumes3,
        FileSystem: &fileSystemPhysicalVolumes3,
        MountPoint: &mountPointPhysicalVolumes3,
        Name: &namePhysicalVolumes3,
        Size: &sizePhysicalVolumes3,
        UsedSize: &usedSizePhysicalVolumes3,
        InodeSize: &inodeSizePhysicalVolumes3,
        InodeNums: &inodeNumsPhysicalVolumes3,
    },
}
partitionStyleDisks:= model.GetServerDiskPartitionStyleEnum().MBR
partitionStyleDisks1:= model.GetServerDiskPartitionStyleEnum().MBR
partitionStyleDisks2:= model.GetServerDiskPartitionStyleEnum().MBR
var listDisksbody = []model.ServerDisk{
    {
        Name: "/dev/vda",
        PartitionStyle: &partitionStyleDisks,
        DeviceUse: model.GetServerDiskDeviceUseEnum().BOOT,
        Size: int64(42949672960),
        UsedSize: int64(42948624384),
        PhysicalVolumes: listPhysicalVolumesDisks1,
    },
    {
        Name: "/dev/vdb",
        PartitionStyle: &partitionStyleDisks1,
        DeviceUse: model.GetServerDiskDeviceUseEnum().NORMAL,
        Size: int64(21474836480),
        UsedSize: int64(21473787904),
        PhysicalVolumes: listPhysicalVolumesDisks,
    },
    {
        Name: "/dev/vdc",
        PartitionStyle: &partitionStyleDisks2,
        DeviceUse: model.GetServerDiskDeviceUseEnum().VOLUME_GROUP,
        Size: int64(21474836480),
        UsedSize: int64(0),
    },
}
platformPostSourceServerBody:= model.GetPostSourceServerBodyPlatformEnum().HW
ioReadWaitPostSourceServerBody:= float64(3.4)
kernelVersionPostSourceServerBody:= "4.4.21-69-default"
```

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```
    agentVersionPostSourceServerBody:= "2.2.1"
    bootLoaderPostSourceServerBody:= model.GetPostSourceServerBodyBootLoaderEnum().GRUB
    paravirtualizationPostSourceServerBody:= true
    hasRsyncPostSourceServerBody:= true
    memoryPostSourceServerBody:= int64(934752256)
    cpuQuantityPostSourceServerBody:= int32(1)
    firmwarePostSourceServerBody:= model.GetPostSourceServerBodyFirmwareEnum().BIOS
    linuxBlockCheckPostSourceServerBody:= "{"release_type": "SUSE", "release_version": "12.2",
"kernel_simplification": "4.4.21", "architecture": "x86_64", "kernel_version": "4.4.21-69-default"}"
    virtualizationTypePostSourceServerBody:= "HVM"
    osVersionPostSourceServerBody:= "SUSE12_64BIT_SP2"
    osTypePostSourceServerBody:= model.GetPostSourceServerBodyOsTypeEnum().LINUX
    namePostSourceServerBody:= "host-192-168-136-xxx"
    ipPostSourceServerBody:= "192.168.136.xxx"
    request.Body = &model.PostSourceServerBody{
        Platform: &platformPostSourceServerBody,
        IoReadWait: &ioReadWaitPostSourceServerBody,
        KernelVersion: &kernelVersionPostSourceServerBody,
        AgentVersion: &agentVersionPostSourceServerBody,
        VolumeGroups: &listVolumeGroupsbody,
        BootLoader: &bootLoaderPostSourceServerBody,
        Paravirtualization: &paravirtualizationPostSourceServerBody,
        HasRsync: &hasRsyncPostSourceServerBody,
        Networks: &listNetworksbody,
        BtrfsList: &listBtrfsListbody,
        Disks: &listDisksbody,
        Memory: &memoryPostSourceServerBody,
        CpuQuantity: &cpuQuantityPostSourceServerBody,
        Firmware: &firmwarePostSourceServerBody,
        LinuxBlockCheck: &linuxBlockCheckPostSourceServerBody,
        VirtualizationType: &virtualizationTypePostSourceServerBody,
        OsVersion: &osVersionPostSourceServerBody,
        OsType: &osTypePostSourceServerBody,
        Name: &namePostSourceServerBody,
        Ip: &ipPostSourceServerBody,
    }
    response, err := client.RegisterServer(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The source server was registered with SMS.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

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5.3.3 Listing Source Servers

Function

After the Agent installed on a source server is started, the Agent registers the source server information with SMS. This API is used to list the registered source servers.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/sources

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Table 5-31 Query parameters

Parameter	Mandatory	Type	Description
state	No	String	The source server status. **unavailable**: The source server fails the environment check. **waiting**: The source server is waiting for migration. **initialize**: The migration of the source server is being initialized. **replicate**: The source server is being replicated. **syncing**: The source server is being synchronized. **stopping**: The migration of the source server is being stopped. **stopped**: The migration of the source server is stopped. **skipping**: The operation is being skipped. **deleting**: The source server record is being deleted. **error**: An error occurs during the migration of the source server. **cloning**: The target server for the source server is being cloned. **cutovering**: The target server for the source server is being launched. **finished**: The target server for the source server is launched. **clearing**: The snapshot resources are being cleared. **cleared**: The snapshot resources have been cleared. **clearfailed**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready. **premiging**: The migration drill is in progress.

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Parameter	Mandatory	Type	Description
			premiged: The migration drill has been completed. **premigfailed**: The migration drill fails. The value can be: • **unavailable** • **waiting** • **initialize** • **replicate** • **syncing** • **stopping** • **stopped** • **skipping** • **deleting** • **error** • **cloning** • **cutovering** • **finished** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**
name	No	String	The source server name. Minimum length: 0 characters Maximum length: 255 characters
id	No	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters
ip	No	String	The IP address of the source server. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
migproject	No	String	The ID of the migration project in which the source servers are queried. If this parameter is specified, only the source servers in migration tasks contained in the project are queried. Minimum length: 0 characters Maximum length: 255 characters
limit	No	Integer	The number of source servers recorded on each page. **0** indicates that the default value **200** is used. Minimum value: **0** Maximum value: **200** Default value: **200**
offset	No	Integer	The offset. The default value is **0**. Minimum value: **0** Maximum value: **65535** Default value: **0**

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Parameter	Mandatory	Type	Description
migration_cycle	No	String	**checking**: The check is in progress. **setting**: The configuration is in progress. **replicating**: The data is being replicated. **syncing**: The incremental data is being synchronized. **cutovering**: The target server for the source server is being launched. **cutovered**: The target server for the source server is launched. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **checking** • **setting** • **replicating** • **syncing** • **cutovering** • **cutovered**
connected	No	Boolean	Indicates whether to query source servers that are disconnected from SMS.
enterprise_project_id	No	String	The ID of the enterprise project to be queried. Minimum length: 0 characters Maximum length: 255 characters
is_consistency_result_exist	No	Boolean	Indicates whether there are consistency verification results.

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Request

Table 5-32 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-33 Response body parameters

Parameter	Type	Description
count	Integer	The total number of source servers that meet the query criteria, which is not affected by **limit** and **offset**. Minimum value: **0** Maximum value: **2147483647**
source_servers	Array of **SourceServersResponseBody** objects	The list of the queried source servers. Array length: 0 to 65,535

Table 5-34 SourceServersResponseBody field description

Parameter	Type	Description
id	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The IP address of the source server. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
name	String	The source server name. Minimum length: 0 characters Maximum length: 255 characters
enterprise_project_id	String	The enterprise project ID. Minimum length: 0 characters Maximum length: 255 characters
add_date	Long	The time when the source server was registered. Minimum value: **0** Maximum value: **9223372036854775807**
os_type	String	The OS type of the source server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**
os_version	String	The OS version, for example, **CENTOS7.6**. Minimum length: 0 characters Maximum length: 255 characters
oem_system	Boolean	Indicates whether the OS is an OEM version (Windows).

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Parameter	Type	Description
state	String	The source server status. **unavailable**: The source server fails the environment check. **waiting**: The source server is waiting for migration. **initialize**: The migration of the source server is being initialized. **replicate**: The source server is being replicated. **syncing**: The source server is being synchronized. **stopping**: The migration of the source server is being stopped. **stopped**: The migration of the source server is stopped. **skipping**: The operation is being skipped. **deleting**: The source server record is being deleted. **error**: An error occurs during the migration of the source server. **cloning**: The target server for the source server is being cloned. **cutovering**: The target server for the source server is being launched. **finished**: The target server for the source server is launched. **clearing**: The snapshot resources are being cleared. **cleared**: The snapshot resources have been cleared. **clearfailed**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready. **premiging**: The migration drill is in progress. **premiged**: The migration drill has been completed. **premigfailed**: The migration drill fails. Minimum length: 0 characters Maximum length: 255 characters The value can be:

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Parameter	Type	Description
		• **unavailable** • **waiting** • **initialize** • **replicate** • **syncing** • **stopping** • **stopped** • **deleting** • **error** • **cloning** • **cutovering** • **finished** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**
connected	Boolean	Indicates whether the source server is connected to SMS.
cpu_quantity	Integer	The number of CPUs on the source server. Minimum value: **0** Maximum value: **2147483647**
memory	Long	The physical memory size of the source server, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
current_task	**TaskByServerSources** object	The migration task associated with the source server.
checks	Array of **EnvironmentCheck** objects	The check items of the source server. Array length: 0 to 65,535
init_target_server	**InitTargetServer** object	The recommended configuration for the target server.

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Parameter	Type	Description
replicatesize	Long	The volume of migrated data, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
stage_action_time	Long	The time when the migration stage of the source server last changed. The migration stage is defined by **migration_cycle**. Minimum value: **0** Maximum value: **9223372036854775807**
totalsize	Long	The volume of data to be migrated, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
last_visit_time	Long	The time when the Agent connection status last changed. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
migration_cycle	String	The current migration stage of the source server. **cutovering**: The target server for the source server is being launched. **cutovered**: The target server for the source server is launched. **checking**: The check is in progress. **setting**: The configuration is in progress. **replicating**: The data is being replicated. **syncing**: The incremental data is being synchronized. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **cutovering** • **cutovered** • **checking** • **setting** • **replicating** • **syncing**
state_action_time	Long	The time when the status of the source server last changed. The source server status is defined by **state**. Minimum value: **0** Maximum value: **9223372036854775807**
is_consistency_result_exist	Boolean	Indicates whether there are consistency verification results. Default value: **false**
has_tc	Boolean	Indicates whether TC is installed. This parameter is mandatory for Linux.

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Table 5-35 TaskByServerSources field description

Parameter	Type	Description
id	String	The task ID. Minimum length: 1 character Maximum length: 255 characters
name	String	The task name. Minimum length: 0 characters Maximum length: 255 characters
type	String	The task type. Minimum length: 0 characters Maximum length: 255 characters
state	String	The task status. Minimum length: 0 characters Maximum length: 255 characters
estimate_complete_time	Long	The estimated completion time. Minimum value: **0** Maximum value: **9223372036854775807**
start_date	Long	The start time. Minimum value: **0** Maximum value: **9223372036854775807**
speed_limit	Integer	The migration rate limit. Minimum value: **0** Maximum value: **10000**
migrate_speed	Double	The migration rate. Minimum value: **0** Maximum value: **10000**
compress_rate	Double	The compression rate. Minimum value: **0** Maximum value: **10000**
start_target_server	Boolean	Indicates whether the target server is started.
vm_template_id	String	The server template ID. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
region_id	String	The region ID. Minimum length: 0 characters Maximum length: 255 characters
project_name	String	The project name. Minimum length: 0 characters Maximum length: 255 characters
project_id	String	The project ID. Minimum length: 0 characters Maximum length: 255 characters
target_server	**TargetServerById** object	The information about the target server.
log_collect_status	String	The log collection status. Minimum length: 0 characters Maximum length: 255 characters
exist_server	Boolean	Indicates whether an existing server is used as the target server.
use_public_ip	Boolean	Indicates whether a public IP address is used for migration.
clone_server	**CloneServer** object	The information about the cloned server.
remain_seconds	Long	The migration duration. Minimum value: **0** Maximum value: **9223372036854775807**
log_bucket	String	The name of the bucket to which logs are uploaded. Minimum length: 0 characters Maximum length: 255 characters
log_expire	Long	The validity period of the share link. Minimum value: **300** Maximum value: **64800**
log_upload_time	Long	The log upload time. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
log_share_url	String	The share URL. Minimum length: 0 characters Maximum length: 65,535 characters

Table 5-36 TargetServerById field description

Parameter	Type	Description
vm_id	String	The ID of the target server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the target server. Minimum length: 0 characters Maximum length: 255 characters

Table 5-37 CloneServer field description

Parameter	Type	Description
vm_id	String	The ID of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
clone_error	String	The error returned for a clone failure. Minimum length: 0 characters Maximum length: 255 characters
clone_state	String	The clone status. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message returned for a clone failure. Minimum length: 0 characters Maximum length: 1,024 characters

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Table 5-38 EnvironmentCheck field description

Parameter	Type	Description
id	Long	The check item ID. Minimum value: **0** Maximum value: **9223372036854775807**
params	Array of strings	The parameters. Minimum length: 0 characters Maximum length: 255 characters Array length: 0 to 65,535
name	String	The check item name. Minimum length: 0 characters Maximum length: 255 characters
result	String	The check result. **OK**: The check is passed. **WARN**: A warning is generated. **ERROR**: The check fails. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **OK** • **WARN** • **ERROR**
error_code	String	The returned error code. Minimum length: 0 characters Maximum length: 255 characters
error_or_warn	String	The returned error or warning. Minimum length: 0 characters Maximum length: 255 characters
error_params	String	The parameters that failed the check. Minimum length: 0 characters Maximum length: 255 characters

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Table 5-39 InitTargetServer field description

Parameter	Type	Description
disks	Array of **DiskIntargetServer** objects	The information about the recommended target server disks. Array length: 0 to 65,535
volume_groups	Array of **VolumeGroups** objects	This parameter is mandatory for Linux. If there are no volume groups, the value is an empty array []. Array length: 0 to 65,535

Table 5-40 DiskIntargetServer field description

Parameter	Type	Description
name	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The disk size, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The disk function. **BOOT**: boot device **OS**: system device **NORMAL**: general device Minimum length: 0 characters Maximum length: 255 characters The value can be: • **BOOT** • **OS** • **NORMAL**
used_size	Long	The used disk space, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
physical_volumes	Array of **PhysicalVolumes** objects	The physical volume information. Array length: 0 to 65,535

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Table 5-41 PhysicalVolumes field description

Parameter	Type	Description
device_use	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
file_system	String	The file system type. Minimum length: 0 characters Maximum length: 255 characters
index	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**
mount_point	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	String	The volume name. In Windows, it indicates the drive letter, and in Linux, it indicates the device ID. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
inode_size	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	String	The GUID, which can be obtained from the source server. Minimum length: 0 characters Maximum length: 255 characters

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Table 5-42 VolumeGroups field description

Parameter	Type	Description
components	String	The physical volume information. Minimum length: 0 characters Maximum length: 255 characters
free_size	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**
logical_volumes	Array of **LogicalVolumes** objects	The logical volume information. Array length: 0 to 255
name	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-43 LogicalVolumes field description

Parameter	Type	Description
block_count	Integer	The number of blocks. Minimum value: **0** Maximum value: **2147483647** Default value: **0**
block_size	Long	The block size. Minimum value: **0** Maximum value: **1048576** Default value: **0**
file_system	String	The file system. Minimum length: 0 characters Maximum length: 255 characters
inode_size	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

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Parameter	Type	Description
inode_nums	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
mount_point	String	The mount point. Minimum length: 0 characters Maximum length: 256 characters
name	String	The name. Minimum length: 0 characters Maximum length: 1,024 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
free_size	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

Status code: 403

Table 5-44 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-45 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 500

Table 5-46 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

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Example Request

This example lists all registered source servers with 10 records on one page and navigates to page 0.

```
GET https://{endpoint}/v3/sources?limit=10&offset=0
```

Example Response

Status code: 200

The list of source servers was obtained.


```
{
  "count" : 10,
  "source_servers" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "ip" : "192.168.0.1",
    "name" : "sms-test",
    "enterprise_project_id" : 0,
    "add_date" : 1598417717000,
    "os_type" : "WINDOWS",
    "os_version" : "WINDOWS2008_R2_64BIT",
    "oem_system" : false,
    "state" : "finished",
    "connected" : true,
    "cpu_quantity" : 1,
    "memory" : 2146557952,
    "current_task" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "MigrationTask",
      "type" : "MIGRATE_BLOCK",
      "state" : "MIGRATE_SUCCESS",
      "estimate_complete_time" : null,
      "start_date" : 1598417771000,
      "speed_limit" : 0,
      "migrate_speed" : 0.0,
      "start_target_server" : true,
      "vm_template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "region_id" : "region_id",
      "project_name" : "project_name",
      "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
      "target_server" : {
        "vm_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        "name" : "sms-test"
      },
      "log_collect_status" : "INIT",
      "exist_server" : false,
      "use_public_ip" : true,
      "clone_server" : null,
      "remain_seconds" : null
    },
    "checks" : [ {
      "id" : 524062,
      "params" : [ "" ],
      "name" : "OS_VERSION",
      "result" : "OK",
      "error_code" : null,
      "error_params" : ""
    }, {
      "id" : 524063,
      "params" : [ "" ],
      "name" : "FIRMWARE",
      "result" : "OK",
      "error_code" : null,
      "error_params" : ""
    }, {
      "id" : 524064,
```


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```
    "params" : [ "" ],
    "name" : "CPU",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524065,
    "params" : [ "" ],
    "name" : "MEMORY",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524066,
    "params" : [ "" ],
    "name" : "SYSTEM_ROOT",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524067,
    "params" : [ "" ],
    "name" : "PARTITION_STYLE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524068,
    "params" : [ "" ],
    "name" : "FILE_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524069,
    "params" : [ "" ],
    "name" : "FREE_SPACE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524070,
    "params" : [ "" ],
    "name" : "OEM_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524071,
    "params" : [ "" ],
    "name" : "DRIVER_FILE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524072,
    "params" : [ "" ],
    "name" : "SERVICE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524073,
    "params" : [ "" ],
    "name" : "ACCOUNT_RIGHTS",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  } ],
```


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```
  "init_target_server" : {
    "disks" : [ {
      "name" : "Disk 0",
      "size" : 42949672960,
      "device_use" : "OS"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598419352959,
  "totalsize" : 0,
  "last_visit_time" : 1598434312002,
  "migration_cycle" : "cutovered",
  "state_action_time" : 1598419352959
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.154",
  "name" : "sms-win16",
  "add_date" : 1598417612000,
  "os_type" : "WINDOWS",
  "os_version" : "WINDOWS2016_64BIT",
  "oem_system" : false,
  "state" : "finished",
  "connected" : true,
  "cpu_quantity" : 1,
  "memory" : 2146553856,
  "current_task" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "MigrationTask",
    "type" : "MIGRATE_BLOCK",
    "state" : "MIGRATE_SUCCESS",
    "estimate_complete_time" : null,
    "start_date" : 1598417627000,
    "speed_limit" : 0,
    "migrate_speed" : 0.0,
    "start_target_server" : true,
    "vm_template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "region_id" : "region_id",
    "project_name" : "project_name",
    "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "target_server" : {
      "vm_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "e2e-sms-win16"
    },
    "log_collect_status" : "INIT",
    "exist_server" : false,
    "use_public_ip" : true,
    "clone_server" : null,
    "remain_seconds" : null
  },
  "checks" : [ {
    "id" : 524050,
    "params" : [ "" ],
    "name" : "OS_VERSION",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524051,
    "params" : [ "" ],
    "name" : "FIRMWARE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524052,
    "params" : [ "" ],
    "name" : "CPU",
    "result" : "OK",
    "error_code" : null,
```


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```
    "error_params" : ""
  }, {
    "id" : 524053,
    "params" : [ "" ],
    "name" : "MEMORY",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524054,
    "params" : [ "" ],
    "name" : "SYSTEM_ROOT",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524055,
    "params" : [ "" ],
    "name" : "PARTITION_STYLE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524056,
    "params" : [ "" ],
    "name" : "FILE_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524057,
    "params" : [ "" ],
    "name" : "FREE_SPACE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524058,
    "params" : [ "" ],
    "name" : "OEM_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524059,
    "params" : [ "" ],
    "name" : "DRIVER_FILE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524060,
    "params" : [ "" ],
    "name" : "SERVICE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524061,
    "params" : [ "" ],
    "name" : "ACCOUNT_RIGHTS",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  } ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "Disk 0",
      "size" : 42949672960,
```


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```
      "device_use" : "OS"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598419339661,
  "totalsize" : 0,
  "last_visit_time" : 1598434316810,
  "migration_cycle" : "cutovered",
  "state_action_time" : 1598419339661
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.77.77",
  "name" : "sms-centos",
  "add_date" : 1598417551000,
  "os_type" : "LINUX",
  "os_version" : "CENTOS_7_4_64BIT",
  "oem_system" : false,
  "state" : "error",
  "connected" : true,
  "cpu_quantity" : 1,
  "memory" : 1038716928,
  "current_task" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "MigrationTask",
    "type" : "MIGRATE_BLOCK",
    "state" : "MIGRATE_FAIL",
    "estimate_complete_time" : null,
    "start_date" : 1598417588000,
    "speed_limit" : 0,
    "migrate_speed" : 0.0,
    "start_target_server" : true,
    "vm_template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "region_id" : "region_id",
    "project_name" : "project_name",
    "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "target_server" : {
      "vm_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "e2e-sms-centos"
    },
    "log_collect_status" : "INIT",
    "exist_server" : false,
    "use_public_ip" : true,
    "clone_server" : null,
    "remain_seconds" : null
  },
  "checks" : [ {
    "id" : 524038,
    "params" : [ "" ],
    "name" : "OS_VERSION",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524039,
    "params" : [ "" ],
    "name" : "CPU",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524040,
    "params" : [ "" ],
    "name" : "MEMORY",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 524041,
    "params" : [ "" ],
```


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```
  "name" : "PARAVIRTUALIZATION",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524042,
  "params" : [ "" ],
  "name" : "FIRMWARE",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524043,
  "params" : [ "" ],
  "name" : "BOOT_LOADER",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524044,
  "params" : [ "" ],
  "name" : "RSYNC",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524045,
  "params" : [ "" ],
  "name" : "RAW_DEVICES",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524046,
  "params" : [ "" ],
  "name" : "DISK_INFO",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524047,
  "params" : [ "" ],
  "name" : "PARTITION_STYLE",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524048,
  "params" : [ "" ],
  "name" : "FILE_SYSTEM",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
}, {
  "id" : 524049,
  "params" : [ "" ],
  "name" : "LINUX_BLOCK_SUPPORT",
  "result" : "OK",
  "error_code" : null,
  "error_params" : ""
} ],
"init_target_server" : {
  "disks" : [ {
    "name" : "/dev/vda",
    "size" : 42949672960,
    "device_use" : "BOOT"
  } ]
},
"replicatesize" : 42949672960,
```


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```
  "stage_action_time" : 1598428182454,
  "totalsize" : 42949672960,
  "last_visit_time" : 1598434308889,
  "migration_cycle" : "syncing",
  "state_action_time" : 1598428182454
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.235",
  "name" : "sms-ubuntu",
  "add_date" : 1598417522000,
  "os_type" : "LINUX",
  "os_version" : "UBUNTU_18_4_64BIT",
  "oem_system" : false,
  "state" : "unavailable",
  "connected" : false,
  "cpu_quantity" : 1,
  "memory" : 1032556544,
  "current_task" : null,
  "checks" : [ ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "/dev/vda",
      "size" : 42949672960,
      "device_use" : "BOOT"
    }, {
      "name" : "/dev/vdb",
      "size" : 21474836480,
      "device_use" : "NORMAL"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598417521797,
  "totalsize" : 0,
  "last_visit_time" : 1598417521795,
  "migration_cycle" : "checking",
  "state_action_time" : null
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.178.214",
  "name" : "sms-sms2",
  "add_date" : 1598403465000,
  "os_type" : "WINDOWS",
  "os_version" : "WINDOWS2012_R2_64BIT",
  "oem_system" : false,
  "state" : "waiting",
  "connected" : false,
  "cpu_quantity" : 1,
  "memory" : 2146553856,
  "current_task" : null,
  "checks" : [ {
    "id" : 523970,
    "params" : [ "" ],
    "name" : "OS_VERSION",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523971,
    "params" : [ "" ],
    "name" : "FIRMWARE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523972,
    "params" : [ "" ],
    "name" : "CPU",
    "result" : "OK",
    "error_code" : null,
```


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```
    "error_params" : ""
  }, {
    "id" : 523973,
    "params" : [ "" ],
    "name" : "MEMORY",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523974,
    "params" : [ "" ],
    "name" : "SYSTEM_ROOT",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523975,
    "params" : [ "" ],
    "name" : "PARTITION_STYLE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523976,
    "params" : [ "" ],
    "name" : "FILE_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523977,
    "params" : [ "" ],
    "name" : "FREE_SPACE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523978,
    "params" : [ "" ],
    "name" : "OEM_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523979,
    "params" : [ "" ],
    "name" : "DRIVER_FILE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523980,
    "params" : [ "" ],
    "name" : "SERVICE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523981,
    "params" : [ "" ],
    "name" : "ACCOUNT_RIGHTS",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  } ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "Disk 0",
      "size" : 42949672960,
```


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```
      "device_use" : "OS"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598403465315,
  "totalsize" : 0,
  "last_visit_time" : 1598403588140,
  "migration_cycle" : "checking",
  "state_action_time" : 1598403465414
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.1",
  "name" : "linux sources",
  "add_date" : 1598369476000,
  "os_type" : "LINUX",
  "os_version" : "REDHAT_7_3_64BIT",
  "oem_system" : false,
  "state" : "unavailable",
  "connected" : false,
  "cpu_quantity" : 4,
  "memory" : 8581140480,
  "current_task" : null,
  "checks" : [ ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "sda",
      "size" : 85899345920,
      "device_use" : "BOOT|OS"
    }, {
      "name" : "sdb",
      "size" : 214748364800,
      "device_use" : "NORMAL"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598369475726,
  "totalsize" : 0,
  "last_visit_time" : 1598369475725,
  "migration_cycle" : "checking",
  "state_action_time" : null
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.1",
  "name" : "linux sources",
  "add_date" : 1598351694000,
  "os_type" : "LINUX",
  "os_version" : "REDHAT_7_3_64BIT",
  "oem_system" : false,
  "state" : "unavailable",
  "connected" : false,
  "cpu_quantity" : 4,
  "memory" : 8581140480,
  "current_task" : null,
  "checks" : [ ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "sda",
      "size" : 85899345920,
      "device_use" : "BOOT|OS"
    }, {
      "name" : "sdb",
      "size" : 214748364800,
      "device_use" : "NORMAL"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598351693858,
  "totalsize" : 0,
  "last_visit_time" : 1598351693857,
```


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```
  "migration_cycle" : "checking",
  "state_action_time" : null
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.1",
  "name" : "linux sources",
  "add_date" : 1598348080000,
  "os_type" : "LINUX",
  "os_version" : "REDHAT_7_3_64BIT",
  "oem_system" : false,
  "state" : "unavailable",
  "connected" : false,
  "cpu_quantity" : 4,
  "memory" : 8581140480,
  "current_task" : null,
  "checks" : [ ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "sda",
      "size" : 85899345920,
      "device_use" : "BOOT|OS"
    }, {
      "name" : "sdb",
      "size" : 214748364800,
      "device_use" : "NORMAL"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598348079782,
  "totalsize" : 0,
  "last_visit_time" : 1598348079781,
  "migration_cycle" : "checking",
  "state_action_time" : null
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.239",
  "name" : "sms-centos7",
  "add_date" : 1598326505000,
  "os_type" : "LINUX",
  "os_version" : "CENTOS_8_5_64BIT",
  "oem_system" : false,
  "state" : "unavailable",
  "connected" : false,
  "cpu_quantity" : 1,
  "memory" : 1926860800,
  "current_task" : null,
  "checks" : [ {
    "id" : 523794,
    "params" : [ "" ],
    "name" : "OS_VERSION",
    "result" : "ERROR",
    "error_code" : "SMS.6504",
    "error_params" : ""
  }, {
    "id" : 523795,
    "params" : [ "" ],
    "name" : "CPU",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523796,
    "params" : [ "" ],
    "name" : "MEMORY",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523797,
```


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```
    "params" : [ "" ],
    "name" : "PARAVIRTUALIZATION",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523798,
    "params" : [ "" ],
    "name" : "FIRMWARE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523799,
    "params" : [ "" ],
    "name" : "BOOT_LOADER",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523800,
    "params" : [ "" ],
    "name" : "RSYNC",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523801,
    "params" : [ "" ],
    "name" : "RAW_DEVICES",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523802,
    "params" : [ "" ],
    "name" : "DISK_INFO",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523803,
    "params" : [ "" ],
    "name" : "PARTITION_STYLE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523804,
    "params" : [ "" ],
    "name" : "FILE_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523805,
    "params" : [ "" ],
    "name" : "LINUX_BLOCK_SUPPORT",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  } ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "/dev/vda",
      "size" : 42949672960,
      "device_use" : "BOOT"
    }, {
      "name" : "/dev/vdb",
```


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```
      "size" : 42949672960,
      "device_use" : "NORMAL"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598326505378,
  "totalsize" : 0,
  "last_visit_time" : 1598423828868,
  "migration_cycle" : "checking",
  "state_action_time" : 1598326505459
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.65",
  "name" : "smsc-test",
  "add_date" : 1598238727000,
  "os_type" : "LINUX",
  "os_version" : "CENTOS_6_5_64BIT",
  "oem_system" : false,
  "state" : "finished",
  "connected" : true,
  "cpu_quantity" : 1,
  "memory" : 1043931136,
  "current_task" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "MigrationTask",
    "type" : "MIGRATE_FILE",
    "state" : "MIGRATE_SUCCESS",
    "estimate_complete_time" : null,
    "start_date" : 1598239243000,
    "speed_limit" : 0,
    "migrate_speed" : 0.0,
    "start_target_server" : true,
    "vm_template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "region_id" : "region_id",
    "project_name" : "project_name",
    "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "target_server" : {
      "vm_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "smsc-test"
    },
    "log_collect_status" : "INIT",
    "exist_server" : false,
    "use_public_ip" : true,
    "clone_server" : null,
    "remain_seconds" : null
  },
  "checks" : [ {
    "id" : 523686,
    "params" : [ "" ],
    "name" : "OS_VERSION",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523687,
    "params" : [ "" ],
    "name" : "CPU",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523688,
    "params" : [ "" ],
    "name" : "MEMORY",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523689,
```


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```
    "params" : [ "" ],
    "name" : "PARAVIRTUALIZATION",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523690,
    "params" : [ "" ],
    "name" : "FIRMWARE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523691,
    "params" : [ "" ],
    "name" : "BOOT_LOADER",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523692,
    "params" : [ "" ],
    "name" : "RSYNC",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523693,
    "params" : [ "" ],
    "name" : "RAW_DEVICES",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523694,
    "params" : [ "" ],
    "name" : "DISK_INFO",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523695,
    "params" : [ "" ],
    "name" : "PARTITION_STYLE",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523696,
    "params" : [ "" ],
    "name" : "FILE_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_params" : ""
  }, {
    "id" : 523697,
    "params" : [ "" ],
    "name" : "LINUX_BLOCK_SUPPORT",
    "result" : "WARN",
    "error_code" : "SMS.6617",
    "error_params" : ""
  } ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "/dev/vda",
      "size" : 42949672960,
      "device_use" : "BOOT"
    }, {
      "name" : "/dev/vdb",
```

```
      "size" : 10737418240,
      "device_use" : "NORMAL"
    } ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598240178677,
  "totalsize" : 0,
  "last_visit_time" : 1598434314748,
  "migration_cycle" : "cutovered",
  "state_action_time" : 1598240178677
 } ]
}
```


Status code: 403

Authentication failed.


```
{
 "error_code" : "SMS.9004",
 "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
 "encoded_authorization_message" : "XXXXXX",
 "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
 "details" : [ {
  "error_code" : "SMS.9004",
  "error_msg" : "You do not have permission to perform action XXX on resource XXX."
 } ]
}
```


SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ListServersSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListServersRequest request = new ListServersRequest();
        try {
```

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

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The list of source servers was obtained.
403	Authentication failed.
500	Internal server error.

Error Codes

For details, see **Error Codes**.

5.3.4 Batch Deleting Source Server Records

Function

This API is used to delete source server records in batches. Once the information about a source server is deleted, you can add the information about the source server to the SMS console again only by restarting the migration Agent on the source server.

Calling Method

For details, see **Calling APIs**.

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URI

POST /v3/sources/delete

Request

Table 5-47 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-48 Request body parameters

Parameter	Mandatory	Type	Description
ids	Yes	Array of strings	The IDs of all source servers to be deleted. Minimum length: 0 characters Maximum length: 255 characters Array length: 0 to 65,535

Response

Status code: 200

Table 5-49 Response body parameters

Parameter	Type	Description
-	String	The response for deleting source servers in batches.

Status code: 403

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Table 5-50 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-51 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example deletes records of source servers with the ID set of **ec2a894f-0d92-47c5-ac22-168ef61dxxxx** and **5f13089f-799f-4f33-b3e1-c499397dxxxx** in a batch.

```
POST https://{endpoint}/v3/sources/delete

{
  "ids" : [ "ec2a894f-0d92-47c5-ac22-168ef61dxxxx", "5f13089f-799f-4f33-b3e1-c499397dxxxx" ]
}
```

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Example Response

Status code: 200

Batch deleting source server records succeeded.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example deletes records of source servers with the ID set of **ec2a894f-0d92-47c5-ac22-168ef61dxxxx** and **5f13089f-799f-4f33-b3e1-c499397dxxxx** in a batch.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class DeleteServersSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
```

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```
            .build();
        DeleteServersRequest request = new DeleteServersRequest();
        DeleteIds body = new DeleteIds();
        List<String> listbodyIds = new ArrayList<>();
        listbodyIds.add("ec2a894f-0d92-47c5-ac22-168ef61dxxxx");
        listbodyIds.add("5f13089f-799f-4f33-b3e1-c499397dxxxx");
        body.withIds(listbodyIds);
        request.withBody(body);
        try {
            DeleteServersResponse response = client.deleteServers(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example deletes records of source servers with the ID set of **ec2a894f-0d92-47c5-ac22-168ef61dxxxx** and **5f13089f-799f-4f33-b3e1-c499397dxxxx** in a batch.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = DeleteServersRequest()
        listIdsbody = [
            "ec2a894f-0d92-47c5-ac22-168ef61dxxxx",
            "5f13089f-799f-4f33-b3e1-c499397dxxxx"
        ]
        request.body = DeleteIds(
            ids=listIdsbody
        )
        response = client.delete_servers(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
```

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

Go

This example deletes records of source servers with the ID set of **ec2a894f-0d92-47c5-ac22-168ef61dxxxx** and **5f13089f-799f-4f33-b3e1-c499397dxxxx** in a batch.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteServersRequest{}
    var listIdsbody = []string{
        "ec2a894f-0d92-47c5-ac22-168ef61dxxxx",
        "5f13089f-799f-4f33-b3e1-c499397dxxxx",
    }
    request.Body = &model.DeleteIds{
        Ids: listIdsbody,
    }
    response, err := client.DeleteServers(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	Batch deleting source server records succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.3.5 Modifying Source Server Information

Function

This API is used to modify the information of a source server in SMS to facilitate server management.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/sources/{source_id}

Table 5-52 Path parameter

Parameter	Mandatory	Type	Description
source_id	Yes	String	The ID of the source server in SMS. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-53 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-54 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	The new name of the source server. Minimum length: 0 characters Maximum length: 255 characters
migprojectid	No	String	The ID of the migration project to which the source server belongs after the modification. Minimum length: 0 characters Maximum length: 255 characters
disks	No	Array of **PutDisk** objects	The disk information. Array length: 0 to 65,535
volume_groups	No	Array of **PutVolumeGroups** objects	The volume group information. Array length: 0 to 65,535

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Table 5-55 PutDisk field description

Parameter	Mandatory	Type	Description
need_migration	No	Boolean	The disk name. Default value: **true**
id	Yes	String	The disk ID. Minimum length: 0 characters Maximum length: 255 characters
adjust_size	Yes	Long	The new size. Minimum value: **0** Maximum value: **9223372036854775807** Default value: **0**
physical_volumes	No	Array of **PutVolume** objects	The modified volume information. Array length: 0 to 65,535

Table 5-56 PutVolume field description

Parameter	Mandatory	Type	Description
id	No	String	The database record ID. Minimum length: 0 characters Maximum length: 255 characters
need_migration	No	Boolean	Indicates whether the volume needs to be migrated. Default value: **true**
adjust_size	No	Long	The new size. Minimum value: **0** Maximum value: **9223372036854775807** Default value: **0**

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Table 5-57 PutVolumeGroups field description

Parameter	Mandatory	Type	Description
logical_volumes	No	Array of **PutLogicalVolume** objects	The logical volume information. Array length: 0 to 65,535
id	Yes	String	The volume group ID. Minimum length: 0 characters Maximum length: 255 characters
need_migration	No	Boolean	Indicates whether the volume needs to be migrated. Default value: **true**
adjust_size	No	Long	The new size. Minimum value: **0** Maximum value: **9223372036854775807** Default value: **0**

Table 5-58 PutLogicalVolume field description

Parameter	Mandatory	Type	Description
id	Yes	String	The logical volume ID. Minimum length: 0 characters Maximum length: 255 characters
need_migration	No	Boolean	Indicates whether the volume needs to be migrated. Default value: **true**
adjust_size	No	Long	The new size. Minimum value: **0** Maximum value: **9223372036854775807** Default value: **0**

Response

Status code: 200

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Table 5-59 Response body parameters

Parameter	Type	Description
-	String	The information about the source server with a specified ID was modified successfully.

Status code: 403

Table 5-60 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-61 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

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Example Request

This example changes the name of the source server with ID **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** to **abcd**.

```
PUT https://{endpoint}/v3/sources/dcdbe339-b02d-4578-95a1-9c9c547dxxxx

{
  "name" : "abcd"
}
```

Example Response

Status code: 200

The information about the source server with a specified ID was modified successfully.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example changes the name of the source server with ID **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** to **abcd**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateServerNameSolution {

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

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateServerNameRequest request = new UpdateServerNameRequest();
        request.withSourceId("{source_id}");
        PutSourceServerBody body = new PutSourceServerBody();
        body.withName("abcd");
        request.withBody(body);
        try {
            UpdateServerNameResponse response = client.updateServerName(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example changes the name of the source server with ID **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** to **abcd**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateServerNameRequest()
        request.source_id = "{source_id}"
        request.body = PutSourceServerBody(
            name="abcd"
        )
        response = client.update_server_name(request)
```

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

Go

This example changes the name of the source server with ID **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** to **abcd**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateServerNameRequest{}
    request.SourceId = "{source_id}"
    namePutSourceServerBody:= "abcd"
    request.Body = &model.PutSourceServerBody{
        Name: &namePutSourceServerBody,
    }
    response, err := client.UpdateServerName(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	The information about the source server with a specified ID was modified successfully.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.3.6 Updating the Migration Task Status of a Source Server

Function

This API is used to update the migration task status of a source server.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/sources/{source_id}/changestate

Table 5-62 Path parameter

Parameter	Mandatory	Type	Description
source_id	Yes	String	The ID of the source server in SMS. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-63 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Table 5-64 Request body parameters

Parameter	Mandatory	Type	Description
copystate	No	String	The source server status. **UNAVAILABLE**: The source server fails the environment check. **WAITING**: The source server is waiting for migration. **INIT**: The migration of the source server is being initialized. **REPLICATE**: The source server is being replicated. **SYNCING**: The source server is being synchronized. **SYNCING**: The migration of the source server is being stopped. **STOPPED**: The migration of the source server is stopped. **SKIPPING**: The operation is being skipped. **DELETING**: The source server record is being deleted. **ERROR**: An error occurs during the migration of the source server. **CLONING**: The target server for the source server is being cloned. **CUTOVERING**: The target server for the source server is being launched. **FINISHED**: The target server for the source server is launched. **CLEARING**: The snapshot resources are being cleared. **CLEARED**: The snapshot resources have been cleared. **CLEARFAILED**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready.

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Parameter	Mandatory	Type	Description
			premiging: The migration drill is in progress. **premiged**: The migration drill has been completed. **premigfailed**: The migration drill fails. The value can be: • **UNAVAILABLE** • **WAITING** • **INIT** • **REPLICATE** • **SYNCING** • **STOPPING** • **STOPPED** • **SKIPPING** • **DELETING** • **ERROR** • **CLONING** • **CUTOVERING** • **FINISHED** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**

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Parameter	Mandatory	Type	Description
migrationcycle	No	String	The current migration stage of the source server. **cutovering**: The target server for the source server is being launched. **cutovered**: The target server for the source server is launched. **checking**: The check is in progress. **setting**: The configuration is in progress. **replicating**: The data is being replicated. **syncing**: The incremental data is being synchronized. The value can be: • **cutovering** • **cutovered** • **checking** • **setting** • **replicating** • **syncing**

Response

Status code: 200

Table 5-65 Response body parameters

Parameter	Type	Description
-	String	The migration task status of a source server was updated.

Status code: 403

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Table 5-66 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-67 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example updates the replication status to **WAITING** and the migration stage to **cutovered** for the **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** source server.

```
PUT https://{endpoint}/v3/sources/dcdbe339-b02d-4578-95a1-9c9c547dxxxx/changestate

{
  "copystate" : "WAITING",
  "migrationcycle" : "cutovered"
}
```

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Example Response

Status code: 200

The migration task status of a source server was updated.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example updates the replication status to **WAITING** and the migration stage to **cutovered** for the **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** source server.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateCopyStateSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateCopyStateRequest request = new UpdateCopyStateRequest();
        request.withSourceId("{source_id}");
```

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```
        PutCopyStateReq body = new PutCopyStateReq();
        body.withMigrationcycle(PutCopyStateReq.MigrationcycleEnum.fromValue("cutovered"));
        body.withCopystate(PutCopyStateReq.CopystateEnum.fromValue("WAITING"));
        request.withBody(body);
        try {
            UpdateCopyStateResponse response = client.updateCopyState(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example updates the replication status to **WAITING** and the migration stage to **cutovered** for the **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** source server.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateCopyStateRequest()
        request.source_id = "{source_id}"
        request.body = PutCopyStateReq(
            migrationcycle="cutovered",
            copystate="WAITING"
        )
        response = client.update_copy_state(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

This example updates the replication status to **WAITING** and the migration stage to **cutovered** for the **dcdbe339-b02d-4578-95a1-9c9c547dxxxx** source server.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateCopyStateRequest{}
    request.SourceId = "{source_id}"
    migrationcyclePutCopyStateReq:= model.GetPutCopyStateReqMigrationcycleEnum().CUTOVERED
    copystatePutCopyStateReq:= model.GetPutCopyStateReqCopystateEnum().WAITING
    request.Body = &model.PutCopyStateReq{
        Migrationcycle: &migrationcyclePutCopyStateReq,
        Copystate: &copystatePutCopyStateReq,
    }
    response, err := client.UpdateCopyState(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The migration task status of a source server was updated.
403	Authentication failed.

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Error Codes

For details, see **Error Codes**.

5.3.7 Deleting a Source Server Record

Function

This API is used to delete the record of a source server with a specified ID from the SMS console. Once the information about a source server is deleted, you can add the information about the source server to the SMS console again only by restarting the migration Agent on the source server.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v3/sources/{source_id}

Table 5-68 Path parameter

Parameter	Mandatory	Type	Description
source_id	Yes	String	The ID of the source server in SMS. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-69 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-70 Response body parameters

Parameter	Type	Description
-	String	The information about the source server with a specified ID was deleted.

Status code: 403

Table 5-71 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-72 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example deletes the record of source server whose ID is **1a6d1e0b-62e5-4376-b59f-ff2fd569xxxx**.

```
DELETE https://{endpoint}/v3/sources/1a6d1e0b-62e5-4376-b59f-ff2fd569xxxx
```

Example Response

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

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Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class DeleteServerSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteServerRequest request = new DeleteServerRequest();
        request.withSourceId("{source_id}");
        try {
            DeleteServerResponse response = client.deleteServer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = DeleteServerRequest()
        request.source_id = "{source_id}"
        response = client.delete_server(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	The information about the source server with a specified ID was deleted.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.3.8 Querying Details About a Source Server

Function

After the migration Agent reports the source server information to SMS, SMS checks the migration feasibility. This API returns the basic information and check results of the source server.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/sources/{source_id}

Table 5-73 Path parameter

Parameter	Mandatory	Type	Description
source_id	Yes	String	The ID of the source server in SMS. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-74 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-75 Response body parameters

Parameter	Type	Description
id	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The IP address of the source server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The source server name in SMS. Minimum length: 0 characters Maximum length: 255 characters
hostname	String	The hostname of the source server. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
enterprise_project_id	String	The enterprise project ID. Minimum length: 1 character Maximum length: 255 characters

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Parameter	Type	Description
add_date	Long	The time when the source server was registered. Minimum value: **0** Maximum value: **9223372036854775807**
os_type	String	The OS type of the source server, which can be Windows or Linux. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
os_version	String	The OS version. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
oem_system	Boolean	Indicates whether the OS is an OEM version (Windows).

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Parameter	Type	Description
state	String	The source server status. **unavailable**: The source server fails the environment check. **waiting**: The source server is waiting for migration. **initialize**: The migration of the source server is being initialized. **replicate**: The source server is being replicated. **syncing**: The source server is being synchronized. **stopping**: The migration of the source server is being stopped. **stopped**: The migration of the source server is stopped. **skipping**: The operation is being skipped. **deleting**: The source server record is being deleted. **error**: An error occurs during the migration of the source server. **cloning**: The target server for the source server is being cloned. **testing**: The test is in progress. **finished**: The target server for the source server is launched. **clearing**: The snapshot resources are being cleared. **cleared**: The snapshot resources have been cleared. **clearfailed**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready. **premiging**: The migration drill is in progress. **premiged**: The migration drill has been completed. **premigfailed**: The migration drill fails. The value can be: • **unavailable** • **waiting** • **initialize**

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Parameter	Type	Description
		• **replicate** • **syncing** • **stopping** • **stopped** • **skipping** • **deleting** • **error** • **cloning** • **testing** • **finished** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**
connected	Boolean	Indicate whether the Agent installed on the source server is connected to SMS.
firmware	String	The boot mode. The value can be: • **BIOS** • **UEFI**
init_target_server	**InitTargetServer** object	The recommended configuration for the target server.
cpu_quantity	Integer	The number of CPUs on the source server. Minimum value: **0** Maximum value: **65535**
memory	Long	The physical memory size (MB) of the source server. Minimum value: **0** Maximum value: **9223372036854775807**
current_task	**TaskByServerSource** object	The migration task associated with the source server.

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Parameter	Type	Description
disks	Array of **ServerDisk** objects	The disk information of the source server. Array length: 0 to 65,535
volume_groups	Array of **VolumeGroups** objects	The volume group information of the source server. If there are no volume groups, the value is an empty array []. Array length: 0 to 65,535
btrfs_list	Array of **BtrfsFileSystem** objects	The information about Btrfs file systems on the source server. This parameter is mandatory for Linux. If there are no Btrfs file systems on the source server, the value is an empty array []. Array length: 0 to 65,535
networks	Array of **NetWork** objects	The information about NICs on the source server. Array length: 0 to 65,535
checks	Array of **EnvironmentCheck** objects	The environment check information for the source server. Array length: 0 to 65,535

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Parameter	Type	Description
migration_cycle	String	The current migration stage of the source server. **cutovering**: The target server for the source server is being launched. **cutovered**: The target server for the source server is launched. **checking**: The check is in progress. **setting**: The configuration is in progress. **replicating**: The data is being replicated. **syncing**: The incremental data is being synchronized. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **cutovering** • **cutovered** • **checking** • **setting** • **replicating** • **syncing**
state_action_time	Long	The timestamp when the status of the source server last changed. The source server status is defined by **state**. Minimum value: **0** Maximum value: **9223372036854775807**
replicatesize	Long	The volume of data that has been migrated, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
totalsize	Long	The volume of data to be migrated, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
last_visit_time	Long	The timestamp when the Agent connection status last changed. Minimum value: **0** Maximum value: **9223372036854775807**
stage_action_time	Long	The timestamp when the migration stage of the source server last changed. The migration stage is defined by **migration_cycle**. Minimum value: **0** Maximum value: **9223372036854775807**
agent_version	String	The Agent version. Minimum length: 0 characters Maximum length: 255 characters
has_tc	Boolean	Indicates whether TC is installed. This parameter is mandatory for Linux.

Table 5-76 InitTargetServer field description

Parameter	Type	Description
disks	Array of **DiskIntargetServer** objects	The information about the recommended target server disks. Array length: 0 to 65,535
volume_groups	Array of **VolumeGroups** objects	This parameter is mandatory for Linux. If there are no volume groups, the value is an empty array [] Array length: 0 to 65,535

Table 5-77 DiskIntargetServer field description

Parameter	Type	Description
name	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
size	Long	The disk size, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The disk function. **BOOT**: boot device **OS**: system device **NORMAL**: general device Minimum length: 0 characters Maximum length: 255 characters The value can be: • **BOOT** • **OS** • **NORMAL**
used_size	Long	The used disk space, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
physical_volumes	Array of **PhysicalVolumes** objects	The physical volume information. Array length: 0 to 65,535

Table 5-78 PhysicalVolumes field description

Parameter	Type	Description
device_use	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
file_system	String	The file system type. Minimum length: 0 characters Maximum length: 255 characters
index	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**

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Parameter	Type	Description
mount_point	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	String	The volume name. In Windows, it indicates the drive letter, and in Linux, it indicates the device ID. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
inode_size	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	String	The GUID, which can be obtained from the source server. Minimum length: 0 characters Maximum length: 255 characters

Table 5-79 TaskByServerSource field description

Parameter	Type	Description
id	String	The task ID. Minimum length: 0 characters Maximum length: 255 characters
name	String	The task name. Minimum length: 0 characters Maximum length: 255 characters
type	String	The task type. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
state	String	The task status. Minimum length: 0 characters Maximum length: 255 characters
start_date	Long	The start time. Minimum value: **0** Maximum value: **9223372036854775807**
speed_limit	Integer	The migration rate limit. Minimum value: **0** Maximum value: **10000**
migrate_speed	Double	The migration rate. Minimum value: **0** Maximum value: **10000**
start_target_server	Boolean	Indicates whether the target server is started.
vm_template_id	String	The server template ID. Minimum length: 0 characters Maximum length: 255 characters
region_id	String	The region ID. Minimum length: 0 characters Maximum length: 255 characters
project_name	String	The project name. Minimum length: 0 characters Maximum length: 255 characters
project_id	String	The project ID. Minimum length: 0 characters Maximum length: 255 characters
target_server	**TargetServerById** object	The information about the target server.
log_collect_status	String	The log collection status. Minimum length: 0 characters Maximum length: 255 characters
exist_server	Boolean	Indicates whether an existing server is used as the target server.
use_public_ip	Boolean	Indicates whether a public IP address is used for migration.

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Parameter	Type	Description
clone_server	CloneServer object	The information about the cloned server.

Table 5-80 TargetServerById field description

Parameter	Type	Description
vm_id	String	The ID of the target server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the target server. Minimum length: 0 characters Maximum length: 255 characters

Table 5-81 CloneServer field description

Parameter	Type	Description
vm_id	String	The ID of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
clone_error	String	The error returned for a clone failure. Minimum length: 0 characters Maximum length: 255 characters
clone_state	String	The clone status. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message returned for a clone failure. Minimum length: 0 characters Maximum length: 1,024 characters

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Table 5-82 ServerDisk field description

Parameter	Type	Description
name	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters
partition_style	String	The disk partition type. This parameter is mandatory for source server registration. **MBR**: Master Boot Record (MBR) **GPT**: GUID Partition Table (GPT) The value can be: • **MBR** • **GPT**
device_use	String	The disk function. **BOOT**: boot device **OS**: system device The value can be: • **BOOT** • **OS**
size	Long	The disk size, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used disk space, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
physical_volumes	Array of **PhysicalVolume** objects	The information about physical partitions on the disk. Array length: 0 to 65,535
os_disk	Boolean	Indicates whether the disk is the system disk.
relation_name	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters
inode_size	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

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Table 5-83 PhysicalVolume field description

Parameter	Type	Description
device_use	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
file_system	String	The file system type. Minimum length: 0 characters Maximum length: 255 characters
index	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**
mount_point	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	String	The volume name. In Windows, it indicates the drive letter, and in Linux, it indicates the device ID. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
inode_size	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**
inode_nums	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
uuid	String	The GUID, which can be obtained from the source server. Minimum length: 0 characters Maximum length: 255 characters
size_per_cluster	Integer	The size of each cluster. Minimum value: **0** Maximum value: **2147483647**

Table 5-84 VolumeGroups field description

Parameter	Type	Description
components	String	The physical volume information. Minimum length: 0 characters Maximum length: 255 characters
free_size	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**
logical_volumes	Array of **LogicalVolumes** objects	The logical volume information. Array length: 0 to 255
name	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-85 LogicalVolumes field description

Parameter	Type	Description
block_count	Integer	The number of blocks. Minimum value: **0** Maximum value: **2147483647** Default value: **0**

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Parameter	Type	Description
block_size	Long	The block size. Minimum value: **0** Maximum value: **1048576** Default value: **0**
file_system	String	The file system. Minimum length: 0 characters Maximum length: 255 characters
inode_size	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**
inode_nums	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
mount_point	String	The mount point. Minimum length: 0 characters Maximum length: 256 characters
name	String	The name. Minimum length: 0 characters Maximum length: 1,024 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
free_size	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

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Table 5-86 BtrfsFileSystem field description

Parameter	Type	Description
name	String	The file system name. Minimum length: 0 characters Maximum length: 255 characters
label	String	The file system tag. If no tag exists, the value is an empty string. Minimum length: 0 characters Maximum length: 255 characters
uuid	String	The UUID of the file system. Minimum length: 0 characters Maximum length: 255 characters
device	String	The device names of the Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The space occupied by the file system. Minimum value: **0** Maximum value: **9223372036854775807**
nodesize	Long	The Btrfs node size. Minimum value: **0** Maximum value: **9223372036854775807**
sectorsize	Integer	The sector size. Minimum value: **0** Maximum value: **2147483647**
data_profile	String	The data profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
system_profile	String	The file system profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
metadata_profile	String	The metadata profile (RAD). Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
global_reserve1	String	The Btrfs file system information. Minimum length: 0 characters Maximum length: 255 characters
g_vol_used_size	Long	The used space of the Btrfs volume. Minimum value: **0** Maximum value: **9223372036854775807**
default_subvolid	String	The ID of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_name	String	The name of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_mountpath	String	The mount path of the default subvolume or Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
subvolume	Array of **BtrfsSubvolumn** objects	The subvolume information. Array length: 0 to 65,535

Table 5-87 BtrfsSubvolumn field description

Parameter	Type	Description
uuid	String	The UUID of the parent volume. Minimum length: 0 characters Maximum length: 255 characters
is_snapshot	String	Indicates whether the subvolume is a snapshot. Minimum length: 0 characters Maximum length: 255 characters
subvol_id	String	The subvolume ID. Minimum length: 0 characters Maximum length: 255 characters
parent_id	String	The parent volume ID. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
subvol_name	String	The subvolume name. Minimum length: 0 characters Maximum length: 255 characters
subvol_mount_path	String	The mount path of the subvolume. Minimum length: 0 characters Maximum length: 255 characters

Table 5-88 NetWork field description

Parameter	Type	Description
name	String	The NIC name. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The IP address bound to the NIC. Minimum length: 0 characters Maximum length: 255 characters
ipv6	String	The IPv6 address. Minimum length: 0 characters Maximum length: 255 characters
netmask	String	The subnet mask. Minimum length: 0 characters Maximum length: 255 characters
gateway	String	The gateway. Minimum length: 0 characters Maximum length: 255 characters
mtu	Integer	The NIC MTU. This parameter is mandatory for Linux. Minimum value: **0** Maximum value: **2147483647**
mac	String	The MAC address. Minimum length: 0 characters Maximum length: 255 characters
id	String	The database record ID. Minimum length: 0 characters Maximum length: 255 characters

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Table 5-89 EnvironmentCheck field description

Parameter	Type	Description
id	Long	The check item ID. Minimum value: **0** Maximum value: **9223372036854775807**
params	Array of strings	The parameters. Minimum length: 0 characters Maximum length: 255 characters Array length: 0 to 65,535
name	String	The check item name. Minimum length: 0 characters Maximum length: 255 characters
result	String	The check result. **OK**: The check is passed. **WARN**: A warning is generated. **ERROR**: The check fails. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **OK** • **WARN** • **ERROR**
error_code	String	The returned error code. Minimum length: 0 characters Maximum length: 255 characters
error_or_warn	String	The returned error or warning. Minimum length: 0 characters Maximum length: 255 characters
error_params	String	The parameters that failed the check. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

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Table 5-90 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-91 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example queries the information about the source server with ID **211d7878-d7ba-4cac-acf1-a02ccfb8xxxx**.

```
GET https://{endpoint}/v3/sources/211d7878-d7ba-4cac-acf1-a02ccfb8xxxx
```

Example Response

Status code: 200

The details about a source server were obtained.

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```
{
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "ip" : "192.168.0.154",
  "name" : "sms-win16",
  "hostname" : "sms-win16",
  "add_date" : 1598435769000,
  "os_type" : "WINDOWS",
  "os_version" : "WINDOWS2016_64BIT",
  "oem_system" : false,
  "state" : "initialize",
  "connected" : true,
  "firmware" : "BIOS",
  "cpu_quantity" : 1,
  "memory" : 2146553856,
  "current_task" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "MigrationTask",
    "type" : "MIGRATE_BLOCK",
    "state" : "RUNNING",
    "speed_limit" : 0,
    "start_target_server" : true,
    "vm_template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "region_id" : "region_id",
    "project_name" : "project_name",
    "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "target_server" : {
      "vm_id" : "",
      "name" : ""
    },
    "log_collect_status" : "INIT",
    "exist_server" : false,
    "use_public_ip" : true,
    "clone_server" : null
  },
  "disks" : [ {
    "name" : "Disk 0",
    "relation_name" : null,
    "partition_style" : "MBR",
    "size" : 42949672960,
    "used_size" : 42947575808,
    "device_use" : "BOOT",
    "os_disk" : false,
    "physical_volumes" : [ {
      "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-100000000000}\\",
      "index" : 1,
      "name" : "(Reserved)",
      "device_use" : "BOOT",
      "file_system" : "NTFS",
      "mount_point" : null,
      "size" : 524288000,
      "used_size" : 410275840
    }, {
      "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-501f00000000}\\",
      "index" : 2,
      "name" : "C:\\",
      "device_use" : "OS",
      "file_system" : "NTFS",
      "mount_point" : null,
      "size" : 42423287808,
      "used_size" : 23170301952
    } ]
  } ],
  "volume_groups" : [ ],
  "networks" : [ {
    "name" : null,
    "ip" : null,
    "netmask" : null,
    "gateway" : null,
    "mtu" : 0,
```


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```
  "mac" : "dac20cd4f6318ca6458673b0046ddcc89e936df292d0806cb868ba63a817853c"
} ],
"checks" : [ {
  "id" : 524146,
  "params" : [ "" ],
  "name" : "OS_VERSION",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524147,
  "params" : [ "" ],
  "name" : "FIRMWARE",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524148,
  "params" : [ "" ],
  "name" : "CPU",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524149,
  "params" : [ "" ],
  "name" : "MEMORY",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524150,
  "params" : [ "" ],
  "name" : "SYSTEM_ROOT",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524151,
  "params" : [ "" ],
  "name" : "PARTITION_STYLE",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524152,
  "params" : [ "" ],
  "name" : "FILE_SYSTEM",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524153,
  "params" : [ "" ],
  "name" : "FREE_SPACE",
  "result" : "OK",
  "error_code" : null,
  "error_or_warn" : null,
  "error_params" : ""
}, {
  "id" : 524154,
  "params" : [ "" ],
```

```
    "name" : "OEM_SYSTEM",
    "result" : "OK",
    "error_code" : null,
    "error_or_warn" : null,
    "error_params" : ""
  }, {
    "id" : 524155,
    "params" : [ "" ],
    "name" : "DRIVER_FILE",
    "result" : "OK",
    "error_code" : null,
    "error_or_warn" : null,
    "error_params" : ""
  }, {
    "id" : 524156,
    "params" : [ "" ],
    "name" : "SERVICE",
    "result" : "OK",
    "error_code" : null,
    "error_or_warn" : null,
    "error_params" : ""
  }, {
    "id" : 524157,
    "params" : [ "" ],
    "name" : "ACCOUNT_RIGHTS",
    "result" : "OK",
    "error_code" : null,
    "error_or_warn" : null,
    "error_params" : ""
  } ],
  "init_target_server" : {
    "disks" : [ {
      "name" : "Disk 0",
      "size" : 42949672960,
      "used_size" : 42947575808,
      "device_use" : "OS",
      "physical_volumes" : [ {
        "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-100000000000}\\",
        "index" : 1,
        "name" : "(Reserved)",
        "device_use" : "BOOT",
        "file_system" : "NTFS",
        "mount_point" : null,
        "size" : 524288000,
        "used_size" : 410275840
      }, {
        "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-501f00000000}\\",
        "index" : 2,
        "name" : "C:\\",
        "device_use" : "OS",
        "file_system" : "NTFS",
        "mount_point" : null,
        "size" : 42423287808,
        "used_size" : 23170301952
      } ]
    } ],
    "volume_groups" : [ ]
  },
  "replicatesize" : 0,
  "stage_action_time" : 1598435768945,
  "totalsize" : 0,
  "last_visit_time" : 1598435801422,
  "agent_version" : "6.1.8",
  "migration_cycle" : "replicating",
  "state_action_time" : 1598435783569
}
```


Status code: 403

Authentication failed.

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```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowServerSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowServerRequest request = new ShowServerRequest();
        request.withSourceId("{source_id}");
        try {
            ShowServerResponse response = client.showServer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowServerRequest()
        request.source_id = "{source_id}"
        response = client.show_server(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The details about a source server were obtained.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.3.9 Obtaining a Summary of Source Servers

Function

This API is used to obtain a summary of source servers.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/sources/overview

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Request

Table 5-92 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-93 Response body parameters

Parameter	Type	Description
waiting	Integer	The number of servers that are in a waiting migration status. Minimum value: **0** Maximum value: **1000**
replicate	Integer	The number of servers that are in a replicating migration status. Minimum value: **0** Maximum value: **1000**
syncing	Integer	The number of servers that are in a synchronizing migration status. Minimum value: **0** Maximum value: **1000**
stopped	Integer	The number of servers that are in a paused migration status. Minimum value: **0** Maximum value: **1000**

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Parameter	Type	Description
deleting	Integer	The number of servers that are in a deleting migration status. Minimum value: **0** Maximum value: **1000**
cutovering	Integer	The number of servers whose paired target servers are being launched. Minimum value: **0** Maximum value: **1000**
unavailable	Integer	The number of servers that fail the environment check. Minimum value: **0** Maximum value: **1000**
stopping	Integer	The number of servers that are in a **stopping** migration status. Minimum value: **0** Maximum value: **1000**
skipping	Integer	Skipping Minimum value: **0** Maximum value: **1000**
finished	Integer	The number of servers whose paired target servers have been launched. Minimum value: **0** Maximum value: **1000**
initialize	Integer	The number of servers that are in an initializing migration status. Minimum value: **0** Maximum value: **1000**
error	Integer	The number of servers that are in an error migration status. Minimum value: **0** Maximum value: **1000**
cloning	Integer	The number of servers whose paired target servers are being cloned. Minimum value: **0** Maximum value: **1000**

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Parameter	Type	Description
unconfigured	Integer	The number of servers that do not have target server configurations. Minimum value: **0** Maximum value: **1000**

Status code: 403

Table 5-94 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-95 details

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

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Example Request

This example queries a summary of source servers.

```
GET https://{endpoint}/v3/sources/overview
```

Example Response

Status code: 200

A summary of source servers was obtained.

```
{
  "replicate" : 0,
  "stopped" : 0,
  "unconfigured" : 13,
  "waiting" : 0,
  "syncing" : 0,
  "unavailable" : 0,
  "cutovering" : 0,
  "finished" : 6,
  "error" : 3,
  "deleting" : 1,
  "stopping" : 1,
  "initialize" : 0,
  "cloning" : 0
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowOverviewSolution {

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

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowOverviewRequest request = new ShowOverviewRequest();
        try {
            ShowOverviewResponse response = client.showOverview(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

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Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	A summary of source servers was obtained.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

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5.3.10 Updating Disk Information

Function

This API is used to update the disk information of a source server. After you call this API successfully, the new disk information will take effect, and the original disk information will be deleted.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/sources/{source_id}/diskinfo

Table 5-96 Path parameter

Parameter	Mandatory	Type	Description
source_id	Yes	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-97 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Table 5-98 Request body parameters

Parameter	Mandatory	Type	Description
disks	No	Array of **ServerDisk** objects	The updated disk information. Array length: 0 to 65,535
volumegroups	No	Array of **VolumeGroups** objects	The updated volume information. Array length: 0 to 65,535
btrfs_list	No	Array of **BtrfsFileSystem** objects	The updated Btrfs information. Array length: 0 to 65,535

Table 5-99 ServerDisk field description

Parameter	Mandatory	Type	Description
name	Yes	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters
partition_style	No	String	The disk partition type. This parameter is mandatory for source server registration. **MBR**: Master Boot Record (MBR) **GPT**: GUID Partition Table (GPT) The value can be: • **MBR** • **GPT**
device_use	Yes	String	The disk function. **BOOT**: boot device **OS**: system device The value can be: • **BOOT** • **OS**
size	Yes	Long	The disk size, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Mandatory	Type	Description
used_size	Yes	Long	The used disk space, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
physical_volumes	Yes	Array of **PhysicalVolume** objects	The information about physical partitions on the disk. Array length: 0 to 65,535
os_disk	No	Boolean	Indicates whether the disk is the system disk.
relation_name	No	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters
inode_size	No	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

Table 5-100 PhysicalVolume

Parameter	Mandatory	Type	Description
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
file_system	No	String	The file system type. Minimum length: 0 characters Maximum length: 255 characters
index	No	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**
mount_point	No	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
name	No	String	The volume name. In Windows, it indicates the drive letter, and in Linux, it indicates the device ID. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	No	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
inode_size	No	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**
inode_nums	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	No	String	The GUID, which can be obtained from the source server. Minimum length: 0 characters Maximum length: 255 characters
size_per_cluster	No	Integer	The size of each cluster. Minimum value: **0** Maximum value: **2147483647**

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Table 5-101 VolumeGroups field description

Parameter	Mandatory	Type	Description
components	No	String	The physical volume information. Minimum length: 0 characters Maximum length: 255 characters
free_size	No	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**
logical_volumes	No	Array of **LogicalVolumes** objects	The logical volume information. Array length: 0 to 255
name	No	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-102 LogicalVolumes field description

Parameter	Mandatory	Type	Description
block_count	No	Integer	The number of blocks. Minimum value: **0** Maximum value: **2147483647** Default value: **0**
block_size	No	Long	The block size. Minimum value: **0** Maximum value: **1048576** Default value: **0**
file_system	Yes	String	The file system. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
inode_size	Yes	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**
inode_nums	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
mount_point	Yes	String	The mount point. Minimum length: 0 characters Maximum length: 256 characters
name	Yes	String	The name. Minimum length: 0 characters Maximum length: 1,024 characters
size	Yes	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Yes	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
free_size	Yes	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

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Table 5-103 BtrfsFileSystem field description

Parameter	Mandatory	Type	Description
name	Yes	String	The file system name. Minimum length: 0 characters Maximum length: 255 characters
label	Yes	String	The file system tag. If no tag exists, the value is an empty string. Minimum length: 0 characters Maximum length: 255 characters
uuid	Yes	String	The UUID of the file system. Minimum length: 0 characters Maximum length: 255 characters
device	Yes	String	The device names of the Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
size	Yes	Long	The space occupied by the file system. Minimum value: **0** Maximum value: **9223372036854775807**
nodesize	Yes	Long	The Btrfs node size. Minimum value: **0** Maximum value: **9223372036854775807**
sectorsize	Yes	Integer	The sector size. Minimum value: **0** Maximum value: **2147483647**
data_profile	Yes	String	The data profile (RAD). Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
system_profile	Yes	String	The file system profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
metadata_profile	Yes	String	The metadata profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
global_reserve1	Yes	String	The Btrfs file system information. Minimum length: 0 characters Maximum length: 255 characters
g_vol_used_size	Yes	Long	The used space of the Btrfs volume. Minimum value: **0** Maximum value: **9223372036854775807**
default_subvolid	Yes	String	The ID of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_name	Yes	String	The name of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_mountpath	Yes	String	The mount path of the default subvolume or Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
subvolume	Yes	Array of **BtrfsSubvolumn** objects	The subvolume information. Array length: 0 to 65,535

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Table 5-104 BtrfsSubvolumn field description

Parameter	Mandatory	Type	Description
uuid	Yes	String	The UUID of the parent volume. Minimum length: 0 characters Maximum length: 255 characters
is_snapshot	Yes	String	Indicates whether the subvolume is a snapshot. Minimum length: 0 characters Maximum length: 255 characters
subvol_id	Yes	String	The subvolume ID. Minimum length: 0 characters Maximum length: 255 characters
parent_id	Yes	String	The parent volume ID. Minimum length: 0 characters Maximum length: 255 characters
subvol_name	Yes	String	The subvolume name. Minimum length: 0 characters Maximum length: 255 characters
subvol_mount_path	Yes	String	The mount path of the subvolume. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

Table 5-105 Response body parameters

Parameter	Type	Description
-	String	The disk information was updated.

Status code: 403

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Table 5-106 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-107 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example updates the disk information of a server. The new disk name is /dev/vda, the disk function is BOOT, and the disk size is 42,949,672,960 bytes.

```
PUT https://{endpoint}/v3/sources/{source_id}/diskinfo

{
  "disks" : [ {
    "name" : "/dev/vda",
    "device_use" : "BOOT",
    "size" : 42949672960,
    "partition_style" : "MBR",
```

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```
  "used_size" : 42948624384,
  "physical_volumes" : [ {
    "name" : "/dev/vda1",
    "size" : 2153775104,
    "device_use" : "NORMAL",
    "used_size" : 2153775104,
    "inode_size" : 0,
    "file_system" : "swap",
    "mount_point" : ""
  }, {
    "name" : "/dev/vda2",
    "size" : 16862150656,
    "device_use" : "BTRFS",
    "used_size" : 16862150656,
    "inode_size" : 0,
    "file_system" : "btrfs",
    "mount_point" : ""
  }, {
    "name" : "/dev/vda3",
    "size" : 23932698624,
    "device_use" : "NORMAL",
    "used_size" : 33988608,
    "inode_size" : 0,
    "file_system" : "xfs",
    "mount_point" : "/home"
  } ]
}, {
  "name" : "/dev/vdb",
  "device_use" : "NORMAL",
  "size" : 21474836480,
  "partition_style" : "MBR",
  "used_size" : 21473787904,
  "physical_volumes" : [ {
    "name" : "/dev/vdb1",
    "size" : 21473787904,
    "device_use" : "VOLUME_GROUP",
    "used_size" : 21473787904,
    "inode_size" : 0,
    "file_system" : "LVM2_member",
    "mount_point" : ""
  } ]
}, {
  "name" : "/dev/vdc",
  "device_use" : "VOLUME_GROUP",
  "size" : 21474836480,
  "partition_style" : "MBR",
  "used_size" : 0,
  "physical_volumes" : [ ]
} ],
"volumegroups" : [ {
  "name" : "vg1",
  "size" : 42948624384,
  "components" : "/dev/vdb1;/dev/vdc",
  "logical_volumes" : [ {
    "name" : "/dev/mapper/vg1-lv1",
    "device_use" : "NORMAL",
    "size" : 10737418240,
    "free_size" : 10713837568,
    "used_size" : 23580672,
    "file_system" : "ext4",
    "mount_point" : "/mnt/lv1",
    "inode_size" : 256
  } ]
} ],
"btrfs_list" : [ {
  "name" : "/dev/vda2",
  "label" : "none",
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "device" : "/dev/vda2",
```


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```
  "size" : "3.30GiB",
  "nodesize" : 16384,
  "sectorsize" : 4096,
  "data_profile" : "single",
  "system_profile" : "single",
  "metadata_profile" : "single",
  "global_reserve1" : "single",
  "g_vol_used_size" : 3894038528,
  "default_subvolid" : 259,
  "default_subvol_name" : "@/.snapshots/1/snapshot",
  "default_subvol_mountpath" : "/",
  "subvolumn" : [ {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 257,
    "parent_id" : 5,
    "subvol_name" : "@",
    "subvol_mount_path" : null
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 258,
    "parent_id" : 257,
    "subvol_name" : "@/.snapshots",
    "subvol_mount_path" : "/.snapshots"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : true,
    "subvol_id" : 259,
    "parent_id" : 258,
    "subvol_name" : "@/.snapshots/1/snapshot",
    "subvol_mount_path" : "/"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 260,
    "parent_id" : 257,
    "subvol_name" : "@/boot/grub2/i386-pc",
    "subvol_mount_path" : "/boot/grub2/i386-pc"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 261,
    "parent_id" : 257,
    "subvol_name" : "@/boot/grub2/x86_64-efi",
    "subvol_mount_path" : "/boot/grub2/x86_64-efi"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 262,
    "parent_id" : 257,
    "subvol_name" : "@/opt",
    "subvol_mount_path" : "/opt"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 263,
    "parent_id" : 257,
    "subvol_name" : "@/srv",
    "subvol_mount_path" : "/srv"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 264,
    "parent_id" : 257,
    "subvol_name" : "@/tmp",
    "subvol_mount_path" : "/tmp"
  }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
```


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```
  "is_snapshot" : false,
  "subvol_id" : 265,
  "parent_id" : 257,
  "subvol_name" : "@/usr/local",
  "subvol_mount_path" : "/usr/local"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 266,
  "parent_id" : 257,
  "subvol_name" : "@/var/cache",
  "subvol_mount_path" : "/var/cache"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 267,
  "parent_id" : 257,
  "subvol_name" : "@/var/crash",
  "subvol_mount_path" : "/var/crash"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 268,
  "parent_id" : 257,
  "subvol_name" : "@/var/lib/libvirt/images",
  "subvol_mount_path" : "/var/lib/libvirt/images"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 269,
  "parent_id" : 257,
  "subvol_name" : "@/var/lib/machines",
  "subvol_mount_path" : "/var/lib/machines"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 270,
  "parent_id" : 257,
  "subvol_name" : "@/var/lib/mailman",
  "subvol_mount_path" : "/var/lib/mailman"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 271,
  "parent_id" : 257,
  "subvol_name" : "@/var/lib/mariadb",
  "subvol_mount_path" : "/var/lib/mariadb"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 272,
  "parent_id" : 257,
  "subvol_name" : "@/var/lib/mysql",
  "subvol_mount_path" : "/var/lib/mysql"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 273,
  "parent_id" : 257,
  "subvol_name" : "@/var/lib/named",
  "subvol_mount_path" : "/var/lib/named"
}, {
  "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "is_snapshot" : false,
  "subvol_id" : 274,
  "parent_id" : 257,
  "subvol_name" : "@/var/lib/pgsql",
  "subvol_mount_path" : "/var/lib/pgsql"
}, {
```


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```
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 275,
    "parent_id" : 257,
    "subvol_name" : "@/var/log",
    "subvol_mount_path" : "/var/log"
   }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 276,
    "parent_id" : 257,
    "subvol_name" : "@/var/opt",
    "subvol_mount_path" : "/var/opt"
   }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 277,
    "parent_id" : 257,
    "subvol_name" : "@/var/spool",
    "subvol_mount_path" : "/var/spool"
   }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : false,
    "subvol_id" : 278,
    "parent_id" : 257,
    "subvol_name" : "@/var/tmp",
    "subvol_mount_path" : "/var/tmp"
   }, {
    "uuid" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "is_snapshot" : true,
    "subvol_id" : 282,
    "parent_id" : 258,
    "subvol_name" : "@/.snapshots/2/snapshot",
    "subvol_mount_path" : null
   } ]
  } ]
}
```

Example Response

Status code: 200

The disk information was updated.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

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Java

This example updates the disk information of a server. The new disk name is /dev/vda, the disk function is BOOT, and the disk size is 42,949,672,960 bytes.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class UpdateDiskInfoSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDiskInfoRequest request = new UpdateDiskInfoRequest();
        request.withSourceId("{source_id}");
        PutDiskInfoReq body = new PutDiskInfoReq();
        List<BtrfsSubvolumn> listBtrfsListSubvolumn = new ArrayList<>();
        listBtrfsListSubvolumn.add(
            new BtrfsSubvolumn()
                .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withIsSnapshot("false")
                .withSubvolId("257")
                .withParentId("5")
                .withSubvolName("@")
        );
        listBtrfsListSubvolumn.add(
            new BtrfsSubvolumn()
                .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withIsSnapshot("false")
                .withSubvolId("258")
                .withParentId("257")
                .withSubvolName("@/.snapshots")
                .withSubvolMountPath("/.snapshots")
        );
        listBtrfsListSubvolumn.add(
            new BtrfsSubvolumn()
                .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withIsSnapshot("true")
                .withSubvolId("259")
                .withParentId("258")
                .withSubvolName("@/.snapshots/1/snapshot")
                .withSubvolMountPath("/")
        );
        listBtrfsListSubvolumn.add(
```

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```
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("260")
            .withParentId("257")
            .withSubvolName("@/boot/grub2/i386-pc")
            .withSubvolMountPath("/boot/grub2/i386-pc")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("261")
            .withParentId("257")
            .withSubvolName("@/boot/grub2/x86_64-efi")
            .withSubvolMountPath("/boot/grub2/x86_64-efi")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("262")
            .withParentId("257")
            .withSubvolName("@/opt")
            .withSubvolMountPath("/opt")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("263")
            .withParentId("257")
            .withSubvolName("@/srv")
            .withSubvolMountPath("/srv")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("264")
            .withParentId("257")
            .withSubvolName("@/tmp")
            .withSubvolMountPath("/tmp")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("265")
            .withParentId("257")
            .withSubvolName("@/usr/local")
            .withSubvolMountPath("/usr/local")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("266")
            .withParentId("257")
            .withSubvolName("@/var/cache")
            .withSubvolMountPath("/var/cache")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("267")
            .withParentId("257")
            .withSubvolName("@/var/crash")
```

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```
            .withSubvolMountPath("/var/crash")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("268")
            .withParentId("257")
            .withSubvolName("@/var/lib/libvirt/images")
            .withSubvolMountPath("/var/lib/libvirt/images")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("269")
            .withParentId("257")
            .withSubvolName("@/var/lib/machines")
            .withSubvolMountPath("/var/lib/machines")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("270")
            .withParentId("257")
            .withSubvolName("@/var/lib/mailman")
            .withSubvolMountPath("/var/lib/mailman")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("271")
            .withParentId("257")
            .withSubvolName("@/var/lib/mariadb")
            .withSubvolMountPath("/var/lib/mariadb")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("272")
            .withParentId("257")
            .withSubvolName("@/var/lib/mysql")
            .withSubvolMountPath("/var/lib/mysql")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("273")
            .withParentId("257")
            .withSubvolName("@/var/lib/named")
            .withSubvolMountPath("/var/lib/named")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("274")
            .withParentId("257")
            .withSubvolName("@/var/lib/pgsql")
            .withSubvolMountPath("/var/lib/pgsql")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
```

```
            .withSubvolId("275")
            .withParentId("257")
            .withSubvolName("@/var/log")
            .withSubvolMountPath("/var/log")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("276")
            .withParentId("257")
            .withSubvolName("@/var/opt")
            .withSubvolMountPath("/var/opt")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("277")
            .withParentId("257")
            .withSubvolName("@/var/spool")
            .withSubvolMountPath("/var/spool")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("false")
            .withSubvolId("278")
            .withParentId("257")
            .withSubvolName("@/var/tmp")
            .withSubvolMountPath("/var/tmp")
    );
    listBtrfsListSubvolumn.add(
        new BtrfsSubvolumn()
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIsSnapshot("true")
            .withSubvolId("282")
            .withParentId("258")
            .withSubvolName("@/.snapshots/2/snapshot")
    );
    List<BtrfsFileSystem> listbodyBtrfsList = new ArrayList<>();
    listbodyBtrfsList.add(
        new BtrfsFileSystem()
            .withName("/dev/vda2")
            .withLabel("none")
            .withUuid("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withDevice("/dev/vda2")
            .withSize(3.30GiBL)
            .withNodesize(16384L)
            .withSectorsize(4096)
            .withDataProfile("single")
            .withSystemProfile("single")
            .withMetadataProfile("single")
            .withGlobalReserve1("single")
            .withGVolUsedSize(3894038528L)
            .withDefaultSubvolid("259")
            .withDefaultSubvolName("@/.snapshots/1/snapshot")
            .withDefaultSubvolMountpath("/")
            .withSubvolumn(listBtrfsListSubvolumn)
    );
    List<LogicalVolumes> listVolumegroupsLogicalVolumes = new ArrayList<>();
    listVolumegroupsLogicalVolumes.add(
        new LogicalVolumes()
            .withFileSystem("ext4")
            .withInodeSize(256)
            .withDeviceUse("NORMAL")
            .withMountPoint("/mnt/lv1")
            .withName("/dev/mapper/vg1-lv1")
            .withSize(10737418240L)
```

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```
            .withUsedSize(23580672L)
            .withFreeSize(10713837568L)
    );
    List<VolumeGroups> listbodyVolumegroups = new ArrayList<>();
    listbodyVolumegroups.add(
        new VolumeGroups()
            .withComponents("/dev/vdb1;/dev/vdc")
            .withLogicalVolumes(listVolumegroupsLogicalVolumes)
            .withName("vg1")
            .withSize(42948624384L)
    );
    List<PhysicalVolume> listDisksPhysicalVolumes = new ArrayList<>();
    listDisksPhysicalVolumes.add(
        new PhysicalVolume()
            .withDeviceUse("VOLUME_GROUP")
            .withFileSystem("LVM2_member")
            .withMountPoint("")
            .withName("/dev/vdb1")
            .withSize(21473787904L)
            .withUsedSize(21473787904L)
            .withInodeSize(0)
    );
    List<PhysicalVolume> listDisksPhysicalVolumes1 = new ArrayList<>();
    listDisksPhysicalVolumes1.add(
        new PhysicalVolume()
            .withDeviceUse("NORMAL")
            .withFileSystem("swap")
            .withMountPoint("")
            .withName("/dev/vda1")
            .withSize(2153775104L)
            .withUsedSize(2153775104L)
            .withInodeSize(0)
    );
    listDisksPhysicalVolumes1.add(
        new PhysicalVolume()
            .withDeviceUse("BTRFS")
            .withFileSystem("btrfs")
            .withMountPoint("")
            .withName("/dev/vda2")
            .withSize(16862150656L)
            .withUsedSize(16862150656L)
            .withInodeSize(0)
    );
    listDisksPhysicalVolumes1.add(
        new PhysicalVolume()
            .withDeviceUse("NORMAL")
            .withFileSystem("xfs")
            .withMountPoint("/home")
            .withName("/dev/vda3")
            .withSize(23932698624L)
            .withUsedSize(33988608L)
            .withInodeSize(0)
    );
    List<ServerDisk> listbodyDisks = new ArrayList<>();
    listbodyDisks.add(
        new ServerDisk()
            .withName("/dev/vda")
            .withPartitionStyle(ServerDisk.PartitionStyleEnum.fromValue("MBR"))
            .withDeviceUse(ServerDisk.DeviceUseEnum.fromValue("BOOT"))
            .withSize(42949672960L)
            .withUsedSize(42948624384L)
            .withPhysicalVolumes(listDisksPhysicalVolumes1)
    );
    listbodyDisks.add(
        new ServerDisk()
            .withName("/dev/vdb")
            .withPartitionStyle(ServerDisk.PartitionStyleEnum.fromValue("MBR"))
            .withDeviceUse(ServerDisk.DeviceUseEnum.fromValue("NORMAL"))
            .withSize(21474836480L)
```

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```
                .withUsedSize(21473787904L)
                .withPhysicalVolumes(listDisksPhysicalVolumes)
        );
        listbodyDisks.add(
            new ServerDisk()
                .withName("/dev/vdc")
                .withPartitionStyle(ServerDisk.PartitionStyleEnum.fromValue("MBR"))
                .withDeviceUse(ServerDisk.DeviceUseEnum.fromValue("VOLUME_GROUP"))
                .withSize(21474836480L)
                .withUsedSize(0L)
                .withPhysicalVolumes()
        );
        body.withBtrfsList(listbodyBtrfsList);
        body.withVolumegroups(listbodyVolumegroups);
        body.withDisks(listbodyDisks);
        request.withBody(body);
        try {
            UpdateDiskInfoResponse response = client.updateDiskInfo(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example updates the disk information of a server. The new disk name is /dev/vda, the disk function is BOOT, and the disk size is 42,949,672,960 bytes.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateDiskInfoRequest()
        request.source_id = "{source_id}"
        listSubvolumnBtrfsList = [
            BtrfsSubvolumn(
                uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
                is_snapshot="false",
```

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```
        subvol_id="257",
        parent_id="5",
        subvol_name="@"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="258",
        parent_id="257",
        subvol_name="@/.snapshots",
        subvol_mount_path="/.snapshots"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="true",
        subvol_id="259",
        parent_id="258",
        subvol_name="@/.snapshots/1/snapshot",
        subvol_mount_path="/"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="260",
        parent_id="257",
        subvol_name="@/boot/grub2/i386-pc",
        subvol_mount_path="/boot/grub2/i386-pc"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="261",
        parent_id="257",
        subvol_name="@/boot/grub2/x86_64-efi",
        subvol_mount_path="/boot/grub2/x86_64-efi"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="262",
        parent_id="257",
        subvol_name="@/opt",
        subvol_mount_path="/opt"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="263",
        parent_id="257",
        subvol_name="@/srv",
        subvol_mount_path="/srv"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="264",
        parent_id="257",
        subvol_name="@/tmp",
        subvol_mount_path="/tmp"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="265",
        parent_id="257",
        subvol_name="@/usr/local",
        subvol_mount_path="/usr/local"
    ),
    BtrfsSubvolumn(
```

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```
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="266",
        parent_id="257",
        subvol_name="@/var/cache",
        subvol_mount_path="/var/cache"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="267",
        parent_id="257",
        subvol_name="@/var/crash",
        subvol_mount_path="/var/crash"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="268",
        parent_id="257",
        subvol_name="@/var/lib/libvirt/images",
        subvol_mount_path="/var/lib/libvirt/images"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="269",
        parent_id="257",
        subvol_name="@/var/lib/machines",
        subvol_mount_path="/var/lib/machines"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="270",
        parent_id="257",
        subvol_name="@/var/lib/mailman",
        subvol_mount_path="/var/lib/mailman"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="271",
        parent_id="257",
        subvol_name="@/var/lib/mariadb",
        subvol_mount_path="/var/lib/mariadb"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="272",
        parent_id="257",
        subvol_name="@/var/lib/mysql",
        subvol_mount_path="/var/lib/mysql"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="273",
        parent_id="257",
        subvol_name="@/var/lib/named",
        subvol_mount_path="/var/lib/named"
    ),
    BtrfsSubvolumn(
        uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        is_snapshot="false",
        subvol_id="274",
        parent_id="257",
        subvol_name="@/var/lib/pgsql",
```

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```
            subvol_mount_path="/var/lib/pgsql"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="275",
            parent_id="257",
            subvol_name="@/var/log",
            subvol_mount_path="/var/log"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="276",
            parent_id="257",
            subvol_name="@/var/opt",
            subvol_mount_path="/var/opt"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="277",
            parent_id="257",
            subvol_name="@/var/spool",
            subvol_mount_path="/var/spool"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="false",
            subvol_id="278",
            parent_id="257",
            subvol_name="@/var/tmp",
            subvol_mount_path="/var/tmp"
        ),
        BtrfsSubvolumn(
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            is_snapshot="true",
            subvol_id="282",
            parent_id="258",
            subvol_name="@/.snapshots/2/snapshot"
        )
    ]
    listBtrfsListbody = [
        BtrfsFileSystem(
            name="/dev/vda2",
            label="none",
            uuid="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            device="/dev/vda2",
            size=3.30GiB,
            nodesize=16384,
            sectorsize=4096,
            data_profile="single",
            system_profile="single",
            metadata_profile="single",
            global_reserve1="single",
            g_vol_used_size=3894038528,
            default_subvolid="259",
            default_subvol_name="@/.snapshots/1/snapshot",
            default_subvol_mountpath="/",
            subvolumn=listSubvolumnBtrfsList
        )
    ]
    listLogicalVolumesVolumegroups = [
        LogicalVolumes(
            file_system="ext4",
            inode_size=256,
            device_use="NORMAL",
            mount_point="/mnt/lv1",
            name="/dev/mapper/vg1-lv1",
```

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```
            size=10737418240,
            used_size=23580672,
            free_size=10713837568
        )
    ]
    listVolumegroupsbody = [
        VolumeGroups(
            components="/dev/vdb1;/dev/vdc",
            logical_volumes=listLogicalVolumesVolumegroups,
            name="vg1",
            size=42948624384
        )
    ]
    listPhysicalVolumesDisks = [
        PhysicalVolume(
            device_use="VOLUME_GROUP",
            file_system="LVM2_member",
            mount_point="",
            name="/dev/vdb1",
            size=21473787904,
            used_size=21473787904,
            inode_size=0
        )
    ]
    listPhysicalVolumesDisks1 = [
        PhysicalVolume(
            device_use="NORMAL",
            file_system="swap",
            mount_point="",
            name="/dev/vda1",
            size=2153775104,
            used_size=2153775104,
            inode_size=0
        ),
        PhysicalVolume(
            device_use="BTRFS",
            file_system="btrfs",
            mount_point="",
            name="/dev/vda2",
            size=16862150656,
            used_size=16862150656,
            inode_size=0
        ),
        PhysicalVolume(
            device_use="NORMAL",
            file_system="xfs",
            mount_point="/home",
            name="/dev/vda3",
            size=23932698624,
            used_size=33988608,
            inode_size=0
        )
    ]
    listDisksbody = [
        ServerDisk(
            name="/dev/vda",
            partition_style="MBR",
            device_use="BOOT",
            size=42949672960,
            used_size=42948624384,
            physical_volumes=listPhysicalVolumesDisks1
        ),
        ServerDisk(
            name="/dev/vdb",
            partition_style="MBR",
            device_use="NORMAL",
            size=21474836480,
            used_size=21473787904,
            physical_volumes=listPhysicalVolumesDisks
```

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```
            ),
            ServerDisk(
                name="/dev/vdc",
                partition_style="MBR",
                device_use="VOLUME_GROUP",
                size=21474836480,
                used_size=0,
            )
        ]
        request.body = PutDiskInfoReq(
            btrfs_list=listBtrfsListbody,
            volumegroups=listVolumegroupsbody,
            disks=listDisksbody
        )
        response = client.update_disk_info(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example updates the disk information of a server. The new disk name is /dev/vda, the disk function is BOOT, and the disk size is 42,949,672,960 bytes.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDiskInfoRequest{}
    request.SourceId = "{source_id}"
    var listSubvolumnBtrfsList = []model.BtrfsSubvolumn{
        {
            Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            IsSnapshot: "false",
            SubvolId: "257",
            ParentId: "5",
            SubvolName: "@",
        },
        {
            Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
```

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```
        IsSnapshot: "false",
        SubvolId: "258",
        ParentId: "257",
        SubvolName: "@/.snapshots",
        SubvolMountPath: "/.snapshots",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "true",
        SubvolId: "259",
        ParentId: "258",
        SubvolName: "@/.snapshots/1/snapshot",
        SubvolMountPath: "/",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "260",
        ParentId: "257",
        SubvolName: "@/boot/grub2/i386-pc",
        SubvolMountPath: "/boot/grub2/i386-pc",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "261",
        ParentId: "257",
        SubvolName: "@/boot/grub2/x86_64-efi",
        SubvolMountPath: "/boot/grub2/x86_64-efi",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "262",
        ParentId: "257",
        SubvolName: "@/opt",
        SubvolMountPath: "/opt",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "263",
        ParentId: "257",
        SubvolName: "@/srv",
        SubvolMountPath: "/srv",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "264",
        ParentId: "257",
        SubvolName: "@/tmp",
        SubvolMountPath: "/tmp",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "265",
        ParentId: "257",
        SubvolName: "@/usr/local",
        SubvolMountPath: "/usr/local",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "266",
        ParentId: "257",
        SubvolName: "@/var/cache",
        SubvolMountPath: "/var/cache",
```


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```
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "267",
        ParentId: "257",
        SubvolName: "@/var/crash",
        SubvolMountPath: "/var/crash",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "268",
        ParentId: "257",
        SubvolName: "@/var/lib/libvirt/images",
        SubvolMountPath: "/var/lib/libvirt/images",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "269",
        ParentId: "257",
        SubvolName: "@/var/lib/machines",
        SubvolMountPath: "/var/lib/machines",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "270",
        ParentId: "257",
        SubvolName: "@/var/lib/mailman",
        SubvolMountPath: "/var/lib/mailman",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "271",
        ParentId: "257",
        SubvolName: "@/var/lib/mariadb",
        SubvolMountPath: "/var/lib/mariadb",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "272",
        ParentId: "257",
        SubvolName: "@/var/lib/mysql",
        SubvolMountPath: "/var/lib/mysql",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "273",
        ParentId: "257",
        SubvolName: "@/var/lib/named",
        SubvolMountPath: "/var/lib/named",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "274",
        ParentId: "257",
        SubvolName: "@/var/lib/pgsql",
        SubvolMountPath: "/var/lib/pgsql",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "275",
```


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```
        ParentId: "257",
        SubvolName: "@/var/log",
        SubvolMountPath: "/var/log",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "276",
        ParentId: "257",
        SubvolName: "@/var/opt",
        SubvolMountPath: "/var/opt",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "277",
        ParentId: "257",
        SubvolName: "@/var/spool",
        SubvolMountPath: "/var/spool",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "false",
        SubvolId: "278",
        ParentId: "257",
        SubvolName: "@/var/tmp",
        SubvolMountPath: "/var/tmp",
    },
    {
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        IsSnapshot: "true",
        SubvolId: "282",
        ParentId: "258",
        SubvolName: "@/.snapshots/2/snapshot",
    },
}
var listBtrfsListbody = []model.BtrfsFileSystem{
    {
        Name: "/dev/vda2",
        Label: "none",
        Uuid: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        Device: "/dev/vda2",
        Size: int64(3.30GiB),
        Nodesize: int64(16384),
        Sectorsize: int32(4096),
        DataProfile: "single",
        SystemProfile: "single",
        MetadataProfile: "single",
        GlobalReserve1: "single",
        GVolUsedSize: int64(3894038528),
        DefaultSubvolid: "259",
        DefaultSubvolName: "@/.snapshots/1/snapshot",
        DefaultSubvolMountpath: "/",
        Subvolumn: listSubvolumnBtrfsList,
    },
}
deviceUseLogicalVolumes:= "NORMAL"
var listLogicalVolumesVolumegroups = []model.LogicalVolumes{
    {
        FileSystem: "ext4",
        InodeSize: int32(256),
        DeviceUse: &deviceUseLogicalVolumes,
        MountPoint: "/mnt/lv1",
        Name: "/dev/mapper/vg1-lv1",
        Size: int64(10737418240),
        UsedSize: int64(23580672),
        FreeSize: int64(10713837568),
    },
}
```

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```
componentsVolumegroups:= "/dev/vdb1;/dev/vdc"
nameVolumegroups:= "vg1"
sizeVolumegroups:= int64(42948624384)
var listVolumegroupsbody = []model.VolumeGroups{
    {
        Components: &componentsVolumegroups,
        LogicalVolumes: &listLogicalVolumesVolumegroups,
        Name: &nameVolumegroups,
        Size: &sizeVolumegroups,
    },
}
deviceUsePhysicalVolumes:= "VOLUME_GROUP"
fileSystemPhysicalVolumes:= "LVM2_member"
mountPointPhysicalVolumes:= ""
namePhysicalVolumes:= "/dev/vdb1"
sizePhysicalVolumes:= int64(21473787904)
usedSizePhysicalVolumes:= int64(21473787904)
inodeSizePhysicalVolumes:= int32(0)
var listPhysicalVolumesDisks = []model.PhysicalVolume{
    {
        DeviceUse: &deviceUsePhysicalVolumes,
        FileSystem: &fileSystemPhysicalVolumes,
        MountPoint: &mountPointPhysicalVolumes,
        Name: &namePhysicalVolumes,
        Size: &sizePhysicalVolumes,
        UsedSize: &usedSizePhysicalVolumes,
        InodeSize: &inodeSizePhysicalVolumes,
    },
}
deviceUsePhysicalVolumes1:= "NORMAL"
fileSystemPhysicalVolumes1:= "swap"
mountPointPhysicalVolumes1:= ""
namePhysicalVolumes1:= "/dev/vda1"
sizePhysicalVolumes1:= int64(2153775104)
usedSizePhysicalVolumes1:= int64(2153775104)
inodeSizePhysicalVolumes1:= int32(0)
deviceUsePhysicalVolumes2:= "BTRFS"
fileSystemPhysicalVolumes2:= "btrfs"
mountPointPhysicalVolumes2:= ""
namePhysicalVolumes2:= "/dev/vda2"
sizePhysicalVolumes2:= int64(16862150656)
usedSizePhysicalVolumes2:= int64(16862150656)
inodeSizePhysicalVolumes2:= int32(0)
deviceUsePhysicalVolumes3:= "NORMAL"
fileSystemPhysicalVolumes3:= "xfs"
mountPointPhysicalVolumes3:= "/home"
namePhysicalVolumes3:= "/dev/vda3"
sizePhysicalVolumes3:= int64(23932698624)
usedSizePhysicalVolumes3:= int64(33988608)
inodeSizePhysicalVolumes3:= int32(0)
var listPhysicalVolumesDisks1 = []model.PhysicalVolume{
    {
        DeviceUse: &deviceUsePhysicalVolumes1,
        FileSystem: &fileSystemPhysicalVolumes1,
        MountPoint: &mountPointPhysicalVolumes1,
        Name: &namePhysicalVolumes1,
        Size: &sizePhysicalVolumes1,
        UsedSize: &usedSizePhysicalVolumes1,
        InodeSize: &inodeSizePhysicalVolumes1,
    },
    {
        DeviceUse: &deviceUsePhysicalVolumes2,
        FileSystem: &fileSystemPhysicalVolumes2,
        MountPoint: &mountPointPhysicalVolumes2,
        Name: &namePhysicalVolumes2,
        Size: &sizePhysicalVolumes2,
        UsedSize: &usedSizePhysicalVolumes2,
        InodeSize: &inodeSizePhysicalVolumes2,
    },
```

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```
        {
            DeviceUse: &deviceUsePhysicalVolumes3,
            FileSystem: &fileSystemPhysicalVolumes3,
            MountPoint: &mountPointPhysicalVolumes3,
            Name: &namePhysicalVolumes3,
            Size: &sizePhysicalVolumes3,
            UsedSize: &usedSizePhysicalVolumes3,
            InodeSize: &inodeSizePhysicalVolumes3,
        },
    }
    partitionStyleDisks:= model.GetServerDiskPartitionStyleEnum().MBR
    partitionStyleDisks1:= model.GetServerDiskPartitionStyleEnum().MBR
    partitionStyleDisks2:= model.GetServerDiskPartitionStyleEnum().MBR
    var listDisksbody = []model.ServerDisk{
        {
            Name: "/dev/vda",
            PartitionStyle: &partitionStyleDisks,
            DeviceUse: model.GetServerDiskDeviceUseEnum().BOOT,
            Size: int64(42949672960),
            UsedSize: int64(42948624384),
            PhysicalVolumes: listPhysicalVolumesDisks1,
        },
        {
            Name: "/dev/vdb",
            PartitionStyle: &partitionStyleDisks1,
            DeviceUse: model.GetServerDiskDeviceUseEnum().NORMAL,
            Size: int64(21474836480),
            UsedSize: int64(21473787904),
            PhysicalVolumes: listPhysicalVolumesDisks,
        },
        {
            Name: "/dev/vdc",
            PartitionStyle: &partitionStyleDisks2,
            DeviceUse: model.GetServerDiskDeviceUseEnum().VOLUME_GROUP,
            Size: int64(21474836480),
            UsedSize: int64(0),
        },
    }
    request.Body = &model.PutDiskInfoReq{
        BtrfsList: &listBtrfsListbody,
        Volumegroups: &listVolumegroupsbody,
        Disks: &listDisksbody,
    }
    response, err := client.UpdateDiskInfo(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The disk information was updated.
403	Authentication failed.

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Error Codes

For details, see **Error Codes**.

5.4 Task Management

5.4.1 Creating a Migration Task

Function

This API is used to create a migration task for a source server.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks

Request

Table 5-108 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-109 Request body parameters

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

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Parameter	Mandatory	Type	Description
type	Yes	String	The task type. **MIGRATE_FILE**: file-level migration **MIGRATE_BLOCK**: block-level migration The value can be: • **MIGRATE_FILE** • **MIGRATE_BLOCK**
start_target_server	No	Boolean	Indicates whether the target server is started after the migration is complete. Default value: **true**
auto_start	No	Boolean	Indicates whether to automatically start the migration.
os_type	Yes	String	The OS type. Minimum length: 0 characters Maximum length: 255 characters
source_server	Yes	**SourceServerByTask** object	The source server information.
target_server	Yes	**TargetServerByTask** object	The target server information.
migration_ip	No	String	The IP address used for migration. This parameter is not required if the target server is automatically created. Minimum length: 0 characters Maximum length: 255 characters
region_name	Yes	String	The region name. Minimum length: 0 characters Maximum length: 255 characters
region_id	Yes	String	The region ID. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
project_name	Yes	String	The project name. Minimum length: 0 characters Maximum length: 255 characters
project_id	Yes	String	The project ID. Minimum length: 0 characters Maximum length: 255 characters
priority	No	Integer	The migration priority. The default value is **1**. Minimum value: **0** Maximum value: **65535**
vm_template_id	No	String	The ID of the template used to create the target server automatically. Minimum length: 0 characters Maximum length: 255 characters
use_public_ip	No	Boolean	Indicates whether a public IP address is used for migration. Default value: **true**
use_ipv6	No	Boolean	Indicates whether IPv6 is used.
syncing	No	Boolean	Indicates whether to perform a continuous synchronization after the first replication. If this parameter is not specified, the default value **false** is used. Default value: **false**
exist_server	No	Boolean	Checks whether the service exists. If it does, create the task.
start_network_check	No	Boolean	Indicates whether to measure the network performance.
speed_limit	No	Integer	The migration speed limit. Minimum value: **0** Maximum value: **10000**

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Parameter	Mandatory	Type	Description
over_speed_threshold	No	Double	The overspeed threshold for stopping migration. This is a protection measure. If the migration speed exceeds the threshold, the task is stopped. It is used to control the consumption of resources (especially network bandwidth) during the migration to ensure that the overall system performance is not affected by a single migration task. The unit is percentage. Minimum value: **0** Maximum value: **100**
is_need_consistency_check	No	Boolean	Indicates whether consistency verification is enabled.
need_migration_test	No	Boolean	Indicates whether migration drilling is enabled.

Table 5-110 SourceServerByTask

Parameter	Mandatory	Type	Description
id	Yes	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters

Table 5-111 TargetServerByTask field description

Parameter	Mandatory	Type	Description
btrfs_list	No	Array of **BtrfsFileSystem** objects	The Btrfs information, which is obtained from the source server. Array length: 0 to 65,535
disks	Yes	Array of **TargetDisks** objects	The disk information. Array length: 0 to 65,535

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Parameter	Mandatory	Type	Description
name	Yes	String	The name. Minimum length: 0 characters Maximum length: 255 characters
vm_id	Yes	String	The target server ID. Minimum length: 0 characters Maximum length: 255 characters
volume_groups	No	Array of **VolumeGroups** objects	The volume group information, which is obtained from the source server. Array length: 0 to 65,535

Table 5-112 BtrfsFileSystem field description

Parameter	Mandatory	Type	Description
name	Yes	String	The file system name. Minimum length: 0 characters Maximum length: 255 characters
label	Yes	String	The file system tag. If no tag exists, the value is an empty string. Minimum length: 0 characters Maximum length: 255 characters
uuid	Yes	String	The UUID of the file system. Minimum length: 0 characters Maximum length: 255 characters
device	Yes	String	The device names of the Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
size	Yes	Long	The space occupied by the file system. Minimum value: **0** Maximum value: **9223372036854775807**
nodesize	Yes	Long	The Btrfs node size. Minimum value: **0** Maximum value: **9223372036854775807**
sectorsize	Yes	Integer	The sector size. Minimum value: **0** Maximum value: **2147483647**
data_profile	Yes	String	The data profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
system_profile	Yes	String	The file system profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
metadata_profile	Yes	String	The metadata profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
global_reserve1	Yes	String	The Btrfs file system information. Minimum length: 0 characters Maximum length: 255 characters
g_vol_used_size	Yes	Long	The used space of the Btrfs volume. Minimum value: **0** Maximum value: **9223372036854775807**
default_subvolid	Yes	String	The ID of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
default_subvol_name	Yes	String	The name of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_mountpath	Yes	String	The mount path of the default subvolume or Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
subvolume	Yes	Array of **BtrfsSubvolumn** objects	The subvolume information. Array length: 0 to 65,535

Table 5-113 BtrfsSubvolumn field description

Parameter	Mandatory	Type	Description
uuid	Yes	String	The UUID of the parent volume. Minimum length: 0 characters Maximum length: 255 characters
is_snapshot	Yes	String	Indicates whether the subvolume is a snapshot. Minimum length: 0 characters Maximum length: 255 characters
subvol_id	Yes	String	The subvolume ID. Minimum length: 0 characters Maximum length: 255 characters
parent_id	Yes	String	The parent volume ID. Minimum length: 0 characters Maximum length: 255 characters
subvol_name	Yes	String	The subvolume name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
subvol_mount_path	Yes	String	The mount path of the subvolume. Minimum length: 0 characters Maximum length: 255 characters

Table 5-114 TargetDisks field description

Parameter	Mandatory	Type	Description
device_use	No	String	The disk function. The disk can be a general, OS, or boot disk. **BOOT**: boot device **OS**: system device **NORMAL**: general device Default value: **NORMAL** The value can be: • **NORMAL** • **OS** • **BOOT**
disk_id	No	String	The disk ID. This parameter is not required if the target server is automatically created. Minimum length: 0 characters Maximum length: 255 characters
name	Yes	String	The disk name. Set this parameter to **Disk** *X* based on the disk sequence. Minimum length: 0 characters Maximum length: 255 characters
physical_volumes	Yes	Array of **PhysicalVolumes** objects	The physical volume information. Array length: 0 to 65,535
size	Yes	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Mandatory	Type	Description
used_size	Yes	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-115 PhysicalVolumes field description

Parameter	Mandatory	Type	Description
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
file_system	No	String	The file system type. Minimum length: 0 characters Maximum length: 255 characters
index	No	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**
mount_point	No	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The volume name. In Windows, it indicates the drive letter, and in Linux, it indicates the device ID. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Mandatory	Type	Description
inode_size	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	No	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	No	String	The GUID, which can be obtained from the source server. Minimum length: 0 characters Maximum length: 255 characters

Table 5-116 VolumeGroups field description

Parameter	Mandatory	Type	Description
components	No	String	The physical volume information. Minimum length: 0 characters Maximum length: 255 characters
free_size	No	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**
logical_volumes	No	Array of **LogicalVolumes** objects	The logical volume information. Array length: 0 to 255
name	No	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

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Table 5-117 LogicalVolumes field description

Parameter	Mandatory	Type	Description
block_count	No	Integer	The number of blocks. Minimum value: **0** Maximum value: **2147483647** Default value: **0**
block_size	No	Long	The block size. Minimum value: **0** Maximum value: **1048576** Default value: **0**
file_system	Yes	String	The file system. Minimum length: 0 characters Maximum length: 255 characters
inode_size	Yes	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**
inode_nums	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
mount_point	Yes	String	The mount point. Minimum length: 0 characters Maximum length: 256 characters
name	Yes	String	The name. Minimum length: 0 characters Maximum length: 1,024 characters
size	Yes	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Mandatory	Type	Description
used_size	Yes	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
free_size	Yes	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

Response

Status code: 200

Table 5-118 Response body parameters

Parameter	Type	Description
id	String	The task ID returned when the task is created successfully. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

Table 5-119 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-120 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example creates a migration task whose name is **MigrationTask**. The migration type is **MIGRATE_FILE**, the source server runs Linux, the migration uses the public network, the migration region name is **region_name**, and the migration region ID is **region_id**.

```
POST https://{endpoint}/v3/tasks

{
  "name" : "MigrationTask",
  "type" : "MIGRATE_FILE",
  "os_type" : "LINUX",
  "start_target_server" : true,
  "use_public_ip" : true,
  "migration_ip" : "192.168.0.1",
  "region_name" : "region_name",
  "region_id" : "region_id",
  "project_name" : "project_name",
  "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
  "source_server" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
  },
  "target_server" : {
    "vm_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "Auto-tar-name",
    "disks" : [ {
      "name" : "/dev/vda",
      "disk_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "size" : 42949672960,
      "used_size" : 429496,
      "device_use" : "BOOT",
```

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```
    "physical_volumes" : [ {
      "uuid" : null,
      "index" : 0,
      "name" : "/dev/vda1",
      "device_use" : "OS",
      "file_system" : "ext4",
      "mount_point" : "/",
      "size" : 42947575808,
      "used_size" : 5346484224
    } ]
   } ],
   "volume_groups" : [ ]
  },
  "is_need_consistency_check" : true
}
```

Example Response

Status code: 200

The migration task was successfully created.

```
{
  "id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example creates a migration task whose name is **MigrationTask**. The migration type is **MIGRATE_FILE**, the source server runs Linux, the migration uses the public network, the migration region name is **region_name**, and the migration region ID is **region_id**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

import java.util.List;
```

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```
import java.util.ArrayList;

public class CreateTaskSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateTaskRequest request = new CreateTaskRequest();
        PostTask body = new PostTask();
        List<PhysicalVolumes> listDisksPhysicalVolumes = new ArrayList<>();
        listDisksPhysicalVolumes.add(
            new PhysicalVolumes()
                .withDeviceUse("OS")
                .withFileSystem("ext4")
                .withIndex(0)
                .withMountPoint("/")
                .withName("/dev/vda1")
                .withSize(42947575808L)
                .withUsedSize(5346484224L)
        );
        List<TargetDisks> listTargetServerDisks = new ArrayList<>();
        listTargetServerDisks.add(
            new TargetDisks()
                .withDeviceUse(TargetDisks.DeviceUseEnum.fromValue("BOOT"))
                .withDiskId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withName("/dev/vda")
                .withPhysicalVolumes(listDisksPhysicalVolumes)
                .withSize(42949672960L)
                .withUsedSize(429496L)
        );
        TargetServerByTask targetServerbody = new TargetServerByTask();
        targetServerbody.withDisks(listTargetServerDisks)
            .withName("Auto-tar-name")
            .withVmId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001");
        SourceServerByTask sourceServerbody = new SourceServerByTask();
        sourceServerbody.withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001");
        body.withIsNeedConsistencyCheck(true);
        body.withUsePublicIp(true);
        body.withProjectId("xxxxxxxxxxxxxxxxxxxxxxxx00000001");
        body.withProjectName("project_name");
        body.withRegionId("region_id");
        body.withRegionName("region_name");
        body.withMigrationIp("192.168.0.1");
        body.withTargetServer(targetServerbody);
        body.withSourceServer(sourceServerbody);
        body.withOsType("LINUX");
        body.withStartTargetServer(true);
        body.withType(PostTask.TypeEnum.fromValue("MIGRATE_FILE"));
        body.withName("MigrationTask");
        request.withBody(body);
        try {
            CreateTaskResponse response = client.createTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
```

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

Python

This example creates a migration task whose name is **MigrationTask**. The migration type is **MIGRATE_FILE**, the source server runs Linux, the migration uses the public network, the migration region name is **region_name**, and the migration region ID is **region_id**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = CreateTaskRequest()
        listPhysicalVolumesDisks = [
            PhysicalVolumes(
                device_use="OS",
                file_system="ext4",
                index=0,
                mount_point="/",
                name="/dev/vda1",
                size=42947575808,
                used_size=5346484224
            )
        ]
        listDisksTargetServer = [
            TargetDisks(
                device_use="BOOT",
                disk_id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
                name="/dev/vda",
                physical_volumes=listPhysicalVolumesDisks,
                size=42949672960,
                used_size=429496
            )
        ]
        targetServerbody = TargetServerByTask(
            disks=listDisksTargetServer,
```

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```
            name="Auto-tar-name",
            vm_id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
        )
        sourceServerbody = SourceServerByTask(
            id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
        )
        request.body = PostTask(
            is_need_consistency_check=True,
            use_public_ip=True,
            project_id="xxxxxxxxxxxxxxxxxxxxxxxx00000001",
            project_name="project_name",
            region_id="region_id",
            region_name="region_name",
            migration_ip="192.168.0.1",
            target_server=targetServerbody,
            source_server=sourceServerbody,
            os_type="LINUX",
            start_target_server=True,
            type="MIGRATE_FILE",
            name="MigrationTask"
        )
        response = client.create_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example creates a migration task whose name is **MigrationTask**. The migration type is **MIGRATE_FILE**, the source server runs Linux, the migration uses the public network, the migration region name is **region_name**, and the migration region ID is **region_id**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTaskRequest{}
    deviceUsePhysicalVolumes:= "OS"
```

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```
    fileSystemPhysicalVolumes:= "ext4"
    indexPhysicalVolumes:= int32(0)
    mountPointPhysicalVolumes:= "/"
    namePhysicalVolumes:= "/dev/vda1"
    sizePhysicalVolumes:= int64(42947575808)
    usedSizePhysicalVolumes:= int64(5346484224)
    var listPhysicalVolumesDisks = []model.PhysicalVolumes{
        {
            DeviceUse: &deviceUsePhysicalVolumes,
            FileSystem: &fileSystemPhysicalVolumes,
            Index: &indexPhysicalVolumes,
            MountPoint: &mountPointPhysicalVolumes,
            Name: &namePhysicalVolumes,
            Size: &sizePhysicalVolumes,
            UsedSize: &usedSizePhysicalVolumes,
        },
    }
    deviceUseDisks:= model.GetTargetDisksDeviceUseEnum().BOOT
    diskIdDisks:= "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
    var listDisksTargetServer = []model.TargetDisks{
        {
            DeviceUse: &deviceUseDisks,
            DiskId: &diskIdDisks,
            Name: "/dev/vda",
            PhysicalVolumes: listPhysicalVolumesDisks,
            Size: int64(42949672960),
            UsedSize: int64(429496),
        },
    }
    targetServerbody := &model.TargetServerByTask{
        Disks: listDisksTargetServer,
        Name: "Auto-tar-name",
        VmId: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    }
    sourceServerbody := &model.SourceServerByTask{
        Id: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    }
    isNeedConsistencyCheckPostTask:= true
    usePublicIpPostTask:= true
    migrationIpPostTask:= "192.168.0.1"
    startTargetServerPostTask:= true
    request.Body = &model.PostTask{
        IsNeedConsistencyCheck: &isNeedConsistencyCheckPostTask,
        UsePublicIp: &usePublicIpPostTask,
        ProjectId: "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
        ProjectName: "project_name",
        RegionId: "region_id",
        RegionName: "region_name",
        MigrationIp: &migrationIpPostTask,
        TargetServer: targetServerbody,
        SourceServer: sourceServerbody,
        OsType: "LINUX",
        StartTargetServer: &startTargetServerPostTask,
        Type: model.GetPostTaskTypeEnum().MIGRATE_FILE,
        Name: "MigrationTask",
    }
    response, err := client.CreateTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	The migration task was successfully created.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.2 Listing Migration Tasks

Function

After the target server is configured for a source server, SMS automatically creates a migration task. This API is used to list all your migration tasks.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/tasks

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Table 5-121 Query parameters

Parameter	Mandatory	Type	Description
state	No	String	The migration task status. **READY**: The migration task is ready for execution. **RUNNING**: The migration task is being executed. **SYNCING**: The incremental data is being synchronized. **MIGRATE_SUCCESS**: The migration succeeds. **MIGRATE_FAIL**: The migration fails. **ABORTING**: The migration task is being stopped. **ABORT**: The migration task is stopped. **DELETING**: The migration task is being deleted. **SYNC_F_ROLLBACKING**: The synchronization fails and the task is being rolled back. **SYNC_F_ROLLBACK_SUCCESS**: The synchronization fails and the rollback is successful. The value can be: • **READY** • **RUNNING** • **SYNCING** • **MIGRATE_SUCCESS** • **MIGRATE_FAIL** • **ABORTING** • **ABORT** • **DELETING** • **SYNC_F_ROLLBACKING** • **SYNC_F_ROLLBACK_SUCCESS**
name	No	String	The task name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
id	No	String	The task ID. Minimum length: 0 characters Maximum length: 255 characters
source_server_id	No	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters
limit	No	Integer	The number of tasks recorded on each page. Minimum value: **0** Maximum value: **200** Default value: **100**
offset	No	Integer	The offset. Minimum value: **0** Maximum value: **65535** Default value: **0**
enterprise_project_id	No	String	The ID of the enterprise project to be queried. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-122 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Response

Status code: 200

Table 5-123 Response body parameters

Parameter	Type	Description
count	Integer	The number of tasks that meet the search criteria, which is not affected by pagination. Minimum value: **0** Maximum value: **2147483647**
tasks	Array of **TasksResponseBody** objects	The information about the queried tasks. Array length: 0 to 65,535

Table 5-124 TasksResponseBody field description

Parameter	Type	Description
id	String	The migration task ID. Minimum length: 0 characters Maximum length: 255 characters
name	String	The task name, which is defined by the user. Minimum length: 0 characters Maximum length: 255 characters
type	String	The task type. This parameter is mandatory for creating a task and optional for updating a task. **MIGRATE_FILE**: file-level migration **MIGRATE_BLOCK**: block-level migration Minimum length: 0 characters Maximum length: 255 characters The value can be: • **MIGRATE_FILE** • **MIGRATE_BLOCK**

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Parameter	Type	Description
os_type	String	The OS type. This parameter is mandatory for creating a task and optional for updating a task. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**
state	String	The task status. Minimum length: 0 characters Maximum length: 255 characters
estimate_complete_time	Long	The estimated completion time. Minimum value: **0** Maximum value: **9223372036854775807**
create_date	Long	The task creation time. Minimum value: **0** Maximum value: **9223372036854775807**
priority	Integer	The migration process priority. **0**: low **1**: standard **2**: high Minimum value: **0** Maximum value: **2** The value can be: • **0** • **1** • **2**
speed_limit	Integer	The migration rate limit. Minimum value: **0** Maximum value: **65535**
migrate_speed	Double	The migration rate, in MB/s. Minimum value: **0** Maximum value: **10000**

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Parameter	Type	Description
compress_rate	Double	The compression rate. Minimum value: **0** Maximum value: **10000**
start_target_server	Boolean	Indicates whether the target server is started after the migration is complete. **true**: indicates that the target server will be launched after the migration is complete. **false**: indicates that the target server will be stopped after the migration is complete. Default value: **false**
error_json	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters
total_time	Long	The task duration. Minimum value: **0** Maximum value: **9223372036854775807**
migration_ip	String	The IP address of the target server. If you use a public network for migration, enter the EIP bound to the target server. If you use a private line for migration, enter the private IP address of the target server. Minimum length: 0 characters Maximum length: 255 characters
sub_tasks	Array of **SubTaskAssociatedWithTask** objects	The information about subtasks associated with the migration task Array length: 0 to 65,535
source_server	**SourceServerAssociatedWithTask** object	The information about the source server associated with the migration task.
enterprise_project_id	String	The migration project ID. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
target_server	**TargetServerAssociatedWithTask** object	The information about the target server associated with the migration task.
log_collect_status	String	The log collection status. INIT TELL_AGENT_TO_COLLECT WAIT_AGENT_COLLECT_ACK AGENT_COLLECT_FAIL AGENT_COLLECT_SUCCESS WAIT_SERVER_COLLECT SERVER_COLLECT_FAIL SERVER_COLLECT_SUCCESS TELL_AGENT_RESET_ACL WAIT_AGENT_RESET_ACL_ACK The value can be: • **INIT** • **TELL_AGENT_TO_COLLECT** • **WAIT_AGENT_COLLECT_ACK** • **AGENT_COLLECT_FAIL** • **AGENT_COLLECT_SUCCESS** • **WAIT_SERVER_COLLECT** • **SERVER_COLLECT_FAIL** • **SERVER_COLLECT_SUCCESS** • **TELL_AGENT_RESET_ACL** • **WAIT_AGENT_RESET_ACL_ACK**
clone_server	**CloneServerBrief** object	The information about the cloned server.
syncing	Boolean	Indicates whether synchronization is enabled.
network_check_info	**NetworkCheckInfoRequestBody** object	The network performance metrics and measurement results.
special_config	Array of **ConfigBody** objects	The configuration information of advanced migration options. Array length: 0 to 1,000
total_cpu_usage	Double	The CPU usage of the server, in percentage. Minimum value: **0** Maximum value: **100**

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Parameter	Type	Description
agent_cpu_usage	Double	The CPU usage of the Agent, in percentage. Minimum value: **0** Maximum value: **100**
total_mem_usage	Double	The memory usage of the server, in MB. Minimum value: **0** Maximum value: **1048576.0**
agent_mem_usage	Double	The memory usage of the Agent, in MB. Minimum value: **0** Maximum value: **1048576.0**
total_disk_io	Double	The disk I/O of the server, in MB/s. Minimum value: **0** Maximum value: **10000.0**
agent_disk_io	Double	The disk I/O of the Agent, in MB/s. Minimum value: **0** Maximum value: **10000.0**
need_migration_test	Boolean	Indicates whether migration drilling is enabled.

Table 5-125 SubTaskAssociatedWithTask

Parameter	Type	Description
id	Long	The subtask ID. Minimum value: **0** Maximum value: **9223372036854775807**
name	String	The subtask name. Minimum length: 0 characters Maximum length: 255 characters
progress	Integer	The progress of the subtask. The value is an integer ranging from 0 to 100. Minimum value: **0** Maximum value: **100**

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Parameter	Type	Description
start_date	Long	The start time of the subtask. Minimum value: **0** Maximum value: **9223372036854775807**
end_date	Long	The end time of the subtask. If the subtask is not complete, this parameter is left blank. Minimum value: **0** Maximum value: **9223372036854775807**
process_trace	String	The detailed progress of the migration or synchronization. Minimum length: 0 characters Maximum length: 2,048 characters

Table 5-126 SourceServerAssociatedWithTask field description

Parameter	Type	Description
id	String	The ID of the source server in the SMS database. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The IP address of the source server. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The source server name in SMS. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
os_type	String	The OS type of the source server, which can be Windows or Linux. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**
os_version	String	The OS version. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
oem_system	Boolean	Indicates whether the OS is an OEM version (Windows).

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Parameter	Type	Description
state	String	The source server status. **unavailable**: The source server fails the environment check. **waiting**: The source server is waiting for migration. **initialize**: The migration of the source server is being initialized. **replicate**: The source server is being replicated. **syncing**: The source server is being synchronized. **stopping**: The migration of the source server is being stopped. **stopped**: The migration of the source server is stopped. **skipping**: The operation is being skipped. **deleting**: The source server record is being deleted. **error**: An error occurs during the migration of the source server. **cloning**: The target server for the source server is being cloned. **testing**: The test is in progress. **finished**: The target server for the source server is launched. **clearing**: The snapshot resources are being cleared. **cleared**: The snapshot resources have been cleared. **clearfailed**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready. **premiging**: The migration drill is in progress. **premiged**: The migration drill has been completed. **premigfailed**: The migration drill fails. The value can be: • **unavailable** • **waiting** • **initialize**

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Parameter	Type	Description
		• **replicate** • **syncing** • **stopping** • **stopped** • **skipping** • **deleting** • **error** • **cloning** • **testing** • **finished** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**

Table 5-127 TargetServerAssociatedWithTask

Parameter	Type	Description
id	String	The ID of the target server in the SMS database. Minimum length: 0 characters Maximum length: 255 characters
vm_id	String	The ID of the target server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the target server. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The IP address of the target server. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
os_type	String	The OS type of the target server. **WINDOWS**: a Windows OS **LINUX**: a Linux OS Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**
os_version	String	The OS version. Minimum length: 0 characters Maximum length: 255 characters

Table 5-128 CloneServerBrief field description

Parameter	Type	Description
vm_id	String	The ID of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the cloned server. Minimum length: 0 characters Maximum length: 255 characters

Table 5-129 NetworkCheckInfoRequestBody field description

Parameter	Type	Description
domain_connectivity	Boolean	The connectivity to domain names.
destination_connectivity	Boolean	The connectivity to the target server.
network_delay	Double	The network latency. Minimum value: **0** Maximum value: **10000.0**
network_jitter	Double	The network jitter. Minimum value: **0** Maximum value: **10000**

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Parameter	Type	Description
migration_speed	Double	The bandwidth. Minimum value: **0** Maximum value: **10000**
loss_percentage	Double	The packet loss rate. Minimum value: **0** Maximum value: **100**
cpu_usage	Double	The CPU usage. Minimum value: **0** Maximum value: **100**
mem_usage	Double	The memory usage. Minimum value: **0** Maximum value: **100**
evaluation_result	String	The network evaluation result. Minimum length: 6 characters Maximum length: 8 characters

Table 5-130 ConfigBody field description

Parameter	Type	Description
config_key	String	The advanced migration option. The value can be **EXCLUDE_MIGRATE_PATH**, **SYNC_EXCLUDE_PATH**, or **ONLY_SYNC_PATH**. Minimum length: 0 characters Maximum length: 255 characters
config_value	String	The value specified for the advanced migration option. It is stored in the database and parsed on the Agent. Minimum length: 0 characters Maximum length: 1,024 characters
config_status	String	The reserved field that describes the configuration status. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

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Table 5-131 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-132 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example lists all migration tasks.

```
GET https://{endpoint}/v3/tasks
```

Example Response

Status code: 200

The list of migration tasks was obtained.

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```
{
  "count" : 3,
  "tasks" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms_task_lxxxx11",
    "type" : "MIGRATE_FILE",
    "os_type" : "LINUX",
    "state" : "MIGRATE_SUCCESS",
    "estimate_complete_time" : null,
    "create_date" : 1585139506000,
    "priority" : 1,
    "speed_limit" : 0,
    "migrate_speed" : 0.0,
    "start_target_server" : true,
    "error_json" : "",
    "total_time" : 3878000,
    "migration_ip" : "",
    "source_server" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "ip" : "192.168.*.107",
      "name" : "xxx-linux-1",
      "os_type" : "LINUX",
      "os_version" : "CENTOS_7_6_64BIT",
      "oem_system" : false,
      "state" : "AVAILABLE"
    },
    "target_server" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "vm_id" : "",
      "name" : "",
      "ip" : null,
      "os_type" : "LINUX",
      "os_version" : null
    },
    "log_collect_status" : "INIT"
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms_task_xxx22",
    "type" : "MIGRATE_BLOCK",
    "os_type" : "WINDOWS",
    "state" : "MIGRATE_SUCCESS",
    "estimate_complete_time" : null,
    "create_date" : 1585138569000,
    "priority" : 1,
    "speed_limit" : 0,
    "migrate_speed" : 0.0,
    "start_target_server" : true,
    "error_json" : "",
    "total_time" : 10824000,
    "migration_ip" : "",
    "source_server" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "ip" : "192.168.*.245",
      "name" : "xxx-windows-2",
      "os_type" : "WINDOWS",
      "os_version" : "WINDOWS2012_R2_64BIT",
      "oem_system" : false,
      "state" : "AVAILABLE"
    },
    "target_server" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "vm_id" : "",
      "name" : "",
      "ip" : null,
      "os_type" : "WINDOWS",
      "os_version" : "WINDOWS2012_R2_64BIT"
    },
    "log_collect_status" : "INIT"
  }, {
```


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```
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "name" : "sms_task_leddesktop",
  "type" : "MIGRATE_BLOCK",
  "os_type" : "WINDOWS",
  "state" : "MIGRATE_SUCCESS",
  "estimate_complete_time" : null,
  "create_date" : 1566130392000,
  "priority" : 1,
  "speed_limit" : 200,
  "migrate_speed" : 0.0,
  "start_target_server" : true,
  "error_json" : "",
  "total_time" : 882000,
  "migration_ip" : "192.168.1.201",
  "source_server" : null,
  "target_server" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "vm_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "xxx-sms-target",
    "ip" : null,
    "os_type" : "WINDOWS",
    "os_version" : "WINDOWS2008_R2_64BIT"
  },
  "log_collect_status" : "INIT"
 } ]
}
```


Status code: 403

Authentication failed.


```
{
 "error_code" : "SMS.9004",
 "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
 "encoded_authorization_message" : "XXXXXX",
 "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
 "details" : [ {
  "error_code" : "SMS.9004",
  "error_msg" : "You do not have permission to perform action XXX on resource XXX."
 } ]
}
```


SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ListTasksSolution {

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

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```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListTasksRequest request = new ListTasksRequest();
        try {
            ListTasksResponse response = client.listTasks(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

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Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The list of migration tasks was obtained.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

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5.4.3 Batch Deleting Migration Tasks

Function

This API is used to delete multiple migration tasks in a batch.

Constraints

You can delete a migration task when the Agent installed on the source server is disconnected from SMS, or the task status is **unavailable**, **ready**, **finished**, **error**, or **stopped**.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/delete

Request

Table 5-133 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-134 Request body parameters

Parameter	Mandatory	Type	Description
ids	Yes	Array of strings	The IDs of the tasks to be deleted. Minimum length: 0 characters Maximum length: 255 characters Array length: 0 to 65,535

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Response

Status code: 200

Table 5-135 Response body parameters

Parameter	Type	Description
-	String	Batch deleting migration tasks succeeded.

Status code: 403

Table 5-136 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-137 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example deletes migration tasks with the ID set of **1**, **2**, and **3** in a batch.

```
POST https://{endpoint}/v3/tasks/delete

{
  "ids" : [ "1", "2", "3" ]
}
```

Example Response

Status code: 200

Batch deleting migration tasks succeeded.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example deletes migration tasks with the ID set of **1**, **2**, and **3** in a batch.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

import java.util.List;
```

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```
import java.util.ArrayList;

public class DeleteTasksSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteTasksRequest request = new DeleteTasksRequest();
        DeleteTasksReq body = new DeleteTasksReq();
        List<String> listbodyIds = new ArrayList<>();
        listbodyIds.add("1");
        listbodyIds.add("2");
        listbodyIds.add("3");
        body.withIds(listbodyIds);
        request.withBody(body);
        try {
            DeleteTasksResponse response = client.deleteTasks(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example deletes migration tasks with the ID set of **1**, **2**, and **3** in a batch.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)
```

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

    try:
        request = DeleteTasksRequest()
        listIdsbody = [
            "1",
            "2",
            "3"
        ]
        request.body = DeleteTasksReq(
            ids=listIdsbody
        )
        response = client.delete_tasks(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example deletes migration tasks with the ID set of **1**, **2**, and **3** in a batch.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteTasksRequest{}
    var listIdsbody = []string{
        "1",
        "2",
        "3",
    }
    request.Body = &model.DeleteTasksReq{
        Ids: listIdsbody,
    }
    response, err := client.DeleteTasks(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Batch deleting migration tasks succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.4 Deleting a Migration Task

Function

This API is used to delete a migration task with a specified ID.

Constraints

You can delete a migration task when the Agent installed on the source server is disconnected from SMS, or the task status is **unavailable**, **ready**, **finished**, **error**, or **stopped**.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v3/tasks/{task_id}

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Table 5-138 Path parameter

Parameter	Mandatory	Type	Description
task_id	Yes	String	The ID of the migration task to be deleted. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-139 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-140 Response body parameters

Parameter	Type	Description
-	String	The migration task with a specified ID was deleted successfully.

Status code: 403

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Table 5-141 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-142 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

Delete the migration task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
DELETE https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx
```

Example Response

Status code: 403

Authentication failed.

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```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class DeleteTaskSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteTaskRequest request = new DeleteTaskRequest();
        request.withTaskId("{task_id}");
        try {
            DeleteTaskResponse response = client.deleteTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = DeleteTaskRequest()
        request.task_id = "{task_id}"
        response = client.delete_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The migration task with a specified ID was deleted successfully.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.5 Querying Details About a Migration Task

Function

This API is used to query a migration task based on a specified ID.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/tasks/{task_id}

Table 5-143 Path parameter

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

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Request

Table 5-144 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-145 Response body parameters

Parameter	Type	Description
name	String	The task name, which is defined by the user. Minimum length: 0 characters Maximum length: 255 characters
type	String	The task type. This parameter is mandatory for creating a task and optional for updating a task. **MIGRATE_FILE**: file-level migration **MIGRATE_BLOCK**: block-level migration Minimum length: 0 characters Maximum length: 255 characters The value can be: • **MIGRATE_FILE** • **MIGRATE_BLOCK**

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Parameter	Type	Description
os_type	String	The OS type. This parameter is mandatory for creating a task and optional for updating a task. The value can be: • **WINDOWS** • **Linux**
id	String	The migration task ID. Minimum length: 0 characters Maximum length: 255 characters
priority	Integer	The migration process priority. **0**: low **1**: standard (default) **2**: high Minimum value: **0** Maximum value: **2** The value can be: • **0** • **1** • **2**
speed_limit	Integer	The migration rate limit. Minimum value: **0** Maximum value: **65535**
region_id	String	The ID of the region where the target server is located. Minimum length: 0 characters Maximum length: 255 characters
start_target_server	Boolean	Indicates whether the target server is started after the migration is complete. **true**: indicates that the target server will be launched after the migration is complete. **false**: indicates that the target server will be stopped after the migration is complete. Default value: **true**
enterprise_project_id	String	The enterprise project ID. Minimum length: 1 character Maximum length: 255 characters

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Parameter	Type	Description
migration_ip	String	The IP address of the target server. If you use a public network for migration, enter the EIP bound to the target server. If you use a private line for migration, enter the private IP address of the target server. Minimum length: 0 characters Maximum length: 255 characters
region_name	String	The name of the region where the target server is located. Minimum length: 0 characters Maximum length: 255 characters
project_name	String	The name of the project to which the target server belongs. Minimum length: 0 characters Maximum length: 255 characters
project_id	String	The ID of the project to which the target server belongs. Minimum length: 0 characters Maximum length: 255 characters
vm_template_id	String	The template ID. Minimum length: 0 characters Maximum length: 255 characters
source_server	**SourceServerResponse** object	The information about the source server in the migration task.
target_server	**TaskTargetServer** object	The information about the target server in the migration task.
state	String	The task status. Minimum length: 0 characters Maximum length: 255 characters
estimate_complete_time	Long	The estimated completion time. Minimum value: **0** Maximum value: **9223372036854775807**
connected	Boolean	The connection status.

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Parameter	Type	Description
create_date	Long	The task creation time. Minimum value: **0** Maximum value: **9223372036854775807**
start_date	Long	The task start time. Minimum value: **0** Maximum value: **9223372036854775807**
finish_date	Long	The task end time. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_speed	Double	The migration rate, in MB/s. Minimum value: **0** Maximum value: **10000**
compress_rate	Double	The compression rate. Minimum value: **0** Maximum value: **10000**
error_json	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters
total_time	Long	The task duration. Minimum value: **0** Maximum value: **9223372036854775807**
float_ip	String	Retain this parameter temporarily to ensure the compatibility with the SMS-Agent of the earlier version. Minimum length: 0 characters Maximum length: 255 characters
remain_seconds	Long	The remaining migration time, in seconds. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
target_snapshot_id	String	The ID of the snapshot for the target server. Minimum length: 0 characters Maximum length: 255 characters
clone_server	**CloneServer** object	The information about the cloned server.
sub_tasks	Array of **SubTask** objects	The list of subtasks included in the migration task. Array length: 0 to 65,535
network_check_info	**NetworkCheckInfoRequestBody** object	The network performance metrics and measurement results.
total_cpu_usage	Double	The CPU usage of the server, in percentage. Minimum value: **0** Maximum value: **100**
agent_cpu_usage	Double	The CPU usage of the Agent, in percentage. Minimum value: **0** Maximum value: **100**
total_mem_usage	Double	The memory usage of the server, in MB. Minimum value: **0** Maximum value: **1048576.0**
agent_mem_usage	Double	The memory usage of the Agent, in MB. Minimum value: **0** Maximum value: **1048576.0**
total_disk_io	Double	The disk I/O of the server, in MB/s. Minimum value: **0** Maximum value: **10000.0**
agent_disk_io	Double	The disk I/O of the Agent, in MB/s. Minimum value: **0** Maximum value: **10000.0**
need_migration_test	Boolean	Indicates whether migration drilling is enabled.

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Table 5-146 SourceServerResponse field description

Parameter	Type	Description
id	String	The ID of the source server in the SMS database. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The IP address of the source server. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The source server name in SMS. Minimum length: 0 characters Maximum length: 255 characters
os_type	String	The OS type of the source server, which can be Windows or Linux. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**
os_version	String	The OS version. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
oem_system	Boolean	Indicates whether the OS is an OEM version (Windows).

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Parameter	Type	Description
state	String	The source server status. **unavailable**: The source server fails the environment check. **waiting**: The source server is waiting for migration. **initialize**: The migration of the source server is being initialized. **replicate**: The source server is being replicated. **syncing**: The source server is being synchronized. **stopping**: The migration of the source server is being stopped. **stopped**: The migration of the source server is stopped. **skipping**: The operation is being skipped. **deleting**: The source server record is being deleted. **error**: An error occurs during the migration of the source server. **cloning**: The target server for the source server is being cloned. **testing**: The test is in progress. **finished**: The target server for the source server is launched. **clearing**: The snapshot resources are being cleared. **cleared**: The snapshot resources have been cleared. **clearfailed**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready. **premiging**: The migration drill is in progress. **premiged**: The migration drill has been completed. **premigfailed**: The migration drill fails. The value can be: • **unavailable** • **waiting** • **initialize**

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Parameter	Type	Description
		• **replicate** • **syncing** • **stopping** • **stopped** • **skipping** • **deleting** • **error** • **cloning** • **testing** • **finished** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**
migration_cycle	String	The current migration stage of the source server. **cutovering**: The target server for the source server is being launched. **cutovered**: The target server for the source server is launched. **checking**: The check is in progress. **setting**: The configuration is in progress. **replicating**: The data is being replicated. **syncing**: The incremental data is being synchronized. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **cutovering** • **cutovered** • **checking** • **setting** • **replicating** • **syncing**

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Table 5-147 TaskTargetServer field description

Parameter	Type	Description
id	String	The ID of the target server in the SMS database. Minimum length: 0 characters Maximum length: 255 characters
vm_id	String	The ID of the target server. This parameter is not required for automatically created target servers. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the target server. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The IP address of the target server. Minimum length: 0 characters Maximum length: 255 characters
os_type	String	The OS type of the source server, which can be Windows or Linux. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**
os_version	String	The OS version. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
system_dir	String	The system directory. This parameter is mandatory for Windows. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
disks	Array of **TargetDisk** objects	The disk information of the target server, which is generally the same as that of the source server. Array length: 0 to 65,535
volume_groups	Array of **VolumeGroups** objects	The logical volume information of the target server, which is generally the same as that of the source server. Array length: 0 to 65,535
btrfs_list	Array of strings	The information about Btrfs file systems on the source server. This parameter is mandatory for Linux. If there are no Btrfs file systems on the source server, the value is an empty array []. Minimum length: 0 characters Maximum length: 255 characters Array length: 0 to 65,535
image_disk_id	String	The ID of the disk that hosts the agent image on the target server. Minimum length: 0 characters Maximum length: 255 characters
cutovered_snapshot_ids	String	The ID of the snapshot used for rollback on the target server. Minimum length: 0 characters Maximum length: 255 characters

Table 5-148 TargetDisk field description

Parameter	Type	Description
id	Long	The disk ID. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
device_use	String	The partition function. The partition can be a general, boot, or OS partition. **BOOT**: boot device **OS**: system device **NORMAL**: general device Default value: **NORMAL** The value can be: • **NORMAL** • **OS** • **BOOT**
disk_id	String	The disk ID. Minimum length: 0 characters Maximum length: 255 characters
name	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters
physical_volumes	Array of **TargetPhysicalVolumes** objects	The logical volume information. Array length: 0 to 65,535
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
disk_index	String	The disk index. Minimum length: 0 characters Maximum length: 255 characters
os_disk	Boolean	Indicates whether the disk is the system disk.

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Parameter	Type	Description
partition_style	String	The disk partition type. This parameter is mandatory for source server registration. **MBR**: Master Boot Record (MBR) **GPT**: GUID Partition Table (GPT) The value can be: • **MBR** • **GPT**
relation_name	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters

Table 5-149 TargetPhysicalVolumes field description

Parameter	Type	Description
id	Long	The logical volume ID. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The partition function. **NORMAL**: general device **OS**: system device **BOOT**: boot device Default value: **NORMAL** The value can be: • **NORMAL** • **OS** • **BOOT**
file_system	String	The file system. Minimum length: 0 characters Maximum length: 255 characters
index	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**

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Parameter	Type	Description
mount_point	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	String	The UUID. Minimum length: 0 characters Maximum length: 255 characters
relation_name	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters
free_size	Long	The idle partition space. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-150 VolumeGroups field description

Parameter	Type	Description
components	String	The physical volume information. Minimum length: 0 characters Maximum length: 255 characters
free_size	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Type	Description
logical_volumes	Array of **LogicalVolumes** objects	The logical volume information. Array length: 0 to 255
name	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-151 LogicalVolumes field description

Parameter	Type	Description
block_count	Integer	The number of blocks. Minimum value: **0** Maximum value: **2147483647** Default value: **0**
block_size	Long	The block size. Minimum value: **0** Maximum value: **1048576** Default value: **0**
file_system	String	The file system. Minimum length: 0 characters Maximum length: 255 characters
inode_size	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**
inode_nums	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
mount_point	String	The mount point. Minimum length: 0 characters Maximum length: 256 characters
name	String	The name. Minimum length: 0 characters Maximum length: 1,024 characters
size	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
free_size	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-152 CloneServer field description

Parameter	Type	Description
vm_id	String	The ID of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
name	String	The name of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
clone_error	String	The error returned for a clone failure. Minimum length: 0 characters Maximum length: 255 characters
clone_state	String	The clone status. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message returned for a clone failure. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-153 SubTask field description

Parameter	Type	Description
id	Long	The subtask ID. Minimum value: **0** Maximum value: **9223372036854775807**
name	String	The subtask name. Minimum length: 0 characters Maximum length: 255 characters
progress	Integer	The progress of the subtask. The value is an integer ranging from 0 to 100. Minimum value: **0** Maximum value: **100**
start_date	Long	The start time of the subtask. Minimum value: **0** Maximum value: **9223372036854775807**
end_date	Long	The end time of the subtask. If the subtask is not complete, this parameter is left blank. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_speed	Double	The migration speed, in Mbit/s. Minimum value: **0** Maximum value: **10000**
user_op	String	The user operation that triggers the subtask. Minimum length: 0 characters Maximum length: 50 characters

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Parameter	Type	Description
process_trace	String	The detailed progress of the migration or synchronization. Minimum length: 0 characters Maximum length: 2,048 characters

Table 5-154 NetworkCheckInfoRequestBody field description

Parameter	Type	Description
domain_connectivity	Boolean	The connectivity to domain names.
destination_connectivity	Boolean	The connectivity to the target server.
network_delay	Double	The network latency. Minimum value: **0** Maximum value: **10000.0**
network_jitter	Double	The network jitter. Minimum value: **0** Maximum value: **10000**
migration_speed	Double	The bandwidth. Minimum value: **0** Maximum value: **10000**
loss_percentage	Double	The packet loss rate. Minimum value: **0** Maximum value: **100**
cpu_usage	Double	The CPU usage. Minimum value: **0** Maximum value: **100**
mem_usage	Double	The memory usage. Minimum value: **0** Maximum value: **100**
evaluation_result	String	The network evaluation result. Minimum length: 6 characters Maximum length: 8 characters

Status code: 403

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Table 5-155 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-156 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example queries a migration task with a specified ID.

```
GET https://{endpoint}/v3/tasks/ef3b9722-07a0-40ae-89b0-889ee96dfc56
```

Example Response

Status code: 200

The migration task with a specified ID was queried successfully.

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```
{
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "name" : "MigrationTask",
  "type" : "MIGRATE_BLOCK",
  "os_type" : "WINDOWS",
  "state" : "RUNNING",
  "estimate_complete_time" : null,
  "create_date" : 1598435778000,
  "start_date" : 1598435784000,
  "finish_date" : null,
  "priority" : 1,
  "speed_limit" : 0,
  "migrate_speed" : 0.0,
  "start_target_server" : true,
  "error_json" : "",
  "total_time" : 115,
  "float_ip" : null,
  "migration_ip" : null,
  "vm_template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "region_name" : "region name",
  "region_id" : "region id",
  "project_name" : "project name",
  "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
  "sub_tasks" : [ {
    "id" : 7278,
    "name" : "CREATE_CLOUD_SERVER",
    "progress" : 0,
    "start_date" : 1598435802000,
    "end_date" : null,
    "user_op" : "REPLICATE",
    "process_trace" : null
  }, {
    "id" : 7279,
    "name" : "SSL_CONFIG",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE",
    "process_trace" : null
  }, {
    "id" : 7280,
    "name" : "ATTACH_AGENT_IMAGE",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE",
    "process_trace" : null
  }, {
    "id" : 7281,
    "name" : "FORMAT_DISK_WINDOWS",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE",
    "process_trace" : null
  }, {
    "id" : 7282,
    "name" : "MIGRATE_WINDOWS_BLOCK",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE",
    "process_trace" : null
  } ],
  "source_server" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "ip" : "192.168.0.154",
    "name" : "name-win16",
    "os_type" : "WINDOWS",
```


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```
    "os_version" : "WINDOWS2016_64BIT",
    "oem_system" : false,
    "state" : "initialize",
    "migration_cycle" : "replicating"
  },
  "target_server" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "vm_id" : "",
    "name" : "",
    "ip" : null,
    "os_type" : "WINDOWS",
    "os_version" : "WINDOWS2016_64BIT",
    "system_dir" : "Y:\\Windows\\System32",
    "disks" : [ {
      "id" : 88008,
      "name" : "Disk 1",
      "relation_name" : null,
      "disk_id" : "0",
      "partition_style" : "MBR",
      "size" : 42949672960,
      "used_size" : 42947575808,
      "device_use" : "OS",
      "os_disk" : true,
      "physical_volumes" : [ {
        "id" : 135055,
        "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-100000000000}\\",
        "index" : 1,
        "name" : "Z:",
        "relation_name" : null,
        "device_use" : "BOOT",
        "file_system" : "NTFS",
        "mount_point" : null,
        "size" : 524288000,
        "used_size" : 410275840,
        "free_size" : 114012160
      }, {
        "id" : 135056,
        "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-501f00000000}\\",
        "index" : 2,
        "name" : "Y:",
        "relation_name" : null,
        "device_use" : "OS",
        "file_system" : "NTFS",
        "mount_point" : null,
        "size" : 42423287808,
        "used_size" : 23170301952,
        "free_size" : 19252985856
      } ],
      "disk_index" : "0"
    } ],
    "volume_groups" : [ ],
    "image_disk_id" : null,
    "cutovered_snapshot_ids" : null
  },
  "clone_server" : null
}
```


Status code: 403

Authentication failed.


```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
```


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```
 } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowTaskSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowTaskRequest request = new ShowTaskRequest();
        request.withTaskId("{task_id}");
        try {
            ShowTaskResponse response = client.showTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
```

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```
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowTaskRequest()
        request.task_id = "{task_id}"
        response = client.show_task(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

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```
  }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The migration task with a specified ID was queried successfully.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.6 Updating a Migration Task

Function

This API is used to update a migration task with a specified ID.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/tasks/{task_id}

Table 5-157 Path parameter

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

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Request

Table 5-158 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-159 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	The task name, which is defined by the user. Minimum length: 0 characters Maximum length: 255 characters
type	No	String	The task type. This parameter is mandatory for creating a task and optional for updating a task. **MIGRATE_FILE**: file-level migration **MIGRATE_BLOCK**: block-level migration Minimum length: 0 characters Maximum length: 255 characters The value can be: • **MIGRATE_FILE** • **MIGRATE_BLOCK**

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Parameter	Mandatory	Type	Description
os_type	No	String	The OS type. This parameter is mandatory for creating a task and optional for updating a task. The value can be: • **WINDOWS** • **Linux**
id	No	String	The migration task ID. Minimum length: 0 characters Maximum length: 255 characters
priority	No	Integer	The migration process priority. **0**: low **1**: standard (default) **2**: high Minimum value: **0** Maximum value: **2** The value can be: • **0** • **1** • **2**
region_id	No	String	The ID of the region where the target server is located. Minimum length: 0 characters Maximum length: 255 characters
start_target_server	No	Boolean	Indicates whether the target server is started after the migration is complete. **true**: indicates that the target server will be launched after the migration is complete. **false**: indicates that the target server will be stopped after the migration is complete. Default value: **true**
enterprise_project_id	No	String	The enterprise project ID. Minimum length: 1 character Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
exist_server	No	Boolean	Indicates whether an existing server is used as the target server. **true** indicates that an existing server is used as the target server. **false** indicates that the target server is newly created.
migration_ip	No	String	The IP address of the target server. If you use a public network for migration, enter the EIP bound to the target server. If you use a private line for migration, enter the private IP address of the target server. Minimum length: 0 characters Maximum length: 255 characters
region_name	No	String	The name of the region where the target server is located. Minimum length: 0 characters Maximum length: 255 characters
speed_limit	No	Integer	The migration rate limit, in Mbit/s. Minimum value: **0** Maximum value: **10000**
project_name	No	String	The name of the project to which the target server belongs. Minimum length: 0 characters Maximum length: 255 characters
project_id	No	String	The ID of the project to which the target server belongs. Minimum length: 0 characters Maximum length: 255 characters
vm_template_id	No	String	The template ID. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
source_server	No	**PostSourceServerBody** object	The information about the source server in the migration task.
target_server	No	**TargetServer** object	The information about the target server in the migration task.
state	No	String	The task status. Minimum length: 0 characters Maximum length: 255 characters
estimate_complete_time	No	Long	The estimated completion time. Minimum value: **0** Maximum value: **9223372036854775807**
connected	No	Boolean	The connection status.
create_date	No	Long	The task creation time. Minimum value: **0** Maximum value: **9223372036854775807**
start_date	No	Long	The task start time. Minimum value: **0** Maximum value: **9223372036854775807**
finish_date	No	Long	The task end time. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_speed	No	Double	The migration rate, in MB/s. Minimum value: **0** Maximum value: **10000**
error_json	No	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

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Parameter	Mandatory	Type	Description
total_time	No	Long	The task duration. Minimum value: **0** Maximum value: **9223372036854775807**
float_ip	No	String	Retain this parameter temporarily to ensure the compatibility with the SMS-Agent of the earlier version. Minimum length: 0 characters Maximum length: 255 characters
remain_seconds	No	Long	The remaining migration time, in seconds. Minimum value: **0** Maximum value: **9223372036854775807**
target_snapshot_id	No	String	The ID of the snapshot for the target server. Minimum length: 0 characters Maximum length: 255 characters
clone_server	No	**CloneServer** object	The information about the cloned server.
sub_tasks	No	Array of **SubTask** objects	The list of subtasks included in the migration task. Array length: 0 to 65,535

Table 5-160 PostSourceServerBody field description

Parameter	Mandatory	Type	Description
id	No	String	The ID of the source server in the SMS database. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
ip	No	String	The IP address of the source server. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The source server name in SMS. Minimum length: 0 characters Maximum length: 255 characters
hostname	No	String	The hostname of the source server. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters
os_type	No	String	The OS type of the source server, which can be Windows or Linux. This parameter is mandatory for registering the source server with SMS and optional for updating the information about the source server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**

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Parameter	Mandatory	Type	Description
os_version	No	String	The OS version. This parameter is mandatory for registration and optional for updates. Minimum length: 0 characters Maximum length: 255 characters
virtualization_type	No	String	The OS virtualization type. Minimum length: 0 characters Maximum length: 255 characters
linux_block_check	No	String	The Linux block-level check. Minimum length: 0 characters Maximum length: 255 characters
firmware	No	String	The boot mode of the source server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **BIOS** • **UEFI**
cpu_quantity	No	Integer	The number of vCPUs. Minimum value: **0** Maximum value: **65535**
memory	No	Long	The memory size, in MB. Minimum value: **0** Maximum value: **9223372036854775807**
disks	No	Array of **ServerDisk** objects	The information about disks on the source server. Array length: 0 to 65,535

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Parameter	Mandatory	Type	Description
btrfs_list	No	Array of **BtrfsFileSystem** objects	The information about Btrfs file systems on the source server. This parameter is mandatory for Linux. If there are no Btrfs file systems on the source server, the value is an empty array []. Array length: 0 to 65,535
networks	No	Array of **NetWork** objects	The information about NICs on the source server. Array length: 0 to 65,535
domain_id	No	String	The tenant domain ID. Minimum length: 0 characters Maximum length: 255 characters
has_rsync	No	Boolean	Indicates whether rsync is installed. This parameter is mandatory for Linux.
paravirtualization	No	Boolean	Indicates whether the source server is paravirtualized. This parameter is mandatory for Linux.
raw_devices	No	String	The list of raw devices. This parameter is mandatory for Linux. Minimum length: 0 characters Maximum length: 255 characters
driver_files	No	Boolean	Indicates whether any driver files are missing. This parameter is mandatory for Windows.
system_services	No	Boolean	Indicates whether there are abnormal services. This parameter is mandatory for Windows.
account_rights	No	Boolean	Indicates whether the account has the required permissions. This parameter is mandatory for Windows.

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Parameter	Mandatory	Type	Description
boot_loader	No	String	The system boot loader. This parameter is mandatory for Linux. The value can be: • **GRUB** • **LILO**
system_dir	No	String	The system directory. This parameter is mandatory for Windows. Minimum length: 0 characters Maximum length: 255 characters
volume_groups	No	Array of **VolumeGroups** objects	This parameter is mandatory for Linux. If there are no volume groups, the value is an empty array []. Array length: 0 to 65,535
agent_version	No	String	The Agent version. Minimum length: 0 characters Maximum length: 255 characters
kernel_version	No	String	The kernel version. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
migration_cycle	No	String	The current migration stage of the source server. **cutovering**: The target server for the source server is being launched. **cutovered**: The target server for the source server is launched. **checking**: The check is in progress. **setting**: The configuration is in progress. **replicating**: The data is being replicated. **syncing**: The incremental data is being synchronized. The value can be: • **cutovering** • **cutovered** • **checking** • **setting** • **replicating** • **syncing**

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Parameter	Mandatory	Type	Description
state	No	String	The source server status. **unavailable**: The source server fails the environment check. **waiting**: The source server is waiting for migration. **initialize**: The migration of the source server is being initialized. **replicate**: The source server is being replicated. **syncing**: The source server is being synchronized. **stopping**: The migration of the source server is being stopped. **stopped**: The migration of the source server is stopped. **skipping**: The operation is being skipped. **deleting**: The source server record is being deleted. **error**: An error occurs during the migration of the source server. **cloning**: The target server for the source server is being cloned. **cutovering**: The target server for the source server is being launched. **finished**: The target server for the source server is launched. **clearing**: The snapshot resources are being cleared. **cleared**: The snapshot resources have been cleared. **clearfailed**: The snapshot resources fail to be cleared. **premigready**: The migration drill is ready. **premiging**: The migration drill is in progress. **premiged**: The migration drill has been completed.

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Parameter	Mandatory	Type	Description
			premigfailed: The migration drill fails. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **unavailable** • **waiting** • **initialize** • **replicate** • **syncing** • **stopping** • **stopped** • **skipping** • **deleting** • **error** • **cloning** • **cutovering** • **finished** • **clearing** • **cleared** • **clearfailed** • **premigready** • **premiging** • **premiged** • **premigfailed**
oem_system	No	Boolean	Indicates whether the OS is an OEM version (Windows).
start_type	No	String	The startup mode. The value can be **MANUAL**, **MGC**, or an empty string ("""). The value can be: • **MANUAL** • **MGC**
io_read_wait	No	Double	The disk read latency (in ms). Minimum value: **0.0** Maximum value: **10000.0**

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Parameter	Mandatory	Type	Description
has_tc	No	Boolean	Indicates whether TC is installed. This parameter is mandatory for Linux.
platform	No	String	The platform. **hw**: Huawei Cloud **ali**: Alibaba Cloud **aws**: AWS **azure**: Microsoft Azure **gcp**: Google Cloud **tencent**: Tencent Cloud **vmware**: VMware **hyperv**: Hyper-V **other**: other providers The value can be: • **hw** • **ali** • **aws** • **azure** • **gcp** • **tencent** • **vmware**: VMware • **hyperv**: Hyper-V • **other**: other providers

Table 5-161 ServerDisk field description

Parameter	Mandatory	Type	Description
name	Yes	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
partition_style	No	String	The disk partition type. This parameter is mandatory for source server registration. **MBR**: Master Boot Record (MBR) **GPT**: GUID Partition Table (GPT) The value can be: • **MBR** • **GPT**
device_use	Yes	String	The disk function. **BOOT**: boot device **OS**: system device The value can be: • **BOOT** • **OS**
size	Yes	Long	The disk size, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Yes	Long	The used disk space, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
physical_volumes	Yes	Array of **PhysicalVolume** objects	The information about physical partitions on the disk. Array length: 0 to 65,535
os_disk	No	Boolean	Indicates whether the disk is the system disk.
relation_name	No	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters
inode_size	No	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

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Table 5-162 PhysicalVolume field description

Parameter	Mandatory	Type	Description
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
file_system	No	String	The file system type. Minimum length: 0 characters Maximum length: 255 characters
index	No	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**
mount_point	No	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The volume name. In Windows, it indicates the drive letter, and in Linux, it indicates the device ID. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	No	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
inode_size	No	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

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Parameter	Mandatory	Type	Description
inode_nums	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	No	String	The GUID, which can be obtained from the source server. Minimum length: 0 characters Maximum length: 255 characters
size_per_cluster	No	Integer	The size of each cluster. Minimum value: **0** Maximum value: **2147483647**

Table 5-163 TargetServer field description

Parameter	Mandatory	Type	Description
id	No	String	The ID of the server in the SMS database. Minimum length: 0 characters Maximum length: 255 characters
ip	Yes	String	The IP address of the server. This parameter is mandatory for registration and optional for updates. Minimum length: 0 characters Maximum length: 255 characters
name	Yes	String	The server name. Minimum length: 0 characters Maximum length: 255 characters
hostname	No	String	The hostname of the server. This parameter is mandatory for registration and optional for updates. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
os_type	Yes	String	The OS type of the server. This parameter is mandatory for registration and optional for updates. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **WINDOWS** • **Linux**
os_version	No	String	The OS version. This parameter is mandatory for registration and optional for updates. Minimum length: 0 characters Maximum length: 255 characters
firmware	No	String	The boot mode of the server. Minimum length: 0 characters Maximum length: 255 characters The value can be: • **BIOS** • **UEFI**
cpu_quantity	No	Integer	The number of vCPUs. Minimum value: **0** Maximum value: **65535**
memory	No	Long	The memory size, in MB. Minimum value: **0** Maximum value: **9223372036854775807**
btrfs_list	No	Array of **BtrfsFileSystem** objects	The Btrfs information of the server, which is mandatory for Linux. If there are no Btrfs file systems on the server, the value is an empty array []. Array length: 0 to 65,535
networks	No	Array of **NetWork** objects	The information about NICs on the server. Array length: 0 to 65,535

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Parameter	Mandatory	Type	Description
domain_id	No	String	The tenant domain ID. Minimum length: 0 characters Maximum length: 255 characters
has_rsync	No	Boolean	Indicates whether rsync is installed. This parameter is mandatory for Linux.
paravirtualization	No	Boolean	Indicates whether the source server is paravirtualized. This parameter is mandatory for Linux.
raw_devices	No	String	The list of raw devices. This parameter is mandatory for Linux. Minimum length: 0 characters Maximum length: 255 characters
driver_files	No	Boolean	Indicates whether any driver files are missing. This parameter is mandatory for Windows.
system_services	No	Boolean	Indicates whether there are abnormal services. This parameter is mandatory for Windows.
account_rights	No	Boolean	Indicates whether the account has the required permissions. This parameter is mandatory for Windows.
boot_loader	No	String	The system boot loader. This parameter is mandatory for Linux. The value can be: • **GRUB** • **LILO**
system_dir	No	String	The system directory. This parameter is mandatory for Windows. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
volume_groups	No	Array of **VolumeGroups** objects	This parameter is mandatory for Linux. If there are no volume groups, the value is an empty array []. Array length: 0 to 65,535
vm_id	No	String	The ID of the target server. This parameter is not required for automatically created target servers. Minimum length: 0 characters Maximum length: 255 characters
flavor	No	String	The flavor of the target server. Minimum length: 0 characters Maximum length: 255 characters
disks	Yes	Array of **TargetDisk** objects	The disk information of the target server, which is generally the same as that of the source server. Array length: 0 to 65,535
image_disk_id	No	String	The ID of the disk that hosts the agent image on the target server. Minimum length: 0 characters Maximum length: 255 characters
snapshot_ids	No	String	The ID of the snapshot for the target server. Minimum length: 0 characters Maximum length: 255 characters
cutovered_snapshot_ids	No	String	The ID of the snapshot used for rollback on the target server. Minimum length: 0 characters Maximum length: 255 characters

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Table 5-164 BtrfsFileSystem field description

Parameter	Mandatory	Type	Description
name	Yes	String	The file system name. Minimum length: 0 characters Maximum length: 255 characters
label	Yes	String	The file system tag. If no tag exists, the value is an empty string. Minimum length: 0 characters Maximum length: 255 characters
uuid	Yes	String	The UUID of the file system. Minimum length: 0 characters Maximum length: 255 characters
device	Yes	String	The device names of the Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
size	Yes	Long	The space occupied by the file system. Minimum value: **0** Maximum value: **9223372036854775807**
nodesize	Yes	Long	The Btrfs node size. Minimum value: **0** Maximum value: **9223372036854775807**
sectorsize	Yes	Integer	The sector size. Minimum value: **0** Maximum value: **2147483647**
data_profile	Yes	String	The data profile (RAD). Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
system_profile	Yes	String	The file system profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
metadata_profile	Yes	String	The metadata profile (RAD). Minimum length: 0 characters Maximum length: 255 characters
global_reserve1	Yes	String	The Btrfs file system information. Minimum length: 0 characters Maximum length: 255 characters
g_vol_used_size	Yes	Long	The used space of the Btrfs volume. Minimum value: **0** Maximum value: **9223372036854775807**
default_subvolid	Yes	String	The ID of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_name	Yes	String	The name of the default subvolume. Minimum length: 0 characters Maximum length: 255 characters
default_subvol_mountpath	Yes	String	The mount path of the default subvolume or Btrfs file system. Minimum length: 0 characters Maximum length: 255 characters
subvolumn	Yes	Array of **BtrfsSubvolumn** objects	The subvolume information. Array length: 0 to 65,535

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Table 5-165 BtrfsSubvolumn field description

Parameter	Mandatory	Type	Description
uuid	Yes	String	The UUID of the parent volume. Minimum length: 0 characters Maximum length: 255 characters
is_snapshot	Yes	String	Indicates whether the subvolume is a snapshot. Minimum length: 0 characters Maximum length: 255 characters
subvol_id	Yes	String	The subvolume ID. Minimum length: 0 characters Maximum length: 255 characters
parent_id	Yes	String	The parent volume ID. Minimum length: 0 characters Maximum length: 255 characters
subvol_name	Yes	String	The subvolume name. Minimum length: 0 characters Maximum length: 255 characters
subvol_mount_path	Yes	String	The mount path of the subvolume. Minimum length: 0 characters Maximum length: 255 characters

Table 5-166 NetWork field description

Parameter	Mandatory	Type	Description
name	Yes	String	The NIC name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
ip	Yes	String	The IP address bound to the NIC. Minimum length: 0 characters Maximum length: 255 characters
ipv6	No	String	The IPv6 address. Minimum length: 0 characters Maximum length: 255 characters
netmask	Yes	String	The subnet mask. Minimum length: 0 characters Maximum length: 255 characters
gateway	Yes	String	The gateway. Minimum length: 0 characters Maximum length: 255 characters
mtu	No	Integer	The NIC MTU. This parameter is mandatory for Linux. Minimum value: **0** Maximum value: **2147483647**
mac	Yes	String	The MAC address. Minimum length: 0 characters Maximum length: 255 characters
id	No	String	The database record ID. Minimum length: 0 characters Maximum length: 255 characters

Table 5-167 VolumeGroups field description

Parameter	Mandatory	Type	Description
components	No	String	The physical volume information. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
free_size	No	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**
logical_volumes	No	Array of **LogicalVolumes** objects	The logical volume information. Array length: 0 to 255
name	No	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-168 LogicalVolumes field description

Parameter	Mandatory	Type	Description
block_count	No	Integer	The number of blocks. Minimum value: **0** Maximum value: **2147483647** Default value: **0**
block_size	No	Long	The block size. Minimum value: **0** Maximum value: **1048576** Default value: **0**
file_system	Yes	String	The file system. Minimum length: 0 characters Maximum length: 255 characters
inode_size	Yes	Integer	The number of inodes. Minimum value: **0** Maximum value: **2147483647**

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Parameter	Mandatory	Type	Description
inode_nums	No	Long	The number of inodes. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. Minimum length: 0 characters Maximum length: 255 characters
mount_point	Yes	String	The mount point. Minimum length: 0 characters Maximum length: 256 characters
name	Yes	String	The name. Minimum length: 0 characters Maximum length: 1,024 characters
size	Yes	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	Yes	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
free_size	Yes	Long	The available space. Minimum value: **0** Maximum value: **9223372036854775807**

Table 5-169 TargetDisk field description

Parameter	Mandatory	Type	Description
id	No	Long	The disk ID. Minimum value: **0** Maximum value: **9223372036854775807**

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Parameter	Mandatory	Type	Description
device_use	No	String	The partition function. The partition can be a general, boot, or OS partition. **BOOT**: boot device **OS**: system device **NORMAL**: general device Default value: **NORMAL** The value can be: • **NORMAL** • **OS** • **BOOT**
disk_id	No	String	The disk ID. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters
physical_volumes	No	Array of **TargetPhysicalVolumes** objects	The logical volume information. Array length: 0 to 65,535
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	No	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
disk_index	No	String	The disk index. Minimum length: 0 characters Maximum length: 255 characters
os_disk	No	Boolean	Indicates whether the disk is the system disk.

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Parameter	Mandatory	Type	Description
partition_style	No	String	The disk partition type. This parameter is mandatory for source server registration. **MBR**: Master Boot Record (MBR) **GPT**: GUID Partition Table (GPT) The value can be: • **MBR** • **GPT**
relation_name	No	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters

Table 5-170 TargetPhysicalVolumes field description

Parameter	Mandatory	Type	Description
id	No	Long	The logical volume ID. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	No	String	The partition function. **NORMAL**: general device **OS**: system device **BOOT**: boot device Default value: **NORMAL** The value can be: • **NORMAL** • **OS** • **BOOT**
file_system	No	String	The file system. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
index	No	Integer	The serial number. Minimum value: **0** Maximum value: **2147483647**
mount_point	No	String	The mount point. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The name. Minimum length: 0 characters Maximum length: 255 characters
size	No	Long	The size. Minimum value: **0** Maximum value: **9223372036854775807**
used_size	No	Long	The used space. Minimum value: **0** Maximum value: **9223372036854775807**
uuid	No	String	The UUID. Minimum length: 0 characters Maximum length: 255 characters
relation_name	No	String	The name of the paired target server disk in Linux. Minimum length: 0 characters Maximum length: 255 characters
free_size	No	Long	The idle partition space. Minimum value: **0** Maximum value: **9223372036854775807**

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Table 5-171 CloneServer field description

Parameter	Mandatory	Type	Description
vm_id	No	String	The ID of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
name	No	String	The name of the cloned server. Minimum length: 0 characters Maximum length: 255 characters
clone_error	No	String	The error returned for a clone failure. Minimum length: 0 characters Maximum length: 255 characters
clone_state	No	String	The clone status. Minimum length: 0 characters Maximum length: 255 characters
error_msg	No	String	The error message returned for a clone failure. Minimum length: 0 characters Maximum length: 1,024 characters

Table 5-172 SubTask field description

Parameter	Mandatory	Type	Description
id	No	Long	The subtask ID. Minimum value: **0** Maximum value: **9223372036854775807**
name	No	String	The subtask name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
progress	Yes	Integer	The progress of the subtask. The value is an integer ranging from 0 to 100. Minimum value: **0** Maximum value: **100**
start_date	No	Long	The start time of the subtask. Minimum value: **0** Maximum value: **9223372036854775807**
end_date	No	Long	The end time of the subtask. If the subtask is not complete, this parameter is left blank. Minimum value: **0** Maximum value: **9223372036854775807**
migrate_speed	No	Double	The migration speed, in Mbit/s. Minimum value: **0** Maximum value: **10000**
user_op	No	String	The user operation that triggers the subtask. Minimum length: 0 characters Maximum length: 50 characters
process_trace	No	String	The detailed progress of the migration or synchronization. Minimum length: 0 characters Maximum length: 2,048 characters

Response

Status code: 200

Table 5-173 Response body parameters

Parameter	Type	Description
id	String	The task ID. Minimum length: 1 character Maximum length: 255 characters

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Status code: 403

Table 5-174 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-175 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example updates the migration task whose ID is **ef3b9722-07a0-40ae-89b0-889ee96dxxxx**.

```
put https://{endpoint}/v3/tasks/ef3b9722-07a0-40ae-89b0-889ee96dxxxx
```

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```
{
  "name" : "MigrationTask",
  "type" : "MIGRATE_BLOCK",
  "os_type" : "WINDOWS",
  "state" : "RUNNING",
  "estimate_complete_time" : null,
  "create_date" : 1598435778000,
  "start_date" : 1598435784000,
  "finish_date" : null,
  "priority" : 1,
  "speed_limit" : 0,
  "migrate_speed" : 0.0,
  "start_target_server" : true,
  "error_json" : "",
  "total_time" : 115,
  "float_ip" : null,
  "migration_ip" : null,
  "vm_template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "region_name" : "region name",
  "region_id" : "region id",
  "project_name" : "project name",
  "project_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
  "sub_tasks" : [ {
    "id" : 7278,
    "name" : "CREATE_CLOUD_SERVER",
    "progress" : 0,
    "start_date" : 1598435802000,
    "end_date" : null,
    "user_op" : "REPLICATE"
  }, {
    "id" : 7279,
    "name" : "SSL_CONFIG",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE"
  }, {
    "id" : 7280,
    "name" : "ATTACH_AGENT_IMAGE",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE"
  }, {
    "id" : 7281,
    "name" : "FORMAT_DISK_WINDOWS",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE"
  }, {
    "id" : 7282,
    "name" : "MIGRATE_WINDOWS_BLOCK",
    "progress" : 0,
    "start_date" : null,
    "end_date" : null,
    "user_op" : "REPLICATE"
  } ],
  "source_server" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "ip" : "192.168.0.154",
    "name" : "name-win16",
    "os_type" : "WINDOWS",
    "os_version" : "WINDOWS2016_64BIT",
    "agent_version" : "1.2.0",
    "oem_system" : false,
    "state" : "initialize",
    "migration_cycle" : "replicating"
  },
```


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```
 "target_server" : {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "vm_id" : "",
  "name" : "",
  "ip" : null,
  "os_type" : "WINDOWS",
  "os_version" : "WINDOWS2016_64BIT",
  "system_dir" : "Y:\\Windows\\System32",
  "disks" : [ {
   "id" : 88008,
   "name" : "Disk 1",
   "relation_name" : null,
   "disk_id" : "0",
   "partition_style" : "MBR",
   "size" : 42949672960,
   "used_size" : 42947575808,
   "device_use" : "OS",
   "os_disk" : true,
   "physical_volumes" : [ {
    "id" : 135055,
    "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-100000000000}\\",
    "index" : 1,
    "name" : "Z:",
    "relation_name" : null,
    "device_use" : "BOOT",
    "file_system" : "NTFS",
    "mount_point" : null,
    "size" : 524288000,
    "used_size" : 410275840,
    "free_size" : 114012160
   }, {
    "id" : 135056,
    "uuid" : "\\\\?\\Volume{586b7157-0000-0000-0000-501f00000000}\\",
    "index" : 2,
    "name" : "Y:",
    "relation_name" : null,
    "device_use" : "OS",
    "file_system" : "NTFS",
    "mount_point" : null,
    "size" : 42423287808,
    "used_size" : 23170301952,
    "free_size" : 19252985856
   } ],
   "disk_index" : "0"
  } ],
  "volume_groups" : [ ],
  "image_disk_id" : null,
  "cutovered_snapshot_ids" : null
 },
 "clone_server" : null
}
```


Example Response

Status code: 200

The migration task with a specified ID was updated.


```
{
 "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
}
```


Status code: 403

Authentication failed.


```
{
 "error_code" : "SMS.9004",
 "error_msg" : "The current account does not have the permission to execute policy You do not have
```


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```
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example updates the migration task whose ID is **ef3b9722-07a0-40ae-89b0-889ee96dxxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class UpdateTaskSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskRequest request = new UpdateTaskRequest();
        request.withTaskId("{task_id}");
        PutTaskReq body = new PutTaskReq();
        List<SubTask> listbodySubTasks = new ArrayList<>();
        listbodySubTasks.add(
            new SubTask()
                .withId(7278L)
                .withName("CREATE_CLOUD_SERVER")
                .withProgress(0)
                .withStartDate(1598435802000L)
                .withUserOp("REPLICATE")
        );
        listbodySubTasks.add(
            new SubTask()
                .withId(7279L)
                .withName("SSL_CONFIG")
```

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```
        .withProgress(0)
        .withUserOp("REPLICATE")
);
listbodySubTasks.add(
    new SubTask()
        .withId(7280L)
        .withName("ATTACH_AGENT_IMAGE")
        .withProgress(0)
        .withUserOp("REPLICATE")
);
listbodySubTasks.add(
    new SubTask()
        .withId(7281L)
        .withName("FORMAT_DISK_WINDOWS")
        .withProgress(0)
        .withUserOp("REPLICATE")
);
listbodySubTasks.add(
    new SubTask()
        .withId(7282L)
        .withName("MIGRATE_WINDOWS_BLOCK")
        .withProgress(0)
        .withUserOp("REPLICATE")
);
List<TargetPhysicalVolumes> listDisksPhysicalVolumes = new ArrayList<>();
listDisksPhysicalVolumes.add(
    new TargetPhysicalVolumes()
        .withId(135055L)
        .withDeviceUse(TargetPhysicalVolumes.DeviceUseEnum.fromValue("BOOT"))
        .withFileSystem("NTFS")
        .withIndex(1)
        .withName("Z:")
        .withSize(524288000L)
        .withUsedSize(410275840L)
        .withUuid("\\?\Volume{586b7157-0000-0000-0000-100000000000}\")
        .withFreeSize(114012160L)
);
listDisksPhysicalVolumes.add(
    new TargetPhysicalVolumes()
        .withId(135056L)
        .withDeviceUse(TargetPhysicalVolumes.DeviceUseEnum.fromValue("OS"))
        .withFileSystem("NTFS")
        .withIndex(2)
        .withName("Y:")
        .withSize(42423287808L)
        .withUsedSize(23170301952L)
        .withUuid("\\?\Volume{586b7157-0000-0000-0000-501f00000000}\")
        .withFreeSize(19252985856L)
);
List<TargetDisk> listTargetServerDisks = new ArrayList<>();
listTargetServerDisks.add(
    new TargetDisk()
        .withId(88008L)
        .withDeviceUse(TargetDisk.DeviceUseEnum.fromValue("OS"))
        .withDiskId("0")
        .withName("Disk 1")
        .withPhysicalVolumes(listDisksPhysicalVolumes)
        .withSize(42949672960L)
        .withUsedSize(42947575808L)
        .withDiskIndex("0")
        .withOsDisk(true)
        .withPartitionStyle(TargetDisk.PartitionStyleEnum.fromValue("MBR"))
);
TargetServer targetServerbody = new TargetServer();
targetServerbody.withDisks(listTargetServerDisks)
    .withVolumeGroups()
    .withVmId("")
    .withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
    .withOsVersion("WINDOWS2016_64BIT")
```

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```
            .withSystemDir("Y:\Windows\System32")
            .withOsType(TargetServer.OsTypeEnum.fromValue("WINDOWS"))
            .withName("");
        PostSourceServerBody sourceServerbody = new PostSourceServerBody();
        sourceServerbody.withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withIp("192.168.0.154")
            .withName("name-win16")
            .withOsType(PostSourceServerBody.OsTypeEnum.fromValue("WINDOWS"))
            .withOsVersion("WINDOWS2016_64BIT")
            .withAgentVersion("1.2.0")
            .withMigrationCycle(PostSourceServerBody.MigrationCycleEnum.fromValue("replicating"))
            .withState(PostSourceServerBody.StateEnum.fromValue("initialize"))
            .withOemSystem(false);
        body.withSubTasks(listbodySubTasks);
        body.withTotalTime(115L);
        body.withErrorJson("");
        body.withMigrateSpeed((double)0.0);
        body.withStartDate(1598435784000L);
        body.withCreateDate(1598435778000L);
        body.withState("RUNNING");
        body.withTargetServer(targetServerbody);
        body.withSourceServer(sourceServerbody);
        body.withVmTemplateId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001");
        body.withProjectId("xxxxxxxxxxxxxxxxxxxxxxxx00000001");
        body.withProjectName("project name");
        body.withSpeedLimit(0);
        body.withRegionName("region name");
        body.withStartTargetServer(true);
        body.withRegionId("region id");
        body.withPriority(PutTaskReq.PriorityEnum.NUMBER_1);
        body.withOsType(PutTaskReq.OsTypeEnum.fromValue("WINDOWS"));
        body.withType(PutTaskReq.TypeEnum.fromValue("MIGRATE_BLOCK"));
        body.withName("MigrationTask");
        request.withBody(body);
        try {
            UpdateTaskResponse response = client.updateTask(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example updates the migration task whose ID is **ef3b9722-07a0-40ae-89b0-889ee96dxxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

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```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskRequest()
        request.task_id = "{task_id}"
        listSubTasksbody = [
            SubTask(
                id=7278,
                name="CREATE_CLOUD_SERVER",
                progress=0,
                start_date=1598435802000,
                user_op="REPLICATE"
            ),
            SubTask(
                id=7279,
                name="SSL_CONFIG",
                progress=0,
                user_op="REPLICATE"
            ),
            SubTask(
                id=7280,
                name="ATTACH_AGENT_IMAGE",
                progress=0,
                user_op="REPLICATE"
            ),
            SubTask(
                id=7281,
                name="FORMAT_DISK_WINDOWS",
                progress=0,
                user_op="REPLICATE"
            ),
            SubTask(
                id=7282,
                name="MIGRATE_WINDOWS_BLOCK",
                progress=0,
                user_op="REPLICATE"
            )
        ]
        listPhysicalVolumesDisks = [
            TargetPhysicalVolumes(
                id=135055,
                device_use="BOOT",
                file_system="NTFS",
                index=1,
                name="Z:",
                size=524288000,
                used_size=410275840,
                uuid="\\?\Volume{586b7157-0000-0000-0000-100000000000}\",
                free_size=114012160
            ),
            TargetPhysicalVolumes(
                id=135056,
                device_use="OS",
                file_system="NTFS",
                index=2,
                name="Y:",
                size=42423287808,
                used_size=23170301952,
                uuid="\\?\Volume{586b7157-0000-0000-0000-501f00000000}\",
                free_size=19252985856
```

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```
        )
    ]
    listDisksTargetServer = [
        TargetDisk(
            id=88008,
            device_use="OS",
            disk_id="0",
            name="Disk 1",
            physical_volumes=listPhysicalVolumesDisks,
            size=42949672960,
            used_size=42947575808,
            disk_index="0",
            os_disk=True,
            partition_style="MBR"
        )
    ]
    targetServerbody = TargetServer(
        disks=listDisksTargetServer,
        vm_id="",
        id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        os_version="WINDOWS2016_64BIT",
        system_dir="Y:\Windows\System32",
        os_type="WINDOWS",
        name=""
    )
    sourceServerbody = PostSourceServerBody(
        id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        ip="192.168.0.154",
        name="name-win16",
        os_type="WINDOWS",
        os_version="WINDOWS2016_64BIT",
        agent_version="1.2.0",
        migration_cycle="replicating",
        state="initialize",
        oem_system=False
    )
    request.body = PutTaskReq(
        sub_tasks=listSubTasksbody,
        total_time=115,
        error_json="",
        migrate_speed=0.0,
        start_date=1598435784000,
        create_date=1598435778000,
        state="RUNNING",
        target_server=targetServerbody,
        source_server=sourceServerbody,
        vm_template_id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        project_id="xxxxxxxxxxxxxxxxxxxxxxxx00000001",
        project_name="project name",
        speed_limit=0,
        region_name="region name",
        start_target_server=True,
        region_id="region id",
        priority=1,
        os_type="WINDOWS",
        type="MIGRATE_BLOCK",
        name="MigrationTask"
    )
    response = client.update_task(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

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Go

This example updates the migration task whose ID is **ef3b9722-07a0-40ae-89b0-889ee96dxxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTaskRequest{}
    request.TaskId = "{task_id}"
    idSubTasks:= int64(7278)
    nameSubTasks:= "CREATE_CLOUD_SERVER"
    startDateSubTasks:= int64(1598435802000)
    userOpSubTasks:= "REPLICATE"
    idSubTasks1:= int64(7279)
    nameSubTasks1:= "SSL_CONFIG"
    userOpSubTasks1:= "REPLICATE"
    idSubTasks2:= int64(7280)
    nameSubTasks2:= "ATTACH_AGENT_IMAGE"
    userOpSubTasks2:= "REPLICATE"
    idSubTasks3:= int64(7281)
    nameSubTasks3:= "FORMAT_DISK_WINDOWS"
    userOpSubTasks3:= "REPLICATE"
    idSubTasks4:= int64(7282)
    nameSubTasks4:= "MIGRATE_WINDOWS_BLOCK"
    userOpSubTasks4:= "REPLICATE"
    var listSubTasksbody = []model.SubTask{
        {
            Id: &idSubTasks,
            Name: &nameSubTasks,
            Progress: int32(0),
            StartDate: &startDateSubTasks,
            UserOp: &userOpSubTasks,
        },
        {
            Id: &idSubTasks1,
            Name: &nameSubTasks1,
            Progress: int32(0),
            UserOp: &userOpSubTasks1,
        },
        {
            Id: &idSubTasks2,
```

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```
        Name: &nameSubTasks2,
        Progress: int32(0),
        UserOp: &userOpSubTasks2,
    },
    {
        Id: &idSubTasks3,
        Name: &nameSubTasks3,
        Progress: int32(0),
        UserOp: &userOpSubTasks3,
    },
    {
        Id: &idSubTasks4,
        Name: &nameSubTasks4,
        Progress: int32(0),
        UserOp: &userOpSubTasks4,
    },
}
idPhysicalVolumes:= int64(135055)
deviceUsePhysicalVolumes:= model.GetTargetPhysicalVolumesDeviceUseEnum().BOOT
fileSystemPhysicalVolumes:= "NTFS"
indexPhysicalVolumes:= int32(1)
namePhysicalVolumes:= "Z:"
sizePhysicalVolumes:= int64(524288000)
usedSizePhysicalVolumes:= int64(410275840)
uuidPhysicalVolumes:= "\\?\Volume{586b7157-0000-0000-0000-100000000000}\"
freeSizePhysicalVolumes:= int64(114012160)
idPhysicalVolumes1:= int64(135056)
deviceUsePhysicalVolumes1:= model.GetTargetPhysicalVolumesDeviceUseEnum().OS
fileSystemPhysicalVolumes1:= "NTFS"
indexPhysicalVolumes1:= int32(2)
namePhysicalVolumes1:= "Y:"
sizePhysicalVolumes1:= int64(42423287808)
usedSizePhysicalVolumes1:= int64(23170301952)
uuidPhysicalVolumes1:= "\\?\Volume{586b7157-0000-0000-0000-501f00000000}\"
freeSizePhysicalVolumes1:= int64(19252985856)
var listPhysicalVolumesDisks = []model.TargetPhysicalVolumes{
    {
        Id: &idPhysicalVolumes,
        DeviceUse: &deviceUsePhysicalVolumes,
        FileSystem: &fileSystemPhysicalVolumes,
        Index: &indexPhysicalVolumes,
        Name: &namePhysicalVolumes,
        Size: &sizePhysicalVolumes,
        UsedSize: &usedSizePhysicalVolumes,
        Uuid: &uuidPhysicalVolumes,
        FreeSize: &freeSizePhysicalVolumes,
    },
    {
        Id: &idPhysicalVolumes1,
        DeviceUse: &deviceUsePhysicalVolumes1,
        FileSystem: &fileSystemPhysicalVolumes1,
        Index: &indexPhysicalVolumes1,
        Name: &namePhysicalVolumes1,
        Size: &sizePhysicalVolumes1,
        UsedSize: &usedSizePhysicalVolumes1,
        Uuid: &uuidPhysicalVolumes1,
        FreeSize: &freeSizePhysicalVolumes1,
    },
}
idDisks:= int64(88008)
deviceUseDisks:= model.GetTargetDiskDeviceUseEnum().OS
diskIdDisks:= "0"
nameDisks:= "Disk 1"
sizeDisks:= int64(42949672960)
usedSizeDisks:= int64(42947575808)
diskIndexDisks:= "0"
osDiskDisks:= true
partitionStyleDisks:= model.GetTargetDiskPartitionStyleEnum().MBR
var listDisksTargetServer = []model.TargetDisk{
```

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```
    {
        Id: &idDisks,
        DeviceUse: &deviceUseDisks,
        DiskId: &diskIdDisks,
        Name: &nameDisks,
        PhysicalVolumes: &listPhysicalVolumesDisks,
        Size: &sizeDisks,
        UsedSize: &usedSizeDisks,
        DiskIndex: &diskIndexDisks,
        OsDisk: &osDiskDisks,
        PartitionStyle: &partitionStyleDisks,
    },
}
vmIdTargetServer:= ""
idTargetServer:= "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
osVersionTargetServer:= "WINDOWS2016_64BIT"
systemDirTargetServer:= "Y:\Windows\System32"
targetServerbody := &model.TargetServer{
    Disks: listDisksTargetServer,
    VmId: &vmIdTargetServer,
    Id: &idTargetServer,
    OsVersion: &osVersionTargetServer,
    SystemDir: &systemDirTargetServer,
    OsType: model.GetTargetServerOsTypeEnum().WINDOWS,
    Name: "",
}
idSourceServer:= "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
ipSourceServer:= "192.168.0.154"
nameSourceServer:= "name-win16"
osTypeSourceServer:= model.GetPostSourceServerBodyOsTypeEnum().WINDOWS
osVersionSourceServer:= "WINDOWS2016_64BIT"
agentVersionSourceServer:= "1.2.0"
migrationCycleSourceServer:= model.GetPostSourceServerBodyMigrationCycleEnum().REPLICATING
stateSourceServer:= model.GetPostSourceServerBodyStateEnum().INITIALIZE
oemSystemSourceServer:= false
sourceServerbody := &model.PostSourceServerBody{
    Id: &idSourceServer,
    Ip: &ipSourceServer,
    Name: &nameSourceServer,
    OsType: &osTypeSourceServer,
    OsVersion: &osVersionSourceServer,
    AgentVersion: &agentVersionSourceServer,
    MigrationCycle: &migrationCycleSourceServer,
    State: &stateSourceServer,
    OemSystem: &oemSystemSourceServer,
}
totalTimePutTaskReq:= int64(115)
errorJsonPutTaskReq:= ""
migrateSpeedPutTaskReq:= float64(0.0)
startDatePutTaskReq:= int64(1598435784000)
createDatePutTaskReq:= int64(1598435778000)
statePutTaskReq:= "RUNNING"
vmTemplateIdPutTaskReq:= "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
projectIdPutTaskReq:= "xxxxxxxxxxxxxxxxxxxxxxxx00000001"
projectNamePutTaskReq:= "project name"
speedLimitPutTaskReq:= int32(0)
regionNamePutTaskReq:= "region name"
startTargetServerPutTaskReq:= true
regionIdPutTaskReq:= "region id"
priorityPutTaskReq:= model.GetPutTaskReqPriorityEnum().E_1
osTypePutTaskReq:= model.GetPutTaskReqOsTypeEnum().WINDOWS
typePutTaskReq:= model.GetPutTaskReqTypeEnum().MIGRATE_BLOCK
namePutTaskReq:= "MigrationTask"
request.Body = &model.PutTaskReq{
    SubTasks: &listSubTasksbody,
    TotalTime: &totalTimePutTaskReq,
    ErrorJson: &errorJsonPutTaskReq,
    MigrateSpeed: &migrateSpeedPutTaskReq,
    StartDate: &startDatePutTaskReq,
```

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```
        CreateDate: &createDatePutTaskReq,
        State: &statePutTaskReq,
        TargetServer: targetServerbody,
        SourceServer: sourceServerbody,
        VmTemplateId: &vmTemplateIdPutTaskReq,
        ProjectId: &projectIdPutTaskReq,
        ProjectName: &projectNamePutTaskReq,
        SpeedLimit: &speedLimitPutTaskReq,
        RegionName: &regionNamePutTaskReq,
        StartTargetServer: &startTargetServerPutTaskReq,
        RegionId: &regionIdPutTaskReq,
        Priority: &priorityPutTaskReq,
        OsType: &osTypePutTaskReq,
        Type: &typePutTaskReq,
        Name: &namePutTaskReq,
    }
    response, err := client.UpdateTask(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The migration task with a specified ID was updated.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.7 Managing Migration Tasks

Function

This API is used for managing migration tasks, including starting tasks, pausing tasks, synchronizing tasks, uploading logs, rolling back failed tasks, and deleting snapshot resources.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/{task_id}/action

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Table 5-176 Path parameter

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

Request

Table 5-177 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Table 5-178 Request body parameters

Parameter	Mandatory	Type	Description
operation	Yes	String	The operation to be performed on the task. **start**: starting a migration task **stop**: stopping a migration task **test**: performing a test **clone_test**: performing a clone test **restart**: restarting a migration task **network_check**: checking network performance **skip**: skipping the consistency check subtask **clear**: clearing snapshot resources **migration_test**: starting a migration drill The value can be: • **start** • **stop** • **test** • **clone_test** • **restart** • **network_check** • **clear** • **skip** • **migration_test**
template_id	No	String	The template ID. Minimum length: 0 characters Maximum length: 2,048 characters
switch_hce	No	Boolean	Indicates whether change to Huawei Cloud EulerOS is enabled. Default value: **false**
is_need_consistency_check	No	Boolean	Indicates whether consistency verification is enabled. Default value: **false**

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Response

Status code: 200

Table 5-179 Response body parameters

Parameter	Type	Description
-	String	The management operation for the migration task succeeded.

Status code: 403

Table 5-180 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-181 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

- Migration tasks can be managed. To clone the target server in a migration task, a template ID is required. This example clones the target server in the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

{
  "operation" : "clone_test",
  "template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
}
```

- This example launches the target server in a migration task.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

{
  "operation" : "test"
}
```

- This example starts the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

{
  "operation" : "start"
}
```

- This example pauses the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

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

- This example restarts the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

{
  "operation" : "restart"
}
```

- This example clears snapshot resources for the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

{
  "operation" : "clear"
}
```

- This example skips the consistency verification subtask.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

{
```

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```
  "operation" : "skip"
}
```

- This example starts the migration drill subtask.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/action

{
  "operation" : "migration_test"
}
```

Example Response

Status code: 200

The management operation for the migration task succeeded.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

- Migration tasks can be managed. To clone the target server in a migration task, a template ID is required. This example clones the target server in the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withTemplateId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001");
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("clone_test"));
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example launches the target server in a migration task.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("test"));
```

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```
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example starts the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("start"));
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
```

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

- This example pauses the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("stop"));
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example restarts the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

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

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

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```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("restart"));
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example clears snapshot resources for the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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```
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("clear"));
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example skips the consistency check subtask.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
```

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```
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("skip"));
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example starts the migration drill subtask.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskStatusSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskStatusRequest request = new UpdateTaskStatusRequest();
        request.withTaskId("{task_id}");
        UpdateTaskStatusReq body = new UpdateTaskStatusReq();
        body.withOperation(UpdateTaskStatusReq.OperationEnum.fromValue("migration_test"));
        request.withBody(body);
        try {
            UpdateTaskStatusResponse response = client.updateTaskStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
```

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

Python

- Migration tasks can be managed. To clone the target server in a migration task, a template ID is required. This example clones the target server in the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            template_id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            operation="clone_test"
        )
        response = client.update_task_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example launches the target server in a migration task.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

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```
    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            operation="test"
        )
        response = client.update_task_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example starts the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            operation="start"
        )
        response = client.update_task_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example pauses the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
```

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```
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            operation="stop"
        )
        response = client.update_task_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example restarts the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            operation="restart"
        )
        response = client.update_task_status(request)
```

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

- This example clears snapshot resources for the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            operation="clear"
        )
        response = client.update_task_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example skips the consistency verification subtask.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)
```

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            operation="skip"
        )
        response = client.update_task_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example starts the migration drill subtask.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskStatusRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskStatusReq(
            operation="migration_test"
        )
        response = client.update_task_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Migration tasks can be managed. To clone the target server in a migration task, a template ID is required. This example clones the target server in the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
package main

import (
    "fmt"
```

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```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    templateIdUpdateTaskStatusReq:= "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
    request.Body = &model.UpdateTaskStatusReq{
        TemplateId: &templateIdUpdateTaskStatusReq,
        Operation: model.GetUpdateTaskStatusReqOperationEnum().CLONE_TEST,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example launches the target server in a migration task.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
```

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

    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskStatusReq{
        Operation: model.GetUpdateTaskStatusReqOperationEnum().TEST,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example starts the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskStatusReq{
        Operation: model.GetUpdateTaskStatusReqOperationEnum().START,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example pauses the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
package main

import (
    "fmt"
```

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```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskStatusReq{
        Operation: model.GetUpdateTaskStatusReqOperationEnum().STOP,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example restarts the task with ID **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
```

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

    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskStatusReq{
        Operation: model.GetUpdateTaskStatusReqOperationEnum().RESTART,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example clears snapshot resources for the task whose ID is **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskStatusReq{
        Operation: model.GetUpdateTaskStatusReqOperationEnum().CLEAR,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example skips the consistency verification subtask.

```
package main

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

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskStatusReq{
        Operation: model.GetUpdateTaskStatusReqOperationEnum().SKIP,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example starts the migration drill subtask.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

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```
    request := &model.UpdateTaskStatusRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskStatusReq{
        Operation: model.GetUpdateTaskStatusReqOperationEnum().MIGRATION_TEST,
    }
    response, err := client.UpdateTaskStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The management operation for the migration task succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.8 Reporting Migration Progress and Rate

Function

This API is called by the Agent installed on source servers during migration to report the migration progress and rate to SMS.

You do not need to make calls to this API.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/tasks/{task_id}/progress

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Table 5-182 Path parameter

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

Request

Table 5-183 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Table 5-184 Request body parameters

Parameter	Mandatory	Type	Description
subtask_name	Yes	String	The name of the subtask whose progress is reported. The subtask name can be: **CREATE_CLOUD_SERVER**: creating a new server **SSL_CONFIG**: configuring a secure channel **ATTACH_AGENT_IMAGE**: attaching the disk that hosts the agent image **DETTACH_AGENT_IMAGE**: detaching the disk that hosts the agent image **FORMAT_DISK_LINUX**: formatting partitions on Linux **FORMAT_DISK_LINUX_FILE**: formatting partitions on Linux for a file-level migration **FORMAT_DISK_LINUX_BLOCK**: formatting partitions on Linux for a block-level migration **FORMAT_DISK_WINDOWS**: formatting partitions on Windows **MIGRATE_LINUX_FILE**: replicating files on Linux **MIGRATE_LINUX_BLOCK**: replicating blocks on Linux **MIGRATE_WINDOWS_BLOCK**: replicating blocks on Windows **CLONE_VM**: cloning the target server **SYNC_LINUX_FILE**: synchronizing files on Linux **SYNC_LINUX_BLOCK**: synchronizing blocks on Linux **SYNC_WINDOWS_BLOCK**: synchronizing blocks on Windows **CONFIGURE_LINUX**: modifying system configurations on Linux

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Parameter	Mandatory	Type	Description
			CONFIGURE_LINUX_BLOCK: modifying system configurations on Linux for a block-level migration **CONFIGURE_LINUX_FILE**: modifying system configurations on Linux for a file-level migration **CONFIGURE_WINDOWS**: modifying system configurations on Windows Minimum length: 0 characters Maximum length: 255 characters The value can be: • **CREATE_CLOUD_SERVER** • **SSL_CONFIG** • **ATTACH_AGENT_IMAGE** • **DETTACH_AGENT_IMAGE** • **FORMAT_DISK_LINUX** • **FORMAT_DISK_LINUX_FILE** • **FORMAT_DISK_LINUX_BLOCK** • **FORMAT_DISK_WINDOWS** • **MIGRATE_LINUX_FILE** • **MIGRATE_LINUX_BLOCK** • **MIGRATE_WINDOWS_BLOCK** • **CLONE_VM** • **SYNC_LINUX_FILE** • **SYNC_LINUX_BLOCK** • **SYNC_WINDOWS_BLOCK** • **CONFIGURE_LINUX** • **CONFIGURE_LINUX_BLOCK** • **CONFIGURE_LINUX_FILE** • **CONFIGURE_WINDOWS**

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Parameter	Mandatory	Type	Description
progress	Yes	Integer	The progress of the subtask, in percentage (%). Minimum value: **0** Maximum value: **100**
replicatesize	Yes	Long	The amount of data that has been replicated in the subtask, in bytes. Minimum value: **0** Maximum value: **9223372036854775807**
totalsize	Yes	Long	The total amount of data to be migrated in the subtask. Minimum value: **0** Maximum value: **9223372036854775807**
process_trace	Yes	String	The detailed progress of the migration or synchronization. Minimum length: 0 characters Maximum length: 2,048 characters
migrate_speed	No	Double	The migration rate in Mbit/s. Minimum value: **0** Maximum value: **10000**
compress_rate	No	Double	The file compression rate. Minimum value: **0** Maximum value: **10000**
remain_time	No	Long	The remaining time. Minimum value: **0** Maximum value: **2147483647**
total_cpu_usage	No	Double	The CPU usage of the server. The value ranges from 0 to 100, in percentage. Minimum value: **0** Maximum value: **100**
agent_cpu_usage	No	Double	The CPU usage of the Agent. The value ranges from 0 to 100, in percentage. Minimum value: **0** Maximum value: **100**

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Parameter	Mandatory	Type	Description
total_mem_usage	No	Double	The memory usage of the server, in MB. Minimum value: **0** Maximum value: **1048576.0**
agent_mem_usage	No	Double	The memory usage of the Agent, in MB. Minimum value: **0** Maximum value: **1048576.0**
total_disk_io	No	Double	The disk I/O of the server, in MB/s. Minimum value: **0** Maximum value: **10000.0**
agent_disk_io	No	Double	The disk I/O of the Agent, in MB/s. Minimum value: **0** Maximum value: **10000.0**
need_migration_test	No	Boolean	Indicates whether migration drilling is enabled.
agent_time	No	String	The current local time of the source server, which is used for overspeed detection. The speed limits can be configured by time period. Minimum length: 0 characters Maximum length: 30 characters

Response

Status code: 200

Table 5-185 Response body parameters

Parameter	Type	Description
-	String	The migration progress and rate were reported.

Status code: 403

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Table 5-186 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-187 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example reports the migration progress of a task. The current subtask name is **ATTACH_AGENT_IMAGE**, the task progress is **100**, and the total size of data migrated in the current task is **10000**.

```
PUT https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/progress

{
  "subtask_name" : "ATTACH_AGENT_IMAGE",
  "progress" : 100,
  "replicatesize" : 1000,
```

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```
  "totalsize" : 100000,
  "process_trace" : ""
}
```

Example Response

Status code: 200

The migration progress and rate were reported.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example reports the migration progress of a task. The current subtask name is **ATTACH_AGENT_IMAGE**, the task progress is **100**, and the total size of data migrated in the current task is **10000**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateTaskSpeedSolution {

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

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

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```
        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTaskSpeedRequest request = new UpdateTaskSpeedRequest();
        request.withTaskId("{task_id}");
        UpdateTaskSpeedReq body = new UpdateTaskSpeedReq();
        body.withProcessTrace("");
        body.withTotalsize(100000L);
        body.withReplicatesize(1000L);
        body.withProgress(100);

body.withSubtaskName(UpdateTaskSpeedReq.SubtaskNameEnum.fromValue("ATTACH_AGENT_IMAGE"));
        request.withBody(body);
        try {
            UpdateTaskSpeedResponse response = client.updateTaskSpeed(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example reports the migration progress of a task. The current subtask name is **ATTACH_AGENT_IMAGE**, the task progress is **100**, and the total size of data migrated in the current task is **10000**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTaskSpeedRequest()
        request.task_id = "{task_id}"
        request.body = UpdateTaskSpeedReq(
            process_trace="",
            totalsize=100000,
            replicatesize=1000,
```

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```
            progress=100,
            subtask_name="ATTACH_AGENT_IMAGE"
        )
        response = client.update_task_speed(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example reports the migration progress of a task. The current subtask name is **ATTACH_AGENT_IMAGE**, the task progress is **100**, and the total size of data migrated in the current task is **10000**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTaskSpeedRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UpdateTaskSpeedReq{
        ProcessTrace: "",
        Totalsize: int64(100000),
        Replicatesize: int64(1000),
        Progress: int32(100),
        SubtaskName: model.GetUpdateTaskSpeedReqSubtaskNameEnum().ATTACH_AGENT_IMAGE,
    }
    response, err := client.UpdateTaskSpeed(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The migration progress and rate were reported.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.9 Querying the Migration Rate Limiting Rules of a Migration Task

Function

This API is used to query the time segment-based migration rate limiting rules of a migration task.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/tasks/{task_id}/speed-limit

Table 5-188 Path parameter

Parameter	Mandatory	Type	Description
task_id	Yes	String	The ID of the task for which you want to query the rate limiting rules Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-189 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-190 Response body parameters

Parameter	Type	Description
speed_limit	Array of **SpeedLimitUson** objects	The information about the time period-based rate limiting rules. Array length: 0 to 65,535

Table 5-191 SpeedLimitUson field description

Parameter	Type	Description
start	String	The start time of a period. The format is *XX*:*XX*. Minimum length: 0 characters Maximum length: 255 characters
end	String	The end time of a period. The format is *XX*:*XX*. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
speed	Integer	The migration rate limit for the specified period. The value is an integer ranging from 0 to 1000. The unit is Mbit/s. Minimum value: **0** Maximum value: **10000**
over_speed_threshold	Double	The overspeed threshold for stopping migration. This is a protection measure. If the migration speed exceeds the threshold, the task is stopped. It is used to control the consumption of resources (especially network bandwidth) during the migration to ensure that the overall system performance is not affected by a single migration task. The unit is percentage. Minimum value: **0** Maximum value: **100**

Status code: 403

Table 5-192 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20

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Parameter	Type	Description
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-193 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example queries the migration rate limiting rules for a migration task.

```
GET https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/speed-limit
```

Example Response

Status code: 200

The migration rate limiting rules of a migration task were obtained.

```
{
  "speed_limit" : [ {
    "start" : "00:00",
    "end" : "23:59",
    "speed" : 1000,
    "over_speed_threshold" : 50.0
  } ]
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

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SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowsSpeedLimitsSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowsSpeedLimitsRequest request = new ShowsSpeedLimitsRequest();
        request.withTaskId("{task_id}");
        try {
            ShowsSpeedLimitsResponse response = client.showsSpeedLimits(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowsSpeedLimitsRequest()
        request.task_id = "{task_id}"
        response = client.shows_speed_limits(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

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More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The migration rate limiting rules of a migration task were obtained.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.10 Setting Migration Rate Limiting Rules for a Migration Task

Function

This API is used to set migration rate limiting rules for a migration task.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/{task_id}/speed-limit

Table 5-194 Path parameter

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

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Request

Table 5-195 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-196 Request body parameters

Parameter	Mandatory	Type	Description
speed_limit	Yes	Array of **SpeedLimitUson** objects	The information about the time period-based rate limiting rules. Array length: 0 to 65,535

Table 5-197 SpeedLimitUson field description

Parameter	Mandatory	Type	Description
start	Yes	String	The start time of a period. The format is *XX:XX*. Minimum length: 0 characters Maximum length: 255 characters
end	Yes	String	The end time of a period. The format is *XX:XX*. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
speed	Yes	Integer	The migration rate limit for the specified period. The value is an integer ranging from 0 to 1000. The unit is Mbit/s. Minimum value: **0** Maximum value: **10000**
over_speed_threshold	No	Double	The overspeed threshold for stopping migration. This is a protection measure. If the migration speed exceeds the threshold, the task is stopped. It is used to control the consumption of resources (especially network bandwidth) during the migration to ensure that the overall system performance is not affected by a single migration task. The unit is percentage. Minimum value: **0** Maximum value: **100**

Response

Status code: 200

Table 5-198 Response body parameters

Parameter	Type	Description
-	String	Setting migration rate limiting rules for a migration task succeeded.

Status code: 403

Table 5-199 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-200 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

- This example limits the speed of a migration task to 20 Mbit/s from 0:00 to 8:00, 50 Mbit/s from 8:00 to 15:00, and 25 Mbit/s from 15:00 to 23:59. It also sets an overspeed threshold for the task.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/speed-limit

{
  "speed_limit" : [ {
    "start" : "00:00",
    "end" : "23:59",
    "speed" : 1000,
    "over_speed_threshold" : 50.0
  } ]
}
```

- This example updates the migration rate limiting rules for the task whose ID is **a45a300b-86b5-4b13-8802-52274fa43016**.

```
POST https://{endpoint}/v3/tasks/a45a300b-86b5-4b13-8802-52274fa43016/speed-limit
```

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```
{
  "speed_limit" : [ {
    "start" : "0:00",
    "end" : "8:00",
    "speed" : 20
  }, {
    "start" : "8:00",
    "end" : "15:00",
    "speed" : 50
  }, {
    "start" : "15:00",
    "end" : "23:59",
    "speed" : 25
  } ]
}
```

Example Response

Status code: 200

Setting migration rate limiting rules for a migration task succeeded.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

- This example limits the speed of a migration task to 20 Mbit/s from 0:00 to 8:00, 50 Mbit/s from 8:00 to 15:00, and 25 Mbit/s from 15:00 to 23:59. It also sets an overspeed threshold for the task.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class UpdateSpeedSolution {
```

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateSpeedRequest request = new UpdateSpeedRequest();
        request.withTaskId("{task_id}");
        SpeedLimit body = new SpeedLimit();
        List<SpeedLimitUson> listbodySpeedLimit = new ArrayList<>();
        listbodySpeedLimit.add(
            new SpeedLimitUson()
                .withStart("00:00")
                .withEnd("23:59")
                .withSpeed(1000)
                .withOverSpeedThreshold((double)50.0)
        );
        body.withSpeedLimit(listbodySpeedLimit);
        request.withBody(body);
        try {
            UpdateSpeedResponse response = client.updateSpeed(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example updates the migration rate limiting rules for the task whose ID is **a45a300b-86b5-4b13-8802-52274fa43016**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class UpdateSpeedSolution {

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

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateSpeedRequest request = new UpdateSpeedRequest();
        request.withTaskId("{task_id}");
        SpeedLimit body = new SpeedLimit();
        List<SpeedLimitUson> listbodySpeedLimit = new ArrayList<>();
        listbodySpeedLimit.add(
            new SpeedLimitUson()
                .withStart("0:00")
                .withEnd("8:00")
                .withSpeed(20)
        );
        listbodySpeedLimit.add(
            new SpeedLimitUson()
                .withStart("8:00")
                .withEnd("15:00")
                .withSpeed(50)
        );
        listbodySpeedLimit.add(
            new SpeedLimitUson()
                .withStart("15:00")
                .withEnd("23:59")
                .withSpeed(25)
        );
        body.withSpeedLimit(listbodySpeedLimit);
        request.withBody(body);
        try {
            UpdateSpeedResponse response = client.updateSpeed(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- This example limits the speed of a migration task to 20 Mbit/s from 0:00 to 8:00, 50 Mbit/s from 8:00 to 15:00, and 25 Mbit/s from 15:00 to 23:59. It also sets an overspeed threshold for the task.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *
```

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateSpeedRequest()
        request.task_id = "{task_id}"
        listSpeedLimitbody = [
            SpeedLimitJson(
                start="00:00",
                end="23:59",
                speed=1000,
                over_speed_threshold=50.0
            )
        ]
        request.body = SpeedLimit(
            speed_limit=listSpeedLimitbody
        )
        response = client.update_speed(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example updates the migration rate limiting rules for the task whose ID is **a45a300b-86b5-4b13-8802-52274fa43016**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateSpeedRequest()
```

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```
        request.task_id = "{task_id}"
        listSpeedLimitbody = [
            SpeedLimitJson(
                start="0:00",
                end="8:00",
                speed=20
            ),
            SpeedLimitJson(
                start="8:00",
                end="15:00",
                speed=50
            ),
            SpeedLimitJson(
                start="15:00",
                end="23:59",
                speed=25
            )
        ]
        request.body = SpeedLimit(
            speed_limit=listSpeedLimitbody
        )
        response = client.update_speed(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- This example limits the speed of a migration task to 20 Mbit/s from 0:00 to 8:00, 50 Mbit/s from 8:00 to 15:00, and 25 Mbit/s from 15:00 to 23:59. It also sets an overspeed threshold for the task.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateSpeedRequest{}
    request.TaskId = "{task_id}"
    overSpeedThresholdSpeedLimit:= float64(50.0)
```

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```
    var listSpeedLimitbody = []model.SpeedLimitJson{
        {
            Start: "00:00",
            End: "23:59",
            Speed: int32(1000),
            OverSpeedThreshold: &overSpeedThresholdSpeedLimit,
        },
    }
    request.Body = &model.SpeedLimit{
        SpeedLimit: listSpeedLimitbody,
    }
    response, err := client.UpdateSpeed(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example updates the migration rate limiting rules for the task whose ID is **a45a300b-86b5-4b13-8802-52274fa43016**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateSpeedRequest{}
    request.TaskId = "{task_id}"
    var listSpeedLimitbody = []model.SpeedLimitJson{
        {
            Start: "0:00",
            End: "8:00",
            Speed: int32(20),
        },
        {
            Start: "8:00",
            End: "15:00",
            Speed: int32(50),
        },
        {
            Start: "15:00",
            End: "23:59",
            Speed: int32(25),
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Setting migration rate limiting rules for a migration task succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.11 Querying a Certificate Passphrase

Function

This API is used to query the certificate passphrase of the secure transmission channel for a task.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/tasks/{task_id}/passphrase

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Table 5-201 Path parameter

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

Request

Table 5-202 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-203 Response body parameters

Parameter	Type	Description
task_id	String	The task ID. Minimum length: 0 characters Maximum length: 255 characters
passphrase	String	The certificate passphrase of the secure transmission channel. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

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Table 5-204 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-205 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example queries the certificate passphrase of the secure transmission channel for the task with ID **d7fa81b9-c174-4c0a-a475-51a54c8af8a4**.

```
GET https://{endpoint}/v3/tasks/d7fa81b9-c174-4c0a-a475-51a54c8af8a4/passphrase
```

Example Response

Status code: 200

Request succeeded.

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```
{
  "task_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "passphrase" : "********"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowPassphraseSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowPassphraseRequest request = new ShowPassphraseRequest();
        request.withTaskId("{task_id}");
        try {
            ShowPassphraseResponse response = client.showPassphrase(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
```

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

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowPassphraseRequest()
        request.task_id = "{task_id}"
        response = client.show_passphrase(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

    auth := global.NewCredentialsBuilder().
        WithAk(ak).
```

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```
        WithSk(sk).
        Build()

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Request succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.4.12 Uploading Migration Task Logs

Function

This API is used to upload the logs of a migration task.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/{task_id}/log

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Table 5-206 Path parameter

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

Request

Table 5-207 Request header parameter

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

Table 5-208 Request body parameters

Parameter	Mandatory	Type	Description
log_bucket	Yes	String	The bucket name. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

Table 5-209 Response body parameters

Parameter	Type	Description
-	String	Migration task logs were uploaded successfully.

Example Request

This example uploads migration task logs to bucket **centos** and sets the URL validity period to 300 seconds.

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```
POST https://{endpoint}/v3/tasks/{task_id}/log

{
  "log_bucket" : "centos"
}
```

Example Response

Status code: 200

Migration task logs were uploaded successfully.

```
{ }
```

SDK Sample Code

The sample code is as follows.

Java

This example uploads migration task logs to bucket **centos** and sets the URL validity period to 300 seconds.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class CollectLogSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        CollectLogRequest request = new CollectLogRequest();
        request.withTaskId("{task_id}");
        UploadLogRequestBody body = new UploadLogRequestBody();
        body.withLogBucket("centos");
        request.withBody(body);
        try {
            CollectLogResponse response = client.collectLog(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
```

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

Python

This example uploads migration task logs to bucket **centos** and sets the URL validity period to 300 seconds.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = CollectLogRequest()
        request.task_id = "{task_id}"
        request.body = UploadLogRequestBody(
            log_bucket="centos"
        )
        response = client.collect_log(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example uploads migration task logs to bucket **centos** and sets the URL validity period to 300 seconds.

```
package main

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CollectLogRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.UploadLogRequestBody{
        LogBucket: "centos",
    }
    response, err := client.CollectLog(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Migration task logs were uploaded successfully.

Error Codes

For details, see **Error Codes**.

5.4.13 Obtaining Consistency Verification Results

Function

This API is used to obtain the brief consistency verification results of a task.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v3/tasks/{task_id}/consistency-result

Table 5-210 Path parameter

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

Request

Table 5-211 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-212 Response body parameters

Parameter	Type	Description
result_list	Array of **result_list** objects	The consistency verification results.
task_id	String	The task ID.

Table 5-213 result_list field description

Parameter	Type	Description
finished_time	Long	The verification completion time.

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Parameter	Type	Description
check_result	String	The verification execution result.
consistency_result	Array of **ConsistencyResult** objects	The verification results.

Table 5-214 ConsistencyResult field description

Parameter	Type	Description
dir_check	String	The directory verified. Minimum length: 0 characters Maximum length: 1,024 characters
num_total_files	Integer	The total number of files verified. Minimum value: **0** Maximum value: **1000000**
num_different_files	Integer	The number of files inconsistent. Minimum value: **0** Maximum value: **1000000**
num_target_miss_files	Integer	The number of files missing at the target. Minimum value: **0** Maximum value: **1000000**
num_target_more_files	Integer	The number of files redundant at the target. Minimum value: **0** Maximum value: **1000000**

Status code: 400

Table 5-215 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403

Table 5-216 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-217 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

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Status code: 404

Table 5-218 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 500

Table 5-219 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example obtains the brief consistency verification results of the task whose ID is **137224b7-8d7c-4919-b33e-ed159778xxxx**.

```
GET https://{endpoint}/v3/137224b7-8d7c-4919-b33e-ed159778xxxx/consistency-result
```

Example Response

Status code: 200

The brief consistency verification results were obtained.

```
{
  "result_list" : [ {
    "finished_time" : 1736854315000,
    "check_result" : "success",
    "consistency_result" : [ {
      "dir_check" : "/root/sync",
      "num_total_files" : 1,
      "num_different_files" : 0,
      "num_target_miss_files" : 0,
      "num_target_more_files" : 0
    } ]
```

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```
 } ],
 "task_id" : "7861c7ab-06c0-4b23-a350-00e5ed361fbb"
}
```

Status code: 403

Authentication failed.

```
{
 "error_code" : "SMS.9004",
 "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
 "encoded_authorization_message" : "XXXXXX",
 "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
 "details" : [ {
  "error_code" : "SMS.9004",
  "error_msg" : "You do not have permission to perform action XXX on resource XXX."
 } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowConsistencyResultSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowConsistencyResultRequest request = new ShowConsistencyResultRequest();
        request.withTaskId("{task_id}");
        try {
            ShowConsistencyResultResponse response = client.showConsistencyResult(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
```

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```
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowConsistencyResultRequest()
        request.task_id = "{task_id}"
        response = client.show_consistency_result(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

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```
        Build()

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The brief consistency verification results were obtained.
400	The request parameters were missing.
403	Authentication failed.
404	The task was not found.
500	Obtaining the brief consistency verification results failed.

Error Codes

For details, see **Error Codes**.

5.4.14 Uploading Consistency Verification Results

Function

This API is called by the Agent to upload the consistency verification results of a task.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/{task_id}/consistency-result

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Table 5-220 Path parameter

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

Request

Table 5-221 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-222 Request body parameters

Parameter	Mandatory	Type	Description
consistency_result	No	Array of **ConsistencyResult** objects	The consistency verification results. Array length: 0 to 30

Table 5-223 ConsistencyResult field description

Parameter	Mandatory	Type	Description
dir_check	Yes	String	The directory verified. Minimum length: 0 characters Maximum length: 1,024 characters

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Parameter	Mandatory	Type	Description
num_total_files	Yes	Integer	The total number of files verified. Minimum value: **0** Maximum value: **1000000**
num_different_files	Yes	Integer	The number of files inconsistent. Minimum value: **0** Maximum value: **1000000**
num_target_miss_files	Yes	Integer	The number of files missing at the target. Minimum value: **0** Maximum value: **1000000**
num_target_more_files	Yes	Integer	The number of files redundant at the target. Minimum value: **0** Maximum value: **1000000**

Response

Status code: 200

Table 5-224 Response body parameters

Parameter	Type	Description
-	String	The consistency verification results were updated.

Status code: 400

Table 5-225 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

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Status code: 403

Table 5-226 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-227 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

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Table 5-228 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 500

Table 5-229 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example updates the brief consistency verification results of the task whose ID is **137224b7-8d7c-4919-b33e-ed159778xxxx**.

```
POST https://{endpoint}/v3/137224b7-8d7c-4919-b33e-ed159778xxxx/consistency-result

{
  "consistency_result" : [ {
    "dir_check" : "/root/data",
    "num_total_files" : 1235,
    "num_different_files" : 12,
    "num_target_miss_files" : 12,
    "num_target_more_files" : 12
  }, {
    "dir_check" : "/var",
    "num_total_files" : 1235,
    "num_different_files" : 12,
    "num_target_miss_files" : 12,
    "num_target_more_files" : 12
  } ]
}
```

Example Response

Status code: 200

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The consistency verification results were updated.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example updates the brief consistency verification results of the task whose ID is **137224b7-8d7c-4919-b33e-ed159778xxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class UpdateConsistencyResultSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateConsistencyResultRequest request = new UpdateConsistencyResultRequest();
        request.withTaskId("{task_id}");
        SetConsistencyResultRequestBody body = new SetConsistencyResultRequestBody();
        List<ConsistencyResult> listbodyConsistencyResult = new ArrayList<>();
        listbodyConsistencyResult.add(
```

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```
            new ConsistencyResult()
                .withDirCheck("/root/data")
                .withNumTotalFiles(1235)
                .withNumDifferentFiles(12)
                .withNumTargetMissFiles(12)
                .withNumTargetMoreFiles(12)
        );
        listbodyConsistencyResult.add(
            new ConsistencyResult()
                .withDirCheck("/var")
                .withNumTotalFiles(1235)
                .withNumDifferentFiles(12)
                .withNumTargetMissFiles(12)
                .withNumTargetMoreFiles(12)
        );
        body.withConsistencyResult(listbodyConsistencyResult);
        request.withBody(body);
        try {
            UpdateConsistencyResultResponse response = client.updateConsistencyResult(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example updates the brief consistency verification results of the task whose ID is **137224b7-8d7c-4919-b33e-ed159778xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateConsistencyResultRequest()
        request.task_id = "{task_id}"
        listConsistencyResultbody = [
            ConsistencyResult(
                dir_check="/root/data",
```

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```
            num_total_files=1235,
            num_different_files=12,
            num_target_miss_files=12,
            num_target_more_files=12
        ),
        ConsistencyResult(
            dir_check="/var",
            num_total_files=1235,
            num_different_files=12,
            num_target_miss_files=12,
            num_target_more_files=12
        )
    ]
    request.body = SetConsistencyResultRequestBody(
        consistency_result=listConsistencyResultbody
    )
    response = client.update_consistency_result(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

Go

This example updates the brief consistency verification results of the task whose ID is **137224b7-8d7c-4919-b33e-ed159778xxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateConsistencyResultRequest{}
    request.TaskId = "{task_id}"
    var listConsistencyResultbody = []model.ConsistencyResult{
        {
            DirCheck: "/root/data",
            NumTotalFiles: int32(1235),
            NumDifferentFiles: int32(12),
            NumTargetMissFiles: int32(12),
            NumTargetMoreFiles: int32(12),
        },
```

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```
        {
            DirCheck: "/var",
            NumTotalFiles: int32(1235),
            NumDifferentFiles: int32(12),
            NumTargetMissFiles: int32(12),
            NumTargetMoreFiles: int32(12),
        },
    }
    request.Body = &model.SetConsistencyResultRequestBody{
        ConsistencyResult: &listConsistencyResultbody,
    }
    response, err := client.UpdateConsistencyResult(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The brief consistency verification results were updated.
400	The request parameters were missing.
403	Authentication failed.
404	The task was not found.
500	Uploading the brief consistency verification results failed.

Error Codes

For details, see **Error Codes**.

5.4.15 Obtaining Consistency Verification Results in Batches

Function

This API is used to export consistency verification results in batches.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/consistency-results/export

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Request

Table 5-230 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.
X-Language	No	String	The preferred language. It can be English or Chinese.

Table 5-231 Request body parameters

Parameter	Mandatory	Type	Description
task_info	Yes	Array of **BatchConsistencyReq** objects	All task information. Array length: 0 to 200

Table 5-232 BatchConsistencyReq field description

Parameter	Mandatory	Type	Description
task_id	Yes	String	The task ID. Minimum length: 0 characters Maximum length: 255 characters
source_id	Yes	String	The source server ID. Minimum length: 0 characters Maximum length: 255 characters
source_name	Yes	String	The source server name. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

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Table 5-233 Response body parameters

Parameter	Type	Description
-	String	OK

Status code: 400

Table 5-234 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403

Table 5-235 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

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Table 5-236 details

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

Table 5-237 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

Task information

source_id: specifies the source server ID.

task_id: specifies the task ID.

source_name: specifies the source server name.

```
POST https://{endpoint}/v3/tasks/consistency-results/export

{
  "task_info" : [ {
    "source_id" : "31806fb2-95bd-421f-ae35-b81b750dxxxx",
    "task_id" : "05a41be9-3ffe-4cc6-8d66-07359039xxxx",
    "source_name" : "ecsxxx"
  } ]
}
```

Example Response

Status code: 200

OK

```
{ }
```

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Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

Status Codes

Status Code	Description
200	OK
400	Bad request.
403	Authentication failed.
404	Not found.

Error Codes

For details, see **Error Codes**.

5.5 Command Management

5.5.1 Obtaining Commands from SMS

Function

This API is called by the migration Agent on source servers to obtain commands from the SMS server.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/sources/{server_id}/command

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Table 5-238 Path parameter

Parameter	Mandatory	Type	Description
server_id	Yes	String	The ID of the source server that the command is sent to. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-239 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-240 Response body parameters

Parameter	Type	Description
command_name	String	The command name. The options are **START**, **STOP**, **DELETE**, **SYNC**, and **SKIP**. Minimum length: 0 characters Maximum length: 255 characters
command_param	**CommandParam** object	The command response parameters.

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Table 5-241 CommandParam

Parameter	Type	Description
task_id	String	The task ID. Minimum length: 0 characters Maximum length: 255 characters
bucket	String	The bucket name. Minimum length: 0 characters Maximum length: 255 characters

Status code: 400

Table 5-242 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 401

Table 5-243 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403

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Table 5-244 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-245 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

Table 5-246 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 500

Table 5-247 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example obtains the command sent to the Agent installed on the source server whose ID is **f32ab4d6-d150-4fb3-aa55-edbb5cf9947f**.

```
GET https://{endpoint}/v3/sources/f32ab4d6-d150-4fb3-aa55-edbb5cf9947f/command
```

Example Response

Status code: 200

Obtaining commands from SMS succeeded.

```
{
  "command_name" : "START",
  "command_param" : {
    "task_id" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001"
  }
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
```

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```
 } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowCommandSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowCommandRequest request = new ShowCommandRequest();
        request.withServerId("{server_id}");
        try {
            ShowCommandResponse response = client.showCommand(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
```

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```
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowCommandRequest()
        request.server_id = "{server_id}"
        response = client.show_command(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

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```
  }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Obtaining commands from SMS succeeded.
400	Bad request.
401	Unauthorized.
403	Authentication failed.
404	Not found.
500	Internal server error.

Error Codes

For details, see **Error Codes**.

5.5.2 Reporting the Command Execution Result to SMS

Function

This API is called by the Agent to send the execution result of a specified command to SMS.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/sources/{server_id}/command_result

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Table 5-248 Path parameter

Parameter	Mandatory	Type	Description
server_id	Yes	String	The ID of the source server for which the Agent reports the command execution result to SMS. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-249 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-250 Request body parameters

Parameter	Mandatory	Type	Description
command_name	Yes	String	The command name. The value can be **START**, **STOP**, **DELETE**, **SYNC**, **UPLOAD_LOG**, or **RSET_LOG_ACL**. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
result	Yes	String	The command execution result. □ **success**: The command is executed successfully. □ **fail**: The command fails to be executed. Minimum length: 0 characters Maximum length: 255 characters
result_detail	Yes	Object	The command execution results in JSON format. This parameter is used only to save command execution results to the SMS database.

Response

Status code: 200

Table 5-251 Response body parameters

Parameter	Type	Description
-	String	Reporting command execution results to SMS succeeded.

Status code: 400

Table 5-252 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 401

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Table 5-253 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403

Table 5-254 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-255 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

Table 5-256 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 500

Table 5-257 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example sends the execution result of a specified command to the SMS server. The command is **START**, and the execution result is **success**.

```
POST https://{endpoint}/v3/sources/f32ab4d6-d150-4fb3-aa55-edbb5cf9xxxx/command_result

{
  "command_name" : "START",
  "result" : "success",
  "result_detail" : {
    "msg" : "xxx"
  }
}
```

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Example Response

Status code: 200

Reporting command execution results to SMS succeeded.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example sends the execution result of a specified command to the SMS server. The command is **START**, and the execution result is **success**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateCommandResultSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateCommandResultRequest request = new UpdateCommandResultRequest();
        request.withServerId("{server_id}");
```

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```
        CommandBody body = new CommandBody();
        body.withResultDetail("{\"msg\":\"xxx\"}");
        body.withResult("success");
        body.withCommandName("START");
        request.withBody(body);
        try {
            UpdateCommandResultResponse response = client.updateCommandResult(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example sends the execution result of a specified command to the SMS server. The command is **START**, and the execution result is **success**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateCommandResultRequest()
        request.server_id = "{server_id}"
        request.body = CommandBody(
            result_detail="{\"msg\":\"xxx\"}",
            result="success",
            command_name="START"
        )
        response = client.update_command_result(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

This example sends the execution result of a specified command to the SMS server. The command is **START**, and the execution result is **success**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateCommandResultRequest{}
    request.ServerId = "{server_id}"
    var resultDetailCommandBody interface{} = "{\"msg\":\"xxx\"}"
    request.Body = &model.CommandBody{
        ResultDetail: &resultDetailCommandBody,
        Result: "success",
        CommandName: "START",
    }
    response, err := client.UpdateCommandResult(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Reporting command execution results to SMS succeeded.
400	Bad request.

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Status Code	Description
401	Unauthorized.
403	Authentication failed.
404	Not found.
500	Internal server error.

Error Codes

For details, see **Error Codes**.

5.6 Template Management

5.6.1 Creating a Template

Function

This API is used to create a template.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/vm/templates

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Request

Table 5-258 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-259 Request body parameters

Parameter	Mandatory	Type	Description
template	Yes	**TemplateRequest** object	The template information.

Table 5-260 TemplateRequest field description

Parameter	Mandatory	Type	Description
name	Yes	String	The template name. Minimum length: 0 characters Maximum length: 255 characters
is_template	Yes	Boolean	Specifies whether the template is general. If the template is associated with a task, the template is not a general template.
region	Yes	String	The region. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
projectid	Yes	String	The project ID. Minimum length: 0 characters Maximum length: 255 characters
target_server_name	No	String	The server name. Minimum length: 0 characters Maximum length: 255 characters
availability_zone	No	String	The AZ. Minimum length: 0 characters Maximum length: 255 characters
volumetype	No	String	The disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**
flavor	No	String	The server flavor. Minimum length: 0 characters Maximum length: 65,535 characters
vpc	No	**VpcObject** object	The VPC information.
nics	No	Array of **Nics** objects	The NIC information. Multiple NICs are supported. To let the system automatically add a NIC, configure only one NIC entry and set the ID to **autoCreate**. Array length: 0 to 65,535

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Parameter	Mandatory	Type	Description
security_groups	No	Array of **SgObject** objects	The security group information. Multiple security groups are supported. To let the system automatically create a security group, configure only one security group record and set the ID to **autoCreate**. Array length: 0 to 65,535
publicip	No	**PublicIp** object	The public IP address information.
disk	No	Array of **TemplateDisk** objects	The disk information. Array length: 0 to 65,535
data_volume_type	No	String	The data disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**
target_password	No	String	The server login password. Minimum length: 0 characters Maximum length: 1,024 characters
image_id	No	String	The ID of the image for server creation. Minimum length: 0 characters Maximum length: 255 characters

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Table 5-261 VpcObject field description

Parameter	Mandatory	Type	Description
id	Yes	String	The VPC ID. To let the system automatically create a VPC, set this parameter to **autoCreate**. Minimum length: 1 character Maximum length: 255 characters
name	Yes	String	The VPC name. Minimum length: 1 character Maximum length: 255 characters
cidr	No	String	The VPC CIDR block. The default value is **192.168.0.0/16**. Minimum length: 1 character Maximum length: 255 characters

Table 5-262 Nics field description

Parameter	Mandatory	Type	Description
id	Yes	String	The subnet ID. To let the system automatically create a subnet, set this parameter to **autoCreate**. Minimum length: 0 characters Maximum length: 255 characters
name	Yes	String	The subnet name. Minimum length: 0 characters Maximum length: 255 characters
cidr	Yes	String	The subnet gateway/mask. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
ip	No	String	The server IP address. If this parameter is not specified, the system will automatically assign an IP address. Minimum length: 0 characters Maximum length: 255 characters

Table 5-263 SgObject field description

Parameter	Mandatory	Type	Description
id	Yes	String	The security group ID. Minimum length: 0 characters Maximum length: 255 characters
name	Yes	String	The security group name. Minimum length: 0 characters Maximum length: 255 characters

Table 5-264 PublicIp field description

Parameter	Mandatory	Type	Description
type	Yes	String	The EIP type. The default value is **5_bgp**. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
bandwidth_size	Yes	Integer	The bandwidth size in Mbit/s. The minimum increment for bandwidth adjustment varies depending on the bandwidth range. The minimum increment is 1 Mbit/s if the allowed bandwidth ranges from 0 to 300 Mbit/s. The minimum increment is 50 Mbit/s if the allowed bandwidth ranges from 300 Mbit/s to 1,000 Mbit/s. The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1,000 Mbit/s. Minimum value: **1** Maximum value: **2000**
bandwidth_share_type	No	String	The bandwidth type, shared or dedicated. Minimum length: 0 characters Maximum length: 255 characters

Table 5-265 TemplateDisk field description

Parameter	Mandatory	Type	Description
id	No	Long	The disk ID. Minimum value: **0** Maximum value: **9223372036854775807**
index	Yes	Integer	The disk serial number, starting from **0**. Minimum value: **0** Maximum value: **2147483647**
name	Yes	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
disktype	Yes	String	The disk type. The value is the same as that of **volumetype**. Minimum length: 0 characters Maximum length: 255 characters
size	Yes	Long	The disk size in GB. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	No	String	The used disk space. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

Table 5-266 Response body parameters

Parameter	Type	Description
id	String	The ID of the newly created template returned by SMS. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

Table 5-267 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-268 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

- This example creates a migration task template. The template name is **xxxx**, the region information is **region**, and the project ID is **00924d0ad2df4f21ac476dd9f3288xxx**.

```
POST https://{endpoint}/v3/vm/templates

{
  "template" : {
    "name" : "",
    "is_template" : false,
    "region" : "region",
    "target_server_name" : "abcd",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "volumetype" : "",
    "image_id" : "",
    "vpc" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "sms-1566979232(192.168.0.0/16)"
    },
    "security_groups" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name": "kubernetes.io-default-sg (Inbound: udp/1-65535;tcp/22,1-65535,3389; Outbound: --) "
    } ],
```

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```
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "sms-1566979244(192.168.0.0/16)",
      "cidr" : "192.168.0.0/16",
      "ip" : ""
    } ],
    "flavor" : "s2.medium.2",
    "publicip" : {
      "type" : "5_bgp",
      "bandwidth_size" : 5,
      "bandwidth_share_type" : "PER"
    },
    "disk" : [ {
      "index" : 0,
      "name" : "system",
      "disktype" : "",
      "size" : 40
    } ]
  }
}
```

- This example creates a template directly.

```
POST https://{endpoint}/v3/vm/templates

{
  "template" : {
    "name" : "xxxx",
    "is_template" : true,
    "region" : "region",
    "target_server_name" : "ggg-win16-t",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "target_password" : "********",
    "flavor" : "c3.medium.2",
    "vpc" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "Migrate-SSd-1",
      "cidr" : "192.168.0.0/16"
    },
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "Migrate-SSd-35",
      "cidr" : "192.168.0.0/16",
      "ip" : ""
    } ],
    "security_groups" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "Migrate-dddd"
    } ],
    "disk" : [ {
      "id" : "0",
      "index" : 0,
      "name" : "Disk 0",
      "disktype" : "SATA",
      "size" : 40,
      "device_use" : "BOOT"
    } ],
    "volumetype" : "SATA",
    "publicip" : {
      "type" : "5_g-vm",
      "bandwidth_size" : 10,
      "bandwidth_share_type" : "PER"
    }
  }
}
```

Example Response

Status code: 200

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The template was created.

```
{
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

- This example creates a migration task template. The template name is **xxxx**, the region information is **region**, and the project ID is **00924d0ad2df4f21ac476dd9f3288xxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class CreateTemplateSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateTemplateRequest request = new CreateTemplateRequest();
```

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```
        CreateTemplateReq body = new CreateTemplateReq();
        List<TemplateDisk> listTemplateDisk = new ArrayList<>();
        listTemplateDisk.add(
            new TemplateDisk()
                .withIndex(0)
                .withName("system")
                .withDisktype("")
                .withSize(40L)
        );
        PublicIp publicipTemplate = new PublicIp();
        publicipTemplate.withType("5_bgp")
            .withBandwidthSize(5)
            .withBandwidthShareType("PER");
        List<SgObject> listTemplateSecurityGroups = new ArrayList<>();
        listTemplateSecurityGroups.add(
            new SgObject()
                .withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withName("kubernetes.io-default-sg (inbound: udp/1-65535; tcp/22,1-65535,3389;
outbound: --)")
        );
        List<Nics> listTemplateNics = new ArrayList<>();
        listTemplateNics.add(
            new Nics()
                .withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withName("sms-1566979244(192.168.0.0/16)")
                .withCidr("192.168.0.0/16")
                .withIp("")
        );
        VpcObject vpcTemplate = new VpcObject();
        vpcTemplate.withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withName("sms-1566979232(192.168.0.0/16)");
        TemplateRequest templatebody = new TemplateRequest();
        templatebody.withName("")
            .withIsTemplate(false)
            .withRegion("region")
            .withProjectid("xxxxxxxxxxxxxxxxxxxxxxxx00000001")
            .withTargetServerName("abcd")
            .withAvailabilityZone("availability_zone")
            .withVolumetype(TemplateRequest.VolumetypeEnum.fromValue(""))
            .withFlavor("s2.medium.2")
            .withVpc(vpcTemplate)
            .withNics(listTemplateNics)
            .withSecurityGroups(listTemplateSecurityGroups)
            .withPublicip(publicipTemplate)
            .withDisk(listTemplateDisk)
            .withImageId("");
        body.withTemplate(templatebody);
        request.withBody(body);
        try {
            CreateTemplateResponse response = client.createTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- This example creates a template directly.

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

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

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```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class CreateTemplateSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateTemplateRequest request = new CreateTemplateRequest();
        CreateTemplateReq body = new CreateTemplateReq();
        List<TemplateDisk> listTemplateDisk = new ArrayList<>();
        listTemplateDisk.add(
            new TemplateDisk()
                .withId(0L)
                .withIndex(0)
                .withName("Disk 0")
                .withDisktype("SATA")
                .withSize(40L)
                .withDeviceUse("BOOT")
        );
        PublicIp publicipTemplate = new PublicIp();
        publicipTemplate.withType("5_g-vm")
            .withBandwidthSize(10)
            .withBandwidthShareType("PER");
        List<SgObject> listTemplateSecurityGroups = new ArrayList<>();
        listTemplateSecurityGroups.add(
            new SgObject()
                .withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withName("Migrate-dddd")
        );
        List<Nics> listTemplateNics = new ArrayList<>();
        listTemplateNics.add(
            new Nics()
                .withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
                .withName("Migrate-SSd-35")
                .withCidr("192.168.0.0/16")
                .withIp("")
        );
        VpcObject vpcTemplate = new VpcObject();
        vpcTemplate.withId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001")
            .withName("Migrate-SSd-1")
            .withCidr("192.168.0.0/16");
        TemplateRequest templatebody = new TemplateRequest();
        templatebody.withName("xxxx")
            .withIsTemplate(true)
            .withRegion("region")
            .withProjectid("xxxxxxxxxxxxxxxxxxxxxxxx00000001")
```

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```
            .withTargetServerName("ggg-win16-t")
            .withAvailabilityZone("availability_zone")
            .withVolumetype(TemplateRequest.VolumetypeEnum.fromValue("SATA"))
            .withFlavor("c3.medium.2")
            .withVpc(vpcTemplate)
            .withNics(listTemplateNics)
            .withSecurityGroups(listTemplateSecurityGroups)
            .withPublicip(publicipTemplate)
            .withDisk(listTemplateDisk)
            .withTargetPassword("********");
        body.withTemplate(templatebody);
        request.withBody(body);
        try {
            CreateTemplateResponse response = client.createTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- This example creates a migration task template. The template name is **xxxx**, the region information is **region**, and the project ID is **00924d0ad2df4f21ac476dd9f3288xxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = CreateTemplateRequest()
        listDiskTemplate = [
            TemplateDisk(
                index=0,
                name="system",
                disktype="",
                size=40
            )
```

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```
        ]
        publicipTemplate = PublicIp(
            type="5_bgp",
            bandwidth_size=5,
            bandwidth_share_type="PER"
        )
        listSecurityGroupsTemplate = [
            SgObject(
                id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
                name="kubernetes.io-default-sg (inbound: udp/1-65535; tcp/22,1-65535,3389; outbound:
--) "
            )
        ]
        listNicsTemplate = [
            Nics(
                id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
                name="sms-1566979244(192.168.0.0/16)",
                cidr="192.168.0.0/16",
                ip=""
            )
        ]
        vpcTemplate = VpcObject(
            id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            name="sms-1566979232(192.168.0.0/16)"
        )
        templatebody = TemplateRequest(
            name="",
            is_template=False,
            region="region",
            projectid="xxxxxxxxxxxxxxxxxxxxxxxx00000001",
            target_server_name="abcd",
            availability_zone="availability_zone",
            volumetype="",
            flavor="s2.medium.2",
            vpc=vpcTemplate,
            nics=listNicsTemplate,
            security_groups=listSecurityGroupsTemplate,
            publicip=publicipTemplate,
            disk=listDiskTemplate,
            image_id=""
        )
        request.body = CreateTemplateReq(
            template=templatebody
        )
        response = client.create_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- This example creates a template directly.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

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```
credentials = GlobalCredentials(ak, sk)

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

try:
    request = CreateTemplateRequest()
    listDiskTemplate = [
        TemplateDisk(
            id=0,
            index=0,
            name="Disk 0",
            disktype="SATA",
            size=40,
            device_use="BOOT"
        )
    ]
    publicipTemplate = PublicIp(
        type="5_g-vm",
        bandwidth_size=10,
        bandwidth_share_type="PER"
    )
    listSecurityGroupsTemplate = [
        SgObject(
            id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            name="Migrate-dddd"
        )
    ]
    listNicsTemplate = [
        Nics(
            id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            name="Migrate-SSd-35",
            cidr="192.168.0.0/16",
            ip=""
        )
    ]
    vpcTemplate = VpcObject(
        id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        name="Migrate-SSd-1",
        cidr="192.168.0.0/16"
    )
    templatebody = TemplateRequest(
        name="xxxx",
        is_template=True,
        region="region",
        projectid="xxxxxxxxxxxxxxxxxxxxxxxx00000001",
        target_server_name="ggg-win16-t",
        availability_zone="availability_zone",
        volumetype="SATA",
        flavor="c3.medium.2",
        vpc=vpcTemplate,
        nics=listNicsTemplate,
        security_groups=listSecurityGroupsTemplate,
        publicip=publicipTemplate,
        disk=listDiskTemplate,
        target_password="********"
    )
    request.body = CreateTemplateReq(
        template=templatebody
    )
    response = client.create_template(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
```

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

Go

- This example creates a migration task template. The template name is **xxxx**, the region information is **region**, and the project ID is **00924d0ad2df4f21ac476dd9f3288xxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTemplateRequest{}
    var listDiskTemplate = []model.TemplateDisk{
        {
            Index: int32(0),
            Name: "system",
            Disktype: "",
            Size: int64(40),
        },
    }
    bandwidthShareTypePublicip:= "PER"
    publicipTemplate := &model.PublicIp{
        Type: "5_bgp",
        BandwidthSize: int32(5),
        BandwidthShareType: &bandwidthShareTypePublicip,
    }
    var listSecurityGroupsTemplate = []model.SgObject{
        {
            Id: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            Name: "kubernetes.io-default-sg (inbound: udp/1-65535; tcp/22,1-65535,3389; outbound: --)",
        },
    }
    ipNics:= ""
    var listNicsTemplate = []model.Nics{
        {
            Id: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
            Name: "sms-1566979244(192.168.0.0/16)",
            Cidr: "192.168.0.0/16",
            Ip: &ipNics,
        },
```

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```
    }
    vpcTemplate := &model.VpcObject{
        Id: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        Name: "sms-1566979232(192.168.0.0/16)",
    }
    targetServerNameTemplate:= "abcd"
    availabilityZoneTemplate:= "availability_zone"
    volumetypeTemplate:= model.GetTemplateRequestVolumetypeEnum().EMPTY
    flavorTemplate:= "s2.medium.2"
    imageIdTemplate:= ""
    templatebody := &model.TemplateRequest{
        Name: "",
        IsTemplate: false,
        Region: "region",
        Projectid: "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
        TargetServerName: &targetServerNameTemplate,
        AvailabilityZone: &availabilityZoneTemplate,
        Volumetype: &volumetypeTemplate,
        Flavor: &flavorTemplate,
        Vpc: vpcTemplate,
        Nics: &listNicsTemplate,
        SecurityGroups: &listSecurityGroupsTemplate,
        Publicip: publicipTemplate,
        Disk: &listDiskTemplate,
        ImageId: &imageIdTemplate,
    }
    request.Body = &model.CreateTemplateReq{
        Template: templatebody,
    }
    response, err := client.CreateTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- This example creates a template directly.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

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```
idDisk:= int64(0)
deviceUseDisk:= "BOOT"
var listDiskTemplate = []model.TemplateDisk{
    {
        Id: &idDisk,
        Index: int32(0),
        Name: "Disk 0",
        Disktype: "SATA",
        Size: int64(40),
        DeviceUse: &deviceUseDisk,
    },
}
bandwidthShareTypePublicip:= "PER"
publicipTemplate := &model.PublicIp{
    Type: "5_g-vm",
    BandwidthSize: int32(10),
    BandwidthShareType: &bandwidthShareTypePublicip,
}
var listSecurityGroupsTemplate = []model.SgObject{
    {
        Id: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        Name: "Migrate-dddd",
    },
}
ipNics:= ""
var listNicsTemplate = []model.Nics{
    {
        Id: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
        Name: "Migrate-SSd-35",
        Cidr: "192.168.0.0/16",
        Ip: &ipNics,
    },
}
cidrVpc:= "192.168.0.0/16"
vpcTemplate := &model.VpcObject{
    Id: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    Name: "Migrate-SSd-1",
    Cidr: &cidrVpc,
}
targetServerNameTemplate:= "ggg-win16-t"
availabilityZoneTemplate:= "availability_zone"
volumetypeTemplate:= model.GetTemplateRequestVolumetypeEnum().SATA
flavorTemplate:= "c3.medium.2"
targetPasswordTemplate:= "********"
templatebody := &model.TemplateRequest{
    Name: "xxxx",
    IsTemplate: true,
    Region: "region",
    Projectid: "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    TargetServerName: &targetServerNameTemplate,
    AvailabilityZone: &availabilityZoneTemplate,
    Volumetype: &volumetypeTemplate,
    Flavor: &flavorTemplate,
    Vpc: vpcTemplate,
    Nics: &listNicsTemplate,
    SecurityGroups: &listSecurityGroupsTemplate,
    Publicip: publicipTemplate,
    Disk: &listDiskTemplate,
    TargetPassword: &targetPasswordTemplate,
}
request.Body = &model.CreateTemplateReq{
    Template: templatebody,
}
response, err := client.CreateTemplate(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
```

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```
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The template was created.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.6.2 Listing Templates

Function

This API is used to list templates used for setting up target servers. You can use these templates for quick configuration.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/vm/templates

Table 5-269 Query parameters

Parameter	Mandatory	Type	Description
name	No	String	The template name. Minimum length: 0 characters Maximum length: 255 characters
availability_zone	No	String	The AZ. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
region	No	String	Region ID Minimum length: 0 characters Maximum length: 255 characters
limit	No	Integer	The number of records displayed on each page. If this parameter is not transferred, the default value **50** is used. Minimum value: **0** Maximum value: **100** Default value: **50**
offset	No	Integer	The offset. If this parameter is not transferred, the default value **0** is used. Minimum value: **0** Maximum value: **65535** Default value: **0**

Request

Table 5-270 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

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Table 5-271 Response body parameters

Parameter	Type	Description
count	Integer	The number of templates. Minimum value: **0** Maximum value: **65535**
templates	Array of **TemplateResponseBody** objects	The template information. Array length: 0 to 65,535

Table 5-272 TemplateResponseBody field description

Parameter	Type	Description
id	String	The template ID. Minimum length: 0 characters Maximum length: 255 characters
name	String	The template name. Minimum length: 0 characters Maximum length: 255 characters
is_template	String	Specifies whether the template is general. If the template is associated with a task, the template is not a general template. Minimum length: 0 characters Maximum length: 255 characters
region	String	The region. Minimum length: 0 characters Maximum length: 255 characters
projectid	String	The project ID. Minimum length: 0 characters Maximum length: 255 characters
target_server_name	String	The server name. Minimum length: 0 characters Maximum length: 255 characters
availability_zone	String	The AZ. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
volumetype	String	The data disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**
flavor	String	The server flavor. Minimum length: 0 characters Maximum length: 255 characters
vpc	**VpcObject** object	The VPC information.
nics	Array of **Nics** objects	The NIC information. Multiple NICs are supported. To let the system automatically add a NIC, configure only one NIC entry and set the ID to **autoCreate**. Array length: 0 to 65,535
security_groups	Array of **SgObject** objects	The security group information. Multiple security groups are supported. To let the system automatically create a security group, configure only one security group record and set the ID to **autoCreate**. Array length: 0 to 65,535
publicip	**PublicIp** object	The public IP address information.
disk	Array of **TemplateDisk** objects	The disk information. Array length: 0 to 65,535
data_volume_type	String	The data disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**

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Parameter	Type	Description
target_password	String	The server login password. Minimum length: 0 characters Maximum length: 1,024 characters
image_id	String	The ID of the selected image. Minimum length: 0 characters Maximum length: 255 characters

Table 5-273 VpcObject field description

Parameter	Type	Description
id	String	The VPC ID. To let the system automatically create a VPC, set this parameter to **autoCreate**. Minimum length: 1 character Maximum length: 255 characters
name	String	The VPC name. Minimum length: 1 character Maximum length: 255 characters
cidr	String	The VPC CIDR block. The default value is **192.168.0.0/16**. Minimum length: 1 character Maximum length: 255 characters

Table 5-274 Nics field description

Parameter	Type	Description
id	String	The subnet ID. To let the system automatically create a subnet, set this parameter to **autoCreate**. Minimum length: 0 characters Maximum length: 255 characters
name	String	The subnet name. Minimum length: 0 characters Maximum length: 255 characters
cidr	String	The subnet gateway/mask. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
ip	String	The server IP address. If this parameter is not specified, the system will automatically assign an IP address. Minimum length: 0 characters Maximum length: 255 characters

Table 5-275 SgObject field description

Parameter	Type	Description
id	String	The security group ID. Minimum length: 0 characters Maximum length: 255 characters
name	String	The security group name. Minimum length: 0 characters Maximum length: 255 characters

Table 5-276 PublicIp field description

Parameter	Type	Description
type	String	The EIP type. The default value is **5_bgp**. Minimum length: 0 characters Maximum length: 255 characters
bandwidth_size	Integer	The bandwidth size in Mbit/s. The minimum increment for bandwidth adjustment varies depending on the bandwidth range. The minimum increment is 1 Mbit/s if the allowed bandwidth ranges from 0 to 300 Mbit/s. The minimum increment is 50 Mbit/s if the allowed bandwidth ranges from 300 Mbit/s to 1,000 Mbit/s. The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1,000 Mbit/s. Minimum value: **1** Maximum value: **2000**

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Parameter	Type	Description
bandwidth_share_type	String	The bandwidth type, shared or dedicated. Minimum length: 0 characters Maximum length: 255 characters

Table 5-277 TemplateDisk field description

Parameter	Type	Description
id	Long	The disk ID. Minimum value: **0** Maximum value: **9223372036854775807**
index	Integer	The disk serial number, starting from **0**. Minimum value: **0** Maximum value: **2147483647**
name	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters
disktype	String	The disk type. The value is the same as that of **volumetype**. Minimum length: 0 characters Maximum length: 255 characters
size	Long	The disk size in GB. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The used disk space. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

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Table 5-278 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-279 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example queries the template list.

```
GET https://{endpoint}/v3/vm/templates
```

Example Response

Status code: 200

Querying the template list succeeded.

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```
{
  "count" : 9,
  "templates" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "test",
    "region" : "region",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "flavor" : "s2.large.2",
    "volumetype" : "",
    "image_id" : "",
    "vpc" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "vpc-dfdb"
    },
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "subnet-dfdb(192.168.1.0/24)",
      "cidr" : "192.168.1.0/24",
      "ip" : ""
    } ],
    "security_groups" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "default(Inbound:tcp/8900,8899,3389,22; Outbound:--)"
    } ]
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "test1",
    "region" : "region",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "flavor" : "s6.large.2",
    "volumetype" : "",
    "image_id" : "",
    "vpc" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "vpc-13d6"
    },
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "subnet-13d6(192.168.1.0/24)",
      "cidr" : "192.168.1.0/24",
      "ip" : ""
    } ],
    "security_groups" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "sms-1568190885(Inbound:tcp/8900,8899,3389; Outbound:--)"
    } ]
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "test2",
    "region" : "region",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "flavor" : "s2.large.2",
    "volumetype" : "",
    "image_id" : "",
    "vpc" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "vpc-testcloud(192.168.0.0/16)"
    },
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "subnet-testcloud(192.168.0.0/24)",
      "cidr" : "192.168.0.0/24",
      "ip" : ""
    } ],
    "security_groups" : [ ]
  }, {
```


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```
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "name" : "fdff",
  "region" : "region",
  "availability_zone" : "availability_zone",
  "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
  "flavor" : "s2.large.2",
  "volumetype" : "",
  "image_id" : "",
  "vpc" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "vpc-migration(192.168.0.0/16)"
  },
  "nics" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "subnet-cf42(192.168.5.0/24)",
    "cidr" : "192.168.5.0/24",
    "ip" : ""
  } ],
  "security_groups" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sg-smt-test(Inbound:tcp/3389,8899,22,8900; Outbound:--)"
  } ]
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "name" : "test3",
  "region" : "region",
  "availability_zone" : "availability_zone",
  "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
  "flavor" : "s2.medium.2",
  "volumetype" : "",
  "image_id" : "",
  "vpc" : { },
  "nics" : [ ],
  "security_groups" : [ ]
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "name" : "test_linux_childproj",
  "region" : "region",
  "availability_zone" : "availability_zone",
  "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
  "flavor" : "s2.small.1",
  "volumetype" : "SATA",
  "image_id" : "",
  "vpc" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms-1567992634(192.168.0.0/16)"
  },
  "nics" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms-1567992646(192.168.0.0/16)",
    "cidr" : "192.168.0.0/16",
    "ip" : ""
  } ],
  "security_groups" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sg-7e50(Inbound:tcp/8900,8899,3389,22; Outbound:--)"
  } ]
}, {
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "name" : "12212",
  "region" : "region",
  "availability_zone" : "availability_zone",
  "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
  "flavor" : "s2.large.2",
  "volumetype" : "",
  "image_id" : "",
  "vpc" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "vpc-migration(192.168.0.0/16)"
```


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```
    },
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "subnet-migration(192.168.1.0/24)",
      "cidr" : "192.168.1.0/24",
      "ip" : ""
    } ],
    "security_groups" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "SMT-Windows(Inbound:tcp/8443,8899,8900,22,3389;icmp; Outbound:--)"
    } ]
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "test4",
    "region" : "region",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "flavor" : "s2.medium.2",
    "volumetype" : "SATA",
    "image_id" : "",
    "vpc" : { },
    "nics" : [ ],
    "security_groups" : [ ]
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "dddd",
    "region" : "region",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "flavor" : "s2.large.2",
    "volumetype" : "",
    "image_id" : "",
    "vpc" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "sms-1566979232(192.168.0.0/16)"
    },
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "sms-1566979244(192.168.0.0/16)",
      "cidr" : "192.168.0.0/16",
      "ip" : ""
    } ],
    "security_groups" : [ ]
  } ]
}
```


Status code: 403

Authentication failed.


```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```


SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ListTemplatesSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListTemplatesRequest request = new ListTemplatesRequest();
        try {
            ListTemplatesResponse response = client.listTemplates(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

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```
    credentials = GlobalCredentials(ak, sk)

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

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

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	Querying the template list succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.6.3 Batch Deleting Templates

Function

This API is used to delete templates with specified IDs in batches.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/vm/templates/delete

Request

Table 5-280 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Table 5-281 Request body parameters

Parameter	Mandatory	Type	Description
ids	No	Array of strings	The IDs of the templates to be deleted. Minimum length: 0 characters Maximum length: 255 characters Array length: 0 to 65,535

Response

Status code: 200

Table 5-282 Response body parameters

Parameter	Type	Description
-	String	Templates with specified IDs were deleted in batches.

Status code: 403

Table 5-283 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20

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Parameter	Type	Description
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-284 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example deletes templates with IDs of **3db302e8-95de-478c-a892-8a083f2dxxxx** and **708847ae-f013-4b1a-8ea8-6cfa1e94xxxx** in a batch.

```
POST https://{endpoint}/v3/vm/templates/delete

{
  "ids" : [ "3db302e8-95de-478c-a892-8a083f2dxxxx", "708847ae-f013-4b1a-8ea8-6cfa1e94xxxx" ]
}
```

Example Response

Status code: 200

Templates with specified IDs were deleted in batches.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

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Java

This example deletes templates with IDs of **3db302e8-95de-478c-a892-8a083f2dxxxx** and **708847ae-f013-4b1a-8ea8-6cfa1e94xxxx** in a batch.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class DeleteTemplatesSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteTemplatesRequest request = new DeleteTemplatesRequest();
        DeletetemplatesReq body = new DeletetemplatesReq();
        List<String> listbodyIds = new ArrayList<>();
        listbodyIds.add("3db302e8-95de-478c-a892-8a083f2dxxxx");
        listbodyIds.add("708847ae-f013-4b1a-8ea8-6cfa1e94xxxx");
        body.withIds(listbodyIds);
        request.withBody(body);
        try {
            DeleteTemplatesResponse response = client.deleteTemplates(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

This example deletes templates with IDs of **3db302e8-95de-478c-a892-8a083f2dxxxx** and **708847ae-f013-4b1a-8ea8-6cfa1e94xxxx** in a batch.

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```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = DeleteTemplatesRequest()
        listIdsbody = [
            "3db302e8-95de-478c-a892-8a083f2dxxxx",
            "708847ae-f013-4b1a-8ea8-6cfa1e94xxxx"
        ]
        request.body = DeletetemplatesReq(
            ids=listIdsbody
        )
        response = client.delete_templates(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example deletes templates with IDs of **3db302e8-95de-478c-a892-8a083f2dxxxx** and **708847ae-f013-4b1a-8ea8-6cfa1e94xxxx** in a batch.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

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```
    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteTemplatesRequest{}
    var listIdsbody = []string{
        "3db302e8-95de-478c-a892-8a083f2dxxxx",
        "708847ae-f013-4b1a-8ea8-6cfa1e94xxxx",
    }
    request.Body = &model.DeletetemplatesReq{
        Ids: &listIdsbody,
    }
    response, err := client.DeleteTemplates(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Templates with specified IDs were deleted in batches.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.6.4 Deleting a Template

Function

This API is used to delete a template with a specified ID.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v3/vm/templates/{id}

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Table 5-285 Path parameter

Parameter	Mandatory	Type	Description
id	Yes	String	The ID of the template to be deleted. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-286 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-287 Response body parameters

Parameter	Type	Description
-	String	The template with the specified ID was deleted.

Status code: 403

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Table 5-288 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-289 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example deletes the template whose ID is **2bf4344f-8f1f-414e-bb1b-8c2f59ada67f**.

```
DELETE https://{endpoint}/v3/vm/templates/2bf4344f-8f1f-414e-bb1b-8c2f59ada67f
```

Example Response

Status code: 403

Authentication failed.

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```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class DeleteTemplateSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteTemplateRequest request = new DeleteTemplateRequest();
        request.withId("{id}");
        try {
            DeleteTemplateResponse response = client.deleteTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = DeleteTemplateRequest()
        request.id = "{id}"
        response = client.delete_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The template with the specified ID was deleted.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.6.5 Querying Details About a Template

Function

This API is used to query information about an ECS template with a specified ID.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/vm/templates/{id}

Table 5-290 Path parameter

Parameter	Mandatory	Type	Description
id	Yes	String	The ID of the template to be queried. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-291 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-292 Response body parameters

Parameter	Type	Description
template	**TemplateResponseBody** object	The template information.

Table 5-293 TemplateResponseBody field description

Parameter	Type	Description
id	String	The template ID. Minimum length: 0 characters Maximum length: 255 characters
name	String	The template name. Minimum length: 0 characters Maximum length: 255 characters
is_template	String	Specifies whether the template is general. If the template is associated with a task, the template is not a general template. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
region	String	The region. Minimum length: 0 characters Maximum length: 255 characters
projectid	String	The project ID. Minimum length: 0 characters Maximum length: 255 characters
target_server_name	String	The server name. Minimum length: 0 characters Maximum length: 255 characters
availability_zone	String	The AZ. Minimum length: 0 characters Maximum length: 255 characters
volumetype	String	The data disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**
flavor	String	The server flavor. Minimum length: 0 characters Maximum length: 255 characters
vpc	**VpcObject** object	The VPC information.
nics	Array of **Nics** objects	The NIC information. Multiple NICs are supported. To let the system automatically add a NIC, configure only one NIC entry and set the ID to **autoCreate**. Array length: 0 to 65,535
security_groups	Array of **SgObject** objects	The security group information. Multiple security groups are supported. To let the system automatically create a security group, configure only one security group record and set the ID to **autoCreate**. Array length: 0 to 65,535

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Parameter	Type	Description
publicip	**PublicIp** object	The public IP address information.
disk	Array of **TemplateDisk** objects	The disk information. Array length: 0 to 65,535
data_volume_type	String	The data disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**
target_password	String	The server login password. Minimum length: 0 characters Maximum length: 1,024 characters
image_id	String	The ID of the selected image. Minimum length: 0 characters Maximum length: 255 characters

Table 5-294 VpcObject field description

Parameter	Type	Description
id	String	The VPC ID. To let the system automatically create a VPC, set this parameter to **autoCreate**. Minimum length: 1 character Maximum length: 255 characters
name	String	The VPC name. Minimum length: 1 character Maximum length: 255 characters
cidr	String	The VPC CIDR block. The default value is **192.168.0.0/16**. Minimum length: 1 character Maximum length: 255 characters

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Table 5-295 Nics field description

Parameter	Type	Description
id	String	The subnet ID. To let the system automatically create a subnet, set this parameter to **autoCreate**. Minimum length: 0 characters Maximum length: 255 characters
name	String	The subnet name. Minimum length: 0 characters Maximum length: 255 characters
cidr	String	The subnet gateway/mask. Minimum length: 0 characters Maximum length: 255 characters
ip	String	The server IP address. If this parameter is not specified, the system will automatically assign an IP address. Minimum length: 0 characters Maximum length: 255 characters

Table 5-296 SgObject field description

Parameter	Type	Description
id	String	The security group ID. Minimum length: 0 characters Maximum length: 255 characters
name	String	The security group name. Minimum length: 0 characters Maximum length: 255 characters

Table 5-297 PublicIp field description

Parameter	Type	Description
type	String	The EIP type. The default value is **5_bgp**. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
bandwidth_size	Integer	The bandwidth size in Mbit/s. The minimum increment for bandwidth adjustment varies depending on the bandwidth range. The minimum increment is 1 Mbit/s if the allowed bandwidth ranges from 0 to 300 Mbit/s. The minimum increment is 50 Mbit/s if the allowed bandwidth ranges from 300 Mbit/s to 1,000 Mbit/s. The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1,000 Mbit/s. Minimum value: **1** Maximum value: **2000**
bandwidth_share_type	String	The bandwidth type, shared or dedicated. Minimum length: 0 characters Maximum length: 255 characters

Table 5-298 TemplateDisk field description

Parameter	Type	Description
id	Long	The disk ID. Minimum value: **0** Maximum value: **9223372036854775807**
index	Integer	The disk serial number, starting from **0**. Minimum value: **0** Maximum value: **2147483647**
name	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters
disktype	String	The disk type. The value is the same as that of **volumetype**. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
size	Long	The disk size in GB. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	String	The used disk space. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

Table 5-299 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-300 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example queries the details about the template whose ID is **6874cb49-48bb-4875-975d-4bca464d8472**.

```
GET https://{endpoint}/v3/vm/templates/6874cb49-48bb-4875-975d-4bca464d8472
```

Example Response

Status code: 200

Querying details about a template succeeded.

```
{
  "template" : {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "test1025",
    "region" : "region",
    "target_server_name" : "",
    "availability_zone" : "availability_zone",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "flavor" : "s2.large.2",
    "volumetype" : "",
    "image_id" : "",
    "vpc" : {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "vpc-testcloud(192.168.0.0/16)"
    },
    "nics" : [ {
      "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
      "name" : "subnet-testcloud(192.168.0.0/24)",
      "cidr" : "192.168.0.0/24",
      "ip" : ""
    } ],
    "security_groups" : [ ],
    "publicip" : {
      "type" : "5_bgp",
      "bandwidth_size" : 5,
      "bandwidth_share_type" : "PER"
    },
    "disk" : [ {
      "index" : 0,
      "name" : "system",
      "disktype" : "",
      "size" : 40
    } ]
  }
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
```

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```
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowTemplateSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowTemplateRequest request = new ShowTemplateRequest();
        request.withId("{id}");
        try {
            ShowTemplateResponse response = client.showTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowTemplateRequest()
        request.id = "{id}"
        response = client.show_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Querying details about a template succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.6.6 Modifying a Template

Function

This API is used to modify a template.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/vm/templates/{id}

Table 5-301 Path parameter

Parameter	Mandatory	Type	Description
id	Yes	String	The ID of the template to be modified. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-302 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-303 Request body parameters

Parameter	Mandatory	Type	Description
template	No	**TemplateRequest** object	The template information.

Table 5-304 TemplateRequest field description

Parameter	Mandatory	Type	Description
name	Yes	String	The template name. Minimum length: 0 characters Maximum length: 255 characters
is_template	Yes	Boolean	Specifies whether the template is general. If the template is associated with a task, the template is not a general template.
region	Yes	String	The region. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
projectid	Yes	String	The project ID. Minimum length: 0 characters Maximum length: 255 characters
target_server_name	No	String	The server name. Minimum length: 0 characters Maximum length: 255 characters
availability_zone	No	String	The AZ. Minimum length: 0 characters Maximum length: 255 characters
volumetype	No	String	The disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**
flavor	No	String	The server flavor. Minimum length: 0 characters Maximum length: 65,535 characters
vpc	No	**VpcObject** object	The VPC information.
nics	No	Array of **Nics** objects	The NIC information. Multiple NICs are supported. To let the system automatically add a NIC, configure only one NIC entry and set the ID to **autoCreate**. Array length: 0 to 65,535

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Parameter	Mandatory	Type	Description
security_groups	No	Array of **SgObject** objects	The security group information. Multiple security groups are supported. To let the system automatically create a security group, configure only one security group record and set the ID to **autoCreate**. Array length: 0 to 65,535
publicip	No	**PublicIp** object	The public IP address information.
disk	No	Array of **TemplateDisk** objects	The disk information. Array length: 0 to 65,535
data_volume_type	No	String	The data disk type. **SAS**: serial attached SCSI **SSD**: solid-state drive **SATA**: serial advanced technology attachment The value can be: • **SAS** • **SSD** • **SATA**
target_password	No	String	The server login password. Minimum length: 0 characters Maximum length: 1,024 characters
image_id	No	String	The ID of the image for server creation. Minimum length: 0 characters Maximum length: 255 characters

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Table 5-305 VpcObject field description

Parameter	Mandatory	Type	Description
id	Yes	String	The VPC ID. To let the system automatically create a VPC, set this parameter to **autoCreate**. Minimum length: 1 character Maximum length: 255 characters
name	Yes	String	The VPC name. Minimum length: 1 character Maximum length: 255 characters
cidr	No	String	The VPC CIDR block. The default value is **192.168.0.0/16**. Minimum length: 1 character Maximum length: 255 characters

Table 5-306 Nics field description

Parameter	Mandatory	Type	Description
id	Yes	String	The subnet ID. To let the system automatically create a subnet, set this parameter to **autoCreate**. Minimum length: 0 characters Maximum length: 255 characters
name	Yes	String	The subnet name. Minimum length: 0 characters Maximum length: 255 characters
cidr	Yes	String	The subnet gateway/mask. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
ip	No	String	The server IP address. If this parameter is not specified, the system will automatically assign an IP address. Minimum length: 0 characters Maximum length: 255 characters

Table 5-307 SgObject field description

Parameter	Mandatory	Type	Description
id	Yes	String	The security group ID. Minimum length: 0 characters Maximum length: 255 characters
name	Yes	String	The security group name. Minimum length: 0 characters Maximum length: 255 characters

Table 5-308 PublicIp field description

Parameter	Mandatory	Type	Description
type	Yes	String	The EIP type. The default value is **5_bgp**. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
bandwidth_size	Yes	Integer	The bandwidth size in Mbit/s. The minimum increment for bandwidth adjustment varies depending on the bandwidth range. The minimum increment is 1 Mbit/s if the allowed bandwidth ranges from 0 to 300 Mbit/s. The minimum increment is 50 Mbit/s if the allowed bandwidth ranges from 300 Mbit/s to 1,000 Mbit/s. The minimum increment is 500 Mbit/s if the allowed bandwidth is greater than 1,000 Mbit/s. Minimum value: **1** Maximum value: **2000**
bandwidth_share_type	No	String	The bandwidth type, shared or dedicated. Minimum length: 0 characters Maximum length: 255 characters

Table 5-309 TemplateDisk field description

Parameter	Mandatory	Type	Description
id	No	Long	The disk ID. Minimum value: **0** Maximum value: **9223372036854775807**
index	Yes	Integer	The disk serial number, starting from **0**. Minimum value: **0** Maximum value: **2147483647**
name	Yes	String	The disk name. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
disktype	Yes	String	The disk type. The value is the same as that of **volumetype**. Minimum length: 0 characters Maximum length: 255 characters
size	Yes	Long	The disk size in GB. Minimum value: **0** Maximum value: **9223372036854775807**
device_use	No	String	The used disk space. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

Table 5-310 Response body parameters

Parameter	Type	Description
-	String	The template was modified.

Status code: 403

Table 5-311 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-312 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example changes the name of the template whose ID is **dfbdd142-985f-4a4f-93e1-c535b46bxxxx** to **test1025** and its project ID to **00924d0ad2df4f21ac476dd9f3288xxxx**.

```
PUT https://{endpoint}/v3/vm/templates/dfbdd142-985f-4a4f-93e1-c535b46bxxxx

{
  "template" : {
    "name" : "test1025",
    "is_template" : false,
    "region" : "region",
    "projectid" : "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
    "vpc" : {
      "id" : "autoCreate",
      "name" : "autoCreate"
    },
    "nics" : [ {
      "id" : "autoCreate",
      "name" : "autoCreate",
      "cidr" : "192.168.0.0/24"
    } ],
    "security_groups" : [ {
      "id" : "autoCreate",
      "name" : "autoCreate"
    } ],
    "publicip" : {
      "type" : "5_bgp",
      "bandwidth_size" : 1
    },
    "disk" : [ {
      "index" : 0,
```

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```
    "name" : "index1",
    "disktype" : "type",
    "size" : 111
   } ]
  }
}
```

Example Response

Status code: 200

The template was modified.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example changes the name of the template whose ID is **dfbdd142-985f-4a4f-93e1-c535b46bxxxx** to **test1025** and its project ID to **00924d0ad2df4f21ac476dd9f3288xxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class UpdateTemplateSolution {

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

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

    SmsClient client = SmsClient.newBuilder()
            .withCredential(auth)
            .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
            .build();
    UpdateTemplateRequest request = new UpdateTemplateRequest();
    request.withId("{id}");
    UpdateTemplateReq body = new UpdateTemplateReq();
    List<TemplateDisk> listTemplateDisk = new ArrayList<>();
    listTemplateDisk.add(
        new TemplateDisk()
            .withIndex(0)
            .withName("index1")
            .withDisktype("type")
            .withSize(111L)
    );
    PublicIp publicipTemplate = new PublicIp();
    publicipTemplate.withType("5_bgp")
        .withBandwidthSize(1);
    List<SgObject> listTemplateSecurityGroups = new ArrayList<>();
    listTemplateSecurityGroups.add(
        new SgObject()
            .withId("autoCreate")
            .withName("autoCreate")
    );
    List<Nics> listTemplateNics = new ArrayList<>();
    listTemplateNics.add(
        new Nics()
            .withId("autoCreate")
            .withName("autoCreate")
            .withCidr("192.168.0.0/24")
    );
    VpcObject vpcTemplate = new VpcObject();
    vpcTemplate.withId("autoCreate")
        .withName("autoCreate");
    TemplateRequest templatebody = new TemplateRequest();
    templatebody.withName("test1025")
        .withIsTemplate(false)
        .withRegion("region")
        .withProjectid("xxxxxxxxxxxxxxxxxxxxxxxx00000001")
        .withVpc(vpcTemplate)
        .withNics(listTemplateNics)
        .withSecurityGroups(listTemplateSecurityGroups)
        .withPublicip(publicipTemplate)
        .withDisk(listTemplateDisk);
    body.withTemplate(templatebody);
    request.withBody(body);
    try {
        UpdateTemplateResponse response = client.updateTemplate(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
  }
}
```

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Python

This example changes the name of the template whose ID is **dfbdd142-985f-4a4f-93e1-c535b46bxxxx** to **test1025** and its project ID to **00924d0ad2df4f21ac476dd9f3288xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateTemplateRequest()
        request.id = "{id}"
        listDiskTemplate = [
            TemplateDisk(
                index=0,
                name="index1",
                disktype="type",
                size=111
            )
        ]
        publicipTemplate = PublicIp(
            type="5_bgp",
            bandwidth_size=1
        )
        listSecurityGroupsTemplate = [
            SgObject(
                id="autoCreate",
                name="autoCreate"
            )
        ]
        listNicsTemplate = [
            Nics(
                id="autoCreate",
                name="autoCreate",
                cidr="192.168.0.0/24"
            )
        ]
        vpcTemplate = VpcObject(
            id="autoCreate",
            name="autoCreate"
        )
        templatebody = TemplateRequest(
            name="test1025",
            is_template=False,
            region="region",
            projectid="xxxxxxxxxxxxxxxxxxxxxxxx00000001",
            vpc=vpcTemplate,
            nics=listNicsTemplate,
```

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```
            security_groups=listSecurityGroupsTemplate,
            publicip=publicipTemplate,
            disk=listDiskTemplate
        )
        request.body = UpdateTemplateReq(
            template=templatebody
        )
        response = client.update_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example changes the name of the template whose ID is **dfbdd142-985f-4a4f-93e1-c535b46bxxxx** to **test1025** and its project ID to **00924d0ad2df4f21ac476dd9f3288xxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTemplateRequest{}
    request.Id = "{id}"
    var listDiskTemplate = []model.TemplateDisk{
        {
            Index: int32(0),
            Name: "index1",
            Disktype: "type",
            Size: int64(111),
        },
    }
    publicipTemplate := &model.PublicIp{
        Type: "5_bgp",
        BandwidthSize: int32(1),
    }
    var listSecurityGroupsTemplate = []model.SgObject{
        {
            Id: "autoCreate",
```

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```
            Name: "autoCreate",
        },
    }
    var listNicsTemplate = []model.Nics{
        {
            Id: "autoCreate",
            Name: "autoCreate",
            Cidr: "192.168.0.0/24",
        },
    }
    vpcTemplate := &model.VpcObject{
        Id: "autoCreate",
        Name: "autoCreate",
    }
    templatebody := &model.TemplateRequest{
        Name: "test1025",
        IsTemplate: false,
        Region: "region",
        Projectid: "xxxxxxxxxxxxxxxxxxxxxxxx00000001",
        Vpc: vpcTemplate,
        Nics: &listNicsTemplate,
        SecurityGroups: &listSecurityGroupsTemplate,
        Publicip: publicipTemplate,
        Disk: &listDiskTemplate,
    }
    request.Body = &model.UpdateTemplateReq{
        Template: templatebody,
    }
    response, err := client.UpdateTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The template was modified.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.6.7 Querying the Target Server Password in a Template

Function

This API is used to query the target server password configured in a template.

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Calling Method

For details, see **Calling APIs**.

URI

GET /v3/vm/templates/{id}/target-password

Table 5-313 Path parameter

Parameter	Mandatory	Type	Description
id	Yes	String	The template ID. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-314 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-315 Response body parameters

Parameter	Type	Description
template_id	String	The template ID. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
target_password	String	The server login password. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

Table 5-316 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-317 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

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Example Request

This example queries the target server password configured in the specified template.

```
GET https://{endpoint}/v3/vm/templates/ef3b9722-07a0-40ae-89b0-889ee96dfc56/target-password
```

Example Response

Status code: 200

The target server password was obtained.

```
{
  "template_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "target_password" : "********"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowTargetPasswordSolution {

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

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

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```
        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowTargetPasswordRequest request = new ShowTargetPasswordRequest();
        request.withId("{id}");
        try {
            ShowTargetPasswordResponse response = client.showTargetPassword(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowTargetPasswordRequest()
        request.id = "{id}"
        response = client.show_target_password(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

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

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The target server password was obtained.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.7 Key Management

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5.7.1 Obtaining an SSL Certificate and Private Key

Function

If the block-level migration method is used, the Agent installed on the source server communicates with the target server through an SSL socket. This API is used to download the certificate and private key (in PEM format) required for data migration.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/tasks/{task_id}/certkey

Table 5-318 Path parameter

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

Table 5-319 Query parameter

Parameter	Mandatory	Type	Description
enable_ca_cert	No	Boolean	Indicates whether to generate a CA certificate. Default value: **false**

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Request parameters

Table 5-320 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-321 Response body parameters

Parameter	Type	Description
cert	String	The source certificate. Minimum length: 1 character Maximum length: 1,048,576 characters
private_key	String	The source private key. Minimum length: 1 character Maximum length: 1,048,576 characters
ca	String	The CA certificate. Minimum length: 1 character Maximum length: 1,048,576 characters
target_mgmt_cert	String	The certificate of the target server for migration task management. Minimum length: 1 character Maximum length: 1,048,576 characters
target_mgmt_private_key	String	The private key of the target server for migration task management. Minimum length: 1 character Maximum length: 1,048,576 characters

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Parameter	Type	Description
target_data_cert	String	The certificate of the target server for data migration. Minimum length: 1 character Maximum length: 1,048,576 characters
target_data_private_key	String	The private key of the target server for data migration. Minimum length: 1 character Maximum length: 1,048,576 characters

Status code: 400

Table 5-322 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 401

Table 5-323 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403

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Table 5-324 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-325 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

Table 5-326 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 500

Table 5-327 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example obtains the certificate and private key required for a migration task.

```
GET https://{endpoint}/v3/tasks/{task_id}/certkey?enable_ca_cert=true
```

Example Response

Status code: 200

Obtaining an SSL certificate and private key succeeded.

```
{
  "ca" : "-----BEGIN CERTIFICATE-----\n********************************\n-----END CERTIFICATE-----",
  "cert" : "-----BEGIN CERTIFICATE-----\n********************************\n-----END CERTIFICATE-----",
  "private_key" : "-----BEGIN RSA PRIVATE KEY-----\n********************************\n-----END RSA PRIVATE
KEY-----",
  "target_mgmt_cert" : "-----BEGIN CERTIFICATE-----\n********************************\n-----END
CERTIFICATE-----",
  "target_mgmt_private_key" : "-----BEGIN RSA PRIVATE KEY-----\n********************************\n-----END RSA
PRIVATE KEY-----",
  "target_data_cert" : "-----BEGIN CERTIFICATE-----\n********************************\n-----END CERTIFICATE-----",
  "target_data_private_key" : "-----BEGIN RSA PRIVATE KEY-----\n********************************\n-----END RSA
PRIVATE KEY-----"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
```

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```
 "encoded_authorization_message" : "XXXXXX",
 "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
 "details" : [ {
  "error_code" : "SMS.9004",
  "error_msg" : "You do not have permission to perform action XXX on resource XXX."
 } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowCertKeySolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowCertKeyRequest request = new ShowCertKeyRequest();
        request.withTaskId("{task_id}");
        try {
            ShowCertKeyResponse response = client.showCertKey(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

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

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```
import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowCertKeyRequest()
        request.task_id = "{task_id}"
        response = client.show_cert_key(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowCertKeyRequest{}
    request.TaskId = "{task_id}"
    response, err := client.ShowCertKey(request)
    if err == nil {
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Obtaining an SSL certificate and private key succeeded.
400	Bad request.
401	Unauthorized.
403	Authentication failed.
404	Not found.
500	Internal server error.

Error Codes

For details, see **Error Codes**.

5.8 Migration Project Management

5.8.1 Creating a Migration Project

Function

This API is used to create a migration project.

Constraints

The migration project name must be unique.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/migprojects

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Request

Table 5-328 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-329 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	The migration project name. Minimum length: 2 characters Maximum length: 19 characters
description	No	String	The migration project description. Minimum length: 0 characters Maximum length: 255 characters
isdefault	No	Boolean	Indicates whether the migration project is the default project. Default value: **false**
region	Yes	String	The region name. Minimum length: 0 characters Maximum length: 255 characters
start_target_server	No	Boolean	Indicates whether the target server is started after the migration is complete. Default value: **true**

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Parameter	Mandatory	Type	Description
speed_limit	No	Integer	The migration rate limit, in Mbit/s. Minimum value: **0** Maximum value: **10000**
use_public_ip	Yes	Boolean	Indicates whether a public IP address is used for migration. Default value: **true**
exist_server	Yes	Boolean	Specifies whether an existing server is as the target server. Default value: **true**
type	Yes	String	The migration project type. **MIGRATE_BLOCK**: block-level migration **MIGRATE_FILE**: file-level migration Minimum length: 0 characters Maximum length: 255 characters The value can be: • **MIGRATE_BLOCK** • **MIGRATE_FILE**
enterprise_project	No	String	The enterprise project name. Default value: **default** Minimum length: 0 characters Maximum length: 255 characters
syncing	Yes	Boolean	Indicates whether continuous synchronization is performed after the first replication or synchronization is complete. Default value: **false**
start_network_check	No	Boolean	Indicates whether the network performance is measured.

Response

Status code: 200

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Table 5-330 Response body parameters

Parameter	Type	Description
id	String	The ID of the new migration project returned after the creation is complete. Minimum length: 0 characters Maximum length: 255 characters

Status code: 403

Table 5-331 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-332 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example creates a migration project by setting the project name to **N121**, the region to **region**, the public IP address to **true**, and the migration project type to **MIGRATE_BLOCK**.

```
POST https://{endpoint}/v3/migprojects

{
  "name" : "N121",
  "description" : "",
  "region" : "region",
  "start_target_server" : true,
  "speed_limit" : 0,
  "use_public_ip" : true,
  "exist_server" : true,
  "isdefault" : true,
  "type" : "MIGRATE_BLOCK",
  "syncing" : false,
  "enterprise_project" : "default"
}
```

Example Response

Status code: 200

Creating a migration project succeeded.

```
{
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

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Java

This example creates a migration project by setting the project name to **N121**, the region to **region**, the public IP address to **true**, and the migration project type to **MIGRATE_BLOCK**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class CreateMigprojectSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateMigprojectRequest request = new CreateMigprojectRequest();
        PostMigProjectBody body = new PostMigProjectBody();
        body.withSyncing(false);
        body.withEnterpriseProject("default");
        body.withType(PostMigProjectBody.TypeEnum.fromValue("MIGRATE_BLOCK"));
        body.withExistServer(true);
        body.withUsePublicIp(true);
        body.withSpeedLimit(0);
        body.withStartTargetServer(true);
        body.withRegion("region");
        body.withIsdefault(true);
        body.withDescription("");
        body.withName("N121");
        request.withBody(body);
        try {
            CreateMigprojectResponse response = client.createMigproject(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

This example creates a migration project by setting the project name to **N121**, the region to **region**, the public IP address to **true**, and the migration project type to **MIGRATE_BLOCK**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = CreateMigprojectRequest()
        request.body = PostMigProjectBody(
            syncing=False,
            enterprise_project="default",
            type="MIGRATE_BLOCK",
            exist_server=True,
            use_public_ip=True,
            speed_limit=0,
            start_target_server=True,
            region="region",
            isdefault=True,
            description="",
            name="N121"
        )
        response = client.create_migproject(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example creates a migration project by setting the project name to **N121**, the region to **region**, the public IP address to **true**, and the migration project type to **MIGRATE_BLOCK**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
```

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```
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateMigprojectRequest{}
    enterpriseProjectPostMigProjectBody:= "default"
    speedLimitPostMigProjectBody:= int32(0)
    startTargetServerPostMigProjectBody:= true
    isdefaultPostMigProjectBody:= true
    descriptionPostMigProjectBody:= ""
    request.Body = &model.PostMigProjectBody{
        Syncing: false,
        EnterpriseProject: &enterpriseProjectPostMigProjectBody,
        Type: model.GetPostMigProjectBodyTypeEnum().MIGRATE_BLOCK,
        ExistServer: true,
        UsePublicIp: true,
        SpeedLimit: &speedLimitPostMigProjectBody,
        StartTargetServer: &startTargetServerPostMigProjectBody,
        Region: "region",
        Isdefault: &isdefaultPostMigProjectBody,
        Description: &descriptionPostMigProjectBody,
        Name: "N121",
    }
    response, err := client.CreateMigproject(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Creating a migration project succeeded.
403	Authentication failed.

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Error Codes

For details, see **Error Codes**.

5.8.2 Listing Migration Projects

Function

SMS enables you to use migration projects to manage source servers. This API is used to obtain the list of all migration projects under the current account.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/migprojects

Table 5-333 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	The number of migration projects recorded on each page Minimum value: **0** Maximum value: **100** Default value: **50**
offset	No	Integer	The offset. Minimum value: **0** Maximum value: **65535** Default value: **0**

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Request

Table 5-334 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-335 Response body parameters

Parameter	Type	Description
count	Integer	The number of queried migration projects. Minimum value: **0** Maximum value: **2147483647**
migprojects	Array of **MigprojectsResponseBody** objects	The details of the queried migration projects. Array length: 0 to 65,535

Table 5-336 MigprojectsResponseBody field description

Parameter	Type	Description
id	String	The migration project ID. Minimum length: 1 character Maximum length: 254 characters
name	String	The migration project name. Minimum length: 2 characters Maximum length: 19 characters

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Parameter	Type	Description
use_public_ip	Boolean	Indicates whether a public IP address is used for migration.
isdefault	Boolean	Indicates whether the migration project is the default project.
start_target_server	Boolean	Indicates whether the target server is started after the migration is complete.
region	String	The region name. Minimum length: 0 characters Maximum length: 255 characters
speed_limit	Integer	The migration rate limit configured in the project. The unit is Mbit/s. Minimum value: **0** Maximum value: **10000**
exist_server	Boolean	Indicates whether there are servers in the migration project.
description	String	The migration project description. Minimum length: 0 characters Maximum length: 255 characters
type	String	The migration project type. **MIGRATE_BLOCK**: block-level migration **MIGRATE_FILE**: file-level migration The value can be: • **MIGRATE_BLOCK** • **MIGRATE_FILE**
enterprise_project	String	The name of the enterprise project to which the migration project belongs. Minimum length: 0 characters Maximum length: 255 characters
syncing	Boolean	Indicate whether continuous synchronization is performed after the full replication is complete.
start_network_check	Boolean	Indicates whether the network performance is measured.

Status code: 403

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Table 5-337 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-338 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example obtains the list of migration projects.

```
GET https://{endpoint}/v3/migprojects
```

Example Response

Status code: 200

The list of migration projects was obtained.

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```
{
  "count" : 6,
  "migprojects" : [ {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms_test",
    "use_public_ip" : true,
    "isdefault" : true,
    "start_target_server" : true,
    "region" : "06334e957c80d2642f39c0030856abdb",
    "speed_limit" : 0,
    "exist_server" : true,
    "description" : "",
    "type" : "MIGRATE_BLOCK",
    "enterprise_project" : "default"
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "SystemProject",
    "use_public_ip" : true,
    "isdefault" : false,
    "start_target_server" : true,
    "region" : "region",
    "speed_limit" : 0,
    "exist_server" : true,
    "description" : "",
    "type" : "MIGRATE_BLOCK",
    "enterprise_project" : "default"
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms_test",
    "use_public_ip" : true,
    "isdefault" : false,
    "start_target_server" : true,
    "region" : "region",
    "speed_limit" : 0,
    "exist_server" : true,
    "description" : "",
    "type" : "MIGRATE_BLOCK",
    "enterprise_project" : "default"
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms_test_Test",
    "use_public_ip" : true,
    "isdefault" : false,
    "start_target_server" : true,
    "region" : "region",
    "speed_limit" : 0,
    "exist_server" : true,
    "description" : "",
    "type" : "MIGRATE_BLOCK",
    "enterprise_project" : "default"
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms_test002",
    "use_public_ip" : true,
    "isdefault" : false,
    "start_target_server" : true,
    "region" : "region",
    "speed_limit" : 0,
    "exist_server" : true,
    "description" : "",
    "type" : "MIGRATE_BLOCK",
    "enterprise_project" : "default"
  }, {
    "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
    "name" : "sms_test003",
    "use_public_ip" : true,
    "isdefault" : false,
    "start_target_server" : true,
    "region" : "region",
```


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```
    "speed_limit" : 0,
    "exist_server" : true,
    "description" : "",
    "type" : "MIGRATE_BLOCK",
    "enterprise_project" : "default"
  } ]
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ListMigprojectsSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListMigprojectsRequest request = new ListMigprojectsRequest();
        try {
            ListMigprojectsResponse response = client.listMigprojects(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
```

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

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The list of migration projects was obtained.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.8.3 Querying Details About a Migration Project

Function

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

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/migprojects/{mig_project_id}

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Table 5-339 Path parameter

Parameter	Mandatory	Type	Description
mig_project_id	Yes	String	The migration project ID. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-340 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-341 Response body parameters

Parameter	Type	Description
id	String	The migration project ID. Minimum length: 1 character Maximum length: 254 characters
name	String	The migration project name. Minimum length: 2 characters Maximum length: 19 characters
description	String	The migration project description. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
isdefault	Boolean	Indicates whether the migration project is the default project. Default value: **false**
region	String	The region name. Minimum length: 0 characters Maximum length: 255 characters
start_target_server	Boolean	Indicates whether the target server is started after the migration is complete. Default value: **true**
speed_limit	Integer	The migration rate limit, in Mbit/s. Minimum value: **0** Maximum value: **10000**
use_public_ip	Boolean	Indicates whether a public IP address is used for migration. Default value: **true**
exist_server	Boolean	Specifies whether an existing server is as the target server. Default value: **true**
type	String	The migration project type. **MIGRATE_BLOCK**: block-level migration **MIGRATE_FILE**: file-level migration The value can be: • **MIGRATE_BLOCK** • **MIGRATE_FILE**
enterprise_project	String	The enterprise project name. Default value: **default** Minimum length: 0 characters Maximum length: 255 characters
syncing	Boolean	Indicates whether continuous synchronization is performed after the first replication or synchronization is complete. Default value: **false**
start_network_check	Boolean	Indicates whether the network performance is measured.

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Status code: 403

Table 5-342 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-343 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example queries the migration project whose ID is **137224b7-8d7c-4919-b33e-ed159778d7a7**.

```
GET https://{endpoint}/v3/migprojects/137224b7-8d7c-4919-b33e-ed159778d7a7
```

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Example Response

Status code: 200

The details about the migration project with a specified ID were queried.

```
{
  "id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001",
  "name" : "456",
  "isdefault" : true,
  "region" : null,
  "start_target_server" : false,
  "speed_limit" : 0,
  "use_public_ip" : true
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowMigprojectSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
```

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```
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowMigprojectRequest request = new ShowMigprojectRequest();
        request.withMigProjectId("{mig_project_id}");
        try {
            ShowMigprojectResponse response = client.showMigproject(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowMigprojectRequest()
        request.mig_project_id = "{mig_project_id}"
        response = client.show_migproject(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The details about the migration project with a specified ID were queried.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.8.4 Deleting a Migration Project

Function

This API is used to delete a migration project with a specified ID.

Constraints

Only projects that have no servers can be deleted.

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Calling Method

For details, see **Calling APIs**.

URI

DELETE /v3/migprojects/{mig_project_id}

Table 5-344 Path parameter

Parameter	Mandatory	Type	Description
mig_project_id	Yes	String	The ID of the migration project to be deleted. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-345 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-346 Response body parameters

Parameter	Type	Description
-	String	Deleting a migration project succeeded.

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Status code: 403

Table 5-347 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-348 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example deletes the project whose ID is **137224b7-8d7c-4919-b33e-ed159778d7a7**.

```
DELETE https://{endpoint}/v3/migprojects/137224b7-8d7c-4919-b33e-ed159778d7a7
```

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Example Response

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class DeleteMigprojectSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteMigprojectRequest request = new DeleteMigprojectRequest();
        request.withMigProjectId("{mig_project_id}");
        try {
            DeleteMigprojectResponse response = client.deleteMigproject(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
```

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

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = DeleteMigprojectRequest()
        request.mig_project_id = "{mig_project_id}"
        response = client.delete_migproject(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

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```
    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Deleting a migration project succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.8.5 Modifying a Migration Project

Function

This API is used to modify a migration project.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/migprojects/{mig_project_id}

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Table 5-349 Path parameter

Parameter	Mandatory	Type	Description
mig_project_id	Yes	String	The migration project ID. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-350 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-351 Request body parameters

Parameter	Mandatory	Type	Description
id	No	String	The migration project ID. Minimum length: 1 character Maximum length: 254 characters
name	Yes	String	The migration project name. Minimum length: 2 characters Maximum length: 19 characters
description	No	String	The migration project description. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
isdefault	No	Boolean	Indicates whether the migration project is the default project. Default value: **false**
region	Yes	String	The region name. Minimum length: 0 characters Maximum length: 255 characters
start_target_server	No	Boolean	Indicates whether the target server is started after the migration is complete. Default value: **true**
speed_limit	No	Integer	The migration rate limit, in Mbit/s. Minimum value: **0** Maximum value: **10000**
use_public_ip	Yes	Boolean	Indicates whether a public IP address is used for migration. Default value: **true**
exist_server	Yes	Boolean	Specifies whether an existing server is as the target server. Default value: **true**
type	Yes	String	The migration project type. **MIGRATE_BLOCK**: block-level migration **MIGRATE_FILE**: file-level migration The value can be: • **MIGRATE_BLOCK** • **MIGRATE_FILE**
enterprise_project	No	String	The enterprise project name. Default value: **default** Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Mandatory	Type	Description
syncing	Yes	Boolean	Indicates whether continuous synchronization is performed after the first replication or synchronization is complete. Default value: **false**
start_network_check	No	Boolean	Indicates whether the network performance is measured.

Response

Status code: 200

Table 5-352 Response body parameters

Parameter	Type	Description
-	String	The default migration project was modified.

Status code: 403

Table 5-353 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20

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Parameter	Type	Description
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-354 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example modifies the migration project with ID **9879f7aa-3347-47fb-8f89-6070f9e0xxxx**. The new migration project name is **225**, the region information is **region**, the speed limit is **100 Mbit/s**, and the migration type is **MIGRATE_FILE**.

```
PUT  https://{endpoint}/v3/migprojects/9879f7aa-3347-47fb-8f89-6070f9e0xxxx

{
  "name" : 225,
  "region" : "region",
  "description" : "hello",
  "start_target_server" : true,
  "speed_limit" : 100,
  "use_public_ip" : true,
  "exist_server" : true,
  "type" : "MIGRATE_FILE",
  "syncing" : false
}
```

Example Response

Status code: 200

The default migration project was modified.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
```

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```
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example modifies the migration project with ID **9879f7aa-3347-47fb-8f89-6070f9e0xxxx**. The new migration project name is **225**, the region information is **region**, the speed limit is **100 Mbit/s**, and the migration type is **MIGRATE_FILE**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateMigprojectSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateMigprojectRequest request = new UpdateMigprojectRequest();
        request.withMigProjectId("{mig_project_id}");
        MigProject body = new MigProject();
        body.withSyncing(false);
        body.withType(MigProject.TypeEnum.fromValue("MIGRATE_FILE"));
        body.withExistServer(true);
        body.withUsePublicIp(true);
        body.withSpeedLimit(100);
        body.withStartTargetServer(true);
        body.withRegion("region");
        body.withDescription("hello");
        body.withName("225");
        request.withBody(body);
        try {
            UpdateMigprojectResponse response = client.updateMigproject(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
```

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

Python

This example modifies the migration project with ID **9879f7aa-3347-47fb-8f89-6070f9e0xxxx**. The new migration project name is **225**, the region information is **region**, the speed limit is **100 Mbit/s**, and the migration type is **MIGRATE_FILE**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateMigprojectRequest()
        request.mig_project_id = "{mig_project_id}"
        request.body = MigProject(
            syncing=False,
            type="MIGRATE_FILE",
            exist_server=True,
            use_public_ip=True,
            speed_limit=100,
            start_target_server=True,
            region="region",
            description="hello",
            name="225"
        )
        response = client.update_migproject(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

This example modifies the migration project with ID **9879f7aa-3347-47fb-8f89-6070f9e0xxxx**. The new migration project name is **225**, the region information is **region**, the speed limit is **100 Mbit/s**, and the migration type is **MIGRATE_FILE**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateMigprojectRequest{}
    request.MigProjectId = "{mig_project_id}"
    speedLimitMigProject:= int32(100)
    startTargetServerMigProject:= true
    descriptionMigProject:= "hello"
    request.Body = &model.MigProject{
        Syncing: false,
        Type: model.GetMigProjectTypeEnum().MIGRATE_FILE,
        ExistServer: true,
        UsePublicIp: true,
        SpeedLimit: &speedLimitMigProject,
        StartTargetServer: &startTargetServerMigProject,
        Region: "region",
        Description: &descriptionMigProject,
        Name: "225",
    }
    response, err := client.UpdateMigproject(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	The default migration project was modified.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.8.6 Changing the Default Migration Project

Function

This API is used to change the default migration project. If you change the default migration project, the source server will be registered under the changed project.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/migprojects/{mig_project_id}/default

Table 5-355 Path parameter

Parameter	Mandatory	Type	Description
mig_project_id	Yes	String	The migration project ID. Minimum length: 0 characters Maximum length: 255 characters

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Request

Table 5-356 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	X-Auth-Token The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-357 Response body parameters

Parameter	Type	Description
-	String	The default migration project was changed.

Status code: 403

Table 5-358 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-359 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example changes the default migration project to **137224b7-8d7c-4919-b33e-ed159778xxx**.

```
PUT https://{endpoint}/v3/migprojects/137224b7-8d7c-4919-b33e-ed159778xxxx/default
```

Example Response

Status code: 200

The default migration project was changed.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
```

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```
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateDefaultMigprojectSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateDefaultMigprojectRequest request = new UpdateDefaultMigprojectRequest();
        request.withMigProjectId("{mig_project_id}");
        try {
            UpdateDefaultMigprojectResponse response = client.updateDefaultMigproject(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

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

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```
import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateDefaultMigprojectRequest()
        request.mig_project_id = "{mig_project_id}"
        response = client.update_default_migproject(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateDefaultMigprojectRequest{}
    request.MigProjectId = "{mig_project_id}"
    response, err := client.UpdateDefaultMigproject(request)
    if err == nil {
```

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The default migration project was changed.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.9 Network Measurement Management

5.9.1 Updating Network Measurement Information

Function

The API is called by the Agent to report network measurement information.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/{task_id}/update-network-check-info

Table 5-360 Path parameter

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

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Request

Table 5-361 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Table 5-362 Request body parameters

Parameter	Mandatory	Type	Description
domain_connectivity	No	Boolean	The connectivity to domain names.
destination_connectivity	No	Boolean	The connectivity to the target server.
network_delay	Yes	Double	The network latency. Minimum value: **0** Maximum value: **10000.0**
network_jitter	Yes	Double	The network jitter. Minimum value: **0** Maximum value: **10000**
migration_speed	Yes	Double	The bandwidth. Minimum value: **0** Maximum value: **10000**
loss_percentage	Yes	Double	The packet loss rate. Minimum value: **0** Maximum value: **100**
cpu_usage	Yes	Double	The CPU usage. Minimum value: **0** Maximum value: **100**
mem_usage	Yes	Double	The memory usage. Minimum value: **0** Maximum value: **100**

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Parameter	Mandatory	Type	Description
evaluation_result	Yes	String	The network evaluation result. Minimum length: 6 characters Maximum length: 8 characters

Response

Status code: 200

Table 5-363 Response body parameters

Parameter	Type	Description
task_id	String	The task ID. Minimum length: 1 character Maximum length: 255 characters

Status code: 400

Table 5-364 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403

Table 5-365 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-366 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

Table 5-367 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

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Status code: 500

Table 5-368 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example updates the network performance measurement results of the task **137224b7-8d7c-4919-b33e-ed159778xxxx**.

```
POST https://{endpoint}/v3/137224b7-8d7c-4919-b33e-ed159778xxxx/update-network-check-info

{
  "network_delay" : "20.00",
  "network_jitter" : "2.00",
  "migration_speed" : "100.00",
  "loss_percentage" : "0.00",
  "cpu_usage" : "20.00",
  "mem_usage" : "20.00",
  "evaluation_result" : ""
}
```

Example Response

Status code: 200

The network measurement results were updated.

```
{
  "task_id" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxx0001"
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

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SDK Sample Code

The sample code is as follows.

Java

This example updates the network performance measurement results of the task **137224b7-8d7c-4919-b33e-ed159778xxxx**.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UpdateNetworkCheckInfoSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateNetworkCheckInfoRequest request = new UpdateNetworkCheckInfoRequest();
        request.withTaskId("{task_id}");
        NetworkCheckInfoRequestBody body = new NetworkCheckInfoRequestBody();
        body.withEvaluationResult("");
        body.withMemUsage((double)20.00);
        body.withCpuUsage((double)20.00);
        body.withLossPercentage((double)0.00);
        body.withMigrationSpeed((double)100.00);
        body.withNetworkJitter((double)2.00);
        body.withNetworkDelay((double)20.00);
        request.withBody(body);
        try {
            UpdateNetworkCheckInfoResponse response = client.updateNetworkCheckInfo(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

This example updates the network performance measurement results of the task **137224b7-8d7c-4919-b33e-ed159778xxxx**.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UpdateNetworkCheckInfoRequest()
        request.task_id = "{task_id}"
        request.body = NetworkCheckInfoRequestBody(
            evaluation_result="",
            mem_usage=20.00,
            cpu_usage=20.00,
            loss_percentage=0.00,
            migration_speed=100.00,
            network_jitter=2.00,
            network_delay=20.00
        )
        response = client.update_network_check_info(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example updates the network performance measurement results of the task **137224b7-8d7c-4919-b33e-ed159778xxxx**.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateNetworkCheckInfoRequest{}
    request.TaskId = "{task_id}"
    request.Body = &model.NetworkCheckInfoRequestBody{
        EvaluationResult: "",
        MemUsage: float64(20.00),
        CpuUsage: float64(20.00),
        LossPercentage: float64(0.00),
        MigrationSpeed: float64(100.00),
        NetworkJitter: float64(2.00),
        NetworkDelay: float64(20.00),
    }
    response, err := client.UpdateNetworkCheckInfo(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The network measurement results were updated.
400	The request parameters were missing.
403	Authentication failed.
404	The task was not found.
500	Updating the network measurement results failed.

Error Codes

For details, see **Error Codes**.

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5.10 Advanced Migration Options Management

5.10.1 Configuring Advanced Migration Options

Function

This API is used to configure advanced migration options for a task, for example, specifying the files or paths to be synchronized.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/{task_id}/configuration-setting

Table 5-369 Path parameter

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

Request

Table 5-370 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

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Table 5-371 Request body parameters

Parameter	Mandatory	Type	Description
configurations	Yes	Array of **ConfigBody** objects	The list of advanced migration options. Array length: 0 to 10

Table 5-372 ConfigBody field description

Parameter	Mandatory	Type	Description
config_key	Yes	String	The advanced migration option. The value can be **EXCLUDE_MIGRATE_PATH**, **SYNC_EXCLUDE_PATH**, or **ONLY_SYNC_PATH**. Minimum length: 0 characters Maximum length: 255 characters
config_value	Yes	String	The value specified for the advanced migration option. It is stored in the database and parsed on the Agent. Minimum length: 0 characters Maximum length: 1,024 characters
config_status	No	String	The reserved field that describes the configuration status. Minimum length: 0 characters Maximum length: 255 characters

Response

Status code: 200

Table 5-373 Response body parameters

Parameter	Type	Description
-	String	Advanced migration options were configured successfully.

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Status code: 403

Table 5-374 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-375 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

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Table 5-376 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 500

Table 5-377 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example sets advanced option **LINUX_CPU_LIMIT** to **50** for a migration task.

```
POST https://{endpoint}/v3/tasks/{task_id}/configuration-setting

{
  "configurations" : [ {
    "config_key" : "LINUX_CPU_LIMIT",
    "config_value" : 50
  } ]
}
```

Example Response

Status code: 200

Advanced migration options were configured successfully.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
```

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```
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

This example sets advanced option **LINUX_CPU_LIMIT** to **50** for a migration task.

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;

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

public class UploadSpecialConfigurationSettingSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UploadSpecialConfigurationSettingRequest request = new
UploadSpecialConfigurationSettingRequest();
        request.withTaskId("{task_id}");
        ConfigurationRequestBody body = new ConfigurationRequestBody();
        List<ConfigBody> listbodyConfigurations = new ArrayList<>();
        listbodyConfigurations.add(
            new ConfigBody()
                .withConfigKey("LINUX_CPU_LIMIT")
                .withConfigValue("50")
        );
        body.withConfigurations(listbodyConfigurations);
        request.withBody(body);
        try {
            UploadSpecialConfigurationSettingResponse response =
client.uploadSpecialConfigurationSetting(request);
            System.out.println(response.toString());
```

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

Python

This example sets advanced option **LINUX_CPU_LIMIT** to **50** for a migration task.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UploadSpecialConfigurationSettingRequest()
        request.task_id = "{task_id}"
        listConfigurationsbody = [
            ConfigBody(
                config_key="LINUX_CPU_LIMIT",
                config_value="50"
            )
        ]
        request.body = ConfigurationRequestBody(
            configurations=listConfigurationsbody
        )
        response = client.upload_special_configuration_setting(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

This example sets advanced option **LINUX_CPU_LIMIT** to **50** for a migration task.

```
package main
```

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UploadSpecialConfigurationSettingRequest{}
    request.TaskId = "{task_id}"
    var listConfigurationsbody = []model.ConfigBody{
        {
            ConfigKey: "LINUX_CPU_LIMIT",
            ConfigValue: "50",
        },
    }
    request.Body = &model.ConfigurationRequestBody{
        Configurations: listConfigurationsbody,
    }
    response, err := client.UploadSpecialConfigurationSetting(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Advanced migration options were configured successfully.
403	Authentication failed.
404	The task was not found.
500	Advanced migration options failed to be configured.

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Error Codes

For details, see **Error Codes**.

5.10.2 Querying the Advanced Migration Options Configured for a Task

Function

This API is used to query the settings of advanced migration options of a task.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/tasks/{task_id}/configuration-setting

Table 5-378 Path parameter

Parameter	Mandatory	Type	Description
task_id	Yes	String	The task ID. Minimum length: 1 character Maximum length: 255 characters

Table 5-379 Query parameters

Parameter	Mandatory	Type	Description
config_key	No	String	The advanced migration options to be queried.

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Request

Table 5-380 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-381 Response body parameters

Parameter	Type	Description
task_id	String	The task ID. Minimum length: 0 characters Maximum length: 100 characters
migrate_type	String	The migration method. Minimum length: 0 characters Maximum length: 255 characters
configurations	Array of **ConfigBody** objects	The settings of advanced migration options. Array length: 0 to 1,000

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Table 5-382 ConfigBody field description

Parameter	Type	Description
config_key	String	The advanced migration option. The value can be **EXCLUDE_MIGRATE_PATH**, **SYNC_EXCLUDE_PATH**, or **ONLY_SYNC_PATH**. Minimum length: 0 characters Maximum length: 255 characters
config_value	String	The value specified for the advanced migration option. It is stored in the database and parsed on the Agent. Minimum length: 0 characters Maximum length: 1,024 characters
config_status	String	The reserved field that describes the configuration status. Minimum length: 0 characters Maximum length: 255 characters

Status code: 400

Table 5-383 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Status code: 403

Table 5-384 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters

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Parameter	Type	Description
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-385 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Status code: 404

Table 5-386 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

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Status code: 500

Table 5-387 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 1,024 characters

Example Request

This example obtains the settings of **MIGRATE_EXCLUDE_PATH** of the task 0867ef5f3xxxxxxxxxxxxxxx.

```
GET https://{endpoint}/v3/tasks/0867ef5f3xxxxxxxxxxxxxxx/configuration-setting?
config_key=MIGRATE_EXCLUDE_PATH
```

Example Response

Status code: 200

The settings of advanced migration options of a task were queried.

```
{
  "task_id" : "0867ef5f3xxxxxxxxxxxxxxx",
  "migrate_type" : "LINUX_FILE_MIGRATE",
  "configurations" : [ {
    "config_key" : "MIGRATE_EXCLUDE_PATH",
    "config_value" : "/test",
    "config_status" : ""
  } ]
}
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have
permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

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Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowConfigSettingSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowConfigSettingRequest request = new ShowConfigSettingRequest();
        request.withTaskId("{task_id}");
        try {
            ShowConfigSettingResponse response = client.showConfigSetting(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowConfigSettingRequest()
        request.task_id = "{task_id}"
        response = client.show_config_setting(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	The settings of advanced migration options of a task were queried.
400	Bad request.
403	Authentication failed.
404	The task was not found.
500	Querying the settings of advanced migration options failed.

Error Codes

For details, see **Error Codes**.

5.11 Privacy Agreement Management

5.11.1 Signing the Privacy Agreement

Function

This API is used to sign the privacy agreement.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/privacy-agreements

Request

Table 5-388 Request header parameter

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

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Response

Status code: 200

Table 5-389 Response body parameters

Parameter	Type	Description
-	String	Request succeeded.

Example Request

This example signs the privacy agreement.

```
POST https://{endpoint}/v3/privacy-agreements
```

Example Response

Status code: 200

Request succeeded.

```
""
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class CreatePrivacyAgreementsSolution {

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

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

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

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```
        CreatePrivacyAgreementsRequest request = new CreatePrivacyAgreementsRequest();
        try {
            CreatePrivacyAgreementsResponse response = client.createPrivacyAgreements(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Request succeeded.

Error Codes

For details, see **Error Codes**.

5.11.2 Querying Whether a User Has Signed the Privacy Agreement

Function

This API is used to query whether a user has signed the privacy agreement.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/privacy-agreements

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Request

Table 5-390 Request header parameter

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

Response

Status code: 200

Table 5-391 Response body parameters

Parameter	Type	Description
flag	Boolean	The result of the request to query whether the user has signed the privacy agreement.

Example Request

This example queries whether a user has signed the privacy agreement.

```
GET https://{endpoint}/v3/privacy-agreements
```

Example Response

Status code: 200

Querying whether a user has signed the privacy agreement succeeded.

```
{
  "flag" : true
}
```

SDK Sample Code

The sample code is as follows.

Java

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

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

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```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowPrivacyAgreementsSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowPrivacyAgreementsRequest request = new ShowPrivacyAgreementsRequest();
        try {
            ShowPrivacyAgreementsResponse response = client.showPrivacyAgreements(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

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

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Querying whether a user has signed the privacy agreement succeeded.

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Error Codes

For details, see **Error Codes**.

5.12 Historical APIs

5.12.1 Calculating an SHA256 Value

Function

This API is used to calculate SHA256 values. The values of the encrypted fields must be in the UUID format.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/sha256/{key}

Table 5-392 Path parameter

Parameter	Mandatory	Type	Description
key	Yes	String	The keyword. The value of the encrypted field must be in the UUID format. Minimum length: 1 character Maximum length: 16,384 characters

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Request

Table 5-393 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-394 Response body parameters

Parameter	Type	Description
value	String	The SHA256 value. Minimum length: 1 character Maximum length: 1,048,576 characters

Example Request

This example calculates an SHA256 value.

```
GET https://{endpoint}/v3/sha256/xxxxx
```

Example Response

Status code: 200

Calculating an SHA256 value succeeded.

```
{
  "value" : "xxxxxxxxxxx"
}
```

SDK Sample Code

The sample code is as follows.

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Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class ShowSha256Solution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowSha256Request request = new ShowSha256Request();
        request.withKey("{key}");
        try {
            ShowSha256Response response = client.showSha256(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = ShowSha256Request()
        request.key = "{key}"
        response = client.show_sha256(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowSha256Request{}
    request.Key = "{key}"
    response, err := client.ShowSha256(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

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Status Codes

Status Code	Description
200	Calculating an SHA256 value succeeded.

Error Codes

For details, see **Error Codes**.

5.12.2 Unlocking a Target Server

Function

This API is used to unlock the target server in a migration task.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/tasks/{task_id}/unlock

Table 5-395 Path parameter

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

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Request

Table 5-396 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-397 Response body parameters

Parameter	Type	Description
-	String	The target server in a specified task was unlocked successfully.

Status code: 403

Table 5-398 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters

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Parameter	Type	Description
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-399 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example unlocks the target server in the migration task **7a9a9540-ff28-4869-b9e4-855fbe12xxxx**.

```
POST https://{endpoint}/v3/tasks/7a9a9540-ff28-4869-b9e4-855fbe12xxxx/unlock
```

Example Response

Status code: 200

The target server in a specified task was unlocked successfully.

```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

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SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class UnlockTargetEcsSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        UnlockTargetEcsRequest request = new UnlockTargetEcsRequest();
        request.withTaskId("{task_id}");
        try {
            UnlockTargetEcsResponse response = client.unlockTargetEcs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = UnlockTargetEcsRequest()
        request.task_id = "{task_id}"
        response = client.unlock_target_ecs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

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

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More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	The target server in a specified task was unlocked successfully.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

5.12.3 Checking NICs and Security Groups

Function

This API is used to check whether NICs and security groups of a target server meet the requirements.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/tasks/{t_project_id}/networkacl/{t_network_id}/check

Table 5-400 Path parameters

Parameter	Mandatory	Type	Description
t_project_id	Yes	String	The ID of the project to which the target server belongs. Minimum length: 0 characters Maximum length: 255 characters
t_network_id	Yes	String	The ID of the subnet where the target server is located. Minimum length: 0 characters Maximum length: 255 characters

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Table 5-401 Query parameters

Parameter	Mandatory	Type	Description
region_id	Yes	String	The region ID. Minimum length: 0 characters Maximum length: 255 characters
os_type	Yes	String	The OS type. Minimum length: 0 characters Maximum length: 255 characters

Request

Table 5-402 Request header parameter

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	The user token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token. Minimum length: 1 character Maximum length: 16,384 characters

Response

Status code: 200

Table 5-403 Response body parameters

Parameter	Type	Description
-	String	Checking NICs and security groups succeeded.

Status code: 403

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Table 5-404 Response body parameters

Parameter	Type	Description
error_code	String	The error code. Minimum length: 0 characters Maximum length: 255 characters
error_msg	String	The error message. Minimum length: 0 characters Maximum length: 255 characters
encoded_authorization_message	String	The encrypted authorization information. Minimum length: 0 characters Maximum length: 65,535 characters
error_param	Array of strings	Invalid parameters. Minimum length: 0 characters Maximum length: 65,535 characters Array length: 1 to 20
details	Array of **details** objects	The error details. Array length: 1 to 20

Table 5-405 details field description

Parameter	Type	Description
error_code	String	The SMS error code. Minimum length: 0 characters Maximum length: 65,535 characters
error_msg	String	The SMS error message. Minimum length: 0 characters Maximum length: 65,535 characters

Example Request

This example checks whether NICs and security groups meet the requirements.

```
GET  https://{endpoint}/v3/tasks/abcd6935282ses/networkacl/dsedasdferet9685/check?region_id=XXXXX&os_type=XXXX
```

Example Response

Status code: 200

Checking NICs and security groups succeeded.

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```
{ }
```

Status code: 403

Authentication failed.

```
{
  "error_code" : "SMS.9004",
  "error_msg" : "The current account does not have the permission to execute policy You do not have permission to perform action XXX on resource XXX.",
  "encoded_authorization_message" : "XXXXXX",
  "error_param" : [ "You do not have permission to perform action XXX on resource XXX." ],
  "details" : [ {
    "error_code" : "SMS.9004",
    "error_msg" : "You do not have permission to perform action XXX on resource XXX."
  } ]
}
```

SDK Sample Code

The sample code is as follows.

Java

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

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.GlobalCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.sms.v3.region.SmsRegion;
import com.huaweicloud.sdk.sms.v3.*;
import com.huaweicloud.sdk.sms.v3.model.*;


public class CheckNetAclSolution {

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

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

        SmsClient client = SmsClient.newBuilder()
                .withCredential(auth)
                .withRegion(SmsRegion.valueOf("<YOUR REGION>"))
                .build();
        CheckNetAclRequest request = new CheckNetAclRequest();
        request.withTProjectId("{t_project_id}");
        request.withTNetworkId("{t_network_id}");
        try {
            CheckNetAclResponse response = client.checkNetAcl(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
```

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

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import GlobalCredentials
from huaweicloudsdksms.v3.region.sms_region import SmsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdksms.v3 import *

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

    credentials = GlobalCredentials(ak, sk)

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

    try:
        request = CheckNetAclRequest()
        request.t_project_id = "{t_project_id}"
        request.t_network_id = "{t_network_id}"
        response = client.check_net_acl(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/global"
    sms "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/sms/v3/region"
)

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

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

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```
        Build()

    client := sms.NewSmsClient(
        sms.SmsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CheckNetAclRequest{}
    request.TProjectId = "{t_project_id}"
    request.TNetworkId = "{t_network_id}"
    response, err := client.CheckNetAcl(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For more SDK sample code of programming languages, visit **API Explorer** and click the **Sample Code** tab. Example code can be automatically generated.

Status Codes

Status Code	Description
200	Checking NICs and security groups succeeded.
403	Authentication failed.

Error Codes

For details, see **Error Codes**.

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6 Appendix

6.1 Error Codes

If an error code starting with **APIGW** is returned after you call an API, rectify the fault by referring to the instructions provided in **Error Codes**.

Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0007	Agent error.	Agent error.	Contact technical support.
400	SMS.0201	Network busy. Source server failed to connect to API Gateway.	Network busy. Source server failed to connect to API Gateway.	Check the network between the source server and the API gateway.
400	SMS.0202	AK/SK authentication failed. Ensure that the AK and SK are correct.	AK/SK authentication failed. Ensure that the AK and SK are correct.	Check whether you enter the correct AK and SK of the target platform account and whether the account is frozen.
400	SMS.0203	Connection from source server to API Gateway timed out.	Connection from source server to API Gateway timed out.	Check the network between the source server and the API gateway.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0204	Insufficient permissions. Cause: {0[0]}. Obtain the required fine-grained permissions.	Insufficient permissions. Cause: {0[0]}. Obtain the required fine-grained permissions.	Obtain the required fine-grained permissions.
400	SMS.0205	AK/SK authenticatio n failed. The time or time zone of the source server is incorrect.	AK/SK authenticatio n failed. The time or time zone of the source server is incorrect.	Change system time or time zone on source server.
400	SMS.0206	Only x86 servers can be migrated.	Only x86 servers can be migrated.	Use another migration method.
400	SMS.0207	KVM driver not available on source server.	KVM driver not available on source server.	Install the KVM driver.
400	SMS.0208	Failed to send your service statement confirmation to SMS	Failed to send your confirmation to SMS.	Check the network between the source server and the API gateway.
400	SMS.0210	Failed to create file %s on target server.	Failed to create file %s on target server.	Check the network and start the migration task again.
400	SMS.0211	Failed to send certificate decryption key to target server	Failed to send the certificate decryption key to the target server.	Check the network and start the migration task again.
400	SMS.0212	Agent restarted. Delete the current target configuration and configure the target server again.	The Agent was restarted. Delete the current target server configuration and reconfigure the migration task.	Delete the target configuration and configure the migration task again.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0301	Failed to send the network request. Cause: %s	Failed to send the network request. Cause: %s	Modify the proxy information.
400	SMS.0302	Failed to resolve domain name {0[0]}.	Failed to resolve domain name {0[0]}.	Check whether the domain name is reachable.
400	SMS.0303	Unable to access domain name %s. Cause: %s	Access to domain name %s failed. Cause: %s	Check whether the domain name is reachable.
400	SMS.0304	Network request TLS/SSL authentication failed. Cause: %s	The TLS/SSL authentication failed for the network request. Cause: %s	Contact technical support.
400	SMS.0401	No project ID found. Cause: %s	No project ID found. Cause: %s	Contact technical support.
400	SMS.0406	No image found. Cause: %s	No image found. Cause: %s	Contact technical support.
400	SMS.0407	No target server information found. Cause: %s	No target server information found. Cause: %s	Contact technical support.
400	SMS.0408	Failed to obtain details about target server %s. Cause: %s	Failed to obtain details about target server %s. Cause: %s	Contact technical support.
400	SMS.0409	Failed to obtain volume information of target server %s. Cause %s	Failed to obtain volume information of target server %s. Cause %s	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0410	Failed to obtain NIC information of target server %s. Cause: %s	Failed to obtain NIC information of target server %s. Cause: %s	Contact technical support.
400	SMS.0411	Disk %s does not exist.	Disk %s does not exist.	The disk has been deleted. Migrate the source server again.
400	SMS.0412	Target server %s does not exist.	Target server %s does not exist.	The target server has been deleted. Migrate the source server again.
400	SMS.0413	Failed to query the region where the bucket locates. Cause: %s	Failed to query the region where the bucket locates. Cause: %s	Contact technical support.
400	SMS.0414	Failed to copy logs from the customer's OBS bucket to the destination bucket. Cause: %s	Failed to copy logs from the customer's OBS bucket to the destination bucket. Cause: %s	Contact technical support.
400	SMS.0415	Failed to obtain the target server specifications. Cause: %s	Failed to obtain the target server specifications. Cause: %s	Contact technical support.
400	SMS.0416	No VPC found. Cause: %s	No VPC discovered. Cause: %s	Contact technical support.
400	SMS.0417	No security group found. Cause: %s	No security group discovered. Cause: %s	Contact technical support.
400	SMS.0418	No subnet found. Cause: %s	No subnet discovered. Cause: %s	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0419	Failed to obtain the volume details of target server %s by calling the combined API. Cause: %s	Failed to obtain the volume details of target server %s by calling the combined API. Cause: %s	Contact technical support.
400	SMS.0420	Failed to obtain the disk details of the target server. Cause: %s	Failed to obtain the disk details of the target server. Cause: %s	Contact technical support.
400	SMS.0421	Failed to obtain the domain ID. Cause: %s	Failed to obtain the domain ID. Cause: %s	Contact technical support.
400	SMS.0422	Failed to obtain the details about the VPC with the specified ID.	Failed to obtain the details about the VPC with the specified ID.	Contact technical support.
400	SMS.0423	The VPC with the specified ID is abnormal.	The VPC with the specified ID is abnormal.	Contact technical support.
400	SMS.0424	The obtained list of disks on the target server has no content.	The obtained list of disks on the target server has no content.	Contact technical support.
400	SMS.0425	Failed to obtain the JSON configuration file.	Failed to obtain the JSON configuration file.	Contact technical support.
400	SMS.0426	Response body too long. Maximum length: %s	Response body too long. Maximum length: %s	Modify the maximum length limit in the configuration file.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0501	Failed to report the task progress to SMS.	Failed to report the task progress to SMS.	Contact technical support.
400	SMS.0502	Source server registration failed. Cause: %s	Source server registration failed. Cause: %s	Contact technical support.
400	SMS.0503	Log upload failed. Cause: %s	Log upload failed. Cause: %s	Contact technical support.
400	SMS.0504	Failed to obtain task details. Cause: %s	Failed to obtain task details. Cause: %s	Contact technical support.
400	SMS.0505	Task %s not found. Check whether the task has been deleted.	Task %s not found. Check whether the task has been deleted.	If the task is not deleted, contact technical support.
400	SMS.0506	Failed to obtain template details. Template ID: %s	Failed to obtain template details. Template ID: %s	Contact technical support.
400	SMS.0507	Source server details deleted. Register it with SMS again.	Source server details deleted. Register it with SMS again.	Register the source server with SMS again.
400	SMS.0508	Failed to obtain commands from the source server. Cause %s	Failed to obtain commands from source server %s. Cause: %s	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0509	The application failed to start because its side-by-side configuration is incorrect.	The application cannot be started due to incorrect parallel configuration.	Contact technical support.
400	SMS.0510	Failed to update the replication status to %s.	Failed to update the replication status to %s.	Contact technical support.
400	SMS.0511	Failed to obtain the private key. Cause: %s	Failed to obtain the private key. Cause: %s	Contact technical support.
400	SMS.0512	Failed to update task details.	Failed to update task details.	Contact technical support.
400	SMS.0513	Failed to add the subtask.	Failed to add the subtask.	Contact technical support.
400	SMS.0514	Updating source server information failed. Cause: {0[0]}	Updating source server information failed. Cause: {0[0]}	Contact technical support.
400	SMS.0515	Migration failed. Source disk information has changed. Delete target server configuration and restart the Agent.	Migration failed. Source disk information has changed. Delete target server configuration and restart the Agent.	Delete target server configuration and restart the Agent.
400	SMS.0516	Failed to execute the synchronization task, because the I/O monitoring module failed to run.	Failed to execute the synchronization task, because the I/O monitoring module failed to run.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0519	Not enough space. Delete target configuration, restart Agent, and expand target partition.	Not enough space. Delete target configuration, restart Agent, and expand target partition.	Delete target configuration, restart Agent, and expand target partition.
400	SMS.0520	Failed to obtain the target server password. Cause: %s	Failed to obtain the password of the target server. Cause: %s	Contact technical support.
400	SMS.0521	Failed to obtain the certificate password. Cause: %s	Failed to obtain the certificate password. Cause: %s	Contact technical support.
400	SMS.0522	The parameter contains invalid characters: %s	The parameter contains invalid characters: %s.	Contact technical support.
400	SMS.0601	Target server creation failed. Cause: %s	Target server creation failed. Cause: %s	Contact ECS technical support.
400	SMS.0602	VPC creation failed. Cause: %s	VPC creation failed. Cause: %s	Contact VPC technical support.
400	SMS.0603	Security group creation failed. Cause: %s	Security group creation failed. Cause: %s	Contact VPC technical support.
400	SMS.0604	Failed to add the security group rule. Cause: %s	Failed to add the security group rule. Cause: %s	Contact VPC technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0605	Subnet creation failed. Cause: %s	Subnet creation failed. Cause: %s	Contact VPC technical support.
400	SMS.0606	No general-computing server flavors are available in this AZ. Select another flavor.	No general-computing server flavors are available in this AZ. Select another flavor.	Select another flavor.
400	SMS.0607	cloud-region.json does not contain details about the current region.	cloud-region.json does not contain details about the current region.	Contact technical support.
400	SMS.0608	Volume creation failed. Cause: %s	Volume creation failed. Cause: %s	Contact technical support.
400	SMS.0804	File upload failed.	File upload failed.	Check whether the network is functional.
400	SMS.0805	Failed to migrate partition %s to target server %s.	Failed to migrate partition %s to target server %s.	Handle the problem as instructed in the corresponding case.
400	SMS.0806	Failed to synchronize partition %s to target server %s.	Failed to synchronize partition %s to target server %s.	Handle the problem as instructed in the corresponding case.
400	SMS.0807	Network error between source and target servers.	The network between the source and target servers is abnormal.	Check whether the network is functional.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.0808	Failed to initialize sync task. Target disks or partitions not found.	Failed to initialize sync task. Target disks not found.	Contact technical support.
400	SMS.1101	Failed to start target server %s.	Failed to start target server %s.	Contact technical support.
400	SMS.1102	Failed to stop target server %s.	Failed to stop target server %s.	Contact technical support.
400	SMS.1103	Failed to attach disk %s. Cause: %s	Failed to attach disk %s. Cause: %s	Contact technical support.
400	SMS.1104	Failed to detach disk %s. Cause: %s	Failed to detach disk %s. Cause: %s	Contact technical support.
400	SMS.1105	Disk creation failed. Cause: %s	Disk creation failed. Cause: %s	Contact technical support.
400	SMS.1106	Failed to delete disk %s. Cause: %s	Failed to delete disk %s. Cause: %s	Contact technical support.
400	SMS.1107	Failed to upload the private key and certificate to target server %s. Cause: %s	Failed to upload the private key and certificate to target server %s. Cause: %s	Contact technical support.
400	SMS.1108	Failed to detach disk %s.	Failed to detach disk %s.	Contact technical support.
400	SMS.1109	An exception occurred when the private key and certificate were uploaded to target server %s.	An exception occurred when the private key and certificate were uploaded to target server %s.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.1110	Failed to attach disk %s.	Failed to attach disk %s.	Contact technical support.
400	SMS.1111	Failed to start target server %s. Cause %s	Failed to start target server %s. Cause %s	Contact technical support.
400	SMS.1112	Failed to stop target server %s. Cause: %s	Failed to stop target server %s. Cause: %s	Contact technical support.
400	SMS.1113	Failed to reconfigure partition details on the target server.	Failed to reconfigure partition details on the target server.	Contact technical support.
400	SMS.1114	Failed to send command to the target server.	Failed to send command to the target server.	Contact technical support.
400	SMS.1116	Failed to set type for disk %s. Cause: %s	Failed to set type for disk %s. Cause: %s	Contact technical support.
400	SMS.1117	Failed to generate the RSA key pair on the target server.	Failed to generate the RSA key pair on the target server.	Contact technical support.
400	SMS.1118	Failed to query the content of file %s.	Failed to query the content of file %s.	Contact technical support.
400	SMS.1119	Failed to restart SSHD on the target server.	Failed to restart SSHD on the target server.	Contact technical support.
400	SMS.1120	Command execution on the Windows server failed. Cause: missing command or command parameter.	Command execution on the Windows server failed. Cause: missing command or command parameter.	Contact technical support.

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400	SMS.1201	%s not installed.	%s not installed.	Contact technical support.
400	SMS.1202	Agent image ID is empty. Create agent image and reconfigure the task.	The agent image ID is empty. Create an agent image and perform the migration again.	Contact technical support.
400	SMS.1203	Insufficient memory on the source server.	Insufficient memory on the source server.	Close programs on source server to release memory.
400	SMS.1204	Failed to create a file on the source server. Cause: %s	Failed to create a file on the source server. Cause: %s	Contact technical support.
400	SMS.1205	Failed to load WMI. Go to the official website to view the solution.	Failed to load WMI. Go to the official website to view the solution.	Handle the problem as instructed in the corresponding case.
400	SMS.1301	Failed to write partition information to the configuration file.	Failed to write partition information to the configuration file.	Contact technical support.
400	SMS.1311	Insufficient disks on the target server.	Insufficient disks on the target server.	Add disks to the target server.
400	SMS.1312	Partition failed. Disk: %s. Cause: %s	Partition failed. Disk: %s. Cause: %s	Contact technical support.
400	SMS.1313	Failed to create physical volume %s. Cause: %s	Failed to create physical volume %s. Cause: %s	Contact technical support.

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400	SMS.1314	Formatting failed. Partition: %s. Cause: %s	Formatting failed. Partition: %s. Cause: %s	Contact technical support.
400	SMS.1315	Insufficient free space on target partition %s.	Insufficient free space on target partition %s.	Expand the partition capacity.
400	SMS.1401	Failed to copy the I/O monitoring module.	Failed to copy the I/O monitoring module.	Contact technical support.
400	SMS.1402	SSH client not installed. Install the openssh-clients package and check the installation with ssh -V.	SSH client not installed. Install the openssh-clients package and check the installation with ssh -V.	If the problem persists, contact technical support.
400	SMS.1403	No grub file found. Find it under /boot.	No grub file found. Find it under /boot.	If there is no grub file under /boot, contact technical support.
400	SMS.1404	Disk %s is abnormal. Expected status: %s	Disk %s is abnormal. Expected status: %s	Contact technical support.
400	SMS.1405	Failed to obtain information about disk %s. Cause: %s	Failed to obtain information about disk %s. Cause: %s	Contact technical support.
400	SMS.1406	Failed to obtain the EIP. Cause: %s	Failed to obtain the EIP. Cause: %s	Contact technical support.
400	SMS.1407	Failed to obtain the target server specifications. Cause: %s	Failed to obtain the target server specifications. Cause: %s	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.1408	Snapshot creation failed. Disk: %s. Cause: %s	Snapshot creation failed. Disk: %s. Cause: %s	Contact technical support.
400	SMS.1409	Failed to delete snapshot %s. Cause: %s	Failed to delete snapshot %s. Cause: %s	Contact technical support.
400	SMS.1410	Snapshot %s does not exist.	Snapshot %s does not exist.	Contact technical support.
400	SMS.1411	Snapshot %s is in the %s state.	Snapshot %s is in the %s state.	Contact technical support.
400	SMS.1412	Snapshot %s rollback failed. Cause: %s	Snapshot %s rollback failed. Cause: %s	Contact technical support.
400	SMS.1413	Failed to obtain the status of snapshot %s. Cause: %s	Failed to obtain the status of snapshot %s. Cause: %s	Contact technical support.
400	SMS.1414	The migration module stopped abnormally and cannot synchronize data.	The migration module stopped abnormally and cannot synchronize data.	Contact technical support.
400	SMS.1415	Failed to load the I/O monitoring module.	Failed to start the I/O monitoring module.	Contact technical support.
400	SMS.1416	Failed to create tag for server %s. Cause: %s	Failed to tag server %s. Cause: %s	Contact technical support.
400	SMS.1417	Operation %s failed on server. Cause: %s	Failed to perform operation %s on the server. Cause: %s	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.1423	Failed to obtain details about DNS server. Cause: %s	Failed to obtain the DNS server information. Cause: %s	Contact technical support.
400	SMS.1501	OS version not supported.	OS version not supported.	Contact technical support.
400	SMS.1502	Target server %s is abnormal. Expected status: %s	Target server %s is abnormal. Expected status: %s	Contact technical support.
400	SMS.1503	Disk %s is not the system boot disk.	Disk %s is not the system boot disk.	Contact technical support.
400	SMS.1504	The sizes of disks on the target server do not match those on the source server.	The sizes of disks on the target server do not match those on the source server.	Contact technical support.
400	SMS.1505	No boot partition found.	No boot partition found.	Contact technical support.
400	SMS.1506	No boot disk found.	No boot disk found.	Contact technical support.
400	SMS.1507	No system partition found.	No system partition found.	Contact technical support.
400	SMS.1508	Mount point, partition, or disk configured in disk.cfg not found.	Mount point, partition, or disk configured in disk.cfg not found.	Check the disk.cfg file.
400	SMS.1509	Invalid disk.cfg file.	Invalid disk.cfg file.	Check the disk.cfg file.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.1510	Configure advanced option %s failed. Cause: %s.	Configure advanced option %s failed. Cause: %s	Check and modify the settings.
400	SMS.1511	Failed to check the consistency. Cause: %s	Failed to verify data consistency. Cause: %s	Contact technical support.
400	SMS.1701	The installed Agent cannot migrate the server to this region. Install the latest Agent.	The installed Agent cannot migrate the server to this region. Install the latest Agent.	If the problem persists, contact technical support.
400	SMS.1702	An error occurred when converting the string into the JSON format.	An error occurred when converting the string into the JSON format.	Contact technical support.
400	SMS.1801	Migration or synchronization task failed.	Migration or synchronization task failed.	Contact technical support.
400	SMS.1802	Migration or synchronization task paused.	Migration or synchronization task paused.	Contact technical support.
400	SMS.1805	Migration or synchronization task failed because memory allocation on the target server failed.	The migration or synchronization task failed because memory allocation on the target server failed.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.1807	Failed to connect to the target server. Check whether its IP address %s is reachable and confirm that port 8900 is enabled.	Failed to connect to the target server. Check whether its IP address %s is reachable and confirm that port 8900 is enabled.	If the connection still fails, contact technical support.
400	SMS.1901	Agent could not read disk information.	Agent could not read disk information.	Contact technical support.
400	SMS.1902	Failed to start the I/O monitoring module.	Failed to start the I/O monitoring module.	Contact technical support.
400	SMS.1903	No valid block data found.	No valid block data found.	Contact technical support.
400	SMS.1904	Failed to create a snapshot for the Windows server.	Failed to create a snapshot for the Windows server.	Contact technical support.
400	SMS.1905	Failed to read the disk information.	Failed to read the disk information.	Contact technical support.
400	SMS.1907	Failed to send the migration command.	Failed to send the migration command.	Contact technical support.
400	SMS.1908	Data transmission failed.	Data transmission failed.	Contact technical support.
400	SMS.1909	Data compression failed.	Data compression failed.	Contact technical support.
400	SMS.1910	Failed to obtain the I/O monitoring data.	Failed to obtain the I/O monitoring data.	Contact technical support.
400	SMS.1911	Boot sector read error.	Boot sector read error.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.2003	Volume reconfiguration failed.	Volume reconfiguration failed.	Contact technical support.
400	SMS.2004	Failed to back up volume sector details on the target server.	Failed to back up volume sector details on the target server.	Contact technical support.
400	SMS.2007	Failed to write data to disks on the target server.	Failed to write data to disks on the target server.	Contact technical support.
400	SMS.2009	Data decompression failed.	Data decompression failed.	Contact technical support.
400	SMS.2011	Failed to receive data.	Failed to receive data.	Contact technical support.
400	SMS.2012	Failed to read or parse the volume information from the configuration file.	Failed to read or parse the volume information from the configuration file.	Contact technical support.
400	SMS.2013	Failed to open the disk.	Failed to open the disk.	Contact technical support.
400	SMS.2014	Failed to hide the partition information.	Failed to hide the partition information.	Contact technical support.
400	SMS.2015	Failed to restore the partition information.	Failed to restore the partition information.	Contact technical support.
400	SMS.2016	Drive letter restoration failed.	Drive letter restoration failed.	Contact technical support.
400	SMS.2017	Failed to traverse all volumes.	Failed to traverse all volumes.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.2018	Error in reading the volume boot sector.	Error in reading the volume boot sector.	Contact technical support.
400	SMS.2101	Registry modification failed.	Registry modification failed.	Contact technical support.
400	SMS.2102	Failed to modify the device information.	Failed to modify the device information.	Contact technical support.
400	SMS.2103	Failed to set active partitions.	Failed to set active partitions.	Contact technical support.
400	SMS.2104	Failed to modify BCD configuration.	Failed to modify BCD configuration.	Contact technical support.
400	SMS.2105	Failed to modify boot configuration file.	Failed to modify boot configuration file.	Contact technical support.
400	SMS.2201	Failed to clear disk information.	Failed to clear disk information.	Contact technical support.
400	SMS.2202	Failed to convert the format of disk %s.	Failed to convert the format of disk %s.	Contact technical support.
400	SMS.2203	Failed to create partition %s.	Failed to create partition %s.	Contact technical support.
400	SMS.2204	Failed to format partition %s.	Failed to format partition %s.	Contact technical support.
400	SMS.2205	Failed to update the partition information.	Failed to update the partition information.	Contact technical support.
400	SMS.2301	Failed to start ntcldst.	Failed to start ntcldst.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.2802	Failed to connect to the target server. Check whether its IP address %s is reachable and port 8899 is enabled.	Failed to connect to the target server. Check whether its IP address %s is reachable and port 8899 is enabled.	If the connection still fails, contact technical support.
400	SMS.3101	Failed to modify the configuration file of the target server. Cause: %s	Failed to modify the configuration file of the target server. Cause: %s	Contact technical support.
400	SMS.3102	Failed to modify the initrd file on the target server. Cause: %s	Failed to modify the initrd file on the target server. Cause: %s	Contact technical support.
400	SMS.3103	Failed to execute bootloader on the target server. Cause: %s	Failed to execute bootloader on the target server. Cause: %s	Contact technical support.
400	SMS.3104	Failed to read /etc/fstab on the source server. Cause: %s	Failed to read /etc/fstab on the source server. Cause: %s	Contact technical support.
400	SMS.3202	Failed to create volume group %s. Cause: %s	Failed to create volume group %s. Cause: %s	Contact technical support.
400	SMS.3203	Failed to create logical volume %s. Cause: %s	Failed to create logical volume %s. Cause: %s	Contact technical support.
400	SMS.3204	Failed to create swap partition %s. Cause: %s	Failed to create swap partition %s. Cause: %s	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.3205	Failed to mount partition %s to directory %s. Cause: %s	Failed to mount partition %s to directory %s. Cause: %s	Contact technical support.
400	SMS.3206	Failed to obtain the UUID of the partition on the target server. Cause: %s	Failed to obtain the UUID of the partition on the target server. Cause: %s	Contact technical support.
400	SMS.3207	Failed to create file %s on the target server. Cause: %s	Failed to create file %s on the target server. Cause: %s	Contact technical support.
400	SMS.3208	Failed to write file %s on the target server. Cause: %s	Failed to write file %s on the target server. Cause: %s	Contact technical support.
400	SMS.3209	Failed to assign execution permission to the script on the target server. Cause: %s	Failed to assign execution permission to the script on the target server. Cause: %s	Contact technical support.
400	SMS.3210	Failed to format partition {0[0]} to {0[1]}. Cause: {0[2]}	Failed to format partition {0[0]} to {0[1]}. Cause: {0[2]}	Contact technical support.
400	SMS.3300	Failed to read the configuration file for Linux block-level migration.	Failed to read the configuration file for Linux block-level migration.	Download the latest Agent.
400	SMS.3301	Failed to load the SSL certificate.	Failed to load the SSL certificate.	Create a migration task again.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.3401	Download of RSA public and private keys failed. HTTP Status Code: %s	Download of RSA public and private keys failed. HTTP Status Code: %s	Contact technical support.
400	SMS.3402	Download of RSA public and private keys failed.	Download of RSA public and private keys failed.	Contact technical support.
400	SMS.3802	Failed to establish an SSH connection with the target server.	Failed to establish an SSH connection with the target server.	Check the network.
400	SMS.3803	The connection to the target server failed, because an error occurred during the public key verification on the target server.	The connection to the target server failed, because an error occurred during the public key verification on the target server.	Contact technical support.
400	SMS.3804	The connection to the target server failed due to invalid connection credential.	The connection to the target server failed due to invalid connection credential.	Contact technical support.
400	SMS.3805	The connection to the target server timed out.	The connection to the target server timed out.	Check the network.
400	SMS.3806	The connection to the target server was rejected.	The connection to the target server was rejected.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.3807	Failed to decompress %s.	Failed to decompress file %s.	Contact technical support.
400	SMS.3808	Failed to ping the target server. Please check whether the ICMP port is enabled.	Failed to ping the target server. Check whether the ICMP port is enabled.	Check the network environment.
400	SMS.3809	Failed to replace the RSA certificate on the target server.	Failed to replace the RSA certificate on the target server.	Contact technical support.
400	SMS.5101	Agent installation failed.	Agent installation failed.	Contact technical support.
400	SMS.5102	Agent startup failed because the noexec permission is unavailable on /tmp in Linux.	Agent startup failed because the noexec permission is unavailable on /tmp in Linux.	Grant the noexec permission to the /tmp directory.
400	SMS.5103	Agent startup failed due to insufficient space on /tmp in Linux.	Agent startup failed due to insufficient space on /tmp in Linux.	Increase the size of /tmp.
400	SMS.5104	Failed to paste AK or SK.	Failed to paste AK or SK.	Restart the Agent.
400	SMS.5105	Agent startup failed because the current shell character set is wrong.	Agent startup failed because the current shell character set is wrong.	Set the coding mode of the character set to UTF-8.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.5106	Internal error. Failed to create a temporary directory.	Internal error. Failed to create a temporary directory.	Run the Agent as administrator.
400	SMS.5107	Failed to open the file for writing.	Failed to open the file for writing.	Contact technical support.
400	SMS.5108	Failed to execute df -TH.	Failed to execute df -TH.	Check whether a mounted device is offline or does not exist.
400	SMS.5109	The application cannot be started due to incorrect parallel configuration.	The application cannot be started due to incorrect parallel configuration.	Run SMSAgentDeploy.exe directly.
400	SMS.5110	The Windows Agent unable to launch.	The Windows Agent unable to launch.	Unlock the file and try again.
400	SMS.5111	Agent startup failed. Multiple volume groups found with the same name.	Agent startup failed. Multiple volume groups found with the same name.	Contact technical support.
400	SMS.5112	Agent main program: linuxmain could not run.	The main program linuxmain of the Agent could not run.	Review which source server OSs and firmware types are supported.
400	SMS.5113	Check %s on Linux timed out.	Checking %s on Linux timed out.	Resolve the issue based on the specific check item.
400	SMS.5301	Booting with GRUB failed.	Booting with GRUB failed.	Reinstall the GRUB bootloader.
400	SMS.5302	Failed to install the KVM driver.	Failed to install the KVM driver.	Uninstall the Xen driver and install the KVM driver.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.5401	Disks of the Windows target server are offline.	Disks of the Windows target server are offline.	Bring the disks online manually.
400	SMS.5402	Network error on the target server running Windows 2003.	Network error on the target server running Windows 2003.	Use another migration method.
400	SMS.5403	Progress is slow or suspended.	Progress is slow or suspended.	Check whether the bandwidth is too low.
400	SMS.5404	The target server running CentOS 6.x cannot access the Internet.	The target server running CentOS 6.x cannot access the Internet.	Contact technical support.
400	SMS.5601	The disk usage changes greatly after migration.	The disk usage changes greatly after migration.	Contact technical support.
400	SMS.5602	Time error occurred in the target server running Linux.	Time error occurred in the target server running Linux.	Use NTP for time synchronization.
400	SMS.5603	The target server running Windows cannot access the Internet.	The target server running Windows cannot access the Internet.	Reinstall the NIC driver.
400	SMS.5604	The MySQL service on the target server cannot be started.	The MySQL service on the target server cannot be started.	Stop services and synchronize data again.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.5605	After the migration is complete, the target server starts and the System Recovery Options window is displayed.	After the migration is complete, the target server starts and the System Recovery Options window is displayed.	Contact technical support.
400	SMS.5606	Windows fails to start because the Xen driver is abnormal.	Windows fails to start because the Xen driver is abnormal.	Contact technical support.
400	SMS.6000	Service error.	Service error.	Contact technical support.
400	SMS.6001	The source server name is a required field.	The source server name is a required field.	Specify the source server name.
400	SMS.6002	Source server name must consist of 1 to 64 characters.	A source server name must consist of 1 to 64 characters.	A source server name must consist of 1 to 64 characters.
400	SMS.6003	Only letters, digits, underscores (_), dot (.), and hyphens (-) are allowed.	Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.	Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
400	SMS.6004	Invalid subtask name.	Invalid subtask name.	Enter a valid subtask name.
400	SMS.6005	The status of the source server does not meet the requirements.	The source server status does not meet requirements.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6006	Source platform information format error.	The format of the source platform information is incorrect.	Contact technical support.
400	SMS.6010	The request body is not in the JSON format.	The request body is not in the JSON format.	Set the request body as required.
400	SMS.6011	The JSON request body does not meet the specifications.	The JSON request body does not meet the specifications.	Set the request body as required.
400	SMS.6012	Empty request body.	Empty request body.	Set the request body as required.
400	SMS.6013	Incomplete request parameters.	Incomplete request parameters.	Check whether all required parameters are included.
400	SMS.6014	The parameter part in the request body is too long.	The parameter part in the request body is too long.	Modify the request parameters.
400	SMS.6015	The request header is missing.	The request header is missing.	Add a request header.
400	SMS.6016	The header type must be application/json.	The header type must be application/json.	Ensure that the request header type is application/json.
400	SMS.6020	The command name is missing.	The command name is missing.	Contact technical support.
400	SMS.6021	The command from the Agent is inconsistent with that from SMS.	The command from the Agent is inconsistent with that from SMS.	Enter the command from SMS correctly.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6022	Incorrect result format.	Incorrect result format.	Set the result in the correct format.
400	SMS.6023	Incorrect result_detail format.	Incorrect result_detail format.	Set result_detail in the correct format.
400	SMS.6030	Invalid source server ID.	Invalid source server ID.	Enter a correct source server ID.
400	SMS.6031	The target server information is missing.	The target server information is missing.	Enter the required target server information.
400	SMS.6032	The target server ID is missing.	The target server ID is missing.	Enter the target server ID.
400	SMS.6033	The disk information is missing.	The disk information is missing.	Enter the disk information of the target server.
400	SMS.6034	Invalid region name.	Invalid region name.	Enter a valid region name.
400	SMS.6035	Domain ID is missing.	Domain ID is missing.	Enter the domain ID.
400	SMS.6101	Invalid migration progress.	Invalid migration progress.	Enter an integer ranging from 0 to 100.
400	SMS.6102	Parameters do not meet the JSON format requirements.	Parameters do not meet the JSON format requirements.	Check whether the JSON format is correct.
400	SMS.6103	Disk ID is missing.	Disk ID is missing.	Enter a disk ID.
400	SMS.6104	Physical volume name is missing.	Physical volume name is missing.	Enter a volume name.
400	SMS.6105	Physical volume size is missing or invalid.	Physical volume size is missing or invalid.	Enter a valid volume size.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6106	Failed to obtain migration progress.	Failed to obtain migration progress.	Contact technical support.
400	SMS.6301	Database read or write error.	Database read or write error.	Contact technical support.
400	SMS.6302	No migration speed limit found.	No migration speed limit found.	Reset the migration speed limit
400	SMS.6303	The installed Agent is of an earlier version. Download the latest version.	The installed Agent is of an earlier version. Download the latest version.	Download the latest version.
400	SMS.6304	Fail to get config information.	Fail to get configuration information.	Contact technical support.
400	SMS.6401	Unsupported encoding mode.	Unsupported encoding mode.	Use a correct encoding mode.
400	SMS.6402	The algorithm does not exist.	The algorithm does not exist.	Contact technical support.
400	SMS.6403	Failed to split into strings of the specified size.	Failed to split into strings of the specified size.	Contact technical support.
400	SMS.6404	An error occurred during integer conversion.	An error occurred during integer conversion.	Contact technical support.
400	SMS.6405	Invalid time format.	Invalid time format.	Check the time format.
400	SMS.6407	Current quota is not enough, please use MgC.	Insufficient quota. Please use MgC.	Use MgC for migration.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6501	You can add up to 1,000 source servers.	You can add up to 1,000 source servers.	Delete the source servers that have been migrated.
400	SMS.6502	Environment check cannot be performed on the source server in the CHECKING state.	Environment check cannot be performed on the source server in the CHECKING state.	Contact technical support.
400	SMS.6503	Failed to obtain the OS version of the source server.	Failed to obtain the OS version of the source server.	Enter the OS version of the source server.
400	SMS.6504	Unsupported source server OS version or firmware type.	Unsupported source server OS version or firmware type.	Review which source server OSs and firmware types are supported.
400	SMS.6505	Unknown source firmware type. It must be BIOS or UEFI.	Unknown source firmware type. It must be BIOS or UEFI.	Use another migration method.
400	SMS.6506	Failed to obtain the number of source server CPUs.	Failed to obtain the number of source server CPUs.	Contact technical support.
400	SMS.6507	Failed to open the system directory of the source server.	Failed to open the system directory of the source server.	Contact technical support.
400	SMS.6508	Incompatible disk format on the source server. Only GPT and MBR are compatible.	Incompatible disk format on the source server. Only GPT and MBR are compatible.	Use another migration method.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6509	Incompatible file system of the source server.	Incompatible file system of the source server.	Use another migration method.
400	SMS.6510	The source server OS is an OEM system.	The source server OS is an OEM system.	Activate the system after migration.
400	SMS.6511	The source server lacks driver files.	The source server lacks driver files.	Contact technical support.
400	SMS.6512	The system services required for the migration on the source server are not running normally.	The system services required for the migration on the source server are not running normally.	Contact technical support.
400	SMS.6513	No administrator permissions on the source server.	No administrator permissions on the source server.	Check whether the current account has the administrator permissions.
400	SMS.6514	Failed to obtain the memory size of the source server.	Failed to obtain the memory size of the source server.	Contact technical support.
400	SMS.6515	The source server is paravirtualized.	The source server is paravirtualized.	Use another migration method.
400	SMS.6516	The Linux bootloader must be GRUB.	The Linux bootloader must be GRUB.	Check whether the Linux bootloader is GRUB.
400	SMS.6517	rsync not installed on the source server.	rsync not installed on the source server.	Install rsync on the source server.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6518	The source server has a raw device.	The source server has a raw device.	Use another migration method.
400	SMS.6519	Failed to obtain disk information.	Failed to obtain disk information.	Contact technical support.
400	SMS.6520	The source server is not in the AVAILABLE state.	The source server is not in the AVAILABLE state.	Check the source server status.
400	SMS.6521	Token-based authenticatio n failed.	Token-based authenticatio n failed.	Use the correct token.
400	SMS.6522	The X-Auth-Token header field is missing.	The X-Auth-Token header field is missing.	Add X-Auth-Token.
400	SMS.6523	Apply for the permission required to operate SMS.	Apply for the permission required to operate SMS.	Ensure that you have the sms_administrator permission.
400	SMS.6524	This operation is not allowed because you are not an OBT user.	This operation is not allowed because you are not an OBT user.	Join the OBT.
400	SMS.6525	Account is frozen or restricted. Check account balance and status.	The account or resource is frozen or restricted. Check the account balance and status.	Contact technical support.
400	SMS.6526	Insufficient quota to clone the target server.	Insufficient quota to clone the target server.	Increase the cloud server quota.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6527	The resource in the task does not belong to you.	The resource in the task does not belong to you.	Check the resources that belong to you.
400	SMS.6528	Complete real-name authentication to invoke the SMS APIs.	Complete real-name authentication to invoke the SMS APIs.	Complete real-name authentication first.
400	SMS.6529	Only accounts with sufficient balance and without security risks can invoke the SMS APIs.	Accounts in arrears, with insufficient balance, or with security risks cannot invoke the SMS APIs.	Contact technical support.
400	SMS.6530	Invalid source server IP address.	Invalid source server IP address.	Enter a correct source server IP address.
400	SMS.6531	The boot partition does not exist.	The boot partition does not exist.	Check whether the boot partition of the source server exists.
400	SMS.6532	The system disk must be on the first disk.	The system disk must be on the first disk.	Check whether the system disk is on the first disk.
400	SMS.6533	VSS not installed on the source server.	VSS not installed on the source server.	Check whether VSS has been installed and started.
400	SMS.6534	No system directory information read.	No system directory information read.	Contact technical support.
400	SMS.6535	Servers booted with UEFI do not support auto-creation of target servers for migration.	Servers booted with UEFI do not support auto-creation of target servers for migration.	Create a target ECS booted with UEFI and select the ECS as the target server.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6536	The source server runs Windows 2003. Network may be unavailable after migration.	The source runs Windows Server 2003. Network may be unavailable after migration.	Upgrade the system and perform the migration.
400	SMS.6537	SMS cannot migrate system disks larger than 1 TB.	SMS cannot migrate system disks larger than 1 TB.	Decrease the size of the source system disk.
400	SMS.6538	The new partition or logical volume size is less than the used space size.	The new partition or logical volume size is less than the used space size.	Ensure that the new partition or logical volume size is at least 1 GB larger than the used space size.
400	SMS.6539	The disk space is less than the total size of all partitions.	The disk space is less than the total size of all partitions.	The disk space is less than the total size of all partitions.
400	SMS.6540	Partitions on target servers running Windows cannot be reduced.	Partitions on target servers running Windows cannot be reduced.	Resize the partitions on source disks and restart the Agent
400	SMS.6541	The VG size is smaller than the combined size of all LVs.	The size of the volume group is smaller than the total size of all logical volumes.	Contact technical support.
400	SMS.6542	Your account has been frozen.	Your account has been frozen.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6543	There is more than 1 TB of data to be migrated. It may slow down the migration or synchronization.	If the total amount of data to be migrated exceeds 1 TB, the migration and synchronization may be slow.	Contact technical support.
400	SMS.6544	Network condition for migration is poor.	Network condition for migration is poor.	Contact technical support.
400	SMS.6547	Excessive read/write latency has been detected for the source disks. It may slow down the migration or synchronization.	Excessive read/write latency has been detected for the source disks. It may slow down the migration or synchronization.	Optimize the disk performance.
400	SMS.6548	The migration network performs poorly. It may slow down the migration or synchronization.	The migration network performs poorly. It may slow down the migration or synchronization.	Optimize the network performance.
400	SMS.6560	Failed to obtain the project-level token.	Failed to obtain the project-level token.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6561	The target server is not booted with UEFI. Create a target server using the image whose boot mode is UEFI.	The target server is not booted with UEFI. Create a target server using the image whose boot mode is UEFI.	Create a target server using the image whose boot mode is UEFI.
400	SMS.6562	Failed to obtain target server IP address.	Failed to obtain target server IP address.	Contact technical support.
400	SMS.6601	Invalid OS type.	Invalid OS type.	Set os_type by referring to *SMS API Reference*.
400	SMS.6602	Invalid target server EIP.	Invalid target server EIP.	Enter an IP address in the correct format.
400	SMS.6603	The connection to SMS was lost.	The connection to SMS was lost.	Re-establish the connection between the source server and SMS. For details, see "Migration Network" in *SMS FAQs*.
400	SMS.6604	Failed to obtain ACL or firewall details for the target server.	Failed to obtain ACL or firewall details for the target server.	Contact technical support.
400	SMS.6605	ACL or security group configuration error.	ACL or security group configuration error.	Modify the ACL or security group configuration.
400	SMS.6610	The OS in the task conflicts with the source server OS.	The OS in the task conflicts with the source server OS.	Check whether the OS in the task is consistent with the source server OS.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6611	Insufficient partition space than required.	Insufficient partition space than required.	Increase the partition space.
400	SMS.6612	Invalid partition size. The partition size must be an integer multiple of MB.	Invalid partition size. The partition size must be an integer, in MB.	Enter a valid partition size.
400	SMS.6613	33 MB of space must be reserved for GPT disks.	33 MB of space must be reserved for GPT disks.	Reserve 33 MB of space for GPT disks.
400	SMS.6614	The target disk space must be greater than the total space of all partitions.	The target disk space must be greater than the total space of all partitions.	Increase the target disk space.
400	SMS.6615	The target server has been added to a migration task.	The target server has been added to a migration task.	Change another server.
400	SMS.6616	The current OS does not support block-level migration.	The current OS does not support block-level migration.	Use another migration method.
400	SMS.6617	The current kernel does not support block-level migration.	The current kernel does not support block-level migration.	Use another migration method.
400	SMS.6618	Failed to obtain kernel details.	Failed to obtain kernel details.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.6619	Disk encryption key not available.	Disk encryption key not available.	Check whether the key is in a normal status and is generated using the AES_256 encryption algorithm.
400	SMS.6620	Key %d is not enabled.	Key %d is not enabled.	Check the key status.
400	SMS.7101	Template does not exist.	Template does not exist.	Check whether the template exists.
400	SMS.7111	All tasks associated with this template must be deleted first.	All tasks associated with this template must be deleted first.	Delete the associated tasks first.
400	SMS.7112	Duplicate template name.	Duplicate template name.	Change the template name.
400	SMS.7113	Maximum templates reached.	The maximum number of templates is reached.	Contact technical support.
400	SMS.7301	The specified migration template does not exist.	The specified migration template does not exist.	Check whether the migration template exists.
400	SMS.7303	The default migration template cannot be deleted.	The default project cannot be deleted.	Contact technical support.
400	SMS.7304	The default migration template does not exist.	The default migration template does not exist.	Create a migration template and set it as the default one.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.7311	All source servers associated with the migration project must be deleted first.	All source servers associated with the migration project must be deleted first.	Delete all associated source servers first.
400	SMS.7312	Duplicate migration project name.	Duplicate migration project name.	Change the migration project name.
400	SMS.7313	The default migration project already exists.	The default migration project already exists.	Contact technical support.
400	SMS.7321	The region name in the template is inconsistent with that in the migration project.	The region name in the template is inconsistent with that in the migration project.	Contact technical support.
400	SMS.7501	No application ID generated.	No application ID generated.	Contact technical support.
400	SMS.7601	Failed to delete the source server because a migration task is running on it.	There is a task on the source server, and the server cannot be deleted.	Contact technical support.
400	SMS.7602	The specified source server does not exist.	The specified source server does not exist.	Check whether the source server exists.
400	SMS.7604	Failed to generate the source server ID.	Failed to generate the source server ID.	Contact technical support.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.7605	The server has been set as the target server of another migration task. Select another server or delete the task associated with the server.	The server has been set as the target server in another migration task. Select another server or delete the migration task associated with the server.	Select another server or delete the migration task associated with the server.
400	SMS.7606	No migration task running on the source server.	No migration task running on the source server.	Contact technical support.
400	SMS.7703	Task does not exist.	Task does not exist.	Check whether the task exists.
400	SMS.7705	An error occurred when processing JSON files during task creation.	An error occurred when processing JSON files during task creation.	Contact technical support.
400	SMS.7706	Task update failed.	Task update failed.	Contact technical support.
400	SMS.7707	The current Agent version does not support log upload.	The current Agent version does not support log upload.	Contact technical support.
400	SMS.7711	Invalid task name.	Invalid task name.	Enter a valid task name.
400	SMS.7712	Invalid task type.	Invalid task type.	Enter a valid task type.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.7713	Only tasks in the Ready for next, Paused, or Error state can be started.	Only tasks in the Ready for next, Paused, or Error state can be started.	Change the task status.
400	SMS.7714	Only running tasks can be paused.	Only running tasks can be paused.	Change the task status.
400	SMS.7715	Only tasks in the Finished state or in the Continuous synchronization stage can be synchronized.	Only tasks in the Finished state or in the Continuous synchronization stage can be synchronized.	Change the task status.
400	SMS.7716	Logs can be collected only after the current log collection is completed.	Logs can be collected only after the current log collection is completed.	Wait until the current log collection is complete.
400	SMS.7717	Logs can be collected after the migration task is started.	Logs can be collected after the migration task is started.	Start the task first.
400	SMS.7718	Only tasks in the Synchronization failed state can be rolled back.	Only tasks in the Synchronization failed state can be rolled back.	Change the task status.
400	SMS.7719	Tasks in current state cannot be deleted.	Tasks in current state cannot be deleted.	Change the task status.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.7721	Only target servers in tasks in the Continuous synchronization state can be cloned or started.	Only target servers in tasks in the Continuous synchronization state can be cloned or started.	Change the task status.
400	SMS.7722	Only tasks where the target servers have successfully started can be restarted.	Only tasks where the target servers have successfully started can be restarted.	Check whether the target server for the task has been started successfully.
400	SMS.7723	Failed to delete the task. Ensure that the Agent is connected.	Failed to delete the task. Ensure that the Agent is connected.	Ensure that the Agent is connected.
400	SMS.7724	No project ID found.	No project ID found.	Contact technical support.
400	SMS.7725	No region information found.	No region information found.	Contact technical support.
400	SMS.7726	Failed to update the migration status or stage for the source server. Field copystate or migrationcycle is missing in the request body.	Failed to update the migration status or stage for the source server. The copystate or migrationcycle field is missing in the request body.	Add the copystate or migrationcycle field to the request body.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.7727	Failed to update the migration status or stage for the source server. Field copystate or migrationcycle in the request body is empty.	Failed to update the migration status or stage for the source server. The copystate or migrationcycle field in the request body is empty.	Specify a value for copystate or migrationcycle in the request body.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.7728	Change server replication state or migration cycle failed. Values of copystate and migrationcycle do not match.	Failed to update the migration status or stage for the source server. Fields **copystate** and **migrationcycle** do not match.	Set **copystate** and **migrationcycle** according to the following rules: • If the value of **migrationcycle** is **checking**, the value of **copystate** can be **unavailable**, **waiting**, or **unconnected**. • If the value of **migrationcycle** is **setting**, the value of **copystate** can be **waiting** or **unconnected**. • If the value of **migrationcycle** is **replicating**, the value of **copystate** can be **initialize**, **replicate**, **deleting**, **stopping**, **error**, **stopped**, or **unconnected**. • If the value of **migrationcycle** is **syncing**, the value of **copystate** can be **syncing**, **cloning**, **deleting**, **stopping**, **error**, **stopped**, or **unconnected**. • If the value of **migrationcycle** is

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Status Code	Error Code	Error Message	Description	Handling Measure
				cutovering, the value of **copystate** can be **cutovering**, **deleting**, **stopping**, **error**, **stopped**, or **unconnected**. • If the value of **migrationcycle** is **cutovered**, the value of **copystate** can be **finished**, **deleting**, **stopping**, **error**, **stopped**, or **unconnected**.
400	SMS.8101	Failed to stop the target server.	Failed to stop the target server.	Contact technical support.
400	SMS.8102	The target server is missing.	The target server is missing.	Set the parameter for the target server.
400	SMS.8103	The target server does not exist.	The target server does not exist.	Check whether the server has been deleted.
400	SMS.8104	Failed to obtain details about the target server.	Failed to obtain details about the target server.	Contact technical support.
400	SMS.8105	Failed to obtain the details about disks on the target server.	Failed to obtain the details about disks on the target server.	Contact technical support.
400	SMS.8106	Invalid information about disks on the target server.	Invalid information about disks on the target server.	Check whether the target disk information is correct.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.8107	No agent image found on the target server.	No agent image found on the target server.	Check whether the image has been deleted.
400	SMS.8108	Disk attachment failed.	Disk attachment failed.	Contact technical support.
400	SMS.8109	No source server found.	No source server found.	Check whether the server record has been deleted.
400	SMS.8110	Disk detachment failed.	Disk detachment failed.	Contact technical support.
400	SMS.8111	No disk information found.	No disk information found.	Check whether the target disk information is correct.
400	SMS.8112	No snapshot information found.	No snapshot information found.	Check whether the snapshot exists.
400	SMS.8113	The snapshot does not exist.	The snapshot does not exist.	Check whether the snapshot has been deleted.
400	SMS.8114	Failed to unlock the target server.	Failed to unlock the target server.	Check whether you have the permission to perform this operation.
400	SMS.8115	Maximum templates: 50	A maximum of 50 templates can be created.	Contact technical support.
400	SMS.9001	Invalid parameters.	Invalid parameters.	Check whether the parameters are correctly specified.
400	SMS.9002	User tags are not supported.	User tags are not supported.	User tags are not supported temporarily.

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Status Code	Error Code	Error Message	Description	Handling Measure
400	SMS.9003	Insufficient permissions.	Insufficient permissions.	Obtain corresponding fine-grained permissions.
400	SMS.9004	The current account does not have the permission to execute policy {0}.	Insufficient permissions to perform {}.	Obtain corresponding fine-grained permissions.
400	SMS.9005	Failed to bind the enterprise project.	Failed to bind the enterprise project.	Contact technical support.
400	SMS.9905	Password query is not allowed on tasks in the current state.	Password query is not supported for tasks in the current state.	Query passwords only when the task is in a replicating or syncing state.
403	SMS.6542	Your account has been frozen!	Your account was frozen.	Contact technical support.

6.2 Status Codes

Table 6-1 describes the status codes.

Table 6-1 Status codes

Status Code	Error Message	Description
100	Continue	The client continues sending the request. This interim response is used to inform the client that the initial part of the request has been received and has not yet been rejected by the server.
101	Switching Protocols	Switching protocols. The target protocol must be more advanced than the source protocol. For example, the current HTTP protocol is switched to a later version.
200	OK	The results of GET and PUT operations are returned as expected.
201	Created	The request for creating a resource has been fulfilled.

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Status Code	Error Message	Description
202	Accepted	The request has been accepted, but the processing has not been completed.
203	Non-Authoritative Information	The server successfully processed the request, but is returning information that may be from another source.
204	NoContent	The server has successfully processed the request, but has not returned any content. The status code is returned in response to an HTTP OPTIONS request.
205	Reset Content	The server has fulfilled the request, but the requester is required to reset the content.
206	Partial Content	The server has processed certain GET requests.
300	Multiple Choices	There are multiple options for the location of the requested resource. The response contains a list of resource characteristics and addresses from which the user or user agent (such as a browser) can choose the most appropriate one.
301	Moved Permanently	The requested resource has been assigned a new permanent URI, and the new URI is contained in the response.
302	Found	The requested resource resides temporarily under a different URI.
303	See Other	Retrieve a location. The response to the request can be found under a different URI and should be retrieved using a GET or POST method.
304	Not Modified	The requested resource has not been modified. In such a case, there is no need to retransmit the resource since the client still has a previously-downloaded copy.
305	Use Proxy	The requested resource must be accessed through a proxy.
306	Unused	The HTTP status code is no longer used.
400	BadRequest	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	Error Message	Description
402	Payment Required	This status code is reserved for future use.
403	Forbidden	The server understood the request, but is refusing to fulfill it. The client should not repeat the request without modifications.
404	NotFound	The requested resource cannot be found. The client should not repeat the request without modifications.
405	MethodNotAllowed	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.
407	Proxy Authentication Required	This status code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The request timed out. The client may repeat the request without modifications at any later time.
409	Conflict	The request cannot 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.
410	Gone	The requested resource is no longer available. The status code indicates that the requested resource has been deleted permanently.
411	Length Required	The server refuses to process the request without a defined Content-Length.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The request is larger than 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.

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Status Code	Error Message	Description
414	Request-URI Too Large	The URI provided was too long for the server to process.
415	Unsupported Media Type	The server is unable to process the media format in the request.
416	Requested range not satisfiable	The requested range is invalid.
417	Expectation Failed	The server fails to meet the requirements of the Expect request-header field.
422	UnprocessableEntity	The request is well-formed but is unable to be processed due to semantic errors.
429	TooManyRequests	The client has sent more requests than its rate limit is allowed within a given amount of time, or the server has received more requests than it is able to process within a given amount of time. In this case, it is advisable for the client to re-initiate requests after the time specified in the Retry-After header of the response expires.
500	InternalServerError	The server is able to receive the request but it cannot understand the request.
501	Not Implemented	The server does not support the requested function.
502	Bad Gateway	The server is acting as a gateway or proxy and receives an invalid request from a remote server.
503	ServiceUnavailable	The requested service is invalid. The client should not repeat the request without modifications.
504	ServerTimeout	The request cannot be fulfilled within a given time. This status code is returned to the client only when the **Timeout** parameter is specified in the request.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

In the message body, the error information is described in JSON format as follows:

{"error_code":"S3M.XXXX","error_msg":"Error description"}

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6.3 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 a Project ID from the Console**

Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API used to **query projects based on specified criteria**.

The API used to obtain a project ID is GET https://{Endpoint}/v3/projects. {Endpoint} is the IAM endpoint and can be obtained from **Regions and Endpoints**. For details about API authentication, see **Authentication**.

The following is an example response. The value of **id** is the project ID.

```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e6xxx",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e6xxx",
            "name": "project_name",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6xxx"
            },
            "id": "a4a5d4098fb4474fa22cd05f897d6xx",
            "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. Hover the mouse over the username in the upper right corner and select **My Credentials** from the drop-down list.

   On the **API Credentials** page, view the project ID in the project list.

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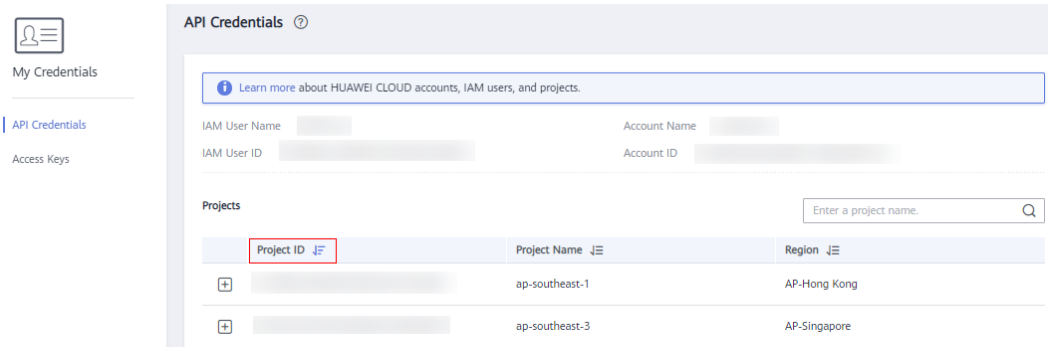
Figure 6-1 Viewing the project ID



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